Rambus

2016 ANNUAL REPORT

Rambus

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

TO BE HELD ON APRIL 20, 2017

To our stockholders:

You are cordially invited to attend the 2017 Annual Meeting of Stockholders of Rambus Inc. The Annual Meeting will be held on:

Date: Thursday, April 20, 2017

Time: 9:00 a.m., Pacific Time

Place: Attend the annual meeting online at *www.virtualshareholdermeeting.com/RMBS2017*.

The following matters will be voted on at the Annual Meeting:

1. Election of three Class II directors;
2. Advisory vote to approve named executive officer compensation;
3. Advisory vote on the frequency of holding an advisory vote on named executive officer compensation;
4. Ratification of PricewaterhouseCoopers LLP as our independent registered public accounting firm; and
5. Such other business as may properly come before the Annual Meeting or any adjournment or postponement of the meeting.

We are not aware of any other business to come before the meeting.

These items of business are more fully described in the Proxy Statement which is available at *www.proxyvote.com*. This notice, the Notice of Internet Availability, the 2016 Annual Report and our Proxy Statement for our 2017 annual stockholder meeting and form of proxy are being made available to stockholders on March 9, 2017.

Only stockholders of record as of February 22, 2017, may vote at the Annual Meeting. Whether or not you plan to attend the meeting, please vote at *www.proxyvote.com*, call 1-800-690-6903 or complete, sign, date and return the proxy card. Returning the proxy card does NOT deprive you of your right to attend the meeting and to vote your shares at the meeting. The Proxy Statement explains proxy voting and the matters to be voted on in more detail. Please read our Proxy Statement carefully. We look forward to your attendance at the Annual Meeting.

By Order of the Board of Directors

Jae Kim
Senior Vice President, General Counsel and Secretary

Sunnyvale, California
March 9, 2017

YOUR VOTE IS IMPORTANT

WHETHER OR NOT YOU PLAN TO ATTEND THE MEETING, PLEASE VOTE AT *WWW.PROXYVOTE.COM*, AS INSTRUCTED ON THE PROXY CARD OR THE NOTICE OF INTERNET AVAILABILITY OF PROXY MATERIALS, CALL 1-800-690-6903, OR COMPLETE, SIGN, DATE AND RETURN THE PROXY CARD AS PROMPTLY AS POSSIBLE

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RAMBUS INC.

PROXY STATEMENT

FOR

2017 ANNUAL MEETING OF STOCKHOLDERS

The Board of Directors of Rambus Inc. ("Rambus," "we," "us" or the "Company") is providing these proxy materials to you for use at our 2017 Annual Meeting of Stockholders (the "Annual Meeting") to be held on Thursday, April 20, 2017 at 9:00 a.m. Pacific Time, and at any postponement or adjournment of the meeting. The purpose of the Annual Meeting is described in the Notice of Annual Meeting of Stockholders.

The Annual Meeting will be held virtually via the Internet at *www.virtualshareholdermeeting.com/RMBS2017*. You will be able to vote during the meeting.

Our principal executive offices are located at 1050 Enterprise Way, Suite 700, Sunnyvale, California 94089; our telephone number is (408) 462-8000. The Notice of Internet Availability (the "Internet Notice") was first mailed on or about March 9, 2017 to stockholders of record as of February 22, 2017 and these proxy solicitation materials combined with the Annual Report for the fiscal year ended December 31, 2016, including our Annual Report on Form 10-K for the year ended December 31, 2016 (the "Form 10-K") were first made available to you on the Internet, on or about March 9, 2017. We maintain a website at *www.rambus.com*. The information on our website is not a part of this Proxy Statement.

GENERAL INFORMATION ABOUT THE MEETING

Who May Attend . . . . You may attend the Annual Meeting if you owned your shares, either as a stockholder of record or as a beneficial owner as described below, as of the close of business on February 22, 2017 (the "Record Date").

Stockholders of Record. If your shares are registered directly in your name, then you are considered to be the stockholder of record with respect to those shares, and we are sending these proxy materials directly to you. Instructions on how to attend and participate via the Internet, including how to demonstrate proof of stock ownership, are posted at *www.virtualshareholdermeeting.com/RMBS2017*. Stockholders may vote while attending the meeting on the Internet.

Beneficial Owners. If your shares are held in a stock brokerage account or by a bank or other nominee, you are considered the beneficial owner of shares held in "street name," and your broker or nominee is forwarding these proxy materials to you. Your broker or nominee is considered to be the stockholder of record with respect to those shares.

Internet Notice . . . . Pursuant to the rules of the Securities and Exchange Commission (the "SEC"), we have provided access to our proxy materials over the Internet. Accordingly, the Internet Notice has been sent to our stockholders of record and beneficial owners as of the Record Date. Instructions on how to access the proxy materials over the Internet or to request a printed copy by mail may be found on the Internet Notice. In addition, the Internet Notice provides information on how stockholders may request to receive proxy materials in printed form by mail or electronically by email on an ongoing basis.

By accessing the proxy materials on the Internet or choosing to receive your future proxy materials by email, you will save us the cost of printing and mailing documents to you and will reduce the impact of our annual stockholders' meetings on the environment. If you choose to receive future proxy materials by email, you will receive an email next year with instructions containing a link to those materials and a link to the proxy voting site. If you choose to receive future proxy materials by mail, you will receive a paper copy of those materials, including a form of proxy. Your election to receive proxy materials by mail or email will remain in effect until you notify us that you are changing or terminating your request.

Who May Vote . . . . You may vote at the Annual Meeting if you owned your shares, either as a stockholder of record or as a beneficial owner, as of the close of business on the Record Date. As of that date, we had a total of 111,619,146 shares of common stock outstanding, which were held of record by approximately 515 stockholders. You are entitled to one vote for each share of our common stock that you own.

As of the Record Date, we had no shares of preferred stock outstanding.

Voting Your Proxy . . . . *Stockholders of Record.* If you hold your shares in your own name as a holder of record, you may instruct the proxy holders how to vote your common stock by:

- voting via the internet at *www.proxyvote.com*;
- voting by telephone at 1-800-690-6903; or
- voting by mail (if you requested printed copies of the proxy materials to be mailed to you), by completing, signing, dating and mailing the proxy card in the postage-paid envelope provided.

Even if you vote your shares by proxy, you may also choose to attend the Annual Meeting and vote your shares in person. If you provide instructions in your completed proxy card, the proxy holders will vote your shares in accordance with those instructions. If you sign and return a proxy card without giving specific voting instructions, your shares will be voted "FOR" all of the proposals described herein.

Beneficial Owners. If you are the beneficial owner of shares held in street name, you have the right to direct your broker how to vote. Your broker or nominee has enclosed with these materials or provided voting instructions for you to use in directing the broker or nominee how to vote your shares.

Discretionary Voting Power; Matters to be Presented . . . . We are not aware of any matters to be presented at the Annual Meeting other than those described in this Proxy Statement. If any matters not described in this Proxy Statement are properly presented at the meeting, the proxy holders will use their own judgment to determine how to vote your shares. If the meeting is adjourned or postponed, the proxy holders can vote your shares on the new meeting date as well, unless you have subsequently revoked your proxy.

Changing Your Vote . . . .

Stockholders of Record. If you would like to change your vote you can do so in the following ways:

- deliver written notice of your revocation to our Corporate Secretary prior to the Annual Meeting;
- deliver a properly executed, later dated proxy prior to the Annual Meeting;
- vote again on a later date on the Internet or by telephone (only your latest Internet or telephone proxy submitted prior to the Annual Meeting will be counted); or
- attend the Annual Meeting and vote at the meeting.

Please note that your attendance at the meeting in and of itself is not enough to revoke your proxy.

Beneficial Owners. If you instructed a broker or nominee to vote your shares following the directions originally included with these materials or provided to you, you can change your vote only by following your broker or nominee's directions for doing so.

Cost of this Proxy Solicitation . . . .

We will bear the cost of this proxy solicitation. In addition to soliciting proxies by mail, our directors, officers and employees may solicit proxies in person or by telephone. None of these individuals will receive any additional or special compensation for doing this, but they may be reimbursed for reasonable out-of-pocket expenses. We have also hired Morrow & Sodali LLC to help us solicit proxies from brokers, bank nominees and other institutional owners. We expect to pay Morrow & Sodali LLC a fee of up to approximately $9,000 for its services, and we will reimburse certain out-of-pocket expenses.

Meeting Quorum . . . .

The Annual Meeting will be held if a majority of our outstanding shares of common stock entitled to vote are represented at the meeting or by proxy.

Our Voting Recommendations . . . .

When proxies are properly dated, executed and returned, the shares represented by such proxies will be voted at the Annual Meeting in accordance with the directions of the stockholder. However, if no specific instructions are given, the shares will be voted in accordance with the following recommendations of our Board of Directors:

- "FOR" the election of Ronald Black, Penelope A. Herscher and Eric Stang as Class II directors;
- "FOR" the advisory vote to approve named executive officer compensation, as disclosed in this Proxy Statement;
- "FOR" the option of once every year as the frequency with which stockholders are provided an advisory vote on named executive officer compensation; and
- "FOR" the ratification of PricewaterhouseCoopers LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2017.

Abstentions and Broker Non-Votes . . . .

We treat shares that are voted "ABSTAIN" in person or by proxy as being:

- present for purposes of determining whether or not a quorum is present at the Annual Meeting; and
- entitled to vote on a particular subject matter at the Annual Meeting.

In the election of directors, any vote you make that is "ABSTAIN" for any nominee will not impact the election of that nominee. In tabulating the voting results for the election of directors, only "FOR" and "AGAINST" votes are counted.

For the other proposals, an "ABSTAIN" vote is the same as voting against the proposal.

If you hold your common stock through a broker, the broker may be prevented from voting shares held in your brokerage account on some proposals (a "broker non-vote") unless you have given the broker voting instructions. Thus, if you hold your common stock through a broker, it is critical that you cast your vote if you want it to count. If you hold your common stock through a broker and you do not instruct your broker how to vote on Proposals One, Two and Three, it will be considered a broker non-vote and no votes will be cast on your behalf with respect to such Proposals. Shares that are subject to a broker non-vote are counted for purposes of determining whether a quorum exists but do not count for or against any particular proposal.

Your broker will continue to have discretion to vote any uninstructed shares on Proposal Four, the Ratification of the Appointment of the Company's Independent Registered Public Accounting Firm.

Procedure for Submitting Stockholder Proposals . . . .

Stockholders may present proposals for action at a future annual meeting only if they comply with the requirements of our bylaws and the proxy rules established by the SEC.

Stockholder proposals, including nominations for the election of directors, which are intended to be presented by such stockholders at our 2018 Annual Meeting of Stockholders must be received by us no later than November 9, 2017 to be considered for inclusion in the proxy statement and proxy card relating to that meeting.

In addition to the SEC rules, our bylaws establish an advance notice procedure for proposals that a stockholder wants to have included in our proxy statement relating to a meeting or to have brought before the meeting. To be timely, a stockholder proposal must be received by the Company's Secretary/General Counsel at the principal executive offices of the Company not later than the 45th day nor earlier than the 75th day before the one-year anniversary of the date the Company's proxy statement was released to stockholders in connection with the previous year's annual meeting. However, if no annual meeting was held in the previous year or if the date of the annual meeting is advanced by more than 30 days prior to or delayed by more than 60 days after the one-year anniversary of the date of the previous year's annual meeting, then notice must be received no earlier than the close of business on the 120th day prior to such annual meeting and not later than the close of business on the later of the 90th day prior to such annual meeting, or the tenth day following the day on which public announcement of the date of such annual meeting is first made.

Moreover, your notice must contain specific information concerning the matters to be brought before the meeting. We urge you to read our bylaws in full in order to understand the requirements of bringing a proposal or nomination.

A copy of the full text of the bylaw provision relating to our advance notice procedure may be obtained by writing to our Corporate Secretary or by accessing a copy of our bylaws, which are publicly available at http://www.sec.gov. All notices of proposals by stockholders, whether or not included in proxy materials, should be sent to Rambus Inc., 1050 Enterprise Way, Suite 700, Sunnyvale, California 94089, Attention: Secretary/General Counsel.

Communication With the Board of Directors . . . . Our Board of Directors may be contacted by writing to them via regular mail at Board of Directors, Rambus Inc., 1050 Enterprise Way, Suite 700, Sunnyvale, California 94089. If you wish to contact our Board of Directors or any member of the Audit Committee to report questionable accounting or auditing matters you may do so anonymously by using this mailing address and designating the communication as "confidential."

Our process for handling communications to our Board of Directors is as follows:

Any stockholder communications that our Board of Directors receives will first go to our Secretary/General Counsel, who will log the date of receipt of the communication as well as (for non-confidential communications) the identity of the correspondent in our stockholder communications log.

Unless the communication is marked "confidential," our Secretary/General Counsel will review, summarize and, if appropriate, draft a response to the communication. The summary and response will become part of the stockholder communications log that our Secretary/General Counsel maintains with respect to all stockholder communications.

Our Secretary/General Counsel will then forward the stockholder communication to the member(s) of our Board of Directors (or committee chair if the communication is addressed to a committee) for review.

	Any stockholder communication marked "confidential" will be logged by our Secretary/General Counsel as "received" but will not be reviewed, opened or otherwise held by our Secretary/General Counsel. Such confidential correspondence will be forwarded to the addressee(s).
Annual Meeting Attendance	Members of our Board of Directors are invited but not required to attend the Annual Meeting of Stockholders. The 2016 Annual Meeting of Stockholders was attended by all of the members of our Board of Directors.
"Householding" of Proxy Materials	The SEC has adopted rules that permit companies and intermediaries such as brokers to satisfy delivery requirements for proxy statements with respect to two or more stockholders sharing the same address by delivering a single proxy statement addressed to those stockholders. This process, which is commonly referred to as "householding," potentially provides extra convenience for stockholders and cost savings for companies. The Company and some brokers household proxy materials, delivering a single proxy. If your proxy statement is being householded and you would like to receive separate copies, or if you are receiving multiple copies and would like to receive a single copy, please contact Investor Relations at Rambus Inc., 1050 Enterprise Way, Suite 700, Sunnyvale, California 94089, Attention: Secretary, or ir@rambus.com, or place a collect call to the Company, at (408) 462-8000, and direct the call to the Investor Relations Department.
Delivery of Proxy Materials	To receive current and future proxy materials, such as annual reports, proxy statements and proxy cards, in either paper or electronic form, please contact Investor Relations at ir@rambus.com or *http://investor.rambus.com*, or place a collect call to the Company, at (408) 462-8000, and direct the call to the Investor Relations Department.

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE ANNUAL MEETING OF STOCKHOLDERS TO BE HELD ON APRIL 20, 2017

The Notice and Proxy Statement, Annual Report to Stockholders and Form 10-K Combo document are available at *www.proxyvote.com*. You are encouraged to access and review all of the important information contained in the proxy materials before voting.

PROPOSAL ONE:
ELECTION OF DIRECTORS

Our Board of Directors is currently composed of seven members who are divided into two classes with overlapping two-year terms. As of the date of this proxy statement, we have four Class I directors and three Class II directors, as noted under "Nominees" below. At each annual meeting of stockholders, a class of directors is elected for a term of two years to succeed those directors whose terms expire on the annual meeting date. A director serves in office until his or her respective successor is duly elected and qualified or until his or her death or resignation. Any additional directorships resulting from an increase in the number of directors will be distributed among the two classes so that, as nearly as possible, each class will consist of an equal number of directors. Any vacancy occurring mid-term will be filled by a person selected by a majority of the other current members of the Board of Directors. There is no family relationship between any of our directors.

Nominees .... Three Class II directors are to be elected at the Annual Meeting for a two-year term ending in 2019. Based upon the recommendation of our Corporate Governance/Nominating Committee, our Board has nominated: Ronald Black, Penelope A. Herscher and Eric Stang for election as Class II directors.

If any of these nominees is unable or declines to serve as a director at the time of the Annual Meeting, proxies will be voted for a substitute nominee or nominees designated by the Board of Directors.

Vote Required .... The Company's bylaws require that each director be elected by the majority of votes cast with respect to such director in uncontested elections. The Board of Directors, after taking into consideration the recommendation of the Corporate Governance/Nominating Committee of the Board, will determine whether or not to accept the pre-tendered resignation of any nominee for director, in an uncontested election, who receives a greater number of votes "AGAINST" his or her election than votes "FOR" such election. There are no cumulative voting rights in the election of directors. Stockholders as of the Record Date may vote their shares for or against some, all or none of the Class II nominees.

Information About Nominees and Other Directors .... The members of our Board of Directors have deep executive and board leadership experience derived from their respective tenures as executives and directors of technology companies of various sizes. The following table contains information regarding the Class II nominees and other directors as of February 22, 2017. This information includes the specific experience, qualifications, attributes and skills that led to our Board of Directors' conclusion that the person should serve as a director.

Incumbent Nominees for Class II Directors

Name	Age	Principal Occupation and Business Experience
Ronald Black, Ph.D.	53	Dr. Black has served as our chief executive officer and president since June 2012 and as a director since July 2012. Dr. Black was previously the Managing Director of R.D. Black & Company, a consulting firm, since August 2011. From September 2010 to August 2011, Dr. Black was the Chief Executive Officer of MobiWire, formerly Sagem Wireless, a privately-held mobile handset company headquartered near Paris, France that offers products and services to original equipment manufacturers and mobile network operators in the mobile phone marketplace. From June

Proxy Statement

Name	Age	Principal Occupation and Business Experience
		2009 to October 2010, Dr. Black served as Chairman and CEO of UPEK, Inc. Dr. Black currently serves as a board member of Energy Focus Inc, a publicly held LED lighting technology developer, Ultratech, Inc., a publicly held company that designs, builds and markets manufacturing systems of the global technology industry, Microfabrica Inc., a privately held high precision metal parts fabricator, and FlexEnable Limited, a privately held producer of flexible electronics manufacturing platforms. From 2012 to March 2015, Dr. Black served on the board of EnOcean GmbH, a German-based company that manufactures and markets energy harvesting technology, sensors, and radio frequency communication. From September 2010 to November 2012, he served as a board member of AuthenTec, Inc., which he joined following the AuthenTec-UPEK merger in September 2010 and from 2007 to 2013, he served as a board member of Inside Contactless, a France-based company engaged in the semiconductors and information technology industry. From September 2004 to June 2009, he was chief executive officer of Wavecom S.A., a publicly traded French wireless solutions company. Dr. Black holds a Bachelor of Science, a Masters of Science, and a Ph.D. in materials science and engineering from Cornell University in Ithaca, N.Y. Dr. Black’s status as our chief executive officer, his record as a leader of various technology companies, both domestic and foreign, and his deep technical expertise led the Board of Directors to conclude that he should serve as a director.
Penelope A. Herscher	56	Ms. Herscher has served as a director since July 2006. She currently holds the position of Executive Chairman of FirstRain, Inc., a custom-configured, on-demand intelligence services firm, which she joined in 2005. Ms. Herscher previously held the position of president and chief executive officer of FirstRain, Inc., from 2004 to 2015, executive vice president and chief marketing officer at Cadence Design Systems from 2002 to 2003, and executive vice president and general manager, Design and Verification Business during the second half of 2003. From 1996 to 2002, Ms. Herscher was president and chief executive officer of Simplex Solutions, which was acquired by Cadence in 2002. Before Simplex, she was an executive at Synopsys for eight years and started her career as an R&D engineer with Texas Instruments. She holds a B.A. with honors, M.A. in Mathematics from Cambridge University in England. Ms. Herscher serves on the boards of FirstRain, Lumentum Holdings, and Saxonix. She has also served on the board of several non-profit institutions, including JDS Uniphase Corporation, which split into two companies Lumentum Holdings and Viavi Solutions. Ms. Herscher’s experience as chief executive officer of technology companies, the successful sale of a company under her leadership to a larger technology company and her years of business and leadership experience led the Board of Directors to conclude that she should serve as a director.

Name	Age	Principal Occupation and Business Experience
Eric Stang	57	Mr. Stang has served as a director since July 2008 and has served as Chairman of the Board since March 2013. Mr. Stang currently serves as chairman, president and chief executive officer of Ooma, Inc., a cloudbased communications and connected services company that went public in July 2015. He has held the position of Chairman since December 2014 and the positions of President, chief executive officer and director since January 2009. Prior to joining Ooma, Mr. Stang served as a director, chief executive officer and president of Reliant Technologies, Inc., a developer of medical technology solutions for aesthetic applications, from 2006 to 2008. Mr. Stang previously served as chief executive officer and president of Lexar Media, Inc., a provider of solid state memory products from 2001 to 2006 and Chairman from 2004 to 2006. He currently serves on the board of Invensense, Inc., a publicly traded motion sensing hardware and motion processing technology company. Mr. Stang received his A.B. from Stanford University and M.B.A. from the Harvard Business School. Mr. Stang also serves on the boards of private companies. Mr. Stang's experience as chief executive officer of high technology companies, his prior experience in the memory products market and his years of business and leadership experience led the Board of Directors to conclude that he should serve as a director.

The Board unanimously recommends that you vote "FOR" the election to the Board of Directors of each of the nominees proposed above.

Incumbent Class I Directors Whose Terms Expire in 2018

Name	Age	Principal Occupation and Business Experience
J. Thomas Bentley	67	Mr. Bentley has served as a director since March 2005, and served as Chairman of the Board from June 2011 to March 2013. He served as a managing director at SVB Alliant (formerly Alliant Partners), a mergers and acquisitions firm, since he co-founded the firm in 1990 until October 2005. Mr. Bentley holds a B.A. in Economics from Vanderbilt University and an M.S. in Management from the Massachusetts Institute of Technology. Mr. Bentley currently serves on the board of Nanometrics, Inc. Mr. Bentley's financial expertise and years of business and leadership experience, including fifteen years as a co-founder of a financial advisory firm, allow him to provide strategic guidance to us and led the Board of Directors to conclude that he should serve as a director. In addition, our Board of Directors' determination that Mr. Bentley is the Audit Committee "financial expert" lends further support to his financial acumen and qualifications for serving on our Board of Directors.
E. Thomas Fisher	62	Mr. Fisher has served as a director since January 2015. He is currently senior vice president and chief technology officer of MapR Technologies. From June 2011 to February 2017, Mr. Fisher served as senior vice president and chief information officer ("CIO") of Global Commercial Cloud Services at Oracle Corporation. Prior to joining Oracle, Mr. Fisher served as CIO and vice president of Cloud Computing at SuccessFactors, Inc., now SAP, from April 2009 to June 2011. Prior to joining

Name	Age	Principal Occupation and Business Experience
		SuccessFactors, Mr. Fisher spent seven years at Qualcomm where he served as CIO of CDMA Technologies. Before Qualcomm, he was vice president and acting chief technology officer at eBay Inc. Mr. Fisher holds a bachelor of arts degree from the University of North Carolina in Charlotte. Mr. Fisher's experience as a technology officer of high technology companies, his experience with cloud based products and services as well as his business and leadership experience allow him to provide strategic guidance to the Board and the Company, which led the Board of Directors to conclude that he should serve as a director.
Charles Kissner.	69	Mr. Kissner has served as a director since July 2012. He is currently the Chairman of the Board of ShoreTel Inc., a business communications systems company. From January 2007 to February 2015, he was Chairman of Aviat Networks and from June 2010 to July 2011, Mr. Kissner was Chairman and CEO. From 2010 to 2015, he served on the board of Meru Networks, a technology leader in the enterprise wireless systems market. From 1995 to 2006, he served as Chairman and CEO of Stratex Networks, a global provider of wireless transmission solutions. Mr. Kissner previously was Vice President and General Manager of M/A-COM, Inc., a manufacturer of radio and microwave communications products, President and CEO of Aristacom International, a communications software company, Executive Vice President of Fujitsu Network Switching, Inc., and held a number of executive positions at AT&T (now Alcatel-Lucent). He has also served on a number of other public and private boards, as well as not-for-profit boards such as the NPR Foundation and Angel Flight, Inc. He currently serves as Chairman of non-profit KQED Public Media. Mr. Kissner holds a Bachelor of Science degree from California State Polytechnic University and a Master of Business Administration degree from Santa Clara University. Mr. Kissner's experience as a director and executive of wireless technology and networking companies and his years of business and leadership experience led the Board of Directors to conclude that he should serve as a director.
David Shrigley	68	Mr. Shrigley has served as a director since October 2006. He was most recently the Executive Chairman of Soil and Topography Information, Inc. Mr. Shrigley was a member of the board of Wolfson Microelectronics plc, a supplier of mixed-signal chips for the digital market from November 2006 to December 2008, and was its chief executive officer from March 2007. He served as a general partner at Sevin Rosen Funds, a venture capital firm, from 1999 to 2005. Prior to that, Mr. Shrigley held the position of executive vice president, Marketing, Sales and Service at Bay Networks, a network hardware company. Mr. Shrigley served in various executive positions at Intel Corporation, including vice president and general manager of Asia Pacific sales and marketing operations based in Hong Kong, and vice president and general manager, corporate marketing. Mr. Shrigley holds a B.S. in Business Administration from Franklin University. Mr. Shrigley's experience as a director and executive officer of high technology companies, his experience in the venture capital industry and his years of international business and leadership experience led the Board of Directors to conclude that he should serve as a director.

Board of Directors Meetings and Committees . . . . Our Board of Directors held a total of 12 meetings during 2016. During 2016, each member of our Board of Directors attended 75% or more of the meetings of the Board of Directors and of the committees, if any, of which she or he was a member.

Director Independence . . . . Our Board of Directors has determined that each of the following directors, constituting a majority of our Board of Directors, has no material relationship with us (either directly as a partner, stockholder or officer of an organization that has a relationship with us) and is "independent" under the applicable NASDAQ and SEC rules: J. Thomas Bentley, E. Thomas Fisher, Penelope A. Herscher, Charles Kissner, David Shrigley and Eric Stang.

Currently, each of the committees of our Board of Directors is composed of independent directors as follows:

Audit Committee:	J. Thomas Bentley (Chair) Charles Kissner David Shrigley
Compensation Committee:	Charles Kissner (Chair) E. Thomas Fisher David Shrigley
Corporate Governance/ Nominating Committee:	Eric Stang (Chair) Penelope A. Herscher
Corporate Development Committee:	Penelope A. Herscher (Chair) E. Thomas Fisher David Shrigley

Director Qualifications . . . . Except as may be required by rules promulgated by NASDAQ or the SEC, there are currently no specific, minimum qualifications that must be met by each candidate for our Board of Directors, nor are there any specific qualities or skills that are necessary for one or more of the members of our Board of Directors to possess. The Corporate Governance/Nominating Committee considers a number of factors in its assessment of the appropriate skills and characteristics of members of the Board of Directors, as well as the composition of the Board of Directors as a whole. These factors include the members' qualification as independent, as well as consideration of judgment, character, integrity, diversity, skills, and experience in such areas as operations, technology, finance, and the general needs of the Board of Directors and such other factors as the Corporate Governance/ Nominating Committee may consider appropriate. The Corporate Governance/ Nominating Committee does not have a formal policy with respect to diversity. However, the Board of Directors and the Corporate Governance/Nominating Committee believe that it is essential that the members of the Board of Directors represent diverse viewpoints. In considering candidates for the Board of Directors, the Board of Directors and the Corporate Governance/Nominating Committee consider the entirety of each candidate's credentials in the context of the factors mentioned above.

Corporate Governance Principles . . . . We are committed to maintaining the highest standards of business conduct and corporate governance, which we believe are essential to running our business efficiently, serving our stockholders' interests and maintaining our integrity in the marketplace. We have adopted a code of business conduct and ethics for directors, officers and employees known as the Code of Business Conduct and Ethics, which is available on our website at *http://investor.rambus.com/corporate-governance.cfm*.

Section 16(a) Beneficial Reporting Compliance . . . . Section 16(a) of the Securities Exchange Act of 1934, as amended (the "Securities Exchange Act") requires our executive officers, directors and ten percent stockholders to file reports of ownership and changes in ownership with the SEC. The same persons are required to furnish us with copies of all Section 16(a) forms they file. Based on our review of these forms, we believe that during fiscal 2016 all of our executive officers, directors and ten percent stockholders complied with the applicable filing requirements.

Executive Sessions of the Independent Directors . . . . It is the policy of the Board of Directors to have executive sessions of the independent directors at which only independent directors are present, typically in conjunction with the regularly scheduled meetings of the Board of Directors.

Committees of the Board of Directors . . . . During 2016, our Board of Directors had four standing committees:

- an Audit Committee,
- a Compensation Committee,
- a Corporate Governance/Nominating Committee, and
- a Corporate Development Committee.

The following describes each committee, its function, its membership, and the number of meetings held during 2016.

Each of the committees operates under a written charter adopted by our Board of Directors. All of the current committee charters are available on our website at *http://investor.rambus.com/corporate-governance.cfm.*

Audit Committee . . . . Currently, the Audit Committee is composed of J. Thomas Bentley, Charles Kissner and David Shrigley, with Mr. Bentley serving as Chair. The Audit Committee oversees our corporate accounting and financial reporting processes and internal control over financial reporting, as well as our internal and external audits. The Audit Committee held 8 meetings during 2016. Its duties include:

- Reviewing our accounting and financial reporting processes and internal control over financial reporting;
- Providing oversight and review at least annually of our risk management policies, including our investment policy;

- Retaining the independent registered public accounting firm, approving their fees, and providing oversight of communication with them;
- Reviewing the plans, findings and performance of our internal auditors;
- Reviewing our annual and quarterly financial statements and related disclosure documents; and
- Overseeing special investigations into financial and other matters, as necessary.

Our Board of Directors has determined that Mr. Bentley is the Audit Committee "financial expert" and that Mr. Bentley, together with each of Messrs. Kissner and Shrigley, has no material relationship with us (either directly as a partner, stockholder or officer of an organization that has a relationship with us) and is an "independent director" under the applicable NASDAQ and SEC rules.

The Audit Committee's role is detailed in the Audit Committee Charter, which is available on our website at *http://investor.rambus.com/corporate-governance.cfm.*

Compensation Committee .... Currently, the Compensation Committee is composed of E. Thomas Fisher, David Shrigley and Charles Kissner, with Mr. Kissner serving as Chair. Our Board of Directors has determined that each of Messrs. Fisher, Shrigley and Kissner are independent under the rules for compensation committee independence under the applicable NASDAQ and SEC rules. During 2016 and until February 2017, the Compensation Committee consisted of E. Thomas Fisher, Penelope A. Herscher and Charles Kissner, with Ms. Herscher serving as Chair. The Compensation Committee reviews and determines all forms of compensation to be provided to our executive officers, including the named executive officers and directors of Rambus, including base compensation, bonuses, and stock compensation. The Compensation Committee held 11 meetings during 2016. Its duties include:

- Annually reviewing and approving the Chief Executive Officer ("CEO") and other executive officers' compensation in the context of their performance, which includes reviewing and approving their annual base salary, annual incentive bonus, including the specific goals, targets, and amounts, equity compensation, and any employment agreements, and any other benefits, compensation or arrangements, as applicable;
- Administering our stock option and equity incentive plans pursuant to the terms of such plans and the authority delegated by our Board of Directors, including: granting stock options, performance units, stock appreciation rights, restricted stock, restricted stock units ("RSUs") or other equity compensation to individuals eligible for such grants and amend such awards following their grant; amending the plans; and delegating to

appropriate executive officers of the Company the ability to grant awards to non-executive officer employees of the Company pursuant to specific guidelines;

- Adopting, amending and overseeing the administration of our significant employee benefits programs;
- Reviewing external surveys to establish appropriate ranges of compensation;
- Retaining and terminating any compensation consultant to assist in the evaluation of CEO or executive officer or director compensation, and approving the consultant's fees and other terms of service, as well as obtaining advice and assistance from internal or external legal, accounting or other advisors; and
- Conducting an annual assessment of the Company's engagement with compensation consultants retained by the Board and/or management, as applicable, including the nature and extent of services provided, the amount of fees paid and who made or recommended the decision to retain the compensation consultants.

The Compensation Committee uses Semler Brossy Consulting Group, LLC ("SBCG") to assist in evaluating executive and director compensation, and has determined that SBCG is an independent consultant under applicable NASDAQ rules.

A detailed description of the processes and procedures of the Compensation Committee for considering and determining executive and director compensation, including the role of SBCG, is provided in the "Executive Compensation" section of this proxy statement.

The Compensation Committee's role is detailed in the Compensation Committee Charter, which is available on our website at *http://investor.rambus.com/corporate-governance.cfm.*

Compensation Committee Interlocks and Insider Participation . . . . During 2016, there were no interlock relationships by our Compensation Committee members. Please see the Compensation Discussion and Analysis section of this Proxy Statement for further discussion.

Corporate Governance & Nominating Committee . . . . Currently, the Corporate Governance/Nominating Committee is composed of Eric Stang and Penelope A. Herscher, with Mr. Stang serving as Chair. Our Board of Directors has determined that each of Ms. Herscher and Mr. Stang are "independent" under applicable NASDAQ and SEC rules. During 2016 and until February 2017, the Corporate Governance/Nominating Committee consisted of David Shrigley and Eric Stang, with Mr. Stang serving as Chair. The Corporate Governance/Nominating Committee held 4 meetings during 2016.

The Corporate Governance/Nominating Committee recommends and approves Rambus' Corporate Governance Guidelines. Its duties include:

- Evaluating and making recommendations to the Board of Directors concerning the appointment of directors to committees of the Board of Directors and the selection of committee chairs;
- Identifying best practices and recommending corporate governance principles;
- Overseeing the evaluation of the Board of Directors; and
- Proposing the slate of nominees for election to the Board of Directors.

The Corporate Governance/Nominating Committee's role is detailed in the Corporate Governance/Nominating Committee Charter which is available on our website at *http://investor.rambus.com/corporate-governance.cfm.*

Identifying and Evaluating Nominees For Directors . . . . The Corporate Governance/Nominating Committee utilizes a variety of methods for identifying and evaluating nominees for director, including those discussed in the "Director Qualifications" section of this proxy statement. In the event that vacancies on the Board of Directors are anticipated, or otherwise arise, the committee will consider various potential candidates for director. Candidates may come to the attention of the committee through current members of the Board of Directors, professional search firms, stockholders or other persons. The Corporate Governance/Nominating Committee has from time to time retained third parties to whom a fee is paid to assist it in identifying or evaluating potential director nominees.

Stockholders may propose director candidates for general consideration by the Corporate Governance/Nominating Committee by submitting in proper written form the individual's name, qualifications, and the other information set forth below in "Consideration of Stockholder Nominees to the Board" to the Secretary/General Counsel of the Company. The Corporate Governance/Nominating Committee will evaluate any candidates recommended by stockholders against the same criteria and pursuant to the same policies and procedures applicable to the evaluation of candidates proposed by directors or management.

Consideration of Stockholder Nominees to the Board . . . . Stockholders may nominate directors for election at an annual meeting or at a special meeting at which directors are to be elected or re-elected, provided that the advance notice requirements for director nominations set forth in the Company's bylaws have been met. As summarized below, this advance notice provision requires a stockholder to give timely notice of a director nomination in proper written form to Rambus Inc., 1050 Enterprise Way, Suite 700, Sunnyvale, CA 94089, Attention: Secretary/General Counsel.

In order for a stockholder to give timely notice of a director nomination for an annual meeting, the notice must be received by the Secretary/General Counsel at the Company's principal executive offices not later than the 45th day nor earlier than the 75th day before the one-year anniversary of the date the Company's proxy statement was released to stockholders in connection with the previous year's annual meeting. However, if no annual meeting was held in the previous year or if the date of the annual meeting is advanced by more than 30 days prior to or delayed by more than 60 days after the one-year anniversary of the date of the previous year's annual meeting, then notice must be received no earlier than the close of business on the 120th day prior to such annual meeting and not later than the close of business on the later of the 90th day prior to such annual meeting, or the tenth day following the day on which public announcement of the date of such annual meeting is first made.

In order for a stockholder to give timely notice of a director nomination for a special meeting at which directors are to be elected or re-elected, the notice must be received by the Secretary/General Counsel at the Company's principal executive offices not later than the later of the 90th day prior to such special meeting or the 10th day following the day on which public announcement is first made of the date of the special meeting and of the nominees proposed by the Board to be elected or re-elected at such meeting.

To be in proper written form, a stockholder's notice to the Secretary/General Counsel of the Company must set forth the information required by our bylaws, which we urge you to read in full in order to understand the requirements for making a director nomination.

Board Leadership Structure and Role in Risk Oversight . . . .

Our Corporate Governance Guidelines require that the Chairperson of the Board not be the CEO of the Company. In addition, while the Chairperson works closely with the CEO and other members of our management, the Chairperson is not part of management and does not have an operating or external role or responsibility. The Board of Directors considers it useful and appropriate to designate a Chairperson to act as the presiding director at Board of Directors meetings, to call and organize such meetings and manage the agenda thereof, and to manage the affairs of the Board of Directors, including ensuring that the Board of Directors is organized properly, functions effectively, and meets its obligations and responsibilities. The Chairperson also acts as the principal contact for the CEO and other members of the Board of Directors and management, as appropriate, for matters requiring the attention of the full Board of Directors. We believe that this leadership structure is appropriate given the attention, time, effort, and energy that the CEO is required to dedicate to his position in the current business environment, and the high level of commitment required to serve as our Chairperson.

The Board of Directors plays an integral role in our risk oversight processes. The Board of Directors meets regularly to receive reports from its committees, as well as from management with respect to areas of material risk to the Company, including legal, operational, financial and strategic risks. In addition, the Audit Committee oversees and reviews at least annually our risk management policies, including our investment policies.

Transactions with Related Persons . . . . None.

Review, Approval or Ratification of Transactions with Related Persons . . . . Our directors and executive officers are subject to our Code of Business Conduct and Ethics, and our directors are guided in their duties by our Corporate Governance Guidelines. Our Code of Business Conduct and Ethics requires that our directors and executive officers avoid situations where a conflict of interest might occur or appear to occur. In general, our directors and executive officers should not have a pecuniary interest in transactions involving us or a customer, licensee, or supplier of the Company, unless such interest is solely a result of routine investments made by the individual in publicly traded companies.

In the event that a director or executive officer is going to enter into a related party transaction with a relative or significant other, or with a business in which a relative or significant other is associated in any significant role, the director or executive officer must fully disclose the nature of the related party transaction to our Chief Financial Officer. For directors and executive officers, such related party transaction then must be reviewed and approved in advance by the Audit Committee. For other conflicts of interest that may arise, the Code of Business Conduct and Ethics advises our directors and executive officers to consult with our General Counsel.

In addition, each director and officer is required to complete a Director and Officer Questionnaire on an annual basis and upon any new appointment, and provide quarterly updates, which requires disclosure of any related-party transactions pertaining to the director or executive officer. Our Board of Directors will consider such information in its determinations of independence with respect to our directors under applicable NASDAQ and SEC rules.

Corporate Development Committee . . . . Currently, the Corporate Development Committee is composed of Penelope A. Herscher, E. Thomas Fisher, David Shrigley and Michael Farmwald in his capacity as a board member emeritus, with Ms. Herscher serving as Chair. During 2016 and until February 2017, the Corporate Development Committee consisted of E. Thomas Fisher, Charles Kissner and David Shrigley, with Mr. Kissner serving as Chair. The Corporate Development Committee held 6 meetings during 2016.

The duties of the Corporate Development Committee are to:

- work with management to review and consider potential strategic transactions that are consistent with our growth strategy;

- review and advise management with respect to our growth strategy; and
- act as the liaison to the Board of Directors in connection with the Committee's and management's activities in this regard.

The Corporate Development Committee's role is detailed in the Corporate Development Committee Charter which is available on our website at *http://investor.rambus.com/corporate-governance.cfm.*

PROPOSAL TWO:
ADVISORY VOTE TO APPROVE NAMED EXECUTIVE OFFICER COMPENSATION

We are asking our stockholders to provide an advisory vote to approve the compensation of our named executive officers, including the Compensation Discussion and Analysis, the compensation tables and narrative disclosures as described in this Proxy Statement. The Company currently holds such an advisory vote annually, and this proposal, commonly known as a "say-on-pay" proposal, gives our stockholders the opportunity to express their views on the compensation of our named executive officers.

Please see the Compensation Discussion and Analysis section of this Proxy Statement, the compensation tables and the narrative disclosures that accompany the compensation tables for greater detail about our executive compensation programs, including information about the fiscal year 2016 compensation of our named executive officers.

We believe that our overall compensation program and philosophy support and help drive the Company's long-term value creation, business strategy and operating performance objectives. We are again asking our stockholders to indicate their support for our named executive officer compensation as described in this proxy statement by voting "FOR" the following resolution at the Annual Meeting:

> "RESOLVED, that the compensation paid to the Company's named executive officers, as disclosed pursuant to Item 402 of Regulation S-K, including the Compensation Discussion and Analysis, compensation tables and narrative discussion is hereby APPROVED."

While this say-on-pay vote is advisory and does not bind the Company to any particular action, the Board of Directors and the Compensation Committee value your opinion. Accordingly, the Board of Directors and the Compensation Committee will consider the outcome of this vote when making future compensation decisions for the Company's named executive officers.

Approval of this resolution requires the affirmative vote of the holders of a majority of the votes cast in person or by proxy at the Annual Meeting.

The Board unanimously recommends a vote "FOR" the approval of the compensation of our named executive officers, as disclosed in this Proxy Statement.

PROPOSAL THREE:
ADVISORY VOTE ON THE FREQUENCY OF
AN ADVISORY VOTE ON NAMED EXECUTIVE OFFICER COMPENSATION

Pursuant to the Dodd-Frank Act, we also are asking our stockholders to provide their input with regard to the frequency of future stockholder advisory votes on our executive compensation programs, such as Proposal Two above. In particular, we are asking whether the advisory vote on executive compensation should occur once every year, every two years or every three years.

After careful consideration, our Board of Directors has determined that an annual advisory vote on executive compensation is the most appropriate alternative for Rambus. The Board of Directors' determination was influenced by the fact that the compensation of our named executive officers is evaluated, adjusted and approved on an annual basis. As part of the annual review process, the Board of Directors believes that stockholder sentiment should be a factor that is taken into consideration by the Board of Directors and the Compensation Committee in making decisions with respect to executive compensation. By providing an advisory vote on executive compensation on an annual basis, our stockholders will be able to provide us with direct input on our compensation philosophy, policies and practices as disclosed in the proxy statement every year. In addition, we consider this to be a good governance practice. We understand that our stockholders may have different views as to what is the best approach for Rambus, and we look forward to hearing from our stockholders on this agenda item every year. Accordingly, our Board of Directors recommends that the advisory vote on executive compensation be held every year.

The option of one year, two years or three years that receives the highest number of votes cast will be the frequency of the vote on the compensation of our named executive officers that has been approved by stockholders on an advisory basis. While your vote is advisory and will not bind the Company to any particular action, the Board of Directors and the Compensation Committee value the opinions of our stockholders and will consider our stockholders' vote. Nonetheless, the Board of Directors may decide that it is in the best interests of our stockholders and Rambus to hold an advisory vote on executive compensation more or less frequently than the option voted by our stockholders based on events and circumstances at such time.

The Board unanimously recommends a vote "FOR" the option of once every year as the frequency with which stockholders are provided an advisory vote on named executive officer compensation.

PROPOSAL FOUR:
RATIFICATION OF APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Audit Committee has appointed PricewaterhouseCoopers LLP as the independent registered public accounting firm to Rambus to audit our consolidated financial statements for the fiscal year ending December 31, 2017.

Although ratification by stockholders is not required by law, the Audit Committee has conditioned its appointment of the independent registered public accounting firm upon the receipt of the affirmative vote of a majority of the votes duly cast at the Annual Meeting.

Notwithstanding its selection, the Audit Committee, in its discretion, may hire a new independent registered public accounting firm at any time during the year if the Audit Committee believes that such a change would be in the best interest of Rambus and its stockholders.

Our History with PricewaterhouseCoopers . . . . PricewaterhouseCoopers LLP (or its predecessor, Coopers & Lybrand L.L.P.) has audited our financial statements since 1991. Representatives of PricewaterhouseCoopers LLP are expected to be present at the Annual Meeting to respond to appropriate questions and to make a statement if they so desire.

Principal Accountant Fees and Services . . . . The aggregate fees billed for professional accounting services by PricewaterhouseCoopers LLP for the fiscal years ended December 31, 2016 and December 31, 2015 are as follows:

	Fiscal Year Ended December 31, 2016	Fiscal Year Ended December 31, 2015
Audit Fees (1)	$1,930,325	$1,361,292
Audit-Related Fees (2)	$ —	$ 25,000
Tax Fees (3)	$ 91,190	$ 63,705
All Other Fees (4) . . .	$ 3,300	$ 3,300
Total Fees	$2,024,815	$1,453,297

(1) Audit Fees consist of fees for PricewaterhouseCoopers LLP's professional services rendered for the audit of the Company's consolidated annual financial statements and review of the interim consolidated financial statements included in quarterly reports. Fees relating to professional services rendered for the audits of the effectiveness of internal control over financial reporting and statutory audits in fiscal 2016 and 2015 are included under "Audit Fees."

(2) Audit-Related Fees consist of fees related to work performed around the deferred tax asset valuation release.

(3) Tax Fees primarily relate to tax compliance, tax study, and technical tax advice in both years presented.

(4) All Other Fees consist of fees for products and services other than the services described above. During fiscal 2016 and fiscal 2015, these fees related to license PricewaterhouseCoopers LLP's online accounting and auditing research tool and disclosure checklist.

Policy on Audit Committee Pre-Approval of Audit and the Permissible Non-Audit Services of Independent Registered Public Accounting Firm . . . . The Audit Committee's policy is to pre-approve 100% of all audit and permissible non-audit services provided by the independent registered public accounting firm. These services may include audit services, audit-related services, tax services and other services. Pre-approval is generally provided for up to one year and any pre-approval is detailed as to the particular service or category of services and is generally subject to a specific budget. The independent registered public accounting firm and management are required to periodically report to the Audit Committee regarding the extent of services provided by the independent registered public accounting firm in accordance with this pre-approval, and the fees for the services performed to date. The Audit Committee may also pre-approve particular services on a case-by-case basis.

Independence of PricewaterhouseCoopers LLP . . . . The Audit Committee has determined that the accounting advice and tax services provided by PricewaterhouseCoopers LLP are compatible with maintaining PricewaterhouseCoopers LLP's independence.

Vote Required . . . . The affirmative vote of a majority of the shares present and entitled to vote at the Annual Meeting will be required to ratify the appointment of PricewaterhouseCoopers LLP as our independent registered public accounting firm.

The Board unanimously recommends that you vote "FOR" the ratification of PricewaterhouseCoopers LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2017.

EQUITY COMPENSATION PLAN INFORMATION

The following table provides information as of December 31, 2016 with respect to the shares of our Common Stock that may be issued under our existing equity compensation plans.

Plan Category	(a) Number of Securities to be Issued Upon Exercise of Outstanding Awards, Options, Warrants and Rights	(b) Weighted-Average Exercise Price of Outstanding Awards, Options, Warrants and Rights	(c) Number of Securities Remaining Available for Future Issuance under Equity Compensation Plans (Excluding Securities Reflected in Column a)
Equity Compensation Plans Approved by Security Holders (1) (2)	11,871,889	$5.51	8,757,011
Total	11,871,889	$5.51	8,757,011

(1) Data reflects our 2006 Equity Incentive Plan (the "2006 Plan"), our 2015 Equity Incentive Plan (the "2015 Plan") and our 2015 Employee Stock Purchase Plan (the "2015 ESPP").

(2) Our 2006 Plan was replaced by our approved 2015 Plan, but will continue to govern awards previously granted under the 2006 Plan. Any shares forfeited, cancelled, exchanged, surrendered or terminated under the terms of the 2006 Plan will become available for grant under the 2015 Equity Incentive Plan.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

Under the proxy rules of the SEC, a person who directly or indirectly has or shares voting power or investment power with respect to a security is considered a beneficial owner of the security. Voting power is the power to vote or direct the voting of shares, and investment power is the power to dispose of or direct the disposition of shares. Shares as to which voting power or investment power may be acquired within 60 days are also considered as beneficially owned under the proxy rules.

The following table sets forth certain information as of February 22, 2017, regarding beneficial ownership of our Common Stock by: (i) each person who is known to us to own beneficially more than five percent of our Common Stock; (ii) each of our current directors; (iii) each of the named executive officers in the Summary Compensation Table of this annual report; and (iv) the total for our current directors and current executive officers as a group. The information on beneficial ownership in the table and the footnotes is based upon our records and the most recent Schedule 13D or 13G filed by each such person or entity and information supplied to us by such person or entity. Unless otherwise indicated, each person has sole voting power and sole investment power with respect to all shares beneficially owned, subject to community property laws where applicable. Shares subject to options which are exercisable within 60 days of February 22, 2017 are deemed to be outstanding and to be beneficially owned by the person holding such options for the purpose of computing the percentage ownership of such person, but are not deemed to be outstanding and to be beneficially owned for the purpose of computing the percentage ownership of any other person.

Name or Group of Beneficial Owners	Number of Shares Beneficially Owned	Options Exercisable in 60 days	Percentage of Shares Beneficially Owned (1)
BlackRock, Inc (2) 55 East 52nd Street New York, NY 10055	13,264,323	—	11.9%
Waddell & Reed Financial (3) 6300 Lamar Avenue Overland Park, KS 66202	11,925,606	—	10.7%
The Vanguard Group (4) 100 Vanguard Boulevard Malvern, PA 19355	9,334,245	—	8.4%
PRIMECAP Management Company (5) 177 E. Colorado Blvd., 11th Floor Pasadena, CA 91105	8,708,272	—	7.8%
Ronald Black	1,158,054	1,088,856	1.0%
Rahul Mathur (6)	0	0	*
Laura Stark	271,259	196,247	*
Jae Kim	35,849	19,988	*
Satish Rishi (7)	277,513	202,000	*
Martin Pilling (8)	0	0	*
J. Thomas Bentley (9)	167,262	20,000	*
E. Thomas Fisher	35,284	21,666	*
Penelope A. Herscher (10)	52,582	20,000	*
Charles Kissner (11)	81,092	40,000	*
David Shrigley (12)	67,679	20,000	*
Eric Stang (13)	100,561	40,000	*
All current directors and executive officers as a group (12 persons)	2,247,135	1,668,757	2.0%
Shares Outstanding as of February 22, 2017			111,619,146

* (Less than 1%)

(1) Percentage of shares beneficially owned is based on 111,619,146 shares outstanding as of February 22, 2017.

(2) As reported on Schedule 13G/A on January 17, 2017
(3) As reported on Schedule 13G/A on February 14, 2017. The Schedule 13G/A was filed jointly on behalf of Ivy Investment Management Company, Waddell & Reed Financial Inc., Waddell & Reed Investment Management Company, Waddell & Reed, Inc. and Waddell & Reed Financial Services, Inc. in connection with the beneficial ownership of the Common Stock of Rambus Inc.
(4) As reported on Schedule 13G/A on February 13, 2017
(5) As reported on Schedule 13G/A on February 9, 2017.
(6) Mr. Mathur was appointed as Senior Vice President, Finance and Chief Financial Officer on October 3, 2016.
(7) Mr. Rishi retired from his position as Senior Vice President, Finance and Chief Financial Officer on August 5, 2016. Includes 3,000 shares held in trust for which Mr. Rishi serves as a trustee.
(8) Mr. Pilling served as Interim Chief Financial Officer from August 5, 2016 to October 3, 2016.
(9) Includes 127,262 shares held in trust for which Mr. Bentley serves as a trustee and 20,000 shares held in partnership for which Mr. Bentley serves as a partner.
(10) Includes 32,582 shares held in trust for which Ms. Herscher serves as a trustee.
(11) Includes 41,092 shares held under an LLC for which Mr. Kissner serves as owner.
(12) Includes 4,300 shares gifted to foundation for which Mr. Shrigley serves as principal.
(13) Includes 60,561 shares held in trust for which Mr. Stang serves as a trustee.

EXECUTIVE OFFICERS OF THE COMPANY

Information regarding our executive officers and their ages and positions as of February 22, 2017, is contained in the table below. Our executive officers are appointed by, and serve at the discretion of, our Board of Directors. There is no family relationship between any of our executive officers.

Ronald Black, Ph.D.	53	President and Chief Executive Officer. Dr. Black has served as our chief executive officer and president since June 2012 and as a director since July 2012. Dr. Black was previously the Managing Director of R.D. Black & Company, a consulting firm, since August 2011. From September 2010 to August 2011, Dr. Black was the Chief Executive Officer of MobiWire, formerly Sagem Wireless, a privately-held mobile handset company headquartered near Paris, France that offers products and services to original equipment manufacturers and mobile network operators in the mobile phone marketplace. From June 2009 to October 2010, Dr. Black served as Chairman and CEO of UPEK, Inc. Dr. Black currently serves as a board member of Energy Focus Inc, a publicly held LED lighting technology developer, Ultratech, Inc., a publicly held company that designs, builds and markets manufacturing systems of the global technology industry, Microfabrica Inc., a privately held high precision metal parts fabricator, and FlexEnable Limited, a privately held producer of flexible electronics manufacturing platforms. From 2012 to March 2015, Dr. Black served on the board of EnOcean GmbH, a German-based company that manufactures and markets energy harvesting technology, sensors, and radio frequency communication. From September 2010 to November 2012, he served as a board member of AuthenTec, Inc., which he joined following the AuthenTec-UPEK merger in September 2010 and from 2007 to 2013, he served as a board member of Inside Contactless, a France-based company engaged in the semiconductors and information technology industry. From September 2004 to June 2009, he was chief executive officer of Wavecom S.A., a publicly traded French wireless solutions company. Dr. Black holds a Bachelor of Science, a Masters of Science, and a Ph.D. in materials science and engineering from Cornell University in Ithaca, N.Y.
Rahul Mathur	43	Senior Vice President, Finance and Chief Financial Officer. Mr. Mathur joined us in his current position in October 2016. Prior to joining us, Mr. Mathur served as senior vice president of finance at Cypress Semiconductor Corp., a provider of embedded memory, microcontroller, and analog semiconductor system solutions, from March 2015 to September 2016, where he was responsible for financial planning and investor relations. From August 2012 to March 2015, Mr. Mathur served as vice president of finance at Spansion, Inc. (later acquired by Cypress Semiconductor Corp.). Mr. Mathur served as vice president of finance at Picaboo Corporation from January 2012 to August 2012 and vice president of finance at CDNetworks Inc. from January 2011 to December 2011. Prior to January 2011, Mr. Mathur held senior finance positions at Telesis Technologies, Inc., NetSuite Inc. and KLA-Tencor Corporation. Mr. Mathur holds a Bachelor of Arts in applied mathematics from Dartmouth College and an M.B.A. from the Wharton School of Business at the University of Pennsylvania.

Laura Stark	48	Senior Vice President, GM, Emerging Solutions Division. Ms. Stark has served in her current position since July 2014. In addition to leading the efforts of overall strategy, including M&A activities, Ms. Stark leads our platform development efforts and long-range research and development as well as oversees our information technology function. From August 2012 to July 2014, she served as our Senior Vice President, Corporate Strategy and M&A. From April 2008 to August 2012, Ms. Stark served as Senior Vice President, Corporate Development, from February 2005 to April 2008 as Senior Vice President, Platform Solutions and from October 2002 to February 2005 as vice president, Memory Interface Division. Ms. Stark held various business and management positions before becoming vice president, Memory Interface Division in October 2002. Prior to joining us, Ms. Stark held various positions in the semiconductor products division of Motorola, a communications equipment company, during a six year tenure, including technical sales engineer for the Apple sales team and field application engineer for the Sun and SGI sales teams. Ms. Stark holds a B.S. in Electrical Engineering from the Massachusetts Institute of Technology.
Jae Kim	46	Senior Vice President, General Counsel and Secretary. Mr. Kim has served as the senior vice president, general counsel and secretary since February 2013 and as our vice president, corporate legal since July 2010. In addition, in December 2016, Mr. Kim assumed responsibility for our human resources and facilities functions. Prior to his tenure at Rambus, Mr. Kim held senior legal positions at Aricent Inc., a privately-held communications technology company and Electronics for Imaging Inc., a digital printing technology company. Mr. Kim has also had significant experience in private practice with the law firm of Wilson Sonsini Goodrich & Rosati, P.C., where he advised high technology and emerging growth companies on mergers and acquisitions, private financings, public offerings, securities compliance, public company reporting and corporate governance. Mr. Kim began his legal career as an attorney with the United States Securities and Exchange Commission, Division of Corporation Finance, in Washington, D.C. Mr. Kim is a member of both the California State Bar and New York State Bar, and received a J.D. from the American University, Washington College of Law, and his bachelor's degree from Boston University.

EXECUTIVE COMPENSATION

COMPENSATION DISCUSSION AND ANALYSIS

Our Compensation Discussion and Analysis ("CD&A") is designed to provide our stockholders with an understanding of our compensation program in effect for our named executive officers ("NEOs") who consist of the following executive officers:

- Ronald Black, Chief Executive Officer and President;
- Rahul Mathur, Senior Vice President, Finance and Chief Financial Officer;
- Laura Stark, Senior Vice President, GM, Emerging Solutions Division; and
- Jae Kim, Senior Vice President, General Counsel and Secretary.

We have also included in our CD&A a discussion of the compensation paid to two other individuals who are included as NEOs for 2016, but were not executive officers through the end of 2016. Satish Rishi, our former Senior Vice President, Finance and Chief Financial Officer, retired from Rambus in August 2016. From August to October 2016, Martin Pilling served as our interim Chief Financial Officer.

Unless otherwise noted, general references to NEOs in this CD&A exclude Mr. Mathur and Mr. Pilling as they were NEOs for a short period in the later part of 2016. References to Mr. Rishi's, Mr. Mathur's and Mr. Pilling's service and compensation reflect the portion of 2016 for which each was employed with the Company.

Our CD&A is organized as follows: (i) Executive Summary, (ii) Our Compensation Philosophy — Pay for Performance, (iii) NEO Compensation Process, (iv) Components of NEO Compensation, and (v) Other Policies and Elements of NEO Compensation.

EXECUTIVE SUMMARY

2016 Business Performance

In 2016, we continued our transition from a pure IP licensing model to one that delivers increasing value to the market through chips, customizable IP cores, software and services. In line with our growth strategy, we acquired four businesses in 2016 in the fields of mobile payments, smart ticketing, memory buffer chips and SerDes IP cores. We also continued to execute on our traditional patent licensing business by signing key license agreements with AMD, Xilinx, and others, demonstrating our ability to extend our partnerships beyond the DRAM industry. Key 2016 financial results included:

- $337 million in annual revenue;
- $109 million in pro-forma operating income;
- 32% operating margin; and
- 19% share price increase in 2016 and a 45% share price increase over the last three years.

Executive Compensation Highlights

- Our compensation mix favors performance-based compensation. Approximately 91% of our CEO's and on average approximately 74% of our NEOs' total target compensation was subject to our financial and/or share price performance in 2016.
- Our annual incentive compensation program is funded based on the achievement of an objective performance target of pro-forma operating income. For 2016, annual incentive compensation under our Corporate Incentive Plan ("CIP") was funded at 105.8% of target as the Company's 2016 performance exceeded target.

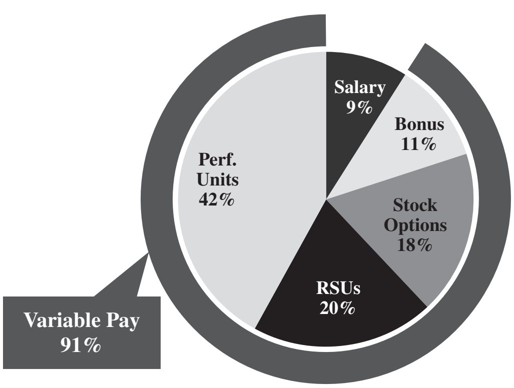
- To further align executive compensation with stockholder interests, approximately 52% of our CEO's and on average approximately 41% of our NEO's 2016 long-term equity incentive awards consisted of performance units, which become eligible for time-based vesting based on the achievement of an objective performance goal of one-year operating margin. Based on our 2016 operating margin performance, which exceeded target, 116.7% of the target number of performance units granted in 2016 became eligible for time-based vesting.
- The advisory vote on executive compensation at our 2016 annual meeting received approval from 97% of the votes cast.
- We maintained high governance standards in our executive compensation practices, including best practices with respect to minimum equity ownership guidelines, perquisites, compensation recovery, independent compensation committee advisors and insider trading. See "Other Policies and Elements of NEO Compensation" below.

OUR COMPENSATION PHILOSOPHY — PAY FOR PERFORMANCE

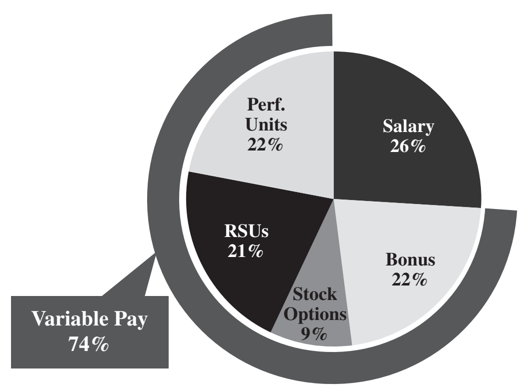
Our NEO compensation program is designed to align NEO compensation to business objectives and company financial performance and to motivate NEOs to enhance long-term stockholder value. The objectives of our executive compensation program are to attract, retain, motivate, and reward executives in order to enhance the long-term profitability of the company, foster stockholder value creation, and align executives' interests with those of our stockholders. The principal components of our executive compensation program in 2016 were base salary, annual cash incentive awards and long-term equity incentive awards.

To support our pay-for-performance philosophy, we believe that a substantial portion of total compensation for our executives should be variable and dependent on company and individual performance. In 2016, approximately 91% of our CEO's and on average approximately 74% of our NEOs' total target compensation was subject to the Company's financial and/or share price performance. The charts below show the percentage amounts for salary, annual cash incentive awards, and long-term equity incentive awards for our CEO and other NEOs, in other words, the mix of pay.

CEO



Average of All Other NEOs



NEO COMPENSATION PROCESS

The Role of the Compensation Committee

The Compensation Committee is responsible for determining and approving CEO compensation, approving compensation recommendations for NEOs, recommending to the Board changes to the non-employee director compensation program, approving the overall levels of equity to be granted each year, and determining the amount of funding that will be available for CIP, among other duties expressed in its charter. In performing these duties, the Compensation Committee evaluates the performance of the CEO, and reviews and evaluates the existing NEO compensation programs. The Compensation Committee has the authority to obtain advice and assistance from internal or external compensation consultants, attorneys, accountants, and other advisers. The Board of Directors annually evaluates the independence of its members and has determined that each non-executive member of the Board of Directors satisfies the relevant criteria for independence.

In 2016, the Compensation Committee considered multiple factors to ensure that compensation packages, including Mr. Mathur's new hire package, were consistent with our pay for performance philosophy and that we remain competitive in the market for talent. Important factors considered in these decision-making processes included Company performance, individual leadership and performance assessments, market compensation levels, job scope, individual skills and experience, the relative importance of the individual's role, internal pay equity, historical pay levels, and equity holdings.

In 2016, the Compensation Committee reviewed comprehensive performance assessments of the NEOs and conducted a review of the CEO's performance. This assessment included an evaluation of pre-established strategic objectives and review of direct feedback from managers, peers and subordinates. The Compensation Committee also held an annual joint meeting with the full Board of Directors to review and discuss Company leadership development, performance objectives and emergency and long-term succession planning.

The Role of the Independent Compensation Consultant

In 2016, the Compensation Committee continued to retain Semler Brossy Consulting Group, LLC ("SBCG") to assist in evaluating executive and director compensation, including Mr. Mathur's new hire compensation package (as further described below). In addition, SBCG prepared materials and analyses for the Compensation Committee on CEO compensation. The Compensation Committee reviewed and approved CEO compensation, and the CEO was not present for any voting or deliberations regarding CEO compensation. SBCG reports directly to the Compensation Committee, and works collaboratively with management and the Compensation Committee. Pursuant to SEC rules, the Compensation Committee has assessed the independence of SBCG, and concluded that no conflict of interest exists that would prevent SBCG from independently representing the Compensation Committee. SBCG does not perform other services for the Company, and will not do so without the prior consent of the Compensation Committee. SBCG regularly meets with the Compensation Committee outside the presence of management.

The Role of Management

Each year, the CEO and the head of Human Resources present to the Compensation Committee annual performance reviews and compensation recommendations for the then-current NEOs, excluding the CEO. Evaluation of CEO performance and compensation is determined by the Compensation Committee without the presence or consultation of the CEO. Management personnel work with SBCG to prepare compensation information and assessments for the Compensation Committee's consideration.

In addition, once the Compensation Committee determines the amount of funding available for our CIP, the CEO allocates this funding to each operating or business unit of the Company based on a measurement of each unit's achievement levels against the unit's specific performance milestones in relation to the Company's overall performance targets, and recommends a specific CIP award for each NEO other than himself. The Compensation Committee reviews and assesses the CEO's proposed CIP award for each NEO.

Peer Group Comparisons

Each year, SBCG, together with senior members of our Human Resources department, defines and assesses the appropriateness of a group of similarly situated companies, referred to as the Compensation Peer Group, for purposes of assisting the Compensation Committee to determine whether the total compensation opportunity available to our NEOs is appropriate and competitive. The Compensation Committee reviews and approves the Compensation Peer Group as recommended by management and SBCG. The Compensation Peer Group for fiscal year 2016 compensation was approved by the Committee in July 2015 and consisted of 15 companies selected based on a number of key attributes, including revenue, technological complexity, industry and business characteristics, market capitalization and number of employees.

2016 Peers

Applied Micro Circuits Corporation	Integrated Device Technology, Inc.	Monolithic Power Systems
Cavium Networks, Inc.	InterDigital, Inc.	Power Integrations Inc.
DSP Group, Inc.	Lattice Semiconductor Corporation	Semtech Corporation
FormFactor, Inc.	M/A-Com Technology Solutions	Silicon Laboratories Inc.
Inphi Corporation	MaxLinear, Inc.	Tessera Technologies, Inc.

The Compensation Committee also reviewed data from the Radford Select Executive Compensation Report to supplement the publicly available Compensation Peer Group data.

The Role of Our 2016 Advisory Vote on Executive Compensation

The advisory vote on executive compensation at our 2016 annual meeting was approved by 97% of the votes cast. The Compensation Committee is committed to ensuring that the Company's compensation programs are consistent with the Company's pay for performance philosophy and deliver appropriate results given Company financial performance and business conditions. During the course of our 2016 proxy season, as we have in past years, we continued to engage in ongoing discussions with institutional investors to gather input and feedback on our executive compensation program. Stockholder feedback will remain an important input into the Compensation Committee's work on the compensation programs for the Company.

COMPONENTS OF NEO COMPENSATION

The Company's executive compensation program consists of the following components:

- Annual Base Salary
- Annual Cash Incentive Compensation — Corporate Incentive Plan
- Long Term Equity Incentive Compensation

Annual Base Salary

Salaries are provided to employees as compensation for services to the Company and to meet the objectives of attracting and retaining the talent needed to run our Company. The Compensation Committee evaluates base salaries for our NEOs on an annual basis. The Compensation Committee considers a number of factors, including the NEO's salary history, current compensation levels, responsibilities, experience, individual and Company performance, and market information when determining and approving NEO salary increases. The Compensation Committee also reviews potential changes in our CIP and equity when considering changes in base salary.

For 2016, the Compensation Committee approved an increase in the base salary for Mr. Rishi, who later retired from the company in August of 2016, to reflect individual performance and based on a review of market compensation levels. No other NEOs received increases in their base salary levels for 2016. Please see the section "New CFO Compensation" for further discussion on how Mr. Mathur's compensation was determined.

For 2017, the Compensation Committee approved increases in the base salary for Mr. Black to reflect individual performance and a review of market compensation levels. Ms. Stark and Mr. Kim also received increases to their base salaries to reflect individual performance, increased responsibilities and a review of market compensation levels. No other NEOs received increases in their base salary levels for 2017, as reflected below under the section "2017 CIP".

Annual Cash Incentive Compensation — Corporate Incentive Plan

2016 CIP

Our annual cash incentive compensation is designed to motivate and reward our NEOs for achieving our annual financial and business objectives. Consistent with our approach in 2015, annual cash incentive bonuses with respect to 2016 performance were based on the achievement of an objective performance goal of pro-forma operating income. We chose this measure because we believe it provides a meaningful measure of core financial performance and supports our short-term business objectives, which complements the measure of operating margin that we use for our performance unit awards (discussed later under "Long Term Equity Incentive Compensation") that promotes growth and cost discipline.

Pro-forma operating income is a non-GAAP measure that consists of GAAP operating income, excluding stock-based compensation expense, amortization expense, certain acquisition related expenses, retention bonuses, restructuring expenses, impairment charges, non-cash interest expense and certain other one-time or extraordinary expenses or credits. Other one-time or extraordinary expense or income items may be excluded from pro-forma operating income as determined by the Compensation Committee.

To align payouts with Company performance, plan funding has a sliding scale that provides for annual incentive bonus payouts greater than the target bonus if results are greater than target or less than the target bonus if results are lower than the target. Our CIP funding can range from 0% to 200%. In accordance with the plan, our 2016 CIP was measured at mid-year based on estimated expectations of the full year's achievement against the performance target. The measurement resulted in a progress payment of 40% of the full year target payment. Final payments for fiscal 2016 reflected actual Company performance in 2016, net of the mid-year performance payment. The 2016 performance targets and results of pro-forma operating income were as follows:

Target	Actual Performance	CIP Funding
$103M	$109M	105.8%

Individual CIP payouts for NEOs varied as identified below based on an assessment of individual performance and the performance of his or her division, business unit or other area of responsibility. In 2016, our NEOs participated in the 2016 CIP for their annual cash incentive compensation on the same terms as other participants.

	2016 CIP Target		2016 CIP Payouts	
Executive	2016 CIP Target	% of Base Salary	Total 2016 CIP Payout	% of Total Target CIP
Ronald Black	$618,000	120%	$653,844	105.8%
Rahul Mathur	$270,000	82%	$ 71,415(1)	105.8%
Laura Stark	$300,000	100%	$396,360	132.1%
Jae Kim	$230,000	77%	$379,546	165%
Satish Rishi	$280,000	82%	$112,000(2)	100%(2)
Martin Pilling	$121,500	45%	$ 67,645(3)	100%(3)

(1) Reflects pro-rata payout for 3 months of employment in 2016 at target.

(2) Reflects first half bonus payment at target. Mr. Rishi retired from the Company in August 2016 and did not receive a second half bonus payment under the 2016 CIP.

(3) Reflects pro-rata payout for approximately 7 months of employment in 2016 at target.

2017 CIP

Our 2017 CIP will be structured in the same way as our 2016 CIP with Company performance tied to a pre-established pro-forma operating income target in a similar manner as described above. Individual NEO 2017 CIP targets are as follows:

Executive	2017 Base Salary	2017 CIP Target	% of Base Salary	% of Base Salary Increase from 2016	CIP Target Increase from 2016
Ronald Black	$555,000	$666,000	120%	7.8%	7.8%
Rahul Mathur	$330,000	$270,000	82%	0%	0%
Laura Stark	$325,000	$310,000	95%	8.3%	3.3%
Jae Kim	$330,000	$270,000	82%	10%	17.4%

Long Term Equity Incentive Compensation

Our equity incentives encourage the achievement of superior results over time and align the interests of our executive officers and stockholders because the value of the equity incentives is based on the price of the Company's stock. Our equity awards are subject to vesting provisions to encourage executive officers to remain employed with us. To determine annual equity awards with respect to a completed fiscal year, the Compensation Committee reviews each then-current NEO's performance and contribution during such year, as well as current market information, external competitive circumstances, overall ownership and vesting schedules of existing equity held by the NEO.

The Compensation Committee annually evaluates the structure of the equity compensation program to ensure that grants appropriately support our strategic and financial objectives. NEO annual equity awards granted in February 2016 represented a mix of stock options, RSUs and performance units as an incentive for share price growth and financial performance. In determining the number of shares subject to these grants, the Compensation Committee considered a number of factors, consistent with the approach described above, with a particular focus on individual performance, our stock price and execution of our long-term growth strategy. Our 2016 equity program for our CEO and other NEOs was designed to deliver equity awards as follows:

	Stock Options	Time Based RSUs	Performance Units
CEO	25%	25%	50%
Other NEOs	20%	40%	40%

The program was designed such that 75% of the value of the equity awards (options and performance units) granted to our Chief Executive Officer in 2016 was subject to both the risk of the Company's financial and stock performance and 60% of the value of the equity awards (options and performance units) granted to our other NEOs in 2016 was subject to both the risk of the Company's financial and stock performance. Because he joined the Company during the latter part of the 2016 performance period, Mr. Mathur was not granted performance units at the time of hire but did receive options to purchase 60,000 shares of common stock of the Company and 80,000 restricted stock units. Please see the section "New CFO Compensation" for further discussion on how Mr. Mathur's compensation was determined.

With respect to performance unit awards, a target number of shares of our common stock subject to such units was awarded to each of our NEOs and such units became eligible for time-based vesting based on the Company's operating margin for the fiscal year period in which the performance unit was awarded. We believe operating margin is a key measure of both growth and cost discipline, which complements our annual CIP bonus plan's measure of pro-forma operating income. The ultimate number of shares that become eligible for time-based vesting can range from 0% to 150% of target depending on performance relative to target over the applicable period. Time-based vesting takes place after the performance level is achieved and determined to provide additional retention value. 100% of the shares that become subject to time-based vesting, vest on the third anniversary of the date of grant, subject to continued service. The performance units are designed to reward performance by linking grants to an objective Company performance measure while promoting employee retention through subsequent time-based vesting. The 2016 performance unit targets and results of operating margin were as follows:

Target	Actual Performance	Achievement
30%	32%	116.7%

As a result of these performance unit achievements, individual NEOs became eligible for time-based vesting in the following share amounts: Mr. Black-233,400; Ms. Stark-28,432; and Mr. Kim-19,096. See "Separation Agreement with Satish Rishi" below with respect to the treatment of Mr. Rishi's performance units.

OTHER POLICIES AND ELEMENTS OF NEO COMPENSATION

Benefits

We do not provide any perquisites to NEOs that are not generally available to the broad employee population with the exception of termination benefits and travel reimbursements to Dr. Black pursuant to his employment agreement and termination benefits to the other NEOs based on change of control severance agreements. Our NEOs are eligible to participate in our 401(k) plan, our health and welfare benefits, our Employee Stock Purchase Plan and our User-Owned Personal Computing Devices reimbursement program on the same terms as other eligible employees.

Stock Ownership Guidelines

Our executives are required to hold 50% of after-tax shares realized upon vesting or exercise of equity awards on an after tax basis until they reach the required levels of 5x base salary for the CEO and 3x base salary for the other executive officers. Our executives are required to achieve the required levels within five years of the date such officer assumes their position. For purposes of these guidelines, ownership includes shares owned outright, unvested restricted stock and restricted stock units, and the value of vested and unexercised stock options. As of December 31, 2016, all of our NEOs were in compliance with this policy.

Hedging

As stated in our Code of Business Conduct and Ethics, all of our employees and directors are prohibited from engaging in hedging transactions in Rambus shares, including short sales and purchases of put options.

Equity Grant Policy

Annual equity awards to then-current NEOs are granted on February 1st of each year or the first trading day thereafter. Currently, awards granted consist of stock options, RSUs and performance units. Stock options are priced at the fair market value on the date that the grant becomes effective while RSUs and performance units are full value awards. The number of shares and key terms of the awards are approved by the Compensation Committee prior to the scheduled award date, February 1st or the first trading day thereafter. On occasion, the Compensation Committee approves other equity awards during the year in addition to the annual equity awards, including, for example, in connection with Mr. Mathur's hiring.

Compensation Recovery

The Compensation Committee reserves the right to reduce or withhold future compensation based on any required restatement or adjustment, and to determine the extent to which recovery of prior compensation may be pursued in the event of future adjustments caused by fraud on the part of an executive of Rambus. The Compensation Committee will adopt a policy that complies with the requirements of the Dodd-Frank Wall Street Reform and Consumer Protection Act when such rules are promulgated.

Change of Control Payments

Outstanding equity awards for our NEOs, including our CEO, may vest upon a "double-trigger" termination in the event of a change of control pursuant to change of control severance agreements with our executive officers and our CEO's employment agreement that governs certain change of control severance obligations applicable to him. These agreements are designed to promote stability and retention of senior management prior to and following a change of control and to align executive and stockholder interests by enabling executives to consider corporate transactions that are in the best interests of the stockholders and other constituents of the Company without undue concern over whether the transactions may jeopardize the executives' own employment.

Dr. Black's employment agreement with the Company includes, among other terms, certain payments for Dr. Black in the event of his termination, a change of control of the Company, or both. The Compensation Committee believed that including these provisions in Dr. Black's employment agreement was appropriate given the context of changes in the Company's leadership at that time.

See "Executive Compensation Tables — Potential Payments Upon Termination or Change of Control" below for a discussion of potential payments to our NEOs including our CEO.

Separation Agreement with Satish Rishi

Effective August 5, 2016, Mr. Rishi resigned from his position as Senior Vice President, Finance and Chief Financial Officer. In connection with Mr. Rishi's retirement, the Company and Mr. Rishi entered into a separation agreement. Under the terms of the agreement, Mr. Rishi received (i) a lump sum payment of twelve months of his base salary; (ii) vesting acceleration with respect to restricted stock units, performance units vested and outstanding, unvested and in-the-money stock option grants previously granted to Mr. Rishi; in each case reflecting vesting that would have occurred had Mr. Rishi continued providing services to the Company over the six month period following his separation from the Company; and (iii) payment of COBRA premiums to continue health insurance coverage for 12 months from his separation from the Company. The terms of the separation agreement were the result of arm's length negotiations between Mr. Rishi and the Company.

New CFO Compensation

Mr. Mathur was appointed Senior Vice President, Finance and Chief Financial Officer, effective October 3, 2016. Mr. Mathur's new hire compensation package included (i) an annual salary of $330,000, (ii) a 2016 annualized CIP target of 82% of base salary, and (iii) a $50,000 hiring bonus. Mr. Mathur was also granted options to purchase 60,000 shares of common stock of the Company and 80,000 restricted stock units. Because he joined the Company during the latter part of the 2016 performance period, Mr. Mathur was not granted performance units at the time of hire, but participated fully in the 2017 annual compensation cycle along with then current NEOs in the manner described in this CD&A, including the grant of performance units.

In determining Mr. Mathur's compensation, the Compensation Committee reviewed Compensation Peer Group data and considered factors such as market compensation levels, job scope, individual skills and experience, the relative importance of the individual's role and historical pay levels for the position.

Tax Considerations

Under Section 162(m), a corporation cannot deduct compensation it pays to its Chief Executive Officer and certain other executive officers in excess of $1 million unless such compensation is considered "qualified performance-based compensation" as defined in Section 162(m). Compensation that qualifies as "performance-based" generally must meet the requirement that it is payable only upon attainment of pre-established, objective performance goals under a plan that has been approved by the corporation's stockholders. The Compensation Committee considers the potential future effects of Section 162(m) when determining NEO compensation and does approve compensation to our NEOs that does not satisfy the requirements of Section 162(m) when it believes that other considerations outweigh the tax deductibility of the compensation. The Compensation Committee intends to continue evaluating all of our executive compensation and may qualify such compensation as performance based compensation under Section 162(m) to the extent applicable, and so long as the Compensation Committee determines that doing so is in the Company's best interests.

Compensation Program Risk Evaluation

The Compensation Committee annually reviews the elements of NEO compensation to determine whether any portion of the overall program encourages excessive risk taking. The Committee's current assessment is that although the majority of compensation provided to our NEOs is performance-based, our compensation programs do not encourage excessive or unnecessary risk taking. The Committee believes that the design of these compensation programs encourages our NEOs to remain focused on both short-term and long-term strategic goals.

COMPENSATION COMMITTEE REPORT

Our Compensation Committee, as of February 15, 2017, reviewed and discussed the Compensation Discussion and Analysis with management and, based on such review and discussions, the Compensation Committee recommended to the Board of Directors that the Compensation Discussion and Analysis be included in this report.

THE COMPENSATION COMMITTEE

Penelope A. Herscher (Chairperson)
E. Thomas Fisher
Charles Kissner

EXECUTIVE COMPENSATION TABLES

Summary Compensation Table

The following table shows NEO compensation information for 2014, 2015 and 2016.

Name and Title	Year	Salary ($)	Stock Awards(1) ($)	Option Awards(1) ($)	Non-Equity Incentive Plan Compensation(2) ($)	All Other Compensation(3) ($)	Total ($)
Ronald Black	2016	515,000	3,808,145	1,026,080	653,844	12,634	6,015,703
President and Chief Executive	2015	515,000	2,456,752	550,656	610,000	63,325	4,195,733
Officer	2014	515,000	—	899,783	624,180	12,026	2,050,989
Rahul Mathur(4)	2016	81,442	972,000	242,142	71,415	50,480(5)	1,417,479
Senior Vice President, Finance and Chief Financial Officer							
Laura Stark	2016	300,000	611,102	124,995	396,360	9,870	1,442,327
Senior Vice President, GM,	2015	299,167	1,021,254	80,304	322,838	47,350	1,770,913
Emerging Solutions Division	2014	288,750	—	195,605	240,000	9,720	734,075
Jae Kim	2016	300,000	412,025	83,952	379,546	9,870	1,185,393
Senior Vice President,	2015	299,167	828,262	64,243	217,140	35,589	1,444,401
General Counsel and Secretary	2014	288,750	—	176,045	220,000	9,720	694,515
Satish Rishi(6)	2016	203,622	611,102	124,995	112,000	349,150(7)	1,400,869
Former Senior Vice President,	2015	325,000	1,021,254	80,304	381,376	44,226	1,852,160
Finance and Chief Financial Officer	2014	325,000	—	195,605	395,000	9,720	925,325
Martin Pilling(8)	2016	157,500	334,600	—	67,645	400	560,145
Former Interim Chief Financial Officer							

(1) Amounts shown do not reflect compensation actually received by the NEO. Instead, the amounts shown are the aggregate grant date fair value computed in accordance with the provisions of FASB ASC Topic 718. The assumptions used to calculate the value of stock and stock option awards are set forth under Note 12 of the Notes to Consolidated Financial Statements included in our Annual Report on Form 10-K for the year ended December 31, 2016.

(2) Amounts for fiscal year 2016 consist of compensation earned for services rendered in fiscal year 2016 and are based upon the achievement of certain targets under the 2016 Corporate Incentive Plan. The target and achievement results were reviewed and approved by the Compensation Committee. The plan is further described under "Compensation Discussion & Analysis — Components of NEO Compensation"

(3) The details of "All Other Compensation" for NEOs for 2016 are described in this Proxy Statement under "Compensation Disclosure and Analysis" — "Other Policies and Elements of NEO Compensation."

(4) Mr. Mathur was appointed as Senior Vice President, Finance and Chief Financial Officer on October 3, 2016.

(5) Includes a $50,000 hiring bonus pursuant to Mr. Mathur's Offer Letter, dated September 9, 2016.

(6) Mr. Rishi retired from his position as Senior Vice President, Finance and Chief Financial Officer on August 5, 2016.

(7) Includes compensation paid to Mr. Rishi pursuant to his Separation Agreement. See Compensation Disclosure and Analysis" — "Other Policies and Elements of NEO Compensation," "Satish Rishi Separation Agreement" for a description of these benefits.

(8) Mr. Pilling served as Interim Chief Financial Officer from August 5, 2016 to October 3, 2016. Amounts shown reflect Mr. Pilling's seven months of employment in 2016.

Grants of Plan Based Awards

The following table shows all plan-based awards granted to the NEOs during 2016. The option awards and the unvested portion of the stock awards identified in the table below are also reported in the Outstanding Equity Awards at 2016 Year End Table that follows.

			Estimated Future Payouts Under Non-Equity Incentive Plan Awards(1)			Estimated Future Payments Under Equity Incentive Plan Awards			All Other Stock Awards; Number of Shares or Stock Units(2) (#)	All Other Option Awards; Number of Securities Underlying Options (2) (#)	Exercise or Base Price of Option Awards ($/Sh)	Grant Date Fair Value of Stock & Option Awards(3) ($)
Name	**Grant Date**	**Approval Date**	**Threshold ($)**	**Target ($)**	**Maximum ($)**	**Threshold (#)**	**Target (#)**	**Maximum (#)**				
Ronald Black	2/1/2016	1/20/2016	N/A	$618,000	$1,236,000	—	—	—	—	220,000	12.31	1,026,080
	2/1/2016	1/20/2016							100,000			1,231,000
	2/1/2016	1/20/2016				50%	100%	150%	200,000			2,462,000
Rahul Mathur	11/1/2016	9/9/2016	N/A	$270,000	$ 540,000	—	—	—	—	60,000	12.15	242,142
	11/1/2016	9/9/2016							80,000			972,000
Laura Stark	2/1/2016	1/20/2016	N/A	$300,000	$ 600,000	—	—	—	—	26,800	12.31	124,995
	2/1/2016	1/20/2016							24,364			299,920
	2/1/2016	1/20/2016				50%	100%	150%	24,364			299,920
Jae Kim	2/1/2016	1/20/2016	N/A	$230,000	$ 460,000	—	—	—	—	18,000	12.31	83,952
	2/1/2016	1/20/2016							16,364			201,441
	2/1/2016	1/20/2016				50%	100%	150%	16,364			201,441
Satish Rishi	2/1/2016	1/20/2016	N/A	$280,000	$ 560,000	—	—	—	—	26,800	12.31	124,995
	2/1/2016	1/20/2016							24,364			299,921
	2/1/2016	1/20/2016				50%	100%	150%	24,364			299,921
Martin Pilling	7/1/2016	7/1/2016	N/A	$121,500	$ 243,000	—	—	—	28,000			334,600

(1) Amounts shown are estimated payouts for fiscal year 2016 to NEOs based on the 2016 bonus targets under the plan discussed under "Compensation Discussion & Analysis — Components of NEO Compensation." Actual bonuses received by these named executive officers for fiscal 2016 are reported in the Summary Compensation for Fiscal Year 2016 table under the column entitled "Non-Equity Incentive Plan Compensation" and described under "Compensation Discussion & Analysis — Executive Compensation Components."

(2) The stock options, restricted stock units and performance units granted on February 1, 2016 were granted as part of the Company's regular performance review process. The stock options and restricted stock units will vest based on the executive's continued service to the Company through the applicable vesting dates. The performance unit grants will become earned based upon the performance level achieved tied to the Company's operating margin for the fiscal year in which the performance unit was awarded and the executive's continued service to the Company through the applicable vesting date on the third anniversary of the date of grant.

(3) The value of a stock option, restricted stock unit or performance unit grant is based on the fair market value as of the grant date of such award determined pursuant to FASB ASC Topic 718. The exercise price for all options granted to the named executive officer is 100% of the fair market value of the shares on the grant date. The restricted stock unit and performance unit grants are full value awards and do not have an exercise price.

Outstanding Equity Awards at Fiscal Year-End

The following table shows all outstanding equity awards held by the NEOs as of December 31, 2016. Unvested stock awards reported in the Grants of Plan Based Awards table above are also included in the table below.

Name	# of Securities Underlying Unexercised Options (#) Exercisable	# of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price ($)	Option Expiration Date	# of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock that Have Not Vested (1)($)
Ronald Black	40,857	179,143(2)	$12.31	2/1/2026	—	$ —
	—	—	$ 0.00	—	200,000(3)	$2,754,000
	—	—	$ 0.00	—	100,000(4)	$1,377,000
	53,142	66,858(5)	$11.26	2/2/2025	—	$ —
	—	—	$ 0.00	—	86,933(6)	$1,197,067
	—	—	$ 0.00	—	86,933(7)	$1,197,067
	—	—	$ 0.00	—	40,908(8)	$ 563,303
	161,000	69,000(9)	$ 8.76	2/3/2024	—	$ —
	181,857	8,143(10)	$ 5.46	2/1/2023	—	$ —
	595,000	— (11)	$ 5.76	7/2/2022	—	$ —
	—	297,500(12)	$ 5.76	7/2/2022	—	$ —
	—	297,500(13)	$ 5.76	7/2/2022	—	$ —
Rahul Mathur	—	60,000(14)	$12.15	11/1/2026	—	$ —
	—	—	$ 0.00	—	80,000(15)	$1,101,600
Laura Stark	4,977	21,823(2)	$12.31	2/1/2026	—	$ —
	—	—	$ 0.00	—	24,364(3)	$ 335,492
	—	—	$ 0.00	—	24,364(4)	$ 335,492
	—	—	$ 0.00	—	41,274(16)	$ 568,343
	7,750	9,750(5)	$11.26	2/2/2025	—	$ —
	—	—	$ 0.00	—	17,000(7)	$ 234,090
	—	—	$ 0.00	—	12,000(8)	$ 165,240
	30,555	15,000(9)	$ 8.76	2/3/2024	—	$ —
	37,952	2,143(10)	$ 5.46	2/1/2023	—	$ —
	—	55,000(17)	$ 4.13	8/1/2022	—	$ —
	—	55,000(18)	$ 4.13	8/1/2022	—	$ —
	29,333	— (19)	$ 7.31	2/1/2022	—	$ —
	30,000	— (20)	$20.93	2/1/2021	—	$ —
	30,000	— (21)	$22.72	2/1/2020	—	$ —
	19,465	— (22)	$ 8.55	2/2/2019	—	$ —
	60,000	— (23)	$18.69	2/1/2017	—	$ —
Jae Kim	3,342	14,658(2)	$12.31	2/1/2026	—	$ —
	—	—	$ 0.00	—	16,364(3)	$ 225,332
	—	—	$ 0.00	—	16,364(4)	$ 225,332
	—	—	$ 0.00	—	33,441(16)	$ 460,483
	2,734	7,800(5)	$11.26	2/2/2025	—	$ —
	—	—	$ 0.00	—	13,812(7)	$ 190,191
	—	—	$ 0.00	—	9,750(8)	$ 134,258
	6,908	13,500(9)	$ 8.76	2/3/2024	—	$ —
	3,792	1,072(10)	$ 5.46	2/1/2023	—	$ —
	2,275	643(10)	$ 5.46	2/1/2023	—	$ —
	—	—	$ 0.00	—	1,250(24)	$ 17,213
	220	— (25)	$ 5.63	2/1/2021	—	$ —
	485	— (25)	$ 5.63	8/2/2020	—	$ —
	990	— (19)	$ 7.31	2/1/2022	—	$ —
Satish Rishi	50,000	— (10)	$ 5.46	2/1/2023	—	$ —
	45,000	— (19)	$ 7.31	2/1/2022	—	$ —
	35,000	— (20)	$20.93	2/1/2021	—	$ —
	32,000	— (21)	$22.72	2/1/2020	—	$ —
	40,000	— (26)	$19.86	2/1/2018	—	$ —
	100,000	— (23)	$18.69	2/1/2017	—	$ —
Martin Pilling	—	—	$ 0.00	—	28,000(27)	$ 385,560

(1) The market value is calculated using the closing price of our Common Stock of $13.77 on December 30, 2016 (the last trading day of 2016), as reported on The Nasdaq Global Select Market (NASDAQ), multiplied by the unvested stock amount.
(2) The option was granted on February 1, 2016. Options representing 1/10th of the total shares granted vested six months from the grant date and the remaining shares vest in equal monthly installments until they are fully vested on February 1, 2020.
(3) The performance stock units were granted on February 1, 2016. The number of shares earned will range between 0% to 150% of the target shares granted. Vesting takes place on the third anniversary of the grant date based upon the performance level achieved relative to operating margin for fiscal year 2016 and continued service through the applicable vest date.
(4) The restricted stock units were granted on February 1, 2016. 25% of the total shares granted will vest annually until fully vested on February 2, 2020.
(5) The option was granted on February 2, 2015. Options representing 1/10th of the total shares granted vested six months from the grant date and the remaining shares vest in equal monthly installments until they are fully vested on February 2, 2019.
(6) The performance restricted stock units were granted on February 2, 2015. The number of shares earned was 106.25% of the target shares granted. Vesting will take place on the third anniversary of the grant date if continued service is completed through the applicable vest date.
(7) The performance stock units were granted on February 2, 2015. The number of shares earned was 106.25% of the target shares granted. Vesting will take place on the third anniversary of the grant date if continued service is completed through the applicable vest date.
(8) The restricted stock units were granted on February 2, 2015. 25% of the total shares granted will vest annually until fully vested on February 2, 2019.
(9) The option was granted on February 3, 2014. Options representing 1/10th of the total shares granted vested six months from the grant date and the remaining shares vest in equal monthly installments until they are fully vested on February 3, 2018.
(10) The option was granted on February 1, 2013. Options representing 1/10th of the total shares granted vested six months from the grant date and the remaining shares vest in equal monthly installments until they are fully vested on February 1, 2017.
(11) The option was granted on July 2, 2012. Options representing 1/10th of the total shares granted vested six months from the grant date and the remaining shares vested in equal monthly installments until they were fully vested on July 2, 2016.
(12) The performance option was granted on July 2, 2012. Shares subject to the option would have fully vested on June 25, 2015 if Rambus' common stock had previously attained a closing price on NASDAQ of $15.00 or more over any 60 consecutive trading day period. The performance milestone was not achieved by June 25, 2015, therefore the option will become fully vested upon the subsequent date, if any, upon which such performance milestone is achieved prior to June 25, 2017, and if such performance milestone is not achieved prior to June 25, 2017, the option will terminate.
(13) The performance option was granted on July 2, 2012. Shares subject to the option would have fully vested on June 25, 2015 if Rambus' common stock had previously attained a closing price on NASDAQ over any 60 consecutive trading day period as follows: 20% will vest with a closing price of $16.00; 20% will vest with a closing price of $17.00; 20% will vest with a closing price of $18.00; 20% will vest with a closing price of $19.00; and 20% will vest with a closing price of $20.00. As the option did not vest in full or partial by June 25, 2015, the option will vest in full or partial if and to the extent the related performance milestones are achieved prior to June 25, 2017, and if the related performance milestones are not achieved prior to June 25, 2017, the unvested portion of the option will terminate.
(14) The option was granted on November 1, 2016. Options representing 1/10th of the total shares granted vested six months from the grant date and the remaining shares vest in equal monthly installments until they are fully vested on November 1, 2020.
(15) The restricted stock units were granted on November 1, 2016. 25% of the total shares granted will vest annually until fully vested on November 1, 2020.

(16) The restricted stock units were granted on December 1, 2015. 25% of the total shares granted will vest annually until fully vested on December 1, 2019.
(17) The performance option was granted on August 1, 2012. Shares subject to the option would have fully vested on August 1, 2015 if Rambus common stock had previously attained a closing price on NASDAQ of $15.00 or more over any 60 consecutive trading day period. The performance milestone was not achieved by August 1, 2015, therefore the option will become fully vested upon the subsequent date, if any, upon which such performance milestone is achieved prior to August 1, 2017, and if such performance milestone is not achieved prior to August 1, 2017, the option will terminate.
(18) The performance option was granted on August 1, 2012. Shares subject to the option would have fully vested on August 1, 2015 if Rambus common stock had previously attained a closing price on NASDAQ over any 60 consecutive trading day period as follows: 20% will vest with a closing price of $16.00; 20% will vest with a closing price of $17.00; 20% will vest with a closing price of $18.00; 20% will vest with a closing price of $19.00; and 20% will vest with a closing price of $20.00. As the option did not vest in full or partial by August 1, 2015, the option will vest in full or partial if and to the extent the related performance milestones are achieved prior to August 1, 2017, and if the related performance milestones are not achieved prior to August 1, 2017, the unvested portion of the option will terminate.
(19) The option was granted on February 1, 2012. Options representing 1/10th of the total shares granted vested six months from the grant date and the remaining shares vest in equal monthly installments until they are fully vested on February 1, 2016.
(20) The option was granted on February 1, 2011. Options representing 1/10th of the total shares granted vested six months from the grant date and the remaining shares vest in equal monthly installments until they are fully vested on February 1, 2016.
(21) The option was granted on February 1, 2010. Options representing 1/10th of the total shares granted vested six months from the grant date and the remaining shares vest in equal monthly installments until they are fully vested on February 1, 2015.
(22) The option was granted on February 2, 2009. Options representing 1/10th of the total shares granted vested six months from the grant date and the remaining shares vested in equal monthly installments until they were fully vested on February 2, 2014.
(23) The option was granted on February 1, 2007. Options representing 1/10th of the total shares granted vested six months from the grant date and the remaining shares vested in equal monthly installments until they were fully vested on February 1, 2012.
(24) The restricted stock units were granted on February 1, 2013. 25% of the total shares granted will vest annually until fully vested on February 1, 2017.
(25) The option was granted on June 22, 2012 pursuant to the Company's Offer to Exchange program. 1/3rd of the total shares granted vested on June 22, 2013 and the remaining shares continued to vest in equal monthly installments until they were fully vested on June 22, 2015.
(26) The option was granted on February 1, 2008. Options representing 1/10th of the total shares granted vested six months from the grant date and the remaining shares vested in equal monthly installments until they were fully vested on February 1, 2013.
(27) The restricted stock units were granted on July 1, 2016. 25% of the total shares granted will vest annually until fully vested on July 1, 2020.

Each of the options and other equity awards reflected on the table above were issued under the 2006 Plan or the 2015 Plan, which are plans that were or are available to all of our employees.

Option Exercises and Stock Vested

The following table shows all stock options exercised and value realized upon exercise, and all stock awards vested and value realized upon vesting, by the NEOs during 2016.

	Option Awards		Stock Awards	
Name	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise ($)	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting(1)($)
Ronald Black	—	—	28,400	344,150
Rahul Mathur	—	—	—	—
Laura Stark	32,096	177,136	19,008	237,341
Jae Kim	34,685	187,773	16,647	207,637
Satish Rishi	92,152	449,122	37,849	508,316
Martin Pilling	—	—	—	—

(1) The value realized equals the market value of our Common Stock on the vesting date multiplied by the number of shares that vested.

Potential Payments Upon Termination or Change of Control

Equity Acceleration

In the event of a "change in control" or "merger" of the Company, as defined in the plans, each outstanding option or equity award will be assumed or an equivalent option or right substituted by the successor company. In the event that the successor company refuses to assume or substitute for the option or equity award, the participant will fully vest in and have the right to exercise all of his or her options or stock appreciation rights, including shares as to which such awards would not otherwise be vested or exercisable, all restrictions on restricted stock will lapse, and, with respect to restricted stock units, performance shares and performance units, all performance goals or other vesting criteria will be deemed achieved at target levels and all other terms and conditions met. In addition, if an option or stock appreciation right becomes fully vested and exercisable in lieu of assumption or substitution in the event of a change of control, the administrator of the plan will notify the participant that the option or stock appreciation right will be fully vested and exercisable for a period of time determined by the administrator, and the option or stock appreciation right will terminate upon the expiration of such period.

The form of option agreement for the 2015 Plan and the 2006 Plan, provide that if a successor company assumes outstanding options or awards or substitutes for options or awards with an equivalent award, then if following such assumption or substitution the participant's status as an employee or employee of the successor company, as applicable, is terminated by the successor company as a result of an "Involuntary Termination" other than for "Cause" within 12 months following the change in control, the option or award will immediately vest and become exercisable as to 100% of the shares subject to the option or award.

Change of Control Severance Agreements

We have entered into change of control severance agreements with our executive officers, except our CEO who has an employment agreement that governs certain change of control severance obligations applicable to him. These agreements are designed to promote stability and retention of senior management prior to and following a change of control and to align executive and stockholder interests by enabling executives to consider corporate transactions that are in the best interests of the stockholders and other constituents of the company without undue concern over whether the transactions may jeopardize the executives' own employment.

Each agreement has an initial term of three years and will renew automatically for additional one-year terms unless either party to the agreement provides the other with written notice of non-renewal at least 90 days prior to the date of automatic renewal. If we terminate the executive's employment without "Cause" or the executive terminates his employment for "Good Reason", and in each case, such termination occurs during a period beginning three months before a change of control and ending 12 months following a change of control, then subject to the executive signing and not revoking a separation agreement and release of claims and the executive's continued compliance with the terms of the At Will Employment, Confidential Information, Invention Assignment, and Arbitration Agreement entered into between the executive and the Company, the executive will receive: (i) a lump sum payment (less applicable withholding taxes) equal to 100% of the executive's annual base salary as in effect immediately prior to the executive's termination date or, if greater, at the level in effect immediately prior to the change of control; (ii) a lump sum payment (less applicable withholding taxes) equal to 100% of the executive's full bonus and commission for the year of termination at target level as in effect immediately prior to the executive's termination date, or, if greater, at the level in effect immediately prior to the change of control; (iii) 100% of the executive's then-outstanding and unvested equity awards will become vested in full (and if the amount of the award to vest is determined based on the achievement of performance criteria, then the equity awards will vest based on achievement at target levels for the relevant performance period(s)); and (iv) if the executive elects continuation coverage pursuant to COBRA for executive and his or her eligible dependents, the Company will reimburse the executive for the COBRA premiums for a maximum period of 12 months.

CEO Employment Agreement

Dr. Black's employment agreement with the Company provides that in the event the Company terminates Dr. Black's employment with the Company without "Cause" and such termination does not occur within the three months prior to or 12 months following a change of control of the Company, Dr. Black will receive: (i) continued payment (over 12 months) of one year of base salary and 100% of his target bonus, (ii) a monthly $3,000 payment (in lieu of continued employee benefits) for a period of 12 months, and (iii) 12 months additional vesting of all equity awards with a service based component (excluding awards with a performance-based component if the performance metric has not been achieved by the termination date, provided that all such awards are assumed by the successor company). In the event the Company terminates Dr. Black's employment with the Company without "Cause" or Dr. Black voluntarily terminates his employment for "Good Reason", and in either event, such termination occurs within three months prior to or 12 months following a change of control of the Company, Dr. Black will receive: (i) continued payment (over 12 months) of 18 months of base salary and 150% of his target bonus, (ii) a monthly $3,000 payment (in lieu of continued employee benefits) for a period of 18 months, and (iii) 100% vesting of all equity awards with a service based component (excluding awards with a performance-based component if the performance metric has not been achieved by the termination date, provided that all such awards are assumed by the successor company). If equity awards are not assumed by the successor company in a change of control transaction, the awards will be treated as described under "Equity Acceleration" above.

Potential Change of Control Payments

The value of the benefits that would be payable to Dr. Black assuming a qualifying termination of employment on December 31, 2016 is included in the chart below.

	Salary	Bonus	Equity	Benefits	Total
No Change of Control	$515,000	$618,000	$ 8,332,864	$36,000	$ 9,501,864
Change of Control	$772,500	$927,000	$10,059,853	$54,000	$11,813,353

The value of the benefits that would be payable to our NEOs, except for our CEO, assuming a qualifying termination of employment on December 31, 2016 is included in the chart below.

	Salary	Bonus	Equity	Benefits	Total
Rahul Mathur	$330,000	$270,000	$1,198,800	$ 6,281	$1,805,081
Laura Stark	$300,000	$300,000	$2,842,359	$21,224	$3,463,583
Jae Kim	$300,000	$230,000	$1,473,394	$32,254	$2,036,648

Compensation of Directors

The following table shows compensation information for our non-employee directors for 2016.

Name	Fees Earned or Paid in Cash ($)	Stock Awards (1)($)	Total ($)
J. Thomas Bentley	65,000	160,024(2)	225,024
E. Thomas Fisher	40,000	160,024(3)	200,024
Penelope Herscher	60,000	160,024(4)	220,024
Charles Kissner	55,000(5)	160,024(6)	215,024
David Shrigley	40,000	160,024(7)	200,024
Eric Stang	75,000	160,024(8)	235,024

(1) Amounts shown do not reflect compensation actually received by the non-employee directors. Instead, the amounts shown are the aggregate grant date fair value computed in accordance with the provisions of FASB ASC Topic 718. The assumptions used to calculate the value of stock and stock option awards are set forth under Note 12 of the Notes to Consolidated Financial Statements included in our Annual Report on Form 10-K for the year ended December 31, 2016.

(2) Reflects the compensation costs to be recognized associated with a restricted stock unit award of 12,874 shares of Common stock made on October 3, 2016 with a fair value as of the grant date of $12.43 per share disregarding forfeiture assumptions. Mr. Bentley also had options to purchase an aggregate of 20,000 shares outstanding as of December 31, 2016.

(3) Reflects the compensation costs to be recognized associated with a restricted stock unit award of 12,874 shares of Common stock made on October 3, 2016 with a fair value as of the grant date of $12.43 per share disregarding forfeiture assumptions. Mr. Fisher also had options to purchase an aggregate of 40,000 shares outstanding as of December 31, 2016.

(4) Reflects the compensation costs to be recognized associated with a restricted stock unit award of 12,874 shares of Common stock made on October 3, 2016 with a fair value as of the grant date of $12.43 per share disregarding forfeiture assumptions. Ms. Herscher also had options to purchase an aggregate of 20,000 shares outstanding as of December 31, 2016.

(5) Includes $15,000 annual retainer for Mr. Kissner's service as Chairman of the Company's Corporate Development Committee.

(6) Reflects the compensation costs to be recognized associated with a restricted stock unit award of 12,874 shares of Common stock made on October 3, 2016 with a fair value as of the grant date of $12.43 per share disregarding forfeiture assumptions. Mr. Kissner also had options to purchase an aggregate of 40,000 shares outstanding as of December 31, 2016.

(7) Reflects the compensation costs to be recognized associated with a restricted stock unit award of 12,874 shares of Common stock made on October 3, 2016 with a fair value as of the grant date of $12.43 per share disregarding forfeiture assumptions. Mr. Shrigley also had options to purchase an aggregate of 20,000 shares outstanding as of December 31, 2016.

(8) Reflects the compensation costs to be recognized associated with a restricted stock unit award of 12,874 shares of Common stock made on October 3, 2016 with a fair value as of the grant date of $12.43 per share disregarding forfeiture assumptions. Mr. Stang also had options to purchase an aggregate of 40,000 shares outstanding as of December 31, 2016.

Summary of Director Plan

Annual Retainer. Each independent director receives an annual retainer of $40,000 in cash. The Chairpersons of the Board and Audit Committee each receive an additional annual retainer of $25,000. The Chairperson of the Compensation Committee receives an additional annual retainer of $20,000. The Chairperson of the Corporate Development Committee, which oversees the Company's acquisition and divestiture activity, beginning in 2016, receives an additional annual retainer of $15,000. The Chairperson of the Corporate Governance and Nominating

Committee receives an additional annual retainer of $10,000. Each annual retainer is paid in quarterly installments. The annual retainers were not increased for 2016.

Annual Equity Grant. Each independent director receives an annual equity grant of such number of RSUs with an approximate fair market value equal to $160,000 at the time of grant. The RSU grants vest in full at the end of a one-year period, subject to the independent director continuing to serve through each applicable vesting date. If the director discontinues service prior to the vesting of any RSU grant, the Compensation Committee may, in its discretion, permit such grant to vest pro rata for the portion of the year during which such director served.

Initial Equity Grant. Any newly elected independent director joining our Board of Directors will receive an initial option to purchase 40,000 shares of Common Stock when he or she is first elected as a member of the Board. The term of such options will not exceed ten years. The option grants vest over a four-year period, with one-eighth of shares subject to the option vesting six months after the date of grant and the remaining shares vesting ratably each month thereafter, subject to the independent director continuing to serve through each applicable vesting date.

Each of the options granted to our independent directors was issued under the 2006 Plan or the 2015 Plan, which are plans that are available to all of our employees. As described under "Outstanding Equity Awards at Fiscal Year End — Potential Payments Upon Termination or Change in Control," the 2006 Plan and the 2015 Plan provide for certain acceleration upon a "change in control" of the Company, as defined under such plans. In addition, with respect to options and any other equity awards granted to non-employee directors that are assumed or substituted for upon a change of control under the 2006 Plan or the 2015 Plan, if the non-employee director is terminated other than upon a voluntary resignation, the options and other equity awards granted to such non-employee director will fully vest and be exercisable with respect to 100% of the shares subject to such options and other equity awards.

Pursuant to stock ownership guidelines adopted by the Board in October 2006 and most recently updated in January 2015, each independent director is expected to accumulate and hold an equivalent value of our Common Stock of three times their annual total cash compensation and to achieve this by five years from the date that the director joined the Board. Directors are expected to maintain this minimum amount of stock ownership throughout their tenure on the Board. As of December 31, 2016, all of our directors met their ownership requirements.

AUDIT COMMITTEE REPORT

This section shall not be deemed to be "soliciting material," or to be "filed" with the SEC, is not subject to the liabilities of Section 18 of the Securities Exchange Act and is not to be incorporated by reference into any filing of Rambus under the Securities Act of 1933, as amended, or the Securities Exchange Act, regardless of date or any other general incorporation language in such filing.

Report of the Audit Committee	The following is the report of the Audit Committee of our Board of Directors with respect to our audited financial statements for the fiscal year ended December 31, 2016, which include our consolidated balance sheets as of December 31, 2016 and 2015 and the related consolidated statements of operations, comprehensive income (loss), stockholders' equity and cash flows for each of the fiscal years ended December 31, 2016, 2015 and 2014, and the notes thereto.
Review with Management . .	The Audit Committee has reviewed and discussed our audited financial statements and management's report on internal control over financial reporting with management.
Review and Discussions with the Independent Registered Public Accounting Firm	The Audit Committee has discussed with PricewaterhouseCoopers LLP, our independent registered public accounting firm, the matters required to be discussed by the Statement on Auditing Standards No. 61, as amended, as adopted by the Public Company Accounting Oversight Board in Rule 3200T. The Audit Committee has also received written disclosures and the letter from PricewaterhouseCoopers LLP required by applicable requirements of the Public Company Accounting Oversight Board regarding the independent auditor's communications with us concerning independence, as may be modified or supplemented, and has discussed with PricewaterhouseCoopers LLP its independence from us.
Conclusion	Based on the review and discussions referred to above, the Audit Committee recommended to the Board of Directors that our audited financial statements be included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2016 for filing with the SEC.
Respectfully submitted by:	THE AUDIT COMMITTEE OF THE BOARD OF DIRECTORS J. Thomas Bentley (Chair) Charles Kissner David Shrigley

OTHER MATTERS

The Board does not know of any other matters to be presented at the Annual Meeting. If any additional matters are properly presented or otherwise allowed to be considered at the Annual Meeting, the persons named in the enclosed proxy will have discretion to vote shares they represent in accordance with their own judgment on such matters.

It is important that your shares be represented at the meeting, regardless of the number of shares which you hold. You are, therefore, urged to execute and return, at your earliest convenience, the accompanying proxy card in the envelope which has been enclosed.

BY ORDER OF THE BOARD OF DIRECTORS

Sunnyvale, California
March 9, 2017

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2016

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from __________ to __________

Commission file number: 000-22339

RAMBUS INC.
(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)	**94-3112828** (I.R.S. Employer Identification Number)
1050 Enterprise Way, Suite 700 **Sunnyvale, California** (Address of principal executive offices)	**94089** (Zip Code)

Registrant's telephone number, including area code:
(408) 462-8000

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, $.001 Par Value	The NASDAQ Stock Market LLC (The NASDAQ Global Select Market)

Securities registered pursuant to Section 12(g) of the Act:
None

Form 10-K

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☒	Accelerated filer ☐
Non-accelerated filer ☐ (Do not check if a smaller reporting company)	Smaller reporting company ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

The aggregate market value of the Registrant's Common Stock held by non-affiliates of the Registrant as of June 30, 2016 was approximately $1.0 billion based upon the closing price reported for such date on The NASDAQ Global Select Market. For purposes of this disclosure, shares of Common Stock held by officers and directors of the Registrant and persons that may be deemed to be affiliates under the Act have been excluded. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

The number of outstanding shares of the Registrant's Common Stock, $.001 par value, was 111,176,433 as of January 31, 2017.

DOCUMENTS INCORPORATED BY REFERENCE

Certain information is incorporated into Part III of this report by reference to the Proxy Statement for the Registrant's annual meeting of stockholders to be held on or about April 20, 2017 to be filed with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after the end of the fiscal year covered by this Form 10-K.

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NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K ("Annual Report on Form 10-K") contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These forward-looking statements include, without limitation, predictions regarding the following aspects of our future:

- Success in the markets of our products and services or our customers' products;
- Sources of competition;
- Research and development costs and improvements in technology;
- Sources, amounts and concentration of revenue, including royalties;
- Success in signing and renewing license agreements;
- Terms of our licenses and amounts owed under license agreements;
- Technology product development;
- Dispositions, acquisitions, mergers or strategic transactions and our related integration efforts, including our recent acquisition of Smart Card Software Ltd., the assets of Semtech Corporation's Snowbush IP group and Inphi Corporation's Memory Interconnect Business;
- Impairment of goodwill and long-lived assets;
- Pricing policies of our customers;
- Changes in our strategy and business model, including the expansion of our portfolio of inventions, products, software, services and solutions to address additional markets in lighting, memory, chip, mobile payments, smart ticketing and security;
- Deterioration of financial health of commercial counterparties and their ability to meet their obligations to us;
- Effects of security breaches or failures in our or our customers' products and services on our business;
- Engineering, sales and general and administration expenses;
- Contract revenue;
- Operating results;
- International licenses, operations and expansion;
- Effects of changes in the economy and credit market on our industry and business;
- Ability to identify, attract, motivate and retain qualified personnel;
- Effects of government regulations on our industry and business;
- Manufacturing, shipping and supply partners and/or sale and distribution channels;
- Growth in our business;
- Methods, estimates and judgments in accounting policies;
- Adoption of new accounting pronouncements;
- Effective tax rates;
- Restructurings and plans of termination;
- Realization of deferred tax assets/release of deferred tax valuation allowance;
- Trading price of our common stock;
- Internal control environment;

- The level and terms of our outstanding debt and the repayment or financing of such debt;
- Protection of intellectual property;
- Any changes in laws, agency actions and judicial rulings that may impact the ability to enforce intellectual property rights;
- Indemnification and technical support obligations;
- Equity repurchase plans;
- Issuances of debt or equity securities, which could involve restrictive covenants or be dilutive to our existing stockholders;
- Outcome and effect of potential future intellectual property litigation and other significant litigation; and
- Likelihood of paying dividends.

You can identify these and other forward-looking statements by the use of words such as “may,” “future,” “shall,” “should,” “expects,” “plans,” “anticipates,” “believes,” “estimates,” “predicts,” “intends,” “potential,” “continue,” “projecting” or the negative of such terms, or other comparable terminology. Forward-looking statements also include the assumptions underlying or relating to any of the foregoing statements.

Actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth under Item 1A, “Risk Factors.” All forward-looking statements included in this document are based on our assessment of information available to us at this time. We assume no obligation to update any forward-looking statements.

PART I

Rambus, XDR™, CryptoFirewall™, CryptoMedia™, CryptoManager™, TruEdge™ and MicroLens® are trademarks, registered trademarks or copyrights of Rambus Inc. Other trademarks or copyrights that may be mentioned in this Annual Report on Form 10-K are the property of their respective owners.

Item 1. *Business*

Rambus creates innovative hardware and software technologies, driving advancements from the data center to the mobile edge. Our chips, customizable IP cores, patent licenses, software, services, and other innovations improve the competitive advantage of our customers. We collaborate with the industry, partnering with leading ASIC and SoC designers, foundries, IP developers, processor companies, EDA companies and validation labs. Our innovations are integrated into a wide range of devices and systems, powering and securing diverse applications, including Big Data, Internet of Things, mobile, consumer and media platforms.

While we have historically focused our efforts on the development of technologies for memory, SerDes and other chip interfaces, we have expanded our portfolio of inventions and solutions to address chip and system security, mobile payments and smart ticketing. We intend to continue our growth into new technology fields, consistent with our mission to create value through our innovations and to make those technologies available through the shipment of products, the provisioning of services, as well as our licensing business models. Key to our efforts continues to be hiring and retaining world-class inventors, scientists and engineers to lead the development and deployment of inventions and technology solutions for our fields of focus.

Our inventions and technology solutions are offered to our customers through patent, technology, software and IP core licenses, as well as product sales and services. Today, our primary source of revenue is derived from patent licenses, through which we provide our customers a license to use a certain portion of our broad portfolio of patented inventions. Royalties from patent licenses accounted for 73%, 84% and 88% of our consolidated revenue for the years ended December 31, 2016, 2015 and 2014, respectively.

Our strategy is to continue to augment our patent license business model to provide additional technology, products and services while creating and leveraging strategic synergies to increase revenue. In support of our strategy, we acquired four businesses in 2016 in the fields of mobile payments, smart ticketing, memory buffer chips and SerDes IP cores. On January 25, 2016, our Security division completed the acquisition of Smart Card Software, Ltd. (“SCS”), a privately-held company incorporated in the United Kingdom. Through this purchase we acquired two complementary businesses: Bell Identification Ltd., a leader in mobile payments, and Ecebs Ltd., a leading supplier of smart ticketing systems. We believe these businesses complement our security division by allowing us to extend its foundational security technology to offer differentiated, value-added security solutions to its customers.

On August 4, 2016, our Memory and Interfaces division completed the acquisition of all the assets of Inphi’s Memory Interconnect Business. The acquisition included product inventory, customer contracts, supply chain agreements and intellectual property. On August 5, 2016, our Memory and Interfaces division completed the acquisition of the assets of Semtech’s Snowbush IP group. Snowbush IP, formerly part of Semtech’s Systems Innovation Group, is a provider of silicon-proven, high-performance serial link solutions. We believe these acquisitions strengthen our market position for memory buffer chip products and bolster our SerDes and IP offerings enabling us to better address the needs of the server, networking and data center market.

Organization

We have organized our business into four operational units:

- Memory and Interfaces (MID)
- Security (RSD)
- Emerging Solutions (ESD)
- Lighting (RLD)

As of December 31, 2016, MID and RSD met quantitative thresholds for disclosure as reportable segments. Results for ESD and RLD are shown under “Other.” For additional information concerning segment reporting, see Note 6, “Segments and Major Customers,” of Notes to Consolidated Financial Statements of this Form 10-K.

Memory and Interfaces

There are four main areas of focus in our Memory and Interface Division: mobile memory, server-based memory, serial link designs, and custom solutions. The primary markets for these technologies include: (1) DRAM devices; (2) NAND devices; (3) System-on-Chip (SoC) devices; (4) silicon physical IP; and (5) memory buffer chips. In these markets, memory interfaces, serial link transitions, processor and SoC microarchitecture transitions or overall process technology node transitions provide opportunities. For plug-in systems, there is a strong desire to reduce power consumption for both economic and environmental reasons while still providing increased computing capability. At the chip level, it becomes increasingly difficult to maintain signal integrity and power efficiency as data transfer speeds rise to support more powerful, multi-core processors.

To address these challenges and enable the continued improvement of electronics systems, ongoing innovation is required. The many contributions and patented innovations developed by Rambus scientists and engineers have been, and continue to be, critical in addressing some of the most difficult chip and system challenges. The foundations of MID are world-class memory architectures and high-performance serial link technologies that are brought to market through three main business initiatives: (1) patent licensing; (2) silicon IP core licensing; and (3) chipsets.

Patent Licensing

Our traditional patent licensing program remains our primary source of revenue. Our patent licenses provide our customers a license to use a certain portion of our portfolio of patented inventions in the customer's own digital electronics products, systems or services. The licenses may also define the specific field of use where our customers may use or employ our inventions in their products. License agreements are structured with fixed, variable or a hybrid of fixed and variable royalty payments over certain periods ranging up to ten years. Leading consumer product, industrial, semiconductor and system companies such as AMD, Broadcom, Cisco, Freescale, Fujitsu, GE, IBM, Intel, LSI, Micron, Nanya, NVIDIA, Panasonic, Qualcomm, Renesas, Samsung, SK hynix, STMicroelectronics, Toshiba and Xilinx have licensed our patents for use in their own products. The vast majority of our patents were secured through our internal research and development efforts across all of our business units.

Silicon IP Core Licensing

Our IP core licensing program offers a suite of memory and SerDes PHY solutions that are applicable to a broad range of applications ranging from servers and networking to consumer and mobile. Due to the often complex nature of implementing our technologies, we provide engineering services under certain of these licenses to help our customers successfully integrate our technology solutions into their semiconductor and system products. Licensees may also receive, in addition to their license agreements, patent licenses as necessary to implement the technology in their products with specific rights and restrictions to the applicable patents elaborated in their individual contracts. Our solutions are designed into systems bought by OEMs. We license both directly to ASIC design houses and semiconductor foundries that, in turn, sell to OEMs, or to OEMs directly.

Chip Sets

In the second half of 2016, we began to ship our first chips as a result of our acquisition of the Memory Interconnect Business. Currently, we offer DDR2, DDR3 and DDR4 chipsets for RDIMM and LRDIMM server modules that support the data center and enterprise server infrastructure markets.

We sell our semiconductor products directly and indirectly to module manufacturers and OEMs worldwide through multiple channels, including our direct sales force and distributors. We operate direct sales offices in Japan, Korea, Taiwan, China, and the United States and employ sales personnel that cover our direct customers and manage our channel partners.

We operate a fabless business model and use third-party foundries and assembly and test manufacturing contractors to manufacture, assemble and test our semiconductor products. We also inspect and test parts in our U.S. based facilities. This outsourced manufacturing approach allows us to focus our resources on the design, sale and marketing of our products. Outsourcing also allows us the flexibility needed to respond to new market opportunities, simplifies our operations and significantly reduces our capital requirements.

Security

Security challenges are increasingly prevalent in a multitude of industries, including high-growth sectors such as mobile and the data center, providing a variety of opportunities for our security technologies and services. We believe robust security starts with the design of the SoC and continues through the manufacturing supply chain to end-user applications. In line with this thinking, RSD offers a suite of products and services from DPA countermeasures and cores to our CryptoManager™ solution, mobile payments and smart ticketing.

DPA Countermeasures and Cores

We own a portfolio of patented inventions and technology solutions that are needed for creating secure tamper-resistant electronic devices and systems. These patented DPA countermeasures are critical in protecting devices against side channel attacks such as differential power analysis, which involve monitoring the variations in power consumption or electromagnetic emissions of a device. In addition, our hardware-based cores provide a robust hardware-based solution to protect electronics systems from side-channel attacks, counterfeiting, piracy, and other forms of attack.

For DPA countermeasures, our business model is to provide a combination of patent licenses, technology, consulting services (training, evaluation, and design), and test equipment as well as DPA resistant cores and software libraries. We are recognized worldwide for our expertise in this area, and our strategy is to strengthen our offering beyond stand-alone patent licensing. We discovered the existence of SPA and DPA vulnerabilities in the 1990s, and patented the fundamental techniques for preventing against this method of attack. DPA protections are a critical security ingredient in tamper-resistant products, and are important or required for a broad range of applications and devices (including smart cards, mobile devices, FPGAs, government/defense applications, consumer set-top boxes, postage meters and security tokens).

In addition to the DPA countermeasures portfolio, we have developed technologies, expertise, advanced designs, and development tools for building highly secure cryptographic semiconductor cores. We have successfully deployed our semiconductor cores in two primary application areas where effective security is valued and paid for by customers: content protection and anti-counterfeiting.

CryptoManager

As connected products, including mobile phones and IoT devices, have a fundamental need for security, a robust security system is critical. Robust security starts with the design of the SoC and continues with the manufacturing supply chain. The Rambus CryptoManager solution brings revolutionary security improvements to the semiconductor chips and supply chains that enable our mobile world.

The CryptoManager platform provides chip and device companies with an advanced hardware root-of-trust for their SoCs, as well as an Infrastructure Suite for end-to-end security throughout the SoC design and manufacturing process. The CryptoManager platform has been developed with a services-based architecture that enables a secure, two-way communication channel across the manufacturing stages. This fully integrated solution is built on a foundation that simplifies, automates, and reduces costs for global enterprise IT, manufacturing, and operations functions. The platform is designed to support the enablement of in-field provisioning and downstream services, such as media, ticketing and mobile payments.

Mobile Payments

NFC-based mobile payments offer many advantages to consumers, retailers and financial institutions alike. For consumers, mobile wallets provide a convenient, “tap and go” frictionless commerce experience, seamlessly integrating credit cards, loyalty points and gift cards, while leveraging enhanced security features like multi-factor authentication and biometrics. For retailers, mobile wallets offer businesses the ability to engage users with an immersive, in-app experience that bridges the gap from digital to physical with profile-based shopping to offer customized recommendations and coupons to customers. Finally for banks, mobile wallets enhance protection from fraud and greater customer engagement and loyalty.

Our technology adapts to any mobile payments ecosystem — whether card credentials are stored on the device or in the cloud using host card emulation — and ensures security through tokenization. With our software, customers can fulfill the role of a token service provider, securing transactions by removing vulnerable card data from the payment network. Our mobile payment solutions are primarily offered to financial institutions through software license agreements.

Smart Ticketing

Smart ticketing is changing the way people travel by bringing greater convenience and security to travelers and transport operators alike. Through the use of smart cards and smart phones, travelers store their tickets electronically, eliminating the need for traditional paper tickets and enabling users to simply tap their smart card or device on a gate or validator to access their travel. Our smart ticketing technology combines back-office processing and analytics systems with web portals, mobile applications and smart cards to deliver comprehensive solutions to transport operators and local authorities. Data analytics enable improved profitability and optimization of smart transport schemes through access to real-world travel data, with easy management of transaction data to ensure accurate reimbursements. ITSO certified and interoperable with existing transport providers, our smart ticketing solutions are easy to integrate across multiple modes of travel, simplifying customer journeys at lower cost. Currently, our smart ticketing solutions are primarily offered to public transit authorities in the United Kingdom and we are working to expand our offerings into the broader European Union.

Emerging Solutions

ESD encompasses our long-term research and development efforts in emerging technologies, including our lensless smart sensor and smart data acceleration research programs as well as next-generation memory solutions and cryogenic computing. ESD programs are generally at the research and pre-commercial stages and may involve collaboration with government entities, universities and industry partners.

Lighting

The continued adoption of LED as a bright, reliable and energy-efficient light source creates significant market opportunities in the field of general lighting. We have pioneered a light guide-based design that enables a new level of styling, efficiency and control for LED lighting. Our innovations combine our TruEdge™ LED Coupling (maximizing the amount of light emitted from the LED to a light guide) with our MicroLens® optics (tiny 3D features that control how light is emitted from a light guide) to create efficient and cost-effective fixtures. Our light guides are available as off-the-shelf or customized designs that are optimized to specific customer and application requirements by varying the size, shape and density of the MicroLens optics. Manufactured by our global lighting partners or at our state-of-the-art facility in Brecksville, Ohio, our light guides can support both flat and curved designs in a broad range of high volume lighting applications. In addition, complete fixture prototype designs that combine our optical innovations, design engineering and manufacturing support services are also available to lighting system companies and fixture manufacturers worldwide.

Competition

Our industries are intensely competitive and have been impacted by rapid technological change, short product life cycles, cyclical market patterns, price erosion, increasing foreign and domestic competition and market consolidation. We believe the principal competition for our technologies may come from our prospective customers, some of whom are evaluating and developing products based on technologies that they contend or may contend will not require a license from us. Some of our competitors use a system-level design approach similar to ours, including activities such as board and package design, power and signal integrity analysis, and thermal management. Many of these companies are larger and may have better access to financial, technical and other resources than we possess.

To the extent that alternatives might provide comparable system performance at lower or similar cost to our technologies, or are perceived to require the payment of no or lower royalties, or to the extent other factors influence the industry, our customers and prospective customers may adopt and promote alternative technologies. Even to the extent we determine that such alternative technologies infringe our patents, there can be no assurance that we would be able to negotiate agreements that would result in royalties being paid to us without litigation, which could be costly and the results of which would be uncertain. In the past, litigation has been and in the future may be required to enforce and protect our intellectual property rights, as well as the substantial investments undertaken to research and develop our innovations and technologies.

Research, Development and Employees

Our growth strategy will be substantially dependent on our ability to develop key innovations that meet the future needs of a dynamic market. To this end, we continue to invest substantial funds in research and development and have assembled a team of highly skilled inventors, engineers and scientists whose activities are focused on continually developing new innovations within our chosen technology fields. Using this foundation of innovations, our technical teams develop new solutions that enable increased performance, greater power efficiency, increased levels of security, as well as other improvements and benefits. Our solution design and development process is a multi-disciplinary effort requiring expertise in multiple fields across all of our operational units.

As of December 31, 2016, we had approximately 540 employees in our engineering departments, representing 70% of our total number of 767 employees. None of our employees are covered by collective bargaining agreements. As noted, we believe our future success is dependent on our continued ability to identify, attract, motivate and retain qualified personnel. In order to attract qualified employees, we have created an environment and culture that encourages, fosters and supports research, development and innovation in breakthrough technologies with significant opportunities for broad industry adoption. To date, we believe we have been successful in recruiting qualified employees and that we have a good relationship with our employees.

A significant number of our scientists and engineers spend all or a portion of their time on research and development. For the years ended December 31, 2016, 2015 and 2014, research and development expenses were $129.8 million, $111.1 million and $110.0 million, respectively. We expect to continue to invest substantial funds in research and development activities. In addition, because our customer agreements often call for us to provide engineering support, a portion of our total engineering costs are allocated to the cost of contract revenue.

Intellectual Property

We maintain and support an active program to protect our intellectual property, primarily through the filing of patent applications and the defense of issued patents against infringement. As of December 31, 2016, our technologies are covered by 1,989 U.S. and foreign patents, having expiration dates ranging from 2017 to 2038. Additionally, we have 646 patent applications pending. Some of the patents and pending patent applications are derived from a common parent patent application or are foreign counterpart patent applications. We believe our patented innovations provide our customers with the ability to achieve improved performance, lower risk, greater cost-effectiveness and other benefits in their products and services.

We have a program to file applications for and obtain patents in the United States and in selected foreign countries where we believe filing for such protection is appropriate and would further our overall business strategy and objectives. In some instances, obtaining appropriate levels of protection may involve prosecuting continuation and counterpart patent applications based on a common parent application. In addition, we attempt to protect our trade secrets and other proprietary information through agreements with current and prospective customers, and confidentiality agreements with employees and consultants and other security measures. We also rely on copyright, trademarks and trade secret laws to protect our intellectual property.

Corporate and Other Information

Rambus Inc. was founded in 1990 and reincorporated in Delaware in March 1997. Our principal executive offices are located at 1050 Enterprise Way, Suite 700, Sunnyvale, California. Our website is *www.rambus.com*. The inclusion of our website address in this report does not include or incorporate by reference into this report any information on our website. You can obtain copies of our Forms 10-K, 10-Q, 8-K, and other filings with the SEC, and all amendments to these filings, free of charge, from our website as soon as reasonably practicable following our filing of any of these reports with the SEC. In addition, you may read and copy any material we file with the SEC at the SEC's Public Reference Room at 100 F Street NE, Room 1580, Washington, D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains a website that contains reports, proxy, and information statements, and other information regarding registrants that file electronically with the SEC at www.sec.gov.

Information concerning our revenue, results of operations and revenue by geographic area is set forth in Item 6, "Selected Financial Data," in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations," and in Note 6, "Segments and Major Customers," of Notes to Consolidated Financial Statements of this Form 10-K, all of which are incorporated herein by reference. Information concerning identifiable assets and segment reporting is also set forth in Note 6, "Segments and Major Customers," of Notes to Consolidated Financial Statements of this Form 10-K. Information on customers that comprise 10% or more of our consolidated revenue and risks attendant to our foreign operations is set forth below in Item 1A, "Risk Factors ."

Item 1A. ***Risk Factors***

RISK FACTORS

Because of the following factors, as well as other variables affecting our operating results, past financial performance may not be a reliable indicator of future performance, and historical trends should not be used to anticipate results or trends in future periods. See also "Note Regarding Forward-Looking Statements" at the beginning of this report.

Risks Associated With Our Business, Industry and Market Conditions

The success of our business depends on sustaining or growing our licensing revenue and the failure to achieve such revenue would lead to a material decline in our results of operations.

Our revenue consists mainly of patent and technology license fees paid for access to our patents, developed technology and development and support services provided to our customers. Our ability to secure and renew the licenses from which our revenues are derived depends on our customers adopting our technology and using it in the products they sell. Once secured, license revenue may be negatively affected by factors within and outside our control, including reductions in our customers' sales prices, sales volumes, our failure to timely complete engineering deliverables, and the terms of such licenses. In addition, our licensing cycle for new licensees as well as renewals for existing licensees is lengthy, costly and unpredictable without any degree of certainty. We cannot provide any assurance that we will be successful in signing new license agreements or renewing existing license agreements on equal or favorable terms or at all. If we do not achieve our revenue goals, our results of operations could decline.

We have traditionally operated in, and may enter other, industries that are highly cyclical and competitive.

Our target customers are companies that develop and market high volume business and consumer products in semiconductors, computing, data centers, networks, tablets, handheld devices, mobile applications, gaming and graphics, high-definition televisions, general lighting, cryptography and data security. The electronics industry is intensely competitive and has been impacted by rapid technological change, short product life cycles, cyclical market patterns, price erosion and increasing foreign and domestic competition. We are subject to many risks beyond our control that influence whether or not we are successful in winning target customers or retaining existing customers, including, primarily, competition in a particular industry, market acceptance of such customers' products and the financial resources of such customers. In particular, DRAM manufacturers, which make up a significant part of our revenue, are prone to significant business cycles and have suffered material losses and other adverse effects to their businesses, leading to industry consolidation from time-to-time that may result in loss of revenues under our existing license agreements or loss of target customers. As a result of ongoing competition in the industries in which we operate and volatility in various economies around the world, we may achieve a reduced number of licenses or may experience tightening of customers' operating budgets, difficulty or inability of our customers to pay our licensing fees, lengthening of the approval process for new licenses and consolidation among our customers. All of these factors may adversely affect the demand for our technology and may cause us to experience substantial fluctuations in our operating results.

We face competition from semiconductor and digital electronics products and systems companies, other semiconductor intellectual property companies that provide security cores and non-edge lit LED lighting options that are available to the market. We believe the principal competition for our technologies may come from our prospective customers, some of whom are evaluating and developing products based on technologies that they contend or may contend will not require a license from us. Some of our competitors use a system-level design approach similar to ours, including activities such as board and package design, power and signal integrity analysis, and thermal management. Many of these companies are larger and may have better access to financial, technical and other resources than we possess.

To the extent that alternatives might provide comparable system performance at lower or similar cost to our technologies, or are perceived to require the payment of no or lower royalties, or to the extent other factors influence the industry, our customers and prospective customers may adopt and promote alternative technologies. Even to the extent we determine that such alternative technologies infringe our patents, there can be no assurance that we would be able to negotiate agreements that would result in royalties being paid to us without litigation, which could be costly and the results of which would be uncertain.

In addition, our expansion into new markets subjects us to additional risks. We may have limited or no experience in new products and markets, including our CryptoManager platform and new offerings that have resulted from our acquisition of SCS in the mobile payment and smart ticketing solution spaces, and our acquisitions of the assets of the Snowbush IP group and the Memory Interconnect Business, and our customers may not adopt our new offerings. These and other new offerings may present new and difficult challenges, which could negatively affect our operating results.

We may have to invest more resources in research and development than anticipated, which could increase our operating expenses and negatively impact our operating results.

If new competitors, technological advances by existing competitors, and/or development of new technologies or other competitive factors require us to invest significantly greater resources than anticipated in our research and development efforts, our operating expenses could increase. If we are required to invest significantly greater resources than anticipated in research and development efforts without an increase in revenue, our operating results would decline. We expect these expenses to increase in the foreseeable future as our technology development efforts continue.

Our revenue is concentrated in a few customers, and if we lose any of these customers through contract terminations or acquisitions, our revenue may decrease substantially.

We have a high degree of revenue concentration. Our top five customers represented approximately 63% and 65% of our revenues for the years ended December 31, 2016 and 2015, respectively. For both of the years ended December 31, 2016 and 2015, revenues from Micron, Samsung and SK hynix each accounted for 10% or more of our total revenue in each year. We extended our license agreement with Samsung in December 2013, and we expect Samsung to continue to account for a significant portion of our licensing revenue. We also entered into settlement agreements with each of SK hynix and Micron (which included Elpida, which Micron had acquired in July 2013) in June 2013 and December 2013, respectively. In June 2015, we also extended our license agreement with SK hynix. As a result of the renewal and such settlements, we expect each of Samsung, SK hynix and Micron to account for a significant portion of our licensing revenue in the future. We expect to continue to experience significant revenue concentration for the foreseeable future.

In addition, our license agreements are complex and some contain terms that require us to provide certain customers with the lowest royalty rate that we provide to other customers for similar technologies, volumes and schedules. These clauses may limit our ability to effectively price differently among our customers, to respond quickly to market forces, or otherwise to compete on the basis of price. These clauses may also require us to reduce royalties payable by existing customers when we enter into or amend agreements with other customers. Any adjustment that reduces royalties from current customers or licensees may have a material adverse effect on our operating results and financial condition.

We continue to negotiate with customers and prospective customers to enter into license agreements. Any future agreement may trigger our obligation to offer comparable terms or modifications to agreements with our existing customers, which may be less favorable to us than the existing license terms. We expect licensing fees will continue to vary based on our success in renewing existing license agreements and adding new customers, as well as the level of variation in our customers' reported shipment volumes, sales price and mix, offset in part by the proportion of customer payments that are fixed. In particular, under our license agreement with Samsung, the license fees payable by Samsung are subject to certain adjustments and conditions, and we therefore cannot provide assurances that the revenues generated by this license will not decline in the future. In addition, some of our material license agreements may contain rights by the customer to terminate for convenience, or upon certain other events, such as change of control, material breach, insolvency or bankruptcy proceedings. If we are unsuccessful in entering into license agreements with new customers or renewing license agreements with existing customers, on favorable terms or at all, or if they are terminated, our results of operations may decline significantly.

Our business and operations could suffer in the event of security breaches.

Attempts by others to gain unauthorized access to our information technology systems are becoming more sophisticated. These attempts, which might be related to industrial or other espionage, include covertly introducing malware to our computers and networks and impersonating authorized users, among others. We seek to detect and investigate all security incidents and to prevent their recurrence, but in some cases, we might be unaware of an incident or its magnitude and effects. While we have not identified any material incidents of unauthorized access to date, the theft, unauthorized use or publication of our intellectual property and/or confidential business information could harm our competitive position and reputation, reduce the value of our investment in research and development and other strategic initiatives or otherwise adversely affect our business. To the extent that any future security breach results in inappropriate disclosure of our customers' confidential information, we may incur liability.

Failures in our products and services or in the products of our customers, including those resulting from security vulnerabilities, defects, bugs or errors, could harm our business.

Our products and services are highly technical and complex, and among our various businesses our products and services are crucial to providing security, payment and other critical functions for our customers' operations. Our products and services have from time to time contained and may in the future contain undetected errors, bugs defects or other security vulnerabilities. Some errors in our products and services may only be discovered after a product or service has been deployed and used by customers, and may in some cases only be detected under certain circumstances or after extended use. In addition, because the techniques used by hackers to access or sabotage our products and services and other technologies change and evolve frequently and generally are not recognized until launched against a target, we may be unable to anticipate, detect or prevent these techniques and may not address them in our data security technologies. Any errors, bugs, defects or security vulnerabilities discovered in our solutions after commercial release could adversely affect our revenue, our customer relationships and the market's perception of our products and services. We may not be able to correct any errors, bugs, defects, security flaws or vulnerabilities promptly, or at all. Any breaches, defects, errors or vulnerabilities in our products and services could result in:

- expenditure of significant financial and research and development resources in efforts to analyze, correct, eliminate or work around breaches, errors, bugs or defects or to address and eliminate vulnerabilities;
- financial liability to customers for breach of certain contract provisions, including indemnification obligations;
- loss of existing or potential customers;
- delayed or lost revenue;
- delay or failure to attain market acceptance;
- negative publicity, which would harm our reputation; and
- litigation, regulatory inquiries or investigations that would be costly and harm our reputation.

Some of our revenue is subject to the pricing policies of our customers over whom we have no control.

We have no control over our customers' pricing of their products and there can be no assurance that licensed products will be competitively priced or will sell in significant volumes. Any premium charged by our customers in the price of memory and controller chips or other products over alternatives must be reasonable. If the benefits of our technology do not match the price premium charged by our customers, the resulting decline in sales of products incorporating our technology could harm our operating results.

Our licensing cycle is lengthy and costly, and our marketing and licensing efforts may be unsuccessful.

The process of persuading customers to adopt and license our chip interface, lighting, data security, and other technologies can be lengthy. Even if successful, there can be no assurance that our technologies will be used in a product that is ultimately brought to market, achieves commercial acceptance or results in significant royalties to us. We generally incur significant marketing and sales expenses prior to entering into our license agreements, generating a license fee and establishing a royalty stream from each customer. The length of time it takes to establish a new licensing relationship can take many months or even years. We may incur costs in any particular period before any associated revenue stream begins, if at all. If our marketing and sales efforts are very lengthy or unsuccessful, then we may face a material adverse effect on our business and results of operations as a result of failure to obtain or an undue delay in obtaining royalties.

Future revenue is difficult to predict for several reasons, and our failure to predict revenue accurately may result in our stock price declining.

Our lengthy license negotiation cycles could make our future revenue difficult to predict because we may not be successful in entering into licenses with our customers on our anticipated timelines.

In addition, while some of our license agreements provide for fixed, quarterly royalty payments, many of our license agreements provide for volume-based royalties, and may also be subject to caps on royalties in a given period. The sales volume and prices of our customers' products in any given period can be difficult to predict. As a result, our actual results may differ substantially from analyst estimates or our forecasts in any given quarter.

Furthermore, a portion of our revenue comes from development and support services provided to our customers. Depending upon the nature of the services, a portion of the related revenue may be recognized ratably over the support period, or may be recognized according to contract revenue accounting. Contract revenue accounting may result in deferral of the service fees to the completion of the contract, or may result in the recognition of service fees over the period in which services are performed on a percentage-of-completion basis.

We may not be successful in entering into new markets, and our new product offerings, such as our acquisitions of SCS, the assets of the Snowbush IP group and the Memory Interconnect Business, our CryptoManager platform and new offerings in the mobile credential and smart card solution spaces, may not be adopted by our customers or potential customers. In addition, once we commercially launch our products, the sales volume of and resulting revenue from such products in any given period will be difficult to predict.

We may fail to meet our publicly announced guidance or other expectations about our business, which would likely cause our stock price to decline.

We provide guidance regarding our expected financial and business performance including our anticipated future revenues and operating expenses. Correctly identifying the key factors affecting business conditions and predicting future events is inherently an uncertain process.

Such guidance may not always be accurate or may vary from actual results due to our inability to meet our assumptions and the impact on our financial performance that could occur as a result of the various risks and uncertainties to our business as set forth in these risk factors. We offer no assurance that such guidance will ultimately be accurate, and investors should treat any such guidance with appropriate caution. If we fail to meet our guidance or if we find it necessary to revise such guidance, even if such failure or revision is seemingly insignificant, investors and analysts may lose confidence in us and the market value of our common stock could be materially adversely affected.

We have in the past made and may in the future make acquisitions or enter into mergers, strategic investments, sales of assets or other arrangements that may not produce expected operating and financial results.

From time to time, we engage in acquisitions, strategic transactions and strategic investments, such as our acquisitions of SCS, the assets of the Snowbush IP group and the Memory Interconnect Business. Many of our acquisitions or strategic investments entail a high degree of risk, including those involving new areas of technology and such investments may not become liquid for several years after the date of the investment, if at all. Our acquisitions or strategic investments may not provide the advantages that we anticipated or generate the financial returns we expect, including if we are unable to close any pending acquisitions. For example, for any pending or completed acquisitions, we may discover unidentified issues not discovered in due diligence, and we may be subject to liabilities that are not covered by indemnification protection or become subject to litigation. Achieving the anticipated benefits of business acquisitions depends in part upon our ability to integrate the acquired businesses in an efficient and effective manner. The integration of companies that have previously operated independently may result in significant challenges, including, among others: retaining key employees; successfully integrating new employees, business systems and technology; retaining customers of the acquired business; minimizing the diversion of management's and other employees' attention from ongoing business matters; coordinating geographically separate organizations; consolidating research and development operations; and consolidating corporate and administrative infrastructures.

Our strategic investments in new areas of technology may involve significant risks and uncertainties, including distraction of management from current operations, greater than expected liabilities and expenses, inadequate return of capital, and unidentified issues not discovered in due diligence. These investments are inherently risky and may not be successful.

In addition, we may record impairment charges related to our acquisitions or strategic investments. Any losses or impairment charges that we incur related to acquisitions, strategic investments or sales of assets will have a negative impact on our financial results and the market value of our common stock, and we may continue to incur new or additional losses related to acquisitions or strategic investments.

We may have to incur debt or issue equity securities to pay for any future acquisition, which debt could involve restrictive covenants or which equity security issuance could be dilutive to our existing stockholders.

From time to time, we may also divest certain assets, where we may be required to provide certain representations, warranties and covenants to their buyers. While we would seek to ensure the accuracy of such representations and warranties and fulfillment of any ongoing obligations, we may not be completely successful and consequently may be subject to claims by a purchaser of such assets.

A substantial portion of our revenue is derived from sources outside of the United States and this revenue and our business generally are subject to risks related to international operations that are often beyond our control.

For the years ended December 31, 2016 and 2015, revenues received from our international customers constituted approximately 64% and 60%, respectively, of our total revenue. We expect that future revenue derived from international sources will continue to represent a significant portion of our total revenue.

To the extent that customer sales are not denominated in U.S. dollars, any royalties which are based on a percentage of the customers’ sales that we receive as a result of such sales could be subject to fluctuations in currency exchange rates. In addition, if the effective price of licensed products sold by our foreign customers were to increase as a result of fluctuations in the exchange rate of the relevant currencies, demand for licensed products could fall, which in turn would reduce our royalties. We do not use financial instruments to hedge foreign exchange rate risk.

We currently have international business operations in the United Kingdom and the Netherlands, international design operations in Canada, India, Finland and France, and business development operations in Japan, Korea, Singapore and Taiwan. Our international operations and revenue are subject to a variety of risks which are beyond our control, including:

- hiring, maintaining and managing a workforce and facilities remotely and under various legal systems, including compliance with local labor and employment laws;
- non-compliance with our code of conduct or other corporate policies;
- natural disasters, acts of war, terrorism, widespread illness or security breaches;
- export controls, tariffs, import and licensing restrictions and other trade barriers;
- profits, if any, earned abroad being subject to local tax laws and not being repatriated to the United States or, if repatriation is possible, limited in amount;
- adverse tax treatment of revenue from international sources and changes to tax codes, including being subject to foreign tax laws and being liable for paying withholding, income or other taxes in foreign jurisdictions;
- unanticipated changes in foreign government laws and regulations;
- increased financial accounting and reporting burdens and complexities;
- lack of protection of our intellectual property and other contract rights by jurisdictions in which we may do business to the same extent as the laws of the United States;
- potential vulnerability to computer system, internet or other systemic attacks, such as denial of service, viruses or other malware which may be caused by criminals, terrorists or other sophisticated organizations;
- social, political and economic instability;
- geopolitical issues, including changes in diplomatic and trade relationships; and
- cultural differences in the conduct of business both with customers and in conducting business in our international facilities and international sales offices.

We and our customers are subject to many of the risks described above with respect to companies which are located in different countries. There can be no assurance that one or more of the risks associated with our international operations will not result in a material adverse effect on our business, financial condition or results of operations.

Weak global economic conditions may adversely affect demand for the products and services of our customers.

Our operations and performance depend significantly on worldwide economic conditions. Uncertainty about global or regional economic and political conditions poses a risk as consumers and businesses may postpone spending in response to tighter credit, negative financial news and declines in income or asset values, which could have a material negative effect on the demand for the products of our customers in the foreseeable future.

If our customers experience reduced demand for their products as a result of global or regional economic conditions or otherwise, this could result in reduced royalty revenue and our business and results of operations could be harmed.

If our counterparties are unable to fulfill their financial and other obligations to us, our business and results of operations may be affected adversely.

Any downturn in economic conditions or other business factors could threaten the financial health of our counterparties, including companies with whom we have entered into licensing and/or settlement agreements, and their ability to fulfill their financial and other obligations to us. Such financial pressures on our counterparties may eventually lead to bankruptcy proceedings or other attempts to avoid financial obligations that are due to us. Because bankruptcy courts have the power to modify or cancel contracts of the petitioner which remain subject to future performance and alter or discharge payment obligations related to pre-petition debts, we may receive less than all of the payments that we would otherwise be entitled to receive from any such counterparty as a result of bankruptcy proceedings.

If we are unable to attract and retain qualified personnel, our business and operations could suffer.

Our success is dependent upon our ability to identify, attract, compensate, motivate and retain qualified personnel, especially engineers, senior management and other key personnel. The loss of the services of any key employees could be disruptive to our development efforts or business relationships and could cause our business and operations to suffer.

We are subject to various government restrictions and regulations, including on the sale of products and services that use encryption technology and those related to privacy and other consumer protection matters.

Various countries have adopted controls, license requirements and restrictions on the export, import and use of products or services that contain encryption technology. In addition, governmental agencies have proposed additional requirements for encryption technology, such as requiring the escrow and governmental recovery of private encryption keys. Restrictions on the sale or distribution of products or services containing encryption technology may impact the ability of RSD to license its data security technologies to the manufacturers and providers of such products and services in certain markets or may require RSD or its customers to make changes to the licensed data security technology that is embedded in such products to comply with such restrictions. Government restrictions, or changes to the products or services of RSD's customers to comply with such restrictions, could delay or prevent the acceptance and use of such customers' products and services. In addition, the United States and other countries have imposed export controls that prohibit the export of encryption technology to certain countries, entities and individuals. Our failure to comply with export and use regulations concerning encryption technology of RSD could subject us to sanctions and penalties, including fines, and suspension or revocation of export or import privileges.

We are subject to a variety of laws and regulations in the United States, the European Union and other countries that involve, for example, user privacy, data protection and security, content and consumer protection. A number of proposals are pending before federal, state, and foreign legislative and regulatory bodies that could significantly affect our business. Existing and proposed laws and regulations can be costly to comply with and can delay or impede the development of new products, result in negative publicity, increase our operating costs and subject us to claims or other remedies.

In accordance with the Dodd-Frank Wall Street Reform and Consumer Protection Act, the SEC established new disclosure and reporting requirements for those companies who use "conflict" minerals mined from the Democratic Republic of Congo and adjoining countries in their products, whether or not these products are manufactured by third parties. These requirements could affect the sourcing and availability of minerals that are used in the manufacture of our products. We have to date incurred costs and expect to incur significant additional costs associated with complying with the disclosure requirements, including for example, due diligence in regard to the sources of any conflict minerals used in our products, in addition to the cost of remediation and other changes to products, processes, or sources of supply as a consequence of such verification activities. Additionally, we may face reputational challenges with our customers and other stakeholders if we are unable to sufficiently verify the origins of all minerals used in our products through the due diligence procedures that we implement. We may also face challenges with government regulators and our customers and suppliers if we are unable to sufficiently verify that the metals used in our products are conflict free.

Our operations are subject to risks of natural disasters, acts of war, terrorism, widespread illness or security breach at our domestic and international locations, any one of which could result in a business stoppage and negatively affect our operating results.

Our business operations depend on our ability to maintain and protect our facilities, computer systems and personnel, which are primarily located in the San Francisco Bay Area in the United States, the United Kingdom, the Netherlands, India and Australia. The San Francisco Bay Area is in close proximity to known earthquake fault zones. Our facilities and transportation for our employees are susceptible to damage from earthquakes and other natural disasters such as fires, floods and similar events. Should a catastrophe disable our facilities, we do not have readily available alternative facilities from which we could conduct our business, so any resultant work stoppage could have a negative effect on our operating results. We also rely on our network infrastructure and technology systems for operational support and business activities which are subject to physical and cyber damage, and also susceptible to other related vulnerabilities common to networks and computer systems. Acts of terrorism, widespread illness, war and any event that causes failures or interruption in our network infrastructure and technology systems could have a negative effect at our international and domestic facilities and could harm our business, financial condition, and operating results.

We do not have extensive experience in manufacturing and marketing products and, as a result, may be unable to sustain and grow a profitable commercial market for new and existing products.

We do not have extensive experience in creating, manufacturing and marketing products, including our CryptoManager platform, our RLD product offerings and new offerings that have resulted from our acquisition of SCS in the mobile credential and smart card solution spaces, and our acquisitions of the assets of the Snowbush IP group and the Memory Interconnect Business. These and other new offerings may present new and difficult challenges, and we may be subject to claims if customers of these offerings experience delays, failures, non-performance or other quality issues. In particular, we may experience difficulties with product design, qualification, manufacturing, marketing or certification that could delay or prevent our development, introduction or marketing of new products. Although we intend to design our products to be fully compliant with applicable industry standards, proprietary enhancements may not in the future result in full conformance with existing industry standards under all circumstances.

If we fail to introduce products that meet the demand of our customers or penetrate new markets in which we expend significant resources, our revenues will decrease over time and our financial condition could suffer. Additionally, if we concentrate resources on a new market that does not prove profitable or sustainable, it could damage our reputation and limit our growth, and our financial condition could decline.

We rely on a number of third-party providers for data center hosting facilities, equipment, maintenance and other services, and the loss of, or problems with, one or more of these providers may impede our growth or cause us to lose customers.

We rely on third-party providers to supply data center hosting facilities, equipment, maintenance and other services in order to provide some of our services, including in our offerings of our advanced mobile payment platform and smart ticketing platform, and have entered into various agreements for such services. The continuous availability of our service depends on the operations of those facilities, on a variety of network service providers and on third-party vendors. In addition, we depend on our third-party facility providers' ability to protect these facilities against damage or interruption from natural disasters, power or telecommunications failures, criminal acts, cyber-attacks and similar events. If there are any lapses of service or damage to a facility, we could experience lengthy interruptions in our service as well as delays and additional expenses in arranging new facilities and services. Even with current and planned disaster recovery arrangements, our business could be harmed. Any interruptions or delays in our service, whether as a result of third-party error, our own error, natural disasters, criminal acts, security breaches or other causes, whether accidental or willful, could harm our relationships with customers, harm our reputation and cause our revenue to decrease and/or our expenses to increase. Also, in the event of damage or interruption, our insurance policies may not adequately compensate us for any losses that we may incur. These factors in turn could further reduce our revenue, subject us to liability and cause us to issue credits or cause us to lose customers, any of which could materially adversely affect our business.

We rely on third parties for a variety of services, including manufacturing, and these third parties' failure to perform these services adequately could materially and adversely affect our business.

We rely on third parties for a variety of services, including our manufacturing supply chain partners and third parties within our sales and distribution channels. Certain of these third parties are, and may be, our sole manufacturer or sole source of production materials. If we fail to manage our relationship with these manufacturers and suppliers effectively, or if they experience delays, disruptions, capacity constraints or quality control problems in their operations, our ability to ship products to our customers could be impaired and our competitive position and reputation could be harmed. In addition, any adverse change in any of our manufacturers and suppliers' financial or business condition could disrupt our ability to supply quality products to our customers. If we are required to change our manufacturers, we may lose revenue, incur increased costs and damage our end-customer relationships. In addition, qualifying a new manufacturer and commencing production can be an expensive and lengthy process. If our third party manufacturers or suppliers are unable to provide us with adequate supplies of high-quality products for any other reason, we could experience a delay in our order fulfillment, and our business, operating results and financial condition would be adversely affected. In the event these and other third parties we rely on fail to provide their services adequately, including as a result of errors in their systems or events beyond their control, or refuse to provide these services on terms acceptable to us or at all, and we are not able to find suitable alternatives, our business may be materially and adversely affected. In addition, our orders may represent a relatively small percentage of the overall orders received by our manufacturers from their customers. As a result, fulfilling our orders may not be considered a priority in the event our manufacturers are constrained in their ability to fulfill all of their customer obligations in a timely manner. If our manufacturers are unable to provide us with adequate supplies of high-quality products, or if we or our manufacturers are unable to obtain adequate quantities of components, it could cause a delay in our order fulfillment, in which case our business, operating results and financial condition could be adversely affected.

Warranty and product liability claims brought against us could cause us to incur significant costs and adversely affect our operating results as well as our reputation and relationships with customers.

We may from time to time be subject to warranty and product liability claims with regard to product performance and our services. We could incur losses as a result of warranty, support, repair or replacement costs in response to customer complaints or in connection with the resolution of contemplated or actual legal proceedings relating to such claims. In addition to potential losses arising from claims and related legal proceedings, warranty and product liability claims could affect our reputation and our relationship with customers. We generally attempt to limit the maximum amount of indemnification or liability that we could be exposed to under our contracts, however, this is not always possible.

Any failure in our delivery of high-quality technical support services may adversely affect our relationships with our customers and our financial results.

Our customers depend on our support organization to resolve technical issues and provide ongoing maintenance relating to our products and services. We may be unable to respond quickly enough to accommodate short-term increases in customer demand for support services. Increased customer demand for these services, without corresponding revenues, could increase costs and adversely affect our operating results. In addition, our sales process is highly dependent on our offerings and business reputation and on positive recommendations from our existing customers. Any failure to maintain high-quality technical support, or a market perception that we do not maintain high-quality support, could adversely affect our reputation, our ability to sell our solutions to existing and prospective customers, and our business, operating results and financial position.

Certain software that we use in certain of our products is licensed from third parties and, for that reason, may not be available to us in the future, which has the potential to delay product development and production or cause us to incur additional expense, which could materially adversely affect our business, financial condition, operating results and cash flow.

Some of our products and services contain software licensed from third parties. Some of these licenses may not be available to us in the future on terms that are acceptable to us or allow our products to remain competitive. The loss of these licenses or the inability to maintain any of them on commercially acceptable terms could delay development of future offerings or the enhancement of existing products and services. We may also choose to pay a premium price for such a license in certain circumstances where continuity of the licensed product would outweigh the premium cost of the license. The unavailability of these licenses or the necessity of agreeing to commercially unreasonable terms for such licenses could materially adversely affect our business, financial condition, operating results and cash flow.

Certain software we use is from open source code sources, which, under certain circumstances, may lead to unintended consequences and, therefore, could materially adversely affect our business, financial condition, operating results and cash flow.

We use open source software in our services, including our advanced mobile payment platform and smart ticketing platform, and we intend to continue to use open source software in the future. From time to time, there have been claims challenging the ownership of open source software against companies that incorporate open source software into their products or alleging that these companies have violated the terms of an open source license. As a result, we could be subject to lawsuits by parties claiming ownership of what we believe to be open source software or alleging that we have violated the terms of an open source license. Litigation could be costly for us to defend, have a negative effect on our operating results and financial condition or require us to devote additional research and development resources to change our solutions. In addition, if we were to combine our proprietary software solutions with open source software in certain manners, we could, under certain open source licenses, be required to publicly release the source code of our proprietary software solutions. If we inappropriately use open source software, we may be required to re-engineer our solutions, discontinue the sale of our solutions, release the source code of our proprietary software to the public at no cost or take other remedial actions. There is a risk that open source licenses could be construed in a way that could impose unanticipated conditions or restrictions on our ability to commercialize our solutions, which could adversely affect our business, operating results and financial condition.

Our business and operating results could be harmed if we undertake any restructuring activities.

From time to time, we may undertake restructurings of our business, such as the restructuring and plan of termination that we undertook in the fourth quarter of 2015. There are several factors that could cause restructurings to have adverse effects on our business, financial condition and results of operations. These include potential disruption of our operations, the development of our technology, the deliveries to our customers and other aspects of our business. Loss of sales, service and engineering talent, in particular, could damage our business. Any restructuring would require substantial management time and attention and may divert management from other important work. Employee reductions or other restructuring activities also would cause us to incur restructuring and related expenses such as severance expenses. Moreover, we could encounter delays in executing any restructuring plans, which could cause further disruption and additional unanticipated expense.

Risks Related to Capitalization Matters and Corporate Governance

The price of our common stock may continue to fluctuate.

Our common stock is listed on The NASDAQ Global Select Market under the symbol "RMBS." The trading price of our common stock has at times experienced price volatility and may continue to fluctuate significantly in response to various factors, some of which are beyond our control. Some of these factors include:

- any progress, or lack of progress, real or perceived, in the development of products that incorporate our innovations and technology companies' acceptance of our products, including the results of our efforts to expand into new target markets;
- our signing or not signing new licenses and the loss of strategic relationships with any customer;
- announcements of technological innovations or new products by us, our customers or our competitors;
- changes in our strategies, including changes in our licensing focus and/or acquisitions of companies with business models or target markets different from our own;
- positive or negative reports by securities analysts as to our expected financial results and business developments;
- developments with respect to patents or proprietary rights and other events or factors;
- new litigation and the unpredictability of litigation results or settlements; and
- issuance of additional securities by us, including in acquisitions.

In addition, the stock market in general, and prices for companies in our industry in particular, have experienced extreme volatility that often has been unrelated to the operating performance of such companies. These broad market and industry fluctuations may adversely affect the price of our common stock, regardless of our operating performance.

We have outstanding senior convertible notes in an aggregate principal amount totaling $138.0 million. Because these notes are convertible into shares of our common stock, volatility or depressed prices of our common stock could have a similar effect on the trading price of such notes. In addition, the existence of these notes may encourage short selling in our common stock by market participants because the conversion of the notes could depress the price of our common stock.

We have been party to, and may in the future be subject to, lawsuits relating to securities law matters which may result in unfavorable outcomes and significant judgments, settlements and legal expenses which could cause our business, financial condition and results of operations to suffer.

We and certain of our current and former officers and directors, as well as our current auditors, were subject from 2006 to 2011 to several stockholder derivative actions, securities fraud class actions and/or individual lawsuits filed in federal court against us and certain of our current and former officers and directors. The complaints generally alleged that the defendants violated the federal and state securities laws and stated state law claims for fraud and breach of fiduciary duty. Although to date these complaints have either been settled or dismissed, the amount of time to resolve any future lawsuits is uncertain, and these matters could require significant management and financial resources. Unfavorable outcomes and significant judgments, settlements and legal expenses in litigation related to any future securities law claims could have material adverse impacts on our business, financial condition, results of operations, cash flows and the trading price of our common stock.

We are leveraged financially, which could adversely affect our ability to adjust our business to respond to competitive pressures and to obtain sufficient funds to satisfy our future research and development needs, to protect and enforce our intellectual property, and to meet other needs.

We have material indebtedness. In August 2013, we issued $138.0 million aggregate principal amount of our 2018 Notes which remain outstanding. The degree to which we are leveraged could have negative consequences, including, but not limited to, the following:

- we may be more vulnerable to economic downturns, less able to withstand competitive pressures and less flexible in responding to changing business and economic conditions;
- our ability to obtain additional financing in the future for working capital, capital expenditures, acquisitions, litigation, general corporate or other purposes may be limited;
- a substantial portion of our cash flows from operations in the future may be required for the payment of the principal amount of our existing indebtedness when it becomes due at maturity in August 2018; and
- we may be required to make cash payments upon any conversion of the 2018 Notes, which would reduce our cash on hand.

A failure to comply with the covenants and other provisions of our debt instruments could result in events of default under such instruments, which could permit acceleration of all of our outstanding 2018 Notes. Any required repurchase of the 2018 Notes as a result of a fundamental change or acceleration of the 2018 Notes would reduce our cash on hand such that we would not have those funds available for use in our business.

If we are at any time unable to generate sufficient cash flows from operations to service our indebtedness when payment is due, we may be required to attempt to renegotiate the terms of the instruments relating to the indebtedness, seek to refinance all or a portion of the indebtedness or obtain additional financing. There can be no assurance that we will be able to successfully renegotiate such terms, that any such refinancing would be possible or that any additional financing could be obtained on terms that are favorable or acceptable to us.

Compliance with changing regulation of corporate governance and public disclosure may result in additional expenses.

Changing laws, regulations and standards relating to corporate governance and public disclosure have historically created uncertainty for companies such as ours. Any new or changed laws, regulations and standards are subject to varying interpretations due to their lack of specificity, and as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices.

Our certificate of incorporation and bylaws, Delaware law, our outstanding convertible notes and certain other agreements contain provisions that could discourage transactions resulting in a change in control, which may negatively affect the market price of our common stock.

Our certificate of incorporation, our bylaws and Delaware law contain provisions that might enable our management to discourage, delay or prevent a change in control. In addition, these provisions could limit the price that investors would be willing to pay in the future for shares of our common stock. Pursuant to such provisions:

- our board of directors is authorized, without prior stockholder approval, to create and issue preferred stock, commonly referred to as "blank check" preferred stock, with rights senior to those of common stock, which means that a stockholder rights plan could be implemented by our board;
- our board of directors is staggered into two classes, only one of which is elected at each annual meeting;

- stockholder action by written consent is prohibited;
- nominations for election to our board of directors and the submission of matters to be acted upon by stockholders at a meeting are subject to advance notice requirements;
- certain provisions in our bylaws and certificate of incorporation such as notice to stockholders, the ability to call a stockholder meeting, advance notice requirements and action of stockholders by written consent may only be amended with the approval of stockholders holding 66 2/3% of our outstanding voting stock;
- our stockholders have no authority to call special meetings of stockholders; and
- our board of directors is expressly authorized to make, alter or repeal our bylaws.

We are also subject to Section 203 of the Delaware General Corporation Law, which provides, subject to enumerated exceptions, that if a person acquires 15% or more of our outstanding voting stock, the person is an “interested stockholder” and may not engage in any “business combination” with us for a period of three years from the time the person acquired 15% or more of our outstanding voting stock.

Certain provisions of our outstanding 2018 Notes could make it more difficult or more expensive for a third party to acquire us. Upon the occurrence of certain transactions constituting a fundamental change, holders of such 2018 Notes will have the right, at their option, to require us to repurchase, at a cash repurchase price equal to 100% of the principal amount plus accrued and unpaid interest on such 2018 Notes, all or a portion of their 2018 Notes. We may also be required to increase the conversion rate of such 2018 Notes in the event of certain fundamental changes.

Unanticipated changes in our tax rates or in the tax laws and regulations could expose us to additional income tax liabilities which could affect our operating results and financial condition.

We are subject to income taxes in both the United States and various foreign jurisdictions. Significant judgment is required in determining our worldwide provision for income taxes and, in the ordinary course of business, there are many transactions and calculations where the ultimate tax determination is uncertain. Our effective tax rate could be adversely affected by changes in the mix of earnings in countries with differing statutory tax rates, changes in the valuation of deferred tax assets and liabilities, changes in tax laws and regulations as well as other factors. Our tax determinations are regularly subject to audit by tax authorities and developments in those audits could adversely affect our income tax provision, and we are currently undergoing such audits of certain of our tax returns. Although we believe that our tax estimates are reasonable, the final determination of tax audits or tax disputes may be different from what is reflected in our historical income tax provisions which could affect our operating results.

Litigation, Regulation and Business Risks Related to our Intellectual Property

We have in the past, and may in the future, become engaged in litigation stemming from our efforts to protect and enforce our patents and intellectual property and make other claims, which could adversely affect our intellectual property rights, distract our management and cause substantial expenses and declines in our revenue and stock price.

We seek to diligently protect our intellectual property rights and will continue to do so. While we are not currently involved in intellectual property litigation, any future litigation, whether or not determined in our favor or settled by us, would be expected to be costly, may cause delays applicable to our business (including delays in negotiating licenses with other actual or potential customers), would be expected to tend to discourage future design partners, would tend to impair adoption of our existing technologies and would divert the efforts and attention of our management and technical personnel from other business operations. In addition, we may be unsuccessful in any litigation if we have difficulty obtaining the cooperation of former employees and agents who were involved in our business during the relevant periods related to our litigation and are now needed to assist in cases or testify on our behalf. Furthermore, any adverse determination or other resolution in litigation could result in our losing certain rights beyond the rights at issue in a particular case, including, among other things: our being effectively barred from suing others for violating certain or all of our intellectual property rights; our patents being held invalid or unenforceable or not infringed; our being subjected to significant liabilities; our being required to seek licenses from third parties; our being prevented from licensing our patented technology; or our being required to renegotiate with current customers on a temporary or permanent basis.

From time to time, we are subject to proceedings by government agencies that may result in adverse determinations against us and could cause our revenue to decline substantially.

An adverse resolution by or with a governmental agency could result in severe limitations on our ability to protect and license our intellectual property, and could cause our revenue to decline substantially. Third parties have and may attempt to use adverse findings by a government agency to limit our ability to enforce or license our patents in private litigations, to challenge or otherwise act against us with respect to such government agency proceedings.

Further, third parties have sought and may seek review and reconsideration of the patentability of inventions claimed in certain of our patents by the U.S. Patent and Trademark Office ("USPTO") and/or the European Patent Office (the "EPO"). Any re-examination proceedings may be reviewed by the USPTO's Patent Trial and Appeal Board ("PTAB"). The PTAB and the related former Board of Patent Appeals and Interferences have previously issued decisions in a few cases, finding some challenged claims of Rambus' patents to be valid, and others to be invalid. Decisions of the PTAB are subject to further USPTO proceedings and/or appeal to the Court of Appeals for the Federal Circuit. A final adverse decision, not subject to further review and/or appeal, could invalidate some or all of the challenged patent claims and could also result in additional adverse consequences affecting other related U.S. or European patents, including in any intellectual property litigation. If a sufficient number of such patents are impaired, our ability to enforce or license our intellectual property would be significantly weakened and could cause our revenue to decline substantially.

The pendency of any governmental agency acting as described above may impair our ability to enforce or license our patents or collect royalties from existing or potential customers, as any litigation opponents may attempt to use such proceedings to delay or otherwise impair any pending cases and our existing or potential customers may await the final outcome of any proceedings before agreeing to new licenses or to paying royalties.

Litigation or other third-party claims of intellectual property infringement could require us to expend substantial resources and could prevent us from developing or licensing our technology on a cost-effective basis.

Our research and development programs are in highly competitive fields in which numerous third parties have issued patents and patent applications with claims closely related to the subject matter of our programs. We have also been named in the past, and may in the future be named, as a defendant in lawsuits claiming that our technology infringes upon the intellectual property rights of third parties. As we develop additional products and technology, we may face claims of infringement of various patents and other intellectual property rights by third parties. In the event of a third-party claim or a successful infringement action against us, we may be required to pay substantial damages, to stop developing and licensing our infringing technology, to develop non-infringing technology, and to obtain licenses, which could result in our paying substantial royalties or our granting of cross licenses to our technologies. We may not be able to obtain licenses from other parties at a reasonable cost, or at all, which could cause us to expend substantial resources, or result in delays in, or the cancellation of, new products. Moreover, customers and/or suppliers of our products may seek indemnification for alleged infringement of intellectual property rights. We could be liable for direct and consequential damages and expenses including attorneys' fees. A future obligation to indemnify our customers and/or suppliers may harm our business, financial condition and operating results.

If we are unable to protect our inventions successfully through the issuance and enforcement of patents, our operating results could be adversely affected.

We have an active program to protect our proprietary inventions through the filing of patents. There can be no assurance, however, that:

- any current or future U.S. or foreign patent applications will be approved and not be challenged by third parties;
- our issued patents will protect our intellectual property and not be challenged by third parties;
- the validity of our patents will be upheld;
- our patents will not be declared unenforceable;
- the patents of others will not have an adverse effect on our ability to do business;
- Congress or the U.S. courts or foreign countries will not change the nature or scope of rights afforded patents or patent owners or alter in an adverse way the process for seeking or enforcing patents;
- changes in law will not be implemented, or changes in interpretation of such laws will occur, that will affect our ability to protect and enforce our patents and other intellectual property;
- new legal theories and strategies utilized by our competitors will not be successful;
- others will not independently develop similar or competing chip interfaces or design around any patents that may be issued to us; or
- factors such as difficulty in obtaining cooperation from inventors, pre-existing challenges or litigation, or license or other contract issues will not present additional challenges in securing protection with respect to patents and other intellectual property that we acquire.

If any of the above were to occur, our operating results could be adversely affected.

Furthermore, recent patent reform legislation, such as the Leahy-Smith America Invents Act, could increase the uncertainties and costs surrounding the prosecution of any patent applications and the enforcement or defense of our licensed patents. The federal courts, the USPTO, the Federal Trade Commission, and the U.S. International Trade Commission have also recently taken certain actions and issued rulings that have been viewed as unfavorable to patentees. While we cannot predict what form any new patent reform laws or regulations may ultimately take, or what impact recent or future reforms may have on our business, any laws or regulations that restrict or negatively impact our ability to enforce our patent rights against third parties could have a material adverse effect on our business.

In addition, our patents will continue to expire according to their terms, with expiration dates ranging from 2017 to 2038. Our failure to continuously develop or acquire successful innovations and obtain patents on those innovations could significantly harm our business, financial condition, results of operations, or cash flows.

Our inability to protect and own the intellectual property we create would cause our business to suffer.

We rely primarily on a combination of license, development and nondisclosure agreements, trademark, trade secret and copyright law and contractual provisions to protect our non-patentable intellectual property rights. If we fail to protect these intellectual property rights, our customers and others may seek to use our technology without the payment of license fees and royalties, which could weaken our competitive position, reduce our operating results and increase the likelihood of costly litigation. The growth of our business depends in part on the use of our intellectual property in the products of third party manufacturers, and our ability to enforce intellectual property rights against them to obtain appropriate compensation. In addition, effective trade secret protection may be unavailable or limited in certain foreign countries. Although we intend to protect our rights vigorously, if we fail to do so, our business will suffer.

Effective protection of trademarks, copyrights, domain names, patent rights, and other intellectual property rights is expensive and difficult to maintain, both in terms of application and maintenance costs, as well as the costs of defending and enforcing those rights. The efforts we have taken to protect our intellectual property rights may not be sufficient or effective. Our intellectual property rights may be infringed, misappropriated, or challenged, which could result in them being narrowed in scope or declared invalid or unenforceable. In addition, the laws or practices of certain countries do not protect our proprietary rights to the same extent as do the laws of the United States. Significant impairments of our intellectual property rights, and limitations on our ability to assert our intellectual property rights against others, could have a material and adverse effect on our business.

Third parties may claim that our products or services infringe on their intellectual property rights, exposing us to litigation that, regardless of merit, may be costly to defend.

Our success and ability to compete are also dependent upon our ability to operate without infringing upon the patent, trademark and other intellectual property rights of others. Third parties may claim that our current or future products or services infringe upon their intellectual property rights. Any such claim, with or without merit, could be time consuming, divert management's attention from our business operations and result in significant expenses. We cannot assure you that we would be successful in defending against any such claims. In addition, parties making these claims may be able to obtain injunctive or other equitable relief affecting our ability to license the products that incorporate the challenged intellectual property. As a result of such claims, we may be required to obtain licenses from third parties, develop alternative technology or redesign our products. We cannot be sure that such licenses would be available on terms acceptable to us, if at all. If a successful claim is made against us and we are unable to develop or license alternative technology, our business, financial condition, operating results and cash flows could be materially adversely affected.

We rely upon the accuracy of our customers' recordkeeping, and any inaccuracies or payment disputes for amounts owed to us under our licensing agreements may harm our results of operations.

Many of our license agreements require our customers to document the manufacture and sale of products that incorporate our technology and report this data to us on a quarterly basis. While licenses with such terms give us the right to audit books and records of our customers to verify this information, audits rarely are undertaken because they can be expensive, time consuming, and potentially detrimental to our ongoing business relationship with our customers. Therefore, we typically rely on the accuracy of the reports from customers without independently verifying the information in them. Our failure to audit our customers' books and records may result in our receiving more or less royalty revenue than we are entitled to under the terms of our license agreements. If we conduct royalty audits in the future, such audits may trigger disagreements over contract terms with our customers and such disagreements could hamper customer relations, divert the efforts and attention of our management from normal operations and impact our business operations and financial condition.

Any dispute regarding our intellectual property may require us to indemnify certain customers, the cost of which could severely hamper our business operations and financial condition.

In any potential dispute involving our patents or other intellectual property, our customers could also become the target of litigation. While we generally do not indemnify our customers, some of our agreements provide for indemnification, and some require us to provide technical support and information to a customer that is involved in litigation involving use of our technology. In addition, we may be exposed to indemnification obligations, risks and liabilities that were unknown at the time of acquisitions, including with respect to our acquisitions of SCS, the assets of the Snowbush IP group and the Memory Interconnect Business, and we may agree to indemnify others in the future. Any of these indemnification and support obligations could result in substantial expenses. In addition to the time and expense required for us to indemnify or supply such support to our customers, a customer's development, marketing and sales of licensed semiconductors, lighting, mobile communications and data security technologies could be severely disrupted or shut down as a result of litigation, which in turn could severely hamper our business operations and financial condition as a result of lower or no royalty payments.

Item 1B. *Unresolved Staff Comments*

None.

Item 2. *Properties*

As of December 31, 2016, we occupied offices in the leased facilities described below:

Number of Offices Under Lease	Location	Primary Use
6	United States	
	Sunnyvale, CA (Corporate Headquarters)	Executive and administrative offices, research and development, sales and marketing and service functions
	Chapel Hill, NC	Research and development
	Brecksville, OH (2)	Research and development, prototyping and light manufacturing facility
	San Francisco, CA	Research and development
	Richardson, TX	Research and development
	Westlake Village, CA	Research and development
1	Bangalore, India	Administrative offices, research and development and service functions
1	Tokyo, Japan	Business development
1	Seoul, Korea	Business development
1	Shanghai, China	Business development
1	Taipei, Taiwan	Business development
1	Melbourne, Australia	Business development
1	Rotterdam, The Netherlands	Administrative offices, research and development, sales and marketing and service functions
1	East Kilbride, United Kingdom	Administrative offices, research and development, sales and marketing and service functions
1	Toronto, Canada	Research and development
1	Espoo, Finland	Research and development

Item 3. *Legal Proceedings*

We are not currently a party to any material pending legal proceeding; however, from time to time, we may become involved in legal proceedings or be subject to claims arising in the ordinary course of our business. Although the results of litigation and claims cannot be predicted with certainty, we currently believe that the final outcome of these ordinary course matters will not have a material adverse effect on our business, operating results, financial position or cash flows. Regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

Item 4. *Mine Safety Disclosures*

Not applicable.

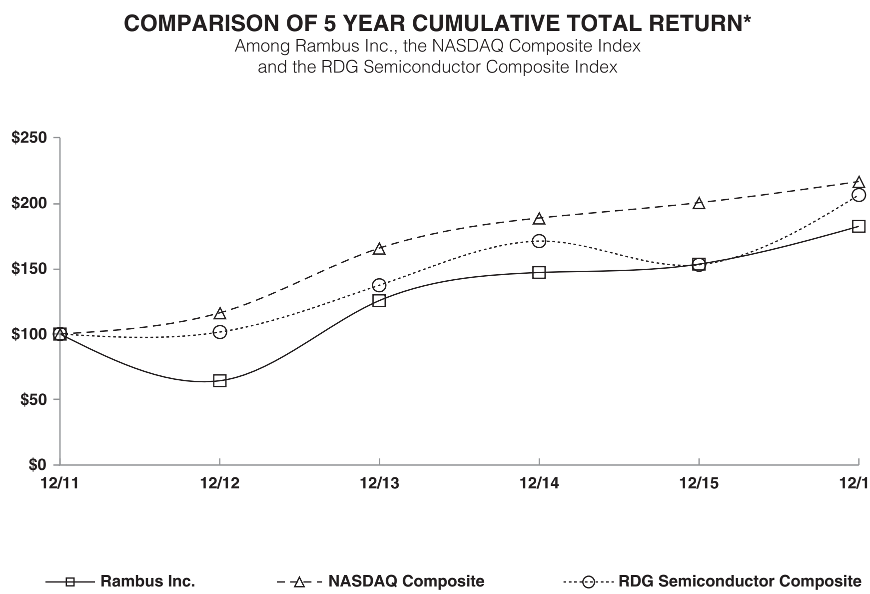
PART II

Item 5. *Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities*

Our Common Stock is listed on The NASDAQ Global Select Market under the symbol "RMBS." The following table sets forth for the periods indicated the high and low sales price per share of our common stock as reported on The NASDAQ Global Select Market.

	Year Ended December 31, 2016		Year Ended December 31, 2015	
	High	**Low**	**High**	**Low**
First Quarter	$13.99	$10.66	$12.88	$10.01
Second Quarter	$13.97	$11.13	$15.49	$12.44
Third Quarter	$14.50	$11.42	$14.80	$10.36
Fourth Quarter	$14.39	$11.44	$14.07	$ 9.86

The graph below compares the cumulative 5-year total return of holders of Rambus Inc.'s common stock with the cumulative total returns of the NASDAQ Composite index and the RDG Semiconductor Composite index. The graph tracks the performance of a $100 investment in our common stock and in each index (with the reinvestment of all dividends) from December 31, 2011 to December 31, 2016.



*$100 invested on 12/31/11 in stock or index, including reinvestment of dividends.
Fiscal year ending December 31.

Fiscal years ending:

	12/11	12/12	12/13	12/14	12/15	12/16
Rambus Inc.	100.00	64.50	125.43	146.89	153.51	182.38
NASDAQ Composite	100.00	116.41	165.47	188.69	200.32	216.54
RDG Semiconductor Composite	100.00	101.55	137.33	170.90	153.05	206.30

The stock price performance included in this graph is not necessarily indicative of future stock price performance.

Information regarding our securities authorized for issuance under equity compensation plans will be included in Item 12, "Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters," of this report on Form 10-K.

As of January 31, 2017, there were 521 holders of record of our common stock. Since many of the shares of our common stock are held by brokers and other institutions on behalf of stockholders, we are unable to estimate the total number of beneficial stockholders represented by these record holders.

We have never paid or declared any cash dividends on our common stock or other securities.

Share Repurchase Program

On January 21, 2015, our Board approved a share repurchase program authorizing the repurchase of up to an aggregate of 20.0 million shares. Share repurchases under the plan may be made through the open market, established plans or privately negotiated transactions in accordance with all applicable securities laws, rules, and regulations. There is no expiration date applicable to the plan. After giving effect to the accelerated share repurchase program detailed in the table below, we had remaining authorization to repurchase approximately 11.5 million shares.

We record stock repurchases as a reduction to stockholders' equity. We record a portion of the purchase price of the repurchased shares as an increase to accumulated deficit when the price of the shares repurchased exceeds the average original proceeds per share received from the issuance of common stock.

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Number of Shares that May Yet be Purchased Under the Plans or Programs
Cumulative shares repurchased as of December 31, 2015 (1)	7,812,500	$11.70	7,812,500	12,187,500
April 1, 2016 — April 30, 2016 (1)	735,861	$11.70	735,861	11,451,639
Cumulative shares repurchased as of December 31, 2016	8,548,361		8,548,361	

(1) In the fourth quarter of 2015, we entered into an accelerated share repurchase program with a financial institution to repurchase an aggregate of $100.0 million of our common stock. We made an upfront payment of $100.0 million pursuant to the accelerated share repurchase program and received an initial delivery of 7.8 million shares which were retired. During the second quarter of 2016, the accelerated share repurchase program was completed and we received an additional 0.7 million shares of our common stock, which were retired, as the final settlement of the accelerated share repurchase program. The total shares of

our common stock received and retired under the terms of the accelerated share repurchase program were 8.5 million, with an average price paid per share of $11.70. See Note 13, "Stockholders' Equity," of Notes to Consolidated Financial Statements of this Form 10-K for further discussion.

Item 6. *Selected Financial Data*

The following selected consolidated financial data as of and for the years ended December 31, 2016, 2015, 2014, 2013 and 2012 was derived from our consolidated financial statements. The following selected consolidated financial data should be read in conjunction with Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations," and Item 8, "Financial Statements and Supplementary Data," and other financial data included elsewhere in this report. Our historical results of operations are not necessarily indicative of results of operations to be expected for any future period.

	Years Ended December 31,				
	2016 (1) (2)	2015 (2) (3) (4)	2014 (2)	2013 (1) (2)	2012 (1)
	(In thousands, except per share amounts)				
Total revenue	$336,597	$296,278	$296,558	$271,501	$ 234,051
Net income (loss)	$ 6,820	$211,388	$ 26,201	$ (33,748)	$(134,336)
Net income (loss) per share:					
Basic	$ 0.06	$ 1.84	$ 0.23	$ (0.30)	$ (1.21)
Diluted	$ 0.06	$ 1.80	$ 0.22	$ (0.30)	$ (1.21)
Consolidated Balance Sheet Data:					
Cash, cash equivalents and marketable securities	$172,182	$287,706	$300,109	$387,662	$ 203,330
Total assets	$783,496	$718,021	$586,235	$710,485	$ 586,886
Convertible notes	$126,167	$119,418	$113,045	$270,782	$ 146,630
Stockholders' equity	$552,782	$526,533	$391,622	$340,229	$ 321,594

(1) The net income for the year ended December 31, 2016 included $18.3 million of impairment of in-process research and development intangible asset and a reduction of operating expenses due to the change in our contingent consideration liability of $6.8 million. The net loss for the years ended December 31, 2013 and 2012 included $17.8 million and $35.5 million, respectively, of impairment of goodwill and long-lived assets.

(2) The net income (loss) for the years ended December 31, 2016, 2015, 2014 and 2013 included $0.6 million, $2.0 million, $2.0 million, and $0.5 million, respectively, of gain from settlement which was reflected as a reduction of operating costs and expenses.

(3) The net income for the year ended December 31, 2015 included $174.5 million related to the reversal of the deferred tax asset valuation allowance.

(4) Stockholders' equity includes $100.0 million paid under the accelerated share repurchase program as well as the $174.5 million net impact of the reversal of the deferred tax asset valuation allowance.

Item 7. *Management's Discussion and Analysis of Financial Condition and Results of Operations*

This report contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 as described in more detail under "Note Regarding Forward-Looking Statements." Our forward-looking statements are based on current expectations, forecasts and assumptions and are subject to risks, uncertainties and changes in condition, significance, value and effect. As a result of the factors described herein, and in the documents incorporated herein by reference, including, in particular, those factors described under "Risk Factors," we undertake no obligation to publicly disclose any revisions to these forward-looking statements to reflect events or circumstances occurring subsequent to filing this report with the Securities and Exchange Commission.

The following discussion and analysis should be read in conjunction with the consolidated financial statements and related notes that are included elsewhere in this report.

Executive Summary

In 2016, we continued our transition from a pure IP licensing model to one that delivers increasing value to the market through chips, customizable IP cores, software and services. In line with our growth strategy, we acquired four businesses in 2016 in the fields of mobile payments, smart ticketing, memory buffer chips and SerDes IP cores. We also continued to execute on our traditional patent licensing business by signing key license agreements with AMD, Xilinx and others. Key 2016 financial results included:

- Revenue of $336.6 million;
- Total Operating Costs and Expenses of $303.0 million
- Annual GAAP diluted net income per share of $0.06; and
- Operating cash flows of $92.5 million

Business Overview

Rambus creates innovative hardware and software technologies, driving advancements from the data center to the mobile edge. Our chips, customizable IP cores, patent licenses, software, services, and other innovations improve the competitive advantage of our customers. We collaborate with the industry, partnering with leading ASIC and SoC designers, foundries, IP developers, processor companies, EDA companies and validation labs. Our innovations are integrated into a wide range of devices and systems, powering and securing diverse applications, including Big Data, Internet of Things, mobile, consumer and media platforms.

While we have historically focused our efforts on the development of technologies for memory, SerDes and other chip interfaces, we have expanded our portfolio of inventions and solutions to address chip and system security, mobile payments and smart ticketing. We intend to continue our growth into new technology fields, consistent with our mission to create value through our innovations and to make those technologies available through the shipment of products, the provisioning of services, as well as our licensing business models. Key to our efforts continues to be hiring and retaining world-class inventors, scientists and engineers to lead the development and deployment of inventions and technology solutions for our fields of focus.

Our strategy is to continue to augment our patent license business model to provide additional technology, products and services while creating and leveraging strategic synergies to increase revenue. In support of our strategy, we acquired four businesses in 2016 in the fields of mobile payments, smart ticketing, memory buffer chips and SerDes IP cores. On January 25, 2016, our Security division completed the acquisition of Smart Card Software, Ltd. ("SCS"), a privately-held company incorporated in the United Kingdom, for a pound sterling equivalent of $104.7 million in cash. Through this purchase we acquired two complementary businesses: Bell Identification Ltd., a leader in mobile payments, and Ecebs Ltd., a leading supplier of smart ticketing systems. We believe these businesses complement our security division by allowing us to extend our foundational security technology to offer differentiated, value-added security solutions to its customers.

On August 4, 2016, our Memory and Interfaces division completed the acquisition of all the assets of Inphi's Memory Interconnect Business for $90 million in cash. The acquisition included product inventory, customer contracts, supply chain agreements and intellectual property. On August 5, 2016, our Memory and Interfaces division completed the acquisition of the assets of Semtech's Snowbush IP group for $32 million in cash. Snowbush IP, formerly part of Semtech's Systems Innovation Group, is a provider of silicon-proven, high-performance serial link solutions. We believe these acquisitions strengthen our market position for memory buffer chip products and bolster our SerDes and IP offerings enabling us to better address the needs of the server, networking and data center market.

Organization

We have organized the business into four operational units: (1) Memory and Interfaces, or MID, which focuses on the design, development, manufacturing through partnerships and licensing of technology and solutions that is related to memory and interfaces; (2) Security, or RSD, which focuses on the design, development, deployment and licensing of technologies for chip, system and in-field application security, anti-counterfeiting, smart ticketing and mobile payments; (3) Emerging Solutions, or ESD, which encompasses our long-term research and development efforts in the area of emerging technologies; and (4) Lighting, or RLD, which focuses on the design, development and licensing of technologies for advanced LED-based lighting solutions. As of December 31, 2016, MID and RSD met quantitative thresholds for disclosure as reportable segments. Results for ESD and RLD are shown under "Other." For additional information concerning segment reporting, see Note 6, "Segments and Major Customers," of Notes to Consolidated Financial Statements of this Form 10-K.

Revenue Sources

Our inventions and technology solutions are offered to our customers through patent, technology, software and IP core licenses, as well as product sales and services. Today, our primary source of revenue is derived from patent licenses, through which we provide our customers a license to use a certain portion of our broad portfolio of patented inventions. The license provides our customers with a defined right to use our innovations in the customer's own digital electronics products, systems or services, as applicable. The licenses may also define the specific field of use where our customers may use or employ our inventions in their products. License agreements are structured with fixed, variable or a hybrid of fixed and variable royalty payments over certain defined periods ranging for periods of up to ten years. Leading consumer product, industrial, semiconductor and system companies such as AMD, Broadcom, Cisco, Freescale, Fujitsu, GE, IBM, Intel, LSI, Micron, Nanya, NVIDIA, Panasonic, Qualcomm, Renesas, Samsung, SK hynix, STMicroelectronics, Toshiba and Xilinx have licensed our patents, the majority of which we have produced organically, for use in their own products. Royalties from patent licenses accounted for 73%, 84% and 88% of our consolidated revenue for the years ended December 31, 2016, 2015 and 2014, respectively.

We also offer our customers technology licenses to support the implementation and adoption of our technology in their products or services. Our customers include leading companies such as Eaton, GE, IBM, Panasonic, Qualcomm, Samsung, Sony and Toshiba. Our technology license offerings include a range of technologies for incorporation into our customers' products and systems. We also offer a range of services as part of our technology licenses which can include know-how and technology transfer, product design and development, system integration, and other services. These technology license agreements may have both a fixed price (non-recurring) component and ongoing use fees and in some cases, royalties. Further, under technology licenses, our customers typically receive licenses to our patents necessary to implement these solutions in their products with specific rights and restrictions to the applicable patents elaborated in their individual contracts with us. Royalties from technology licenses accounted for 6%, 5% and 4% of our consolidated revenue for the years ended December 31, 2016, 2015 and 2014, respectively.

The remainder of our revenue is contract services and other revenue, which includes our product sales, IP core licenses, software licenses and related implementation, support and maintenance fees, and engineering services fees. The timing and amounts invoiced to customers can vary significantly depending on specific contract terms and can therefore have a significant impact on deferred revenue or account receivables in any given period. Contract and other revenue accounted for 21%, 11% and 8% of our consolidated revenue for the years ended December 31, 2016, 2015 and 2014, respectively.

Expenses

Engineering expenses continue to play a key role in our efforts to maintain product innovations. Our engineering expenses for 2016 increased $40.5 million as compared to the same period in 2015 primarily due to the business acquisitions during 2016. This includes increased headcount related expenses of $12.9 million, increased cost of sales associated with sales of memory and security products and engineering services of $10.3 million (which includes $2.3 million related to the purchase accounting adjustment for inventory fair value step-up from the acquisition of the Memory Interconnect Business), increased amortization costs of $7.0 million, increased expenses related to software design tools of $3.7 million, increased stock-based compensation expense of $2.4 million, increased consulting costs of $2.5 million offset by decreased prototyping costs of $0.5 million.

Sales, general and administrative expenses for 2016 increased $24.6 million as compared to the same period in 2015 primarily due to the business acquisitions during 2016. This includes increased headcount related expenses of $6.1 million, increased amortization costs of $5.0 million, various acquisition related costs of $3.1 million, increased stock-based compensation expense of $3.5 million, increased consulting costs of $2.8 million, increased facilities costs of $1.4 million and increased travel costs of $1.3 million.

Intellectual Property

As of December 31, 2016, our semiconductor, lighting, security and other technologies are covered by 1,989 U.S. and foreign patents. Additionally, we have 646 patent applications pending. Some of the patents and pending patent applications are derived from a common parent patent application or are foreign counterpart patent applications. We have a program to file applications for and obtain patents in the United States and in selected foreign countries where we believe filing for such protection is appropriate and would further our overall business strategy and objectives. In some instances, obtaining appropriate levels of protection may involve prosecuting continuation and counterpart patent applications based on a common parent application. We believe our patented innovations provide our customers with the ability to achieve improved performance, lower risk, greater cost-effectiveness and other benefits in their products and services.

Trends

There are a number of trends that may have a material impact on us in the future, including but not limited to, the evolution of memory and SerDes technology, adoption of mobile payment, smart ticketing and security solutions, adoption of LEDs in edge-lit general lighting, the use and adoption of our inventions or technologies generally, industry consolidation, and global economic conditions with the resulting impact on sales of consumer electronic systems.

We have a high degree of revenue concentration. Our top five customers for each reporting period represented approximately 63% of our revenue for 2016 as compared to 65% in 2015 and 62% in 2014. For 2016, 2015 and 2014, revenue from Micron, Samsung and SK hynix each accounted for 10% or more of our total revenue. While we expect Samsung, SK hynix and Micron to account for a significant portion of our ongoing licensing revenue, the particular customers which account for revenue concentration have varied from period-to-period as a result of the addition of new contracts, expiration of existing contracts, renewals of existing contracts, industry consolidation and the volumes and prices at which the customers have recently sold to their customers. These variations are expected to continue in the foreseeable future.

Our revenue from companies headquartered outside of the United States accounted for approximately 64% in 2016 as compared to 60% in 2015 and 63% in 2014. We expect that revenue derived from international customers will continue to represent a significant portion of our total revenue in the future. To date, the majority of the revenue from international customers has been denominated in U.S. dollars. However, to the extent that such customers' sales to their customers are not denominated in U.S. dollars, any revenue that we receive as a result of such sales could be subject to fluctuations in currency exchange rates. In addition, if the effective price of licensed products sold by our foreign customers were to increase as a result of fluctuations in the exchange rate of the relevant currencies, demand for licensed products could fall, which in turn would reduce our revenue. We do not use financial instruments to hedge foreign exchange rate risk. For additional information concerning international revenue, see Note 6, "Segments and Major Customers," of Notes to Consolidated Financial Statements of this Form 10-K.

Our licensing cycle for new licensees as well as renewals for existing licensees is lengthy, costly and unpredictable without any degree of certainty. We may incur costs in any particular period before any associated revenue stream begins, if at all. Our lengthy license negotiation cycles could make our future revenue difficult to predict because we may not be successful in entering into licenses with our customers in the amounts projected, or on our anticipated timelines.

The semiconductor industry is intensely competitive and highly cyclical, limiting our visibility with respect to future sales. To the extent that macroeconomic fluctuations negatively affect our principal customers, the demand for our products and technology may be significantly and adversely impacted and we may experience substantial period-to-period fluctuations in our operating results.

The royalties we receive from our semiconductor customers are partly a function of the adoption of our technologies by system companies. Many system companies purchase semiconductors containing our technologies from our customers and do not have a direct contractual relationship with us. Our customers generally do not provide us with details as to the identity or volume of licensed semiconductors purchased by particular system companies. As a result, we face difficulty in analyzing the extent to which our future revenue will be dependent upon particular system companies.

Global demand for effective security technologies continues to increase. In particular, highly integrated devices such as smart phones are increasingly used for applications requiring security such as mobile payments, corporate information and user data. Our RSD operating segment is primarily focused on positioning its DPA countermeasures, CryptoMedia™, CryptoFirewall™ and CryptoManager™ technology solutions, and the introduction of in-field applications mobile payments and smart ticketing solutions to our offerings to capitalize on these trends and growing adoption among technology partners and customers.

Engineering costs as well as sales, general and administrative expenses in the aggregate and as a percentage of revenue increased in 2016 as compared to the prior year. In the near term, we expect these costs in the aggregate to be higher as we intend to continue to make investments in the infrastructure and technologies required to increase our product innovation in semiconductor, security, mobile payments, smart cards and other technologies, including costs related to the various acquisitions. In addition, while we have not been involved in material litigation since 2014, to the extent litigation is again necessary, our expectations on the amount and timing of any future general and administrative costs is uncertain.

As a part of our overall business strategy, from time to time, we evaluate businesses and technologies for potential acquisition that are aligned with our core business and designed to supplement our growth, including the acquisitions of SCS, the assets of the Snowbush IP group and the Memory Interconnect Business. Similarly, we evaluate our current businesses and technologies that are not aligned with our core business for potential divestiture.

Results of Operations

The following table sets forth, for the periods indicated, the percentage of total revenue represented by certain items reflected in our consolidated statements of operations:

	Years Ended December 31,		
	2016	**2015**	**2014**
Revenue:			
Royalties	78.6%	88.6%	91.6%
Contract and other revenue	21.4%	11.4%	8.4%
Total revenue	100.0%	100.0%	100.0%
Operating costs and expenses:			
Cost of revenue*	19.9%	15.3%	14.1%
Research and development*	38.6%	37.5%	37.1%
Sales, general and administrative*	28.3%	23.8%	25.2%
Restructuring charges	—%	1.2%	0.0%
Impairment of in-process research and development intangible asset	5.4%	—%	—%
Change in contingent consideration liability	(2.0)%	—%	—%
Gain from sale of intellectual property	—%	(1.2)%	(1.2)%
Gain from settlement	(0.2)%	(0.7)%	(0.6)%
Total operating costs and expenses	90.0%	75.9%	74.6%
Operating income	10.0%	24.1%	25.4%
Interest income and other income, net	0.5%	0.3%	(0.1)%
Interest expense	(3.8)%	(4.2)%	(8.4)%
Interest and other income (expense), net	(3.3)%	(3.9)%	(8.5)%
Income before income taxes	6.7%	20.2%	16.9%
Provision for (benefit from) income taxes	4.7%	(51.0)%	8.1%
Net income	2.0%	71.2%	8.8%

* Includes stock-based compensation:

Cost of revenue	0.0%	0.0%	0.0%
Research and development	2.7%	2.3%	2.4%
Sales, general and administrative	3.5%	2.8%	2.5%

Segment Results

Revenue from the MID reportable segment increased approximately $17.8 million to $239.8 million for the year ended December 31, 2016 from $222.0 million for the year ended December 31, 2015. The increase was primarily due to sales of memory products, including revenue from the Memory and Interfaces Business and various new development projects, higher royalty revenue recognized from SK hynix and Xilinx, offset by lower royalty revenue from AMD, IBM and Renesas.

Segment operating income from the MID reportable segment decreased approximately $2.8 million to $171.4 million for the year ended December 31, 2016 from $174.2 million for the year ended December 31, 2015. The decrease was primarily due to an increase in cost of sales related to sales of memory products and increased headcount related costs due to higher number of employees in 2016 primarily due to the acquisition of the assets of the Snowbush IP group and Memory Interconnect Business.

Revenue from the RSD reportable segment increased approximately $25.7 million to $76.2 million for the year ended December 31, 2016 from $50.5 million for the year ended December 31, 2015. The increase was primarily due to higher revenue from security technology development projects, including revenue from the acquisition of SCS, and higher royalty revenue from Qualcomm, Xilinx and various other customers, offset by lower royalty revenue from Nagravision, Renesas and STMicroelectronics.

Segment operating income from the RSD reportable segment increased approximately $2.9 million to $24.3 million for the year ended December 31, 2016 from $21.4 million for the year ended December 31, 2015. The increase was primarily due to increase in revenue as discussed above, partially offset by increased headcount related costs due to higher number of employees in 2016 primarily due to the SCS acquisition.

Revenue from the Other segment decreased approximately $3.2 million to $20.6 million for the year ended December 31, 2016 from $23.8 million for the year ended December 31, 2015. The decrease was primarily due to decreased sales of light guides and decreased revenue from lighting technology development projects.

Segment operating loss from the Other segment increased approximately $1.5 million to $9.8 million for the year ended December 31, 2016 from $8.3 million for the year ended December 31, 2015. The increase was primarily due to decreased revenue as discussed above and lack of gain from sale of intellectual property in 2016.

Revenue from the MID reportable segment decreased approximately $4.3 million to $222.0 million for the year ended December 31, 2015 from $226.3 million for the year ended December 31, 2014. The decrease was primarily due to lower royalty revenue from AMD, Nanya, NVIDIA, Renesas and STMicroelectronics, offset by higher royalty revenue from IBM and SK hynix.

Segment operating income from the MID reportable segment decreased approximately $11.3 million to $174.2 million for the year ended December 31, 2015 from $185.5 million for the year ended December 31, 2014. The decrease was primarily due to decrease in revenue as discussed above and increased expenses related to software design tools and increased prototyping costs.

Revenue from the RSD reportable segment increased approximately $1.2 million to $50.5 million for the year ended December 31, 2015 from $49.3 million for the year ended December 31, 2014. The increase was primarily due to higher revenue from security products, offset by lower royalty revenue from Qualcomm, STMicroelectronics and a smartphone and tablet manufacturer.

Segment operating income from the RSD reportable segment remained relatively flat at $21.4 million for the year ended December 31, 2015 as compared to $21.7 million for the year ended December 31, 2014.

Revenue from the Other segment increased approximately $2.9 million to $23.8 million for the year ended December 31, 2015 from $20.9 million for the year ended December 31, 2014. The increase was primarily due to increased lighting technology development projects and sales of light guides.

Segment operating loss from the Other segment decreased approximately $4.9 million to $8.3 million for the year ended December 31, 2015 from $13.2 million for the year ended December 31, 2014. The decrease was primarily due to increase in revenue as discussed above and lower prototyping costs.

	Years Ended December 31,			2015 to 2016 Change	2014 to 2015 Change
	2016	2015	2014		
	(Dollars in millions)				
Total Revenue					
Royalties	$264.6	$262.4	$271.5	0.8%	(3.4)%
Contract and other revenue	72.0	33.9	25.1	112.6%	35.3%
Total revenue	$336.6	$296.3	$296.6	13.6%	(0.1)%

Royalty Revenue

Patent Licenses

Our patent royalties decreased approximately $4.5 million to $244.4 million for the year ended December 31, 2016 from $248.9 million for the same period in 2015. The decrease was primarily due to lower royalty revenue from AMD, IBM, Renesas and STMicroelectronics, offset by higher royalty revenue recognized from Qualcomm, SK hynix and Xilinx. Of the $244.4 million patent royalties for the year ended December 31, 2016, $21.2 million is related to past royalty revenue from settlement of past legal proceedings with SK Hynix and Micron.

Our patent royalties decreased approximately $12.0 million to $248.9 million for the year ended December 31, 2015 from $260.9 million for the same period in 2014. The decrease in 2015 was primarily due to lower royalty revenue recognized from AMD, NVIDIA, Renesas, STMicroelectronics and a smartphone and tablet manufacturer, offset by higher royalty revenue from IBM and SK hynix. Of the $248.9 million patent royalties for the year ended December 31, 2015, $86.0 million is related to past royalty revenue from settlement of past legal proceedings with SK hynix and Micron.

We are continuously in negotiations for licenses with prospective customers. We expect patent royalties will continue to vary from period to period based on our success in adding new customers, renewing or extending existing agreements, as well as the level of variation in our customers' reported shipment volumes, sales price and mix, offset in part by the proportion of customer payments that are fixed or hybrid in nature.

Technology Licenses

Royalties from technology licenses increased approximately $6.7 million to $20.2 million for the year ended December 31, 2016 from $13.5 million for the same period in 2015. The increase was primarily due to higher royalties from Eaton and various security technology license revenue, offset by lower royalties from Nagravision.

Royalties from technology licenses increased approximately $2.9 million to $13.5 million for the year ended December 31, 2015 from $10.6 million for the same period in 2014. The increase was primarily due to higher royalties from security and lighting technology license revenue, offset by lower royalties from XDR™ DRAM associated with decreased shipments of the Sony PlayStation®3 product.

In the future, we expect technology royalties will continue to vary from period to period based on our customers' shipment volumes, sales prices, and product mix.

Royalty Revenue by Reportable Segment

Royalty revenue from the MID reportable segment, which includes patent and technology license royalties, decreased approximately $5.0 million to $212.7 million for the year ended December 31, 2016 from $217.7 million for the same period in 2015. The decrease was primarily due to lower royalty revenue from AMD, IBM and Renesas, offset by higher royalty revenue recognized from SK hynix and Xilinx.

Royalty revenue from the RSD reportable segment, which includes patent and technology license royalties, increased $5.5 million to $46.9 million for the year ended December 31, 2016 from $41.4 million for the same period in 2015. The increase was primarily due to higher royalty revenue from Qualcomm, Xilinx and various other customers, offset by lower royalty revenue from Nagravision, Renesas and STMicroelectronics.

Royalty revenue from the Other segment increased $1.8 million to $5.1 million for the year ended December 31, 2016 from $3.3 million for the same period in 2015. The increase was due to increased royalties from technology licenses associated with increased shipments of lighting products.

Royalty revenue from the MID reportable segment decreased approximately $5.8 million to $217.7 million for the year ended December 31, 2015 from $223.5 million for the same period in 2014. The decrease was primarily due to lower royalty revenue from AMD, Nanya, NVIDIA, Renesas and STMicroelectronics, offset by higher royalty revenue from IBM and SK hynix.

Royalty revenue from the RSD reportable segment decreased approximately $4.3 million to $41.4 million for the year ended December 31, 2015 from $45.7 million for the same period in 2014. The decrease was primarily due to lower royalty revenue from Qualcomm, STMicroelectronics and a smartphone and tablet manufacturer.

Royalty revenue from the Other segment increased $1.0 million to $3.3 million for the year ended December 31, 2015 from $2.3 million for the same period in 2014. The increase was due to increased royalties from technology licenses associated with increased shipments of lighting products.

Contract and Other Revenue

Contract and other revenue consists of revenue from technology development and sale of memory, security and lighting products. Contract and other revenue increased approximately $38.2 million to $72.0 million for the year ended December 31, 2016 from $33.8 million for the same period in 2015. The increase was primarily due to sales of memory products, including revenue from the Snowbush IP group and the Memory Interconnect Business, and increased security technology development projects, including revenue from the acquisition of SCS, offset by decreased sales of light guides.

Contract and other revenue increased approximately $8.8 million to $33.8 million for the year ended December 31, 2015 from $25.0 million for the same period in 2014. The increase was primarily due to increased revenue from security technology development projects and products as well as lighting technology development projects and sales of light guides, offset by lower revenue from the sale of selected intellectual property.

We believe that contract and other revenue will fluctuate over time based on our ongoing technology development, contractual requirements, the amount of work performed, the timing of completing engineering deliverables, and the changes to work required, new technology development contracts booked in the future and product sales.

Contract and Other Revenue by Reportable Segments

Contract and other revenue from the MID reportable segment increased $22.9 million to $27.2 million for the year ended December 31, 2016 from $4.3 million for the same period in 2015, primarily due to sales of memory products, including revenue from the Snowbush IP group and the Memory Interconnect Business, and various new development projects. Contract and other revenue from the RSD reportable segment increased approximately $20.2 million to $29.3 million for the year ended December 31, 2016 from $9.1 million for the same period in 2015, primarily due to higher revenue from security technology development projects, including revenue from the acquisition of SCS. Contract and other revenue from the Other segment decreased approximately $5.0 million for the year ended December 31, 2016 from $20.5 million for the same period in 2015, primarily due to decreased sales of light guides and decreased revenue from lighting technology development projects.

Contract and other revenue from the MID reportable segment increased approximately $1.4 million to $4.3 million for the year ended December 31, 2015 from $2.9 million for the same period in 2014, primarily due to new technology development contracts in 2015. Contract and other revenue from the RSD reportable segment increased approximately $5.5 million to $9.1 million for the year ended December 31, 2015 from $3.6 million for the same period in 2014, primarily due to higher revenue from security products. Contract and other revenue from the Other segment increased approximately $1.9 million to $20.5 million for the year ended December 31, 2015 from $18.6 million for the same period in 2014, primarily due to increased lighting technology development projects and sales of light guides.

Engineering costs:

	Years Ended December 31,			2015 to 2016 Change	2014 to 2015 Change
	2016	2015	2014		
	(Dollars in millions)				
Engineering costs					
Cost of revenue	$ 37.4	$ 22.7	$ 19.1	64.8%	19.0%
Amortization of intangible assets	29.7	22.6	22.9	31.2%	(1.1)%
Total cost of revenue	67.1	45.3	42.0	48.0%	8.1%
Research and development	120.6	104.3	102.8	15.7%	1.5%
Stock-based compensation	9.2	6.8	7.2	35.5%	(6.3)%
Total research and development	129.8	111.1	110.0	16.9%	1.0%
Total engineering costs	$196.9	$156.4	$152.0	25.9%	2.9%

Engineering costs are allocated between cost of revenue and research and development expenses. Cost of revenue reflects the portion of the total engineering costs which are specifically devoted to individual customer development and support services, costs of memory, security and lighting products sold as well as amortization expense related to various acquired intellectual property for patent licensing. The balance of engineering costs, incurred for the development of applicable technologies, is charged to research and development. In a given period, the allocation of engineering costs between these two components is a function of the timing of the development and implementation schedules of individual customer contracts.

For the year ended December 31, 2016 as compared to the same period in 2015, total engineering costs increased 25.9% primarily due to the business acquisitions during 2016. This includes increased headcount related expenses of $12.9 million, increased cost of sales associated with sales of memory and security products and engineering services of $10.3 million (which includes $2.3 million related to the purchase accounting adjustment for inventory fair value step-up from the acquisition of the Memory Interconnect Business), increased amortization costs of $7.0 million, increased expenses related to software design tools of $3.7 million, increased stock-based compensation expense of $2.4 million, increased consulting costs of $2.5 million offset by decreased prototyping costs of $0.5 million.

For the year ended December 31, 2015 as compared to the same period in 2014, total engineering costs increased 2.9% primarily due to increased expenses related to software design tools of $3.5 million, increased headcount related expenses of $2.1 million, increased bonus accrual expense of $1.5 million and increased cost of sales associated with increased sales of light guides and security products and engineering services of $1.5 million, offset by decreased accrual of retention bonuses of $1.5 million, decreased amortization costs of $1.5 million and decreased equipment and software maintenance costs of $0.7 million.

In the near term, we expect engineering costs to be higher as we continue to make investments in the infrastructure and technologies required to maintain our product innovation in semiconductor, lighting, security and other technologies, including costs related to the acquisitions throughout the year.

Sales, general and administrative costs:

	Years Ended December 31,			2015 to 2016 Change	2014 to 2015 Change
	2016	2015	2014		
	(Dollars in millions)				
Sales, general and administrative costs					
Sales, general and administrative costs	$83.3	$62.3	$67.3	33.8%	(7.5)%
Stock-based compensation	11.8	8.3	7.5	42.6%	10.7%
Total sales, general and administrative costs	$95.1	$70.6	$74.8	34.9%	(5.6)%

Sales, general and administrative expenses include expenses and costs associated with trade shows, public relations, advertising, litigation, general legal, insurance and other sales, marketing and administrative efforts. Litigation expenses have historically been a significant portion of our sales, general and administrative expenses. Consistent with our business model, our licensing, sales and marketing activities aim to develop or strengthen relationships with potential new and current customers. In addition, we work with current customers through marketing, sales and technical efforts to drive adoption of their products that use our innovations and solutions, by system companies. Due to the long business development cycles we face and the semi-fixed nature of sales, general and administrative expenses in a given period, these expenses generally do not correlate to the level of revenue in that period or in recent or future periods.

For the year ended December 31, 2016 as compared to 2015, total sales, general and administrative costs increased 34.9% primarily due to the business acquisitions during 2016. This includes increased headcount related expenses of $6.1 million, increased amortization costs of $5.0 million, various acquisition related costs of $3.1 million, increased stock-based compensation expense of $3.5 million, increased consulting costs of $2.8 million, increased facilities costs of $1.4 million and increased travel costs of $1.3 million.

For the year ended December 31, 2015 as compared to 2014, total sales, general and administrative costs decreased 5.6% primarily due to decreased consulting costs of $3.1 million, decreased depreciation expense of $1.3 million, decreased software and equipment maintenance costs of $0.9 million and decreased litigation costs of $0.5 million, offset by increased headcount related expenses of $0.9 million and increased stock-based compensation expense of $0.8 million.

In the future, sales, general and administrative costs will vary from period to period based on the trade shows, advertising, legal, acquisition and other sales, marketing and administrative activities undertaken, and the change in sales, marketing and administrative headcount in any given period. In the near term, we expect our sales, general and administrative costs to be higher due to the acquisitions throughout the year.

Restructuring charges:

	Years Ended December 31,			2015 to 2016 Change	2014 to 2015 Change
	2016	2015	2014		
	(Dollars in millions)				
Restructuring charges	$—	$3.6	$0.0	(100.0)%	NM*

* NM — percentage is not meaningful

During 2016, we did not initiate any restructuring programs.

During 2015, we initiated a restructuring program to reduce overall corporate expenses which is expected to improve future profitability by reducing spending on sales, general and administrative programs and refining some of our research and development efforts. As a result of the restructuring program, we recorded a charge of $3.6 million during 2015 related primarily to the reduction in workforce.

Refer to Note 15, “Restructuring Charges,” of Notes to Consolidated Financial Statements of this Form 10-K for further discussion.

Impairment of in-process research and development intangible asset:

	Years Ended December 31,			2015 to 2016 Change	2014 to 2015 Change
	2016	2015	2014		
	(Dollars in millions)				
Impairment of in-process research and development intangible asset	$18.3	$—	$—	100.0%	0.0%

During the fourth quarter of 2016, we recorded a charge of $18.3 million related the impairment of in-process research and development intangible asset acquired in the acquisition of Snowbush IP. The impairment of this intangible asset resulted from a delay in the market served by this initiative. This delay will not impact the short-term revenue expectations but will impact our revenue expectations several years into the future. This impairment was partially offset by a $6.8 million reduction of acquisition purchased consideration related to this product line.

During 2015 and 2014, we did not record a charge for the impairment of any intangible assets or goodwill.

Refer to Note 5 "Intangible Assets and Goodwill," of Notes to Consolidated Financial Statements of this Form 10-K for further discussion.

Change in contingent consideration liability:

	Years Ended December 31,			2015 to 2016	2014 to 2015
	2016	2015	2014	Change	Change
	(Dollars in millions)				
Change in contingent consideration liability	$(6.8)	$—	$—	100.0%	0.0%

During the fourth quarter of 2016, we recorded a reduction in our contingent consideration liability of $6.8 million resulting in a gain in our Consolidated Statements of Operations of this Form 10-K. See the "Impairment of in-process research and development intangible asset" section discussed above for further details.

Gain from sale of intellectual property:

	Years Ended December 31,			2015 to 2016	2014 to 2015
	2016	2015	2014	Change	Change
	(Dollars in millions)				
Gain from sale of intellectual property	$—	$3.7	$3.5	(100.0)%	4.4%

During 2016, we did not sell any of our patent assets.

During 2013, we sold portfolios of our patent assets covering lighting technologies. As part of these transactions, we received an initial upfront payment and expect to receive subsequent payments when the purchaser of the patents is successful in licensing that portfolio. During 2015 and 2014, we received $3.7 million and $3.4 million, respectively, from the purchaser of the patents related to this transaction which was recorded as gain from sale of intellectual property. During 2016, we did not receive any payment from the purchaser of the patents related to this transaction.

During 2014, we sold portfolios of our patent assets covering wireless and other technologies.

Gain from settlement:

	Years Ended December 31,			2015 to 2016	2014 to 2015
	2016	2015	2014	Change	Change
	(Dollars in millions)				
Gain from settlement	$0.6	$2.0	$2.0	(71.6)%	0.0%

The settlements with SK hynix and Micron are multiple element arrangements for accounting purposes. For a multiple element arrangement, we are required to determine the fair value of the elements. We considered several factors in determining the accounting fair value of the elements of the settlement with SK hynix and the settlement with Micron which included a third party valuation using an income approach (the "SK hynix Fair Value" and "Micron Fair Value", respectively). The total gain from settlement related to the settlements with SK hynix and Micron was $1.9 million and $3.3 million, respectively. As of the end of the second quarter of 2016, the total gain from settlement related to the settlements with SK hynix and Micron has been fully recognized. During the years ended December 31, 2016, 2015 and 2014, we recognized $0.6 million, $2.0 million and $2.0 million as gain from settlement, which represents the portion of the SK hynix Fair Value and Micron Fair Value of the cash consideration allocated to the resolution of the antitrust litigation settlements. Refer to Note 18, "Agreements with SK hynix and Micron," of Notes to Consolidated Financial Statements of this Form 10-K for further discussion.

Interest and other income (expense), net:

	Years Ended December 31,			2015 to 2016	2014 to 2015
	2016	2015	2014	Change	Change
	(Dollars in millions)				
Interest income and other income (expense), net	$ 1.7	$ 1.2	$ (0.3)	42.2%	NM*
Interest expense	(12.7)	(12.4)	(24.8)	2.7%	(50.0)%
Interest and other income (expense), net	$(11.0)	$(11.2)	$(25.1)	(1.6)%	(55.4)%

* NM — percentage is not meaningful

Interest income and other income (expense), net, consists primarily of interest income generated from investments in high quality fixed income securities and any gains or losses from the re-measurement of our monetary assets or liabilities denominated in foreign currencies. Additionally, in 2014, during our review of the remaining fair value of our $0.6 million investment in the non-marketable equity security of a private company, based on the information provided by the private company, we determined that there was a decrease in the security's fair value. The fair value of the non-marketable equity security was determined based on an income approach, using level 3 fair value inputs, as it was deemed to be the most indicative of the security's fair value. Accordingly, we recorded an impairment charge for the entire remaining amount of $0.6 million related to our investment in the non-marketable equity security in 2014.

Interest expense consists of interest expense associated with our imputed facility lease obligations on the Sunnyvale and Ohio facilities and non-cash interest expense related to the amortization of the debt discount and issuance costs on the 5% convertible senior notes due 2014 (the "2014 Notes") and the 1.125% convertible senior notes due 2018 (the "2018 Notes"), as well as the coupon interest related to these notes. Interest expense increased in 2016 as compared to the same period in 2015 primarily due to the maturing of the 2018 Notes. Interest expense decreased in 2015 as compared to the same period in 2014 primarily due to the repayment of the 2014 Notes in the second quarter of 2014. For the years ended December 31, 2016, 2015, and 2014, we recognized $4.4 million, $4.5 million and $4.5 million, respectively, of interest expense in connection with the imputed financing obligations in our statements of operations. We expect our non-cash interest expense to increase steadily as the notes reach maturity. See Note 10, "Convertible Notes," of Notes to Consolidated Financial Statements of this Form 10-K for additional details.

Provision for (benefit from) income taxes:

	Years Ended December 31,			2015 to 2016	2014 to 2015
	2016	2015	2014	Change	Change
	(Dollars in millions)				
Provision for (benefit from) income taxes	$15.8	$(151.2)	$24.0	NM*	NM*
Effective tax rate	69.9%	(251.0)%	47.9%		

* NM — percentage is not meaningful

Our effective tax rate for the year ended December 31, 2016 was different from the U.S. statutory tax rate primarily due to income tax expense recognized from exercises and expiration of out-of-the-money fully vested shares from our equity incentive plans. Our effective tax rates for the year ended December 31, 2015 was different from the U.S. statutory tax primarily due to the release of the valuation allowance on our U.S. federal and state deferred tax assets, offset by federal, state, and foreign taxes. Our effective tax rates for the years ended December 31, 2014 were different from the U.S. statutory tax rate primarily due to the valuation allowance on our U.S. deferred tax assets and foreign withholding and income taxes.

We recorded a provision for income taxes of $15.8 million for the year ended December 31, 2016, which was primarily comprised of withholding taxes, other foreign taxes and current state taxes. For the year ended December 31, 2016, we paid withholding taxes of $22.0 million. We recorded a benefit from income taxes of $151.2 million for the year ended December 31, 2015, which was primarily comprised of tax benefit from the release of the valuation allowance on U.S. deferred taxes offset by federal state and foreign taxes. For the year ended December 31, 2015, we paid withholding taxes of $20.4 million. We recorded a provision for income taxes of $24.0 million for the year ended December 31, 2014, which was primarily comprised of withholding taxes, other foreign taxes and current state taxes. For the year ended December 31, 2014, we paid withholding taxes of $19.4 million.

We periodically evaluate the realizability of our net deferred tax assets based on all available evidence, both positive and negative. The realizability of our net deferred tax assets is dependent on our ability to generate sufficient future taxable income during periods prior to the expiration of tax attributes to fully utilize these assets. During the third quarter of 2015, we evaluated the realizability of our net deferred tax assets based on all available evidence, both positive and negative, and determined that it was appropriate to release the valuation allowance for our U.S. federal and other state deferred tax assets, in accordance with FASB ASC 740-10-30-16 to 25.

We emerged from a cumulative loss position over the previous three years during the first quarter of 2015. The cumulative three-year pre-tax income is considered positive evidence which is objective and verifiable, and thus, received significant weighting. The continued stability in our operations along with the increased visibility into the adoption of our security technology in the third quarter of 2015 provided additional evidence to our belief that we will generate sufficient taxable income in the future. Additional positive evidence considered by us in our assessment included a lack of unused operating loss carryforwards in our history as well as anticipated future benefits from our cost management. Negative evidence we considered included economic uncertainties such as volatility of the semiconductor industry and uncertainties associated with the development of new products that could impact our ability to generate a sustained level of future profits.

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Liquidity and Capital Resources

	December 31, 2016	December 31, 2015
	(In millions)	
Cash and cash equivalents	$135.3	$143.8
Marketable securities	36.9	143.9
Total cash, cash equivalents, and marketable securities	$172.2	$287.7

	Years Ended December 31,		
	2016	2015	2014
	(In millions)		
Net cash provided by operating activities	$ 92.5	$ 76.4	$ 76.5
Net cash provided by (used in) investing activities	$(105.2)	$ 1.1	$ (97.9)
Net cash provided by (used in) financing activities	$ 5.8	$(87.8)	$(163.0)

Liquidity

We currently anticipate that existing cash, cash equivalents and marketable securities balances and cash flows from operations will be adequate to meet our cash needs for at least the next 12 months. Additionally, the majority of our cash and cash equivalents are in the United States. Our cash needs for the year ended December 31, 2016 were funded primarily from cash collected from our customers.

We do not anticipate any liquidity constraints as a result of either the current credit environment or investment fair value fluctuations. Additionally, we have the intent and ability to hold our debt investments that have unrealized losses in accumulated other comprehensive gain (loss) for a sufficient period of time to allow for recovery of the principal amounts invested. Additionally, we have no significant exposure to European sovereign debt. We continually monitor the credit risk in our portfolio and mitigate our credit risk exposures in accordance with our policies.

As a part of our overall business strategy, from time to time, we evaluate businesses and technologies for potential acquisition that are aligned with our core business and designed to supplement our growth, including the acquisitions of SCS, the assets of the Snowbush IP group and the Memory Interconnect Business.

To provide us with more flexibility in returning capital back to our shareholders, on January 21, 2015, our Board authorized a share repurchase program authorizing the repurchase of up to an aggregate of 20.0 million shares. In the fourth quarter of 2015, we entered into an accelerated share repurchase program to repurchase an aggregate of $100.0 million of our common stock and received an initial delivery of 7.8 million shares. During the second quarter of 2016, the accelerated share repurchase program was completed and we received an additional 0.7 million shares of our common stock as the final settlement of the accelerated share repurchase program. We may continue to tactically execute the share repurchase program from time to time.

As of December 31, 2016, there remained an outstanding authorization to repurchase approximately 11.5 million shares of our outstanding common stock under the current share repurchase program. See “Share Repurchase Program” below.

Operating Activities

Cash provided by operating activities of $92.5 million for the year ended December 31, 2016 was primarily attributable to the cash generated from customer licensing, software license and related implementation, support and maintenance fees, product sales and engineering services fees. Changes in operating assets and liabilities for the year ended December 31, 2016 primarily included a decrease in accrued salaries and benefits and other liabilities mainly due to the payout of the Corporate Incentive Plan and increases in deferred revenue and inventory.

Cash provided by operating activities of $76.4 million for the year ended December 31, 2015 was primarily attributable to the cash generated from customer licensing. Additionally, there was a non-cash deferred tax adjustment to reconcile net income to net cash provided by operating activities due to the release of the valuation allowance on our U.S. deferred tax assets of approximately $174.5 million during the third quarter of 2015. Changes in operating assets and liabilities for the year ended December 31, 2015 primarily included an increase in accounts receivable arising from a renewal of a license agreement with a technology licensing customer in the fourth quarter of 2015, an increase in prepaids and other current assets, and decrease in accrued salaries and benefits and other liabilities.

Cash provided by operating activities of $76.5 million for the year ended December 31, 2014 was primarily attributable to the cash generated from customer licensing. Changes in operating assets and liabilities for the year ended December 31, 2014 primarily included a decrease in accrued salaries and benefits and other accrued liabilities primarily due to the payment of retention bonuses and an increase in accounts receivable, offset by increases in income taxes payable and deferred revenue.

Investing Activities

Cash used in investing activities of $105.2 million for the year ended December 31, 2016 primarily consisted of cash paid for the acquisition of SCS of $92.6 million, net of cash acquired of $12.1 million, cash paid for the acquisition of the Memory Interconnect Business of $90.0 million, cash paid for the acquisition of the assets of the Snowbush IP group assets of $32.0 million, cash paid for purchases of available-for-sale marketable securities of $54.9 million, $8.6 million paid to acquire property, plant and equipment, offset by proceeds from the maturities and sales of available-for-sale marketable securities of $110.1 million and $50.5 million, respectively.

Cash provided by investing activities of $1.1 million for the year ended December 31, 2015 primarily consisted of proceeds from the maturities and sales of available-for-sale marketable securities of $112.7 million and $48.4 million, respectively. This was partially offset by cash paid for purchases of available-for-sale marketable securities of $157.8 million and $6.1 million paid to acquire property, plant and equipment. In addition, we received $3.9 million from the sale of intellectual property and the sale of property, plant and equipment.

Cash used in investing activities of $97.9 million for the year ended December 31, 2014 primarily consisted of cash paid for purchases of available-for-sale marketable securities of $240.3 million, offset by proceeds from the maturities and sales of available-for-sale marketable securities of $118.7 million and $25.0 million, respectively. In addition, we paid $7.2 million to acquire property, plant and equipment. We also received $5.9 million from the sale of intellectual property.

Financing Activities

Cash provided by financing activities was $5.8 million for the year ended December 31, 2016. We received proceeds of $15.4 million from the issuance of common stock under equity incentive plans, offset by the payment of the additional purchase consideration from the SCS acquisition of $10.2 million and $0.6 million in principal payments made against the lease financing obligation.

Cash used in financing activities was $87.8 million for the year ended December 31, 2015 and was primarily due to an aggregate payment of $100.0 million to Citibank, N.A., as part of our accelerated share repurchase program. We also paid $0.1 million in fees related to the accelerated share repurchase program. We received proceeds of $13.8 million from the issuance of common stock under equity incentive plans, paid $1.7 million due to payments under installment payment arrangements to acquire fixed assets and paid $0.5 million related to the principal payments against the lease financing obligation.

Cash used in financing activities was $163.0 million for the year ended December 31, 2014. We repaid the principal of the 2014 convertible senior notes amounting to $172.5 million, which became due in June 2014. We also received proceeds of $11.1 million from the issuance of common stock under equity incentive plans, paid $1.8 million due to payments under installment payment arrangements to acquire fixed assets and paid $0.3 million related to the principal payments against the lease financing obligation.

Contractual Obligations

On December 15, 2009, we entered into a lease agreement for approximately 125,000 square feet of office space located at 1050 Enterprise Way in Sunnyvale, California commencing on July 1, 2010 and expiring on June 30, 2020. The office space is used for our corporate headquarters, as well as engineering, sales, marketing and administrative operations and activities. We have two options to extend the lease for a period of 60 months each and a one-time option to terminate the lease after 84 months in exchange for an early termination fee. Pursuant to the terms of the lease, the landlord agreed to reimburse us approximately $9.1 million, which was received by the year ended December 31, 2011. We recognized the reimbursement as an additional imputed financing obligation as such payment from the landlord is deemed to be an imputed financing obligation. On November 4, 2011, to better plan for future expansion, we entered into an amended lease for our Sunnyvale facility for approximately an additional 31,000 square feet of space commencing on March 1, 2012 and expiring on June 30, 2020. Additionally, a tenant improvement allowance to be provided by the landlord was approximately $1.7 million. On September 29, 2012, we entered into a second amended Sunnyvale lease to reduce the tenant improvement allowance to approximately $1.5 million. On January 31, 2013, we entered into a third amendment to the Sunnyvale lease to surrender the 31,000 square-foot space from the first amendment back to the landlord and recorded a total charge of $2.0 million related to the surrender of the amended lease.

On March 8, 2010, we entered into a lease agreement for approximately 25,000 square feet of office and manufacturing areas, located in Brecksville, Ohio. The office space is used for RLD's engineering activities while the manufacturing space is used for the manufacturer of prototypes. This lease was amended on September 29, 2011 to expand the facility to approximately 51,000 total square feet and the amended lease will expire on July 31, 2019. We have an option to extend the lease for a period of 60 months.

We undertook a series of structural improvements to ready the Sunnyvale and Brecksville facilities for our use. Since certain improvements to be constructed by us were considered structural in nature and we were responsible for any cost overruns, for accounting purposes, we were treated in substance as the owner of the construction project during the construction period. At the completion of each construction, we concluded that we retained sufficient continuing involvement to preclude de-recognition of the building under the FASB authoritative guidance applicable to the sale leasebacks of real estate. As such, we continue to account for the building as owned real estate and to record an imputed financing obligation for our obligation to the legal owners.

Monthly lease payments on the facility are allocated between the land element of the lease (which is accounted for as an operating lease) and the imputed financing obligation. The imputed financing obligation is amortized using the effective interest method and the interest rate was determined in accordance with the requirements of sale leaseback accounting. For the years ended December 31, 2016, 2015 and 2014, we recognized in our Consolidated Statements of Operations $4.4 million, $4.5 million and $4.5 million, respectively, of interest expense in connection with the imputed financing obligation on these facilities. At December 31, 2016 and 2015, the imputed financing obligation balance in connection with these facilities was $38.9 million and $39.3 million, respectively, which was primarily classified under long-term imputed financing obligation.

On June 29, 2009, we entered into an Indenture with U.S. Bank, National Association, as trustee, relating to the issuance by us of $150.0 million aggregate principal amount of the 2014 Notes. On July 10, 2009, an additional $22.5 million in aggregate principal amount of 2014 Notes were issued as a result of the underwriters exercising their overallotment option. During the second quarter of 2014, we paid upon maturity the entire $172.5 million in aggregate principal amount of the 2014 Notes. See Note 10, "Convertible Notes," of Notes to Consolidated Financial Statements of this Form 10-K for additional details.

On August 16, 2013, we entered into an Indenture with U.S. Bank, National Association, as trustee, relating to the issuance by us of $138.0 million aggregate principal amount of the 2018 Notes. The aggregate principal amount of the 2018 Notes as of December 31, 2016 and 2015 was $138.0 million, offset by unamortized debt discount of and unamortized debt issuance costs of $10.9 million and $0.9 million, respectively, and $17.1 million and $1.5 million, respectively, on the accompanying consolidated balance sheets. The unamortized discount related to the 2018 Notes is being amortized to interest expense using the effective interest method over the remaining 20 months until maturity of the 2018 Notes on August 15, 2018. See Note 10, "Convertible Notes," of Notes to Consolidated Financial Statements of this Form 10-K for additional details.

As of December 31, 2016, our material contractual obligations are as follows (in thousands):

	Total	2017	2018	2019	2020	2021	Thereafter
Contractual obligations (1)							
Imputed financing obligation (2)	$ 22,220	$ 6,302	$ 6,447	$ 6,602	$2,869	$—	$—
Leases and other contractual obligations	10,837	5,649	2,606	1,432	603	543	4
Software licenses (3)	24,255	10,497	10,226	3,532	—	—	—
Convertible notes	138,000	—	138,000	—	—	—	—
Interest payments related to convertible notes	3,105	1,553	1,552	—	—	—	—
Total	$198,417	$24,001	$158,831	$11,566	$3,472	$543	$ 4

(1) The above table does not reflect possible payments in connection with uncertain tax benefits of approximately $21.9 million including $19.7 million recorded as a reduction of long-term deferred tax assets and $2.2 million in long-term income taxes payable, as of December 31, 2016. As noted in Note 16, “Income Taxes,” of Notes to Consolidated Financial Statements of this Form 10-K, although it is possible that some of the unrecognized tax benefits could be settled within the next 12 months, we cannot reasonably estimate the outcome at this time.

(2) With respect to the imputed financing obligation, the main components of the difference between the amount reflected in the contractual obligations table and the amount reflected on the Consolidated Balance Sheets are the interest on the imputed financing obligation and the estimated common area expenses over the future periods. The amount includes the amended Ohio lease and the amended Sunnyvale lease.

(3) We have commitments with various software vendors for non-cancellable agreements generally having terms longer than one year.

Share Repurchase Program

During the year ended December 31, 2016, we repurchased and retired 0.7 million shares of our common stock under our share repurchase program.

On January 21, 2015, our Board approved a share repurchase program authorizing the repurchase of up to an aggregate of 20.0 million shares. Share repurchases under the plan may be made through the open market, established plans or privately negotiated transactions in accordance with all applicable securities laws, rules, and regulations. There is no expiration date applicable to the plan.

On October 26, 2015, we initiated an accelerated share repurchase program with Citibank, N.A. The accelerated share repurchase program is part of the broader share repurchase program previously authorized by our Board on January 21, 2015. Under the accelerated share repurchase program, we pre-paid to Citibank, N.A., the $100.0 million purchase price for our common stock and, in turn, we received an initial delivery of approximately 7.8 million shares of our common stock from Citibank, N.A, in the fourth quarter of 2015, which were retired and recorded as a $80.0 million reduction to stockholders’ equity. The remaining $20.0 million of the initial payment was recorded as a reduction to stockholders’ equity as an unsettled forward contract indexed to our stock. The number of shares to be ultimately purchased by us was determined based on the volume weighted average price of the common stock during the terms of the transaction, minus an agreed upon discount between the parties. During the second quarter of 2016, the accelerated share repurchase program was completed and we received an additional 0.7 million shares of our common stock as the final settlement of the accelerated share repurchase program.

As of December 31, 2016, there remained an outstanding authorization to repurchase approximately 11.5 million shares of our outstanding common stock under the current share repurchase program.

We record stock repurchases as a reduction to stockholders' equity. We record a portion of the purchase price of the repurchased shares as an increase to accumulated deficit when the price of the shares repurchased exceeds the average original proceeds per share received from the issuance of common stock.

Critical Accounting Policies and Estimates

The discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses, and related disclosure of contingent assets and liabilities. On an ongoing basis, we evaluate our estimates, including those related to revenue recognition, investments, income taxes, litigation and other contingencies. We base our estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

We believe the following critical accounting policies affect our more significant judgments and estimates used in the preparation of our consolidated financial statements.

Revenue Recognition

Overview

We recognize revenue when persuasive evidence of an arrangement exists, we have delivered the product or performed the service, the fee is fixed or determinable and collection is reasonably assured. If any of these criteria are not met, we defer recognizing the revenue until such time as all criteria are met. Determination of whether or not these criteria have been met may require us to make judgments, assumptions and estimates based upon current information and historical experience.

For arrangements that involve the delivery of more than one element, each license, service or product is evaluated to determine whether it qualifies as a separate unit of accounting. This determination is based on whether the deliverable has "stand-alone value" to the customer. The consideration that is fixed or determinable is then allocated to each separate unit of accounting based on the relative selling price of each deliverable. We determine the relative selling price for a deliverable based on its best estimate of selling price ("BESP"). Except for some revenue associated to the acquisition of Bell Identification Ltd., we have determined that vendor-specific objective evidence of selling price for each deliverable is not available as it lacks a consistent number of standalone sales and third-party evidence is not a practical alternative due to differences in its service offerings compared to other parties and the availability of relevant third-party pricing information. We determined BESP by considering our overall pricing objectives and market conditions. Significant pricing practices taken into consideration include discounting practices, the size and volume of transactions, the customer demographic, the geographic area where services are sold, price lists, go-to-market strategy, historical standalone sales and contract prices. The determination of BESP is made through consultation with and approval by our management, taking into consideration the go-to-market strategy. As the go-to-market strategies evolve, we may modify our pricing practices in the future, which could result in changes in relative selling prices. In most cases, the relative values of the undelivered components are not material to the overall arrangement and are typically delivered within twelve months after the core product has been delivered. In such agreements, selling price is determined for each component and any difference between the total of the separate BESP and total contract consideration (i.e. discount) is allocated pro-rata across each of the components in the arrangement.

During the first quarter of 2016, we acquired Smart Card Software Ltd., which included Bell Identification Ltd. and Ecebs Ltd., which transact mostly in software and hosted services (SaaS) arrangements, respectively.

For software arrangements that include multiple elements, including software licenses, professional services and maintenance services, we allocate and defer revenue for the undelivered items (typically only the maintenance services) based on the fair value using vendor specific objective evidence ("VSOE"), and recognize the difference between the total arrangement fee and the amount deferred for the undelivered item(s) as revenue. VSOE of fair value of each maintenance element is based on the contractual stated renewal rate for that maintenance element. When VSOE of fair value does not exist for undelivered items, the entire arrangement fee is recognized ratably over the performance period. For hosted services arrangements, we recognize the arrangements over the service obligation period.

Our revenue consists of royalty revenue and contract and other revenue derived from MID, RSD and RLD operating segments. Royalty revenue consists of patent license and technology license royalties. Contract and other revenue consists of software license fees, engineering fees associated with integration of our technology solutions into our customers' related support and maintenance, as well as sale of products.

During 2013, we expanded our business strategy of monetizing our patent portfolio to include the sale of selected intellectual property. Our MID business continues to grow its patent portfolio and actively engages with various external parties to monetize the patent portfolio and explore new revenue opportunities. As the sales of such patents developed by our MID business unit under this expanded strategy represents a component of our ongoing major or central operations, we record the related proceeds as revenue. We will recognize the revenue when there is persuasive evidence of a sales arrangement, fees are fixed or determinable, delivery has occurred and collectibility is reasonably assured. These requirements are generally fulfilled upon closing of the patent sale transaction.

Royalty Revenue

We generally recognize royalty revenue upon notification by our customers and when deemed collectible. The terms of the royalty agreements generally either require customers to give us notification and to pay the royalties within a specified period or are based on a fixed royalty that is due within a specified period. Many of our customers have the right to cancel their licenses. In such arrangements, revenue is only recognized to the extent that is consistent with the cancellation provisions. Cancellation provisions within such contracts generally provide for a prospective cancellation with no refund of fees already remitted by customers for products provided and payment for services rendered prior to the date of cancellation. We have two types of royalty revenue: (1) patent license royalties and (2) technology license royalties.

Patent licenses — We license our broad portfolio of patented inventions to companies who use these inventions in the development and manufacture of their own products. Such licensing agreements may cover the license of part, or all, of our patent portfolio. The contractual terms of the agreements generally provide for payments over an extended period of time. For the licensing agreements with fixed royalty payments, we generally recognize revenue from these arrangements as amounts become due. For the licensing agreements with variable royalty payments which can be based on either a percentage of sales or number of units sold, we earn royalties at the time that the customers' sales occur. Our customers, however, do not report and pay royalties owed for sales in any given quarter until after the conclusion of that quarter. As we are unable to estimate the customers' sales in any given quarter to determine the royalties due to us, we recognize royalty revenues based on royalties reported by customers during the quarter and when other revenue recognition criteria are met.

In addition, we may enter into certain settlements of patent infringement disputes. The amount of consideration received upon any settlement (including but not limited to past royalty payments, future royalty payments and punitive damages) is allocated to each element of the settlement based on the fair value of each element. In addition, revenues related to past royalties are recognized upon execution of the agreement by both parties, provided that the amounts are fixed or determinable, there are no significant undelivered obligations and collectability is reasonably assured. We do not recognize any revenues prior to execution of the agreement since there is no reliable basis on which we can estimate the amounts for royalties related to previous periods or assess collectability. Elements that are related to royalty revenue in nature (including but not limited to past royalty payments and future royalty payments) will be recorded as royalty revenue in the consolidated statements of operations. Elements that are not related to royalty revenue in nature (including but not limited to punitive damage and settlement) will be recorded as gain from settlement which is reflected as a separate line item within the operating expenses section in the consolidated statements of operations.

Technology licenses — We develop proprietary and industry-standard products that we provide to our customers under technology license agreements. These arrangements include royalties, which can be based on either a percentage of sales or number of units sold. We earn royalties on such licensed products sold worldwide by our customers at the time that the customers' sales occur. Our customers, however, do not report and pay royalties owed for sales in any given quarter until after the conclusion of that quarter. As we are unable to estimate the customers' sales in any given quarter to determine the royalties due to us, we recognize royalty revenues based on royalties reported by customers during the quarter and when other revenue recognition criteria are met.

Contract and Other Revenue

We recognize revenue from the sale of products upon shipment of the product to our customers, net of accruals for estimated sales returns and allowances, which to date, have not been significant. However, some of our sales are made through distributors under arrangements that allow for price protection or rights of return on product unsold by the distributors. Product revenue on sales made through distributors with rights of return or price protection is deferred until the distributors sell the product to end customers. Sales to distributors are included in deferred revenue and we defer the related costs until sale to the end customers occurs. Price protection rights allow distributors the right to a credit in the event of declines in the price of our product that they hold prior to the sale to an end customer. In the event that we reduce the selling price of products held by distributors, deferred revenue related to distributors with price protection rights is reduced upon notification to the customer of the price change. Our sales to direct customers are made primarily pursuant to standard purchase orders for delivery of products. We generally allow customers to cancel or change purchase orders within limited notice periods prior to the scheduled shipment.

For software arrangements that include multiple elements, including software licenses, professional services and maintenance services, we allocate and defer revenue for the undelivered items (typically only the maintenance services) based on the fair value using vendor specific objective evidence ("VSOE"), and recognize the difference between the total arrangement fee and the amount deferred for the undelivered item(s) as revenue. VSOE of fair value of each maintenance element is based on the contractual stated renewal rate for that maintenance element. When VSOE of fair value does not exist for undelivered items, the entire arrangement fee is recognized ratably over the performance period.

For software arrangements, we use the percentage-of-completion method for contracts that involve the implementation of software solutions and that qualify for percentage-of-completion revenue accounting (e.g. software arrangements that contain a PCS element that has VSOE of fair value established and that have no refund rights that would allow a customer refunds of fees paid under the arrangement). Revenue is recognized based on man-days incurred during the reporting period as compared to the estimated total man-days necessary for each contract, not to exceed the billable project acceptances received, with deferral of corresponding contract costs, if applicable. Should a loss be anticipated on a contract, the full amount of the loss would be recorded when the loss is determinable. Maintenance and support revenue includes post-implementation customer support and the right to unspecified software updates and enhancements on a when and if available basis. We recognize revenue from maintenance arrangements ratably over the period in which the services are provided.

For development contracts related to licenses of our solutions that involve significant engineering and integration services, we use the proportional performance method. The measurement of progress to completion is based on actual man-months incurred during the reporting period, not to exceed the billable project acceptances received. Contract costs are recognized as incurred. Maintenance and support revenue includes minimal hours of post-implementation customer support that is recognized ratably over the support period.

Goodwill

Goodwill represents the excess of the purchase price over the fair value of the net tangible and identifiable intangible assets acquired in each business combination. Goodwill is not subject to amortization, but is subject to at least an annual assessment for impairment, applying a fair-value based test. We perform our impairment analysis of goodwill on an annual basis during the fourth quarter of the year unless conditions arise that warrant a more frequent evaluation.

Goodwill is allocated to the various reporting units which are generally operating segments. The goodwill impairment test involves a two-step process. In the first step, we compare the fair value of each reporting unit to its carrying value. The fair values of the reporting units are estimated using an income or discounted cash flows approach.

Under the income approach, we measure fair value of the reporting unit based on a projected cash flow method using a discount rate determined by our management which is commensurate with the risk inherent in our current business model. Our discounted cash flow projections are based on our annual financial forecasts developed internally by management for use in managing our business. If the fair value of the reporting unit exceeds its carrying value, goodwill is not impaired and no further testing is required. If the fair value of the reporting unit is less than the carrying value, we must perform the second step of the impairment test to measure the amount of impairment loss. In the second step, the reporting unit's fair value is allocated to all of the assets and liabilities of the reporting unit, including any unrecognized intangible assets, in a hypothetical analysis that calculates the implied fair value of goodwill in the same manner as if the reporting unit was being acquired by a market participant in a business combination. If the implied fair value of the reporting unit's goodwill is less than the carrying value, the difference is recorded as an impairment loss.

As of December 31, 2016, the fair value of the MID reporting unit, with $66.6 million of goodwill, exceeded the carrying value of its net assets by approximately 299% and the fair value of the RSD reporting unit, with $138.2 million of goodwill, exceeded the carrying value of its net assets by approximately 89%. Key assumptions used to determine the fair value of the MID and RSD reporting units at December 31, 2016, were the revenue growth rates for the forecast period and terminal year, terminal growth rates and discount rates. Certain estimates used in the income approach involve information for new product lines with limited financial history and developing revenue models which increase the risk of differences between the projected and actual performance. The discount rate of 12% for MID and 16.5% for RSD is based on the reporting units' overall risk profile relative to other guideline companies, market adoption of our technology, the reporting units' respective industry as well as the visibility of future expected cash flows. The terminal growth rate applied to determine fair value for both reporting units was 3%, which was based on historical experience as well as anticipated economic conditions, industry data and long term outlook for the business. These assumptions are inherently uncertain.

Given the current economic environment and the uncertainties regarding the impact on our business, there can be no assurance that the estimates and assumptions made for purposes of our goodwill impairment testing in the fourth quarter of 2016 will prove to be accurate predictions of the future. If our assumptions regarding forecasted revenues or operating margin rates are not achieved, we may be required to record goodwill impairment charges in future periods, whether in connection with the next annual impairment testing or prior to that if any change constitutes a triggering event outside of the period when the annual goodwill impairment test is performed. It is not possible at this time to determine if any such future impairment charge would result or, if it does, whether such charge would be material. We believe that the assumptions and rates used in our impairment test are reasonable. However, they are judgmental, and variations in any of the assumptions or rates could result in materially different calculations of impairment amounts.

Intangible Assets

Intangible assets are comprised of existing technology, customer contracts and contractual relationships, and other definite-lived and indefinite-lived intangible assets. Identifiable intangible assets resulting from the acquisitions of entities accounted for using the purchase method of accounting are estimated by management based on the fair value of assets received. Identifiable definite-lived intangible assets are being amortized over the period of estimated benefit using the straight-line method and estimated useful lives ranging from 1 to 10 years.

We amortize definite-lived assets over their estimated useful lives. We evaluate definite-lived and indefinite-lived assets for impairment whenever events or changes in circumstances indicate the carrying value of an asset may not be recoverable. The carrying value is not recoverable if it exceeds the undiscounted cash flows resulting from the use of the asset and its eventual disposition. Our estimates of future cash flows attributable to our assets require significant judgment based on our historical and anticipated results and are subject to many factors. Factors we consider important which could trigger an impairment review include significant negative industry or economic trends, significant loss of clients, and significant changes in the manner of our use of the acquired assets or the strategy for our overall business.

When we determine that the carrying value of the assets may not be recoverable based upon the existence of one or more of the above indicators of impairment, we measure the potential impairment based on a projected discounted cash flow method using a discount rate determined by our management to be commensurate with the risk inherent in our current business model. An impairment loss is recognized only if the carrying amount of the asset is not recoverable and exceeds its fair value. Different assumptions and judgments could materially affect the calculation of the fair value of our assets.

Acquired indefinite-lived intangible assets related to our in-process research and development (“IPR&D”) are capitalized and subject to impairment testing until completion or abandonment of the projects. Upon successful completion of each project, we make a separate determination of useful life of the acquired indefinite-lived intangible assets and the related amortization is recorded as an expense over the estimated useful life of the specific projects. Indefinite-lived intangible assets are subject to at least an annual assessment for impairment, applying a fair-value based test. Under the income approach, we measure fair value of the indefinite-lived intangible assets based on a projected cash flow method using a discount rate determined by our management which is commensurate with the risk inherent in our current business model. Our discounted cash flow projections are based on our annual financial forecasts developed internally by our management for use in managing our business. If the fair value of the indefinite-lived intangible assets exceeds its carrying value, the indefinite-lived intangible assets are not impaired and no further testing is required. If the implied fair value of the indefinite-lived intangible assets is less than the carrying value, the difference is recorded as an impairment loss.

Income Taxes

As part of preparing our consolidated financial statements, we are required to calculate the income tax expense or benefit which relates to the pretax income or loss for the period. In addition, we are required to assess the realization of the deferred tax asset or liability to be included on the consolidated balance sheet as of the reporting dates.

As of December 31, 2016, our consolidated balance sheet included net deferred tax assets, before valuation allowance, of approximately $180.2 million, which consists of net operating loss carryovers, tax credit carryovers, amortization, employee stock-based compensation expenses and certain liabilities, partially reduced by deferred tax liabilities associated with the convertible debt instruments. As of December 31, 2016, we have a valuation allowance of $23.5 million resulting in net deferred tax assets of $156.7 million.

We periodically evaluate the realizability of our net deferred tax assets based on all available evidence, both positive and negative. The realizability of our net deferred tax assets is dependent on our ability to generate sufficient future taxable income during periods prior to the expiration of tax attributes to fully utilize these assets.

We emerged from a cumulative loss position over the previous three years during the first quarter of 2015. The cumulative three-year pre-tax income is considered positive evidence which is objective and verifiable, and thus, received significant weighting. The continued stability in our operations along with the increased visibility into the adoption of our security technology in the third quarter of 2015 provided additional evidence to our belief that we will generate sufficient taxable income in the future. Additional positive evidence considered by us in our assessment included a lack of unused operating loss carryforwards in our history as well as anticipated future benefits from our cost management. Negative evidence we considered included economic uncertainties such as volatility of the semiconductor industry and uncertainties associated with the development of new products that could impact our ability to generate a sustained level of future profits.

We maintain liabilities for uncertain tax positions within our long-term income taxes payable accounts and as a reduction to existing deferred tax assets to the extent tax attributes are available to offset such liabilities. These liabilities involve judgment and estimation and are monitored by us based on the best information available including changes in tax regulations, the outcome of relevant court cases and other information.

Tax attributes related to stock option windfall deductions are not to be recognized until they result in a reduction of cash taxes payable. The benefit of these excess tax benefits will be recorded to equity when they reduce cash taxes payable. We will only recognize a tax benefit from stock-based awards in additional paid-in capital if an incremental tax benefit is realized after all other tax attributes currently available have been utilized. In addition, we have elected to account for the indirect effects of stock-based awards on other tax attributes, such as the research tax credits, through the consolidated statement of operations as part of the tax effect of stock-based compensation.

The calculation of our tax liabilities involves uncertainties in the application of complex tax law and regulations in a multitude of jurisdictions. Although ASC 740 Income Taxes, provides further clarification on the accounting for uncertainty in income taxes, significant judgment is required by us. If the ultimate resolution of tax uncertainties is different from what is currently estimated, it could materially affect income tax expense.

Stock-Based Compensation

We maintained stock plans covering a broad range of potential equity grants including stock options, nonvested equity stock and equity stock units and performance based instruments. In addition, we sponsor an Employee Stock Purchase Plan ("ESPP"), whereby eligible employees are entitled to purchase Common Stock semi-annually, by means of limited payroll deductions, at a 15% discount from the fair market value of the Common Stock as of specific dates.

The accounting guidance for share-based payments requires the measurement and recognition of compensation expense in our statement of operations for all share-based payment awards made to our employees, directors and consultants including employee stock options, nonvested equity stock and equity stock units, and employee stock purchase grants. Stock-based compensation expense is measured at grant date, based on the estimated fair value of the award, reduced by an estimate of the annualized rate of expected forfeitures, and is recognized as expense over the employees' expected requisite service period, generally using the straight-line method. In addition, the accounting guidance for share-based payments requires the benefits of tax deductions in excess of recognized compensation expense to be reported as a financing cash flow, rather than as an operating cash flow as prescribed under previous accounting rules. Our forfeiture rate represents the historical rate at which our stock-based awards were surrendered prior to vesting. The accounting guidance for share-based payments requires forfeitures to be estimated at the time of grant and revised on a cumulative basis, if necessary, in subsequent periods if actual forfeitures differ from those estimates. See Note 12, "Equity Incentive Plans and

Stock-Based Compensation," of Notes to Consolidated Financial Statements of this Form 10-K for more information regarding the valuation of stock-based compensation.

Recent Accounting Pronouncements

See Note 3, "Recent Accounting Pronouncements," of Notes to Consolidated Financial Statements of this Form 10-K for a full description of recent accounting pronouncements including the respective expected dates of adoption.

Item 7A. *Quantitative and Qualitative Disclosures About Market Risk*

We are exposed to financial market risks, primarily arising from the effect of interest rate fluctuations on our investment portfolio. Interest rate fluctuation may arise from changes in the market's view of the quality of the security issuer, the overall economic outlook, and the time to maturity of our portfolio. We mitigate this risk by investing only in high quality, highly liquid instruments. Securities with original maturities of one year or less must be rated by two of the three industry standard rating agencies as follows: A1 by Standard & Poor's, P1 by Moody's and/or F-1 by Fitch. Securities with original maturities of greater than one year must be rated by two of the following industry standard rating agencies as follows: AA- by Standard & Poor's, Aa3 by Moody's and/or AA- by Fitch. By corporate investment policy, we limit the amount of exposure to $15.0 million or 10% of the portfolio, whichever is lower, for any single non-U.S. Government issuer. A single U.S. Agency can represent up to 25% of the portfolio. No more than 20% of the total portfolio may be invested in the securities of an industry sector, with money market fund investments evaluated separately. Our policy requires that at least 10% of the portfolio be in securities with a maturity of 90 days or less. We may make investments in U.S. Treasuries, U.S. Agencies, corporate bonds and municipal bonds and notes with maturities up to 36 months. However, the bias of our investment portfolio is shorter maturities. All investments must be U.S. dollar denominated. Additionally, we have no significant exposure to European sovereign debt.

We invest our cash equivalents and marketable securities in a variety of U.S. dollar financial instruments such as U.S. Treasuries, U.S. Government Agencies, commercial paper and corporate notes. Our policy specifically prohibits trading securities for the sole purposes of realizing trading profits. However, we may liquidate a portion of our portfolio if we experience unforeseen liquidity requirements. In such a case, if the environment has been one of rising interest rates we may experience a realized loss, similarly, if the environment has been one of declining interest rates we may experience a realized gain. As of December 31, 2016, we had an investment portfolio of fixed income marketable securities of $121.2 million including cash equivalents. If market interest rates were to increase immediately and uniformly by 1.0% from the levels as of December 31, 2016, the fair value of the portfolio would decline by approximately $0.1 million. Actual results may differ materially from this sensitivity analysis.

The fair value of our convertible notes is subject to interest rate risk, market risk and other factors due to the convertible feature. The fair value of the convertible notes will generally increase as interest rates fall and decrease as interest rates rise. In addition, the fair value of the convertible notes will generally increase as our common stock price increases and will generally decrease as our common stock price declines in value. The interest and market value changes affect the fair value of our convertible notes but do not impact our financial position, cash flows or results of operations due to the fixed nature of the debt obligation.

We invoice the majority of our customers in U.S. dollars. Although the fluctuation of currency exchange rates may impact our customers, and thus indirectly impact us, we do not attempt to hedge this indirect and speculative risk. Our overseas operations consist primarily of international business operations in the Netherlands and the United Kingdom, design centers in Canada, India, Finland and France and small business development offices in Australia, Japan, Korea and Taiwan. We monitor our foreign currency exposure; however, as of December 31, 2016, we believe our foreign currency exposure is not material enough to warrant foreign currency hedging.

Item 8. ***Financial Statements and Supplementary Data***

See Item 15 "Exhibits and Financial Statement Schedules" of this Form 10-K for required financial statements and supplementary data.

Item 9. ***Changes in and Disagreements with Accountants on Accounting and Financial Disclosure***

None.

Item 9A. ***Controls and Procedures***

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures designed to ensure that information required to be disclosed in the reports we file or submit pursuant to the Securities and Exchange Act of 1934 as amended ("Exchange Act") is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the Securities and Exchange Commission, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Management, with the participation of the Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of the design and operation of our disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act as of the end of the period covered by this report. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that, as of December 31, 2016, our disclosure controls and procedures were effective.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Our internal control over financial reporting is the process designed by, or under the supervision of, our Chief Executive Officer and Chief Financial Officer, and effected by our board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles, and includes those policies and procedures that:

(i) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect our transactions and dispositions of assets;

(ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with the authorization of our management and directors; and

(iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an assessment of the effectiveness of our internal control over financial reporting as of December 31, 2016. In making this assessment, our management used the criteria set forth in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). Based on the results of this assessment, management has concluded that, as of December 31, 2016, our internal control over financial reporting was effective based on the criteria in *Internal Control — Integrated Framework (2013)* issued by the COSO.

The Company's management has excluded SCS and the Memory Interconnect Business from its assessment of internal control over financial reporting as of December 31, 2016, because they were acquired by the Company in purchase business combinations during 2016. Combined total assets and revenues of these acquisitions represent approximately 4% and 10%, respectively, of the related consolidated financial statement amounts as of and for the year ended December 31, 2016.

The effectiveness of our internal control over financial reporting as of December 31, 2016 has been audited by PricewaterhouseCoopers, LLP, an independent registered public accounting firm, as stated in their report which appears herein.

Changes in Internal Control Over Financial Reporting

There was no change in internal control over financial reporting during the last fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. *Other Information*

None.

PART III

Item 10. *Directors, Executive Officers and Corporate Governance*

The information responsive to this item is incorporated herein by reference to our Proxy Statement for our 2017 annual meeting of stockholders to be filed with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K. The information under the heading "Our Executive Officers" in Part I, Item 1 of this Annual Report on Form 10-K is also incorporated herein by reference.

We have a Code of Business Conduct and Ethics for all of our directors, officers and employees. Our Code of Business Conduct and Ethics is available on our website at http://investor.rambus.com/corporate-governance-document.cfm?DocumentID=8379. To date, there have been no waivers under our Code of Business Conduct and Ethics. We will post any amendments or waivers, if and when granted, of our Code of Business Conduct and Ethics on our website.

Item 11. *Executive Compensation*

The information responsive to this item is incorporated herein by reference to our Proxy Statement for our 2017 annual meeting of stockholders to be filed with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

Item 12. *Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters*

The information responsive to this item is incorporated herein by reference to our Proxy Statement for our 2017 annual meeting of stockholders to be filed with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

Item 13. *Certain Relationships and Related Transactions, and Director Independence*

The information responsive to this item is incorporated herein by reference to our Proxy Statement for our 2017 annual meeting of stockholders to be filed with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

Item 14. *Principal Accountant Fees and Services*

The information responsive to this item is incorporated herein by reference to our Proxy Statement for our 2017 annual meeting of stockholders to be filed with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

PART IV

Item 15. ***Exhibits and Financial Statement Schedules***

(a) (1) Financial Statements

The following consolidated financial statements of the Registrant and Report of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm, are included herewith:

(a) (2) Financial Statement Schedule

All schedules are omitted because they are not applicable or the required information is shown in the Consolidated Financial Statements or the notes thereto.

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Rambus Inc.:

In our opinion, the accompanying consolidated financial statements listed in the index appearing under Item 15(a)(1) present fairly, in all material respects, the financial position of Rambus Inc. and its subsidiaries at December 31, 2016 and December 31, 2015, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2016 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on criteria established in *Internal Control — Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting under Item 9A. Our responsibility is to express opinions on these financial statements and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

As described in Management's Report on Internal Control over Financial Reporting, management has excluded Smart Card Software Limited ("SCS") and the Memory Interconnect Business from its assessment of internal control over financial reporting as of December 31, 2016 because they were acquired by the Company in separate purchase business combinations during the fiscal year ended December 31, 2016. We have also excluded SCS and the Memory Interconnect Business from our audit of internal control over financial reporting. SCS and the Memory Interconnect Business are wholly owned subsidiaries, whose total assets and total revenues represent 4% and 10%, respectively, of the related consolidated financial statement amounts as of and for the year ended December 31, 2016.

/s/ PricewaterhouseCoopers LLP

San Jose, California
February 17, 2017

RAMBUS INC.

CONSOLIDATED BALANCE SHEETS

	December 31, 2016	December 31, 2015
	(In thousands, except shares and per share amounts)	
ASSETS		
Current assets:		
Cash and cash equivalents	$ 135,294	$ 143,764
Marketable securities	36,888	143,942
Accounts receivable	21,099	16,408
Prepaids and other current assets	17,867	10,396
Inventories	5,633	1,080
Total current assets	216,781	315,590
Intangible assets, net	132,388	64,266
Goodwill	204,794	116,899
Property, plant and equipment, net	58,442	56,616
Deferred tax assets	168,342	162,485
Other assets	2,749	2,165
Total assets	$ 783,496	$ 718,021
LIABILITIES & STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 9,793	$ 4,096
Accrued salaries and benefits	14,177	12,278
Deferred revenue	16,932	5,780
Other current liabilities	10,399	6,212
Total current liabilities	51,301	28,366
Convertible notes, long-term	126,167	119,418
Long-term imputed financing obligation	38,029	38,625
Deferred tax liabilities	11,600	—
Other long-term liabilities	3,617	5,079
Total liabilities	230,714	191,488
Commitments and contingencies (Notes 11 and 17)		
Stockholders' equity:		
Convertible preferred stock, $.001 par value:		
Authorized: 5,000,000 shares; Issued and outstanding: no shares at December 31, 2016 and December 31, 2015	—	—
Common Stock, $.001 par value:		
Authorized: 500,000,000 shares; Issued and outstanding: 111,053,734 shares at December 31, 2016 and 109,287,591 shares at December 31, 2015	111	109
Additional paid in capital	1,181,230	1,130,368
Accumulated deficit	(615,051)	(604,317)
Accumulated other comprehensive income (loss)	(13,508)	373
Total stockholders' equity	552,782	526,533
Total liabilities and stockholders' equity	$ 783,496	$ 718,021

See Notes to Consolidated Financial Statements

RAMBUS INC.

CONSOLIDATED STATEMENTS OF OPERATIONS

	Years Ended December 31,		
	2016	2015	2014
	(In thousands, except per share amounts)		
Revenue:			
Royalties	$264,614	$ 262,415	$271,521
Contract and other revenue	71,983	33,863	25,037
Total revenue	336,597	296,278	296,558
Operating costs and expenses:			
Cost of revenue*	67,090	45,344	41,947
Research and development*	129,844	111,110	110,025
Sales, general and administrative*	95,145	70,554	74,770
Restructuring charges	—	3,576	39
Impairment of in-process research and development intangible asset	18,300	—	—
Change in contingent consideration liability	(6,845)	—	—
Gain from sale of intellectual property	—	(3,686)	(3,529)
Gain from settlement	(579)	(2,040)	(2,040)
Total operating costs and expenses	302,955	224,858	221,212
Operating income	33,642	71,420	75,346
Interest income and other income (expense), net	1,740	1,224	(276)
Interest expense	(12,745)	(12,413)	(24,820)
Interest and other income (expense), net	(11,005)	(11,189)	(25,096)
Income before income taxes	22,637	60,231	50,250
Provision for (benefit from) income taxes	15,817	(151,157)	24,049
Net income	$ 6,820	$ 211,388	$ 26,201
Net income per share:			
Basic	$ 0.06	$ 1.84	$ 0.23
Diluted	$ 0.06	$ 1.80	$ 0.22
Weighted average shares used in per share calculations:			
Basic	110,162	114,814	114,318
Diluted	113,140	117,484	117,624

* Includes stock-based compensation:

Cost of revenue	$ 56	$ 63	$ 44
Research and development	$ 9,165	$ 6,762	$ 7,216
Sales, general and administrative	$ 11,792	$ 8,271	$ 7,470

See Notes to Consolidated Financial Statements

Form 10-K

RAMBUS INC.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

	Years Ended December 31,		
	2016	2015	2014
	(In thousands)		
Net income	$ 6,820	$211,388	$26,201
Other comprehensive income (loss):			
Foreign currency translation adjustment	(13,485)	9	—
Unrealized gain (loss) on marketable securities, net of tax	(396)	766	(97)
Total comprehensive income (loss)	$ (7,061)	$212,163	$26,104

See Notes to Consolidated Financial Statements

RAMBUS INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Gain (Loss)	Total
	Shares	Amount				
			(In thousands)			
Balances at December 31, 2013	113,459	$113	$1,128,148	$(787,727)	$ (305)	$ 340,229
Net income	—	—	—	26,201	—	26,201
Unrealized loss on marketable securities, net of tax	—	—	—	—	(97)	(97)
Issuance of common stock upon exercise of options, equity stock and employee stock purchase plan	1,703	2	10,557	—	—	10,559
Stock-based compensation	—	—	14,730	—	—	14,730
Balances at December 31, 2014	115,162	115	1,153,435	(761,526)	(402)	391,622
Net income	—	—	—	211,388	—	211,388
Foreign currency translation adjustment	—	—	—	—	9	9
Unrealized gain on marketable securities, net of tax	—	—	—	—	766	766
Issuance of common stock upon exercise of options, equity stock and employee stock purchase plan	1,938	2	13,075	—	—	13,077
Repurchase and retirement of common stock under repurchase plan, including prepayment under accelerated share repurchase program	(7,812)	(8)	(45,926)	(54,179)	—	(100,113)
Stock-based compensation	—	—	15,096	—	—	15,096
Tax shortfall from stock option forfeitures	—	—	(5,312)	—	—	(5,312)
Balances at December 31, 2015	109,288	109	1,130,368	(604,317)	373	526,533
Net income	—	—	—	6,820	—	6,820
Foreign currency translation adjustment	—	—	—	—	(13,485)	(13,485)
Unrealized loss on marketable securities, net of tax	—	—	—	—	(396)	(396)
Issuance of common stock upon exercise of options, equity stock and employee stock purchase plan	2,502	3	12,294	—	—	12,297
Repurchase and retirement of common stock under repurchase plan	(736)	(1)	17,555	(17,554)	—	—
Stock-based compensation	—	—	21,013	—	—	21,013
Balances at December 31, 2016	111,054	$111	$1,181,230	$(615,051)	$(13,508)	$ 552,782

See Notes to Consolidated Financial Statements

RAMBUS INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Years Ended December 31, 2016	2015	2014
	(In thousands)		
Cash flows from operating activities:			
Net income	$ 6,820	$ 211,388	$ 26,201
Adjustments to reconcile net income to net cash provided by operating activities:			
Stock-based compensation	21,013	15,096	14,730
Depreciation	12,965	12,379	13,625
Amortization of intangible assets	37,138	25,074	26,618
Non-cash interest expense and amortization of convertible debt issuance costs	6,749	6,372	14,763
Impairment of in-process research and development intangible asset	18,300	—	—
Change in contingent consideration liability	(6,845)	—	—
Impairment of investment in non-marketable equity security	—	—	600
Deferred tax (benefit) provision	(7,116)	(172,706)	2,310
Excess tax benefits from stock-based compensation	(1,196)	(747)	(481)
Non-cash restructuring	—	583	—
Gain from sale of intellectual property and property, plant and equipment, net	—	(3,670)	(3,529)
Effect of exchange rate on assumed cash liability from acquisition	(1,558)	—	—
Change in operating assets and liabilities, net of effects of acquisitions:			
Accounts receivable	5,797	(10,407)	(3,750)
Prepaids and other assets	(6,205)	(1,042)	476
Inventories	1,748	(3,412)	(2,907)
Accounts payable	2,373	(2,621)	2,006
Accrued salaries and benefits and other accrued liabilities	(4,758)	(2,952)	(17,862)
Deferred revenue	7,313	3,107	3,667
Net cash provided by operating activities	92,538	76,442	76,467
Cash flows from investing activities:			
Purchases of property, plant and equipment	(8,556)	(6,132)	(7,204)
Purchases of marketable securities	(54,869)	(157,811)	(240,281)
Maturities of marketable securities	110,081	112,721	118,735
Proceeds from sale of marketable securities	50,546	48,380	24,986
Proceeds from sale of intellectual property and property, plant and equipment, net	113	3,933	5,859
Acquisition of businesses, net of cash acquired	(202,523)	—	—
Net cash provided by (used in) investing activities	(105,208)	1,091	(97,905)
Cash flows from financing activities:			
Proceeds received from issuance of common stock under employee stock plans	15,436	13,783	11,079
Payments under installment payment arrangement	—	(1,717)	(1,773)
Principal payments against financing lease obligation	(661)	(478)	(322)
Payment of additional purchase consideration from acquisition	(10,206)	—	—
Repurchase and retirement of common stock, including prepayment under accelerated share repurchase program	—	(100,113)	—
Excess tax benefits from stock-based compensation	1,196	747	481
Repayment of senior convertible notes	—	—	(172,500)
Net cash provided by (used in) financing activities	5,765	(87,778)	(163,035)
Effect of exchange rate changes on cash and cash equivalents	(1,565)	(117)	(97)
Net decrease in cash and cash equivalents	(8,470)	(10,362)	(184,570)
Cash and cash equivalents at beginning of year	143,764	154,126	338,696
Cash and cash equivalents at end of year	$ 135,294	$ 143,764	$ 154,126
Supplemental disclosure of cash flow information:			
Cash paid during the period for:			
Interest	$ 1,553	$ 1,553	$ 5,861
Income taxes, net of refunds	$ 26,787	$ 21,679	$ 20,691
Non-cash investing and financing activities:			
Property, plant and equipment received and accrued in accounts payable and other accrued liabilities	$ 576	$ 240	$ 548
Re-measurement of investment upon initial public offering	$ —	$ 1,264	$ —

See Notes to Consolidated Financial Statements

RAMBUS INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Formation and Business of the Company

Rambus Inc. (the “Company” or “Rambus”) was incorporated in California in March 1990 and reincorporated in Delaware in March 1997. In addition to licensing, the Company is creating new business opportunities through offering products and services where its goal is to perpetuate strong company operating performance and long-term stockholder value. The Company generates revenue by licensing its inventions and solutions, selling its semiconductor products and providing services to market-leading companies.

While the Company has historically focused its efforts on the development of technologies for memory, SerDes and other chip interfaces, the Company has expanded its portfolio of inventions and solutions to address chip and system security, mobile payments and smart ticketing. The Company intends to continue its growth into new technology fields, consistent with its mission to create value through its innovations and to make those technologies available through the shipment of products, the provision of services, as well as the Company’s licensing business models. Key to its efforts continues to be hiring and retaining world-class inventors, scientists and engineers to lead the development and deployment of inventions and technology solutions for its fields of focus.

2. Summary of Significant Accounting Policies

Financial Statement Presentation

The accompanying consolidated financial statements include the accounts of Rambus and its wholly owned subsidiaries. All intercompany accounts and transactions have been eliminated in the accompanying consolidated financial statements.

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

Reclassifications

Certain prior year balances were reclassified to conform to the current year’s presentation. None of these reclassifications had an impact on reported net income or cash flows for any of the periods presented. Refer to Note 9 “Balance Sheet Details” and Note 10 “Convertible Notes” for details.

Revenue Recognition

Overview

Rambus recognizes revenue when persuasive evidence of an arrangement exists, Rambus has delivered the product or performed the service, the fee is fixed or determinable and collection is reasonably assured. If any of these criteria are not met, Rambus defers recognizing the revenue until such time as all criteria are met. Determination of whether or not these criteria have been met may require the Company to make judgments, assumptions and estimates based upon current information and historical experience.

For arrangements that involve the delivery of more than one element, each license, service or product is evaluated to determine whether it qualifies as a separate unit of accounting. This determination is based on whether the deliverable has "stand-alone value" to the customer. The consideration that is fixed or determinable is then allocated to each separate unit of accounting based on the relative selling price of each deliverable. Rambus determines the relative selling price for a deliverable based on its best estimate of selling price ("BESP"). Except for some revenue associated to the acquisition of Bell Identification Ltd., Rambus has determined that vendor-specific objective evidence of selling price for each deliverable is not available as it lacks a consistent number of standalone sales and third-party evidence is not a practical alternative due to differences in its service offerings compared to other parties and the availability of relevant third-party pricing information. Rambus determined BESP by considering its overall pricing objectives and market conditions. Significant pricing practices taken into consideration include discounting practices, the size and volume of transactions, the customer demographic, the geographic area where services are sold, price lists, go-to-market strategy, historical standalone sales and contract prices. The determination of BESP is made through consultation with and approval by management, taking into consideration the go-to-market strategy. As the go-to-market strategies evolve, Rambus may modify its pricing practices in the future, which could result in changes in relative selling prices. In most cases, the relative values of the undelivered components are not material to the overall arrangement and are typically delivered within twelve months after the core product has been delivered. In such agreements, selling price is determined for each component and any difference between the total of the separate BESP and total contract consideration (i.e. discount) is allocated pro-rata across each of the components in the arrangement.

During the first quarter of 2016, the Company acquired Smart Card Software Ltd., which included Bell Identification Ltd. and Ecebs Ltd. which transact mostly in software and hosted services (SaaS) arrangements, respectively. For software arrangements that include multiple elements, including software licenses, professional services and maintenance services, Rambus allocates and defers revenue for the undelivered items (typically only the maintenance services) based on the fair value using vendor specific objective evidence ("VSOE"), and recognizes the difference between the total arrangement fee and the amount deferred for the undelivered item(s) as revenue. VSOE of fair value of each maintenance element is based on the contractual stated renewal rate for that maintenance element. When VSOE of fair value does not exist for undelivered items, the entire arrangement fee is recognized ratably over the performance period. For hosted services arrangements, Rambus recognizes the arrangements over the service obligation period.

During 2016, the Company renamed its Cryptography Research Division ("CRD") organization to the Rambus Security Division ("RSD") and its Lighting and Display Technologies Division ("LDT") organization to Rambus Lighting Division ("RLD"). Rambus' revenue consists of royalty revenue and contract and other revenue derived from Memory and Interface Division ("MID"), RSD and RLD operating segments. Royalty revenue consists of patent license and technology license royalties. Contract and other revenue consists of software license fees, engineering fees associated with integration of Rambus' technology solutions into its customers' related support and maintenance, as well as sale of products.

During 2013, the Company expanded its business strategy of monetizing its patent portfolio to include the sale of selected intellectual property. The Company's MID business continues to grow its patent portfolio and actively engages with various external parties to monetize the patent portfolio and explore new revenue opportunities. As the sales of such patents developed by the MID business unit under this expanded strategy represents a component of the Company's ongoing major or central operations, the Company records the related proceeds as revenue. The Company will recognize the revenue when there is persuasive evidence of a sales arrangement, fees are fixed or determinable, delivery has occurred and collectibility is reasonably assured. These requirements are generally fulfilled upon closing of the patent sale transaction.

Royalty Revenue

Rambus generally recognizes royalty revenue upon notification by its customers and when deemed collectible. The terms of the royalty agreements generally either require customers to give Rambus notification and to pay the royalties within a specified period or are based on a fixed royalty that is due within a specified period. Many of Rambus' customers have the right to cancel their licenses. In such arrangements, revenue is only recognized to the extent that is consistent with the cancellation provisions. Cancellation provisions within such contracts generally provide for a prospective cancellation with no refund of fees already remitted by customers for products provided and payment for services rendered prior to the date of cancellation. Rambus has two types of royalty revenue: (1) patent license royalties and (2) technology license royalties.

Patent licenses — Rambus licenses its broad portfolio of patented inventions to companies who use these inventions in the development and manufacture of their own products. Such licensing agreements may cover the license of part, or all, of Rambus' patent portfolio. The contractual terms of the agreements generally provide for payments over an extended period of time. For the licensing agreements with fixed royalty payments, Rambus generally recognizes revenue from these arrangements as amounts become due. For the licensing agreements with variable royalty payments which can be based on either a percentage of sales or number of units sold, Rambus earns royalties at the time that the customers' sales occur. Rambus' customers, however, do not report and pay royalties owed for sales in any given quarter until after the conclusion of that quarter. As Rambus is unable to estimate the customers' sales in any given quarter to determine the royalties due to Rambus, it recognizes royalty revenues based on royalties reported by customers during the quarter and when other revenue recognition criteria are met.

In addition, Rambus may enter into certain settlements of patent infringement disputes. The amount of consideration received upon any settlement (including but not limited to past royalty payments, future royalty payments and punitive damages) is allocated to each element of the settlement based on the fair value of each element. In addition, revenues related to past royalties are recognized upon execution of the agreement by both parties, provided that the amounts are fixed or determinable, there are no significant undelivered obligations and collectability is reasonably assured. Rambus does not recognize any revenues prior to execution of the agreement since there is no reliable basis on which it can estimate the amounts for royalties related to previous periods or assess collectability. Elements that are related to royalty revenue in nature (including but not limited to past royalty payments and future royalty payments) will be recorded as royalty revenue in the consolidated statements of operations. Elements that are not related to royalty revenue in nature (including but not limited to punitive damage and settlement) will be recorded as gain from settlement which is reflected as a separate line item within the operating expenses section in the consolidated statements of operations.

Technology licenses — Rambus develops proprietary and industry-standard products that it provides to its customers under technology license agreements. These arrangements include royalties, which can be based on either a percentage of sales or number of units sold. Rambus earns royalties on such licensed products sold worldwide by its customers at the time that the customers' sales occur. Rambus' customers, however, do not report and pay royalties owed for sales in any given quarter until after the conclusion of that quarter. As Rambus is unable to estimate the customers' sales in any given quarter to determine the royalties due to Rambus, it recognizes royalty revenues based on royalties reported by customers during the quarter and when other revenue recognition criteria are met.

Contract and Other Revenue

Product revenue is recognized upon shipment of product to customers, net of accruals for estimated sales returns and allowances, which to date, have not been significant. However, some of the Company's sales are made through distributors under arrangements that allow for price protection or rights of return on product unsold by the distributors. Product revenue on sales made through distributors with rights of return or price protection is deferred until the distributors sell the product to end customers. Sales to distributors are included in deferred revenue and the Company defers the related costs until sale to the end customers occurs. Price protection rights allow distributors the right to a credit in the event of declines in the price of the Company's product that they hold prior to the sale to an end customer. In the event that the Company reduces the selling price of products held by distributors, deferred revenue related to distributors with price protection rights is reduced upon notification to the customer of the price change. The Company's sales to direct customers are made primarily pursuant to standard purchase orders for delivery of products. The Company generally allows customers to cancel or change purchase orders within limited notice periods prior to the scheduled shipment.

For software arrangements that include multiple elements, including software licenses, professional services and maintenance services, Rambus allocates and defers revenue for the undelivered items (typically only the maintenance services) based on the fair value using vendor specific objective evidence ("VSOE"), and recognizes the difference between the total arrangement fee and the amount deferred for the undelivered item(s) as revenue. VSOE of fair value of each maintenance element is based on the contractual stated renewal rate for that maintenance element. When VSOE of fair value does not exist for undelivered items, the entire arrangement fee is recognized ratably over the performance period.

For software arrangements, the Company uses the percentage-of-completion method for contracts that involve the implementation of software solutions and that qualify for percentage-of-completion revenue accounting (e.g. software arrangements that contain a PCS element that has VSOE of fair value established and that have no refund rights that would allow a customer refunds of fees paid under the arrangement). Revenue is recognized based on man-days incurred during the reporting period as compared to the estimated total man- days necessary for each contract, not to exceed the billable project acceptances received, with deferral of corresponding contract costs, if applicable. Should a loss be anticipated on a contract, the full amount of the loss would be recorded when the loss is determinable. Maintenance and support revenue includes post-implementation customer support and the right to unspecified software updates and enhancements on a when and if available basis. The Company recognizes revenue from maintenance arrangements ratably over the period in which the services are provided.

For development contracts related to licenses of its solutions that involve significant engineering and integration services, the Company uses the proportional performance method. The measurement of progress to completion is based on actual man-months incurred during the reporting period, not to exceed the billable project acceptances received. Contract costs are recognized as incurred. Maintenance and support revenue includes minimal hours of post-implementation customer support that is recognized ratably over the support period.

Cost of Revenue

Cost of revenue includes cost of professional services, materials, including cost of wafers processed by third-party foundries, cost associated with packaging and assembly, test and shipping, cost of personnel, including stock-based compensation, and equipment associated with manufacturing support, logistics and quality assurance, warranty cost, amortization of developed technology, amortization of step-up values of inventory, write down of inventories, amortization of production mask costs, overhead and an allocated portion of occupancy costs.

Goodwill

Goodwill represents the excess of the purchase price over the fair value of the net tangible and identifiable intangible assets acquired in each business combination. Goodwill is not subject to amortization, but is subject to at least an annual assessment for impairment, applying a fair-value based test. The Company performs its impairment analysis of goodwill on an annual basis during the fourth quarter of the year unless conditions arise that warrant a more frequent evaluation.

Goodwill is allocated to the various reporting units which are generally operating segments. The goodwill impairment test involves a two-step process. In the first step, the Company compares the fair value of each reporting unit to its carrying value. The fair values of the reporting units are estimated using an income or discounted cash flows approach.

Under the income approach, the Company measures fair value of the reporting unit based on a projected cash flow method using a discount rate determined by its management which is commensurate with the risk inherent in its current business model. The Company's discounted cash flow projections are based on its annual financial forecasts developed internally by management for use in managing its business. If the fair value of the reporting unit exceeds its carrying value, goodwill is not impaired and no further testing is required. If the fair value of the reporting unit is less than the carrying value, the Company must perform the second step of the impairment test to measure the amount of impairment loss. In the second step, the reporting unit's fair value is allocated to all of the assets and liabilities of the reporting unit, including any unrecognized intangible assets, in a hypothetical analysis that calculates the implied fair value of goodwill in the same manner as if the reporting unit was being acquired by a market participant in a business combination. If the implied fair value of the reporting unit's goodwill is less than the carrying value, the difference is recorded as an impairment loss.

The Company performed its annual goodwill impairment analysis as of December 31, 2016 and determined that the fair value of the reporting units with goodwill exceeded their carrying values.

Intangible Assets

Intangible assets are comprised of existing technology, customer contracts and contractual relationships, and other definite-lived and indefinite-lived intangible assets. Identifiable intangible assets resulting from the acquisitions of entities accounted for using the purchase method of accounting are estimated by management based on the fair value of assets received. Identifiable definite-lived intangible assets are being amortized over the period of estimated benefit using the straight-line method and estimated useful lives ranging from 1 to 10 years.

Acquired indefinite-lived intangible assets related to the Company's in-process research and development ("IPR&D") are capitalized and subject to impairment testing until completion or abandonment of the projects. Upon successful completion of each project, the Company makes a separate determination of the useful life of the acquired indefinite-lived intangible assets and the related amortization is recorded as an expense over the estimated useful life of the specific projects. Indefinite-lived intangible assets are subject to at least an annual assessment for impairment, applying a fair-value based test. Under the income approach, the Company measures fair value of the indefinite-lived intangible assets based on a projected cash flow method using a discount rate determined by its management which is commensurate with the risk inherent in its current business model. The Company's discounted cash flow projections are based on its annual financial forecasts developed internally by management for use in managing its business. If the fair value of the indefinite-lived intangible assets exceeds its carrying value, the indefinite-lived intangible assets are not impaired and no further testing is required. If the implied fair value of the indefinite-lived intangible assets is less than the carrying value, the difference is recorded as an impairment loss.

Inventories

Inventories are stated at the lower of cost or market. Cost is computed using standard cost, which approximates actual cost, on a first-in, first-out basis. Inventories are reduced for write downs based on periodic reviews for evidence of slow-moving or obsolete parts. The write-down is based on comparison between inventory on hand and estimated future sales for each specific product. Once written down, inventory write downs are not reversed until the inventory is sold or scrapped. Inventory write downs are also established when conditions indicate that the net realizable value is less than cost due to physical deterioration, obsolescence, changes in price level or other causes.

Property, Plant and Equipment

Property, plant and equipment include computer equipment, computer software, machinery, leasehold improvements, furniture and fixtures and buildings. Computer equipment, computer software, machinery, and furniture and fixtures are stated at cost and generally depreciated on a straight-line basis over an estimated useful life of 3, 3 to 5, 2 or 7, and 3 years, respectively. The Company undertook a series of structural improvements to ready the Sunnyvale and Brecksville facilities for its use. The Company concluded that its requirement to fund construction costs and responsibility for cost overruns resulted in the Company being considered the owner of the buildings during the construction period for accounting purposes. Upon completion of construction, the Company concluded that it retained sufficient continuing involvement to preclude de-recognition of the buildings under the Financial Accounting Standards Board ("FASB") authoritative guidance applicable to sale leaseback for real estate. As such, the Company continues to account for the buildings as owned real estate and to record an imputed financing obligation for its obligation to the legal owners. The buildings will be depreciated on a straight-line basis over an estimated useful life of approximately 39 years. See Note 9, "Balance Sheet Details," and Note 11, "Commitments and Contingencies," for additional details. Leasehold improvements are amortized on a straight-line basis over the shorter of their estimated useful lives or the initial terms of the leases. Upon disposal, assets and related accumulated depreciation are removed from the accounts and the related gain or loss is included in the results from operations.

Definite-Lived and Indefinite-Lived Asset Impairment

The Company evaluates definite-lived and indefinite-lived assets (including property, plant and equipment and intangible assets) for impairment whenever events or changes in circumstances indicate the carrying value of an asset group may not be recoverable. The carrying value is not recoverable if it exceeds the undiscounted cash flows resulting from the use of the asset group and its eventual disposition. The Company's estimates of future cash flows attributable to its asset groups require significant judgment based on its historical and anticipated results and are subject to many factors. Factors that the Company considers important which could trigger an impairment review include significant negative industry or economic trends, significant loss of clients, and significant changes in the manner of its use of the acquired assets or the strategy for its overall business.

When the Company determines that the carrying value of the asset groups may not be recoverable based upon the existence of one or more of the above indicators of impairment, the Company measures the potential impairment based on a projected discounted cash flow method using a discount rate determined by the Company to be commensurate with the risk inherent in the Company's current business model. An impairment loss is recognized only if the carrying amount of the asset group is not recoverable and exceeds its fair value. The impairment charge is recorded to reduce the pre-impairment carrying amount of the assets based on the relative carrying amount of those assets, though not to reduce the carrying amount of an asset below its fair value. Different assumptions and judgments could materially affect the calculation of the fair value of the assets. During

2016, the Company recognized an impairment of its IPR&D intangible asset of $18.3 million. See Note 5, "Intangible Assets and Goodwill" for further details. During 2015, the Company did not recognize any impairment of its definite-lived and indefinite-lived assets.

Income Taxes

Income taxes are accounted for using an asset and liability approach, which requires the recognition of deferred tax assets and liabilities for expected future tax events that have been recognized differently in Rambus' consolidated financial statements and tax returns. The measurement of current and deferred tax assets and liabilities is based on provisions of the enacted tax law and the effects of future changes in tax laws or rates are not anticipated. A valuation allowance is established when necessary to reduce deferred tax assets to amounts expected to be realized based on available evidence.

In addition, the calculation of the Company's tax liabilities involves dealing with uncertainties in the application of complex tax regulations. As a result, the Company reports a liability for unrecognized tax benefits resulting from uncertain tax positions taken or expected to be taken in its tax return. The Company considers many factors when evaluating and estimating its tax positions and tax benefits, which may require periodic adjustments and which may not accurately anticipate actual outcomes.

Stock-Based Compensation and Equity Incentive Plans

The Company maintained stock plans covering a broad range of equity grants including stock options, nonvested equity stock and equity stock units and performance based instruments. In addition, the Company sponsors an Employee Stock Purchase Plan ("ESPP"), whereby eligible employees are entitled to purchase Common Stock semi-annually, by means of limited payroll deductions, at a 15% discount from the fair market value of the Common Stock as of specific dates.

The Company determines compensation expense associated with restricted stock units based on the fair value of its common stock on the date of grant. The Company determines compensation expense associated with stock options based on the estimated grant date fair value method using the Black-Scholes Merton valuation model. The Company generally recognizes compensation expense using a straight-line amortization method over the respective vesting period for awards that are ultimately expected to vest. Accordingly, stock-based compensation expense for 2016, 2015 and 2014 has been reduced for estimated forfeitures. When estimating forfeitures, the Company considers voluntary termination behaviors as well as trends of actual option forfeitures. The Company will only recognize a tax benefit from stock-based awards in additional paid-in capital if an incremental tax benefit is realized after all other tax attributes currently available have been utilized. In addition, the Company has elected to account for the indirect effects of stock-based awards on other tax attributes, such as the research tax credits, through the consolidated statement of operations as part of the tax effect of stock-based compensation.

Cash and Cash Equivalents

Cash equivalents are highly liquid investments with original maturity of three months or less at the date of purchase. The Company maintains its cash balances with high quality financial institutions. Cash equivalents are invested in highly-rated and highly-liquid money market securities and certain U.S. government sponsored obligations.

Marketable Securities

Available-for-sale securities are carried at fair value, based on quoted market prices, with the unrealized gains or losses reported, net of tax, in stockholders' equity as part of accumulated other comprehensive income (loss). The amortized cost of debt securities is adjusted for amortization of premiums and accretion of discounts to maturity, both of which are included in interest and other income, net. Realized gains and losses are recorded on the specific identification method and are included in interest and other income, net. The Company reviews its investments in marketable securities for possible other than temporary impairments on a regular basis. If any loss on investment is believed to be a credit loss, a charge will be recognized in operations. In evaluating whether a credit loss on a debt security has occurred, the Company considers the following factors: 1) the Company's intent to sell the security, 2) if the Company intends to hold the security, whether or not it is more likely than not that the Company will be required to sell the security before recovery of the security's amortized cost basis and 3) even if the Company intends to hold the security, whether or not the Company expects the security to recover the entire amortized cost basis. Due to the high credit quality and short term nature of the Company's investments, there have been no material credit losses recorded to date. The classification of funds between short-term and long-term is based on whether the securities are available for use in operations or other purposes.

Fair Value of Financial Instruments

The carrying value of cash equivalents, accounts receivable and accounts payable approximate their fair values due to their relatively short maturities as of December 31, 2016 and 2015. Marketable securities are comprised of available-for-sale securities that are reported at fair value with the related unrealized gains and losses included in accumulated other comprehensive income (loss), a component of stockholders' equity, net of tax. Fair value of the marketable securities is determined based on quoted market prices. The fair value of the Company's convertible notes fluctuates with interest rates and with the market price of the stock, but does not affect the carrying value of the debt on the balance sheet.

Research and Development

Costs incurred in research and development, which include engineering expenses, such as salaries and related benefits, stock-based compensation, depreciation, professional services and overhead expenses related to the general development of Rambus' products, are expensed as incurred. Software development costs are capitalized beginning when a product's technological feasibility has been established and ending when a product is available for general release to customers. Rambus has not capitalized any software development costs since the period between establishing technological feasibility and general customer release is relatively short and as such, these costs have not been material.

Computation of Earnings (Loss) Per Share

Basic earnings (loss) per share is calculated by dividing the net income (loss) by the weighted average number of common shares outstanding during the period. Diluted earnings (loss) per share is calculated by dividing the earnings (loss) by the weighted average number of common shares and potentially dilutive securities outstanding during the period. Potentially dilutive common shares consist of incremental common shares issuable upon exercise of stock options, employee stock purchases, restricted stock and restricted stock units, and shares issuable upon the conversion of convertible notes. The dilutive effect of outstanding shares is reflected in diluted earnings per share by application of the treasury stock method. This method includes consideration of the amounts to be paid by the employees, the amount of excess tax benefits that would be recognized in equity if the instrument was exercised and the amount of unrecognized stock-based compensation related to future services. No potential dilutive common shares are included in the computation of any diluted per share amount when a net loss is reported.

Comprehensive Income (Loss)

Comprehensive income (loss) is defined as the change in equity of a business enterprise during a period from transactions and other events and circumstances from non-owner sources, including foreign currency translation adjustments and unrealized gains and losses on marketable securities. Other comprehensive income (loss), net of tax, is presented in the consolidated statements of comprehensive income (loss).

Credit Concentration

As of December 31, 2016 and 2015, the Company's cash, cash equivalents and marketable securities were invested with various financial institutions in the form of corporate notes, bonds and commercial paper, money market funds, U.S. Treasuries, U.S. Government Agencies, and municipal bonds and notes. The Company's exposure to market risk for changes in interest rates relates primarily to its investment portfolio. The Company places its investments with high credit issuers and, by investment policy, attempts to limit the amount of credit exposure to any one issuer. As stated in the Company's investment policy, it will ensure the safety and preservation of the Company's invested funds by limiting default risk and market risk. The Company has no investments denominated in foreign country currencies and therefore is not subject to foreign exchange risk from these assets.

The Company mitigates default risk by investing in high credit quality securities and by positioning its portfolio to respond appropriately to a significant reduction in a credit rating of any investment issuer or guarantor. The portfolio includes only marketable securities with active secondary or resale markets to enable portfolio liquidity.

The Company's accounts receivable are derived from revenue earned from customers located in the U.S. and internationally. See Note 6, "Segments and Major Customers" for further details.

Foreign Currency Translation and Remeasurement

The Company translates the assets and liabilities of its non-U.S. dollar functional currency subsidiaries into U.S. dollars using exchange rates in effect at the end of each period. Revenue and expenses for these subsidiaries are translated using rates that approximate those in effect during the period. Gains and losses from these translations are recognized in foreign currency translation included in Accumulated Other Comprehensive Gain (Loss) in the consolidated statements of stockholders' equity. The Company's subsidiaries that use the U.S. dollar as their functional currency remeasure monetary assets and liabilities at exchange rates in effect at the end of each period, and inventories, property and nonmonetary assets and liabilities at historical rates. Additionally, foreign currency transaction gains and losses are included in interest income and other (income) expense, net, in the consolidated statements of operations and were not material in the periods presented.

Business Combinations

The Company accounts for acquisitions of business using the purchase method of accounting, which requires the Company to recognize separately from goodwill the assets acquired and the liabilities assumed at their acquisition date fair values. While the Company uses its best estimates and assumptions to accurately value assets acquired and liabilities assumed at the acquisition date as well as contingent consideration, where applicable, the estimates are inherently uncertain and subject to refinement. As a result, during the measurement period, which may be up to one year from the acquisition date, the Company may record adjustments to the assets acquired and liabilities assumed with the corresponding offset to goodwill. Upon the conclusion of the measurement period or final determination of the values of assets acquired or liabilities assumed, whichever comes first, any subsequent adjustments are recorded to the consolidated statements of operations.

Accounting for business combinations requires management to make significant estimates and assumptions, especially at the acquisition date including the Company's estimates for intangible assets, contractual obligations assumed and pre-acquisition contingencies where applicable. Although, the Company believes the assumptions and estimates made in the past have been reasonable and appropriate, they are based in part on historical experience and information obtained from the management of the acquired companies and are inherently uncertain. Critical estimates in valuing certain of the intangible assets the Company acquired include future expected cash flows from product sales, customer contracts and acquired technologies, expected costs to develop IPR&D into commercially viable products and estimated cash flows from the projects when completed and discount rates. Unanticipated events and circumstances may occur that may affect the accuracy or validity of such assumptions, estimates or actual results.

Litigation

Rambus may be involved in certain legal proceedings. Based upon consultation with outside counsel handling its defense in these matters and an analysis of potential results, if Rambus believes that a loss arising from such matters is probable and can be reasonably estimated, Rambus records the estimated liability in its consolidated financial statements. If only a range of estimated losses can be determined, Rambus records an amount within the range that, in its judgment, reflects the most likely outcome; if none of the estimates within that range is a better estimate than any other amount, Rambus records the low end of the range. Any such accrual would be charged to expense in the appropriate period. Rambus recognizes litigation expenses in the period in which the litigation services were provided.

3. Recent Accounting Pronouncements

In January 2017, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2017-04, "Intangibles — Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment," which removes Step 2 of the goodwill impairment test. A goodwill impairment will now be the amount by which a reporting unit's carrying value exceeds its fair value, not to exceed the carrying amount of goodwill. This ASU is effective for interim and annual reporting periods beginning after December 15, 2019. Early adoption is permitted, including adoption in an interim period. The Company is currently evaluating the impact that this guidance will have on its consolidated financial statements.

In January 2017, the FASB issued ASU No. 2017-01, "Business Combinations (Topic 805): Clarifying the Definition of a Business." The amendment seeks to clarify the definition of a business with the objective of adding guidance to assist entities with evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. The definition of a business affects many areas of accounting including acquisitions, disposals, goodwill and consolidation. This ASU is effective for interim and annual reporting periods beginning after December 15, 2017, including interim periods within those periods. The amendments should be applied prospectively on or after the effective dates. The Company is currently evaluating the impact that this guidance will have on its consolidated financial statements.

In August 2016, the FASB issued ASU No. 2016-15 which amends the guidance on the classification of certain cash receipts and payments in the statement of cash flows. This ASU is effective for annual and interim reporting periods beginning after December 15, 2017 and is applied retrospectively. Early adoption is permitted including adoption in an interim period. The Company is currently evaluating the impact that this guidance will have on its financial condition and results of operations.

In June 2016, the FASB issued ASU No. 2016-13. The purpose of this ASU is to require a financial asset measured at amortized cost basis to be presented at the net amount expected to be collected. Credit losses relating to available-for-sale debt securities should be recorded through an allowance for credit losses. This ASU is effective for interim and annual reporting periods beginning after December 15, 2019. The Company is currently evaluating the impact that this guidance will have on its financial condition and results of operations.

In March 2016, the FASB issued ASU No. 2016-09, "Improvements to Employee Share-Based Payment Accounting." This ASU affects entities that issue share-based payment awards to their employees. The ASU is designed to simplify several aspects of accounting for share-based payment award transactions, which include the income tax consequences, classification of awards as either equity or liabilities, classification on the statement of cash flows and forfeiture rate calculations. The Company will adopt this ASU on its effective date of January 1, 2017. The adoption of this ASU is not expected to have a material impact on the Company's consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, "Leases." This ASU requires lessees to recognize right-of-use assets and liabilities for operating leases, initially measured at the present value of the lease payments, on the balance sheet. In addition, it requires lessees to recognize a single lease cost, calculated so that the cost of the lease is allocated over the lease term, generally on a straight-line basis. This ASU will become effective for the Company in the first quarter of fiscal year 2019, and requires adoption using a modified retrospective approach. The Company is evaluating the impact of adopting this new accounting standard update on its consolidated financial statements and related disclosures and anticipates this new guidance will materially impact the Company's financial statements given the Company has a significant number of operating leases.

In July 2015, the FASB issued ASU No. 2015-11, "Simplifying the Measurement of Inventory (Topic 330)," which applies to inventory that is measured using first-in, first-out ("FIFO") or average cost. Under the updated guidance, an entity should measure inventory that is within scope at the lower of cost and net realizable value, which is the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal and transportation. Subsequent measurement is unchanged for inventory that is measured using last-in, last-out ("LIFO"). This ASU is effective for annual and interim periods beginning after December 15, 2016, and should be applied prospectively with early adoption permitted at the beginning of an interim or annual reporting period. The Company will adopt this ASU on its effective date of January 1, 2017. The adoption of this ASU is not expected to have a material impact on the Company's consolidated financial statements.

In April 2015, the FASB issued ASU No. 2015-03, "Simplifying the Presentation of Debt Issuance Costs," which requires debt issuance costs related to a recognized debt liability to be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability, consistent with debt discounts. This ASU requires retrospective adoption and is effective for financial statements issued for fiscal years beginning after December 15, 2015 and interim periods within those fiscal years. Early adoption is permitted. The Company adopted this ASU in the first quarter of 2016 on a retrospective basis. Refer to Note 10, "Convertible Notes" for further details.

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606) which amended the existing accounting standards for revenue recognition. The core principle of the new guidance is for companies to recognize revenue to depict the transfer of goods or services to customers in amounts that reflect the consideration (that is, payment) to which the company expects to be entitled in exchange for those goods or services. The new guidance also will result in enhanced disclosures about revenue, provide guidance for transactions that were not previously addressed comprehensively (for example, service revenue and contract modifications) and improve guidance for multiple element arrangements. Subsequently, the FASB has issued the following standards related to ASU No. 2014-09: ASU No. 2016-10, Revenue from Contracts with

Customers (Topic 606): Identifying Performance Obligations and Licensing; ASU No. 2016-12, Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients; and ASU No. 2016-20, Technical Corrections and Improvements to Topic 606, Revenue from Contracts with Customers. The Company must adopt ASU 2016-10, ASU 2016-12 and ASU 2016-20 with ASU 2014-09 (collectively, the "new revenue standards").

The new revenue standards may be applied retrospectively to each prior period presented (full retrospective method) or retrospectively with the cumulative effect recognized as of the date of initial application (the modified retrospective method). The new revenue standards become effective for the Company on January 1, 2018. The Company currently anticipates adopting the new revenue standards using the full retrospective method. While the Company is still in the process of completing its analysis on the impact this guidance will have on its consolidated financial statements and related disclosures, the Company expects the impact to be material.

4. Earnings Per Share

The following table sets forth the computation of basic and diluted income per share:

	For the Years Ended December 31,		
	2016	2015	2014
Net income per share:			
Numerator:			
Net income	$ 6,820	$211,388	$ 26,201
Denominator:			
Weighted-average common shares outstanding — basic	110,162	114,814	114,318
Effect of potential dilutive common shares	2,978	2,670	3,306
Weighted-average common shares outstanding — diluted	113,140	117,484	117,624
Basic net income per share	$ 0.06	$ 1.84	$ 0.23
Diluted net income per share	$ 0.06	$ 1.80	$ 0.22

For the years ended December 31, 2016, 2015 and 2014, options to purchase approximately 2.2 million, 2.5 million and 5.6 million shares, respectively, were excluded from the calculation because they were anti-dilutive after considering proceeds from exercise, taxes and related unrecognized stock-based compensation expense. These shares do not include the Company's 5% convertible senior notes due 2014 (the "2014 Notes") and 1.125% convertible senior notes due 2018 (the "2018 Notes"). The par amount of convertible notes is payable in cash equal to the principal amount of the notes plus any accrued and unpaid interest and then the "in-the-money" conversion benefit feature at the conversion price above $19.31 and $12.07, respectively, per share is payable in cash, shares of the Company's common stock or a combination of both. Refer to Note 10, "Convertible Notes" for more details.

5. Intangible Assets and Goodwill

In the fourth quarter of 2016 and 2015, the Company performed its annual goodwill impairment analysis for the MID and RSD reporting units, which are the only reporting units with goodwill. The Company estimated the fair value of the reporting units using the income approach which was determined using Level 3 fair value inputs. The utilization of the income approach to determine fair value requires estimates of future operating results and cash flows discounted using an estimated discount rate. Cash flow projections are based on management's estimates of revenue growth rates and operating margins, taking into consideration industry and market conditions.

As of December 31, 2016, the fair value of the MID reporting unit, with $66.6 million of goodwill, exceeded the carrying value of its net assets by approximately 299% and the fair value of the RSD reporting unit, with $138.2 million of goodwill, exceeded the carrying value of its net assets by approximately 89%. Key assumptions used to determine the fair value of the MID and RSD reporting units at December 31, 2016, were the revenue growth rates for the forecast period and terminal year, terminal growth rates and discount rates. Certain estimates used in the income approach involve information for new product lines with limited financial history and developing revenue models which increase the risk of differences between the projected and actual performance. The discount rate of 12% for MID and 16.5% for RSD is based on the reporting units' overall risk profile relative to other guideline companies, market adoption of the Company's technology, the reporting units' respective industry as well as the visibility of future expected cash flows. The terminal growth rate applied to determine fair value for both reporting units was 3%, which was based on historical experience as well as anticipated economic conditions, industry data and long term outlook for the business. These assumptions are inherently uncertain.

As of December 31, 2015, the fair value of the MID reporting unit, with $19.9 million of goodwill, exceeded the carrying value of its net assets by approximately 226% and the fair value of the RSD reporting unit, with $97.0 million of goodwill, exceeded the carrying value of its net assets by approximately 45%. Key assumptions used to determine the fair value of the MID and RSD reporting units at December 31, 2015, were the revenue growth rates for the forecast period and terminal year, terminal growth rates and discount rates. Certain estimates used in the income approach involve information for new product lines with limited financial history and developing revenue models which increase the risk of differences between the projected and actual performance. The discount rate of 13% for MID and 20% for RSD is based on the reporting units' overall risk profile relative to other guideline companies, market adoption of the Company's technology, the reporting units' respective industry as well as the visibility of future expected cash flows. The terminal growth rate applied to determine fair value for both reporting units was 3%, which was based on historical experience as well as anticipated economic conditions, industry data and long term outlook for the business. These assumptions are inherently uncertain.

It is reasonably possible that the businesses could perform significantly below the Company's expectations or a deterioration of market and economic conditions could occur. This would adversely impact the Company's ability to meet its projected results, which could cause the goodwill in any of its reporting units or intangible assets in any of its asset groups to become impaired. Significant differences between these estimates and actual cash flows could materially affect the Company's future financial results. If the reporting units are not successful in commercializing new business arrangements, if the businesses are unsuccessful in signing new license agreements or renewing its existing license agreements, or if the Company is unsuccessful in managing its costs, the revenue and income for these reporting units could adversely and materially deviate from their historical trends and could cause goodwill or intangible assets to become impaired. If the Company determines that its goodwill or intangible assets are impaired, it would be required to record a non-cash charge that could have a material adverse effect on its results of operations and financial position.

Goodwill

The following tables present goodwill information for each of the reportable segments for the years ended December 31, 2016 and December 31, 2015:

Reportable Segment:	December 31, 2015	Addition to Goodwill (1)	Impairment Charge of Goodwill	Effect of Exchange Rates (2)	December 31, 2016
			(In thousands)		
MID	$ 19,905	$46,738	$—	—	$ 66,643
RSD	96,994	46,903	—	(5,746)	138,151
Total	$116,899	$93,641	$—	(5,746)	$204,794

(1) The additions to goodwill are a result of the acquisitions of Smart Card Software Limited ("SCS") during the first quarter of 2016, and Inphi's Memory Interconnect Business and the assets of the Snowbush IP group during the third quarter of 2016. See Note 19, "Acquisitions" for further details.
(2) Effect of exchange rates relates to foreign currency translation adjustments for the period.

	As of December 31, 2016		
Reportable Segment:	Gross Carrying Amount	Accumulated Impairment Losses	Net Carrying Amount
		(In thousands)	
MID	$ 66,643	$ —	$ 66,643
RSD	138,151	—	138,151
Other	21,770	(21,770)	—
Total	$226,564	$(21,770)	$204,794

Reportable Segment:	December 31, 2014	Addition to Goodwill	Impairment Charge of Goodwill	December 31, 2015
MID	$ 19,905	$—	$—	$ 19,905
RSD	96,994	—	—	96,994
Total	$116,899	$—	$—	$116,899

	As of December 31, 2015		
Reportable Segment:	Gross Carrying Amount	Accumulated Impairment Losses	Net Carrying Amount
MID	$ 19,905	$ —	$ 19,905
RSD	96,994	—	96,994
Other	21,770	(21,770)	—
Total	$138,669	$(21,770)	$116,899

Intangible Assets

The components of the Company's intangible assets as of December 31, 2016 and December 31, 2015 were as follows:

		As of December 31, 2016		
	Useful Life	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
			(In thousands)	
Existing technology (1)	3 to 10 years	$256,656	$(156,577)	$100,079
Customer contracts and contractual relationships (1)	1 to 10 years	65,109	(37,900)	27,209
Non-compete agreements and trademarks	3 years	300	(300)	—
In-process research and development (2)	Not applicable	5,100	—	$ 5,100
Total intangible assets		$327,165	$(194,777)	$132,388

(1) Includes intangible assets from the acquisitions of SCS, Inphi's Memory Interconnect Business, and the assets of the Snowbush IP group. See Note 19, "Acquisitions" for further details.
(2) Includes intangible assets from the acquisitions of Inphi's Memory Interconnect Business and the assets of the Snowbush IP group. See Note 19, "Acquisitions" for further details. The in-process research and development assets are accounted for as indefinite-lived intangible assets until the underlying projects are completed or abandoned.

		As of December 31, 2015		
	Useful Life	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
			(In thousands)	
Existing technology	3 to 10 years	$185,321	$(127,028)	$58,293
Customer contracts and contractual relationships	1 to 10 years	31,093	(25,120)	5,973
Non-compete agreements	3 years	300	(300)	—
Total intangible assets		$216,714	$(152,448)	$64,266

During the fourth quarter of 2016, the Company recorded a charge of $18.3 million related to the impairment of some of the in-process research and development intangible asset of the original $21.8 million acquired in the acquisition of the assets of the Snowbush IP group. The impairment of this intangible asset resulted from a delay in the market served by this initiative. This delay will not impact the short-term revenue expectations but will impact the Company's revenue expectations several years into the future.

Included in customer contracts and contractual relationships are favorable contracts which are acquired software and service agreements where the Company has no performance obligations. Cash received from these acquired favorable contracts reduce the favorable contract intangible asset. During 2016 and 2015, the Company received $5.9 million and $0.1 million related to the favorable contracts, respectively. As of December 31, 2016 and 2015, the net balance of the favorable contract intangible assets was $3.6 million and zero, respectively. The estimated useful life is based on expected payment dates related to the favorable contracts.

The Company did not purchase any intangible assets in 2016 except for those intangible assets acquired in the acquisitions during the year. See Note 19, "Acquisitions" for further details. The Company did not purchase any intangible assets in 2015 and 2014.

During the years ended December 31, 2016 and 2015, the Company did not sell any intangible assets. During the year ended December 31, 2014, the Company sold portfolios of its intellectual property covering wireless and other technologies for $4.4 million and the related gain was recorded as gain from sale of intellectual property and revenue in the consolidated statements of operations.

Amortization expense for intangible assets for the years ended December 31, 2016, 2015, and 2014 was $37.1 million, $25.1 million, and $26.6 million, respectively. The estimated future amortization expense of intangible assets as of December 31, 2016 was as follows (amounts in thousands):

Years Ending December 31:	Amount
2017	$ 44,391
2018	28,880
2019	19,144
2020	18,505
2021	12,241
Thereafter	9,227
	$132,388

6. Segments and Major Customers

Operating segments are based upon Rambus' internal organization structure, the manner in which its operations are managed, the criteria used by its Chief Operating Decision Maker ("CODM") to evaluate segment performance and availability of separate financial information regularly reviewed for resource allocation and performance assessment.

During 2016, the Company renamed its Cryptography Research Division organization to the Rambus Security Division ("RSD") and its Lighting and Display Technologies Division ("LDT") to the Rambus Lighting Division ("RLD"). The Company determined its CODM to be the Chief Executive Officer and determined its operating segments to be: (1) Memory and Interface Division ("MID"), which focuses the design, development, manufacturing through partnerships and licensing of technology and solutions that is related to memory and interfaces; (2) RSD, which focuses on the design, development and licensing of technologies for chip and system security, anti-counterfeiting, smart ticketing and mobile payments; (3) ESD, which encompasses our long-term research and development efforts in the area of emerging technologies; and (4) RLD, which focuses on the design, development and licensing of technologies for lighting.

For the year ended December 31, 2016, MID and RSD were considered reportable segments as they met the quantitative thresholds for disclosure as reportable segments. The results of the remaining operating segments are shown under "Other".

The Company evaluates the performance of its segments based on segment operating income (loss), which is defined as revenue minus segment operating expenses. Segment operating expenses are comprised of direct operating expenses.

Segment operating expenses do not include sales, general and administrative expenses and the allocation of certain expenses managed at the corporate level, such as stock-based compensation, amortization, and certain bonus and acquisition costs. The "Reconciling Items" category includes these unallocated sales, general and administrative expenses as well as corporate level expenses.

The tables below present reported segment operating income (loss) for the years ended December 31, 2016, 2015 and 2014:

	For the Year Ended December 31, 2016			
	MID	RSD	Other	Total
	(In thousands)			
Revenues	$239,843	$76,175	$ 20,579	$ 336,597
Segment operating expenses	68,460	51,855	30,397	150,712
Segment operating income (loss)	$171,383	$24,320	$ (9,818)	$ 185,885
Reconciling items				(152,243)
Operating income				$ 33,642
Interest and other income (expense), net				(11,005)
Income before income taxes				$ 22,637

	For the Year Ended December 31, 2015			
	MID	RSD	Other	Total
	(In thousands)			
Revenues	$221,968	$50,497	$ 23,813	$ 296,278
Segment operating expense	47,780	29,056	32,147	108,983
Segment operating income (loss)	$174,188	$21,441	$ (8,334)	$ 187,295
Reconciling items				(115,875)
Operating income				$ 71,420
Interest and other income (expense), net				(11,189)
Income before income taxes				$ 60,231

	For the Year Ended December 31, 2014			
	MID	RSD	Other	Total
	(In thousands)			
Revenues	$226,303	$49,330	$ 20,925	$ 296,558
Segment operating expenses	40,816	27,608	34,106	102,530
Segment operating income (loss)	$185,487	$21,722	$(13,181)	$ 194,028
Reconciling items				(118,682)
Operating income				$ 75,346
Interest and other income (expense), net				(25,096)
Income before income taxes				$ 50,250

The Company's CODM does not review information regarding assets on an operating segment basis. Additionally, the Company does not record intersegment revenue or expense.

Accounts receivable from the Company's major customers representing 10% or more of total accounts receivable at December 31, 2016 and December 31, 2015, respectively, was as follows:

Customer	As of December 31, 2016	2015
Customer 1 (MID reportable segment)	13%	16%
Customer 2 (Other segment)	12%	27%
Customer 3 (MID reportable segment)	*	28%
Customer 4 (RSD reportable segment)	*	21%
Customer 5 (RSD reportable segment)	17%	*

* Customer accounted for less than 10% of total accounts receivable in the period

Revenue from the Company's major customers representing 10% or more of total revenue for the years ended December 31, 2016, 2015 and 2014 were as follows:

	Years Ended December 31, 2016	2015	2014
Customer A (MID and RSD reportable segments)	19%	20%	20%
Customer B (MID reportable segment)	20%	19%	16%
Customer C (MID reportable segment)	13%	13%	13%

* Customer accounted for less than 10% of total revenue in the period

Revenue from customers in the geographic regions based on the location of contracting parties is as follows:

	Years Ended December 31, 2016	2015	2014
		(In thousands)	
South Korea	$129,542	$115,486	$107,441
USA	121,209	118,278	109,060
Japan	30,215	29,687	30,454
Europe	16,031	9,616	21,349
Canada	3,478	214	7,119
Singapore	17,908	16,312	12,980
Asia-Other	18,214	6,685	8,155
Total	$336,597	$296,278	$296,558

At December 31, 2016, of the $58.4 million of total property, plant and equipment, approximately $55.0 million were located in the United States, $1.3 million were located in India and $2.1 million were located in other foreign locations. At December 31, 2015, of the $56.6 million of total property, plant and equipment, approximately $55.2 million were located in the United States, $1.3 million were located in India and $0.1 million were located in other foreign locations.

7. Marketable Securities

Rambus invests its excess cash and cash equivalents primarily in U.S. government-sponsored obligations, commercial paper, corporate notes and bonds, money market funds and municipal notes and bonds that mature within three years. As of December 31, 2016 and 2015, all of the Company's cash equivalents and marketable securities have a remaining maturity of less than one year.

All cash equivalents and marketable securities are classified as available-for-sale. Total cash, cash equivalents and marketable securities are summarized as follows:

	As of December 31, 2016				
(Dollars in thousands)	Fair Value	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Weighted Rate of Return
Money market funds	$ 10,681	$ 10,681	$—	$ —	0.41%
U.S. Government bonds and notes	48,292	48,291	1	—	0.39%
Corporate notes, bonds, commercial paper and other	62,178	62,199	—	(21)	0.66%
Total cash equivalents and marketable securities	121,151	121,171	1	(21)	
Cash	51,031	51,031	—	—	
Total cash, cash equivalents and marketable securities	$172,182	$172,202	$ 1	$ (21)	

	As of December 31, 2015				
(Dollars in thousands)	Fair Value	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Weighted Rate of Return
Money market funds	$ 77,804	$ 77,804	$—	$ —	0.12%
U.S. Government bonds and notes	14,110	14,142	—	(32)	0.48%
Corporate notes, bonds, commercial paper and other	160,823	160,979	—	(156)	0.45%
Total cash equivalents and marketable securities	252,737	252,925	—	(188)	
Cash	34,969	34,969	—	—	
Total cash, cash equivalents and marketable securities	$287,706	$287,894	$—	$(188)	

Available-for-sale securities are reported at fair value on the balance sheets and classified as follows:

	As of	
	December 31, 2016	December 31, 2015
	(Dollars in thousands)	
Cash equivalents	$ 84,263	$108,795
Short term marketable securities	36,888	143,942
Total cash equivalents and marketable securities	121,151	252,737
Cash	51,031	34,969
Total cash, cash equivalents and marketable securities	$172,182	$287,706

The Company continues to invest in highly rated quality, highly liquid debt securities. As of December 31, 2016, these securities have a remaining maturity of less than one year. The Company holds all of its marketable securities as available-for-sale, marks them to market, and regularly reviews its portfolio to ensure adherence to its investment policy and to monitor individual investments for risk analysis, proper valuation, and unrealized losses that may be other than temporary.

The estimated fair value of cash equivalents and marketable securities classified by the length of time that the securities have been in a continuous unrealized loss position at December 31, 2016 and 2015 are as follows:

	Fair Value		Gross Unrealized Loss	
	December 31, 2016	December 31, 2015	December 31, 2016	December 31, 2015
	(In thousands)			
Less than one year				
U.S. Government bonds and notes	$18,395	$ 14,110	$—	$ (32)
Corporate notes, bonds and commercial paper	54,377	145,563	(21)	(156)
Total Corporate notes, bonds, and commercial paper and U.S. Government bonds and notes	$72,772	$159,673	$ (21)	$(188)

The gross unrealized loss at December 31, 2016 and 2015 was not material in relation to the Company's total available-for-sale portfolio. The gross unrealized loss can be primarily attributed to a combination of market conditions as well as the demand for and duration of the U.S. government-sponsored obligations and corporate notes and bonds. The Company has no intent to sell, there is no requirement to sell and the Company believes that it can recover the amortized cost of these investments. The Company has found no evidence of impairment due to credit losses in its portfolio. Therefore, these unrealized losses were recorded in other comprehensive income (loss). However, the Company cannot provide any assurance that its portfolio of cash, cash equivalents and marketable securities will not be impacted by adverse conditions in the financial markets, which may require the Company in the future to record an impairment charge for credit losses which could adversely impact its financial results.

See Note 8, "Fair Value of Financial Instruments," for discussion regarding the fair value of the Company's cash equivalents and marketable securities.

8. Fair Value of Financial Instruments

The fair value measurement statement defines fair value as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When determining fair value, the Company considers the principal or most advantageous market in which the Company would transact, and the Company considers assumptions that market participants would use when pricing the asset or liability, such as inherent risk, transfer restrictions, and risk of non-performance.

The Company's financial instruments are measured and recorded at fair value, except for cost method investments and convertible notes. The Company's non-financial assets, such as goodwill, intangible assets, and property, plant and equipment, are measured at fair value when there is an indicator of impairment and recorded at fair value only when an impairment charge is recognized.

Fair Value Hierarchy

The fair value measurement statement requires disclosure that establishes a framework for measuring fair value and expands disclosure about fair value measurements. The statement requires fair value measurement be classified and disclosed in one of the following three categories:

Level 1: Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities.

The Company uses unadjusted quotes to determine fair value. The financial assets in Level 1 include money market funds.

Level 2: Quoted prices in markets that are not active, or inputs which are observable, either directly or indirectly, for substantially the full term of the asset or liability.

The Company uses observable pricing inputs including benchmark yields, reported trades, and broker/dealer quotes. The financial assets in Level 2 include U.S. government bonds and notes, corporate notes, commercial paper and municipal bonds and notes.

Level 3: Prices or valuation techniques that require inputs that are both significant to the fair value measurement and unobservable (i.e., supported by little or no market activity).

The financial assets in Level 3 previously included a cost investment whose value is determined using inputs that are both unobservable and significant to the fair value measurements, as discussed below.

The Company reviews the pricing inputs by obtaining prices from a different source for the same security on a sample of its portfolio. The Company has not adjusted the pricing inputs it has obtained. The following table presents the financial instruments that are carried at fair value and summarizes the valuation of its cash equivalents and marketable securities by the above pricing levels as of December 31, 2016 and 2015:

	As of December 31, 2016			
	Total	Quoted Market Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
	(In thousands)			
Money market funds	$ 10,681	$10,681	$ —	$—
U.S. Government bonds and notes	48,292	—	48,292	—
Corporate notes, bonds, commercial paper and other	62,178	303	61,875	—
Total available-for-sale securities	$121,151	$10,984	$110,167	$—

	As of December 31, 2015			
	Total	Quoted Market Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
	(In thousands)			
Money market funds	$ 77,804	$77,804	$ —	$—
U.S. Government bonds and notes	14,110	—	14,110	—
Corporate notes, bonds, commercial paper and other	160,823	1,264	159,559	—
Total available-for-sale securities	$252,737	$79,068	$173,669	$—

The Company monitors its investments for other-than-temporary impairment and records appropriate reductions in carrying value when necessary. The Company monitors its investments for other-than-temporary losses by considering current factors, including the economic environment, market conditions, operational performance and other specific factors relating to the business underlying the investment, reductions in carrying values when necessary and the Company's ability and intent to hold the investment for a period of time which may be sufficient for anticipated recovery in the market. Any other-than-temporary loss is reported under "Interest and other income (expense), net" in the consolidated statement of operations. During the years ended December 31, 2016 and 2015, the Company recorded no other-than-temporary impairment charges on its investments. For the year ended December 31, 2014, the Company recorded impairment charges related to its non-marketable equity security of a private company as described below.

The Company made an investment of $2.0 million in a non-marketable equity security of a private company during 2009. Prior to the second quarter of 2013, the Company had not recorded any impairment charges related to this investment as there had been no events that caused a decrease in its fair value below the carrying cost. During the year ended December 31, 2014, as part of its periodic evaluation of the fair value of the investment in the non-marketable equity security, and based on the information provided by the private company at that time, the Company determined that there was a decrease in the security's fair value. The fair value of the non-marketable equity security was determined based on an income approach, using level 3 fair value inputs, as it was deemed to be the most indicative of the security's fair value. Accordingly, the Company recorded impairment charges of $0.6 million within interest income and other income (expense), net, in the consolidated statements of operations during 2014.

In October 2015, the previously written down private company's stock became publicly traded and as a result, the investment in this equity security was classified as an available-for-sale security and was re-measured to fair value, resulting in a $1.3 million increase in marketable securities and accumulated other comprehensive income at the time of re-measurement.

During the years ended December 31, 2016 and 2015, there were no transfers of financial instruments between different categories of fair value.

The following table presents the financial instruments that are not carried at fair value but which require fair value disclosure as of December 31, 2016 and 2015:

	As of December 31, 2016			As of December 31, 2015		
(in thousands)	**Face Value**	**Carrying Value**	**Fair Value**	**Face Value**	**Carrying Value**	**Fair Value**
1.125% Convertible Senior Notes due 2018	138,000	126,167	173,961	138,000	119,418	156,292

The fair value of the convertible notes at each balance sheet date is determined based on recent quoted market prices for these notes which is a level 2 measurement. As discussed in Note 10, "Convertible Notes," as of December 31, 2016, the convertible notes are carried at their face value of $138.0 million, less any unamortized debt discount and unamortized debt issuance costs. The carrying value of other financial instruments, including accounts receivable, accounts payable and other payables, approximates fair value due to their short maturities.

Information regarding the Company's goodwill and long-lived assets balances are disclosed in Note 5, "Intangible Assets and Goodwill".

9. Balance Sheet Details

Inventories

Inventories consist of the following:

	As of December 31,	
	2016	2015
	(In thousands)	
Raw materials	3,773	597
Work in process	616	74
Finished goods	1,244	409
	$5,633	$1,080

Property, Plant and Equipment, net

Property, plant and equipment, net is comprised of the following:

	As of December 31,	
	2016	2015
	(In thousands)	
Building	$ 40,320	$ 40,320
Computer software	20,922	20,012
Computer equipment	36,608	31,224
Furniture and fixtures	15,140	13,943
Leasehold improvements	7,176	7,098
Machinery	17,406	11,037
Construction in progress	1,075	637
	138,647	124,271
Less accumulated depreciation and amortization	(80,205)	(67,655)
	$ 58,442	$ 56,616

As of December 31, 2016 and 2015, for the Sunnyvale and Brecksville facilities, the Company had capitalized $40.3 million in building based on the estimated fair value of the portion of the unfinished spaces, capitalized interest on the unfinished spaces and construction costs related to the build-out of the facilities. See Note 11, "Commitments and Contingencies" for additional details.

Depreciation expense for the years ended December 31, 2016, 2015 and 2014 was $13.0 million, $12.4 million and $13.6 million, respectively.

Accumulated Other Comprehensive Gain (Loss)

Accumulated other comprehensive gain (loss) is comprised of the following:

	As of December 31,	
	2016	2015
	(In thousands)	
Foreign currency translation adjustments	$(13,392)	$ 95
Unrealized gain (loss) on available-for-sale securities, net of tax	(116)	278
Total	$(13,508)	$373

10. Convertible Notes

The Company adopted ASU 2015-03 during the first quarter of 2016. Pursuant to the guidance in ASU 2015-03, the Company has reclassified unamortized debt issuance costs associated with the Company's 2018 Notes in the previously reported Consolidated Balance Sheet as of December 31, 2015, as follows:

(In thousands)	As presented December 31, 2015	Reclassifications	As adjusted December 31, 2015
Other assets	$ 3,648	$(1,483)	$ 2,165
Convertible notes, long-term	$120,901	$(1,483)	$119,418

The Company's convertible notes are shown in the following table.

(Dollars in thousands)	As of December 31, 2016	As of December 31, 2015
1.125% Convertible Senior Notes due 2018	$138,000	$138,000
Unamortized discount	(10,913)	(17,099)
Unamortized debt issuance costs	(920)	(1,483)
Total convertible notes	$126,167	$119,418
Less current portion	—	—
Total long-term convertible notes	$126,167	$119,418

1.125% Convertible Senior Notes due 2018. On August 16, 2013, the Company issued $138.0 million aggregate principal amount of 1.125% convertible senior notes pursuant to an indenture (the "Indenture") by and between the Company and U.S. Bank, National Association as the trustee. The 2018 Notes will mature on August 15, 2018 (the "Maturity Date"), subject to earlier repurchase or conversion. In accounting for the 2018 Notes at issuance, the Company separated the 2018 Notes into liability and equity components pursuant to the accounting standards for convertible debt instruments that may be fully or partially settled in cash upon conversion. As of the date of issuance, the Company determined that the liability component of the 2018 Notes was $107.7 million and the equity component of the 2018 Notes was $30.3 million. The fair value of the liability component was estimated using an interest rate for a similar instrument without a conversion feature. The unamortized discount related to the 2018 Notes is being amortized to interest expense using the effective interest method over five years through August 2018.

The Company will pay cash interest at an annual rate of 1.125% of the principal amount at issuance, payable semi-annually in arrears on February 15 and August 15 of each year, commencing on February 15, 2014. The Company incurred transaction costs of approximately $3.6 million related to the issuance of 2018 Notes. In accounting for these costs, the Company allocated the costs to the liability and equity components in proportion to the allocation of proceeds from the issuance of the 2018 Notes to such components. Transaction costs allocated to the liability component of $2.8 million were recorded as deferred offering costs and are being amortized to interest expense using the effective interest method over five years (the expected term of the debt). The transaction costs allocated to the equity component of $0.8 million were recorded as additional paid-in capital. The 2018 Notes are the Company's general unsecured obligations, ranking equally in right of payment to all of Rambus' existing and future senior unsecured indebtedness, including the 2014 Notes, and senior in right of payment to any of the Company's future indebtedness that is expressly subordinated to the 2018 Notes.

The 2018 Notes are convertible into shares of the Company's common stock at an initial conversion rate of 82.8329 shares of common stock per $1,000 principal amount of 2018 Notes, subject to adjustment in certain events. This is equivalent to an initial conversion price of approximately $12.07 per share of common stock. Holders may surrender their 2018 Notes for conversion prior to the close of business day immediately preceding May 15, 2018 only under the following circumstances: (1) during any calendar quarter commencing after the calendar quarter ending on December 31, 2013 (and only during such calendar quarter), if the closing sale price of the common stock for 20 days or more trading days (whether or not consecutive) during a period of 30 days consecutive trading days ending on the last trading day of the immediately preceding calendar quarter is more than 130% of the conversion price per share of common stock on the last trading day of the preceding calendar quarter; (2) during the five business day period after any five consecutive trading day period (the ‘‘measurement period’’) in which the trading price (as defined below) per $1,000 principal amount of notes for each trading day of the measurement period was less than 98% of the product of the closing sale price of the Company’s common stock and the conversion rate on each such trading day; (3) upon the occurrence of specified distributions to holders of the Company’s common stock; or (4) upon the occurrence of specified corporate events. On or after May 15, 2018 until the close of business on the second scheduled trading day immediately preceding the Maturity Date, holders may convert their notes at any time, regardless of the foregoing circumstances. If a holder elects to convert its 2018 Notes in connection with certain fundamental changes, as that term is defined in the Indenture, that occur prior to the Maturity Date, the Company will, in certain circumstances, increase the conversion rate for 2018 Notes converted in connection with such fundamental changes by a specified number of shares of common stock.

Upon conversion of the 2018 Notes, the Company will pay cash up to the aggregate principal amount of the notes to be converted and pay or deliver, as the case may be, cash, shares of the Company’s common stock or a combination of cash and shares of the Company’s common stock, at the Company’s election, in respect of the remainder, if any, of the Company’s conversion obligation in excess of the aggregate principal amount of the notes being converted, as specified in the Indenture.

The Company may not redeem the 2018 Notes at its option prior to the Maturity Date, and no sinking fund is provided for the 2018 Notes.

Upon the occurrence of a fundamental change, holders may require the Company to repurchase for cash all or any portion of their notes at a repurchase price equal to 100% of the principal amount of the notes to be repurchased, plus accrued and unpaid interest to, but excluding, the fundamental change repurchase date.

The following events are considered events of default under the Indenture which may result in the acceleration of the maturity of the 2018 Notes:

(1) default in the payment when due of any principal of any of the notes at maturity, upon redemption or upon exercise of a repurchase right or otherwise;

(2) default in the payment of any interest, including additional interest, if any, on any of the notes, when the interest becomes due and payable, and continuance of such default for a period of 30 days;

(3) the Company’s failure to deliver cash or cash and shares of the Company’s common stock (including any additional shares deliverable as a result of a conversion in connection with a make-whole fundamental change, as defined in the Indenture) when required by the Indenture;

(4) default in the Company’s obligation to provide notice of the occurrence of a fundamental change, make-whole fundamental change or distribution to holders of the Company’s common stock when required by the Indenture;

(5) the Company's failure to comply with any of the Company's other agreements in the notes or the Indenture (other than those referred to in clauses (1) through (4) above) for 60 days after the Company's receipt of written notice to the Company of such default from the trustee or to the Company and the trustee of such default from holders of not less than 25% in aggregate principal amount of the 2018 Notes then outstanding;

(6) the Company's failure to pay when due the principal of, or acceleration of, any indebtedness for money borrowed by the Company or any of the Company's material subsidiaries in excess of $40 million principal amount, if such indebtedness is not discharged, or such acceleration is not annulled, for a period of 30 days after written notice thereof is delivered to the Company by the trustee or to the Company and the trustee by the holders of 25% or more in aggregate principal amount of the notes then outstanding without such failure to pay having been cured or waived, such acceleration having been rescinded or annulled (if applicable) and such indebtedness not having been paid or discharged; and

(7) certain events of bankruptcy, insolvency or reorganization relating to the Company or any of the Company's material subsidiaries (as defined in the Indenture).

If an event of default, other than an event of default described in clause (7) above with respect to the Company, occurs and is continuing, either the trustee or the holders of at least 25% in aggregate principal amount of the notes then outstanding may declare the principal amount of, and accrued and unpaid interest, including additional interest, if any, on the notes then outstanding to be immediately due and payable. If an event of default described in clause (7) above occurs with respect to the Company, the principal amount of and accrued and unpaid interest, including additional interest, if any, on the notes will automatically become immediately due and payable.

5% Convertible Senior Notes due 2014. On June 29, 2009, the Company issued $150.0 million aggregate principal amount of 5% convertible senior notes due June 15, 2014. As of the date of issuance, the Company determined that the liability component of the 2014 Notes was approximately $92.4 million and the equity component was approximately $57.6 million. On July 10, 2009, an additional $22.5 million of the 2014 Notes were issued as a result of the underwriters exercising their overallotment option. As of the date of issuance of the $22.5 million 2014 Notes, the Company determined that the liability component was approximately $14.3 million, and the equity component was approximately $8.2 million. The unamortized discount related to the 2014 Notes was being amortized to interest expense using the effective interest method over five years through June 2014.

The Company paid cash interest at an annual rate of 5% of the principal amount at issuance, payable semi-annually in arrears on June 15 and December 15 of each year, beginning on December 15, 2009. During 2014, the Company paid approximately $4.3 million of interest related to the 2014 Notes. During 2013, the Company paid approximately $8.6 million of interest related to the 2014 Notes. Issuance costs were approximately $5.1 million of which $3.2 million is related to the liability portion, which is being amortized to interest expense over five years (the expected term of the debt), and $1.9 million is related to the equity portion. The 2014 Notes were the Company's general unsecured obligation, ranking equal in right of payment to all of the Company's existing and future senior indebtedness and were senior in right of payment to any of the Company's future indebtedness that was expressly subordinated to the 2014 Notes.

The 2014 Notes were convertible into shares of the Company's Common Stock at an initial conversion rate of 51.8 shares of Common Stock per $1,000 principal amount of 2014 Notes. This was equivalent to an initial conversion price of approximately $19.31 per share of common stock. Holders could have surrendered their 2014 Notes for conversion prior to March 15, 2014 only under the following circumstances: (i) during any calendar quarter beginning after the calendar quarter ending September 30, 2009, and only during such calendar quarter, if the closing sale price of the Common Stock for 20 days or more trading days in the period of 30 days consecutive trading days ending on the last trading day of the immediately preceding calendar quarter exceeded 130% of the conversion price in effect on the last trading day of the immediately preceding calendar quarter, (ii) during the five business day period after any 10 days consecutive trading day period in which the trading price per $1,000 principal amount of 2014 Notes for each trading day of such 10 days consecutive trading day period was less than 98% of the product of the closing sale price of the Common Stock for such trading day and the applicable conversion rate, (iii) upon the occurrence of specified distributions to holders of the Common Stock, (iv) upon a fundamental change of the Company as specified in the Indenture governing the 2014 Notes, or (v) if the Company calls any or all of the 2014 Notes for redemption, at any time prior to the close of business on the business day immediately preceding the redemption date. On and after March 15, 2014, holders may convert their 2014 Notes at any time until the close of business on the third business day prior to the maturity date, regardless of the foregoing circumstances.

Upon conversion of the 2014 Notes, the Company would have paid (i) cash equal to the lesser of the aggregate principal amount and the conversion value of the 2014 Notes and (ii) shares of the Company's Common Stock for the remainder, if any, of the Company's conversion obligation, in each case based on a daily conversion value calculated on a proportionate basis for each trading day in the 20 days trading day conversion reference period as further specified in the Indenture.

The Company was not able to redeem the 2014 Notes at its option prior to June 15, 2012. At any time on or after June 15, 2012, the Company had the right, at its option, to redeem the 2014 Notes in whole or in part for cash in an amount equal to 100% of the principal amount of the 2014 Notes to be redeemed, together with accrued and unpaid interest, if any, if the closing sale price of the Common Stock for at least 20 days of the 30 days consecutive trading days immediately prior to any date the Company gives a notice of redemption was greater than 130% of the conversion price on the date of such notice.

Upon the occurrence of a fundamental change, holders could have required the Company to repurchase some or all of their 2014 Notes for cash at a price equal to 100% of the principal amount of the 2014 Notes being repurchased, plus accrued and unpaid interest, if any. In addition, upon the occurrence of certain fundamental changes, as that term is defined in the Indenture, the Company would have, in certain circumstances, increased the conversion rate for the 2014 Notes converted in connection with such fundamental changes by a specified number of shares of Common Stock, not to exceed 15.5401 per $1,000 principal amount of the 2014 Notes.

The following events were considered "Events of Default" under the Indenture which would have resulted in the acceleration of the maturity of the 2014 Notes:

(1) default in the payment when due of any principal of any of the 2014 Notes at maturity, upon redemption or upon exercise of a repurchase right or otherwise;

(2) default in the payment of any interest, including additional interest, if any, on any of the 2014 Notes, when the interest becomes due and payable, and continuance of such default for a period of 30 days;

(3) the Company's failure to deliver cash or cash and shares of Common Stock (including any additional shares deliverable as a result of a conversion in connection with a make-whole fundamental change) when required to be delivered upon the conversion of any 2014 Note;

(4) default in the Company's obligation to provide notice of the occurrence of a fundamental change when required by the Indenture;

(5) the Company's failure to comply with any of its other agreements in the 2014 Notes or the Indenture (other than those referred to in clauses (1) through (4) above) for 60 days after the Company's receipt

of written notice to the Company of such default from the trustee or to the Company and the trustee of such default from holders of not less than 25% in aggregate principal amount of the 2014 Notes then outstanding;

(6) the Company's failure to pay when due the principal of, or acceleration of, any indebtedness for money borrowed by the Company or any of its subsidiaries in excess of $30 million principal amount, if such indebtedness is not discharged, or such acceleration is not annulled, by the end of a period of ten days after written notice to the Company by the trustee or to the Company and the trustee by the holders of at least 25% in aggregate principal amount of the 2014 Notes then outstanding; and

(7) certain events of bankruptcy, insolvency or reorganization relating to the Company or any of its material subsidiaries (as defined in the Indenture).

If an event of default, other than an event of default in clause (7) above with respect to the Company occurs and is continuing, either the trustee or the holders of at least 25% in aggregate principal amount of the 2014 Notes then outstanding may declare the principal amount of, and accrued and unpaid interest, including additional interest, if any, on the 2014 Notes then outstanding to be immediately due and payable. If an event of default described in clause (7) above occurs with respect to the Company the principal amount of and accrued and unpaid interest, including additional interest, if any, on the 2014 Notes will automatically become immediately due and payable.

During the second quarter of 2014, the Company paid upon maturity the entire $172.5 million in aggregate principal amount of the 2014 Notes.

Additional paid-in capital at December 31, 2016 and December 31, 2015 includes $93.4 million for each year related to the equity component of the notes.

As of December 31, 2016, none of the conversion conditions were met related to the 2018 Notes. Therefore, the classification of the entire equity component for the 2018 Notes in permanent equity is appropriate as of December 31, 2016.

Interest expense related to the notes for the years ended December 31, 2016, 2015 and 2014 was as follows:

	Years Ended December 31,		
	2016	2015	2014
	(in thousands)		
2018 Notes coupon interest at a rate of 1.125%	$1,553	$1,567	$ 1,567
2018 Notes amortization of discount and debt issuance cost at an additional effective interest rate of 5.5%	6,749	6,372	6,019
2014 Notes coupon interest at a rate of 5%	—	—	3,929
2014 Notes amortization of discount at an additional effective interest rate of 11.7%	—	—	8,744
Total interest expense on convertible notes	$8,302	$7,939	$20,259

11. Commitments and Contingencies

On December 15, 2009, the Company entered into a lease agreement for approximately 125,000 square feet of office space located at 1050 Enterprise Way in Sunnyvale, California commencing on July 1, 2010 and expiring on June 30, 2020. The office space is used for the Company's corporate headquarters, as well as engineering, sales, marketing and administrative operations and activities. The annual base rent for these leases includes certain rent abatement and increases annually over the lease term. The Company has two options to extend the lease for a period of 60 months each and a one-time option to terminate the lease after 84 months in exchange for an early termination fee. Pursuant to the terms of the lease, the landlord agreed to reimburse the Company approximately $9.1 million, which was received by the year ended December 31, 2011. The Company recognized the reimbursement as an additional imputed financing obligation as such payment from the landlord is deemed to be an imputed financing obligation. On November 4, 2011, to better plan for future expansion, the Company entered into an amended lease for its Sunnyvale facility for approximately an additional 31,000-square-foot space commencing on March 1, 2012 and expiring on June 30, 2020. Additionally, a tenant improvement allowance to be provided by the landlord was approximately $1.7 million. On September 29, 2012, the Company entered into a second amended Sunnyvale lease to reduce the tenant improvement allowance to approximately $1.5 million. On January 31, 2013, the Company entered into a third amendment to the Sunnyvale lease to surrender the 31,000 square-foot space from the first amendment back to the landlord and recorded a total charge of $2.0 million related to the surrender of the amended lease.

On March 8, 2010, the Company entered into a lease agreement for approximately 25,000 square feet of office and manufacturing areas, located in Brecksville, Ohio. The office area is used for the RLD group's engineering activities while the manufacturing area is used for the manufacture of prototypes. This lease was amended on September 29, 2011 to expand the facility to approximately 51,000 total square feet and the amended lease will expire on July 31, 2019. The Company has an option to extend the lease for a period of 60 months.

The Company undertook a series of structural improvements to ready the Sunnyvale and Brecksville facilities for its use. Since these improvements were considered structural in nature and the Company was responsible for any cost overruns, for accounting purposes, the Company was treated in substance as the owner of each construction project during the construction period. At the completion of each construction, the Company concluded that it retained sufficient continuing involvement to preclude de-recognition of the building under the FASB authoritative guidance applicable to the sale leasebacks of real estate. As such, the Company continues to account for the buildings as owned real estate and to record an imputed financing obligation for its obligations to the legal owners.

Monthly lease payments on these facilities are allocated between the land element of the lease (which is accounted for as an operating lease) and the imputed financing obligation. The imputed financing obligation is amortized using the effective interest method and the interest rate was determined in accordance with the requirements of sale leaseback accounting. For the years ended December 31, 2016, 2015 and 2014, the Company recognized in its Consolidated Statements of Operations $4.4 million, $4.5 million, and $4.5 million, respectively, of interest expense in connection with the imputed financing obligation on these facilities. At December 31, 2016 and 2015, the imputed financing obligation balance in connection with these facilities was $38.9 million and $39.3 million, respectively, which was primarily classified under long-term imputed financing obligation.

As of December 31, 2016 and 2015, the Company had capitalized $40.3 million in property, plant and equipment based on the estimated fair value of the portion of the pre-construction shell, construction costs related to the build-out of the facilities and capitalized interest during construction period. At the end of the initial lease term, should the Company decide not to renew the lease, the Company would reverse the equal amounts of the net book value of the building and the corresponding imputed financing obligation.

On June 29, 2009, the Company entered into an Indenture with U.S. Bank, National Association, as trustee, relating to the issuance by the Company of $150.0 million aggregate principal amount of the 2014 Notes. On

July 10, 2009, an additional $22.5 million in aggregate principal amount of 2014 Notes were issued as a result of the underwriters exercising their overallotment option. During the second quarter of 2014, the Company paid upon maturity the entire $172.5 million in aggregate principal amount of the 2014 Notes.

On August 16, 2013, the Company entered into an Indenture with U.S. Bank, National Association, as trustee, relating to the issuance by the Company of $138.0 million aggregate principal amount of the 2018 Notes. The aggregate principal amount of the 2018 notes as of December 31, 2016 and 2015 was $138.0 million, offset by unamortized debt discount and unamortized debt issuance costs of $10.9 million and $0.9 million, respectively, and $17.1 million and $1.5 million, respectively, on the accompanying consolidated balance sheets. The unamortized discount related to the 2018 Notes is being amortized to interest expense using the effective interest method over the remaining 20 months until maturity of the 2018 Notes on August 15, 2018. The unamortized debt issuance costs relate to the adoption of ASU 2015-03 during the first quarter of 2016. See Note 10, "Convertible Notes," for additional details.

As of December 31, 2016, the Company's material contractual obligations are as follows (in thousands):

	Total	2017	2018	2019	2020	2021	Thereafter
Contractual obligations (1)							
Imputed financing obligation (2)	$ 22,220	$ 6,302	$ 6,447	$ 6,602	$2,869	$—	$—
Leases and other contractual obligations	10,837	5,649	2,606	1,432	603	543	4
Software licenses (3)	24,255	10,497	10,226	3,532	—	—	—
Convertible notes	138,000	—	138,000	—	—	—	—
Interest payments related to convertible notes	3,105	1,553	1,552	—	—	—	—
Total	$198,417	$24,001	$158,831	$11,566	$3,472	$543	$ 4

(1) The above table does not reflect possible payments in connection with uncertain tax benefits of approximately $21.9 million including $19.7 million recorded as a reduction of long-term deferred tax assets and $2.2 million in long-term income taxes payable, as of December 31, 2016. As noted below in Note 16, "Income Taxes," although it is possible that some of the unrecognized tax benefits could be settled within the next 12 months, the Company cannot reasonably estimate the outcome at this time.

(2) With respect to the imputed financing obligation, the main components of the difference between the amount reflected in the contractual obligations table and the amount reflected on the Consolidated Balance Sheets are the interest on the imputed financing obligation and the estimated common area expenses over the future periods. The amount includes the amended Ohio lease and the amended Sunnyvale lease.

(3) The Company has commitments with various software vendors for non-cancellable agreements generally having terms longer than one year.

Rent expense was approximately $3.8 million, $2.7 million and $2.6 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Indemnifications

From time to time, the Company indemnifies certain customers as a necessary means of doing business. Indemnification covers customers for losses suffered or incurred by them as a result of any patent, copyright, or other intellectual property infringement or any other claim by any third party arising as result of the applicable agreement with the Company. The Company generally attempts to limit the maximum amount of indemnification that the Company could be required to make under these agreements to the amount of fees received by the Company, however, this is not always possible. The fair value of the liability as of December 31, 2016 and 2015 is not material.

12. Equity Incentive Plans and Stock-Based Compensation

Stock Option Plans

The Company has two stock option plans under which grants are currently outstanding: the 2006 Equity Incentive Plan (the "2006 Plan") and the 2015 Equity Incentive Plan (the "2015 Plan"). On April 23, 2015, the Company's stockholders approved the 2015 Plan, which authorizes 4,000,000 shares for future issuance plus the number of shares that remained available for grant under the 2006 Plan as of the effective date of the 2015 Plan. The 2015 Plan became effective and replaced the 2006 Plan on April 23, 2015. The 2015 Plan was the Company's only plan for providing stock-based incentive awards to eligible employees, executive officers, non-employee directors and consultants as of December 31, 2016. Grants under all plans typically have a requisite service period of 60 months or 48 months, have straight-line vesting schedules and expire not more than 10 years from date of grant. No further awards will be made under the 2006 Plan, but the 2006 Plan will continue to govern awards previously granted under it. In addition, any shares subject to stock options or other awards granted under the 2006 Plan that on or after the effective date of the 2015 Plan are forfeited, cancelled, exchanged or surrendered or terminate under the 2006 Plan will become available for grant under the 2015 Plan. The Board will periodically review actual share consumption under the 2015 Plan and may make a request for additional shares as needed.

The 2006 Plan was approved by the stockholders in May 2006. The 2006 Plan, as amended, provides for the issuance of the following types of incentive awards: (i) stock options; (ii) stock appreciation rights; (iii) restricted stock; (iv) restricted stock units; (v) performance shares and performance units; and (vi) other stock or cash awards. This plan provides for the granting of awards at less than fair market value of the common stock on the date of grant, but such grants would be counted against the numerical limits of available shares at a ratio of 1.5 to 1.0. The Board of Directors reserved 8,400,000 shares in March 2006 for issuance under this plan, subject to stockholder approval. Upon stockholder approval of this Plan on May 10, 2006, the 1997 Stock Option Plan (the "1997 Plan") was replaced and the 1999 Non-statutory Stock Option Plan (the "1999 Plan") was terminated. There are no outstanding options from the 1997 Plan or 1999 Plan as of December 31, 2016. On April 30, 2009 and April 26, 2012, stockholders approved an additional 6,500,000 shares on each date for issuance under the 2006 Plan. Additionally, on April 24, 2014, stockholders approved an additional 10,000,000 shares for issuance under the 2006 Plan. Those who were eligible for awards under the 2006 Plan included employees, directors and consultants who provide services to the Company and its affiliates. These options typically have a requisite service period of 60 months or 48 months, have straight-line vesting schedules, and expire ten years from date of grant.

As of December 31, 2016, 7,305,368 shares of the 35,400,000 shares approved under the plans remain available for grant. The 2015 Plan is now the Company's only plan for providing stock-based incentive compensation to eligible employees, directors and consultants.

A summary of shares available for grant under the Company's plans is as follows:

	Shares Available for Grant
Shares available as of December 31, 2013	2,527,428
Increase in shares approved for issuance	10,000,000
Stock options granted	(2,370,313)
Stock options forfeited	1,400,349
Stock options expired under former plans	(373,043)
Nonvested equity stock and stock units granted (1)	(585,753)
Nonvested equity stock and stock units forfeited (1)	125,560
Total shares available for grant as of December 31, 2014	10,724,228
Increase in shares approved for issuance	4,000,000
Stock options granted	(362,335)
Stock options forfeited	1,624,823
Stock options expired under former plans	(657,878)
Nonvested equity stock and stock units granted (1) (2)	(4,537,797)
Nonvested equity stock and stock units forfeited (1)	382,504
Total shares available for grant as of December 31, 2015	11,173,545
Stock options granted	(500,000)
Stock options forfeited	1,081,107
Stock options expired under former plans	(412,467)
Nonvested equity stock and stock units granted (1) (3)	(5,316,675)
Nonvested equity stock and stock units forfeited (1)	1,279,858
Total shares available for grant as of December 31, 2016	7,305,368

(1) For purposes of determining the number of shares available for grant under the 2015 Plan against the maximum number of shares authorized, each restricted stock granted reduces the number of shares available for grant by 1.5 shares and each restricted stock forfeited increases shares available for grant by 1.5 shares.

(2) Amount includes 238,980 shares that had been reserved for potential future issuance related to certain performance unit awards discussed under the section titled "Nonvested Equity Stock and Stock Units" below.

(3) Amount includes 300,003 shares that have been reserved for potential future issuance related to certain performance unit awards discussed under the section titled "Nonvested Equity Stock and Stock Units" below.

General Stock Option Information

The following table summarizes stock option activity under the stock option plans for the years ended December 31, 2016, 2015 and 2014 and information regarding stock options outstanding, exercisable, and vested and expected to vest as of December 31, 2016.

	Options Outstanding			
	Number of Shares	Weighted Average Exercise Price per Share	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value
	(Dollars in thousands, except per share amounts)			
Outstanding as of December 31, 2013	11,377,146	$11.32		
Options granted	2,370,313	$ 9.63		
Options exercised	(905,464)	$ 6.93		
Options forfeited	(1,400,349)	$16.13		
Outstanding as of December 31, 2014	11,441,646	$10.73		
Options granted	362,335	$11.27		
Options exercised	(1,184,141)	$ 7.42		
Options forfeited	(1,624,823)	$17.22		
Outstanding as of December 31, 2015	8,995,017	$10.01		
Options granted	500,000	$12.29		
Options exercised	(1,405,077)	$ 7.27		
Options forfeited	(1,081,107)	$18.98		
Outstanding as of December 31, 2016	7,008,833	$ 9.34	5.0	$37,202
Vested or expected to vest at December 31, 2016	6,880,321	$ 9.34	4.9	$36,603
Options exercisable at December 31, 2016	4,752,346	$10.05	4.3	$23,812

During the years ended December 31, 2016, 2015 and 2014, no stock options that contain a market condition were granted. During the year ended December 31, 2012, 1,795,000 stock options that contain a market condition were granted. These options vest in three years if specified stock prices are achieved. As of December 31, 2016 and 2015, there were 1,135,000 and 1,315,000, respectively, stock options outstanding that require the Company to achieve minimum market conditions in order for the options to become exercisable. The fair values of the options granted with a market condition were calculated using a binomial valuation model, which estimates the potential outcome of reaching the market condition based on simulated future stock prices.

The aggregate intrinsic value in the table above represents the total pre-tax intrinsic value for in-the-money options at December 31, 2016, based on the $13.77 closing stock price of Rambus' Common Stock on December 31, 2016 on the NASDAQ Global Select Market, which would have been received by the option holders had all option holders exercised their options as of that date. The total number of in-the-money options outstanding and exercisable as of December 31, 2016 was 5,849,154 and 3,617,874, respectively.

The following table summarizes the information about stock options outstanding and exercisable as of December 31, 2016:

	Options Outstanding			Options Exercisable	
Range of Exercise Prices	Number Outstanding	Weighted Average Remaining Contractual Life (in years)	Weighted Average Exercise Price	Number Exercisable	Weighted Average Exercise Price
\$4.13 – \$5.39	651,904	5.0	\$ 4.33	109,740	\$ 4.77
\$5.46 – \$5.46	706,814	5.5	\$ 5.46	669,387	\$ 5.46
\$5.49 – \$5.63	548,630	2.5	\$ 5.63	546,887	\$ 5.63
\$5.76 – \$5.76	1,195,119	5.5	\$ 5.76	600,119	\$ 5.76
\$6.83 – \$8.73	667,795	4.0	\$ 7.72	644,421	\$ 7.70
\$8.76 – \$8.76	945,290	6.8	\$ 8.76	608,983	\$ 8.76
\$9.18 – \$12.30	708,832	7.5	\$11.29	351,337	\$11.13
\$12.31 – \$18.69	897,324	5.2	\$14.82	534,347	\$16.42
\$19.16 – \$22.72	686,500	1.0	\$20.47	686,500	\$20.47
\$23.60 – \$23.60	625	1.3	\$23.60	625	\$23.60
\$4.13 – \$23.60	7,008,833	5.0	\$ 9.34	4,752,346	\$10.05

Employee Stock Purchase Plans

During the year ended December 31, 2016, the Company had one employee stock purchase plan, the 2015 Employee Stock Purchase Plan (“2015 ESPP”). During the year ended December 31, 2015, the Company had two employee stock purchase plans, the 2015 ESPP and the 2006 Employee Stock Purchase Plan (“2006 ESPP”). During the year ended December 31, 2014, the Company had one employee stock purchase plan, the 2006 ESPP.

On April 23, 2015, the Company’s stockholders approved the 2015 ESPP which reserves 2,000,000 shares of the Company’s common stock for purchase. The 2006 ESPP remained in effect until the Company’s November 2, 2015 offering period, at which time the 2015 ESPP became effective.

In March 2006, the Company adopted the 2006 ESPP, as amended, and reserved 1,600,000 shares, subject to stockholder approval which was received on May 10, 2006. On April 26, 2012, an additional 1,500,000 shares were approved by stockholders. On September 27, 2013, the Company filed a Registration Statement on Form S-8, registering 1,500,000 additional shares under the ESPP in connection with the commencement of the next subscription period under the ESPP. On April 24, 2014, the Company held its 2014 Annual Meeting of Stockholders where an amendment to the ESPP to increase the number of shares of common stock reserved for issuance under the ESPP by 1,500,000 shares was approved.

Employees generally will be eligible to participate in the plan if they are employed by Rambus for more than 20 hours per week and more than five months in a fiscal year. Both the 2015 ESPP and 2006 ESPP (when it was in effect) provide for six month offering periods, with a new offering period commencing on the first trading day on or after May 1 and November 1 of each year. Under the plans, employees may purchase stock at the lower of 85% of the beginning of the offering period (the enrollment date), or the end of each offering period (the purchase date). Employees generally may not purchase more than the number of shares having a value greater than \$25,000 in any calendar year, as measured at the purchase date.

The Company issued 548,357 shares at a weighted average price of \$9.34 per share during the year ended December 31, 2016. The Company issued 544,391 shares at a weighted average price of \$9.36 per share during the year ended December 31, 2015. The Company issued 596,188 shares at a weighted average price of $8.25 per share during the year ended December 31, 2014. As of December 31, 2016, 1,451,643 shares under the ESPP remain available for issuance.

Stock-Based Compensation

Stock Options

During the years ended December 31, 2016, 2015 and 2014, Rambus granted 500,000, 362,335 and 2,370,313 stock options, respectively, with an estimated total grant-date fair value of $2.3 million, $1.7 million and $10.1 million, respectively. During the years ended December 31, 2016, 2015 and 2014, Rambus recorded stock-based compensation related to stock options of $4.1 million, $7.2 million and $9.3 million, respectively.

As of December 31, 2016, there was $4.5 million of total unrecognized compensation cost, net of expected forfeitures, related to unvested stock-based compensation arrangements granted under the stock option plans. This cost is expected to be recognized over a weighted-average period of 1.3 years. The total fair value of options vested for the years ended December 31, 2016, 2015 and 2014 was $28.4 million, $41.4 million and $55.3 million, respectively.

The total intrinsic value of options exercised was $8.0 million, $6.8 million and $4.4 million for the years ended December 31, 2016, 2015 and 2014, respectively. Intrinsic value is the total value of exercised shares based on the price of the Company's Common Stock at the time of exercise less the proceeds received from the employees to exercise the options.

During the years ended December 31, 2016, 2015 and 2014, proceeds from employee stock option exercises totaled approximately $10.2 million, $8.8 million and $6.3 million, respectively.

Employee Stock Purchase Plans

During the years ended December 31, 2016, 2015 and 2014, Rambus recorded stock-based compensation related to the ESPP of $1.6 million, $1.6 million and $2.6 million, respectively. The compensation expense related to the ESPP for the year ended December 31, 2014 included compensation expense related to the increase in shares available for the ESPP which was approved by shareholders during the 2014 Annual Meeting of Stockholders. As of December 31, 2016, there was $0.7 million of total unrecognized compensation cost related to stock-based compensation arrangements granted under the ESPP. That cost is expected to be recognized over four months.

There were no tax benefits realized as a result of employee stock option exercises, stock purchase plan purchases, and vesting of equity stock and stock units for the years ended December 31, 2016, 2015 and 2014.

Valuation Assumptions

Rambus estimates the fair value of stock options using the Black-Scholes-Merton model ("BSM"). The BSM model determines the fair value of stock-based compensation and is affected by Rambus' stock price on the date of the grant as well as assumptions regarding a number of highly complex and subjective variables. These variables include expected volatility, expected life of the award, expected dividend rate, and expected risk-free rate of return. The assumptions for expected volatility and expected life are the two assumptions that significantly affect the grant date fair value. If actual results differ significantly from these estimates, stock-based compensation expense and Rambus' results of operations could be materially impacted.

The fair value of stock awards is estimated as of the grant date using the BSM option-pricing model assuming a dividend yield of 0% and the additional weighted-average assumptions as listed in the following tables:

The following table presents the weighted-average assumptions used to estimate the fair value of stock options granted that contain only service conditions in the periods presented.

	Stock Option Plans for Years Ended December 31,		
	2016	2015	2014
Stock Option Plans			
Expected stock price volatility	34%-36%	41%	40%-44%
Risk free interest rate	1.3%-1.7%	1.2%	2.1%-2.2%
Expected term (in years)	5.4-6.1	6.0	6.0-6.1
Weighted-average fair value of stock options granted	$4.59	$4.59	$4.26

During the year ended December 31, 2012, the Company granted 1,795,000 stock options that contain a market condition. The fair values of the options granted with a market condition were calculated using a binomial valuation model, which estimates the potential outcome of reaching the market condition based on simulated future stock prices. The weighted average fair value associated with these market condition options was immaterial.

	Employee Stock Purchase Plan for Years Ended December 31,		
	2016	2015	2014
Employee Stock Purchase Plan			
Expected stock price volatility	31%-33%	34%-42%	39%-44%
Risk free interest rate	0.41%-0.5%	0.1%-0.3%	0.0%-0.1%
Expected term (in years)	0.5	0.5	0.02-0.5
Weighted-average fair value of purchase rights granted under the purchase plan	$2.88	$3.06	$3.57

Expected Stock Price Volatility: Given the volume of market activity in its market traded options, Rambus determined that it would use the implied volatility of its nearest-to-the-money traded options. The Company believes that the use of implied volatility is more reflective of market conditions and a better indicator of expected volatility than historical volatility. If there is not sufficient volume in its market traded options, the Company will use an equally weighted blend of historical and implied volatility.

Risk-free Interest Rate: Rambus bases the risk-free interest rate used in the BSM valuation method on implied yield currently available on the U.S. Treasury zero-coupon issues with an equivalent term. Where the expected terms of Rambus' stock-based awards do not correspond with the terms for which interest rates are quoted, Rambus uses an approximation based on rates on the closest term currently available.

Expected Term: The expected term of options granted represents the period of time that options granted are expected to be outstanding. The expected term was determined based on historical experience of similar awards, giving consideration to the contractual terms of the stock-based awards, vesting schedules and expectations of future employee behavior. The expected term of ESPP grants is based upon the length of each respective purchase period.

Nonvested Equity Stock and Stock Units

The Company grants nonvested equity stock units to officers, directors and employees. For the year ended December 31, 2016, 2015 and 2014, the Company granted nonvested equity stock units totaling 3,344,448, 2,865,878 and 390,502 shares, respectively, under the 2015 Plan and the 2006 Plan. These awards have a service condition, generally a service period of four years, except in the case of grants to directors, for which the service period is one year. The nonvested equity stock units were valued at the date of grant giving them a fair value of approximately $42.9 million, $33.3 million and $4.1 million, respectively. During the first quarters of 2016 and 2015, the Company granted performance unit awards to certain Company executive officers with vesting subject to the achievement of certain performance conditions. The ultimate number of performance units that can be earned can range from 0% to 150% of target depending on performance relative to target over the applicable period. The shares earned will vest on the third anniversary of the date of grant. The Company's shares available for grant has been reduced to reflect the shares that could be earned at 150% of target. During the years ended December 31, 2016 and 2015, the Company recorded $2.8 million and $1.1 million, respectively, of stock-based compensation expense related to these performance unit awards.

For the years ended December 31, 2016, 2015 and 2014, the Company recorded stock-based compensation expense of approximately $15.3 million, $6.3 million and $2.8 million, respectively, related to all outstanding equity stock grants. Unrecognized stock-based compensation related to all nonvested equity stock grants, net of an estimate of forfeitures, was approximately $37.1 million at December 31, 2016. This cost is expected to be recognized over a weighted average period of 2.8 years.

The following table reflects the activity related to nonvested equity stock and stock units for the three years ended December 31, 2016:

Nonvested Equity Stock and Stock Units	Shares	Weighted-Average Grant-Date Fair Value
Nonvested at December 31, 2013	629,649	$ 8.56
Granted	390,502	$10.40
Vested	(262,580)	$ 9.85
Forfeited	(83,707)	$ 7.69
Nonvested at December 31, 2014	673,864	$ 9.23
Granted	2,865,878	$11.62
Vested	(276,622)	$ 9.94
Forfeited	(255,002)	$10.64
Nonvested at December 31, 2015	3,008,118	$11.32
Granted	3,344,448	$12.84
Vested	(789,864)	$10.98
Forfeited	(699,646)	$11.94
Nonvested at December 31, 2016	4,863,056	$12.33

13. Stockholders' Equity

Share Repurchase Program

In October 2001, the Company's Board of Directors (the "Board") approved a share repurchase program of its common stock, principally to reduce the dilutive effect of employee stock options. Under this program, the Board approved the authorization to repurchase up to 19.0 million shares of the Company's outstanding common stock over an undefined period of time. On February 25, 2010, the Board approved a new share repurchase program authorizing the repurchase of up to an additional 12.5 million shares.

For the year ended December 31, 2014, the Company did not repurchase any shares of its common stock under its share repurchase program. As of December 31, 2014, the Company had repurchased a cumulative total of approximately 26.3 million shares of its common stock with an aggregate price of approximately $428.9 million since the commencement of the program in 2001. As of December 31, 2014, there remained an outstanding authorization to repurchase approximately 5.2 million shares of the Company's outstanding common stock.

On January 21, 2015, the Company's Board approved a new share repurchase program authorizing the repurchase of up to an aggregate of 20.0 million shares. Share repurchases under the plan may be made through the open market, established plans or privately negotiated transactions in accordance with all applicable securities laws, rules, and regulations. There is no expiration date applicable to the plan. This new stock repurchase program replaced the previous program approved by the Board in February 2010 and canceled the remaining shares outstanding as part of the previous authorization.

On October 26, 2015, the Company initiated an accelerated share repurchase program with Citibank, N.A. The accelerated share repurchase program is part of the broader share repurchase program previously authorized by the Company's Board on January 21, 2015. Under the accelerated share repurchase program, the Company pre-paid to Citibank, N.A., the $100.0 million purchase price for its common stock and, in turn, the Company received an initial delivery of approximately 7.8 million shares of its common stock from Citibank, N.A, which were retired and recorded as a $80.0 million reduction to stockholders' equity. The remaining $20.0 million of the initial payment was recorded as a reduction to stockholders' equity as an unsettled forward contract indexed to the Company's stock. The number of shares to be ultimately purchased by the Company was determined based on the volume weighted average price of the common stock during the terms of the transaction, minus an agreed upon discount between the parties. During the second quarter of 2016, the accelerated share repurchase program was completed and the Company received an additional 0.7 million shares of its common stock as the final settlement of the accelerated share repurchase program. There were no other repurchases of the Company's common stock during 2016.

As of December 31, 2016, there remained an outstanding authorization to repurchase approximately 11.5 million shares of the Company's outstanding common stock under the current share repurchase program.

The Company records stock repurchases as a reduction to stockholders' equity. The Company records a portion of the purchase price of the repurchased shares as an increase to accumulated deficit when the price of the shares repurchased exceeds the average original proceeds per share received from the issuance of common stock. During the year ended December 31, 2016, the cumulative price of $17.6 million was recorded as an increase to accumulated deficit.

14. Benefit Plans

Rambus has a 401(k) Profit Sharing Plan (the "401(k) Plan") qualified under Section 401(k) of the Internal Revenue Code of 1986. Each eligible employee may elect to contribute up to 60% of the employee's annual compensation to the 401(k) Plan, up to the Internal Revenue Service limit. Rambus, at the discretion of its Board of Directors, may match employee contributions to the 401(k) Plan. The Company matches 50% of eligible employee's contribution, up to the first 6% of an eligible employee's qualified earnings. For the years ended December 31, 2016, 2015 and 2014, Rambus made matching contributions totaling approximately $2.0 million, $2.1 million and $1.9 million, respectively.

15. Restructuring Charges

The 2015 Plan

During 2015, the Company initiated a restructuring program to reduce overall corporate expenses which is expected to improve future profitability by reducing spending on sales, general and administrative programs and refining some of its research and development efforts ("the 2015 Plan"). In connection with this restructuring program, the Company initiated a plan of termination resulting in a reduction of 8% of the Company's headcount. The Company estimated that it would incur a cash payout related to the reduction in force of approximately $3.0 million, which is related to severance and termination benefits. The estimated non-cash expense was expected to be approximately $1.0 million. During the year ended December 31, 2015, the Company recorded a charge of $3.6 million related primarily to the reduction in workforce, of which $1.4 million was related to the MID reportable segment, $0.1 million was related to the RSD reportable segment, $1.2 million was related to the Other segment and $0.9 million was related to corporate support functions. The 2015 Plan was completed in 2016.

The following table summarizes the 2015 Plan restructuring activities during the years ended December 31, 2016 and 2015:

	Employee Severance and Related Benefits	Facilities	Total
	(In thousands)		
Balance at December 31, 2014	$ —	$ —	$ —
Charges	2,993	583	3,576
Payments	(1,765)	—	(1,765)
Non-cash settlements	—	(583)*	(583)
Balance at December 31, 2015	$ 1,228	$ —	$ 1,228
Payments	(1,228)	—	(1,228)
Balance at December 31, 2016	$ —	$ —	$ —

* The non-cash charge of $583 thousand is related to the write down of fixed assets related to the Other segment.

16. Income Taxes

Income before taxes consisted of the following:

	Years Ended December 31,		
	2016	2015	2014
	(In thousands)		
Domestic	$ 38,211	$58,498	$49,173
Foreign	(15,574)	1,733	1,077
	$ 22,637	$60,231	$50,250

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The provision for (benefit from) income taxes is comprised of:

	Years Ended December 31,		
	2016	2015	2014
		(In thousands)	
Federal:			
Current	$22,115	$ 20,497	$19,386
Deferred	(2,198)	(170,798)	2,337
State:			
Current	884	609	713
Deferred	(271)	(1,933)	—
Foreign:			
Current	1,275	443	1,640
Deferred	(5,988)	25	(27)
	$15,817	$(151,157)	$24,049

The differences between Rambus' effective tax rate and the U.S. federal statutory regular tax rate are as follows:

	Years Ended December 31,		
	2016	2015	2014
Expense at U.S. federal statutory rate	35.0%	35.0%	35.0%
Expense (benefit) at state statutory rate	1.8	(1.5)	1.0
Withholding tax	97.0	34.1	38.6
Foreign rate differential	4.1	0.4	2.5
Research and development ("R&D") credit	(8.3)	(2.3)	(6.1)
Executive compensation	1.5	0.5	0.2
Stock-based compensation	34.8	5.3	1.4
Foreign tax credit	(97.0)	(34.1)	(38.7)
Other	1.0	(0.6)	0.6
Valuation allowance	—	(287.8)	13.4
	69.9%	(251.0)%	47.9%

The components of the net deferred tax assets are as follows:

	As of December 31,	
	2016	2015
	(In thousands)	
Deferred tax assets:		
Depreciation and amortization	$ 22,174	$ 30,019
Other liabilities and reserves	12,442	7,227
Deferred equity compensation	17,426	23,176
Net operating loss carryovers	11,439	11,746
Tax credits	120,660	117,078
Total gross deferred tax assets	184,141	189,246
Convertible debt	(3,870)	(6,044)
Total net deferred tax assets	180,271	183,202
Valuation allowance	(23,529)	(20,717)
Net deferred tax assets	$156,742	$162,485

	As of December 31,	
	2016	2015
	(In thousands)	
Reported as:		
Non-current deferred tax assets	$168,342	$162,485
Non-current deferred tax liabilities	(11,600)	—
Net deferred tax assets	$156,742	$162,485

In November 2015, the FASB issued ASU No. 2015-17, “Balance Sheet Classification of Deferred Taxes (Topic 740),” to simplify the presentation of deferred income taxes. The amendments in this update require that deferred tax liabilities and assets be classified as non-current in a classified statement of financial position. This ASU is effective for financial statements issued for fiscal years beginning after December 15, 2016 and interim periods within those fiscal years. Early adoption is permitted. The Company has early adopted this ASU as of December 31, 2015 on a prospective basis.

Management periodically evaluates the realizability of its net deferred tax assets based on all available evidence, both positive and negative. The realizability of the Company’s net deferred tax assets is dependent on its ability to generate sufficient future taxable income during periods prior to the expiration of tax attributes to fully utilize these assets. Management evaluated the realizability of its net deferred tax assets based on all available evidence, both positive and negative, in determining that it was appropriate to release the valuation allowance for the Company’s U.S. federal and other state deferred tax assets of $174.5 million during the third quarter of 2015 in accordance with FASB ASC 740-10-30-16 to 25.

The Company emerged from a cumulative loss position over the previous three years during the first quarter of 2015. The cumulative three-year pre-tax income is considered positive evidence which is objective and verifiable, and thus, received significant weighting. The continued stability in the Company’s operations along with the increased visibility into the adoption of its security technology in the third quarter of 2015 provided additional evidence to the Company’s belief that it will generate sufficient taxable income in the future. Additional positive evidence considered by management in its assessment included a lack of unused operating loss carryforwards in the Company’s history as well as anticipated future benefits from its cost management.

Negative evidence management considered included economic uncertainties such as volatility of the semiconductor industry and uncertainties associated with the development of new products that could impact the Company's ability to generate a sustained level of future profits.

Upon considering the relative impact of all evidence during the third quarter of 2015, both negative and positive, and the weight accorded to each, the Company concluded that it was more likely than not that its deferred tax assets would be realizable with the exception of primarily its California deferred tax assets that have not met the "more likely than not" realization threshold criteria. As a result, the Company released the related valuation allowance against such deferred tax assets which is included as a component of the benefit from income taxes in the accompanying consolidated statement of operations. The Company continues to maintain a deferred tax asset valuation allowance of $23.5 million as of December 31, 2016.

The following table presents the tax valuation allowance information for the years ended December 31, 2016, 2015 and 2014:

	Balance at Beginning of Period	Charged (Credited) to Operations	Charged to Other Account*	Valuation Allowance Release	Balance at End of Period
Tax Valuation Allowance					
Year ended December 31, 2014	$192,823	—	1,051	—	$193,874
Year ended December 31, 2015	$193,874	—	1,299	(174,456)	$ 20,717
Year ended December 31, 2016	$ 20,717	—	2,812	—	$ 23,529

* Amounts not charged to operations are charged to other comprehensive income or deferred tax assets (liabilities).

As of December 31, 2016, Rambus had California and other state net operating loss carryforwards of $274.6 million and $99.7 million, respectively. As of December 31, 2016, Rambus had federal research and development tax credit carryforwards of $36.5 million, alternative minimum tax credits of $2.5 million, and foreign tax credits of $120.3 million. As of December 31, 2016, Rambus had California research and development tax credit carryforwards of $24.7 million. These carryforward amounts included $38.2 million of federal tax credits and $98.2 million of California net operating losses for which no deferred tax asset has been recognized because they relate to excess tax benefits from stock-based compensation tax deductions. The excess tax benefits will be recorded to additional paid-in capital when they reduce cash taxes payable. The federal foreign tax credits and research and development credits begin to expire in 2020 and 2018, respectively. Approximately $55 million of federal foreign tax credits expire in 2020. The California net operating losses began to expire in 2016, and $3.2 million expired during the year. Additionally, $64.5 million of California net operating loss is expected to expire in 2017. The federal alternative minimum tax credits and the California research and development credits carry forward indefinitely.

In the event of a change in ownership, as defined under federal and state tax laws, Rambus' net operating loss and tax credit carryforwards could be subject to annual limitations. The annual limitations could result in the expiration of the net operating loss and tax credit carryforwards prior to utilization.

As of December 31, 2016, the Company had $21.9 million of unrecognized tax benefits including $19.7 million recorded as a reduction of long-term deferred tax assets and $2.2 million recorded in long term income taxes payable. If recognized, $2.2 million would be recorded as an income tax benefit in the consolidated statements of operations. As of December 31, 2015, the Company had $20.8 million of unrecognized tax benefits including $18.6 million recorded as a reduction of long-term deferred tax assets and $2.2 million recorded in long term income taxes payable. If recognized, $2.2 million would be recorded as an income tax benefit in the consolidated statements of operations. It is reasonably possible that a reduction of up to $0.2 million of existing unrecognized tax benefits could occur in the next 12 months.

A reconciliation of the beginning and ending amounts of unrecognized income tax benefits for the years ended December 31, 2016, 2015 and 2014 is as follows (amounts in thousands):

	Years Ended December 31,		
	2016	2015	2014
Balance at January 1	$20,836	$19,903	$18,794
Tax positions related to current year:			
Additions	1,225	1,186	1,134
Tax positions related to prior years:			
Additions	256	—	531
Reductions	(171)	(35)	(556)
Settlements	(221)	(218)	—
Balance at December 31	$21,925	$20,836	$19,903

Rambus recognizes interest and penalties related to uncertain tax positions as a component of the income tax provision (benefit). At December 31, 2016 and 2015, an immaterial amount of interest and penalties are included in long-term income taxes payable.

Rambus files income tax returns for the U.S., California, India, the U.K., the Netherlands and various other state and foreign jurisdictions. The U.S. federal returns are subject to examination from 2013 and forward. The California returns are subject to examination from 2010 and forward. In addition, any R&D credit carryforward or net operating loss carryforward generated in prior years and utilized in these or future years may also be subject to examination. The India returns are subject to examination from fiscal year ending March 2012 and forward. The Company is currently under examination by California for the 2010 and 2011 tax years. The Company's India subsidiary is under examination by the Indian tax administration for tax years beginning with 2011, except for 2014, which was assessed in the Company's favor. These examinations may result in proposed adjustments to the income taxes as filed during these periods. Management regularly assesses the likelihood of outcomes resulting from income tax examinations to determine the adequacy of their provision for income taxes and believes their provision for unrecognized tax benefits is adequate.

At December 31, 2016, no deferred taxes have been provided on undistributed earnings of approximately $6.7 million from the Company's international subsidiaries since these earnings have been, and under current plans will continue to be, indefinitely reinvested outside the United States. It is not practicable to determine the amount of the unrecognized tax liability at this time.

17. Litigation and Asserted Claims

Rambus is not currently a party to any material pending legal proceeding; however, from time to time, Rambus may become involved in legal proceedings or be subject to claims arising in the ordinary course of its business. Although the results of litigation and claims cannot be predicted with certainty, the Company currently believes that the final outcome of these ordinary course matters will not have a material adverse effect on our business, operating results, financial position or cash flows. Regardless of the outcome, litigation can have an adverse impact on the Company because of defense and settlement costs, diversion of management resources and other factors.

The Company records a contingent liability when it is probable that a loss has been incurred and the amount is reasonably estimable in accordance with accounting for contingencies.

18. Agreements with SK hynix and Micron

SK hynix

On June 11, 2013, Rambus, SK hynix and certain related entities of SK hynix entered into a settlement agreement, pursuant to which the parties have agreed to release all claims against each other with respect to all outstanding litigation between them. Pursuant to the settlement agreement, Rambus and SK hynix entered into a semiconductor patent license agreement on June 11, 2013, under which SK hynix licenses from Rambus non-exclusive rights to certain Rambus patents and has agreed to pay Rambus cash amounts over the next five years. Under the license agreement, Rambus has granted to SK hynix (i) a paid-up perpetual patent license for certain identified SK hynix DRAM products and (ii) a five-year term patent license to all other DRAM and other semiconductor products.

In June 2015, the Company signed an amendment that extends its current agreement with SK hynix for an additional six years for use of Rambus memory-related patented innovations in SK hynix semiconductor products. The Company signed the original agreement with SK hynix for a five-year term in June 2013. Under the amendment, SK hynix has agreed to continue to pay the Company an average quarterly cash payment of $12.0 million which equates to $432.0 million from the signing of the amendment through the term of the agreement ending July 1, 2024, provided that (a) for each of the six full calendar quarters immediately following July 1, 2015, SK hynix will pay the Company a quarterly cash payment of $16.0 million, and (b) in addition, after December 1, 2017, SK hynix will have the option to make six quarterly cash payments of $8.0 million upon six months written notice. In addition, SK hynix has the option to renew the agreement for an additional three-year extension under the existing rate structure.

The agreements with SK hynix are considered a multiple element arrangement for accounting purposes. For a multiple element arrangement under the applicable accounting rules, the Company is required to identify specific elements of the arrangement and then determine when those elements should be recognized. The Company identified three elements in the arrangement: antitrust litigation settlement, settlement of past infringement, and license agreement. The Company considered several factors in determining the accounting fair value of the elements of the SK hynix agreements which included a third party valuation using an income approach (collectively the “SK hynix Fair Value”). The inputs and assumptions used in this accounting valuation were from a market participant perspective and included projected customer revenue, royalty rates, estimated discount rates, useful lives and income tax rates, among others. The development of a number of these inputs and assumptions in the model requires a significant amount of management judgment and discretion, and is based upon a number of factors, including the selection of industry comparables, market growth rates and other relevant factors. Changes in any number of these assumptions may have a substantial impact on the SK hynix Fair Value as assigned to each element. These inputs and assumptions represent management’s best estimates at the time of the transaction. The following estimates do not reflect any agreement (expressed or implied) reached between the parties on the values attributed to any aspect of this transaction. The estimated SK hynix Fair Value is determined as follows:

(in millions)	Estimated SK hynix Fair Value
Antitrust litigation settlement	$ 4.0
Settlement of past infringement	280.0
License agreement	250.0
Total SK hynix Fair Value	$534.0

The total original consideration of $240.0 million (as per the terms of the agreements with SK hynix) takes into account the court ruling in May 2013 that $250.0 million should be applied as a credit against the court's March 2009 award to Rambus in the SK hynix litigation. Using the accounting guidance from multiple element revenue arrangements, the Company allocated the consideration to each element using the estimated SK hynix Fair Value of the elements which include antitrust litigation settlement, settlement of past infringement, and license agreement as shown in the table above. The following allocations do not reflect any agreement (expressed or implied) reached between the parties on the values attributed to any aspect of this transaction, but instead, reflect only what is required as disclosure under the applicable accounting rules. Based on the estimated SK hynix Fair Value, the total consideration of $240.0 million was allocated to the following elements:

(in millions)	Allocated Consideration
Antitrust litigation settlement	$ 1.9
Settlement of past infringement	125.8
License agreement	112.3
Total original consideration	$240.0

The consideration of $528.0 million (including the impact of the June 2015 amendment to the agreement and assuming no adjustments to the payments under the terms of the agreements) will be recognized in the Company's financial statements until 2024 as follows:

- $526.1 million as "royalty revenue" which represents the allocated consideration related to the settlement of past infringement ($125.8 million) from the resolution of the infringement litigation and the patent license agreement ($400.3 million); and
- $1.9 million as "gain from settlement" which represents the allocated consideration related to the resolution of the antitrust litigation.

During the years ended December 31, 2016 and 2015, the Company received cash consideration of $64.0 million and $56.0 million, respectively, from SK hynix. The amounts were allocated between royalty revenue ($63.9 million in 2016 and $55.3 million in 2015) and gain from settlement ($0.1 million in 2016 and $0.7 million in 2015) based on the elements' SK hynix Fair Value.

The cash receipts and remaining future cash receipts from the agreements with SK hynix are expected to be recognized as follows assuming no adjustments to the payments under the terms of the agreements (and assuming the option to make the lower payments begins with payments made during the middle of 2018):

	Received in			Estimated to Be Received in						Total Estimated Cash Receipts
	2013	2014	2015	2016	2017	2018	2019	2020	2021 and thereafter	
(in millions)										
Royalty revenue	$23.6	$47.3	$55.3	$63.9	$48.0	$40.0	$32.0	$48.0	$168.0	$526.1
Gain from settlement	0.4	0.7	0.7	0.1	—	—	—	—	—	1.9
Total	$24.0	$48.0	$56.0	$64.0	$48.0	$40.0	$32.0	$48.0	$168.0	$528.0

Micron

On December 9, 2013, Rambus, Micron and certain related entities of Micron entered into a settlement agreement, pursuant to which the parties have agreed that they will release all claims against each other with

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respect to all outstanding litigation between them and certain other potential claims. Pursuant to the settlement agreement, Rambus and Micron entered into a semiconductor patent license agreement on December 9, 2013. Under the license agreement, Rambus has granted to Micron and its subsidiaries and certain affiliated entities (i) a paid-up perpetual patent license for certain identified Micron DRAM products and (ii) a seven-year term patent license to other memory and semiconductor products.

The agreements with Micron are considered a multiple element arrangement for accounting purposes. For a multiple element arrangement under the applicable accounting rules, the Company is required to identify specific elements of the arrangement and then determine when those elements should be recognized. The Company identified three elements in the arrangement: antitrust litigation settlement, settlement of past infringement, and license agreement. The Company considered several factors in determining the accounting fair value of the elements of the Micron agreements which included a third party valuation using an income approach (collectively the "Micron Fair Value"). The inputs and assumptions used in this accounting valuation were from a market participant perspective and included projected customer revenue, royalty rates, estimated discount rates, useful lives and income tax rates, among others. The development of a number of these inputs and assumptions in the model requires a significant amount of management judgment and discretion, and is based upon a number of factors, including the selection of industry comparables, market growth rates and other relevant factors. Changes in any number of these assumptions may have a substantial impact on the Micron Fair Value as assigned to each element. These inputs and assumptions represent management's best estimates at the time of the transaction. The following estimates do not reflect any agreement (expressed or implied) reached between the parties on the values attributed to any aspect of this transaction. The estimated Micron Fair Value is determined as follows:

(in millions)	Estimated Micron Fair Value
Antitrust litigation settlement	$ 8.0
Settlement of past infringement	235.0
License agreement	440.0
Total Micron Fair Value	$683.0

The total consideration of $280.0 million (as per the terms of the agreements with Micron) takes into account the court ruling in January 2013 that Rambus' patents-in-suit are unenforceable against Micron in the Micron litigation, but which was pending appeal at the time of settlement. Using the accounting guidance from multiple element revenue arrangements, the Company allocated the consideration to each element using the estimated Micron Fair Value of the elements which include antitrust litigation settlement, settlement of past infringement, and license agreement as shown in the table above. The following allocations do not reflect any agreement (expressed or implied) reached between the parties on the values attributed to any aspect of this transaction, but instead, reflect only what is required as disclosure under the applicable accounting rules. Based on the estimated Micron Fair Value, the total consideration of $280.0 million was allocated to the following elements:

(in millions)	Allocated Consideration
Antitrust litigation settlement	$ 3.3
Settlement of past infringement	96.3
License agreement	180.4
Total consideration	$280.0

The consideration of $280.0 million (assuming no adjustments to the payments under the terms of the agreements) will be recognized in the Company's financial statements until 2020 as follows:

- $276.7 million as "royalty revenue" which represents the allocated consideration related to the settlement of past infringement ($96.3 million) from the resolution of the infringement litigation and the patent license agreement ($180.4 million); and
- $3.3 million as "gain from settlement" which represents the allocated consideration related to the resolution of the antitrust litigation.

During the years ended December 31, 2016 and 2015, the Company received cash consideration of $40.0 million and $40.0 million, respectively, from Micron. The amounts were allocated between royalty revenue ($39.5 million in 2016 and $38.7 million in 2015) and gain from settlement ($0.5 million in 2016 and $1.3 million in 2015) based on the elements' Micron Fair Value.

The remaining $154.5 million is expected to be paid in successive quarterly payments of $10.0 million, concluding in the fourth quarter of 2020.

The cash receipts and remaining future cash receipts from the agreements with Micron are expected to be recognized as follows assuming no adjustments to the payments under the terms of the agreements:

	Received in				Estimated to Be Received in				Total Estimated Cash Receipts
	2013	2014	2015	2016	2017	2018	2019	2020	
(in millions)									
Royalty revenue	$5.3	$38.7	$38.7	$39.5	$40.0	$40.0	$40.0	$34.5	$276.7
Gain from settlement	0.2	1.3	1.3	0.5	—	—	—	—	3.3
Total	$5.5	$40.0	$40.0	$40.0	$40.0	$40.0	$40.0	$34.5	$280.0

19. Acquisitions

Smart Card Software Ltd.

On January 25, 2016, the Company completed its acquisition of Smart Card Software Ltd. ("SCS"), a privately-held company incorporated in the United Kingdom, by acquiring all issued and outstanding shares of capital stock of SCS. Pursuant to the merger agreement on January 25, 2016, SCS was merged into Rambus, Inc. The transaction was denominated in British pounds. Under the terms of the merger agreement, the total consideration in U.S. dollar equivalent was $104.7 million which included the purchase price of $92.6 million paid on January 25, 2016 and additional purchase consideration to be paid in the fourth quarter of 2016 originally totaling $12.1 million and comprised of $11.6 million in cash, $4.0 million in working capital, offset by $3.5 million in liabilities assumed from SCS. Subsequently, the additional purchase consideration, ultimately amounting to $10.2 million was paid in the fourth quarter of 2016. Of the purchase price, approximately $17.1 million of the consideration was deposited into an escrow account to fund indemnification obligations and other contractual provisions, with releases of portions of the escrow at various intervals through 18 months. SCS is a leader in mobile payments and a leading supplier of smart ticketing systems, which includes Bell Identification Ltd. and Ecebs Ltd. SCS is part of the RSD reporting unit. This acquisition will complement the Company's RSD reporting unit by allowing the Company to leverage its foundational security technology to offer differentiated, value-added security solutions to its customers. During the year ended December 31, 2016, the Company incurred approximately $2.0 million in external acquisition costs in connection with the acquisition which were expensed as incurred.

The fair value of the assets acquired has been determined primarily by using valuation methods that discount the expected future cash flows to present value using estimates and assumptions determined by management. The Company performed a valuation of the net assets acquired as of the January 25, 2016 closing date. The total consideration from the business combination was allocated as follows:

	Total
	(in thousands)
Cash	$ 12,056
Accounts receivable	6,563
Property and equipment	524
Other tangible assets	1,462
Identified intangible assets	59,700
Goodwill	46,903
Accounts payable and accrued liabilities	(5,996)
Deferred income taxes	(15,556)
Deferred revenue	(1,313)
Total	$104,343

The goodwill arising from the acquisition is primarily attributed to synergies related to the combination of new and complementary technologies of the Company and the assembled workforce of SCS. This goodwill is not expected to be deductible for tax purposes.

The identified intangible assets assumed in the acquisition of SCS were recognized as follows based upon their estimated fair values as of the acquisition date:

	Total	Estimated Weighted Average Useful Life
	(in thousands)	(in years)
Existing technology	$24,600	6
Customer contracts and contractual relationships (1)	35,100	6
Total	$59,700	

(1) Includes favorable contracts of $8.3 million with an estimated useful life of 5 years. The favorable contracts are acquired software and service agreements where the Company has no performance obligations. Cash received from these acquired favorable contracts reduces the favorable contract intangible asset.

Inphi Memory Interconnect Business

On August 4, 2016, the Company completed its acquisition of all the assets of Inphi's Memory Interconnect Business ("Memory Interconnect Business") from Inphi Corporation for $90 million in cash. The acquisition includes all assets of the Memory Interconnect Business including product inventory, customer contracts, supply chain agreements and intellectual property. Of the purchase price, approximately $11.3 million of the consideration was deposited into an escrow account to fund indemnification obligations and other contractual provisions, to be released 12 months after the closing date. This acquisition will complement the MID reporting unit by allowing the Company to strengthen its market position for memory buffer chip products and execute on programs that meet the needs of the server, networking and data center market. During the year ended December 31, 2016, the Company incurred approximately $0.7 million in external acquisition costs in connection with the acquisition which were expensed as incurred.

The fair value of the assets acquired has been determined primarily by using valuation methods that discount the expected future cash flows to present value using estimates and assumptions determined by management. The Company performed a valuation of the net assets acquired as of the August 4, 2016 closing date. The total consideration from the business combination was allocated as follows:

	Total
	(in thousands)
Inventory	$ 6,300
Property and equipment	4,543
Other tangible assets	206
Identified intangible assets	50,222
Goodwill	32,723
Accounts payable and accrued liabilities	(3,527)
Deferred revenue	(467)
Total	$90,000

The goodwill arising from the acquisition is primarily attributed to synergies related to the combination of new and complementary technologies of the Company and the assembled workforce of the acquired business. This goodwill is expected to be deductible for tax purposes.

The identified intangible assets assumed in the acquisition of the acquired business were recognized as follows based upon their estimated fair values as of the acquisition date:

	Total	Estimated Weighted Average Useful Life
	(in thousands)	(in years)
Existing technology	$44,900	5
Customer contracts and contractual relationships	3,722	6
In-process research and development	1,600	Not applicable
Total	$50,222	

In-process research and development ("IPR&D") consists of one project, primarily relating to the development of process technologies to manufacture the next generation buffer chip product. The project is expected to be completed over the next 4 years. The acquired IPR&D will not be amortized until completion of the related product which is determined by when the underlying projects reach technological feasibility and commence commercial production. Upon completion, the IPR&D project will be amortized over its useful life which is expected to range between 5 years and 7 years.

Snowbush IP Assets

On August 5, 2016, the Company completed its acquisition of the assets of Semtech Corporation's Snowbush IP group for $32.0 million in cash. Snowbush IP, formerly part of Semtech's Systems Innovation Group, is a provider of silicon-proven, high-performance serial link solutions. The Snowbush IP assets have been integrated into the MID reporting unit to bolster its SerDes and IP offerings, addressing critical needs of the server, networking and data center market. During the year ended December 31, 2016, the Company incurred approximately $0.7 million in external acquisition costs in connection with the acquisition which were expensed as incurred.

The fair value of the assets acquired has been determined primarily by using valuation methods that discount the expected future cash flows to present value using estimates and assumptions determined by management. The Company performed a valuation of the net assets acquired as of the August 5, 2016 closing date. The total consideration from the business combination was allocated as follows:

	Total
	(in thousands)
Property and equipment	$ 911
Identified intangible assets	25,189
Goodwill	14,015
Deferred revenue	(1,270)
Total	$38,845

The goodwill arising from the acquisition is primarily attributed to synergies related to the combination of new and complementary technologies of the Company and the assembled workforce of the Snowbush IP assets. This goodwill is expected to be deductible for tax purposes.

The identified intangible assets assumed in the acquisition of the Snowbush IP assets were recognized as follows based upon their estimated fair values as of the acquisition date:

	Total	Estimated Weighted Average Useful Life
	(in thousands)	(in years)
Existing technology	$ 2,600	5
Customer contracts and contractual relationships	789	2
In-process research and development	21,800	Not applicable
Total	$25,189	

IPR&D consists of four projects, primarily relating to the development of SerDes and IP process technologies. The projects are expected to be completed over the next 1.5 years. The acquired IPR&D will not be amortized until completion of the related products which is determined by when the underlying projects reach technological feasibility and commence commercial production. Upon completion, each IPR&D project will be amortized over its useful life, each of which is expected to range between 4 years and 6 years. Subsequent to the acquisition, the Company impaired $18.3 million of in-process research and development intangible asset. See Note 5, “Intangible Assets and Goodwill” for further details.

Unaudited Pro Forma Combined Consolidated Financial Information

The following unaudited pro forma financial information presents the combined results of operations for the Company and SCS, the Memory Interconnect Business and the Snowbush IP assets as if the acquisitions had occurred on January 1, 2015. The unaudited pro forma financial information has been prepared for comparative purposes only and does not purport to be indicative of the actual operating results that would have been recorded had the acquisitions actually taken place on January 1, 2015, and should not be taken as indicative of future consolidated operating results. Additionally, the unaudited pro forma financial results do not include any anticipated synergies or other expected benefits from the acquisitions (unaudited, in thousands, except per share amounts):

	Years Ended December 31,	
	2016	2015
Revenue	$364,443	$374,036
Net income	$ 5,727	$188,852
Net income per share — diluted	$ 0.05	$ 1.61

Pro forma earnings for 2016 were adjusted to exclude $3.4 million of acquisition-related costs incurred in 2016. Consequently, pro forma earnings for 2015 were adjusted to include these costs.

Supplementary Financial Data

RAMBUS INC.
CONSOLIDATED SUPPLEMENTARY FINANCIAL DATA
Quarterly Statements of Operations
(Unaudited)

	Dec 31, 2016	Sept. 30, 2016	June 30, 2016	March 31, 2016	Dec. 31, 2015	Sept. 30, 2015	June 30, 2015	March 31, 2015
	(In thousands, except for per share amounts)							
Total revenue	$ 97,559	$ 89,855	$ 76,501	$ 72,682	$ 76,773	$ 73,779	$ 72,812	$ 72,914
Total operating costs and expenses (1)	$ 97,035	$ 78,039	$ 64,493	$ 63,388	$ 56,439	$ 56,139	$ 57,258	$ 55,022
Operating income	$ 524	$ 11,816	$ 12,008	$ 9,294	$ 20,334	$ 17,640	$ 15,554	$ 17,892
Net income (loss) (2)	$ (3,445)	$ 4,511	$ 3,876	$ 1,878	$ 12,992	$182,033	$ 6,861	$ 9,502
Net income (loss) per share — basic	$ (0.03)	$ 0.04	$ 0.04	$ 0.02	$ 0.12	$ 1.56	0.06	$ 0.08
Net income (loss) per share — diluted	$ (0.03)	$ 0.04	$ 0.03	$ 0.02	$ 0.11	$ 1.52	0.06	$ 0.08
Shares used in per share calculations — basic (3)	110,788	110,214	109,904	109,733	111,476	116,444	116,027	115,336
Shares used in per share calculations — diluted (3)	110,788	113,723	112,061	112,252	113,388	119,542	120,939	117,442

(1) The quarterly financial information includes $18.3 million of impairment of in-process research and development intangible asset and a reduction of operating expenses due to the change in the contingent consideration liability of $6.8 million in the quarter ended December 31, 2016. Refer to Note 5, “Intangible Assets and Goodwill” of Notes to Consolidated Financial Statements of this Form 10-K. The quarterly financial information also includes restructuring charges of $3.6 million in the quarter ended December 31, 2015. Refer to Note 15, “Restructuring Charges” of Notes to Consolidated Financial Statements of this Form 10-K.

(2) The quarterly financial information includes the following amount related to benefit from income taxes related to the deferred tax asset valuation allowance reversal as follows: $174.5 million in the quarter ended September 30, 2015. Refer to Note 16, “Income Taxes” of Notes to Consolidated Financial Statements of this Form 10-K.

(3) The quarterly financial information includes the impact of the accelerated share repurchase program as follows: 0.7 million shares in the quarter ended June 30, 2016 and 7.8 million shares repurchased in the quarter ended December 31, 2015. Refer to Note 13, “Stockholders’ Equity” of Notes to Consolidated Financial Statements of this Form 10-K.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

RAMBUS INC.

By: /s/ RAHUL MATHUR

Rahul Mathur
Senior Vice President, Finance and Chief Financial Officer

Date: February 17, 2017

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Ronald Black and Rahul Mathur as his true and lawful agent, proxy and attorney-in-fact, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to (i) act on, sign, and file with the Securities and Exchange Commission any and all amendments to this Annual Report on Form 10-K, together with all schedules and exhibits thereto, (ii) act on, sign, and file such certificates, instruments, agreements and other documents as may be necessary or appropriate in connection therewith, and (iii) take any and all actions that may be necessary or appropriate to be done, as fully for all intents and purposes as he might or could do in person, hereby approving, ratifying and confirming all that such agent, proxy and attorney-in-fact or any of his substitutes may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ RONALD BLACK Ronald Black	Chief Executive Officer, President and Director (Principal Executive Officer)	February 17, 2017
/s/ RAHUL MATHUR Rahul Mathur	Senior Vice President, Finance and Chief Financial Officer (Principal Financial and Accounting Officer)	February 17, 2017
/s/ ERIC STANG Eric Stang	Chairman of the Board of Directors	February 17, 2017
/s/ J. THOMAS BENTLEY J. Thomas Bentley	Director	February 17, 2017
/s/ ELLIS THOMAS FISHER Ellis Thomas Fisher	Director	February 17, 2017
/s/ PENELOPE HERSCHER Penelope Herscher	Director	February 17, 2017
/s/ CHARLES KISSNER Charles Kissner	Director	February 17, 2017
/s/ DAVID SHRIGLEY David Shrigley	Director	February 17, 2017

INDEX TO EXHIBITS

Exhibit Number	Description of Document
2.1(1)	Purchase Agreement, dated January 25, 2016, by and between Rambus Inc. and the shareholders of Smart Card Software Ltd.
3.1(2)	Amended and Restated Certificate of Incorporation of Registrant filed May 29, 1997.
3.2(3)	Certificate of Amendment of Amended and Restated Certificate of Incorporation of Registrant filed June 14, 2000.
3.3(4)	Amended and Restated Bylaws of Registrant dated April 25, 2013.
4.1(5)	Form of Registrant's Common Stock Certificate.
4.2(6)	Indenture between Rambus Inc. and U.S. Bank, National Association, dated as of August 16, 2013 (including the form of 1.125% Convertible Senior Note due 2018 therein).
10.1(7)	Form of Indemnification Agreement entered into by Registrant with each of its directors and executive officers.
10.2(8)*	Form of Change of Control Severance Agreement, Agreement entered into by Registrant with each of its named executive officers other than its chief executive officer.
10.3(9)*	1997 Stock Plan (as amended and restated as of April 4, 2007) and related forms of agreements.
10.4(10)*	2006 Equity Incentive Plan, as amended.
10.5(10)*	Forms of agreements under the 2006 Equity Incentive Plan, as amended.
10.6(10)*	2006 Employee Stock Purchase Plan as amended.
10.7(11)*	2015 Equity Incentive Plan.
10.8(12)*	Form of Restricted Stock Unit Agreement (2015 Equity Incentive Plan).
10.9(12)*	Form of Stock Option Agreement (2015 Equity Incentive Plan).
10.10(11)*	2015 Employee Stock Purchase Plan.
10.11(13)	Triple Net Space Lease, dated as of December 15, 2009, by and between Registrant and MT SPE, LLC.
10.12(14)**	Settlement Agreement, dated January 19, 2010, among Registrant, Samsung Electronics Co., Ltd, Samsung Electronics America, Inc., Samsung Semiconductor, Inc. and Samsung Austin Semiconductor, L.P.
10.13(14)**	Semiconductor Patent License Agreement, dated January 19, 2010, between Registrant and Samsung Electronics Co., Ltd.
10.14(15)	First Amendment of Lease, dated November 4, 2011, by and between Registrant and MT SPE, LLC.
10.15(16)	Employment Agreement between the Company and Ronald Black, dated as of June 22, 2012.
10.16(17)**	Settlement Agreement, dated June 11, 2013, among Registrant, SK hynix and certain SK hynix affiliates.
10.17(18)**	Semiconductor Patent License Agreement, dated June 11, 2013, between Registrant and SK hynix.
10.18(19)**	Settlement Agreement, dated December 9, 2013, between Rambus Inc., Micron Technology, Inc., and certain Micron affiliates.

10.19(19)**	Semiconductor Patent License Agreement, dated December 9, 2013, between Rambus, Inc. and Micron Technology, Inc.
10.20(19)**	Amendment to Semiconductor Patent License Agreement, dated December 30, 2013, by and between Rambus Inc. and Samsung Electronics Co., Ltd.
10.21(20)**	Amendment 1 to Semiconductor Patent License Agreement, dated June 17, 2015, by and between Rambus Inc. and SK hynix Inc.
10.22(21)	Master Agreement, dated October 26, 2015, by and between Rambus Inc. and Citibank, N.A.
10.23(22)	Asset Purchase Agreement, dated June 29, 2016, by and between Rambus Inc., Bell ID Singapore Ptd Ltd, Inphi Corporation and Inphi International Pte. Ltd.
10.24(23)	Separation Agreement, dated August 5, 2016 by and between Rambus Inc. and Satish Rishi.
10.25(24)	Offer Letter, dated September 9, 2016, by and between Rambus Inc. and Rahul Mathur.
12.1(25)	Computation of ratio of earnings to fixed charges.
21.1	Subsidiaries of Registrant.
23.1	Consent of Independent Registered Public Accounting Firm.
24	Power of Attorney (included in signature page).
31.1	Certification of Principal Executive Officer, pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Principal Financial Officer, pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Principal Executive Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Principal Financial Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS±	XBRL Instance Document
101.SCH±	XBRL Taxonomy Extension Schema Document
101.CAL±	XBRL Taxonomy Extension Calculation Linkbase Document
101.LAB±	XBRL Taxonomy Extension Label Linkbase Document
101.PRE±	XBRL Taxonomy Extension Presentation Linkbase Document
101.DEF±	XBRL Taxonomy Extension Definition Linkbase Document

* Management contracts or compensation plans or arrangements in which directors or executive officers are eligible to participate.

** Confidential treatment has been granted with respect to certain portions of this exhibit. Omitted portions have been filed separately with the Securities and Exchange Commission.

± XBRL (Extensible Business Reporting Language) information is furnished and not filed or a part of a registration statement or prospectus for purposes of Sections 11 or 12 of the Securities Act of 1933, is deemed not filed for purposes of Section 18 of the Securities Exchange Act of 1934, and otherwise is not subject to liability under these sections.

(1) Incorporated by reference to the Form 10-Q filed on April 22, 2016.
(2) Incorporated by reference to the Form 10-K filed on December 15, 1997.
(3) Incorporated by reference to the Form 10-Q filed on May 4, 2001.
(4) Incorporated by reference to the Form 8-K filed on April 30, 2013.
(5) Incorporated by reference to the Form S-1/A (file no. 333-22885) filed on April 24, 1997.
(6) Incorporated by reference to the Form 8-K filed on August 16, 2013.
(7) Incorporated by reference to the Form S-1 (file no. 333-22885) filed on March 6, 1997.
(8) Incorporated by reference to the Form 8-K filed on March 9, 2015.
(9) Incorporated by reference to the Form 10-K filed on September 14, 2007.
(10) Incorporated by reference to the Form 8-K filed on April 30, 2014.
(11) Incorporated by reference to the Form 8-K filed on April 28, 2015.
(12) Incorporated by reference to the Form 10-Q filed on July 23, 2015.
(13) Incorporated by reference to the Form 10-K filed on February 26, 2010.
(14) Incorporated by reference to the Form 10-Q filed on May 3, 2010.
(15) Incorporated by reference to the Form 10-K filed on February 24, 2012.
(16) Incorporated by reference to the Form 8-K filed on June 25, 2012.
(17) Incorporated by reference to the Form 10-Q/A filed on January 13, 2014.
(18) Incorporated by reference to the Form 10-Q filed on July 29, 2013.
(19) Incorporated by reference to the Form 10-K filed on February 21, 2014.
(20) Incorporated by reference to the Form 10-Q filed on July 23, 2015.
(21) Incorporated by reference to the Form 10-K filed on February 19, 2016.
(22) Incorporated by reference to the Form 10-Q filed on July 22, 2016.
(23) Incorporated by reference to the Form 10-Q filed on October 28, 2016.
(24) Incorporated by reference to the Form 8-K filed on September 21, 2016.
(25) Incorporated by reference to the Form S-3 filed on June 22, 2009.