power integrations

2022 Annual Report

Dear Fellow Stockholders,

In September we marked the 25th anniversary of our initial public offering by ringing the opening bell at the NASDAQ stock market, and the following day we held our first ever analyst day in New York. In our presentation, I and our senior management team provided an in-depth look at our business strategy and the exciting opportunities that we expect to drive our growth in the years ahead. I invite you to view a replay of the event on our investor website.

Our presentation covered a wide range of topics including our unique, system-level approach to integration, our history of innovation in high-voltage process and device technologies including gallium-nitride (GaN), and the contribution our products are making to a cleaner planet. We also presented our plan to double our served available market, or SAM, to $8 billion by 2027, driven by new products and technologies as well as secular trends such as renewable energy, home-and-building automation, efficient appliances, electrification of transportation and tools, and fast charging for mobile devices.

One of the largest contributors to SAM expansion will be our motor-drive products, as we expand our BridgeSwitch™ family to cover a wider range of brushless DC motor applications. Current BridgeSwitch products, covering applications up to about 400 watts, are gaining adoption at customers in major appliances as well as air conditioners and ceiling fans, and we expect a meaningful revenue contribution from these products beginning in 2023. Future products will address higher power levels, more than doubling the current SAM for motor-drive products.

We expect an equally large increase in SAM to come from automotive, where the EV transition brings substantial high-voltage semiconductor content to passenger cars and commercial vehicles. While a major revenue contribution is still a few years away, we are making excellent progress establishing ourselves as a supplier to the EV market. In particular, we are winning a wide range of designs with InnoSwitch™ products featuring 1700-volt silicon-carbide (SiC) transistors, which are proving to be a great fit for next-generation EVs with 800-volt batteries.

Underscoring our commitment to the EV market, we are delighted that two executives with substantial automotive experience have recently joined our board of directors. Nancy Gioia spent 33 years at Ford Motor Company and has extensive experience in the EV space, having served in the latter part of her career as Ford's director of global electrification. Ravi Vig, who was CEO of Allegro Microsystems until last year, helped Allegro navigate the transition to EVs after decades supplying sensor and power chips for internal-combustion vehicles. These accomplished executives bring relevant expertise to support our automotive efforts, and I believe their willingness to join us says a lot about the attractiveness of the EV opportunity for Power Integrations.

Another key topic of our analyst day was our proprietary GaN technology, called PowiGaN™, which is a cornerstone of our product roadmap. GaN power switches will feature prominently in future automotive and motor-drive products, and we have GaN-based products in our pipeline that will open up new markets for us such as data center power supplies and communications equipment. Today, our highly integrated, GaN-based InnoSwitch products continue to win designs across a wide range of applications including mobile-device chargers, appliances, USB wall receptacles and more, and we believe we are the global leader in GaN for high-voltage applications.

GaN is not only a critical element of our business strategy; it's also a major step forward in terms of the contribution we are making to a lower-carbon future for the world. At our analyst day we displayed a graph from the International Energy Agency (reproduced on the next page), showing the estimated reductions in global CO_2 emissions needed to get from the current trajectory to a sustainable scenario. More than two-thirds of the needed savings are expected to come from energy efficiency and renewable energy, both of which rely heavily on high-voltage semiconductors including wide-bandgap technologies like GaN and SiC.

High voltage is present at every link in the chain from energy generation to transmission to consumption. It's generated at the utility, converted to even higher voltage for transmission across the grid, and then converted to lower voltages to power our appliances, computers and so on. A lower-carbon future will require more renewable energy, more efficient DC transmission instead of the current standard of AC transmission, more efficient consumption of energy in consumer and industrial products, and of course electric vehicles. None of this is possible without high-voltage semiconductors, and Power Integrations has products for every link in this chain. Our gate drivers are used in renewable energy generation, DC transmission and EVs. And we've been saving power on the consumption end since long before the advent of ESG investing. We estimate that each year our EcoSmart™ technology saves enough electricity to power more than two million homes, and our GaN technology will save even more power as it gradually replaces silicon in the years ahead.

While I wanted to focus my letter this year on the long-term opportunities we outlined at our analyst day, I would be remiss if I didn't address our 2022 results and the stark change in the business environment over the past year. As you may know, the semiconductor industry is highly cyclical, and we have historically observed cyclical fluctuations in our business earlier than many of our industry peers. The supply-chain difficulties that made headlines throughout 2021 drove many distributors and OEMs to order more components than they truly needed, which has now led to excess inventory at various stages of the supply chain. These excesses have been exacerbated by inflation and China's anti-COVID measures, which have dampened consumer spending. Also, many consumers bought new appliances, computers and other products during the pandemic and, now that the pandemic is over, are spending on travel and entertainment instead of physical goods.

Reflecting these realities, our revenues declined by 7% last year, and sales across the broader semiconductor industry are widely expected to decline in 2023. While it is difficult to predict the timing and shape of a recovery, I expect that we will be among the first companies in our industry to emerge from the downturn, as has been the case in past cycles. I am also confident that recent market-share gains and contributions from new products will enable us to outperform our industry in the years ahead.

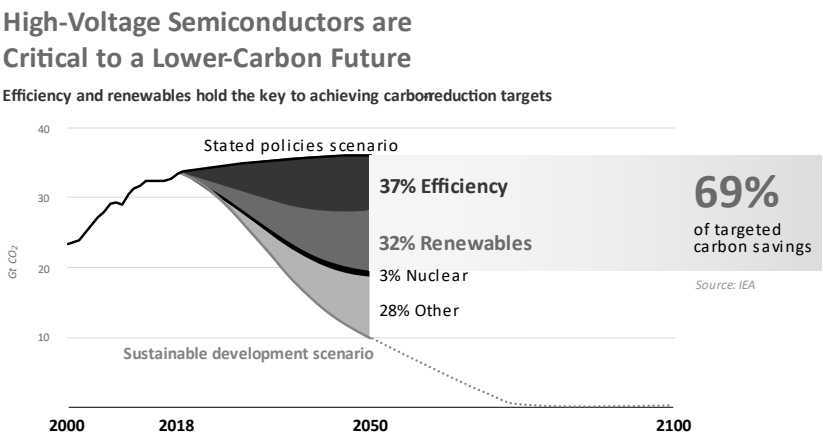
In the meantime, we are well positioned financially to weather the downturn thanks to our strong balance sheet and our lean expense structure. As we manage through the downturn, we will focus on what we can control, and run the business for long-term growth and profitability rather than short-term operating metrics. That includes continuing to invest in people and products, as well as maintaining production capacity and building inventory to be ready for an upturn in demand. This kind of long-term thinking is integral to our culture and was a key theme of our analyst day presentation.

Thank you for your continued support of our company—I look forward to reporting on our progress in the year ahead.

Sincerely,

Balu Balakrishnan
President and Chief Executive Officer
March 2023

The statements in this Annual Report relating to future events or results are forward-looking statements that involve many risks and uncertainties. Such statements may be indicated by the use of words such as "will," "expect," "estimate," "plan," "believe," "look forward," "anticipate," "future," and similar words and phrases, or variations of these terms. Our actual results could differ materially from those contained in these forward-looking statements due to a number of factors, including: uncertainty and unexpected impacts of the COVID-19 pandemic; changes in global macroeconomic and geopolitical conditions; changes and shifts in customer demand away from end products that utilize our products; the effects of trade tensions and competition; the outcome and cost of patent litigation; unforeseen costs and expenses; and unfavorable fluctuations in component costs resulting from changes in commodity prices and/or the exchange rate between the U.S. dollar and the Japanese yen. In addition, new product introductions and design wins are subject to the risks and uncertainties that typically accompany development and delivery of complex technologies to the marketplace, including product development delays and defects and market acceptance of the new products. These and other risk factors that may cause actual results to differ are discussed in Part I, Item 1A — "Risk Factors" included in the Form 10-K which is part of this Annual Report.



UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 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, 2022

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 000-23441

POWER INTEGRATIONS, INC.

(Exact name of registrant as specified in its charter)

Delaware	**94-3065014**
(State or other jurisdiction of Incorporation or organization)	(I.R.S. Employer Identification No.)
5245 Hellyer Avenue **San Jose , California**	**95138-1002**
(Address of principal executive offices)	(Zip code)

(408) 414-9200

(Registrant's telephone number, including area code)

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

Title of Each Class	**Trading Symbol(s)**	**Name of Each Exchange on Which Registered**
Common Stock	POWI	The Nasdaq Global Select Market

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

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 every Interactive Data File required to be submitted 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 such files). Yes ☒ No ☐

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

Large Accelerated Filer	☒	Accelerated Filer	☐
Non-accelerated Filer	☐	Smaller Reporting Company	☐
		Emerging Growth Company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

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 registrant's voting and non-voting common stock held by non-affiliates of registrant on June 30, 2022, the last business day of the registrant's most recently completed second fiscal quarter, was approximately $3.3 billion, based upon the closing sale price of the common stock as reported on The Nasdaq Global Select Market. Shares of common stock held by each officer and director have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not a conclusive determination for other purposes.

Outstanding shares of registrant's common stock, $0.001 par value, as of January 31, 2023: 56,986,742.

DOCUMENTS INCORPORATED BY REFERENCE

The information required by Part III of this report, to the extent not set forth herein, is incorporated by reference from the Registrant's definitive proxy statement relating to the 2023 annual meeting of stockholders, which definitive proxy statement will be filed with the Securities and Exchange Commission within 120 days after the fiscal year to which this Report relates.

POWER INTEGRATIONS, INC.

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Cautionary Note Regarding Forward-Looking Statements

This Annual Report on Form 10-K includes a number of forward-looking statements that involve many risks and uncertainties. Forward-looking statements are identified by the use of the words "would," "could," "will," "may," "expect," "believe," "should," "anticipate," "if," "future," "intend," "plan," "estimate," "potential," "target," "seek" or "continue" and similar words and phrases, including the negatives of these terms, or other variations of these terms, that denote future events. These statements reflect our current views with respect to future events and our potential financial performance and are subject to risks and uncertainties that could cause our actual results and financial position to differ materially and/or adversely from what is projected or implied in any forward-looking statements included in this Form 10-K. These factors include, but are not limited to: if demand for our products continues to decline in our major end markets, our net revenues will decline further; we do not have long-term contracts with any of our customers and if they fail to place, or if they cancel or reschedule orders for our products, our operating results and our business may suffer; our products are sold through distributors, which limits our direct interaction with our end customers, therefore reducing our ability to forecast sales and increasing the complexity of our business; intense competition in the high-voltage power supply industry may lead to a decrease in our average selling price and reduced sales volume of our products; the novel coronavirus pandemic (COVID-19), which has disrupted and may again disrupt our operations, including our manufacturing, research and development, and sales and marketing activities, which in turn could have a material adverse impact on our business and has or could exacerbate the risks discussed herein; we depend on third-party suppliers to provide us with wafers for our products, and if they fail to provide us sufficient quantities of wafers, our business may suffer; if our products do not penetrate additional markets, our business will not grow as we expect; if we are unable to adequately protect or enforce our intellectual property rights, we could lose market share, incur costly litigation expenses, suffer incremental price erosion or lose valuable assets, any of which could harm our operations and negatively impact our profitability; and the other risk factors described in Part I, Item 1A, "Risk Factors" of this Annual Report on Form 10-K. We make these forward-looking statements based upon information available on the date of this Form 10-K, and expressly disclaim any obligation to update or alter any forward-looking statements, whether as a result of new information or otherwise, except as required by laws. In evaluating these statements, you should specifically consider the risks described under Part I, Item 1A, "Risk Factors," Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" and elsewhere in this Annual Report on Form 10-K.

In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this Annual Report on Form 10-K, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

PART I.

Item 1. Business.

Overview

We design, develop and market analog and mixed-signal integrated circuits (ICs) and other electronic components and circuitry used in high-voltage power conversion. Our products are used in power converters that convert electricity from a high-voltage source to the type of power required for a specified downstream use. In most cases, this conversion entails, among other functions, converting alternating current (AC) to direct current (DC) or vice versa, reducing or increasing the voltage, and regulating the output voltage and/or current according to the customer's specifications.

A large percentage of our products are ICs used in AC-DC power supplies, which convert the high-voltage AC from a wall outlet to the low-voltage DC required by most electronic devices. Power supplies incorporating our products are used with all manner of electronic products including mobile phones, computing and networking equipment, appliances, electronic utility meters, battery-powered tools, industrial controls, and "home-automation," or "internet of things" applications such as networked thermostats, power strips and security devices. We also supply high-voltage LED drivers, which are AC-DC ICs specifically designed for lighting applications that utilize light-emitting diodes, and motor-driver ICs addressing brushless DC (BLDC) motors used in refrigerators, HVAC systems, ceiling fans and other consumer-appliance and light commercial applications.

We also offer high-voltage gate drivers—either standalone ICs or circuit boards containing ICs, electrical isolation components and other circuitry—used to operate high-voltage switches such as insulated-gate bipolar transistors (IGBTs) and silicon-carbide (SiC) MOSFETs. These combinations of switches and drivers are used for power conversion in high-power applications (i.e., power levels ranging from a few kilowatts up to gigawatts) such as industrial motors, solar- and wind-power systems, electric vehicles (EVs) and high-voltage DC transmission systems.

Our products bring a number of important benefits to the power-conversion market compared with less advanced alternatives, including reduced component count and design complexity, smaller size, higher reliability and reduced time-to-market. Our products also reduce the energy consumption of power converters during normal use and in "standby" operation, when the end product is not in use. In addition to the environmental benefits of reduced energy usage, our energy-saving technologies provide a number of benefits to our customers; these include helping them meet the increasingly stringent efficiency standards now in effect for many electronic products, and enabling the elimination of bulky heatsinks used to dissipate the heat produced by wasted electricity.

While the size of our addressable market fluctuates with changes in macroeconomic and industry conditions, the market has generally exhibited a modest growth rate over time as growth in the unit volume of power converters has been offset to a large degree by reductions in the average selling price of components in this market. Therefore, the growth of our business depends largely on increasing our penetration of the markets that we serve and on further expanding our addressable market. Our growth strategy includes the following elements:

- *Increase our penetration of the markets we serve.* We currently address AC-DC applications with power outputs up to approximately 500 watts, gate-driver applications ranging from a few kilowatts up to gigawatts, and motor-drive applications up to approximately 400 watts. Through our research and development efforts, we seek to introduce more advanced products for these markets offering higher levels of integration and performance compared to earlier products. We also continue to expand our sales and application-engineering staff and our network of distributors, as well as our offerings of technical documentation and design-support tools and services to help customers use our products. These tools and services include our PI Expert™ design software, which we offer free of charge, and our transformer-sample service. In 2022 we launched PowerPros℠, a live online video support service that enables power-supply designers to talk directly with members of our applications engineering team 24 hours a day, six days a week, anywhere in the world.

  Our market-penetration strategy also includes capitalizing on the importance of energy efficiency and renewable energy in the power conversion market. For example, our EcoSmart™ technology drastically reduces the amount of energy consumed by electronic products when they are not in use, helping our customers comply with regulations that seek to curb this so-called "standby" energy consumption. Also, our gate-driver products are critical components in energy-efficient DC motor drives, high-voltage DC transmission systems, solar and wind energy systems and electric transportation applications.

- *Increase the size of our addressable market.* Prior to 2010 our addressable market consisted of AC-DC applications with up to about 50 watts of output, a served available market (SAM) opportunity of approximately $1.5 billion. Since that time we have expanded our SAM to approximately $4 billion through a variety of means. These include the introduction of products that enable us to address higher-power AC-DC applications (such as our Hiper™ product families), the introduction of LED-driver products, and our entry into the gate-driver market through the acquisition of CT-Concept Technologie AG in 2012. In 2016 we introduced the SCALE-iDriver™ family of ICs, broadening the range of gate-driver applications we can address, and in 2018 we introduced our BridgeSwitch™ motor-driver ICs, addressing BLDC motors, as described above. We have recently introduced a series of automotive-qualified versions of our products, including SCALE-iDriver, InnoSwitch™ and LinkSwitch™ ICs, targeting the EV market; we expect to introduce additional products targeting EVs in the future, and expect automotive applications to become a significant portion of our SAM over time.

  Also contributing to our SAM expansion has been the emergence of new applications within the power ranges that our products can address. For example, applications such as "smart" utility meters, battery-powered lawn equipment and bicycles, and USB power receptacles (often installed alongside traditional AC wall outlets) can incorporate our products. The increased use of connectivity, LED lighting and other power-consuming electronic features in consumer appliances has also enhanced our SAM.

  Finally, we have expanded our SAM through the development of new technologies that increase the value (and therefore the average selling prices) of our products. For example, our InnoSwitch™ ICs integrate circuitry from the secondary, or low-voltage, side of AC-DC power supplies, whereas earlier product families integrated circuitry only on the primary, or high-voltage side. In 2019 we began incorporating proprietary gallium-nitride (GaN) transistors in some our products, enabling a higher level of energy efficiency than ICs with silicon transistors. Since then, we have introduced a variety of new products utilizing GaN technology and we expect to address a wider range of applications with GaN-based products in the years ahead.

  We intend to continue expanding our SAM in the years ahead through all of the means described above.

Industry Background

Virtually every electronic device that plugs into a wall socket requires a power supply to convert the high-voltage alternating current provided by electric utilities into the low-voltage direct current required by most electronic devices. A power supply may be located inside a device, such as a consumer appliance or flat-panel TV, or it may be outside the device as in the case of a mobile-phone charger or an adapter for a cordless phone or cable modem.

Until approximately 1970, AC-DC power supplies were generally in the form of line-frequency, or linear, transformers. These devices, consisting primarily of copper wire wound around an iron core, tend to be bulky and heavy, and typically waste a substantial amount of electricity. In the 1970s, the availability of high-voltage discrete semiconductors enabled the development of a new generation of power supplies known as switched-mode power supplies, or switchers. These switchers generally came to be cost-effective alternatives to linear transformers in applications requiring more than a few watts of power; in recent years the use of linear transformers has declined even further as a result of energy-efficiency standards and higher raw-material prices.

Switchers are generally smaller, lighter-weight and more energy-efficient than linear transformers. However, switchers designed with discrete components are highly complex, containing numerous components and requiring a high level of analog design expertise. Further, the complexity and high component count of discrete switchers make them relatively costly, difficult to manufacture and prone to failures. Also, some discrete switchers lack protection and energy-efficiency features; adding these features may further increase the component count, cost and complexity of the power supply.

In high-power systems such as industrial motor drives, electric locomotives and renewable-energy systems, power conversion is typically performed using arrays of high-power silicon transistors known as IGBT modules; these modules are operated by electronic circuitry known as gate drivers (or IGBT drivers), whose function is to ensure accurate, safe and reliable operation of the IGBT modules. Much like discrete power supplies, discrete gate drivers tend to be highly complex, requiring a large number of components and a great deal of design expertise.

Our Highly Integrated Approach

In 1994 we introduced TOPSwitch, the industry's first cost-effective high-voltage IC for switched-mode AC-DC power supplies. We have since introduced a range of other product families, expanding the range of power-supply applications we can serve and enhancing our competitiveness in applications that we already addressed. In 2012 we expanded our addressable market to include high-voltage gate drivers.

Our ICs and gate drivers drastically reduce the complexity and component count of power converters compared to typical discrete designs by integrating many of the functions otherwise performed by numerous discrete electronic components, and by eliminating (or reducing the size and cost of) additional components through innovative system design. As a result, our products enable power converters to have superior features and functionality at a total cost equal to or lower than that of many competing alternatives. Our products offer the following key benefits:

- *Fewer Components, Reduced Size and Higher Reliability*

Our highly integrated ICs and gate drivers enable designs with up to 70% fewer components than comparable discrete designs. This reduction in component count enhances reliability and efficiency, reduces size, and results in lower manufacturing costs for our customers. Power supplies that incorporate our ICs are also lighter and more portable than comparable power supplies built with linear transformers, which are still used in some low-power applications.

- *Reduced Time-to-Market, Enhanced Manufacturability*

Because our products eliminate much of the complexity associated with the design of power converters, designs can typically be completed in much less time, resulting in more efficient use of our customers' design resources and shorter time-to-market for new designs. The lower component count and reduced complexity enabled by our products also makes designs more suitable for high-volume manufacturing. We also provide extensive hands-on design support as well as online design tools, such as our PI Expert design software, that further reduce time-to-market and product development risks.

- *Energy Efficiency*

Our patented EcoSmart technology, introduced in 1998, improves the energy efficiency of electronic devices during normal operation as well as standby and "no-load" conditions. This technology enables manufacturers to cost-effectively meet the growing demand for energy-efficient products, and to comply with increasingly stringent energy-efficiency requirements. Also, our GaN transistor technology, introduced in 2019, offers substantially higher levels of active-mode efficiency compared to traditional silicon-based switches, while our BridgeSwitch motor-driver ICs enable efficiency of up to 98.5 percent, not only minimizing waste but also eliminating the need for heatsinks in many applications, which in turn reduces cost and weight.

- *Wide Power Range and Scalability*

Products in our current IC families can address AC-DC power supplies with output power up to approximately 500 watts as well as some high-voltage DC-DC applications; our high-voltage gate drivers are used in applications with power levels as high as one gigawatt, while our motor-driver ICs address BLDC applications up to about 400 watts. Within each of our product families, designers can scale up or down in power to address a wide range of designs with minimal design effort.

Energy Efficiency

Power supplies often draw significantly more electricity than the amount needed by the devices they power. As a result, billions of dollars' worth of electricity is wasted each year, and millions of tons of greenhouse gases are unnecessarily produced by power plants. Energy waste occurs during the normal operation of a device and in standby mode, when the device is plugged in but idle. For example: computers and printers waste energy while in "sleep" mode; TVs that are turned off by remote control consume energy while awaiting a remote-control signal to turn them back on; a mobile-phone charger left plugged into a wall outlet continues to draw electricity even when not connected to the phone (a condition known as "no-load"); and many common household appliances, such as microwave ovens, dishwashers and washing machines, also consume power when not in use. In fact, a 2015 study by the National Resources Defense Council found that devices that are "always-on" but inactive may be causing as much as $19 billion in annual energy waste in the United States alone.

Lighting is another major source of energy waste. Less than 5% of the energy consumed by traditional incandescent light bulbs is converted to light, while the remainder is wasted as heat. The Alliance to Save Energy estimated in 2007 that a conversion to efficient lighting technologies such as compact fluorescent bulbs and LEDs could save as much as $18 billion worth of electricity and 158 million tons of carbon dioxide emissions per year in the United States alone.

In response to concerns about the environmental impact of carbon emissions, policymakers have taken action to promote energy efficiency. For example, the ENERGY STAR® program and the European Union Code of Conduct encourage manufacturers of electronic devices to comply with voluntary energy-efficiency specifications. In 2007 the California Energy Commission (CEC) implemented mandatory efficiency standards for external power supplies. The CEC standards were implemented nationwide in the United States in July 2008 as a result of the Energy Independence and Security Act of 2007 (EISA); these federal standards were tightened in 2016. Similar standards for external power supplies took effect in the European Union in 2010 as part of the EU's EcoDesign Directive for Energy-Related Products.

In 2010, the EU EcoDesign Directive implemented standards limiting standby power consumption on a wide range of electronic products. The limit was reduced by 50 percent beginning in 2013, with many products now limited to 500 milliwatts of standby usage; further tightening of the standards is under consideration. The EISA legislation also required substantial improvements in the efficiency of lighting technologies; the manufacture and sale of most incandescent bulbs has been illegal in the United States since 2014, while rules adopted in 2022 by the U.S. government are expected to result in the phase-out of additional categories of inefficient bulbs. Plans to eliminate incandescent bulbs have also been announced or enacted in other geographies such as Canada, Australia and Europe. In December 2019 the government of China published new efficiency standards for room air conditioners, which took effect in July 2020. In 2022 India's Bureau of Energy Efficiency implemented new labeling standards for ceiling fans in an effort to drive adoption of BLDC motors in place of less efficient induction motors.

We believe we offer products that enable manufacturers to meet or exceed these regulations, and all other such regulations of which we are aware. Since 1998, our AC-DC power-conversion ICs have featured our EcoSmart technology which drastically reduces standby power waste. We have sold more than 20 billion ICs featuring EcoSmart technology, resulting in estimated savings of more than 160 billion kilowatt-hours of standby power worldwide. In 2010 we expanded our portfolio of energy-saving products with the introduction of our CapZero and SenZero IC families, which eliminate additional sources of standby waste in some power supplies. We also offer a range of products designed specifically for LED-lighting applications. Our GaN technology, introduced in 2019, also dramatically improves the active-mode efficiency of power-supplies.

Products

Below is a brief description of our products:

- *AC-DC power conversion products*

TOPSwitch, our first commercially successful product family, was introduced in 1994. Since that time we have introduced a wide range of products (such as our TinySwitch, LinkSwitch and Hiper families) to increase the level of integration and improve upon the functionality of the original TOPSwitch, and to broaden the range of power levels we can address. In 2010 we introduced our CapZero and SenZero families, which reduce standby power consumption in certain applications by eliminating waste caused by so-called bleed resistors and sense resistors. We have also introduced products designed specifically for LED-lighting applications, known as LYTSwitch ICs, as well as a range of high-performance, high-voltage diodes known as Qspeed diodes.

In 2014 we introduced our InnoSwitch product family, the first power-supply ICs to combine primary, secondary and feedback circuits into a single package. These ICs employ a proprietary technology known as FluxLink to enable precise control without the need for optical components, which tend to add cost and diminish the reliability of power supplies. In 2019 we began offering InnoSwitch ICs with more-efficient GaN transistors rather than silicon transistors. In 2020 we introduced GaN-based MinE-CAP ICs, which enable the use of smaller input capacitors as a way to further reduce the size of a power supply. Our ClampZero ICs, introduced in 2021 alongside the GaN-based InnoSwitch4-CZ family of ICs, further enhance efficiency by recovering power losses associated with the high switching frequency of GaN transistors.

This portfolio of power-conversion products generally addresses power supplies ranging from less than one watt of output up to approximately 500 watts of output, a market we refer to as the "low-power" market. This market consists

of an extremely broad range of applications including mobile-device chargers, consumer appliances, utility meters, LCD monitors, main and standby power supplies for desktop computers and TVs, and numerous other consumer and industrial applications, as well as LED lighting. We also now offer automotive-qualified versions of certain products, such as InnoSwitch ICs, for use in electric vehicles.

- *High-voltage gate drivers*

We offer a range of high-voltage gate-driver products sold primarily under the SCALE and SCALE-2 product-family names. These products are fully assembled circuit boards incorporating multiple ICs, electrical isolation components and other circuitry. We offer both ready-to-operate "plug-and-play" drivers designed specifically for use with particular IGBT modules, as well as "driver cores," which provide more basic driver functionality that customers can customize to their own specifications after purchase. In 2016 we introduced the SCALE-iDriver family of standalone ICs, which enables us to address applications ranging from a few kilowatts up to about 100 kilowatts, whereas previously our sales of high-power products were primarily for applications above 100 kilowatts. In 2020 we introduced an automotive-qualified version of SCALE-iDriver suitable for use in powertrain and charging applications for electric vehicles.

- *Motor-driver products*

The BridgeSwitch family of products, introduced in 2018, is a family of motor-driver ICs addressing BLDC motor applications up to approximately 400 watts. Such applications include refrigerator compressors, ceiling fans, air purifiers as well as pumps, fans and blowers used in consumer appliances such as dishwashers and laundry machines. BridgeSwitch products are complemented by our Motor-Expert software, which provides configuration and diagnostic tools for design engineers.

Other Product Information

TOPSwitch, TinySwitch, LinkSwitch, DPA-Switch, EcoSmart, Hiper, Qspeed, InnoSwitch, BridgeSwitch, SCALE, SCALE-II, SCALE-III, SCALE-iDriver, PeakSwitch, CAPZero, SENZero, ChiPhy, FluxLink, CONCEPT, PI Expert and Motor-Expert are trademarks of Power Integrations, Inc.

End Markets and Applications

Our net revenues consist primarily of sales of the products described above. When evaluating our net revenues, we categorize our sales into the following four major end-market groupings: communications, computer, consumer, and industrial.

The table below provides the approximate mix of our net sales by end market:

	Year Ended December 31,		
End Market	**2022**	**2021**	**2020**
Communications	21 %	30 %	30 %
Computer	10 %	10 %	7 %
Consumer	33 %	32 %	33 %
Industrial	36 %	28 %	30 %

Our products are used in a vast range of power-conversion applications in the above-listed end-market categories. The following chart lists the most prominent applications for our products in each category.

Market Category	Primary Applications
Communications	Mobile-phone chargers, adapters for routers, cordless phones, broadband modems, voice-over-IP phones, other network and telecom gear
Computer	Desktop PCs and monitors, servers, adapters for tablets and notebook computers, other computer peripherals
Consumer	Major and small appliances, air conditioners and other comfort appliances, TVs and set-top boxes, video-game consoles
Industrial	Industrial controls, LED lighting, utility meters, motor controls, uninterruptible power supplies, battery-powered tools, networked thermostats, power strips and other "smart home" devices, industrial motor drives, renewable energy systems, electric locomotives, electric passenger cars and commercial vehicles, high-voltage DC transmission systems

Sales, Distribution and Marketing

We sell our products to original equipment manufacturers, or OEMs, and merchant power-supply manufacturers through our direct sales staff and a worldwide network of independent sales representatives and distributors. We have sales offices in the United States, United Kingdom, Germany, Italy, India, China, Japan, South Korea, the Philippines, Singapore and Taiwan. Direct sales to OEMs and merchant power supply manufacturers represented approximately 30%, 25% and 25% of our net product revenues in 2022, 2021 and 2020, respectively, while sales to distributors accounted for the remainder in each of the corresponding years. Most of our distributors are entitled to return privileges based on revenues and are protected from price reductions affecting their inventories. Our distributors are not subject to minimum purchase requirements, and sales representatives and distributors can discontinue marketing our products at any time.

Our sales are primarily made pursuant to standard purchase orders. The quantity of products purchased by our customers as well as shipment schedules are subject to revisions that reflect changes in both the customers' requirements and in manufacturing availability. Historically, our business has been characterized by short-lead-time orders and quick delivery schedules.

Our top ten customers, including distributors that resell to OEMs and merchant power supply manufacturers, accounted for approximately 76%, 78% and 62% of net revenues in 2022, 2021 and 2020, respectively. In 2022, 2021, and 2020 two customers, both distributors, each accounted for more than 10% of revenues.

Research and Development

Our research and development efforts are focused on improving our technologies, introducing new products to expand our addressable markets, reducing the costs of existing products, and improving the cost-effectiveness and functionality of our customers' power converters. We have assembled teams of highly skilled engineers to meet our research and development goals. These engineers have expertise in high-voltage device structure and process technology, analog and digital IC design, system architecture and packaging.

Intellectual Property and Other Proprietary Rights

We use a combination of patents, trademarks, copyrights, trade secrets and confidentiality procedures to protect our intellectual-property rights. In 2022 we received 26 U.S. and 35 foreign patents. As of December 31, 2022, we held 343 U.S. and 329 foreign patents. Both U.S. and foreign patents have expiration dates ranging from 2023 to 2042. While our patent portfolio as a whole is important to the success of our business, we are not materially dependent upon any single patent. We also hold trademarks in the U.S. and various other geographies including Taiwan, Korea, Hong Kong, China, United Kingdom, Europe, Japan, India, Brazil and Russia.

We regard as proprietary some equipment, processes, information and knowledge that we have developed and used in the design and manufacture of our products. Our trade secrets include a high-volume production process used in the manufacture of our high-voltage ICs. We attempt to protect our trade secrets and other proprietary information through non-disclosure agreements, proprietary-information agreements with employees and consultants, and other security measures.

Manufacturing

We contract with three foundries for the manufacture of the vast majority of our silicon wafers: (1) Lapis Semiconductor Co., Ltd., or Lapis, (formerly OKI Electric Industry), (2) Seiko Epson Corporation, or Epson and (3) X-FAB Semiconductor Foundries AG, or X-FAB. These contractors manufacture wafers using our proprietary high-voltage process technologies at fabrication facilities located in Japan, Germany and the United States.

Our ICs are assembled, packaged and tested by independent subcontractors in China, Malaysia, Thailand and the Philippines; a small percentage of our ICs are tested at our headquarters facility in California. Our gate-driver boards are assembled and tested by independent subcontractors in Sri Lanka and Thailand; some of the boards are tested at our facility in Switzerland.

Our fabless manufacturing model enables us to focus on our engineering and design strengths, minimize capital expenditures and still have access to high-volume manufacturing capacity. We utilize both proprietary and standard IC packages for assembly. Some of the materials used in our packages and certain aspects of the assembly process are specific to our products. We require our assembly manufacturers to use high-voltage molding compounds which are more difficult

to process than industry standard molding compounds. We work closely with our contractors on a continuous basis to maintain and improve our manufacturing processes.

Our proprietary high-voltage processes do not require leading-edge geometries, which enables us to use our foundries' older, lower-cost facilities for wafer manufacturing. However, because of our highly sensitive high-voltage process, we must interact closely with our foundries to achieve satisfactory yields. Our wafer supply agreements with Lapis, Epson and X-FAB expire in April 2028, December 2025 and December 2028, respectively. Under the terms of the Lapis and Epson agreements, each supplier has agreed to reserve a specified amount of production capacity and to sell wafers to us at fixed prices, which are subject to periodic review jointly by the supplier and us. In addition, Lapis and Epson require us to supply them with a rolling six-month forecast on a monthly basis. Our agreements with Lapis and Epson each provide for the purchase of wafers in U.S. dollars, with mutual sharing of the impact of the fluctuations in the exchange rate between the Japanese yen and the U.S. dollar. Under the terms of the X-FAB agreement, X-FAB has agreed to reserve a specified amount of production capacity and to sell wafers to us at fixed prices, which are subject to periodic review jointly by X-FAB and us. The agreement with X-FAB also requires us to supply them with rolling six-month forecasts on a monthly basis. Our purchases of wafers from X-FAB are denominated in U.S. dollars.

Although some aspects of our relationships with Lapis, Epson and X-FAB are contractual, some important aspects of these relationships are not written in binding contracts and depend on the suppliers' continued cooperation. We cannot assure that we will continue to work successfully with Lapis, Epson or X-FAB in the future, that they will continue to provide us with sufficient capacity at their foundries to meet our needs, or that any of them will not seek an early termination of their wafer supply agreement with us. Our operating results could suffer in the event of a supply disruption with one or more of our foundries if we were unable to quickly qualify alternative manufacturing sources for existing or new products or if these sources were unable to produce wafers with acceptable manufacturing yields.

We typically receive shipments from our foundries approximately four to six weeks after placing orders, and lead times for new products can be substantially longer. To provide sufficient time for assembly, testing and finishing, we typically need to receive wafers four weeks before the desired ship date to our customers. As a result of these factors and the fact that customers' orders can be placed with little advance notice, we have only a limited ability to react to fluctuations in demand for our products. We try to carry a substantial amount of wafer and finished-goods inventory to help offset these risks and to better serve our markets and meet customer demand.

Competition

Competing alternatives to our high-voltage ICs for the power-supply market include monolithic and hybrid ICs from companies such as STMicroelectronics, Infineon Technologies and Sanken Electric Company, as well as PWM-controller chips paired with discrete high-voltage silicon or GaN transistors; such controller chips are produced by a large number of vendors, including those listed above as well as such companies as NXP Semiconductors, Diodes Inc., On-Bright Electronics, MediaTek Inc., Southchip Semiconductor and Renesas Electronics. Our gate-driver products compete with alternatives from such companies as Broadcom, Infineon, Mitsubishi Electric, Fuji Electric, Semikron and Hangzhou Firstack Technology Co., as well as driver circuits made up of discrete devices. Our motor-driver ICs compete with power modules from such companies as ON Semiconductor, Infineon, STMicroelectronics, Mitsubishi and Sanken as well as discrete designs from a wide range of other suppliers.

Generally, our products enable customers to design power converters with total bill-of-materials costs similar to those of competing alternatives. As a result, the value of our products is influenced by the prices of discrete components, which fluctuate in relation to market demand, raw-material prices and other factors, but have generally decreased over time.

While we vary the pricing of our ICs in response to fluctuations in prices of alternative solutions, we also compete based on a variety of other factors. Most importantly, the highly integrated nature of our products enables designs that utilize fewer total components than comparable discrete designs or designs using other integrated or hybrid products. This enables power converters to be designed more quickly and manufactured more efficiently and reliably than competing designs. We also compete on the basis of product functionality such as safety features and energy-efficiency features and on the basis of the technical support we provide to our customers. This support includes hands-on design assistance as well as a range of design tools and documentation such as software and reference designs. We also believe that our record of product quality and history of delivering products to our customers on a timely basis serve as additional competitive advantages.

Warranty

We generally warrant that our products will substantially conform to the published specifications for 12 months from the date of shipment. Under the terms and conditions of sale, our liability is limited generally to either a credit equal to the purchase price or replacement of the defective part.

Human Capital

As of December 31, 2022, we employed 831 full-time personnel across 14 countries with 370, or 45% of the total, residing in North America, while 55% resided offshore comprising 334 in the Asia-Pacific region and 127 across Europe. As of December 31, 2022, 6% of our worldwide employees were foreign nationals, defined as individuals requiring employment visas in the countries where they are employed. Women comprise approximately 26% of our total U.S. workforce and 33% of our non-technical U.S. workforce. The ethnic makeup of our U.S. workforce is approximately as follows: 63% Asian; 27% white; 6% Hispanic or Latino; 4% other.

Innovation is the lifeblood of our company, and we depend on our people to sustain our competitive advantage. To attract and retain talented employees, we offer competitive compensation with generous comprehensive benefits for employees and dependents (including domestic partners). We offer health, dental and vision insurance, covering 86% of the cost of employee health insurance in 2022, flexible spending accounts for healthcare and child-care expenses, matching 401(k) contributions (at a rate of 50% of the employee contribution, up to a maximum of 4% of the employee's eligible compensation), employee stock plans, paid vacation and family leave, life and disability insurance, flu vaccinations, tuition reimbursement, charitable gift matching, health-and-wellness programs designed to promote physical well-being and other mental health services. Approximately 99% of eligible U.S. employees participate in our 401(k) plan, and 68% of eligible employees participated in the most recent offering period of our employee stock purchase plan. These benefits, combined with our culture of innovation and sustainable growth, contribute to below-average employee turnover relative to our industry and an average tenure of nearly 7 years. In December 2022 we were certified by Great Place to Work® based on the results of an anonymous survey of employees, in which 82% of employees stated that Power Integrations is a great place to work.

It is our policy to ensure equal employment opportunity for all applicants and employees without regard to prohibited considerations of race, color, religion, sex (including pregnancy, gender identity and sexual orientation), national origin, age, disability or genetic information, marital status or any other classification protected by applicable local, state or federal laws. Our employees are encouraged to engage with company leadership and raise concerns and questions in person, via e-mail (anonymously if desired), or at our quarterly employee communications meeting with the CEO and senior management team. All employees receive training in the prevention of sexual harassment and abusive conduct in the workplace.

We value our employees, giving them the tools and training to grow as individuals, and the freedom to take risks in the service of innovation. We offer tuition reimbursement for job-related education and provide live and online classes covering topics such as communication, leadership and management, software, and time management. We also offer catered lunch-time workshops on a range of personal-development topics such as financial planning, nutrition and stress management.

Additional information regarding our commitment to our people can be found on our website at *https://www.power.com/company/sustainability-citizenship/.*

Investor Information

We make available, free of charge, copies of our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act as soon as reasonably practicable after filing this material electronically or otherwise furnishing it to the SEC. Investors may obtain free electronic copies or request paper copies of these reports via the "For Investors" section of our website, *www.power.com*. Our website address is provided solely for informational purposes. We do not intend, by this reference, that our website should be deemed to be part of this Annual Report. The reports we file with the SEC are also available at *www.sec.gov*.

Our corporate governance guidelines, the charters of our board committees, and our code of business conduct and ethics, including ethics provisions that apply to our principal executive officer, principal financial officer, controller and senior financial officers, are also available via the investor website listed above. These items are also available in print to

any stockholder who requests them by calling (408) 414-9200. We intend to satisfy the disclosure requirements of Form 8-K regarding an amendment to, or a waiver from, a provision of our code of business conduct and ethics that applies to our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions by posting such information on our investor website listed above.

Power Integrations, Inc. was incorporated in California on March 25, 1988, and reincorporated in Delaware in December 1997.

Information About Our Executive Officers

As of January 31, 2023, our executive officers, who were appointed by and serve at the discretion of our board of directors, were as follows:

Name	Position With Power Integrations	Age
Balu Balakrishnan	President, Chief Executive Officer and Director	68
Douglas Bailey	Vice President, Marketing	56
Radu Barsan	Vice President, Technology	70
Sunil Gupta	Vice President, Operations	50
David "Mike" Matthews [(1)]	Vice President, Product Development	58
Sandeep Nayyar	Vice President, Finance and Chief Financial Officer	63
Yang Chiah Yee	Vice President, Worldwide Sales	56
Clifford Walker	Vice President, Corporate Development	71

(1) On February 6, 2023, Mr. Matthews assumed a new role as Chief Technology Officer. See Part I, Item 9B in this Annual Report on Form 10-K.

Balu Balakrishnan has served as president and chief executive officer and as a director of Power Integrations since January 2002. He served as president and chief operating officer from April 2001 to January 2002. From January 2000 to April 2001, he was vice president of engineering and strategic marketing. From September 1997 to January 2000, he was vice president of engineering and new business development. From September 1994 to September 1997, Mr. Balakrishnan served as vice president of engineering and marketing. Prior to joining Power Integrations in 1989, Mr. Balakrishnan was employed by National Semiconductor Corporation.

Douglas Bailey has served as our vice president of marketing since November 2004. From March 2001 to April 2004, he served as vice president of marketing at ChipX, a structured ASIC company. His earlier experience includes serving as business management and marketing consultant for Sapiential Prime, Inc., director of sales and business unit manager for 8x8, Inc., and serving in application engineering management for IIT, Inc. and design engineering roles with LSI Logic, Inmos, Ltd. and Marconi.

Radu Barsan has served as our vice president of technology since January 2013, leading our foundry engineering, technology development and quality organizations. Prior to joining Power Integrations, Dr. Barsan served as chairman and CEO at Redfern Integrated Optics, Inc., a supplier of single frequency narrow linewidth lasers, modules, and subsystems, from 2001 to 2013. Previously, he served in a succession of engineering-management and technology development roles at Phaethon Communications, Inc., a photonics technology company, Cirrus Logic, Inc., a high-precision analog and digital signal processing company, Advanced Micro Devices, a semiconductor company, Cypress Semiconductor, Inc., a semiconductor company and Microelectronica a semiconductor company. Dr. Barsan has more than 40 years of commercial experience in semiconductor and photonic components development, engineering and operations.

Sunil Gupta has served as our vice president of operations since August 2020. Prior to joining Power Integrations, Mr. Gupta was vice president of operations at Renesas Electronics Corporation, a provider of electronics solutions, from July 2017 until August 2020, in which position he was responsible for global operations for Intersil and IDT products as well as the integration into the operations of Renesas. Prior to joining Renesas he was Senior Vice President, Global Operations at Intersil Corporation, a developer of power management and precision analog integrated circuits, from June 2016 to July 2017, in which position he led the global operations and technology teams, and was Vice President, Quality and Technology Development at Intersil was from September 2013 to June 2016, in which position he led the quality, reliability, yield, process technology and package technology teams. Mr. Gupta joined Intersil in 2012 as its Vice President, Quality and Reliability. Prior to joining Intersil, Mr. Gupta was the Director of Worldwide Customer Quality

Engineering at Qualcomm, and prior to Qualcomm Mr. Gupta spent 16 years at National Semiconductor in wafer fab operations and quality.

Mike Matthews has served as our vice president of product development since August 2012. Mr. Matthews joined Power Integrations in 1992, managing our European application engineering group and then our European sales organization as managing director of Power Integrations (Europe). He has led our product-definition team since 2000, serving as director of strategic marketing prior to assuming his current role. Prior to joining Power Integrations, Mr. Matthews worked at several electric motor-drive companies and then at Siliconix, a semiconductor company, as a motor-control applications specialist.

Sandeep Nayyar has served as our vice president and chief financial officer since June 2010. Previously Mr. Nayyar served as vice president of finance at Applied Biosystems, Inc., a developer and manufacturer of life-sciences products, from 2002 to 2009. Mr. Nayyar was a member of the executive team with world-wide responsibilities for finance. From 1990 to 2001, Mr. Nayyar served in a succession of financial roles including vice president of finance at Quantum Corporation, a computer storage company. Mr. Nayyar also worked for five years in the public-accounting field at Ernst & Young LLP. Mr. Nayyar is a Certified Public Accountant, Chartered Accountant and has a Bachelor of Commerce from the University of Delhi, India. Since 2014, Mr. Nayyar has served as a director and audit-committee chairman of Smart Global Holdings, Inc., a manufacturer of specialty memory solutions; and was the lead independent director from 2021 to 2022.

Yang Chiah Yee has served as our vice president, worldwide sales since June 2021. From March 2018 to June 2021, Mr. Yee served as senior vice president of worldwide sales at NeoPhotonics Corporation, a supplier of optoelectronic modules and subsystems for high-speed communication networks, where he was responsible for managing the worldwide sales and customer service organization, meeting with major clients, designing effective sales strategies and negotiating major contracts. From August 2016 to February 2017, Mr. Yee served as senior vice president of worldwide sales at IDEX Biometrics ASA, a supplier of fingerprint sensor solutions for payment cards, digital wallets and cyber authentication. From March 2008 to March 2016, Mr. Yee served in various senior sales roles at Atmel Corporation, a semiconductor designer and manufacturer of microcontroller and memory chips before its acquisition by Microhip Technology, Inc. Mr. Yee's earlier experience includes senior sales roles at Xilinx Inc. and Memec LLC focusing on the Asia-Pacific region. Mr. Yee received a bachelor of engineering degree from Nanyang Technological Institute at the National University of Singapore, and holds a graduate diploma in marketing management from the Singapore Institute of Management.

Clifford Walker has served as our vice president, corporate development since June 1995. From September 1994 to June 1995, Mr. Walker served as vice president of Reach Software Corporation, a software company. From December 1993 to September 1994, Mr. Walker served as president of Morgan Walker International, a consulting company.

Item 1A. Risk Factors.

The following are important factors that could cause actual results or events to differ materially from those contained in any forward-looking statements made by us or on our behalf. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known to us or that we deem immaterial also may impair our business operations. If any of the following risks or such other risks actually occurs, our business could be harmed.

Risks Related to Ownership of Our Common Stock

Our operating results are volatile and difficult to predict. If we fail to meet the expectations of public market analysts or investors, the market price of our common stock may decrease significantly. Our net revenues and operating results have varied significantly in the past, are difficult to forecast, are subject to numerous factors both within and outside of our control, and may fluctuate significantly in the future. As a result, our operating results could fall below the expectations of public market analysts or investors. If that occurs, the price of our stock may decline.

Some of the factors that could affect our operating results include the following:

- the demand for our products declining in the major end markets we serve, which may occur due to competitive factors, supply-chain fluctuations, rising inflation or other changes in macroeconomic conditions;

- reliance on international sales activities for a substantial portion of our net revenues;
- the volume and timing of orders received from customers;
- our products are sold through distributors, which limits our direct interaction with our end customers, which reduces our ability to forecast sales and increases the complexity of our business;
- interruptions in our information technology systems;
- competitive pressures on selling prices;
- we face risks related to the Novel Coronavirus pandemic (COVID-19), which has disrupted and may again disrupt our operations, including our manufacturing, research and development, and sales and marketing activities, which could have a material adverse impact on our business, financial condition, operating results and cash flows;
- risks associated with our supply chain including, the volume, cost and timing of delivery of orders placed by us with our wafer foundries and assembly subcontractors, and their ability to procure materials;
- our ability to attract and retain qualified personnel;
- the ability of our products to penetrate additional markets;
- our ability to develop and bring to market new products and technologies on a timely basis;
- the lengthy timing of our sales cycle;
- earthquakes, fire, pandemics or other disasters;
- undetected defects and failures in meeting the exact specifications required by our products;
- fluctuations in exchange rates, particularly the exchange rate between the U.S. dollar and the Japanese yen, the Euro and the Swiss franc;
- the inability to adequately protect or enforce our intellectual property rights;
- expenses we are required to incur (or choose to incur) in connection with our intellectual property litigations;
- changes in tax rules and regulations, changes in interpretation of tax rules and regulations, or unfavorable assessments from tax audits may increase the amount of taxes we are required to pay;
- changes in environmental laws and regulations, including with respect to energy consumption and climate change;
- uncertainties arising out of economic consequences of current and potential military actions, such as Russia's invasion of Ukraine, or terrorist activities and associated political instability;
- risks associated with acquisitions and strategic investments;
- our ability to successfully integrate, or realize the expected benefits from, our acquisitions; and
- continued impact of changes in securities laws and regulations, including potential risks resulting from our evaluation of our internal controls over financial reporting.

Risks Related to the Operation and Growth of Our Business

If demand for our products continues to decline in our major end markets, our net revenues will continue to decline further. When our customers are not successful in maintaining high levels of demand for their products, their demand for our ICs decreases, which adversely affects our operating results. A limited number of applications of our products, such as cellphone chargers and consumer appliances, make up a significant percentage of our net revenues. We expect that a significant level of our net revenues and operating results will continue to be dependent upon these applications in the near term. Demand for end products incorporating our products has been highly cyclical over time and has been impacted by economic downturns; our recent results have been impacted by economic conditions including

inflation and the effects of anti-COVID measures in China. Any further economic slowdown in the end markets that we serve could cause a further slowdown in demand for our ICs, causing our net revenues to decline further and potentially result in write-offs of excess or obsolete inventory, which could cause the price of our stock to fall.

Our international sales activities account for a substantial portion of our net revenues, which subjects us to substantial risks. Sales to customers outside of the United States of America account for, and have accounted for a large portion of our net revenues, including approximately 96% for the year ended December 31, 2022 and 98% of our net revenues for the years ended December 31, 2021 and 2020, respectively. If our international sales declined and we were unable to increase domestic sales, our revenues would decline and our operating results would be harmed. International sales involve a number of risks to us, including:

- tariffs, protectionist measures and other trade barriers and restrictions;
- potential insolvency of international distributors and representatives;
- reduced protection for intellectual property rights in some countries;
- the impact of recessionary environments and inflation in the United States and other economies where we do business;
- global, regional, and local economic and political conditions, including, but not limited to, social, economic, political, and supply chain instability related to the uncertainty regarding relationships among the international community as a whole, as well as related to armed conflicts that exist, or in the future could exist, in various parts of the world;
- the burdens of complying with a variety of foreign and applicable U.S. Federal and state laws; and
- foreign-currency exchange risk.

Our failure to adequately address these risks could reduce our international sales and materially and adversely affect our operating results. Furthermore, because substantially all of our foreign sales are denominated in U.S. dollars, increases in the value of the dollar cause the price of our products in foreign markets to rise, making our products more expensive relative to competing products priced in local currencies.

We do not have long-term contracts with any of our customers and if they fail to place, or if they cancel or reschedule orders for our products, our operating results and our business may suffer. Our business is characterized by short-term customer orders and shipment schedules, and the ordering patterns of some of our large customers have been unpredictable in the past and will likely remain unpredictable in the future. Not only does the volume of units ordered by particular customers vary substantially from period to period, but also purchase orders received from particular customers often vary substantially from early oral estimates provided by those customers for planning purposes. In addition, customer orders can be canceled or rescheduled without significant penalty to the customer. In the past, we have experienced customer cancellations of substantial orders for reasons beyond our control, and significant cancellations could occur again at any time. Also, a relatively small number of distributors, OEMs and merchant power supply manufacturers account for a significant portion of our revenues. Specifically, our top ten customers, including distributors, accounted for 76%, 78% and 62% of our net revenues in each of the years ended December 31, 2022, 2021 and 2020, respectively. However, a significant portion of these revenues are attributable to sales of our products through distributors of electronic components. These distributors sell our products to a broad, diverse range of end users, including OEMs and merchant power supply manufacturers, which mitigates the risk of customer concentration to a large degree.

Our products are sold through distributors, which limits our direct interaction with our end customers, therefore reducing our ability to forecast sales and increasing the complexity of our business. Sales to distributors accounted for approximately 70%, 75% and 75% of net revenues in the years ended December 31, 2022, 2021 and 2020, respectively. Selling through distributors reduces our ability to forecast sales and increases the complexity of our business, requiring us to:

- manage a more complex supply chain;
- monitor the level of inventory of our products at each distributor, and

- monitor the financial condition and credit-worthiness of our distributors, many of which are located outside of the United States and are not publicly traded.

Since we have limited ability to forecast inventory levels at our end customers, it is possible that there may be significant build-up of inventories in the distributor channel, with the OEM or the OEM's contract manufacturer. Such a buildup could result in a slowdown in orders, requests for returns from customers, or requests to move out planned shipments. This could adversely impact our revenues and profits. Any failure to manage these complexities could disrupt or reduce sales of our products and unfavorably impact our financial results.

Interruptions in our information technology systems could adversely affect our business. We rely on the efficient and uninterrupted operation of complex information technology systems and networks to operate our business. Any significant system or network disruption, including but not limited to new system implementations, computer viruses, security breaches, or energy blackouts could have a material adverse impact on our operations, sales and operating results. We have implemented measures to manage our risks related to such disruptions, but such disruptions could still occur and negatively impact our operations and financial results. Furthermore, the risk of state-supported and geopolitically motivated cybersecurity incidents may increase due to geopolitical instability. In addition, we may incur additional costs to remedy any damages caused by these disruptions or security breaches.

Intense competition in the high-voltage power supply industry may lead to a decrease in our average selling price and reduced sales volume of our products. The high-voltage power supply industry is intensely competitive and characterized by significant price sensitivity. Our products face competition from alternative technologies, such as linear transformers, discrete switcher power supplies, and other integrated and hybrid solutions. If the price of competing solutions decreases significantly, the cost effectiveness of our products will be adversely affected. If power requirements for applications in which our products are currently utilized go outside the cost-effective range of our products, some of these alternative technologies can be used more cost effectively. In addition, as our patents expire, our competitors could legally begin using the technology covered by the expired patents in their products, potentially increasing the performance of their products and/or decreasing the cost of their products, which may enable our competitors to compete more effectively. Our current patents may or may not inhibit our competitors from getting any benefit from an expired patent. Our U.S. patents have expiration dates ranging from 2023 to 2040. We cannot assure that our products will continue to compete favorably or that we will be successful in the face of increasing competition from new products and enhancements introduced by existing competitors or new companies entering this market. We believe our failure to compete successfully in the high-voltage power supply business, including our ability to introduce new products with higher average selling prices, would materially harm our operating results.

We face risks related to the Novel Coronavirus pandemic (COVID-19), which has disrupted and may again disrupt our operations, including our manufacturing, research and development, and sales and marketing activities, which could have a material adverse impact on our business, financial condition, operating results and cash flows. Our business as well as the business of our suppliers, customers and distributors have been and may continue to be adversely impacted by the world-wide response to COVID-19 such as public health measures, travel restrictions, business shutdowns, border closures, delivery and freight delays and other disruptions. These disruptions may continue to adversely affect not only our sales and marketing activities, product development, manufacturing and product shipments which could negatively impact our ability to meet customer commitments but also our customers' ability to manufacture their products, which could continue to reduce their demand for our products. The effects of the pandemic have resulted in a significant economic downturn in local and global economies, as well as a significant downturn in financial markets, and the continuing pandemic could result in further significant economic downturns which may result in reduced end-customer demand and materially impact our revenues. All of these effects could have a material adverse effect on our customer relationships, operating results, cash flows, financial condition and have a negative impact on our stock price.

We depend on third-party suppliers to provide us with wafers for our products and if they fail to provide us sufficient quantities of wafers, our business may suffer. Our primary supply arrangements for the production of wafers are with Epson, Lapis and X-FAB. Our contracts with these suppliers expire on varying dates, with the earliest to expire in December 2025. Although some aspects of our relationships with Lapis, X-FAB and Epson are contractual, many important aspects of these relationships depend on their continued cooperation. We cannot assure that we will continue to work successfully with Epson, Lapis and X-FAB in the future, and that the wafer foundries' capacity will meet our needs. Additionally, one or more of these wafer foundries could seek an early termination of our wafer supply agreements. Any serious disruption in the supply of wafers from Epson, Lapis and X-FAB could harm our business. We estimate that it

would take 12 to 24 months from the time we identified an alternate manufacturing source to produce wafers with acceptable manufacturing yields in sufficient quantities to meet our needs.

Although we provide our foundries with rolling forecasts of our production requirements, their ability to provide wafers to us is ultimately limited by the available capacity of the wafer foundry. Any reduction in wafer foundry capacity available to us could require us to pay amounts in excess of contracted or anticipated amounts for wafer deliveries or require us to make other concessions to meet our customers' requirements, or may limit our ability to meet demand for our products. Further, to the extent demand for our products exceeds wafer foundry capacity, this could inhibit us from expanding our business and harm relationships with our customers. Any of these concessions or limitations could harm our business.

If our third-party suppliers and independent subcontractors do not produce our wafers and assemble our finished products at acceptable yields, our net revenues may decline. We depend on independent foundries to produce wafers, and independent subcontractors to assemble and test finished products, at acceptable yields and to deliver them to us in a timely manner. The failure of the foundries to supply us wafers at acceptable yields could prevent us from selling our products to our customers and would likely cause a decline in our net revenues and gross margin. In addition, our IC assembly process requires our manufacturers to use a high-voltage molding compound that has been available from only a few suppliers. These compounds and their specified processing conditions require a more exacting level of process control than normally required for standard IC packages. Unavailability of assembly materials or problems with the assembly process can materially and adversely affect yields, timely delivery and cost to manufacture. We may not be able to maintain acceptable yields in the future.

In addition, if prices for commodities used in our products increase significantly, raw material costs would increase for our suppliers which could result in an increase in the prices our suppliers charge us. To the extent we are not able to pass these costs on to our customers; this would have an adverse effect on our gross margins.

We must attract and retain qualified personnel to be successful and competition for qualified personnel is intense in our market. Our success depends to a significant extent upon the continued service of our executive officers and other key management and technical personnel, and on our ability to continue to attract, retain and motivate qualified personnel, such as experienced analog design engineers and systems applications engineers. The competition for these employees is intense, particularly in Silicon Valley. The loss of the services of one or more of our engineers, executive officers or other key personnel could harm our business. In addition, if one or more of these individuals leaves our employ, and we are unable to quickly and efficiently replace those individuals with qualified personnel who can smoothly transition into their new roles, our business may suffer. We do not have long-term employment contracts with, and we do not have in place key person life insurance policies on, any of our employees.

If our products do not penetrate additional markets, our business will not grow as we expect. We believe that our future success depends in part upon our ability to penetrate additional markets for our products. We cannot assure that we will be able to overcome the marketing or technological challenges necessary to penetrate additional markets. To the extent that a competitor penetrates additional markets before we do, or takes market share from us in our existing markets, our net revenues and financial condition could be materially adversely affected.

If our efforts to enhance existing products and introduce new products are not successful, we may not be able to generate demand for our products. Our success depends in significant part upon our ability to develop new ICs for high-voltage power conversion for existing and new markets, to introduce these products in a timely manner and to have these products selected for design into products of leading manufacturers. New product introduction schedules are subject to the risks and uncertainties that typically accompany development and delivery of complex technologies to the market place, including product development delays and defects. If we fail to develop and sell new products in a timely manner, then our net revenues could decline.

In addition, we cannot be sure that we will be able to adjust to changing market demands as quickly and cost-effectively as necessary to compete successfully. Furthermore, we cannot assure that we will be able to introduce new products in a timely and cost-effective manner or in sufficient quantities to meet customer demand or that these products will achieve market acceptance. Our failure, or our customers' failure, to develop and introduce new products successfully and in a timely manner would harm our business. In addition, customers may defer or return orders for existing products in response to the introduction of new products. When a potential liability exists we will maintain reserves for customer returns, however we cannot assure that these reserves will be adequate.

Because the sales cycle for our products can be lengthy, we may incur substantial expenses before we generate significant revenues, if any. Our products are generally incorporated into a customer's products at the design stage. However, customer decisions to use our products, commonly referred to as design wins, can often require us to expend significant research and development and sales and marketing resources without any assurance of success. These significant research and development and sales and marketing resources often precede volume sales, if any, by a year or more. The value of any design win will largely depend upon the commercial success of the customer's product. We cannot assure that we will continue to achieve design wins or that any design win will result in future revenues. If a customer decides at the design stage not to incorporate our products into its product, we may not have another opportunity for a design win with respect to that product for many months or years.

In the event of an earthquake, fire, other pandemics, natural or other disasters, including with respect to climate change, our operations may be interrupted and our business would be harmed. Our principal executive offices and operating facilities are situated near San Francisco, California, and most of our major suppliers, which are wafer foundries and assembly houses, are located in areas that have been subject to severe earthquakes, such as Japan. Many of our suppliers are also susceptible to other disasters such as tropical storms, typhoons, tsunamis or other catastrophic events, including those caused by climate change. In the event of a disaster, we or one or more of our major suppliers may be temporarily unable to continue operations and may suffer significant property damage. Any interruption in our ability, or that of our major suppliers, to continue operations could delay the development and shipment of our products and have a substantial negative impact on our financial results.

Our products must meet exacting specifications, and undetected defects and failures may occur which may cause customers to return or stop buying our products and/or impose significant costs to us. Our customers generally establish demanding specifications for quality, performance and reliability, and our products must meet these specifications. ICs as complex as those we sell often encounter development delays and may contain undetected defects or failures when first introduced or after commencement of commercial shipments. We have from time to time in the past experienced product quality, performance or reliability problems. If defects and failures occur in our products, we could experience lost revenue, increased costs, including product warranty or liability claims and costs associated with customer support and product recalls, delays in or cancellations or rescheduling of orders or shipments and product returns or discounts. While we specifically exclude consequential damages in our standard terms and conditions, certain of our contracts may not exclude such liabilities. Our liability insurance which covers certain damages arising out of product defects may not cover all claims or be of a sufficient amount to fully protect against such claims. Costs or payments in connection with such claims could harm our operating results.

Risks Related to Financial Performance

Fluctuations in exchange rates, particularly the exchange rate between the U.S. dollar and the Japanese yen, Swiss franc and euro, may impact our gross margin and net income. Our exchange rate risk related to the Japanese yen includes two of our major suppliers, Epson and Lapis, with which we have wafer supply agreements based in U.S. dollars; however, these agreements also allow for mutual sharing of the impact of the exchange rate fluctuation between Japanese yen and the U.S. dollar. Each year, our management and these suppliers review and negotiate pricing; the negotiated pricing is denominated in U.S. dollars but is subject to contractual exchange rate provisions. The fluctuation in the exchange rate is shared equally between Power Integrations and each of these suppliers. We maintain cash denominated in Swiss francs and euros to fund the operations of our Swiss subsidiary. The functional currency of our Swiss subsidiary is the U.S. dollar; gains and losses arising from the remeasurement of non-functional currency balances are recorded in other income in our consolidated statements of income, and material unfavorable exchange-rate fluctuations with the Swiss franc could negatively impact our net income.

Risks Related to Our Intellectual Property

If we are unable to adequately protect or enforce our intellectual property rights, we could lose market share, incur costly litigation expenses, suffer incremental price erosion or lose valuable assets, any of which could harm our operations and negatively impact our profitability. Our success depends upon our ability to continue our technological innovation and protect our intellectual property, including patents, trade secrets, copyrights and know-how. We are currently engaged in litigation to enforce our intellectual property rights, and associated expenses have been, and are expected to remain, material and have adversely affected our operating results. We cannot assure that the steps we have taken to protect our intellectual property will be adequate to prevent misappropriation, or that others will not develop competitive technologies or products. From time to time, we have received, and we may receive in the future,

communications alleging possible infringement of patents or other intellectual property rights of others. Costly litigation may be necessary to enforce our intellectual property rights or to defend us against claimed infringement. The failure to obtain necessary licenses and other rights, and/or litigation arising out of infringement claims could cause us to lose market share and harm our business.

As our patents expire, we will lose intellectual property protection previously afforded by those patents. Additionally, the laws of some foreign countries in which our technology is or may in the future be licensed may not protect our intellectual property rights to the same extent as the laws of the United States, thus limiting the protections applicable to our technology.

If we do not prevail in our litigation, we will have expended significant financial resources, potentially without any benefit, and may also suffer the loss of rights to use some technologies. We are currently involved in a number of patent litigation matters and the outcome of the litigation is uncertain. See Note 13, *Legal Proceedings and Contingencies*, in our Notes to Consolidated Financial Statements included in this Annual Report on Form 10-K. For example, we are being sued in an ongoing case for patent infringement. Should we ultimately be determined to be infringing another party's patents, or if an injunction is issued against us while litigation is pending on those claims, such result could have an adverse impact on our ability to sell products found to be infringing, either directly or indirectly. In the event of an adverse outcome, we may be required to pay substantial damages, stop our manufacture, use, sale, or importation of infringing products, or obtain licenses to the intellectual property we are found to have infringed. We have also incurred, and expect to continue to incur, significant legal costs in conducting these lawsuits, including the appeal of the case we won, and our involvement in this litigation and any future intellectual property litigation could adversely affect sales and divert the efforts and attention of our technical and management personnel, whether or not such litigation is resolved in our favor. Thus, even if we are successful in these lawsuits, the benefits of this success may fail to outweigh the significant legal costs we will have incurred.

Risks Related to Laws and Regulations

Changes in tax rules and regulations, changes in interpretation of tax rules and regulations, or unfavorable assessments from tax audits may increase the amount of taxes we are required to pay. Our operations are subject to income and transaction taxes in the United States and in multiple foreign jurisdictions and to review or audit by the U.S. Internal Revenue Service (IRS) and state, local and foreign tax authorities. In addition, the United States, countries in Asia and other countries where we do business have recently enacted or are considering changes in relevant tax, accounting and other laws, regulations and interpretations, including changes to tax laws applicable to multinational companies. These potential changes could adversely affect our effective tax rates or result in other costs to us.

Recently enacted U.S. tax legislation has significantly changed the taxation of U.S.-based multinational corporations, by, among other things, reducing the U.S. corporate income tax rate, adopting elements of a territorial tax system, assessing a one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred, and the creation of new taxes on certain foreign-sourced earnings. The legislation as initially enacted was unclear in some respects and has required interpretations and implementing regulations by the Internal Revenue Service, as well as state tax authorities, and the legislation has been subject to amendments and technical corrections. Further amendments and technical corrections may occur, any of which could lessen or increase certain adverse impacts of the legislation. A significant portion of our earnings are earned by our subsidiaries outside the U.S. Changes to the taxation of certain foreign earnings resulting from the newly enacted U.S. tax legislation, along with the state tax impact of these changes and potential future cash distributions, may have an adverse effect on our effective tax rate. Furthermore, changes to the taxation of undistributed foreign earnings could change our future intentions regarding reinvestment of such earnings. As of December 31, 2022, we are currently subject to an ongoing audit with the California Franchise Tax Board for the tax years 2018 and 2019. The foregoing items could have a material effect on our business, cash flow, results of operations or financial conditions.

Changes in environmental laws and regulations, including with respect to energy consumption and climate change, may have a negative impact on our business. Changing environmental regulations and the timetable to implement them continue to impact our customers' demand for our products. Currently we have limited visibility into our customers' strategies to implement these changing environmental regulations into their business. The inability to accurately determine our customers' strategies could increase our inventory costs related to obsolescence.

The semiconductor industry is subject to environmental regulations, particularly those that control and restrict the sourcing, use, transportation, storage, and disposal of certain mineral, chemicals, and materials used in the

semiconductor manufacturing process. We expect the heightened worldwide awareness regarding climate change and the environmental impact to continue, which may result in new environmental laws and regulations that could affect us, our suppliers and/or our customers. New environmental laws and regulations could require us or our suppliers to obtain alternative materials that may increase our costs more or be less available, which may adversely affect our operating results.

General Risk Factors

Uncertainties arising out of economic consequences of current and potential military actions or terrorist activities and associated political instability could adversely affect our business. Like other U.S. companies, our business and operating results are subject to uncertainties arising out of economic consequences of current and potential military actions or terrorist activities and associated political instability, and the impact of heightened security concerns on domestic and international travel and commerce. These uncertainties could also lead to delays or cancellations of customer orders, a general decrease in corporate spending or our inability to effectively market and sell our products. Any of these results could substantially harm our business and results of operations, causing a decrease in our revenues.

We are exposed to risks associated with acquisitions and strategic investments. We have made, and in the future intend to make, acquisitions of, and investments in, companies, technologies or products in existing, related or new markets. Acquisitions involve numerous risks, including but not limited to:

- inability to realize anticipated benefits, which may occur due to any of the reasons described below, or for other unanticipated reasons;
- the risk of litigation or disputes with customers, suppliers, partners or stockholders of an acquisition target arising from a proposed or completed transaction;
- impairment of acquired intangible assets and goodwill as a result of changing business conditions, technological advancements or worse-than-expected performance, which would adversely affect our financial results; and
- unknown, underestimated and/or undisclosed commitments, liabilities or issues not discovered in our due diligence of such transactions.

We also in the future may have strategic relationships with other companies, which may decline in value and/or not meet desired objectives. The success of these strategic relationships depends on various factors over which we may have limited or no control and requires ongoing and effective cooperation with strategic partners. Moreover, these relationships are often illiquid, such that it may be difficult or impossible for us to monetize such relationships.

Our inability to successfully integrate, or realize the expected benefits from, our acquisitions could adversely affect our results. We have made, and in the future intend to make, acquisitions of other businesses and with these acquisitions there is a risk that integration difficulties may cause us not to realize expected benefits. The success of the acquisitions could depend, in part, on our ability to realize the anticipated benefits and cost savings (if any) from combining the businesses of the acquired companies and our business, which may take longer to realize than expected.

Securities laws and regulations, including potential risk resulting from our evaluation of internal controls over financial reporting, will continue to impact our results. Complying with the requirements of the federal securities laws and Nasdaq's conditions for continued listing have imposed significant legal and financial compliance costs, and are expected to continue to impose significant costs and management burden on us. These rules and regulations also may make it more expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced coverage or incur substantially higher costs to obtain coverage. These rules and regulations could also make it more difficult for us to attract and retain qualified executive officers and members of our board of directors, particularly qualified members to serve on our audit committee. Further, the rules and regulations under the Dodd-Frank Wall Street Reform and Consumer Protection Act, which became effective in 2011, may impose significant costs and management burden on us.

Additionally, because these laws, regulations and standards are expected to be subject to varying interpretations, their application in practice may evolve over time as new guidance becomes available. This evolution may result in continuing uncertainty regarding compliance matters and additional costs necessitated by ongoing revisions to our disclosure and governance practices.

Item 1B. Unresolved Staff Comments.

Not applicable.

Item 2. Properties.

We own our principal executive, administrative, manufacturing and technical offices which are located in San Jose, California. We also own an R&D facility in New Jersey, a design center in Germany and a multipurpose office building in Switzerland. We lease administrative office space in Singapore, R&D facilities in Canada, United Kingdom, the Philippines and Malaysia, in addition to sales offices in various countries around the world to accommodate our sales force. We believe that our current facilities are sufficient for our company; however, if headcount increases above capacity we may need to lease additional space.

Item 3. Legal Proceedings.

Information with respect to this item may be found in Note 13, *Legal Proceedings and Contingencies,* in our Notes to Consolidated Financial Statements included later in this Annual Report on Form 10-K, which information is incorporated here by reference.

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 trades on the Nasdaq Global Select Market under the symbol "POWI".

As of January 31, 2023, there were approximately 61 stockholders of record. Because brokers and other institutions hold many of our shares on behalf of stockholders, we are unable to estimate the total number of stockholders represented by these record holders.

Issuer Purchases of Equity Securities

From time to time our board of directors has authorized the use of funds to repurchase shares of our common stock. In both April 2021 and October 2021, our board of directors authorized the use of $50.0 million for the repurchase of our common stock, with repurchases to be executed according to pre-defined price/volume guidelines. In January, February, April and October 2022, our board of directors authorized the use of an additional $100.0 million, $50.0 million, $75.0 million and $100.0 million, respectively, for the repurchase of our common stock, with repurchases to be executed according to pre-defined price/volume guidelines.

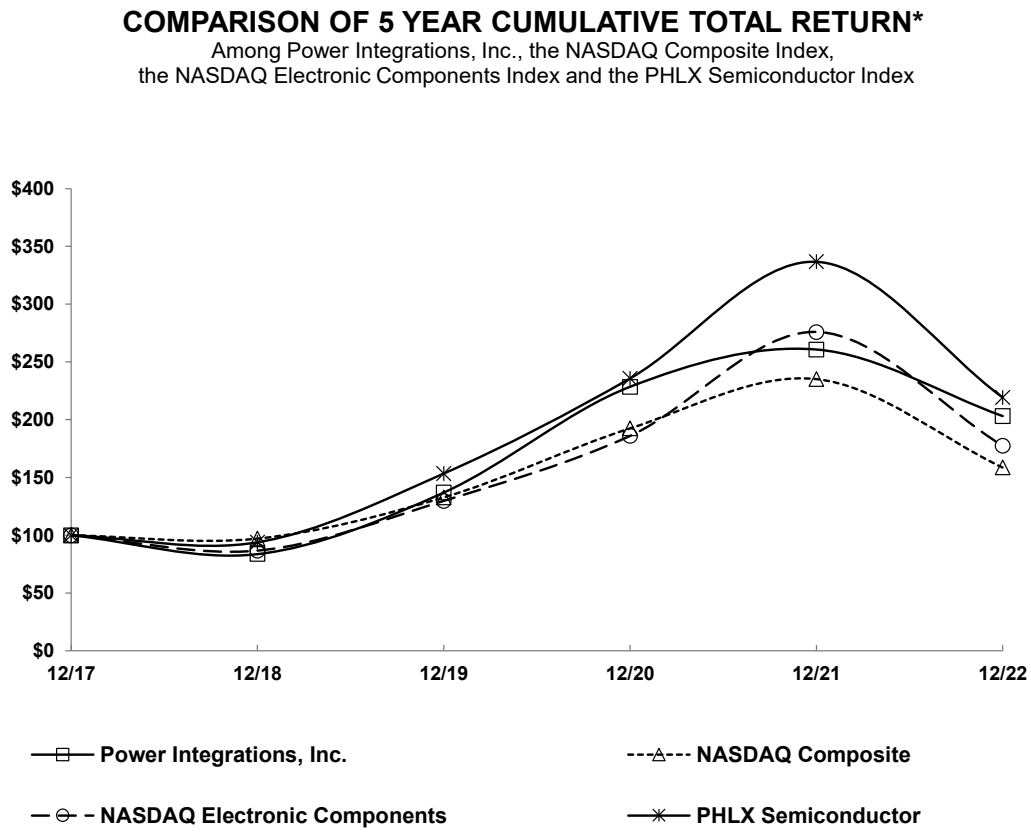
As of December 31, 2022, we had approximately $81.3 million available for future stock repurchases. Authorization of future stock-repurchase programs is at the discretion of our board of directors and will depend on our financial condition, results of operations, capital requirements and business conditions as well as other factors.

The following table summarizes repurchases of our common stock during the fourth quarter of fiscal 2022:

Period	Total Number of Shares Purchased	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value that May Yet be Repurchased Under the Plans or Program (In millions)
October 1, 2022 to October 31, 2022.	—	—	—	$ 100.0
November 1, 2022 to November 30, 2022 . . .	193,589	$ 69.40	193,589	$ 86.6
December 1, 2022 to December 31, 2022 . . .	72,898	$ 72.84	72,898	$ 81.3
Total	266,487		266,487	

Performance Graph (1)

The following graph shows the cumulative total return on an investment of $100 in cash on December 31, 2017, through December 31, 2022, in our common stock, the Nasdaq Composite Index, the Nasdaq Electronic Components Index and the PHLX Semiconductor Sector Index (SOX) and assuming that all dividends were reinvested. The PHLX Semiconductor Sector Index (SOX) has replaced the Nasdaq Electronic Components Index in this analysis as we believe the PHLX Semiconductor Sector Index (SOX) is a more relevant comparison for our business. Data from the Nasdaq Electronic Components Index has been included through December 31, 2022. The stockholder return shown on the graph below is not necessarily indicative of future performance, and we do not make or endorse any predictions as to future stockholder returns.



Company/Index	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022
Power Integrations, Inc.	100.00	83.68	136.94	228.39	260.65	203.05
Nasdaq Composite	100.00	97.16	132.81	192.47	235.15	158.65
PHLX Semiconductor (SOX)	100.00	93.95	153.39	235.71	336.71	219.26
Nasdaq Electronic Components	100.00	86.61	129.69	185.86	275.79	177.31

(1) This Section is not "soliciting material," is not deemed "filed" with the SEC and is not to be incorporated by reference in any filing of Power Integrations under the Securities Act of 1933, as amended, or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.

Item 6. [Reserved]

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

The following discussion and analysis has been prepared as an aid to understanding our financial condition and results of our operations. It should be read in conjunction with the consolidated financial statements and the notes to those statements included elsewhere in this Annual Report on Form 10-K. This discussion contains forward-looking statements that involve risks and uncertainties. See "Cautionary Note Regarding Forward-Looking Statements" at the beginning of this Form 10-K. Our actual results could differ materially from those contained in these forward-looking statements due to a number of factors, including those discussed in Part I, Item 1A "Risk Factors" and elsewhere in this Annual Report on Form 10-K.

Business Overview

We design, develop and market analog and mixed-signal integrated circuits (ICs) and other electronic components and circuitry used in high-voltage power conversion. Our products are used in power converters that convert electricity from a high-voltage source to the type of power required for a specified downstream use. In most cases, this conversion entails, among other functions, converting alternating current (AC) to direct current (DC) or vice versa, reducing or increasing the voltage, and regulating the output voltage and/or current according to the customer's specifications.

A large percentage of our products are ICs used in AC-DC power supplies, which convert the high-voltage AC from a wall outlet to the low-voltage DC required by most electronic devices. Power supplies incorporating our products are used with all manner of electronic products including mobile phones, computing and networking equipment, appliances, electronic utility meters, battery-powered tools, industrial controls, and "home-automation," or "internet of things" applications such as networked thermostats, power strips and security devices. We also supply high-voltage LED drivers, which are AC-DC ICs specifically designed for lighting applications that utilize light-emitting diodes, and motor-driver ICs addressing brushless DC (BLDC) motors used in refrigerators, HVAC systems, ceiling fans and other consumer-appliance and light commercial applications.

We also offer high-voltage gate drivers, either standalone ICs or circuit boards containing ICs, electrical isolation components and other circuitry, used to operate high-voltage switches such as insulated-gate bipolar transistors (IGBTs) and silicon-carbide (SiC) MOSFETs. These combinations of switches and drivers are used for power conversion in high-power applications (i.e., power levels ranging from a few kilowatts up to gigawatts) such as industrial motors, solar- and wind-power systems, electric vehicles (EVs) and high-voltage DC transmission systems.

Our net revenues were $651.1 million, $703.3 million and $488.3 million in 2022, 2021 and 2020, respectively. The decrease in revenues in 2022 was primarily driven by the communications end-market category, in which revenues fell by 36%, reflecting lower global demand for smartphones. More broadly, we observed a deterioration in demand as the year progressed, reflecting a range of macroeconomic and cyclical factors, including: lower demand for products such as smartphones, computers and appliances following a period of strong demand during the COVID-19 pandemic, and a shift in consumer spending in favor of services rather than goods as the pandemic waned; measures implemented in China to control the spread of COVID-19, which affected consumer demand in China as well as the ability of some of our customers to manufacture their products; the impact of inflation on consumer spending; economic downturns in local and global economies; a build-up in the supply chain of inventory of our products, and of intermediate and finished products containing our products. The latter effect was driven by the efforts of supply-chain participants to overcome component shortages that developed during the pandemic, with the abrupt slowdown in demand leading to oversupply of inventory.

In 2021, revenues increased by $215.0 million, reflecting the strong demand conditions then prevalent across the semiconductor industry, as well as market-share gains for our products in a broad range of applications including consumer appliances, advanced chargers for mobile devices such as smartphones, tablets and notebook computers, and a range of industrial applications including home-and-building automation, electronic utility meters, battery-operated tools and broad-based industrial applications.

Our top ten customers, including distributors that resell to OEMs and merchant power supply manufacturers, accounted for approximately 76%, 78% and 62% of net revenues in 2022, 2021 and 2020, respectively. In 2022, 2021 and 2020, two customers, which are distributors of our products, each accounted for more than 10% of our net revenues. International sales represented approximately 96%, 98% and 98% of net revenues in 2022, 2021 and 2020, respectively.

Our business and financial performance depends significantly on worldwide economic conditions. We face global macroeconomic challenges and risks including the effects of the conflict in Ukraine, potential risks stemming from tensions

between China and Taiwan, the COVID-19 pandemic, volatility in exchange rates, cyclical demand patterns common for our industry, inflation, tariffs and other risks associated with the global trade environment.

Because our industry is intensely price-sensitive, our gross margin (gross profit divided by net revenues) is subject to change based on the relative pricing of solutions that compete with ours. Variations in product mix, end-market mix and customer mix can also cause our gross margin to fluctuate. Also, because we purchase a large percentage of our silicon wafers from foundries located in Japan, our gross margin is influenced by fluctuations in the exchange rate between the U.S. dollar and the Japanese yen. All else being equal, a 10% change in the value of the U.S. dollar compared to the Japanese yen would eventually result in a corresponding change in our gross margin of approximately 1%; this sensitivity may increase or decrease depending on the percentage of our wafer supply that we purchase from Japanese suppliers. Also, although our wafer fabrication and assembly operations are outsourced, as are most of our test operations, a portion of our production costs are fixed in nature. As a result, our unit costs and gross profit margin are impacted by the volume of units we produce.

Our gross profit, defined as net revenues less cost of revenues, was $366.9 million or 56% of net revenues in 2022, compared to $360.6 million or 51% of net revenues in 2021, and $243.6 million or 50% of net revenues in 2020. Our gross margin increased in 2022 due to a combination of factors, including a more favorable end-market mix, with a greater percentage of sales coming from higher-margin market categories and manufacturing efficiencies including the benefit of higher unit volumes on our manufacturing costs per unit. Our gross margin also increased in 2021, driven primarily by manufacturing efficiencies partially offset by an unfavorable change in end-market mix.

Total operating expenses in 2022 were $186.5 million, an increase of $0.9 million as compared to 2021 due to higher salary and related expenses driven by increased headcount and product development expenses. These increases were partially offset by lower stock-based compensation expense related to performance-based awards. Total operating expenses in 2021 were $185.6 million, an increase of $12.5 million as compared to 2020 due to higher salary and related expenses driven by increased headcount and annual merit increases, increased commission expense driven by increased sales and higher stock-based compensation expense related to performance-based awards. These increases were partially offset by lower patent-litigation expenses.

Critical Accounting Policies and Estimates

The preparation of financial statements and related disclosures in conformity with accounting principles generally accepted in the United States of America, or U.S. GAAP, requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. On an ongoing basis, we evaluate our estimates, including those listed below. We base our estimates on historical facts and various other assumptions that we believe to be reasonable at the time the estimates are made. Actual results could differ from those estimates.

Our critical accounting policies are as follows:

- revenue recognition.

Our critical accounting policies are important to the portrayal of our financial condition and results of operations, and require us to make judgments and estimates about matters that are inherently uncertain. A brief description of our critical accounting policies and material estimates is set forth below. For more information regarding our accounting policies, see Note 2, *Summary of Significant Accounting Policies and Recent Accounting Pronouncements*, in our Notes to Consolidated Financial Statements in this Annual Report on Form 10-K.

Revenue recognition

Product revenues consist of sales to original equipment manufacturers, or OEMs, merchant power supply manufacturers and distributors. We apply the provisions of Accounting Standards Codification (ASC) 606-10, *Revenue from Contracts with Customers*, and all related appropriate guidance. We recognize revenue under the core principle to depict the transfer of control to our customers in an amount reflecting the consideration we expect to be entitled. In order to achieve that core principle, we apply the following five-step approach: (1) identify the contract with a customer, (2) identify the performance obligations in the contract, (3) determine the transaction price, (4) allocate the transaction price to the performance obligations in the contract, and (5) recognize revenue when a performance obligation is satisfied.

Sales to most distributors are made under terms allowing certain price adjustments and limited rights of return (known as "stock rotation") of our products held in their inventory or upon sale to their end customers. We recognize revenue from sales to distributors upon the transfer of control to the distributor. Frequently, distributors need to sell at a price lower than the standard distribution price in order to win business. At the time the distributor invoices its customer or soon thereafter, the distributor submits a "ship and debit" price adjustment claim to us to adjust the distributor's cost from the standard price to the pre-approved lower price. After we verify that the claim was pre-approved, we issue a credit memo to the distributor for the ship and debit claim. In determining the transaction price, we consider ship and debit price adjustments to be variable consideration. At the time revenue is recognized on sales to distributors, future ship and debit price adjustments are unknown and therefore subject to uncertainty. Such price adjustments are estimated using the expected value method based on an analysis of actual ship and debit claims, at the distributor and product level, over a period of time considered adequate to account for current pricing and business trends. The reserve for ship and debit claims increased by $11.6 million between December 31, 2022 and December 31, 2021, primarily due to higher inventory levels held by distributors and expected ship and debit claims related to such inventory. Historically, actual price adjustments for ship and debit claims relative to those estimated when determining the transaction price have not materially differed. To the extent future ship and debit claims significantly exceed amounts estimated, there could be a material impact on our revenues and results of operations.

Stock rotation rights grant the distributor the ability to return certain specified amounts of inventory. Stock rotation returns are an additional form of variable consideration and are also estimated using the expected value method based on historical return rates. Historically, these distributor stock rotation returns have not been material.

Results of Operations

The following table sets forth statement of income data as a percentage of net revenues for the periods indicated:

	Year Ended December 31,		
	2022	**2021**	**2020**
Net revenues	100.0 %	100.0 %	100.0 %
Cost of revenues	43.7	48.7	50.1
Gross profit	56.3	51.3	49.9
Operating expenses:			
Research and development	14.4	12.1	16.7
Sales and marketing	9.6	8.6	11.2
General and administrative	4.4	5.7	7.6
Other operating expenses, net	0.2	—	—
Total operating expenses	28.6	26.4	35.5
Income from operations	27.7	24.9	14.4
Other income	0.5	0.2	1.0
Income before income taxes	28.2	25.1	15.4
Provision for income taxes	2.0	1.7	0.8
Net income	26.2 %	23.4 %	14.6 %

Comparison of Years Ended December 31, 2022, 2021 and 2020

Net revenues. Net revenues consist of revenues from product sales, which are calculated net of returns and allowances. In 2022, revenues decreased by $52.1 million as compared to 2021, primarily driven by the communications end-market category reflecting lower global demand for smartphones. We observed a deterioration in demand across other end markets as the year progressed, reflecting a range of macroeconomic and cyclical factors as described above.

In 2021, revenues increased by $215.0 million compared to 2020 reflecting the strong demand conditions then prevalent across the semiconductor industry, as well as market-share gains for our products in a broad range of applications including consumer appliances, advanced chargers for mobile devices such as smartphones, tablets and notebook computers, and a range of industrial applications including home-and-building automation, electronic utility meters, battery-operated tools and broad-based industrial applications.

Our approximate net revenue mix by end-markets served in 2022, 2021 and 2020 is as follows:

End Market	2022	2021	2020
Communications	21 %	30 %	30 %
Computer	10 %	10 %	7 %
Consumer	33 %	32 %	33 %
Industrial	36 %	28 %	30 %

Sales to customers outside of the United States were $625.6 million, $686.0 million and $477.3 million in 2022, 2021 and 2020, respectively, representing 96% of net revenues in 2022, and 98% of net revenues in both 2021 and 2020. Although power supplies using our products are designed and distributed worldwide, most of these power supplies are manufactured by our customers in Asia. As a result, sales to this region accounted for approximately 75%, 83% and 81% of our net revenues in 2022, 2021 and 2020, respectively. We expect international sales to continue to account for a large portion of our net revenues for the foreseeable future.

Sales to distributors accounted for 70%, 75% and 75% of our net revenues in 2022, 2021 and 2020, respectively, with direct sales to OEMs and merchant power supply manufacturers accounting for the remainder in each of the corresponding years.

The following customers represented 10% or more of our net revenues for the respective years:

Customer	2022	2021	2020
Avnet	31 %	30 %	19 %
Honestar Technologies Co., Ltd.	11 %	16 %	11 %

No other customers accounted for 10% or more of net revenues during these years.

Gross profit. Gross profit is net revenues less cost of revenues. Our cost of revenues consists primarily of the purchase of wafers from our contracted foundries, the assembly, packaging and testing of our products by sub-contractors, product testing performed in our own facility, overhead associated with the management of our supply chain and the amortization of acquired intangible assets. Gross margin is gross profit divided by net revenues. The following table compares gross profit and gross margin for the years ended December 31, 2022, 2021 and 2020:

(dollars in millions)	2022	Change	2021	Change	2020
Gross profit	$ 366.9	1.7 %	$ 360.6	48.1 %	$ 243.6
Gross margin	56.3 %		51.3 %		49.9 %

Our gross margin increased in 2022 as compared to 2021 due to a combination of factors, including a more favorable end-market mix, with a greater percentage of sales coming from higher-margin market categories and manufacturing efficiencies including the benefit of higher unit volumes on our manufacturing costs per unit. Our gross margin increased in 2021 as compared to 2020 as manufacturing efficiencies were partially offset by an unfavorable change in end-market mix.

Research and development expenses. Research and development (R&D) expenses consist primarily of employee-related expenses including salaries and stock-based compensation, as well as expensed material and facility costs associated with the development of new processes and products. We also record R&D expenses for prototype wafers related to new products until the products are released to production. The following table compares R&D expenses for the years ended years ended December 31, 2022, 2021 and 2020:

(dollars in millions)	2022	Change	2021	Change	2020
R&D expenses	$ 93.9	10.6 %	$ 84.9	3.9 %	$ 81.7
Headcount (at period end)	310		304		280

R&D expenses increased in 2022 compared to 2021 due to higher salary and related expenses driven by increased headcount, increased equipment-related expenses and product-development costs partially offset by decreased stock-based compensation expense related to performance-based awards. R&D expenses increased in 2021 compared to 2020 due to higher salary and related expenses driven by increased headcount and annual merit increases, higher stock-based compensation expense related to performance-based awards and increased equipment-related expenses.

Sales and marketing expenses. Sales and marketing (S&M) expenses consist primarily of employee-related expenses, including salaries and stock-based compensation, and commissions to sales representatives, as well as

amortization of acquired intangible assets and facilities expenses, including expenses associated with our regional sales and support offices. The following table compares sales and marketing expenses for the years ended December 31, 2022, 2021 and 2020:

(dollars in millions)	2022	Change	2021	Change	2020
Sales and marketing expenses	$ 62.6	2.9 %	$ 60.8	11.6 %	$ 54.5
Headcount (at period end)	320		280		265

S&M expenses increased in 2022 compared to 2021 due to higher salary and related expenses from the expansion of headcount and increases in travel and trade shows. These increases were partially offset by decreased commissions expense and lower stock-based compensation expense primarily related to performance-based awards. S&M expenses increased in 2021 as compared to 2020 due to increased commissions expense driven by increased sales, higher salary and related expenses from the expansion of headcount, and higher stock-based compensation expense primarily related to performance-based awards.

General and administrative expenses. General and administrative (G&A) expenses consist primarily of employee-related expenses, including salaries and stock-based compensation expenses for administration, finance, human resources and general management, as well as consulting, professional services, legal and auditing expenses. The table below compares G&A expenses for the years ended December 31, 2022, 2021 and 2020:

(dollars in millions)	2022	Change	2021	Change	2020
G&A expenses	$ 28.9	(27.5)%	$ 39.8	8.0 %	$ 36.9
Headcount (at period end)	72		70		68

G&A expenses decreased in 2022 due to lower stock-based compensation expense related to performance-based awards and lower patent-litigation expenses. G&A expenses increased in 2021 due to higher stock-based compensation expense related to performance-based awards partially offset by lower patent-litigation expenses.

Other operating expenses, net. Other operating expenses, net was $1.1 million in fiscal 2022. This amount consisted of a $2.9 million expense stemming from the settlement of our litigation with Opticurrent LLC (refer to Note 13, *Legal Proceedings and Contingencies*, in our Notes to Consolidated Financial Statements included in this Annual Report on Form 10-K), offset by receipt of a $1.7 million distribution related to the bankruptcy liquidation of SemiSouth Laboratories, Inc.'s of which we were a creditor as a result of investments made in SemiSouth in 2011.

Other income. Other income consists primarily of interest income earned on cash and cash equivalents, marketable securities and other investments, and the impact of foreign exchange gains or losses. The following table compares other income for the years ended December 31, 2022, 2021 and 2020:

(dollars in millions)	2022	Change	2021	Change	2020
Other income	$ 3.0	179.9 %	$ 1.1	(77.4)%	$ 4.8

Other income increased in 2022 due primarily to an increase in interest income resulting from higher yields earned on our investments. Other income decreased in 2021 due primarily to lower interest income, as lower yields earned on our cash and investments more than offset the impact of higher cash and investment balances.

Provision for income taxes. Provision for income taxes represents federal, state and foreign taxes. The following table compares the provision for income taxes for the years ended December 31, 2022, 2021 and 2020:

(dollars in millions)	2022	Change	2021	Change	2020
Provision for income taxes	$ 12.6	7.3 %	$ 11.7	187.7 %	$ 4.1
Effective tax rate	6.9 %		6.7 %		5.4 %

In 2022, 2021 and 2020, the effective tax rate was lower than the statutory U.S. federal income-tax rates of 21% due to the geographic distribution of our world-wide earnings in lower tax jurisdictions, the impact of federal research tax credits and the recognition of excess tax benefits related to share-based compensation. Additionally, in 2022 and 2021, our effective tax rate was favorably impacted by a discrete item associated with the release of an unrecognized tax benefit. These benefits were offset by U.S. tax on foreign income, known as global intangible low-taxed income. The primary jurisdiction from which our foreign earnings are derived is the Cayman Islands, which is a non-taxing jurisdiction. Income earned in other foreign jurisdictions was not material. We have not been granted any incentivized tax rates and do not

operate under any tax holidays in any jurisdiction. For additional details, refer to Note 11, *Provision for Income Taxes*, in our Notes to Consolidated Financial Statements included in this Annual Report on Form 10-K.

Liquidity and Capital Resources

We had $353.8 million in cash, cash equivalents and short-term marketable securities at December 31, 2022 compared to $530.4 million at December 31, 2021 and $449.2 million at December 31, 2020. As of December 31, 2022, 2021 and 2020, we had working capital, defined as current assets less current liabilities, of approximately $466.7 million, $614.5 million and $538.7 million, respectively.

We have a Credit Agreement with Wells Fargo Bank, National Association (the "Credit Agreement") that provides us with a $75.0 million revolving line of credit to use for general corporate purposes with a $20.0 million sub-limit for the issuance of standby and trade letters of credit. The Credit Agreement was amended on June 7, 2021, to provide an alternate borrowing rate as a replacement for LIBOR and extend the termination date from April 30, 2022 to June 7, 2026, with all other terms remaining the same. Our ability to borrow under the revolving line of credit is conditioned upon our compliance with specified covenants, including reporting and financial covenants, primarily a minimum liquidity measure and a debt to earnings ratio, with which we are currently in compliance. The Credit Agreement terminates on June 7, 2026; all advances under the revolving line of credit will become due on such date, or earlier in the event of a default. As of December 31, 2022 and 2021, we had no advances outstanding under the Credit Agreement.

Cash from Operating Activities

Our operating activities generated cash of $215.3 million, $230.9 million and $125.6 million in the years ended December 31, 2022, 2021 and 2020, respectively. We generate cash primarily from operating activities in the ordinary course of business.

In 2022, our net income was $170.9 million, which included non-cash expenses of $34.9 million of depreciation, $22.4 million of stock-based compensation, $3.3 million for amortization of premium on marketable securities, $2.4 million of intangibles amortization and a $2.6 million decrease in deferred income taxes. Sources of cash also included a $19.9 million decrease in accounts receivable and $7.3 million decrease in prepaid expenses and other assets. These sources of cash were partially offset by a $36.2 million increase in inventories due to softening demand during the year and a $3.8 million decrease in accounts payable (excluding payables related to property and equipment) due to timing of payments and a $5.2 million decrease in taxes payable and accrued liabilities.

In 2021, our net income was $164.4 million, which included non-cash expenses of $37.6 million of stock-based compensation, $31.5 million of depreciation and $3.5 million of intangibles amortization. Sources of cash also included a $4.1 million increase in accounts payable (excluding payables related to property and equipment) due to timing of payments, a $4.3 million decrease in prepaid expenses and other assets and a $3.6 million decrease in inventories. These sources of cash were partially offset by a $13.2 million increase in deferred income taxes, a $5.5 million increase in accounts receivable due to increased shipments and a $4.1 million decrease in taxes payable and accrued liabilities.

In 2020, our net income was $71.2 million, which included non-cash expenses of $30.9 million of stock-based compensation, $23.7 million of depreciation and $4.4 million of intangibles amortization. Sources of cash also included a $9.1 million decrease in prepaid expenses and other assets, primarily driven by taxes refunded, a $5.7 million increase in accounts payable (excluding payables related to property and equipment) and a $4.1 million increase in taxes payable and accrued liabilities, in each case due to the timing of payments. These sources of cash were partially offset by an $11.3 million increase in accounts receivable due to increased shipments and the timing of collections, a $12.5 million increase in inventories, reflecting impact of a market slowdown during the first half of the year and higher inventory levels to support anticipated future demand.

Cash from Investing Activities

Our investing activities in the year ended December 31, 2022 generated $78.3 million of cash, consisting primarily of $116.3 million from sales and maturities of marketable securities, net of purchases, and proceeds of $1.2 million from the sale of an office building, partially offset by $39.2 million for purchases of property and equipment, primarily production-related machinery and equipment.

Our investing activities in the year ended December 31, 2021 resulted in a $232.8 million net use of cash, consisting primarily of $185.6 million for purchases of marketable securities, net of sales and maturities, and $47.3 million

for purchases of property and equipment, primarily machinery and equipment for use in the manufacture of our products, as well as construction of an office building in Switzerland.

Our investing activities in the year ended December 31, 2020 resulted in a $28.3 million net use of cash, consisting primarily of $41.7 million from purchases of marketable securities, net of sales and maturities, and $70.6 million for purchases of property and equipment, primarily machinery and equipment for use in the manufacture of our products and a building for our design center in Germany.

Cash from Financing Activities

Our financing activities in the year ended December 31, 2022, resulted in a $346.4 million net use of cash. Financing activities consisted primarily of $311.1 million for the repurchase of our common stock and $41.5 million for the payment of dividends to stockholders, partially offset by proceeds of $6.2 million from the issuance of common stock, including the exercise of employee stock options and issuance of shares through our employee stock purchase plan.

Our financing activities in the year ended December 31, 2021, resulted in a $98.8 million net use of cash. Financing activities consisted primarily of $73.9 million for the repurchase of our common stock and $32.6 million for the payment of dividends to stockholders, partially offset by proceeds of $7.7 million from the issuance of common stock, including the exercise of employee stock options and issuance of shares through our employee stock purchase plan.

Our financing activities in the year ended December 31, 2020, resulted in a net use of $17.2 million of cash. Financing activities consisted primarily of $25.1 million for the payment of dividends to stockholders and $2.6 million for the repurchase of our common stock, partially offset by proceeds of $10.5 million from the issuance of common stock, including the exercise of employee stock options and the issuance of shares through our employee stock purchase plan.

Dividends

In October 2019, our board of directors raised the cash dividends per share with the declaration of five cash dividends, consisting of (a) a dividend of $0.01 per share to be paid to stockholders of record at the end of the fourth quarter in 2019, that was in addition to the dividend of $0.085 per share to be paid to stockholders of record at the end of the fourth quarter in 2019 previously declared by the board in January 2019, and (b) a dividend of $0.095 per share to be paid to stockholders of record at the end of each quarter in 2020.

In April 2020, our board of directors raised the cash dividends with the declaration of three cash dividends of $0.105 per share (in lieu of the $0.095 per share previously announced in October 2019) to be paid to stockholders of record at the end of each of the second, third and fourth quarter in 2020. In July 2020, our board of directors raised the cash dividends further with the declaration of two cash dividends of $0.11 per share (in lieu of the $0.105 per share announced in April 2020) to be paid to stockholders of record at the end of each of the third and fourth quarter in 2020.

In January 2021, our board of directors raised the quarterly cash dividend by an additional $0.02 per share with the declaration of four cash dividends of $0.13 per share to be paid to stockholders of record at the end of each quarter in 2021. In October 2021, our board of directors raised the quarterly cash dividend with the declaration of five cash dividends of $0.15 per share (the first in lieu of the $0.13 per share announced in January 2021) to be paid to stockholders of record at the end of the fourth quarter in 2021 and at the end of each quarter in 2022.

In January 2022, our board of directors raised the quarterly cash dividend an additional $0.03 per share with the declaration of four cash dividends of $0.18 per share (in lieu of the $0.15 per share announced in October 2021) to be paid to stockholders of record at the end of each quarter in 2022.

In February 2023, our board of directors raised the cash dividend with the declaration of four cash dividends of $0.19 per share to be paid to stockholders of record at the end of each quarter in 2023. The declaration of any future cash dividend is at the discretion of our board of directors and will depend on our financial condition, results of operations, capital requirements, business conditions and other factors, as well as a determination that cash dividends are in the best interest of our stockholders.

Stock Repurchases

Over the years our board of directors has authorized the use of funds to repurchase shares of our common stock, including $80.0 million in October 2018, $50.0 million in both April and October 2021, $100.0 million in January 2022, $50.0 million in February 2022, $75.0 million in April 2022 and $100.0 million in October 2022 with repurchases to be

executed according to pre-defined price/volume guidelines. In 2020, we repurchased 63 thousand shares for approximately $2.6 million. In 2021, we repurchased 0.9 million shares for approximately $73.9 million. In 2022, we repurchased 3.8 million shares for $311.1 million, leaving $81.3 million in funds authorized as of December 31, 2022.

Authorization of future stock repurchase programs is at the discretion of our board of directors and will depend on our financial condition, results of operations, capital requirements and business conditions as well as other factors.

Capital Expenditures

Cash paid for property and equipment in the year ended December 31, 2022 was $39.2 million. As of December 31, 2022, we had non-cancelable commitments of $1.1 million for the purchase of property and equipment. We expect capital expenditures in fiscal 2023 to be primarily for machinery and equipment for use in the manufacture of our products to support future growth. We expect to fund these capital expenditures with cash on hand as well as cash provided by future operations.

Other Information

Our cash, cash equivalents and investment balances may change in future periods due to changes in our planned cash outlays, including changes in incremental costs such as direct and integration costs related to future acquisitions. The Tax Act signed into law on December 22, 2017 generally allows companies to repatriate accumulated foreign earnings without incurring additional U.S. federal taxes beginning after December 31, 2017. Accordingly, as of December 31, 2022, our worldwide cash and marketable securities are available to fund capital allocation needs, including capital and internal investments, acquisitions, stock repurchases and/or dividends without incurring significant U.S. federal income taxes.

If our operating results deteriorate in future periods, either as a result of a decrease in customer demand or pricing pressures from our customers or our competitors, or for other reasons, our ability to generate positive cash flow from operations may be jeopardized. In that case, we may be forced to use our cash, cash equivalents and short-term investments, use our current financing or seek additional financing from third parties to fund our operations. We believe that cash generated from operations, together with existing sources of liquidity, will satisfy our projected working capital and other cash requirements for at least the next 12 months. Our uses of cash beyond the next 12 months will depend on many factors, including the general economic environment in which we operate and our ability to generate cash flow from operations, which are uncertain but include funding our operations and additional capital expenditures.

Off-Balance-Sheet Arrangements

As of December 31, 2022 and 2021, we did not have any off-balance-sheet arrangements or relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which are typically established for the purpose of facilitating off-balance-sheet arrangements or other contractually narrow or limited purposes.

Contractual Obligations

As of December 31, 2022, we had the following non-cancelable contractual obligations:

	Payments Due by Period				
(In thousands)	**Total**	**Less than 1 Year**	**1 - 3 Years**	**4 - 5 Years**	**Over 5 Years**
Operating lease obligations[1]	$ 9,641	$ 3,268	$ 3,911	$ 1,664	$ 798
Purchase obligations[2]	$ 46,157	$ 46,157	$ —	$ —	$ —

(1) Operating lease obligations represent undiscounted non-cancelable remaining lease payments.

(2) Purchase obligations represent commitments to our suppliers and other parties for the purchases of goods and services, which primarily consist of wafer and other inventory purchases, assembly and other manufacturing services, and purchases of property and equipment.

In addition to operating lease and purchase obligations, we have a contractual obligation related to income tax as of December 31, 2022, which primarily comprises unrecognized tax benefits of approximately $23.4 million, and was classified as contra deferred tax assets or long-term income taxes payable in our consolidated balance sheet. As of December 31, 2022 we also had approximately $3.0 million classified as long-term income taxes payable related to the estimated one-time transition tax from the enactment of the Tax Act which will be payable in three remaining annual installments. We believe that cash generated from operations, together with existing sources of liquidity, will satisfy the cash requirements for these contractual obligations.

Recently Issued Accounting Pronouncements

For recently issued accounting announcements, see "Recently Issued Accounting Pronouncements" in Note 2, *Significant Accounting Policies and Recent Accounting Pronouncements*, in our Notes to Consolidated Financial Statements included in this Annual Report on Form 10-K.

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

Interest Rate Risk. Our exposure to market risk for changes in interest rates relates primarily to our investment portfolio. We consider cash invested in highly liquid financial instruments with a remaining maturity of three months or less at the date of purchase to be cash equivalents. Investments in highly liquid financial instruments with maturities greater than three months are classified as short-term investments. We generally hold securities until maturity; however, they may be sold under certain circumstances, including, but not limited to, when necessary for the funding of acquisitions and other strategic investments. As a result of this policy, we classify our investment portfolio as available-for-sale. We invest in high-credit quality issuers and, by policy, limit the amount of credit exposure to any one issuer. As stated in our policy, we seek to ensure the safety and preservation of our invested principal funds by limiting default risk, market risk and reinvestment risk. We mitigate default risk by investing in safe and high-credit quality securities and by constantly positioning our portfolio to respond appropriately to a significant reduction in a credit rating of any investment issuer, guarantor or depository. The portfolio includes only marketable securities with active secondary or resale markets to facilitate portfolio liquidity. At December 31, 2022 and 2021, we held primarily cash equivalents and short-term investments with fixed interest rates. We do not hold any instruments for trading purposes.

Our investment securities are subject to market interest rate risk and will vary in value as market interest rates fluctuate. To minimize market risk, we invest in high-credit quality issuers and, by policy, limit the amount of credit exposure to any one issuer, and therefore if market interest rates were to increase or decrease by 10% from interest rates as of December 31, 2022 or December 31, 2021, the increase or decrease in the fair market value of our portfolio on these dates would not have been material. We monitor our investments for impairment on a periodic basis. Refer to Note 5, *Marketable Securities*, in our Notes to Consolidated Financial Statements in this Annual Report on Form 10-K, for a tabular presentation of our available-for-sale investments and the expected maturity dates.

Foreign Currency Exchange Risk. As of December 31, 2022, our primary transactional currency was the U.S. dollar; in addition, we hold cash in Swiss francs and euros to fund the operation of our Swiss subsidiary. Cash balances held in foreign countries are subject to local banking laws and may bear higher or lower risk than cash deposited in the United States. The following represents the potential impact on our pretax income from a change in the value of the U.S. dollar compared to the Swiss franc and euro as of December 31, 2022. This sensitivity analysis applies a change in the U.S. dollar value of 5% and 10%.

	December 31, 2022	
(in thousands of USD)	**5%**	**10%**
Swiss franc and euro foreign exchange impact	$ 120	$ 241

The foreign exchange rate fluctuation between the U.S. dollar versus the Swiss franc and euro is recorded in other income in our consolidated statements of income.

We have R&D and sales offices in various other foreign countries in which our expenses are denominated in the local currency, primary Asia and Western Europe. From time to time we may enter into foreign currency hedging contracts to hedge certain foreign currency transactions. As of December 31, 2022 and 2021, we did not have an open foreign currency hedge program utilizing foreign currency forward exchange contracts.

With two of our major suppliers, Seiko Epson Corporation (Epson) and ROHM Lapis Semiconductor Co., Ltd. (Lapis) we have wafer supply agreements based in U.S. dollars; however, our agreements with Epson and Lapis also allow

for mutual sharing of the impact of the exchange rate fluctuation between Japanese yen and the U.S. dollar. Each year, our management and these suppliers review and negotiate pricing; the negotiated pricing is denominated in U.S. dollars but is subject to contractual exchange rate provisions. The fluctuation in the exchange rate is shared equally between us and each of these suppliers.

Nevertheless, as a result of our above-mentioned supplier agreements, our gross margin is influenced by fluctuations in the exchange rate between the U.S. dollar and the Japanese yen. All else being equal, a 10% change in the value of the U.S. dollar compared to the Japanese yen would eventually result in a corresponding change in our gross margin of approximately 1%; this sensitivity may increase or decrease depending on the percentage of our wafer supply that we purchase from some of our Japanese suppliers and could subject our gross profit and operating results to the potential for material fluctuations.

Item 8. Financial Statements and Supplementary Data.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of Power Integrations, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Power Integrations, Inc. and subsidiaries (the "Company") as of December 31, 2022 and 2021, the related consolidated statements of income, comprehensive income, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2022, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022, in conformity with the accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 7, 2023 expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

Critical audit matters are matters arising from the current-period audit of the financial statements that were communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. We determined that there are no critical audit matters.

/s/ DELOITTE & TOUCHE LLP

San Jose, California
February 7, 2023

We have served as the Company’s auditor since 2005.

POWER INTEGRATIONS, INC.
CONSOLIDATED BALANCE SHEETS

(In thousands)	December 31, 2022	December 31, 2021
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$ 105,372	$ 158,117
Short-term marketable securities	248,441	372,235
Accounts receivable, net	20,836	41,393
Inventories	135,420	99,266
Prepaid expenses and other current assets	15,004	15,804
Total current assets	525,073	686,815
PROPERTY AND EQUIPMENT, net	176,681	179,824
INTANGIBLE ASSETS, net	6,597	9,012
GOODWILL	91,849	91,849
DEFERRED TAX ASSETS	19,034	16,433
OTHER ASSETS	20,862	30,554
Total assets	$ 840,096	$ 1,014,487
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Accounts payable	$ 30,088	$ 43,721
Accrued payroll and related expenses	14,778	15,492
Taxes payable	938	1,210
Other accrued liabilities	12,572	11,898
Total current liabilities	58,376	72,321
LONG-TERM INCOME TAXES PAYABLE	15,757	15,280
OTHER LIABILITIES	10,747	14,854
Total liabilities	84,880	102,455
COMMITMENTS AND CONTINGENCIES (Notes 11, 12 and 13)		
STOCKHOLDERS' EQUITY:		
Common stock, $0.001 par value		
Authorized - 140,000 shares		
Outstanding - 56,961 and 59,913 shares in 2022 and 2021, respectively	24	28
Additional paid-in capital	—	162,301
Accumulated other comprehensive loss	(7,344)	(3,737)
Retained earnings	762,536	753,440
Total stockholders' equity	755,216	912,032
Total liabilities and stockholders' equity	$ 840,096	$ 1,014,487

The accompanying notes are an integral part of these consolidated financial statements.

POWER INTEGRATIONS, INC.
CONSOLIDATED STATEMENTS OF INCOME

(In thousands, except per share amounts)	Year Ended December 31, 2022	2021	2020
NET REVENUES	$ 651,138	$ 703,277	$ 488,318
COST OF REVENUES	284,231	342,638	244,728
GROSS PROFIT	366,907	360,639	243,590
OPERATING EXPENSES:			
Research and development	93,894	84,933	81,711
Sales and marketing	62,574	60,808	54,497
General and administrative	28,897	39,840	36,895
Other operating expenses, net	1,130	—	—
Total operating expenses	186,495	185,581	173,103
INCOME FROM OPERATIONS	180,412	175,058	70,487
OTHER INCOME	3,014	1,077	4,764
INCOME BEFORE INCOME TAXES	183,426	176,135	75,251
PROVISION FOR INCOME TAXES	12,575	11,722	4,075
NET INCOME	$ 170,851	$ 164,413	$ 71,176
EARNINGS PER SHARE:			
Basic	$ 2.96	$ 2.73	$ 1.19
Diluted	$ 2.93	$ 2.67	$ 1.17
SHARES USED IN PER SHARE CALCULATION:			
Basic	57,801	60,327	59,657
Diluted	58,371	61,467	60,845

The accompanying notes are an integral part of these consolidated financial statements.

POWER INTEGRATIONS, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(In thousands)	Year Ended December 31, 2022	2021	2020
Net income	$ 170,851	$ 164,413	$ 71,176
Other comprehensive income (loss), net of tax:			
Foreign currency translation adjustments, net of $0 tax in 2022, 2021 and 2020	(985)	(486)	(183)
Unrealized gain (loss) on marketable securities, net of $0 tax in 2022, 2021 and 2020	(4,158)	(2,055)	307
Unrealized actuarial gain on pension benefits, net of tax of ($271), ($334) and ($308) in 2022, 2021 and 2020, respectively	1,536	967	843
Total other comprehensive income (loss)	(3,607)	(1,574)	967
TOTAL COMPREHENSIVE INCOME	$ 167,244	$ 162,839	$ 72,143

The accompanying notes are an integral part of these consolidated financial statements.

POWER INTEGRATIONS, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

(In thousands)	Common Stock Shares	Common Stock Amount	Additional Paid-In Capital	Accumulated Other Comprehensive Loss	Retained Earnings	Total Stockholders' Equity
BALANCE AT JANUARY 1, 2020	58,862	$ 28	$ 152,117	$ (3,130)	$ 575,531	$ 724,546
Issuance of common stock under employee stock option and stock award plans	963	—	4,608	—	—	4,608
Repurchase of common stock	(63)	—	(2,636)	—	—	(2,636)
Issuance of common stock under employee stock purchase plan	148	—	5,919	—	—	5,919
Stock-based compensation expense related to employee stock awards	—	—	28,952	—	—	28,952
Stock-based compensation expense related to employee stock purchases	—	—	1,960	—	—	1,960
Payment of dividends to stockholders	—	—	—	—	(25,081)	(25,081)
Unrealized actuarial gain on pension benefits	—	—	—	843	—	843
Unrealized gain on marketable securities	—	—	—	307	—	307
Foreign currency translation adjustment	—	—	—	(183)	—	(183)
Net income	—	—	—	—	71,176	71,176
BALANCE AT DECEMBER 31, 2020	59,910	28	190,920	(2,163)	621,626	810,411
Issuance of common stock under employee stock option and stock award plans	780	—	1,644	—	—	1,644
Repurchase of common stock	(878)	(1)	(73,937)	—	—	(73,938)
Issuance of common stock under employee stock purchase plan	101	1	6,065	—	—	6,066
Stock-based compensation expense related to employee stock awards	—	—	35,647	—	—	35,647
Stock-based compensation expense related to employee stock purchases	—	—	1,962	—	—	1,962
Payment of dividends to stockholders	—	—	—	—	(32,599)	(32,599)
Unrealized actuarial gain on pension benefits	—	—	—	967	—	967
Unrealized loss on marketable securities	—	—	—	(2,055)	—	(2,055)
Foreign currency translation adjustment	—	—	—	(486)	—	(486)
Net income	—	—	—	—	164,413	164,413
BALANCE AT DECEMBER 31, 2021	59,913	28	162,301	(3,737)	753,440	912,032
Issuance of common stock under employee stock option and stock award plans	731	—	257	—	—	257
Repurchase of common stock	(3,770)	(4)	(190,827)	—	(120,263)	(311,094)
Issuance of common stock under employee stock purchase plan	87	—	5,905	—	—	5,905
Stock-based compensation expense related to employee stock awards	—	—	20,494	—	—	20,494
Stock-based compensation expense related to employee stock purchases	—	—	1,870	—	—	1,870
Payment of dividends to stockholders	—	—	—	—	(41,492)	(41,492)
Unrealized actuarial gain on pension benefits	—	—	—	1,536	—	1,536
Unrealized loss on marketable securities	—	—	—	(4,158)	—	(4,158)
Foreign currency translation adjustment	—	—	—	(985)	—	(985)
Net income	—	—	—	—	170,851	170,851
BALANCE AT DECEMBER 31, 2022	56,961	$ 24	$ —	$ (7,344)	$ 762,536	$ 755,216

The accompanying notes are an integral part of these consolidated financial statements.

POWER INTEGRATIONS, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)	Year Ended December 31, 2022	2021	2020
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income	$ 170,851	$ 164,413	$ 71,176
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation	34,930	31,454	23,743
Amortization of intangibles	2,415	3,494	4,359
Loss on disposal of property and equipment	1,371	3,105	525
Stock-based compensation expense	22,364	37,609	30,912
Amortization of premium on marketable securities	3,292	1,590	705
Deferred income taxes	(2,566)	(13,240)	(592)
Increase (decrease) in accounts receivable allowance for credit losses	690	18	(336)
Change in operating assets and liabilities:			
Accounts receivable	19,867	(5,501)	(11,300)
Inventories	(36,154)	3,612	(12,498)
Prepaid expenses and other assets	7,343	4,326	9,153
Accounts payable	(3,836)	4,067	5,697
Taxes payable and accrued liabilities	(5,224)	(4,079)	4,095
Net cash provided by operating activities	215,343	230,868	125,639
CASH FLOWS FROM INVESTING ACTIVITIES:			
Purchases of property and equipment	(39,211)	(47,272)	(70,598)
Proceeds from sale of property and equipment	1,202	35	651
Purchases of marketable securities	(55,820)	(554,018)	(109,703)
Proceeds from sales and maturities of marketable securities	172,165	368,457	151,385
Net cash provided by (used in) investing activities	78,336	(232,798)	(28,265)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Issuance of common stock under employee stock plans	6,162	7,710	10,527
Repurchase of common stock	(311,094)	(73,938)	(2,636)
Payments of dividends to stockholders	(41,492)	(32,599)	(25,081)
Net cash used in financing activities	(346,424)	(98,827)	(17,190)
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	(52,745)	(100,757)	80,184
CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD	158,117	258,874	178,690
CASH AND CASH EQUIVALENTS AT END OF PERIOD	$ 105,372	$ 158,117	$ 258,874
SUPPLEMENTAL DISCLOSURE OF NON-CASH INVESTING AND FINANCING ACTIVITIES:			
Unpaid property and equipment	$ 1,082	$ 10,879	$ 5,937
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:			
Cash paid (received) for income taxes, net	$ 17,880	$ 25,644	$ (1,973)

The accompanying notes are an integral part of these consolidated financial statements.

POWER INTEGRATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. THE COMPANY:

Power Integrations, Inc. ("Power Integrations" or the "Company"), incorporated in California on March 25, 1988, and reincorporated in Delaware in December 1997, designs, develops, manufactures and markets analog and mixed-signal integrated circuits (ICs) and other electronic components and circuitry used in high-voltage power conversion. The Company's products are used in power converters that convert electricity from a high-voltage source to the type of power required for a specified downstream use. A large percentage of the Company's products are ICs used in AC-DC power supplies, which convert the high-voltage AC from a wall outlet to the low-voltage DC required by most electronic devices. Power supplies incorporating the Company's products are used with all manner of electronic products including mobile phones, computing and networking equipment, appliances, electronic utility meters, battery-powered tools, industrial controls, and "home-automation," or "internet of things" applications such as networked thermostats, power strips and other building-automation and security devices. The Company also supplies high-voltage LED drivers, which are AC-DC ICs specifically designed for lighting applications that utilize light-emitting diodes. In 2018, the Company introduced a new category of power-conversion ICs: a family of motor-driver ICs addressing brushless DC (BLDC) motors used in refrigerators, HVAC systems, ceiling fans and other consumer-appliance and light commercial applications. The Company also offers high-voltage gate drivers—either standalone ICs or circuit boards containing ICs, electrical isolation components and other circuitry—used to operate high-voltage switches such as insulated-gate bipolar transistors (IGBTs) and silicon-carbide (SiC) MOSFETs. These combinations of switches and drivers are used for power conversion in high-power applications (i.e., power levels ranging from a few kilowatts up to gigawatts) such as industrial motors, solar- and wind-power systems, electric vehicles and high-voltage DC transmission systems.

2. SIGNIFICANT ACCOUNTING POLICIES AND RECENT ACCOUNTING PRONOUNCEMENTS:

Significant Accounting Policies and Estimates

Segment Reporting

The Company is organized and operates as one reportable segment, the design, development, manufacture and marketing of integrated circuits and related components for use primarily in the high-voltage power conversion markets. The Company's chief operating decision maker, the Chief Executive Officer, reviews financial information presented on a consolidated basis for purposes of making operating decisions and assessing financial performance.

Principles of Consolidation

The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries after elimination of all intercompany transactions and balances.

Estimates

The preparation of financial statements in conformity with U.S. Generally Accepted Accounting Principles (GAAP) requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. On an ongoing basis, the Company evaluates its estimates, including those related to revenue recognition, allowances for receivables, inventories, litigation and income taxes. These estimates are based on historical facts and various other factors, which the Company believes to be reasonable at the time the estimates are made. However, as the effects of future events cannot be determined with precision, actual results could differ significantly from management's estimates.

Revenue Recognition

The Company applies the provisions of Accounting Standards Codification (ASC) 606-10, *Revenue from Contracts with Customers*, and all related appropriate guidance. The Company recognizes revenue under the core principle to depict the transfer of control to the Company's customers in an amount reflecting the consideration the Company expects to be entitled. In order to achieve that core principle, the Company applies the following five-step approach: (1) identify

the contract with a customer, (2) identify the performance obligations in the contract, (3) determine the transaction price, (4) allocate the transaction price to the performance obligations in the contract, and (5) recognize revenue when a performance obligation is satisfied.

Product revenues consist of sales to original equipment manufacturers, or OEMs, merchant power supply manufacturers and distributors. The Company considers customer purchase orders, which in some cases are governed by master sales agreements, to be the contracts with a customer. In situations where sales are to a distributor, the Company has concluded that its contracts are with the distributor as the Company holds a contract bearing enforceable rights and obligations only with the distributor. As part of its consideration of the contract, the Company evaluates certain factors including the customer's ability to pay (or credit risk). For each contract, the Company considers the promise to transfer products, each of which is distinct, to be the identified performance obligations. In determining the transaction price the Company evaluates whether the price is subject to refund or adjustment to determine the net consideration to which the Company expects to be entitled. As the Company's standard payment terms are less than one year, the Company has elected the practical expedient under ASC 606-10-32-18 to not assess whether a contract has a significant financing component. The Company allocates the transaction price to each distinct product based on their relative standalone selling price. The product price as specified on the purchase order is considered the standalone selling price as it is an observable input which depicts the price as if sold to a similar customer in similar circumstances. Revenue is recognized when control of the product is transferred to the customer (i.e., when the Company's performance obligation is satisfied), which typically occurs at shipment. Further, in determining whether control has transferred, the Company considers if there is a present right to payment and legal title, along with risks and rewards of ownership having transferred to the customer.

Frequently, the Company receives orders for products to be delivered over multiple dates that may extend across several reporting periods. The Company invoices for each delivery upon shipment and recognizes revenues for each distinct product delivered, assuming transfer of control has occurred. As scheduled delivery dates are within one year, under the optional exemption provided by ASC 606-10-50-14 revenues allocated to future shipments of partially completed contracts are not disclosed. The Company has also elected the practical expedient under ASC 340-40-25-4 to expense commissions when incurred as the amortization period of the commission asset the Company would have otherwise recognized is less than one year.

Sales to international customers that are shipped from the Company's facility outside of the United States are pursuant to EX Works, or EXW, shipping terms, meaning that control of the product transfers to the customer upon shipment from the Company's foreign warehouse. Sales to international customers that are shipped from the Company's facility in California are pursuant to Delivered at Frontier, or DAF, shipping terms. As such, control of the product passes to the customer when the shipment reaches the destination country and revenue is recognized upon the arrival of the product in that country. Shipments to customers in the Americas are pursuant to Free on Board, or FOB, point of origin shipping terms meaning that control is passed to the customer upon shipment.

Sales to most distributors are made under terms allowing certain price adjustments and limited rights of return (known as "stock rotation") of the Company's products held in their inventory or upon sale to their end customers. Revenue from sales to distributors is recognized upon the transfer of control to the distributor. Frequently, distributors need to sell at a price lower than the standard distribution price in order to win business. At the time the distributor invoices its customer or soon thereafter, the distributor submits a "ship and debit" price adjustment claim to the Company to adjust the distributor's cost from the standard price to the pre-approved lower price. After the Company verifies that the claim was pre-approved, a credit memo is issued to the distributor for the ship and debit claim. In determining the transaction price, the Company considers ship and debit price adjustments to be variable consideration. Such price adjustments are estimated using the expected value method based on an analysis of actual ship and debit claims, at the distributor and product level, over a period of time considered adequate to account for current pricing and business trends. Historically, actual price adjustments for ship and debit claims relative to those estimated and included when determining the transaction price have not materially differed. Stock rotation rights grant the distributor the ability to return certain specified amounts of inventory. Stock rotation adjustments are an additional form of variable consideration and are also estimated using the expected value method based on historical return rates. Historically, distributor stock rotation adjustments have not been material.

Sales to certain distributors are made under terms that do not include rights of return or price concessions after the product is shipped to the distributor. Accordingly, upon application of steps one through five above, product revenue is recognized upon shipment and transfer of control.

The Company generally provides an assurance warranty that its products will substantially conform to the published specifications for twelve months from the date of shipment. The Company's liability is limited to either a credit equal to the purchase price or replacement of the defective part. Returns under warranty have historically been immaterial. As such, the Company does not record a specific warranty reserve or consider activities related to such warranty, if any, to be a separate performance obligation.

Inventories

Inventories (which consist of costs associated with the purchases of wafers from domestic and offshore foundries and of packaged components from offshore assembly manufacturers, as well as internal labor and overhead associated with the testing of both wafers and packaged components) are stated at the lower of cost (first-in, first-out) or market. Provisions, when required, are made to reduce inventories to their estimated net realizable values.

Income Taxes

Income-tax expense is an estimate of current income taxes payable or refundable in the current fiscal year based on reported income before income taxes. Deferred income taxes reflect the effect of temporary differences and carry-forwards that are recognized for financial reporting and income tax purposes.

The Company accounts for income taxes under the provisions of ASC 740, *Income Taxe*s. Under the provisions of ASC 740, deferred tax assets and liabilities are recognized based on the differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases, utilizing the tax rates that are expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The Company recognizes valuation allowances to reduce any deferred tax assets to the amount that it estimates will more likely than not be realized based on available evidence and management's judgment. The Company limits the deferred tax assets recognized related to certain officers' compensation to amounts that it estimates will be deductible in future periods based upon Internal Revenue Code Section 162(m). In the event that the Company determines, based on available evidence and management judgment, that all or part of the net deferred tax assets will not be realized in the future, it would record a valuation allowance in the period the determination is made. In addition, the calculation of tax liabilities involves significant judgment in estimating the impact of uncertainties in the application of complex tax laws. Resolution of these uncertainties in a manner inconsistent with the Company's expectations could have a material impact on the Company's results of operations and financial position.

Goodwill and Intangible Assets

Goodwill and the Company's domain name are evaluated in accordance with ASC 350-10, *Goodwill and Other Intangible Assets,* and an impairment analysis is conducted on an annual basis, or sooner if indicators exist for a potential impairment.

In accordance with ASC 360-10, *Accounting for the Impairment or Disposal of Long-Lived Assets*, long-lived assets, such as property and equipment and intangible assets, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to estimated undiscounted future cash flows expected to be generated by the asset. If the carrying amount of an asset exceeds its estimated future cash flows, an impairment charge is recognized by the amount by which the carrying amount of the asset exceeds the fair value of the asset.

Cash and Cash Equivalents

The Company considers cash invested in highly liquid financial instruments with maturities of three months or less at the date of purchase to be cash equivalents.

Marketable Securities

The Company generally holds securities until maturity; however, they may be sold under certain circumstances including, but not limited to, when necessary for the funding of acquisitions and other strategic investments. As a result, the Company classifies its investment portfolio as available-for-sale. The Company classifies all investments with a

maturity date greater than three months at the date of purchase as short-term marketable securities in its consolidated balance sheet. As of December 31, 2022 and 2021, the Company's marketable securities consisted primarily of commercial paper, corporate bonds, government securities and/or other high-quality commercial securities.

Employee Benefits Plan

The Company sponsors a 401(k) tax-deferred savings plan for all employees in the United States who meet certain eligibility requirements. Participants may contribute up to the amount allowable as a deduction for federal income tax purposes. The Company is not required to contribute; however, the Company contributes a certain percentage of employee annual salaries on a discretionary basis, not to exceed an established threshold. The Company provided for a contribution of approximately $2.0 million, $1.9 million and $1.8 million in 2022, 2021 and 2020, respectively.

Retirement Benefit Obligations (Pension)

The Company recognizes the over-funded or under-funded status of a defined benefit pension or post-retirement plan as an asset or liability in the accompanying consolidated balance sheets. Actuarial gains and losses are recorded in accumulated other comprehensive loss, a component of stockholders' equity, and are amortized as a component of net periodic cost over the remaining estimated service period of participants.

Foreign Currency Risk and Foreign Currency Translation

As of December 31, 2022, the Company's primary transactional currency was U.S. dollars; in addition, the Company holds cash in Swiss francs and euros to fund the operations of the Company's Swiss subsidiary. The foreign exchange rate fluctuation between the U.S. dollar versus the Swiss franc and euro is recorded in other income in the consolidated statements of income.

Gains and losses arising from the remeasurement of non-functional currency balances are recorded in other income in the accompanying consolidated statements of income. The Company recognized an immaterial foreign exchange loss in 2022 while recognizing losses of $0.6 million and $0.5 million in 2021 and 2020, respectively.

The functional currencies of the Company's other subsidiaries are the local currencies. Accordingly, all assets and liabilities are translated into U.S. dollars at the current exchange rates as of the applicable balance sheet date. Revenues and expenses are translated at the average exchange rate prevailing during the period. Cumulative gains and losses from the translation of the foreign subsidiaries' financial statements have been included accumulated other comprehensive loss in stockholders' equity.

Warranty

The Company generally warrants that its products will substantially conform to the published specifications for 12 months from the date of shipment. The Company's liability is limited to either a credit equal to the purchase price or replacement of the defective part. Returns under warranty have historically been immaterial, and as a result, the Company does not record a specific warranty reserve.

Advertising

Advertising costs are expensed as incurred and amounted to $1.4 million, $1.3 million and $1.2 million in 2022, 2021 and 2020, respectively.

Research and Development

Research and development costs are expensed as incurred.

Indemnifications

The Company sells products to its distributors under contracts, collectively referred to as Distributor Sales Agreements (DSA). Each DSA contains the relevant terms of the contractual arrangement with the distributor, and generally includes certain provisions for indemnifying the distributor against losses, expenses, and liabilities from damages that may be awarded against the distributor in the event the Company's products are found to infringe upon a patent,

copyright, trademark, or other proprietary right of a third party (Customer Indemnification). The DSA generally limits the scope of and remedies for the Customer Indemnification obligations in a variety of industry-standard respects, including, but not limited to, limitations based on time and geography, and a right to replace an infringing product. The Company also, from time to time, has granted a specific indemnification right to individual customers.

The Company believes its internal development processes and other policies and practices limit its exposure related to such indemnifications. In addition, the Company requires its employees to sign a proprietary information and inventions agreement, which assigns the rights to its employees' development work to the Company. To date, the Company has not had to reimburse any of its distributors or customers for any losses related to these indemnifications and no material claims were outstanding as of December 31, 2022. For several reasons, including the lack of prior indemnification claims and the lack of a monetary liability limit for certain infringement cases, the Company cannot determine the maximum amount of potential future payments, if any, related to such indemnifications.

Recent Accounting Pronouncements

The Company has considered all recent accounting pronouncements issued, but not yet effective, and does not expect any to have a material effect on the Company's consolidated financial statements.

3. COMPONENTS OF THE COMPANY'S CONSOLIDATED BALANCE SHEETS:

Accounts Receivable

(In thousands)	December 31, 2022	December 31, 2021
Accounts receivable trade	$ 78,914	$ 87,503
Allowance for ship and debit	(53,184)	(41,599)
Allowance for stock rotation and rebate	(3,759)	(4,066)
Allowance for credit losses	(1,135)	(445)
Total	$ 20,836	$ 41,393

The Company maintains an allowance for estimated credit losses resulting from the inability of customers to make required payments. This allowance is established using estimates formulated by the Company's management based upon factors such as the composition of the accounts receivable aging, historical losses, changes in payments patterns, customer creditworthiness, and current economic trends. Receivables determined to be uncollectible are written off and deducted from the allowance.

	Allowance for Credit Losses	
	Year Ended December 31,	
(In thousands)	2022	2021
Beginning balance	$ (445)	$ (427)
Provision for credit loss expense	(1,859)	(1,023)
Receivables written off	49	74
Recoveries collected	1,120	931
Ending balance	$ (1,135)	$ (445)

Inventories

(In thousands)	December 31, 2022	December 31, 2021
Raw materials	$ 75,355	$ 24,131
Work-in-process	15,440	31,788
Finished goods	44,625	43,347
Total	$ 135,420	$ 99,266

Property and Equipment

(In thousands)	December 31, 2022	December 31, 2021
Land	$ 22,166	$ 22,187
Construction-in-progress	19,195	22,661
Building and improvements	89,704	81,027
Machinery and equipment	253,308	235,066
Computer software and hardware and office furniture and fixtures	62,574	57,926
Total	446,947	418,867
Less: Accumulated depreciation	(270,266)	(239,043)
Property and equipment, net	$ 176,681	$ 179,824

Depreciation expense for property and equipment for fiscal years ended December 31, 2022, 2021 and 2020, was approximately $34.9 million, $31.5 million and $23.7 million, respectively, and was determined using the straight-line method over the following useful lives:

Building and improvements	4 - 40 years
Machinery and equipment	2 - 8 years
Computer software and hardware and office furniture and fixtures	4 - 7 years

Total property and equipment (excluding accumulated depreciation) located in the United States at December 31, 2022, 2021 and 2020, was approximately $190.3 million, $174.6 million and $167.0 million, respectively. In 2022, 2021 and 2020, approximately 12%, 14% and 14%, respectively, of total property and equipment (excluding accumulated depreciation) was held in Thailand by one of the Company's subcontractors. Also in both 2022 and 2021, approximately 15% and in 2020, 14% of total property and equipment (excluding accumulated depreciation) was held by one of the Company's subcontractors in Malaysia. No other country held 10% or more of total property and equipment in the periods presented.

Accumulated Other Comprehensive Loss

Changes in accumulated other comprehensive loss for the three years ended December 31, 2022:

(In thousands)	Unrealized Gains and Losses on Available-for-Sale Securities	Defined Benefit Pension Items	Foreign Currency Items	Total
Balance at January 1, 2020	$ 583	$ (2,484)	$ (1,229)	$ (3,130)
Other comprehensive income (loss) before reclassifications	307	636	(183)	760
Amounts reclassified from accumulated other comprehensive loss	—	207 (1)	—	207
Other comprehensive income	307	843	(183)	967
Balance at December 31, 2020	890	(1,641)	(1,412)	(2,163)
Other comprehensive income (loss) before reclassifications	(2,055)	800	(486)	(1,741)
Amounts reclassified from accumulated other comprehensive loss	—	167 (1)	—	167
Other comprehensive loss	(2,055)	967	(486)	(1,574)
Balance at December 31, 2021	(1,165)	(674)	(1,898)	(3,737)
Other comprehensive income (loss) before reclassifications	(4,158)	1,459	(985)	(3,684)
Amounts reclassified from accumulated other comprehensive loss	—	77 (1)	—	77
Other comprehensive loss	(4,158)	1,536	(985)	(3,607)
Balance at December 31, 2022	$ (5,323)	$ 862	$ (2,883)	$ (7,344)

(1) This component of accumulated other comprehensive loss is included in the computation of net periodic pension cost for the years ended December 31, 2022, 2021 and 2020.

4. FAIR VALUE MEASUREMENTS:

ASC 820-10, *Fair Value Measurements*, clarifies that fair value is an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. As a basis for considering such assumptions, ASC 820-10 establishes a three-tier value hierarchy, which prioritizes the inputs used in measuring fair value as follows: (Level 1) observable inputs such as quoted prices for identical assets in active markets; (Level 2) inputs other than the quoted prices in active markets that are observable either directly or indirectly; and (Level 3) unobservable inputs in which there is little or no market data, which requires the Company to develop its own assumptions. This hierarchy requires the Company to use observable market data, when available, and to minimize the use of unobservable inputs when determining fair value.

The Company's cash equivalents and investment instruments are classified within Level 1 or Level 2 of the fair-value hierarchy because they are valued using quoted market prices, broker or dealer quotations, or alternative pricing sources with reasonable levels of price transparency. The type of instrument valued based on quoted market prices in active markets primarily includes money market securities. This type of instrument is generally classified within Level 1 of the fair-value hierarchy. The types of instruments valued based on other observable inputs (Level 2 of the fair-value hierarchy) include investment-grade corporate bonds and commercial paper. Such types of investments are valued by using a multi-dimensional relational model, the inputs are primarily benchmark yields, reported trades, broker/dealer quotes, issuer spreads, two-sided markets, benchmark securities, bids, offers, and reference data including market research publications. The Company does not hold any instruments that would be classified within Level 3 of the fair-value hierarchy.

The fair value hierarchy of the Company's cash equivalents and marketable securities at December 31, 2022 and 2021, was as follows:

	Fair Value Measurement at December 31, 2022		
(In thousands)	**Total Fair Value**	**Quoted Prices in Active Markets for Identical Assets (Level 1)**	**Significant Other Observable Inputs (Level 2)**
Commercial paper	$ 58,683	$ —	$ 58,683
Corporate securities	248,441	—	248,441
Money market funds	363	363	—
Total	$ 307,487	$ 363	$ 307,124

	Fair Value Measurement at December 31, 2021		
(In thousands)	**Total Fair Value**	**Quoted Prices in Active Markets for Identical Assets (Level 1)**	**Significant Other Observable Inputs (Level 2)**
Commercial paper	$ 172,237	$ —	$ 172,237
Corporate securities	282,540	—	282,540
Money market funds	29,793	29,793	—
Total	$ 484,570	$ 29,793	$ 454,777

The Company did not transfer any investments between level 1 and level 2 of the fair value hierarchy in the years ended December 31, 2022 and 2021.

5. MARKETABLE SECURITIES:

Amortized cost and estimated fair market value of marketable securities classified as available-for-sale (excluding cash equivalents) at December 31, 2022, were as follows:

(In thousands)	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Market Value
Investments due in 3 months or less:				
Corporate securities	$ 21,803	$ —	$ (135)	$ 21,668
Total	21,803	—	(135)	21,668
Investments due in 4-12 months:				
Corporate securities	173,833	—	(4,019)	169,814
Total	173,833	—	(4,019)	169,814
Investments due in 12 months or greater:				
Corporate securities	58,128	71	(1,240)	56,959
Total	58,128	71	(1,240)	56,959
Total marketable securities	$ 253,764	$ 71	$ (5,394)	$ 248,441

Accrued interest receivable was $1.2 million at December 31, 2022 and was recorded within prepaid expenses and other current assets on the consolidated balance sheet.

Amortized cost and estimated fair market value of marketable securities classified as available-for-sale (excluding cash equivalents) at December 31, 2021, were as follows:

(In thousands)	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Market Value
Investments due in 3 months or less:				
Commercial paper	$ 89,965	$ —	$ —	$ 89,965
Corporate securities	7,285	—	(3)	7,282
Total	97,250	—	(3)	97,247
Investments due in 4-12 months:				
Corporate securities	25,054	—	(42)	25,012
Total	25,054	—	(42)	25,012
Investments due in 12 months or greater:				
Corporate securities	251,096	21	(1,141)	249,976
Total	251,096	21	(1,141)	249,976
Total marketable securities	$ 373,400	$ 21	$ (1,186)	$ 372,235

Accrued interest receivable was $1.5 million at December 31, 2021 and was recorded within prepaid expenses and other current assets on the consolidated balance sheet.

As of December 31, 2022 and 2021 the Company had no marketable securities classified as available-for-sale (excluding cash equivalents) in a continuous unrealized loss position for which an allowance for credit losses was recorded. The following table summarizes marketable securities classified as available-for-sale (excluding cash equivalents) in a continuous unrealized loss position for which an allowance for credit losses was not recorded at December 31, 2022 and December 31, 2021:

	Less Than 12 Months		12 Months or Longer		Total	
(In thousands)	Estimated Fair Market Value	Gross Unrealized Losses	Estimated Fair Market Value	Gross Unrealized Losses	Estimated Fair Market Value	Gross Unrealized Losses
December 31, 2022						
Corporate securities	$ 45,047	$ (662)	$ 191,443	$ (4,732)	$ 236,490	$ (5,394)
Total marketable securities	$ 45,047	$ (662)	$ 191,443	$ (4,732)	$ 236,490	$ (5,394)

(In thousands)	Less Than 12 Months		12 Months or Longer		Total	
	Estimated Fair Market Value	Gross Unrealized Losses	Estimated Fair Market Value	Gross Unrealized Losses	Estimated Fair Market Value	Gross Unrealized Losses
December 31, 2021						
Corporate securities	$ 274,380	$ (1,186)	$ —	$ —	$ 274,380	$ (1,186)
Total marketable securities	$ 274,380	$ (1,186)	$ —	$ —	$ 274,380	$ (1,186)

The weighted average interest rate of investments at December 31, 2022 and 2021, was approximately 2.08% and 0.45%, respectively. In the years ended December 31, 2022 and 2021, no unrealized losses on marketable securities were recognized in income.

6. GOODWILL AND INTANGIBLE ASSETS:

The carrying amount of goodwill as of December 31, 2022 and 2021 was $91.8 million; there were no changes to goodwill in either of the respective fiscal years.

Intangible assets consist primarily of developed technology, acquired licenses, customer relationships, trade name, domain name, in-process R&D and patent rights and are reported net of accumulated amortization.

The Company amortizes the cost of all intangible assets over the shorter of the estimated useful life or the term of the developed technology, customer relationships, technology licenses and in-place leases, which range from two to twelve years, with the exception of $1.3 million paid to acquire an internet domain name. The Company acquired the rights to the internet domain name *www.power.com*, which is now the Company's primary domain name; the cost to acquire the domain name has been recorded as an intangible asset and will not be amortized as it has an indefinite useful life. Amortization of acquired intangible assets was approximately $2.4 million, $3.5 million and $4.4 million in the years ended December 31, 2022, 2021 and 2020, respectively. The Company does not believe there is any significant residual value associated with the following intangible assets:

(In thousands)	December 31, 2022			December 31, 2021		
	Gross	Accumulated Amortization	Net	Gross	Accumulated Amortization	Net
Domain name	$ 1,261	$ —	$ 1,261	$ 1,261	$ —	$ 1,261
Developed technology	37,960	(33,531)	4,429	37,960	(31,603)	6,357
Customer relationships	16,700	(16,700)	—	16,700	(16,458)	242
Technology licenses	1,926	(1,019)	907	1,926	(774)	1,152
Total intangible assets	$ 57,847	$ (51,250)	$ 6,597	$ 57,847	$ (48,835)	$ 9,012

The estimated future amortization expense related to definite-lived intangible assets at December 31, 2022, is as follows:

Fiscal Year	Estimated Amortization (In thousands)
2023	$ 2,173
2024	1,279
2025	832
2026	687
Thereafter	365
Total	$ 5,336

7. STOCK PLANS AND SHARE BASED COMPENSATION:

Stock Plans

As of December 31, 2022, the Company had three stock-based compensation plans (the "Plans") which are described below.

2007 Equity Incentive Plan

The 2007 Equity Incentive Plan (2007 Plan) was adopted by the board of directors on September 10, 2007, and approved by the stockholders on November 7, 2007, as an amendment and restatement of the 1997 Stock Option Plan (1997 Plan). The 2007 Plan provides for the grant of incentive stock options, non-statutory stock options, restricted stock awards, restricted stock unit (RSU) awards, stock appreciation rights, performance-based (PSU) awards, long-term performance based (PRSU) awards and other stock awards to employees, directors and consultants. The 2007 Plan expired in September 2017 with no further grants to be made under this plan; however previous grants under this plan shall remain outstanding until they are exercised, vest, forfeited or expire.

2016 Incentive Award Plan

The 2016 Incentive Award Plan (2016 Plan) was adopted by the board of directors on March 17, 2016 and approved by the stockholders on May 13, 2016. The 2016 Plan provides for the grant of RSU awards, PSU awards and PRSU awards. No other forms of equity-based awards, including stock options and stock appreciation rights, may be granted under the 2016 Plan. As of December 31, 2022, 3.0 million awards have been issued, net of forfeitures or cancellations, and approximately 4.0 million shares of common stock remain available for future grant under the 2016 Plan.

1997 Employee Stock Purchase Plan

Under the 1997 Employee Stock Purchase Plan (Purchase Plan), eligible employees may apply accumulated payroll deductions, which may not exceed 15% of an employee's compensation, to the purchase of shares of the Company's common stock at periodic intervals. The purchase price of stock under the Purchase Plan is equal to 85% of the lower of (i) the fair market value of the Company's common stock on the first day of each offering period, or (ii) the fair market value of the Company's common stock on the purchase date (as defined in the Purchase Plan). Each offering period consists of one purchase period of approximately six months' duration. An aggregate of 7.5 million shares of common stock were reserved for issuance to employees under the Purchase Plan. As of December 31, 2022, of the shares reserved for issuance, 6.8 million shares had been purchased and 0.7 million shares were reserved for future issuance under the Purchase Plan.

Shares Reserved

As of December 31, 2022, the Company had approximately 4.9 million shares of common stock reserved for future grant under all stock plans.

Stock-Based Compensation

The Company applies the provisions of ASC 718-10, *Stock Compensation*. Under the provisions of ASC 718-10, the Company recognizes the fair value of stock-based compensation in its financial statements over the requisite service period of the individual grants, which generally equals a four-year vesting period. The Company uses estimates of volatility, expected term, risk-free interest rate, dividend yield and forfeitures in determining the fair value of these awards and the amount of compensation expense to recognize. The Company uses the straight-line method to amortize all stock awards granted over the requisite service period of the award.

The following table summarizes the stock-based compensation expense recognized in accordance with ASC 718-10 for the years ended December 31, 2022, 2021 and 2020:

	Year Ended December 31,		
(In thousands)	**2022**	**2021**	**2020**
Cost of revenues	$ 1,132	$ 2,359	$ 1,963
Research and development	10,428	12,127	10,378
Sales and marketing	6,035	7,630	6,290
General and administrative	4,769	15,493	12,281
Total stock-based compensation expense	$ 22,364	$ 37,609	$ 30,912

The following table summarizes total compensation expense related to unvested awards not yet recognized, net of expected forfeitures, and the weighted average period over which it is expected to be recognized as of December 31, 2022:

	Unrecognized Compensation Expense for Unvested Awards (In thousands)	Weighted Average Remaining Recognition Period (In years)
Long-term performance-based awards	$ —	—
Restricted stock units	46,724	2.83
Purchase plan	182	0.08
Total unrecognized compensation expense	$ 46,906	

Stock-based compensation expense in the year ended December 31, 2022, was approximately $22.4 million, comprising approximately $23.2 million related to restricted stock units, $1.9 million related to the Company's Purchase Plan and a $2.7 million credit to expense related to performance-based awards and long-term performance-based awards.

Stock-based compensation expense in the year ended December 31, 2021, was approximately $37.6 million, comprising approximately $19.9 million related to restricted stock units, $15.7 million related to performance-based awards and $2.0 million related to the Company's Purchase Plan.

Stock-based compensation expense in the year ended December 31, 2020, was approximately $30.9 million, comprising approximately $18.7 million related to restricted stock units, $10.2 million related to performance-based awards and $2.0 million related to the Company's Purchase Plan.

The fair value of employees' stock purchase rights under the Purchase Plan was estimated using the Black-Scholes model with the following weighted-average assumptions used during the three years ended December 31, 2022, 2021 and 2020:

	Year Ended December 31,		
	2022	2021	2020
Risk-free interest rates	1.71 %	0.07 %	0.90 %
Expected volatility rates	41 %	41 %	47 %
Expected dividend yield	0.89 %	0.57 %	0.78 %
Expected term of purchase rights (in years)	0.50	0.50	0.50
Weighted-average estimated fair value of purchase rights	$ 21.63	$ 23.92	$ 15.73

No options were granted or remain outstanding as of December 31, 2022. The total intrinsic value of options exercised during the years ended December 31, 2022, 2021 and 2020, was $0.8 million, $4.9 million and $9.1 million, respectively.

PSU Awards

Under the performance-based awards program, the Company grants awards in the performance year in an amount equal to twice the target number of shares to be issued if the maximum performance metrics are met. The number of shares that are released at the end of the performance year can range from zero to 200% of the target number depending on the Company's performance. The performance metrics of this program are annual targets consisting of a combination of net revenue, non-GAAP operating earnings and strategic goals.

As the net revenue, non-GAAP operating income and strategic goals are considered performance conditions, expense associated with these awards, net of estimated forfeitures, is recognized over the service period based on an assessment of the achievement of the performance targets. The fair value of these PSUs is determined using the fair value of the Company's common stock on the date of the grant, reduced by the discounted present value of dividends expected to be declared before the awards vest. If the performance conditions are not achieved, no compensation cost is recognized and any previously recognized compensation is reversed.

A summary of PSU awards outstanding as of December 31, 2022, and activity during the three years then ended, is presented below:

	Shares (In thousands)	Weighted-Average Grant Date Fair Value Per Share	Weighted-Average Remaining Contractual Term (In years)	Aggregate Intrinsic Value (In thousands)
Outstanding at January 1, 2020	121	$ 35.06		
Granted	150	$ 46.31		
Vested	(121)	$ 35.06		
Forfeited or canceled	—	—		
Outstanding at December 31, 2020	150	$ 46.27		
Granted	105	$ 84.48		
Vested	(150)	$ 46.27		
Forfeited or canceled	(1)	$ 85.01		
Outstanding at December 31, 2021	104	$ 84.47		
Granted	119	$ 79.91		
Vested	(104)	$ 84.48		
Forfeited or canceled	(85)	$ 79.89		
Outstanding at December 31, 2022	34	$ 79.94	—	$ 2,465
Outstanding and expected to vest at December 31, 2022	34		—	$ 2,465

In February 2022, it was determined that approximately 104,000 shares subject to the PSUs granted in 2021 vested in aggregate; the shares were released to the Company's employees and executives in the first quarter of 2022. The grant-date fair value of PSU awards released, which were fully vested, in the years ended December 31, 2022, 2021 and 2020, was approximately $8.8 million, $6.9 million and $4.2 million, respectively.

PRSU Awards (Long-term Performance Based)

The Company's PRSU program provides for the issuance of PRSUs which will vest based on the Company's performance measured against the PRSU Plan's established revenue targets. The PRSUs were granted in an amount equal to twice the target number of shares to be issued if the maximum performance metrics are met. The fair value of these PRSUs is determined using the fair value of the Company's common stock on the date of the grant, reduced by the discounted present value of dividends expected to be declared before the awards vest. The actual number of shares the recipient receives is determined at the end of a three-year performance period based on results achieved versus the Company's performance goals, and may range from zero to 200% of the target number. Recipients of a PRSU award generally must remain employed by the Company on a continuous basis through the end of the applicable three-year performance period in order to receive shares subject to that award. The performance goals for PRSUs granted in fiscal 2022, 2021 and 2020 were based on the Company's annual revenue growth over the respective three-year performance period.

Expense associated with these awards, net of estimated forfeitures, is recorded throughout the year based on an assessment of the expected achievement of the performance targets. If the performance conditions are not achieved, no compensation cost is recognized and any previously recognized compensation is reversed.

A summary of PRSU awards outstanding as of December 31, 2022, and activity during the three years then ended, is presented below:

	Shares (In thousands)	Weighted-Average Grant Date Fair Value Per Share	Weighted-Average Remaining Contractual Term (In years)	Aggregate Intrinsic Value (In thousands)
Outstanding at January 1, 2020	287	$ 32.03		
Granted	152	$ 49.67		
Vested	—	—		
Forfeited or canceled	(138)	$ 29.95		
Outstanding at December 31, 2020	301	$ 41.90		
Granted	103	$ 82.92		
Vested	(6)	$ 29.94		
Forfeited or canceled	(15)	$ 40.05		
Outstanding at December 31, 2021	383	$ 53.14		
Granted	110	$ 78.96		
Vested	(135)	$ 34.09		
Forfeited or canceled	(122)	$ 49.68		
Outstanding at December 31, 2022	236	$ 77.82	1.52	$ 16,895
Outstanding and expected to vest at December 31, 2022	23		—	$ 1,653

In February 2022, it was determined that approximately 135,000 shares subject to the PRSUs granted in 2019 vested in aggregate; the shares were released to the Company's executives in the first quarter of 2022. The grant-date fair value of PRSU awards released, which were fully vested, in the years ended December 31, 2022 and 2021 was approximately $4.6 million and $0.2 million, respectively.

RSU Awards

RSUs granted to employees typically vest ratably over a four-year period, and are converted into shares of the Company's common stock upon vesting on a one-for-one basis subject to the employee's continued service to the Company over that period. The fair value of RSUs is determined using the fair value of the Company's common stock on the date of the grant, reduced by the discounted present value of dividends expected to be declared before the awards vest. Compensation expense is recognized on a straight-line basis over the requisite service period of each grant adjusted for estimated forfeitures.

A summary of RSU awards outstanding as of December 31, 2022, and activity during the three years then ended, is presented below:

	Shares (In thousands)	Weighted-Average Grant Date Fair Value Per Share	Weighted-Average Remaining Contractual Term (In years)	Aggregate Intrinsic Value (In thousands)
Outstanding at January 1, 2020	1,719	$ 31.33		
Granted	439	$ 44.82		
Vested	(599)	$ 30.25		
Forfeited	(41)	$ 36.77		
Outstanding at December 31, 2020	1,518	$ 35.51		
Granted	271	$ 83.79		
Vested	(546)	$ 35.03		
Forfeited	(99)	$ 39.85		
Outstanding at December 31, 2021	1,144	$ 46.81		
Granted	519	$ 76.01		
Vested	(481)	$ 44.70		
Forfeited	(86)	$ 60.02		
Outstanding at December 31, 2022	1,096	$ 60.52	1.57	$ 78,629
Outstanding and expected to vest at December 31, 2022	1,022		1.47	$ 73,277

The grant-date fair value of RSUs vested in the years ended December 31, 2022, 2021 and 2020, was approximately $21.5 million, $19.1 million and $18.1 million, respectively.

8. SIGNIFICANT CUSTOMERS AND GEOGRAPHIC NET REVENUES:

Customer Concentration

The Company's top ten customers accounted for approximately 76%, 78% and 62% of revenues in 2022, 2021 and 2020, respectively. A significant portion of these revenues are attributable to sales of the Company's products to distributors of electronic components. These distributors sell the Company's products to a broad, diverse range of end users, including OEMs and merchant power supply manufacturers. Sales to distributors in 2022, 2021 and 2020 were $457.7 million, $525.7 million and $367.7 million, respectively. Direct sales to OEMs and power-supply manufacturers accounted for the remainder.

The following customers represented 10% or more of the Company's net revenues for the respective years:

	Year Ended December 31,		
Customer	2022	2021	2020
Avnet	31 %	30 %	19 %
Honestar Technologies Co., Ltd.	11 %	16 %	11 %

No other customers accounted for 10% or more of the Company's net revenues in the periods presented.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to concentrations of credit risk consisted principally of cash investments and trade receivables. The Company does not have any off-balance-sheet credit exposure related to its customers. As of years ended December 31, 2022 and 2021, 87% and 86% of accounts receivable were concentrated with the Company's top ten customers, respectively.

The following customers represented 10% or more of accounts receivable:

Customer	December 31, 2022	December 31, 2021
Avnet	42 %	45 %
Salcomp Group	13 %	*
Flextronics Group	11 %	*

* Total customer accounts receivable was less than 10% of accounts receivable.

No other customers accounted for 10% or more of the Company's accounts receivable in the periods presented.

Geographic Net Revenues

The Company markets its products globally through its sales personnel and a worldwide network of independent sales representatives and distributors. Geographic net revenues based on "bill to" customer locations were as follows:

	Year Ended December 31,		
(In thousands)	**2022**	**2021**	**2020**
United States of America	$ 25,500	$ 17,238	$ 11,065
Hong Kong/China	356,865	446,980	306,938
India	33,159	25,961	19,845
Taiwan	19,789	25,991	21,650
Korea	52,074	59,501	40,059
Western Europe (excluding Germany)	32,429	35,835	33,564
Japan	34,924	25,101	17,453
Germany	52,876	32,664	23,242
Other	43,522	34,006	14,502
Total net revenues	$ 651,138	$ 703,277	$ 488,318

9. COMMON STOCK REPURCHASES AND CASH DIVIDENDS:

Common Stock Repurchases

From time to time the Company's board of directors has authorized the use of funds to repurchase shares of the Company's common stock. In October 2018, the Company's board of director's authorized the use of $80.0 million for the repurchase of the Company's common stock, and in each of April 2021 and October 2021, the Company's board of directors authorized the use of an additional $50.0 million for the repurchase of the Company's common stock. In January, February, April and October 2022, the Company's board of directors authorized the use of an additional $100.0 million, $50.0 million, $75.0 million and $100.0 million, respectively, for the repurchase of the Company's common stock, with repurchases to be executed according to pre-defined price/volume guidelines. In 2022, 2021 and 2020, the Company purchased approximately 3.8 million shares, 0.9 million shares and 63 thousand shares, respectively, for approximately $311.1 million, $73.9 million and $2.6 million, respectively. As of December 31, 2022, the Company had $81.3 million available for future stock repurchases.

Authorization of future stock repurchase programs is at the discretion of the Company's board of directors and will depend on the Company's financial condition, results of operations, capital requirements and business conditions as well as other factors.

Common Stock Dividend

The following table presents the quarterly dividends declared per share of the Company's common stock for the periods indicated:

	Year Ended December 31,		
	2022	**2021**	**2020**
First Quarter	$ 0.18	$ 0.13	$ 0.095
Second Quarter	$ 0.18	$ 0.13	$ 0.105
Third Quarter	$ 0.18	$ 0.13	$ 0.110
Fourth Quarter	$ 0.18	$ 0.15	$ 0.110

The Company paid a total of approximately $41.5 million, $32.6 million and $25.1 million in cash dividends during 2022, 2021 and 2020, respectively.

In October 2019, the Company's board of directors declared a dividend of $0.095 per share to be paid to stockholders of record at the end of each quarter in 2020. In April 2020, the Company's board of directors raised the cash dividends with the declaration of three cash dividends of $0.105 per share (in lieu of the $0.095 per share previously announced in October 2019) to be paid to stockholders of record at the end of each of the second, third and fourth quarter in 2020. In July 2020, the Company's board of directors raised the cash dividends further with the declaration of two cash dividends of $0.11 per share (in lieu of the $0.105 per share announced in April 2020) to be paid to stockholders of record at the end of each of the third and fourth quarter in 2020.

In January 2021, the Company's board of directors declared dividends of $0.13 per share to be paid to stockholders of record at the end of each quarter in 2021. In October 2021, the Company's board of directors raised the quarterly cash dividend with the declaration of five cash dividends of $0.15 per share (the first in lieu of the $0.13 per share announced in January 2021) to be paid to stockholders of record at the end of the fourth quarter in 2021 and at the end of each quarter in 2022.

In January 2022, the Company's board of directors raised the quarterly cash dividend by an additional $0.03 per share with the declaration of four cash dividends of $0.18 per share (in lieu of the $0.15 per share announced in October 2021) to be paid to stockholders of record at the end of each quarter in 2022.

In February 2023, the Company's board of directors declared dividends of $0.19 per share to be paid to stockholders of record at the end of each quarter in 2023.

10. EARNINGS PER SHARE:

Basic earnings per share are calculated by dividing net income by the weighted-average shares of common stock outstanding during the period. Diluted earnings per share are calculated by dividing net income by the weighted-average shares of common stock and dilutive common equivalent shares outstanding during the period. Dilutive common equivalent shares included in this calculation consist of dilutive shares issuable upon the assumed exercise of outstanding common stock options, the assumed vesting of outstanding restricted stock units, the assumed issuance of awards under the stock purchase plan and contingently issuable performance-based awards, as computed using the treasury stock method.

A summary of the earnings per share calculation is as follows:

	Year Ended December 31,		
(In thousands, except per share amounts)	**2022**	**2021**	**2020**
Basic earnings per share:			
Net income	$ 170,851	$ 164,413	$ 71,176
Weighted-average common shares	57,801	60,327	59,657
Basic earnings per share	$ 2.96	$ 2.73	$ 1.19
Diluted earnings per share: [1]			
Net income	$ 170,851	$ 164,413	$ 71,176
Weighted-average common shares	57,801	60,327	59,657
Effect of dilutive awards:			
Employee stock plans	570	1,140	1,188
Diluted weighted-average common shares	58,371	61,467	60,845
Diluted earnings per share	$ 2.93	$ 2.67	$ 1.17

(1) The Company includes the shares underlying performance-based awards in the calculation of diluted earnings per share if the performance conditions have been satisfied as of the end of the reporting period and excludes such shares when the necessary conditions have not been met. The Company has included in the 2022, 2021 and 2020 calculations those shares that were contingently issuable upon the satisfaction of the performance conditions as of the end of the respective periods.

In the years ended December 31, 2022, 2021 and 2020, no outstanding stock awards were determined to be anti-dilutive and therefore were excluded from the computation of diluted earnings per share.

11. PROVISION FOR INCOME TAXES:

Income Taxes

The Company accounts for income taxes under the provisions of ASC 740, *Income Taxes*. Under the provisions of ASC 740, deferred tax assets and liabilities are recognized based on the differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases, utilizing the tax rates that are expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled.

U.S. and foreign components of income (loss) before income taxes were:

	Year Ended December 31,		
(In thousands)	**2022**	**2021**	**2020**
U.S. operations	$ 17,250	$ 241	$ (6,252)
Foreign operations	166,176	175,894	81,503
Total income before income taxes	$ 183,426	$ 176,135	$ 75,251

The components of the provision for income taxes are as follows:

	Year Ended December 31,		
(In thousands)	**2022**	**2021**	**2020**
Current provision (benefit):			
Federal	$ 19,740	$ 23,648	$ 2,788
State	2	2	(181)
Foreign	1,079	1,608	1,677
	20,821	25,258	4,284
Deferred provision (benefit):			
Federal	(7,962)	(11,449)	348
State	—	—	—
Foreign	(284)	(2,087)	(557)
	(8,246)	(13,536)	(209)
Total	$ 12,575	$ 11,722	$ 4,075

The provision for income taxes differs from the amount that would result by applying the applicable federal income tax rate to income before income taxes, as follows:

	Year Ended December 31,		
	2022	**2021**	**2020**
Provision (benefit) computed at Federal statutory rate	21.0 %	21.0 %	21.0 %
Business tax credits	(3.7)	(3.6)	(7.4)
Stock-based compensation	(1.6)	(0.6)	(0.1)
Foreign income taxed at different rate	(18.5)	(23.8)	(22.0)
GILTI inclusion	8.5	13.1	10.7
Valuation allowance	1.3	1.3	2.6
Other	(0.1)	(0.7)	0.6
Total	6.9 %	6.7 %	5.4 %

The Company's effective tax rate is impacted by the geographic distribution of the Company's world-wide earnings in lower-tax jurisdictions, federal research tax credits and the recognition of excess tax benefits related to share-based payments. These benefits were partially offset by foreign income subject to U.S. tax, known as global intangible low-taxed income. The Company's primary jurisdiction where foreign earnings are derived is the Cayman Islands, which is a non-taxing jurisdiction. Income earned in other foreign jurisdictions was not material. The Company has not been granted any incentivized tax rates and does not operate under any tax holidays in any jurisdiction.

The components of the net deferred income tax assets (liabilities) were as follows:

(In thousands)	December 31, 2022	December 31, 2021
Deferred tax assets:		
Capitalized R&D costs	$ 20,666	$ 13,226
Other reserves and accruals	2,516	3,967
Tax credit carry-forwards	26,154	23,647
Stock compensation	1,559	1,278
Capital losses	150	159
Net operating loss	2,217	2,370
Other	439	692
Valuation allowance	(29,036)	(27,085)
	24,665	18,254
Deferred tax liabilities:		
Depreciation	(5,596)	(1,750)
	(5,596)	(1,750)
Net deferred tax assets	$ 19,069	$ 16,504

In assessing the realizability of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities and projected future taxable income. In the event that the Company determines, based on available evidence and management judgment, that all or part of the net deferred tax assets will not be realized in the future, the Company would record a valuation allowance in the period the determination is made. In addition, the calculation of tax liabilities involves significant judgment in estimating the impact of uncertainties in the application of complex tax laws. Resolution of these uncertainties in a manner inconsistent with the Company's expectations could have a material impact on its results of operations and financial position.

As of December 31, 2022, the Company continues to maintain a valuation allowance primarily as a result of its California, New Jersey and Canada deferred tax assets as the Company believes that it is not more likely than not that the deferred tax assets will be fully realized.

As of December 31, 2022, the Company had utilized all of its federal research and development tax credit carryforwards. As of December 31, 2022, the Company had California research and development tax credit carryforwards of approximately $37.9 million (there is no expiration of research and development tax credit carryforwards for the state of California) and California net operating losses of $43.5 million which will begin to expire in 2032. As of December 31, 2022, the Company had Canadian scientific research and experimental development tax credit carryforwards of approximately $3.7 million and New Jersey research and experimental development tax credit carryforwards of approximately $0.8 million, which will start to expire in 2030 and 2026, respectively.

The Tax Act signed into law on December 22, 2017, generally allows companies to repatriate accumulated foreign earnings without incurring additional U.S. federal taxes beginning after December 31, 2017. Local foreign and U.S. states taxes may still be incurred upon repatriation. The Company has not provided for U.S. taxes on its undistributed earnings of foreign subsidiaries. The determination of the future tax consequences of the remittance of these earnings is not practicable.

Unrecognized Tax Benefits

The Company applies the provisions of ASC 740-10, relating to accounting for uncertain income taxes. Reconciliation of the beginning and ending amount of unrecognized tax benefits:

(In thousands)	Unrecognized Tax Benefits
Unrecognized Tax Benefits Balance at January 1, 2020	$ 19,049
Gross Increase for Tax Positions of Current Year	2,002
Gross Decrease for Tax Positions of Prior Years.	—
Unrecognized Tax Benefits Balance at December 31, 2020	21,051
Gross Increase for Tax Positions of Current Year	2,068
Gross Decrease for Tax Positions of Prior Years.	(1,756)
Unrecognized Tax Benefits Balance at December 31, 2021	21,363
Gross Increase for Tax Positions of Current Year	2,188
Gross Decrease for Tax Positions of Prior Years.	(165)
Unrecognized Tax Benefits Balance at December 31, 2022	$ 23,386

The Company's total unrecognized tax benefits as of December 31, 2022, 2021 and 2020 were $23.4 million, $21.4 million and $21.1 million, respectively. An income tax benefit of $11.7 million, net of valuation allowance adjustments, would be recorded if these unrecognized tax benefits are recognized. The Company cannot reasonably estimate the amount of the unrecognized tax benefit that could be adjusted in the next twelve months.

The Company's continuing practice is to recognize interest and/or penalties related to income tax matters in income tax expense. The Company had accrued interest and penalties of $1.2 million and $0.8 million as of December 31, 2022 and 2021, respectively, which have been recorded in long-term income taxes payable in the accompanying consolidated balance sheets.

As of December 31, 2022, the Company has concluded all U.S. federal income tax matters for the years through 2012. However, due to tax attributes, the IRS may calculate tax adjustments for subsequent years for positions taken prior to 2012. The California Franchise Tax Board has started an audit for the Company's tax years 2018 and 2019, it is currently ongoing.

12. LEASES AND COMMITMENTS:

Facilities and Leases

The Company owns its main executive, administrative, manufacturing and technical offices in San Jose, California. The Company also owns a research and development facility in New Jersey, a design center in Germany and a multipurpose office building in Switzerland. The Company's leases consist of operating leases for administrative office spaces, research-and-development facilities and sales offices in various countries around the world. The Company determines if an arrangement is a lease at inception. Some lease agreements contain lease and non-lease components, which are accounted for as a single lease component. Total lease expense was $3.3 million, $3.3 million and $2.7 million in the years ended December 31, 2022, 2021 and 2020, respectively, while short-term and variable lease expenses were not material during these periods.

Balance sheet information related to leases was as follows:

(In thousands)	Balance Sheet Classification	December 31, 2022	December 31, 2021
Right-of-use assets			
Operating lease assets	Other assets	$ 9,153	$ 11,887
Lease liabilities			
Current operating lease liabilities	Other accrued liabilities	$ 2,895	$ 3,050
Non-current operating lease liabilities	Other liabilities	5,831	8,371
Total		$ 8,726	$ 11,421

Initial lease terms are determined at commencement and may include options to extend or terminate the lease when it is reasonably certain the Company will exercise the option. Remaining lease terms range from one to seven years,

some of which include options to extend for up to five years, and some of which include options to terminate within one year. Leases with an initial term of twelve months or less are not recorded on the balance sheet. As the Company's leases do not provide an implicit rate, the present value of future lease payments is determined using the Company's incremental borrowing rate based on information available at commencement date.

Lease term and discount rate	December 31, 2022	December 31, 2021
Weighted average remaining lease term	4.0 years	4.2 years
Weighted average discount rate	4.6 %	3.3 %

Supplemental cash flows information related to leases was as follow:

(In thousands)	Year Ended December 31, 2022	2021
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from operating leases	$ 3,245	$ 3,538
Right-of-use assets obtained in exchange for new operating lease obligations	$ 1,795	$ 5,225

Future minimum lease payments under all non-cancelable lease agreements as of December 31, 2022, are as follows:

(In thousands)	December 31, 2022
2023	$ 3,268
2024	2,551
2025	1,360
2026	975
2027	689
Thereafter	798
Total future minimum lease payments	9,641
Less imputed interest	(915)
Total	$ 8,726

Purchase Obligations

At December 31, 2022, the Company had no non-cancelable purchase obligations that were due beyond one year.

13. LEGAL PROCEEDINGS AND CONTINGENCIES:

From time to time in the ordinary course of business, the Company becomes involved in lawsuits, or customers and distributors may make claims against the Company. In accordance with ASC 450-10, *Contingencies*, the Company makes a provision for a liability when it is both probable that a liability has been incurred and the amount of the loss can be reasonably estimated.

On May 16, 2022, the Company entered into a binding settlement agreement (the "Settlement Agreement") with Opticurrent, LLC, pursuant to which the parties agreed to end all outstanding legal disputes. Neither party granted any licenses to the other. Pursuant to the Settlement Agreement, the Company and Opticurrent have dismissed, withdrawn, and/or terminated all legal proceedings between the parties and the Company agreed to and subsequently paid Opticurrent $2.9 million.

On January 6, 2020, the Company filed a complaint against CogniPower LLC in the United States District Court for the District of Delaware for infringement of two of the Company's patents and seeking a declaration of non-infringement with respect to patents that CogniPower had charged the Company's customers with infringing, based on customer use of the Company's products. In response, CogniPower filed a motion to dismiss the Company's declaratory judgment claims on the basis that CogniPower had not threatened the Company directly with suit. That motion was granted, so CogniPower's claims for infringement initially went forward separately in their lawsuit against the Company's customers in the District of Delaware, but the Company filed a motion to intervene in that lawsuit and received a ruling allowing the Company to intervene in CogniPower's customer lawsuit on February 1, 2021, and the parties thereafter agreed to dismiss the Company's separate lawsuit against CogniPower. The remaining case is currently stayed, but the

Company believes it has strong claims and defenses, and intends to vigorously defend itself against CogniPower's claims against the Company's technology, with appeals to follow if necessary.

On October 31, 2022, Waverly Licensing LLC filed a complaint against the Company in the United States District Court for the Western District of Texas. In its complaint, Waverly alleges that the Company is infringing one patent pertaining to charging a battery-operated device. Because the Company believes that Waverly's complaint was improperly filed in the wrong court, the Company has filed a motion to dismiss, and on November 30, 2022, the Company filed a complaint against Waverly Licensing LLC and related entities IP Edge LLC, Mavexar LLC, and Array IP LLC in the United States District Court for the District of Delaware seeking a declaration of non-infringement with respect to a patent that Waverly has charged the Company with infringing. The Company expects a resolution of its motion to dismiss Waverly's Texas complaint in the coming months. These lawsuits are in their earliest stages, but the Company believes it has strong claims and defenses, and intends to vigorously defend itself against Waverly's claims against the Company's technology, with appeals to follow if necessary.

The Company is unable to predict the outcome of legal proceedings with certainty, and there can be no assurance that the Company will prevail in the above-mentioned unsettled litigations. These litigations, whether or not determined in the Company's favor or settled, will be costly and will divert the efforts and attention of the Company's management and technical personnel from normal business operations, potentially causing a material adverse effect on the business, financial condition and operating results. Currently, the Company is not able to estimate a loss or a range of loss for the ongoing litigations disclosed above, however adverse determinations in litigation could result in monetary losses, the loss of proprietary rights, subject the Company to significant liabilities, require the Company to seek licenses from third parties or prevent the Company from licensing the technology, any of which could have a material adverse effect on the Company's business, financial condition and operating results.

14. RETIREMENT PLANS:

The Company sponsors a defined benefit pension plan (Pension Plan) for its Swiss subsidiary in accordance with the legal requirements of Switzerland. The plan assets, which provide benefits in the event of an employee's retirement, death or disability, are held in legally autonomous trustee-administered funds that are subject to Swiss law. Benefits are based on the employee's age, years of service and salary, and the plan is financed by contributions by both the employee and the Company.

The net periodic benefit cost of the Pension Plan was not material to the Company's financial statements during the years ended December 31, 2022, 2021 and 2020. At December 31, 2022, the projected benefit obligation was $12.1 million, the plan assets were $8.2 million and the net pension liability was $3.9 million. As of December 31, 2021, the projected benefit obligation was $15.5 million, the plan assets were $9.5 million, and the net pension liability was $6.0 million. The Company has recorded the unfunded amount as a liability in its consolidated balance sheet at December 31, 2022 and 2021, under the other liabilities caption. The Company expects to make contributions to the Pension Plan of approximately $0.4 million during 2023. The accumulated unrealized actuarial activity on pension benefits, net of tax, at December 31, 2022, 2021 and 2020 was $0.9 million gain, $0.7 million loss and $1.6 million loss, respectively. These amounts were reflected in Note 3 under the caption accumulated other comprehensive loss.

In accordance with the Compensation-Retirement Benefits Topic of ASC 715-20, *Defined Benefits Plan*, the Company recognizes the over-funded or under-funded status of its defined post-retirement plan as an asset or liability in its statement of financial position. The Company measured the plan assets and benefit obligations as of the date of the fiscal year-end.

15. BANK LINE OF CREDIT:

On July 27, 2016, the Company entered into a credit agreement with Wells Fargo Bank, National Association (the "Credit Agreement") that provides the Company with a $75.0 million revolving line of credit to use for general corporate purposes with a $20.0 million sub-limit for the issuance of standby and trade letters of credit. The Credit Agreement was amended on April 30, 2018, to extend the termination date from July 26, 2019, to April 30, 2022, with all other terms remaining the same. The Credit Agreement was amended on June 7, 2021, to provide an alternate borrowing rate as a replacement for LIBOR and extend the termination date from April 30, 2022, to June 7, 2026, with all other terms remaining the same.

The Company's ability to borrow under the revolving line of credit is conditioned upon the Company's compliance with specified covenants, including reporting and financial covenants, primarily a minimum cash requirement and a debt to earnings ratio. The Credit Agreement terminates on June 7, 2026; all advances under the revolving line of credit will become due on such date, or earlier in the event of a default. The Company was compliant with all covenants and had no advances outstanding under the Credit Agreement as of December 31, 2022.

Schedule II

Valuation and Qualifying Accounts

The Company maintains an allowance for the distributors' ship and debit credits relating to the sell-through of the Company's products. This reserve is established using the Company's historical ship and debit amounts and levels of inventory in the distributor channels.

The following is a summary of the activity in the allowance for ship and debit credits:

(In thousands)	Balance at Beginning of Period	Additions	Deductions [1]	Balance at End of Period
Allowance for ship and debit credits:				
Year ended December 31, 2020	$ 33,475	$ 257,765	$ (264,805)	$ 26,435
Year ended December 31, 2021	$ 26,435	$ 311,443	$ (296,279)	$ 41,599
Year ended December 31, 2022	$ 41,599	$ 241,817	$ (230,232)	$ 53,184

(1) Deductions relate to ship and debit credits issued which adjust the sales price from the standard distribution price to the pre-approved lower price. Refer to Note 2, *Significant Accounting Policies and Recent Accounting Pronouncements*, for the Company's revenue recognition policy, including the Company's accounting for ship and debit claims.

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

Not applicable.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

Management is required to evaluate our disclosure controls and procedures, as defined in Rule 13a-15(e) under the Exchange Act. Disclosure controls and procedures are controls and other procedures designed to provide reasonable assurance that information required to be disclosed in our reports filed under the Exchange Act, such as this Annual Report on Form 10-K, is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms. Disclosure controls and procedures include controls and procedures designed to provide reasonable assurance 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. Our disclosure controls and procedures include components of our internal control over financial reporting, which consists of control processes designed to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of financial statements in accordance with generally accepted accounting principles in the U.S. To the extent that components of our internal control over financial reporting are included within our disclosure controls and procedures, they are included in the scope of our periodic controls evaluation. Based on our management's evaluation (with the participation of our principal executive officer and principal financial officer), our principal executive officer and principal financial officer have concluded that our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) were effective as of the end of the period covered by this Annual Report on Form 10-K.

Management's Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rule 13a-15(f) under the Exchange Act. Internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external reporting purposes in accordance with generally accepted accounting principles. Internal control over financial reporting includes those policies and procedures that:

- pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets;
- 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 are being made only in accordance with authorizations of our management and directors; and
- 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.

Internal control over financial reporting cannot provide absolute assurance of achieving financial reporting objectives because of its inherent limitations. Internal control over financial reporting is a process that involves human diligence and compliance and is subject to lapses in judgment and breakdowns resulting from human failures. Because of such limitations, there is a risk that material misstatements may not be prevented or detected on a timely basis by internal control over financial reporting.

Management conducted an assessment of Power Integrations' internal control over financial reporting as of December 31, 2022, based on the framework established by the Committee of Sponsoring Organization (COSO) of the Treadway Commission in *Internal Control - Integrated Framework* issued in 2013. Based on this assessment, management concluded that, as of December 31, 2022, our internal control over financial reporting was effective.

The effectiveness of Power Integrations' internal control over financial reporting as of December 31, 2022, has been audited by Deloitte & Touche LLP (PCAOB ID No. 34), an independent registered public accounting firm, as stated in their report which appears below.

Changes in Internal Control over Financial Reporting

There were no changes in our internal controls over financial reporting during the fourth quarter of 2022, which were identified in connection with management's evaluation required by paragraph (d) of Rules 13a-15 and 15d-15 under the Exchange Act, that have materially affected or are reasonably likely to materially affect our internal control over financial reporting.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of Power Integrations, Inc.

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Power Integrations, Inc. and subsidiaries (the "Company") as of December 31, 2022, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2022, of the Company and our report dated February 7, 2023 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

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 (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) 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 (3) 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.

/s/ DELOITTE & TOUCHE LLP

San Jose, California
February 7, 2023

Item 9B. Other Information.

Appointment of New Director

On February 3, 2023, the Board of Directors (the "Board") of Power Integrations, Inc. appointed Ravi Vig to serve as a director beginning on April 1, 2023. Mr. Vig's appointment was recommended to the Board by the Nominating and Governance Committee of the Board.

Mr. Vig served as president and CEO and on the board of directors of Allegro MicroSystems, Inc., a global leader in power and sensing semiconductors, until his retirement in June 2022. During his 38-year career at Allegro and its parent company, Sanken North America, Mr. Vig served in a succession of roles including leadership of Allegro's sensor business unit and its business-development organization before becoming CEO of Allegro in 2017. Mr. Vig serves as a member of the board of directors of Anokiwave, a privately held, fabless semiconductor company, and is a member of the board of trustees for the Committee for Economic Development of the Conference Board. Mr. Vig holds a bachelor's degree in electrical engineering from Rutgers University, an MS in electrical engineering from Dartmouth College, an MBA from Southern New Hampshire University, and a leadership certificate from Yale University's Graduate School of Management.

Upon commencement of services to the Board, and in consideration of services to us as a director, Mr. Vig will be granted an equity award in the form of restricted stock units of our common stock (the "Initial Grant") under the Power Integrations 2016 Incentive Award Plan (the "2016 Plan") with an aggregate fair value of approximately $30,000. The Initial Grant will vest on the date of our 2023 annual meeting of stockholders (currently scheduled for May 19, 2023), provided Mr. Vig is still serving as a director on that date. Notwithstanding the foregoing, the Initial Grant would be deemed fully vested upon the occurrence of a "Change of Control," as such term is defined in the 2016 Plan. Beginning on July 1, 2023, Mr. Vig will receive annual equity compensation pursuant to the Directors Equity Compensation Program consistent with our other non-employee directors, which is a grant of restricted stock units, under the 2016 Plan, with an aggregate value of $120,000, which would vest in full effective immediately prior to the commencement of our first annual meeting of stockholders in the year following the year of the grant date, provided that he is still providing services to the Company as a director and provided, further, that 100% of the shares subject to such equity award would be deemed fully vested upon the occurrence of a Change of Control.

As a non-employee director, Mr. Vig will also receive $11,250 per quarter for service on the Board. We intend to enter into an indemnity agreement with Mr. Vig that is in the form of indemnity agreements executed by other members of the Board.

Transition of Mike Matthews from Vice President, Product Development to Chief Technology Officer

On February 6, 2023, Mike Matthews, our Vice President, Product Development, assumed a new role as Chief Technology Officer.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections.

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

The names of our executive officers and their ages, titles and biographies as of the date hereof are set forth under the caption “Information About our Executive Officers” in Part I, Item 1, above.

The following information is included in our Notice of Annual Meeting of Stockholders and Proxy Statement to be filed within 120 days after our fiscal year end of December 31, 2022, or the Proxy Statement, and is incorporated herein by reference:

- Information regarding our directors and any persons nominated to become a director is set forth under the caption “Proposal 1 Election of Directors.”
- Information regarding our audit committee and our designated “audit committee financial expert” is set forth under the captions “Information Regarding the Board and its Committees” and “Audit Committee” under “Proposal 1 Election of Directors” and “Report of the Audit Committee of the Board.”
- Information on our code of business conduct and ethics for directors, officers and employees is set forth under the caption “Code of Business Conduct and Ethics” under “Proposal 1 Election of Directors.”
- Information regarding Section 16(a) beneficial ownership reporting compliance, if any, will be set forth under the caption “Delinquent Section 16(a) Reports.”
- Information regarding procedures by which stockholders may recommend nominees to our board of directors is set forth under the caption “Nominating and Governance Committee” under “Proposal 1 Election of Directors.”

Item 11. Executive Compensation.

Information regarding compensation of our named executive officers is set forth under the caption “Compensation of Executive Officers” in the Proxy Statement, which information is incorporated herein by reference.

Information regarding compensation of our directors is set forth under the caption “Compensation of Directors” in the Proxy Statement, which information is incorporated herein by reference.

Information relating to compensation policies and practices as they relate to risk management is set forth under the caption “Compensation Policies and Practices as They Relate to Risk Management” under “Proposal 1 Election of Directors” in the Proxy Statement, which information is incorporated herein by reference.

Information regarding compensation committee interlocks is set forth under the caption "Compensation Committee Interlocks and Insider Participation" in the Proxy Statement, which information is incorporated herein by reference.

The Compensation Committee Report is set forth under the caption “Compensation Committee Report” in the Proxy Statement, which report is incorporated herein by reference.

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

Information regarding security ownership of certain beneficial owners, directors and executive officers is set forth under the caption “Security Ownership of Certain Beneficial Owners and Management” in the Proxy Statement, which information is incorporated herein by reference.

Information regarding our equity compensation plans, including both stockholder approved plans and non-stockholder approved plans, is set forth under the caption “Equity Compensation Plan Information” in the Proxy Statement, which information is incorporated herein by reference.

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

Information regarding certain relationships and related transactions is set forth under the caption “Certain Relationships and Related Transactions” in the Proxy Statement, which information is incorporated herein by reference.

Information regarding director independence is set forth under the caption “Proposal 1 - Election of Directors” in the Proxy Statement, which information is incorporated herein by reference.

Item 14. Principal Accounting Fees and Services.

Information regarding principal auditor fees and services is set forth under “Principal Accountant Fees and Services” in the Proposal with the caption “Ratification of Selection of Independent Registered Public Accounting Firm” in the Proxy Statement, which information is incorporated herein by reference.

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a)

1. The financial statements required by Item 15(a) are included in Item 8 of this Annual Report on Form 10-K.
2. The financial statement schedule required by Item 15(a) (Schedule II, Valuation and Qualifying Accounts) is included in Item 8 of this Annual Report on Form 10-K.

   All other schedules are omitted because they are not applicable or the required information is shown in the consolidated financial statements or notes thereto.

(b) Exhibits

Exhibit Number	Exhibit Description	Incorporation by Reference				Filed Herewith
		Form	File Number	Exhibit/Appendix Reference	Filing Date	
3.1	Restated Certificate of Incorporation	10-K	000-23441	3.1	2/29/2012	
3.2	Amended and Restated Bylaws	8-K	000-23441	3.1	4/26/2013	
4.1	Description of Power Integrations, Inc. Common Stock	10-K	000-23441	4.1	2/6/2020	
4.2	Reference is made to Exhibits 3.1 to 3.2					
10.1*	Form of Indemnity Agreement for directors and officers	S-1	333-35421	10.1	9/11/1997	
10.2*	Power Integrations, Inc. Compliance Policy Regarding IRC Section 409A	10-K	000-23441	10.63	3/2/2009	
10.3*	1997 Employee Stock Purchase Plan, as amended	10-Q	000-23441	10.1	7/29/2021	
10.4*	Forms of agreement under 1997 Employee Stock Purchase Plan	S-1	333-35421	10.5	9/11/1997	
10.5*	1997 Outside Directors Stock Option Plan	10-Q	000-23441	10.2	10/29/2020	
10.6*	Forms of agreement under 1997 Outside Directors Stock Option Plan	S-1	333-35421	10.4	9/11/1997	
10.7*	Form of Director Option Grant Agreement.	10-Q	000-23441	10.9	5/6/2009	
10.8*	Director Equity Compensation Program	10-K	000-23441	10.10	2/7/2020	
10.9*	Forms of Stock Option Agreements to be used in Director Equity Compensation Program	10-Q	000-23441	10.5	11/7/2008	
10.10*	Outside Director Cash Compensation Arrangements	10-K	000-23441	10.12	2/7/2020	
10.11*	2007 Equity Incentive Plan, as amended and restated	10-Q	000-23441	10.3	10/29/2020	

Exhibit Number	Exhibit Description	Incorporation by Reference				Filed Herewith
		Form	File Number	Exhibit/Appendix Reference	Filing Date	
10.12*	Forms of Option Agreements under the 2007 Equity Incentive Plan	Schedule TO	000-23441	99.(D)(4)	12/3/2008	
10.13*	Power Integrations, Inc. Amended and Restated 2016 Incentive Award Plan	10-Q	000-23441	10.2	7/29/2021	
10.14*	Form of Restricted Stock Unit Grant Notice and Agreement under the 2016 Incentive Award Plan	10-K	000-23441	10.25	2/8/2017	
10.15*	Form of Performance Stock Unit Notice and Agreement under the 2016 Equity Incentive Plan	10-K	000-23441	10.26	2/8/2017	
10.16*	Form of Long Term Performance Stock Unit Notice and Agreement under the 2016 Equity Incentive Plan	10-K	000-23441	10.16	2/7/2022	
10.17†	Wafer Supply Agreement between us and ZMD Analog Mixed Signal Services GmbH & Co. KG, dated as of May 23, 2003	10-Q	000-23441	10.32	8/7/2003	
10.18†	Amended and Restated Wafer Supply Agreement between us and OKI Electric Industry Co., Ltd., dated as of April 1, 2003	10-Q	000-23441	10.31	8/7/2003	
10.19†	Amendment Number One to the Amended and Restated Wafer Supply Agreement between us and OKI Electric Industry Co., Ltd., effective as of August 11, 2004	8-K	000-23441	10.22	4/18/2006	
10.20	Amendment Number Two to the Amended and Restated Wafer Supply Agreement between Power Integrations International, Ltd. and OKI Electric Industry Co., Ltd., effective as of April 1, 2008	10-Q	000-23441	10.5	8/8/2008	
10.21	Amendment Number Three to the Amended and Restated Wafer Supply Agreement between Power Integrations International, Ltd. and OKI Electric Industry Co., Ltd., effective as of June 9, 2008	10-Q	000-23441	10.6	8/8/2008	
10.22†	Amendment Number Four to the Amended and Restated Wafer Supply Agreement between Power Integrations International, Ltd. and OKI Electric Industry Co., Ltd., dated September 15, 2008	10-Q	000-23441	10.2	11/7/2008	
10.23†	Amendment Number Five to the Amended and Restated Wafer Supply Agreement between Power Integrations International, Ltd. and OKI Semiconductor Co., Ltd., effective as of November 14, 2008	10-K	000-23441	10.61	3/2/2009	

Exhibit Number	Exhibit Description	Incorporation by Reference				Filed Herewith
		Form	File Number	Exhibit/Appendix Reference	Filing Date	
10.24†	Amendment Number Six to the Amended and Restated Wafer Supply Agreement between Power Integrations International, Ltd. and OKI Semiconductor Co., Ltd., effective as of November 1, 2015	10-K	000-23441	10.32	2/11/2016	
10.25†	Amendment Number Seven to the Amended and Restated Wafer Supply Agreement between Power Integrations International, Ltd. and OKI Semiconductor Co., Ltd., effective as of August 8, 2016	10-Q	000-23441	10.1	11/1/2016	
10.26†	Amendment Number Eight to the Amended and Restated Wafer Supply Agreement between Power Integrations International, Ltd. and OKI Semiconductor Co., Ltd., effective as of July 26, 2017	10-Q	000-23441	10.3	8/4/2022	
10.27††	Amendment Number Nine to the Amended and Restated Wafer Supply Agreement, between Power Integrations International, Ltd. and Lapis Semiconductor Co., Ltd. (formerly OKI Semiconductor Co., Ltd.), effective as of February 6, 2019	10-Q	000-23441	10.2	4/25/2019	
10.28†	Wafer Supply Agreement, between Seiko Epson Corporation and Power Integrations International, Ltd. effective as of April 1, 2005	10-Q	000-23441	10.1	11/7/2008	
10.29†	Amendment Number One to the Wafer Supply Agreement between Power Integrations International, Ltd. and Seiko Epson Corporation, with an effective date of December 19, 2008	10-Q	000-23441	10.1	5/6/2009	
10.30†	Amendment Number Two to Wafer Supply Agreement, between Seiko Epson Corporation and Power Integrations International, Ltd., entered into on January 5, 2011	10-K	000-23441	10.47	2/25/2011	
10.31†	Amendment Number Three to Wafer Supply Agreement, effective as of February 1, 2012, by Power Integrations International Ltd. and Seiko Epson Corporation	10-K	000-23441	10.35	2/5/2021	
10.32†	Development Addendum to Wafer Supply Agreement, dated September 22, 2013, between Seiko Epson Corporation and Power Integrations International Ltd	10-K	000-23441	10.36	2/5/2021	
10.33†	Amendment Number Four to Wafer Supply Agreement, effective as of April 1, 2015, by Power Integrations International Ltd. and Seiko Epson Corporation	10-K	000-23441	10.37	2/5/2021	

Exhibit Number	Exhibit Description	Incorporation by Reference				Filed Herewith
		Form	File Number	Exhibit/Appendix Reference	Filing Date	
10.34†	Amendment Number Five to Wafer Supply Agreement, effective as of November 2, 2015, by Power Integrations International Ltd. and Seiko Epson Corporation	10-K	000-23441	10.38	2/5/2021	
10.35†	Amendment Number Six to Wafer Supply Agreement, effective as of December 8, 2015, by Power Integrations International Ltd. and Seiko Epson Corporation	10-K	000-23441	10.39	2/5/2021	
10.36†	Amendment Number Seven to Wafer Supply Agreement, effective as of October 3, 2016, by Power Integrations International Ltd. and Seiko Epson Corporation	10-K	000-23441	10.46	2/8/2017	
10.37†	Amendment Number Eight to Wafer Supply Agreement, effective as of November 8, 2016 by Power Integrations International Ltd. and Seiko Epson Corporation	10-K	000-23441	10.47	2/8/2017	
10.38†	Amendment Number One to the Amended and Restated Wafer Supply Agreement between Power Integrations International, Ltd. and XFAB Dresden GmbH & Co. KG, effective as of July 20, 2005	10-K	000-23441	10.66	2/26/2010	
10.39†	Wafer Supply Agreement, made and entered into as of October 1, 2010, by and between Power Integrations International, Ltd., and X-FAB Semiconductor Foundries AG	10-Q	000-23441	10.2	5/8/2012	
10.40†	Amendment Number One to Wafer Supply Agreement, effective as of January 1, 2014, between Power Integrations International, Ltd., and X-FAB Semiconductor Foundries AG	10-Q/A	000-23441	10.2	9/19/2014	
10.41†	Amendment Number Two to the Wafer Supply Agreement, effective as of December 1, 2018, between Power Integrations International, Ltd., and X-FAB Semiconductor Foundries GmbH (formerly X-FAB Semiconductor Foundries AG)	10-K	000-23441	10.52	2/13/2019	
10.42	Amendment Number Three to the Amended and Restated Wafer Supply Agreement between Power Integrations International, Ltd. And X-FAB Semiconductor Foundries AG, effective as of April 21, 2021	10-Q	000-23441	10.4	7/29/2021	
10.43	Credit Agreement, dated July 27, 2016, by and between Power Integrations Inc. and Wells Fargo Bank, National Association	10-Q	000-23441	10.1	7/29/2016	

Exhibit Number	Exhibit Description	Incorporation by Reference				Filed Herewith
		Form	File Number	Exhibit/Appendix Reference	Filing Date	
10.44	First Amendment to Credit Agreement, dated April 30, 2018 by and between Power Integrations, Inc. and Wells Fargo Bank, National Association	10-Q	000-23441	10.1	7/26/2018	
10.45	Second Amendment to Credit Agreement, dated June 7, 2021 by and between Power Integrations, Inc. and Wells Fargo Bank, National Association	10-Q	000-23441	10.3	7/29/2021	
10.46*	2019 Executive Officer Compensation Arrangements and 2019 Performance Based Incentive Plan	10-K	000-23441	Item 9B	2/13/2019	
10.47*	2018 Executive Officer Cash Compensation Arrangements and 2018 Performance Based Incentive Plan	10-K	000-23441	Item 9B	2/14/2018	
10.48*	Form of Restricted Stock Unit Grant Notice and Form of Restricted Stock Unit Award Agreement for executive officers for use prior to January 2013	10-Q	000-23441	10.6	8/6/2010	
10.49*	Form of Restricted Stock Unit Grant Notice and Form of Restricted Stock Unit Award Agreement for executive officers for use after January 2013	10-K	000-23441	10.48	2/22/2013	
10.50*	Amended and Restated Chief Executive Officer Benefits Agreement, dated as of May 1, 2014, between Power Integrations, Inc. and Balu Balakrishnan	10-Q	000-23441	10.3	5/5/2014	
10.51*	Amended and Restated Executive Officer Benefits Agreement, dated as of May 1, 2014, between Power Integrations, Inc. and Cliff Walker	10-Q	000-23441	10.5	5/5/2014	
10.52*	Amended and Restated Executive Officer Benefits Agreement, dated as of May 1, 2014, between Power Integrations, Inc. and Doug Bailey	10-Q	000-23441	10.6	5/5/2014	
10.53*	Amended and Restated Executive Officer Benefits Agreement, dated as of May 1, 2014, between Power Integrations, Inc. and Sandeep Nayyar	10-Q	000-23441	10.8	5/5/2014	
10.54*	Amended and Restated Executive Officer Benefits Agreement, dated as of May 1, 2014, between Power Integrations, Inc. and Mike Matthews	10-Q	000-23441	10.10	5/5/2014	

Exhibit Number	Exhibit Description	Incorporation by Reference				Filed Herewith
		Form	File Number	Exhibit/Appendix Reference	Filing Date	
10.55*	Amended and Restated Executive Officer Benefits Agreement, dated as of May 1, 2014, between Power Integrations, Inc. and Radu Barsan	10-Q	000-23441	10.11	5/5/2014	
10.56††	ON Semiconductor Corporation Settlement Agreement	10-K	000-23441	10.61	2/7/2020	
10.57††	ON Semiconductor Corporation Term Sheet	10-K	000-23441	10.62	2/7/2020	
10.58†	Amendment Number Ten to the Amended and Restated Wafer Supply Agreement, between Power Integrations International, Ltd. and Lapis Semiconductor Co., Ltd. (formerly OKI Semiconductor Co., Ltd.), effective as of December 16, 2019	10-Q	000-23441	10.1	5/7/2020	
10.59†	Amendment Number Eleven to the Amended and Restated Wafer Supply Agreement, between Power Integrations International, Ltd. and Lapis Semiconductor Co., Ltd. (formerly OKI Semiconductor Co., Ltd.), effective as of December 20, 2019	10-Q	000-23441	10.2	5/7/2020	
10.60†††	Amendment Number Twelve to the Amended and Restated Wafer Supply Agreement, between Power Integrations International, Ltd. and Lapis Semiconductor Co., Ltd. (formerly OKI Semiconductor Co., Ltd.), effective as of September 17, 2020	10-Q	000-23441	10.2	4/29/2021	
10.61†††	Amendment Number Thirteen to the Amended and Restated Wafer Supply Agreement between Power Integrations, Ltd. d.b.a. Power Integrations International, Ltd. And Lapis Semiconductor Co., Ltd. (formerly OKI Semiconductor Co., Ltd.), effective as of February 17, 2022	10-Q	000-23441	10.1	4/28/2022	
10.62†	Amendment Number Nine to Wafer Supply Agreement, effective as of November 1, 2017 by Power Integrations International Ltd. and Seiko Epson Corporation	10-Q	000-23441	10.3	5/7/2020	
10.63*	2020 Compensation Arrangements with Named Executive Officers	10-K	000-23441	Item 9B	2/7/2020	
10.64*	Amendment to the Amended and Restated Executive Officer Benefits Agreement, dated as of June 1, 2020, between Power Integrations, Inc. and Balu Balakrishnan	10-Q	000-23441	10.2	7/30/2020	
10.65*	Amendment to the Amended and Restated Executive Officer Benefits Agreement, dated as of June 1, 2020, between Power Integrations, Inc. and Douglas Bailey	10-Q	000-23441	10.3	7/30/2020	

Exhibit Number	Exhibit Description	Incorporation by Reference				Filed Herewith
		Form	File Number	Exhibit/Appendix Reference	Filing Date	
10.66*	Amendment to the Amended and Restated Executive Officer Benefits Agreement, dated as of June 1, 2020, between Power Integrations, Inc. and Radu Barsan	10-Q	000-23441	10.4	7/30/2020	
10.67*	Amendment to the Amended and Restated Executive Officer Benefits Agreement, dated as of June 1, 2020, between Power Integrations, Inc. and Mike Matthews	10-Q	000-23441	10.6	7/30/2020	
10.68*	Amendment to the Amended and Restated Executive Officer Benefits Agreement, dated as of June 1, 2020, between Power Integrations, Inc. and Sandeep Nayyar	10-Q	000-23441	10.7	7/30/2020	
10.69*	Amendment to the Amended and Restated Executive Officer Benefits Agreement, dated as of June 1, 2020, between Power Integrations, Inc. and Clifford Walker	10-Q	000-23441	10.9	7/30/2020	
10.70*	Executive Officer Benefits Agreement, dated as of February 1, 2021, between Power Integrations, Inc. and Sunil Gupta	10-K	000-23441	10.73	2/5/2021	
10.71*	Executive Officer Benefits Agreement, dated as of June 14, 2021, between Power Integrations, Inc. and Yang Chiah Yee	10-Q	000-23441	10.5	7/29/2021	
10.72*	Executive Officer Benefits Agreement, dated as of August 1, 2022, between Power Integrations, Inc. and Sunil Gupta	10-Q	000-23441	10.1	8/4/2022	
10.73*	Executive Officer Benefits Agreement, dated as of August 1, 2022, between Power Integrations, Inc. and Yang Chiah Yee	10-Q	000-23441	10.2	8/4/2022	
10.74	Amendment Number Ten to Wafer Supply Agreement, effective as of August 26, 2020 by Power Integrations International Ltd. and Seiko Epson Corporation	10-Q	000-23441	10.5	10/29/2020	
21.1	List of subsidiaries	10-K	000-23441	21.1	2/7/2022	
23.1	Consent of Independent Registered Public Accounting Firm					X
24.1	Power of Attorney (see signature page)					X
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002					X
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002					X

Exhibit Number	Exhibit Description	Incorporation by Reference				Filed Herewith
		Form	File Number	Exhibit/Appendix Reference	Filing Date	
32.1**	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002					X
32.2**	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002					X
101.INS	XBRL Instance Document					X
101.SCH	XBRL Taxonomy Extension Schema Document					X
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document					X
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document					X
101.LAB	XBRL Taxonomy Extension Label Linkbase Document					X
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document					X
104	The cover page from this Annual Report on Form 10-K, formatted in Inline XBRL					X

All references in the table above to previously filed documents or descriptions are incorporating those documents and descriptions by reference thereto.

† This Exhibit has been filed separately with the Commission pursuant to an application for confidential treatment. The confidential portions of this Exhibit have been omitted and are marked by an asterisk.

†† Portions of this exhibit have been omitted as being immaterial and would be competitively harmful if disclosed.

††† Portions of this exhibit have been omitted as being immaterial and is the type of information that Power Integrations, Inc. treats as private or confidential.

* Indicates a management contract or compensatory plan or arrangement.

** The certifications attached as Exhibits 32.1 and 32.2 accompanying this Form 10-K, are not deemed filed with the SEC, and are not to be incorporated by reference into any filing of Power Integrations, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date of this Form 10-K, irrespective of any general incorporation language contained in such filing.

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements 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.

POWER INTEGRATIONS, INC.

Dated: February 7, 2023

By: /s/ SANDEEP NAYYAR

Sandeep Nayyar
Chief Financial Officer (Duly Authorized Officer, Principal Financial Officer and Chief Accounting Officer)

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Balu Balakrishnan and Sandeep Nayyar his or her true and lawful attorney-in-fact and agent, with full power of substitution and, for him or her and in his or her name, place and stead, in any and all capacities to sign any and all amendments to this Report on Form 10-K, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

PURSUANT TO THE REQUIREMENTS OF THE SECURITIES EXCHANGE ACT OF 1934, THIS REPORT HAS BEEN SIGNED BY THE FOLLOWING PERSONS ON BEHALF OF THE REGISTRANT AND IN THE CAPACITIES INDICATED AS OF THE 7TH DAY OF FEBRUARY 2023.

By: /s/ BALU BALAKRISHNAN
Balu Balakrishnan
President, Chief Executive Officer
(Principal Executive Officer)

By: /s/ SANDEEP NAYYAR
Sandeep Nayyar
Chief Financial Officer
(Principal Financial and Principal Accounting Officer)

By: /s/ WILLIAM GEORGE
William George
Director and Chairman of the Board

By: /s/ WENDY ARIENZO
Wendy Arienzo
Director

By: /s/ NICHOLAS E. BRATHWAITE
Nicholas E. Brathwaite
Director

By: /s/ ANITA GANTI
Anita Ganti
Director

By: /s/ NANCY L. GIOIA
Nancy L. Gioia
Director

By: /s/ BALAKRISHNAN S. IYER
Balakrishnan S. Iyer
Director

By: /s/ NECIP SAYINER
Necip Sayiner
Director

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Board of Directors

William L. George (Chairman)
Former Executive Vice President
ON Semiconductor Corporation,
Retired

Wendy A. Arienzo
Former Vice President, Operations
FUJIFILM Dimatix, Inc., Retired

Balu Balakrishnan
President and Chief Executive Officer
Power Integrations, Inc.

Nicholas E. Brathwaite
Founding Managing Partner,
Celesta Capital

Anita Ganti
Former Senior Vice President,
Product Engineering Services
Wipro Limited

Nancy L. Gioia
Former Director of Electrification
and Connectivity,
Ford Motor Company, Retired

Balakrishnan S. Iyer
Former Senior Vice President
and Chief Financial Officer
Conexant Systems, Inc., Retired

Necip Sayiner
Former Executive Vice President
Renesas Electronics Corporation

Ravi Vig
Former President and CEO,
Allegro Microsystems, Inc., Retired

Management Team

Balu Balakrishnan
President and Chief Executive Officer

Doug Bailey
Vice President, Marketing

Radu Barsan
Vice President, Technology

Sunny Gupta
Vice President, Operations

Mike Matthews
Vice President,
Chief Technical Officer

Sandeep Nayyar
Vice President, Finance
Chief Financial Officer

Roland Saint-Pierre
Vice President,
Product Development

Clifford J. Walker
Vice President,
Corporate Development

Yang Chiah Yee
Vice President, Worldwide Sales

Corporate Information

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Palo Alto, CA

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Computershare
c/o Shareholder Services
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Providence RI 02940-3006

Independent Auditors
Deloitte & Touche LLP
San Jose, CA

Investor Information
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www.power.com

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