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

Form 10-K

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

For the Fiscal Year Ended December 31, 2023
Commission File Number 000-29472

Amkor Technology, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**23-1722724**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification Number)*

2045 East Innovation Circle
Tempe, AZ 85284
(Address of principal executive offices and zip code)
(480) 821-5000
(Telephone number, including area code)

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

Title of Each Class	Trading Symbol	Name of Each Exchange on Which Registered
Common Stock, $0.001 par value	AMKR	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, as amended, 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 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. (Check one):

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. ☑

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant’s executive officers during the relevant recovery period pursuant to § 240.10D-1(b). ☐

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

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant as of June 30, 2023, based upon the closing price of the common stock as reported by the Nasdaq Global Select Market on that date, was approximately $3,067 million.

The number of shares outstanding of each of the issuer’s classes of common equity, as of February 9, 2024, was as follows: 245,892,019 shares of Common Stock, $0.001 par value.

DOCUMENTS INCORPORATED BY REFERENCE:

Portions of the registrant’s Proxy Statement relating to its 2024 Annual Meeting of Stockholders, to be filed subsequently, are incorporated by reference into Part III of this Report where indicated.

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Forward-Looking Statements

All references to "Amkor," "we," "us," "our" or the "Company" in this Annual Report on Form 10-K (this "Form 10-K") are to Amkor Technology, Inc. and its subsidiaries. We refer to the Republic of Korea, which is also commonly known as South Korea, as "Korea." Amounts preceded by ¥ are in Japanese yen and ₩ are in Korean won. Amkor®, Amkor Technology®, *Micro*LeadFrame®, and SWIFT®, among others, are trademarks of Amkor Technology, Inc. All other trademarks appearing herein are held by their respective owners. Subsequent use of the above trademarks in this Form 10-K may occur without the respective superscript symbol (® and ™) in order to facilitate the readability of this Form 10-K and are not a waiver of any rights that may be associated with the relevant trademarks.

This Form 10-K contains forward-looking statements within the meaning of the federal securities laws, including, but not limited to, statements regarding (1) the amount, timing and focus of our expected capital investments in 2024, (2) our ability to fund our operating activities and financial requirements for the next twelve months, (3) the effect of changes in revenue levels and capacity utilization on our gross margin, (4) the impact of health conditions or pandemics, such as the Covid-19 pandemic, on our operations, financial results and supply chain, (5) the focus of our research and development activities, (6) the anticipated impact of tax law changes in the jurisdictions in which we operate, (7) the grant and expiration of conditional reduced tax rates in jurisdictions in which we operate and expectations regarding our effective tax rate and the availability of tax incentives, (8) the creation or release of valuation allowances related to taxes in the future, (9) our repurchase or repayment of outstanding debt, (10) payment of dividends, (11) compliance with restrictive covenants in the indentures and agreements governing our current and future indebtedness, (12) expected contributions to foreign pension plans and potential future conversion of our unfunded severance plan in Korea to a defined contribution plan, (13) liability for unrecognized tax benefits and the potential impact of our unrecognized tax benefits on our effective tax rate, (14) the effect of foreign currency exchange rate exposure on our financial results, (15) the volatility of the trading price of our common stock, (16) changes to our internal controls related to integration of acquired operations and implementation of an enterprise resource planning system, (17) our efforts to enlarge our customer base in certain geographic areas and markets, (18) demand for advanced packages in mobile and automotive devices and our technology leadership and potential growth in the communications and automotive and industrial end markets, (19) projects to install or integrate new information technology systems or upgrade our existing systems, (20) our expected revenue recognition, (21) the anticipated schedule for and benefits from our new manufacturing facility in Bac Ninh, Vietnam (the “Vietnam Facility”), (22) the effects of business, economic, political, legal and regulatory impacts, conflicts or natural disasters on our global operations, (23) the impact of rising interest rates on our investment portfolio and (24) other statements that are not historical facts. You are cautioned not to place undue reliance on forward-looking statements, which are often characterized by terminology such as “may,” “will,” “should,” “expects,” “plans,” “anticipates,” “believes,” “estimates,” “predicts,” “potential,” “continue,” or “intend,” by the negative of these terms or other comparable terminology or by discussions of strategy, plans or intentions. All forward-looking statements in this Form 10-K are made based on our current expectations, forecasts, estimates and assumptions. Because such statements include risks and uncertainties, actual results may differ materially from those anticipated in such forward-looking statements as a result of various factors, including those set forth in Part I, Item 1A and other sections of this Form 10-K and from time to time in our other reports filed with or furnished to the Securities and Exchange Commission (“SEC”). You should carefully consider the trends, risks and uncertainties described in this Form 10-K and other reports filed with or furnished to the SEC before making any investment decision with respect to our securities. If any of these trends, risks or uncertainties continues or occurs, our business, financial condition or operating results could be materially and adversely affected, the trading prices of our securities could decline and you could lose part or all of your investment. All forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by this cautionary statement. We assume no obligation to review or update any forward-looking statements to reflect events or circumstances occurring after the date of this Form 10-K except as may be required by applicable law.

PART I

Item 1. *Business*

OVERVIEW

Amkor is one of the world's leading providers of outsourced semiconductor packaging and test services. Amkor was a pioneer in the outsourcing of semiconductor packaging and test services, and over the years we have built a leading position by:

- Designing and developing innovative packaging and test technologies focused on advanced packaging solutions in high growth markets, including artificial intelligence;
- Building expertise in high-volume manufacturing processes and developing a reputation for high quality and solid execution;
- Cultivating long-standing relationships with our customers, which include many of the world's leading semiconductor companies;
- Collaborating with customers, foundries, original equipment manufacturers ("OEMs") and equipment and material suppliers;
- Focusing on strategic end markets that offer solid growth potential;
- Providing a geographically diverse operating base with manufacturing facilities in multiple countries across Asia and in Europe; and
- Developing a competitive cost structure through disciplined capital investment.

Our packaging and test services are designed to meet application and chip-specific requirements, including: the required type of interconnect technology; size; thickness; and electrical, mechanical and thermal performance. We provide turnkey packaging and test services including semiconductor wafer bump, wafer probe, wafer back-grind, package design, packaging, system-level and final test and drop shipment services. Our customers use us for one or more of these services.

We provide our services to integrated device manufacturers ("IDMs"), "fabless" semiconductor companies, OEMs and contract foundries. IDMs generally design, manufacture, package and test semiconductors in their own facilities. However, the availability of technologically advanced outsourced manufacturing services has encouraged IDMs to outsource a portion of their manufacturing. By offering a broad package portfolio, Amkor allows IDMs to outsource packaging and test services and focus their investments on core competencies such as silicon fabrication. Fabless semiconductor companies do not have factories. They focus exclusively on semiconductor design and outsource virtually every step of the manufacturing process, utilizing contract foundries to manufacture their semiconductors in wafer form and companies such as Amkor for their packaging and test needs. Some companies will engage a contract foundry to manage the complete semiconductor manufacturing process, and, in turn, the contract foundry will outsource some of its packaging and test needs.

INDUSTRY BACKGROUND

Semiconductor devices are essential building blocks used in most electronic products. As electronic and semiconductor devices have evolved, several important trends have emerged that have fueled the growth of the overall semiconductor industry, as well as the market for outsourced semiconductor packaging and test services. These trends include:

- Adoption of artificial intelligence applications within data centers and edge devices such as smartphones, autonomous vehicles and consumer and industrial devices.
- Growing demand for mobile and connected devices, including the worldwide adoption of smartphones, tablets and other Internet-of-Things ("IoT") devices that can access the internet and provide multimedia capabilities.

- An increase in the semiconductor content within electronic products to provide greater functionality and higher levels of performance.
- The expansion of 5G infrastructure and 5G enabled devices.
- The proliferation of semiconductor devices into well-established end products such as automotive systems for automation and driver assist, electrification and infotainment systems.
- An increase in mobility and connectivity capabilities, driving demand for new broadband wired and wireless networking equipment.
- Digitalization, driving expansion of data generation and storage.
- The adoption of heterogeneous integration (diverse dies positioned close to each other within the same package) to reduce cost, improve yields and deliver required performance in data center computing, artificial intelligence and similar end uses.
- The growth of advanced system-in-package ("SiP") modules (combining multiple semiconductor and other electronic components in a single package) to meet the demand for miniaturization and higher functionality at competitive cost.
- The increase in digital format in our environment, from sensors for automobiles (e.g., pressure, radar, LiDAR and image recognition), mobile devices (e.g., 3D motion, temperature, acceleration and imaging), and IoT (e.g., in-home sensing from temperature to weather and wearables).

As a supplier in the semiconductor industry, our business is cyclical and impacted by broad economic factors, such as worldwide gross domestic product and consumer spending. With the exception of 2020, when the Covid-19 pandemic caused worldwide gross domestic product levels to decline during a period of strong growth in the semiconductor industry, there has generally been a strong correlation between worldwide gross domestic product levels, consumer spending and semiconductor industry cycles. We believe that the general semiconductor market is currently going through a cyclical correction. The semiconductor industry has experienced significant and sometimes prolonged cyclical upturns and downturns in the past. We cannot predict the timing, strength or duration of any correction, economic slowdown, recession or subsequent economic recovery.

Outsourcing Trends in Semiconductor Manufacturing

Semiconductor companies outsource their packaging and test needs to service providers such as Amkor for the following reasons:

Packaging and test service providers have developed expertise in advanced technologies.

The increasing demands for miniaturization, greater functionality, lower power consumption and improved thermal and electrical performance are driving the continuous development of semiconductor packaging and test technologies that are more sophisticated, complex, capital intensive and customized. This trend has led many semiconductor companies and OEMs to view packaging and test as enabling technologies requiring the technological innovation expertise found in the leading outsourced assembly and test companies. At the same time, these companies are often looking to reduce their internal manufacturing and research and development costs for packaging and test solutions. As a result, many of these companies are increasingly relying on packaging and test service providers as key sources for new package designs and advanced interconnect technologies.

Packaging and test service providers can facilitate a more efficient supply chain and help shorten time-to-market for new products.

We believe that semiconductor companies, together with their customers, are seeking to shorten the time-to-market for new products and that an efficient supply chain is a critical factor in facilitating timely and successful product introductions. Packaging and test service providers have the resources and expertise to timely develop and implement new packaging technology in high volume. For this reason, semiconductor companies and OEMs are leveraging the capabilities of outsourced packaging and test service providers to bring new high quality products to market more quickly.

High quality packaging and test service providers enable semiconductor manufacturers to focus their resources on semiconductor design and wafer fabrication.

As semiconductor process technology migrates to larger wafers and smaller feature sizes, the cost of building a state-of-the-art wafer fabrication factory has risen significantly. The high cost of investing in next generation silicon technology and equipment is causing many semiconductor companies to adopt or maintain a “fabless” or “fab-lite” strategy to reduce or eliminate their investment in wafer fabrication and associated packaging and test operations. As a result, these companies are increasing their reliance on outsourced providers of semiconductor manufacturing services, including high quality packaging and test solutions.

Packaging and test service providers offer a cost-effective solution in a cyclical, capital intensive industry.

The semiconductor industry is cyclical by nature and impacted by broad economic factors, such as changes in worldwide gross domestic product and consumer spending. Semiconductor packaging and test are complex processes requiring substantial investment in specialized equipment, factories and human capital. As a result of this cyclicality and the large investments required, manufacturing facilities must operate at consistently high levels of utilization to be cost-effective. Shorter product life cycles, coupled with the need to update or replace packaging and test equipment to accommodate new package types, make it more difficult for IDMs to maintain cost-effective utilization of their packaging and test assets throughout semiconductor industry cycles. Packaging and test service providers, on the other hand, can typically use their assets to support a broad range of customers and multiple end markets, potentially generating more efficient use of their production assets and a more cost-effective solution.

STRATEGY AND COMPETITIVE STRENGTHS

Strategy

Amkor is a leader in advanced packaging technology in the outsourced assembly and test market. Growth in the semiconductor industry is being driven primarily by advanced packaging within the industry secular growth markets of 5G, automotive, high-performance computing (“HPC”) and IoT. We believe Amkor is well positioned in each of these end markets.

- Within our communications end market, we have a strong position across multiple device functionalities within premium and high tier smartphones. We are collaborating with industry leaders as smartphones transition to 5G and drive semiconductor growth through the adoption of new wireless standards, integration of a broad range of applications, enhanced features, and higher performance requirements to support increased data processing. The trend to greater functionality drives miniaturization and cost reduction enabled by advanced packaging.
- Increasing semiconductor content in automobiles is driving increased demand for advanced packaging to enable the proliferation of safety features such as advanced driver assistance systems (“ADAS”) and radar and digital cockpit features such as infotainment displays and telematics. Increasing battery voltage, higher voltage power converters, onboard chargers, automotive inverter components and microcontrollers also require innovative power packaging solutions.
- Increased data traffic requiring higher networking speed and storage, as well as computing power increases in HPC, artificial intelligence, data centers, cloud computing, PCs and laptops, are driving demand for more semiconductors and advanced packaging in the computing end market.
- The IoT wearables within our consumer end market are evolving in multiple applications, such as hearables, watches, health trackers and augmented reality and virtual reality devices. Integration of multiple functions into small form factors, such as processors, sensors and connectivity devices, depends on innovation in advanced packaging.

Our primary financial objective is profitable sales growth. We believe that we will continue to achieve that goal and create long-term shareholder value by building on our strength in advanced packaging and executing on the following strategies.

Leverage Our Leadership in Services for Advanced Technologies

We are an industry leader in developing and commercializing advanced packaging and test technologies, which we believe provide substantial value to our customers.

With approximately 950 employees, as of December 31, 2023, engaged in research and development for new semiconductor packaging and test technologies, we are a technology leader in areas such as 2.5D, advanced flip chip, fine pitch bumping, wafer-level processing, advanced SiPs and power modules.

We work closely with our customers to develop cost-effective leading-edge packages for the next generation of devices. These include integrated technologies such as advanced SiP, wafer-level fan-out ("WLFO"), Silicon Wafer Integrated Fan-out Technology ("SWIFT"), High Density Fan-Out ("HDFO") and redistribution layer ("RDL") solutions which enable very thin, very small products that combine application processors, memory, baseband and other peripheral integrated circuits ("ICs"). Our advanced packages may utilize Through Silicon Via ("TSV") interconnects and silicon interposers, which enable the integration of high-performance chips such as high bandwidth memory and graphics processors into a single package, such as 2.5D. In addition, we co-develop with customers high power modules incorporating gallium nitride ("GaN") and silicon carbide ("SiC") based devices. Our approach is to work with lead customers to develop processes that will enable volume manufacturing with high yields and reliability.

We believe that demand for advanced packaging services will continue to grow as our customers and leading electronics OEMs strive for smaller device geometries, higher levels of integration and performance and lower power consumption. We intend to continue to leverage our investment in advanced technology to meet the demand for these services in high growth markets.

Optimize Utilization of Existing Assets

Another key to our success is to optimize the utilization of our existing assets. The transition by leading edge customers to newer packaging and test equipment platforms typically frees up capacity in existing, previously installed equipment. As part of our strategy, we are focused on developing a second wave of customers to utilize these assets more effectively over a longer period of time. We are building and utilizing manufacturing lines which support multiple customers and increase factory utilization through more sophisticated planning processes and more intensive efficiency improvement activities.

Selectively Grow Our Scale and Scope through Strategic Investments

From time to time, we identify attractive opportunities to strengthen our leadership position and market share through expansion of our operations, joint ventures, acquisitions and other strategic investments. For example, in 2023, we completed construction of the Vietnam Facility, where we will manufacture advanced SiP modules and other packaging solutions. We believe that the Vietnam facility will provide customers with a cost-competitive high-volume manufacturing location that offers supply chain diversification. In addition, our broad geographic footprint, including our manufacturing presence in Portugal and our headquarters in the United States, are key differentiators for us and position us to participate in initiatives to regionalize supply chains. We are making preparations to participate in developing the U.S. semiconductor supply chain and are planning to build an advanced packaging and test facility in Arizona. We believe that selective growth through these strategic actions can further strengthen customer relationships, help to maintain and enhance our technological leadership, diversify our revenue streams and improve our profits.

Competitive Strengths

The outsourced semiconductor packaging and test market is very competitive. We also compete with the internal semiconductor packaging and test capabilities of many of our customers and foundries. We believe we are well-positioned in the outsourced packaging and test services market. The following competitive strengths support our strategy to build upon our industry position and remain a preferred provider of semiconductor packaging and test services.

Advanced Packaging Technology Leadership

We are a leader in developing and deploying advanced semiconductor packaging and test solutions. We have designed and developed several state-of-the-art package formats and technologies such as Double-Sided, Molded Ball Grid Array

("DSMBGA") SiP and 2.5D. 2.5D technology utilizes high density silicon interposers to enable the integration of high-performance chips, such as high bandwidth memory and graphics processors, into a single package. In addition, we believe that as semiconductor technology continues to achieve smaller device geometries with higher levels of integration, speed and performance, packages will increasingly require wafer-level Chip Scale Packaging ("CSP"), WLFO, SWIFT and flip chip interconnect solutions, advanced SiP products and medium and higher power density packages and modules.

We are committed to advancing our key processes and packages, as well as developing innovative test solutions, required for our customers to deliver advanced integrated and modular solutions to their respective markets. We are also committed to environmental responsibility by creating more sustainable IC packaging. This involves minimizing the use of harmful materials like lead and optimizing energy and water usage.

Broad Offering of Semiconductor Package Design, Packaging and Test Services

Creating successful interconnect solutions for advanced semiconductor devices often poses unique thermal, electrical and mechanical design challenges, and we employ a large number of engineers to solve these challenges. This wide variety of packaging offerings is necessary to meet the diverse needs of our customers for the optimal combination of performance, size and cost. Utilizing Amkor for its innovative packaging, test and design services enables our customers to focus their resources on semiconductor design and wafer fabrication.

We also offer an extensive line of advanced probe and final test services for analog, digital, logic, mixed signal, memory, sensors and radio frequency-semiconductor devices. We believe that the breadth of our design, packaging and test services is important to customers seeking to limit the number of their suppliers.

Geographically Diversified Manufacturing Base

We have a broad and geographically diverse manufacturing footprint strategically located in eight of the world's important electronics manufacturing regions. We believe that our scale and scope allow us to provide a flexible supply chain and cost-effective solutions to our customers by:

- Being located in key regions where customers are actively seeking to develop localized supply chains;
- Qualifying production of customer devices at multiple manufacturing sites with geographical diversity to mitigate the risks of supply disruptions;
- Providing capabilities and solutions for customer-specific requirements;
- Offering capacity to absorb large orders and accommodate quick turn-around times; and
- Obtaining favorable pricing and supply agreements on materials and equipment by using our purchasing power and leading industry position.

Long-Standing Relationships and Collaboration with Prominent Semiconductor Companies

Our customers include most of the world's largest semiconductor companies, and over the last five decades we have developed long-standing relationships with many of these companies. We believe that our production excellence, including high quality, reliability and predictability, has been a key factor in our success in attracting and retaining customers. We work with our customers and our suppliers to develop proprietary process technologies to enhance our existing capabilities, reduce time-to-market, improve quality and lower costs.

We believe that our focus on research and product development will enable us to enter new markets early, capture market share and promote the adoption of our new package formats as industry standards. We collaborate with customers and leading OEMs to develop comprehensive packaging solutions that make it easier for next-generation semiconductors to be designed into next-generation end products. By collaborating with leading semiconductor companies, foundries and OEM electronics companies, we are able to focus resources on developing new packages that will meet the requirements of new products. The traditional delineation between front-end semiconductor manufacturing and packaging is starting to converge. Foundries, and in some cases IDMs, are integrating some packaging activities closer to front-end wafer processes. We work closely with foundry partners to complement these offerings by offering similar wafer-based technologies as well as downstream processing.

PACKAGING AND TEST SERVICES

In general, the semiconductor manufacturing process consists of IC design, wafer fabrication, wafer probe, packaging and final test. The packaging and test services we provide occur subsequent to wafer fabrication, and the wafers that we receive from our customers are generally consigned to us.

Advanced Products and Mainstream Products

We offer a broad range of advanced and mainstream packaging and test services to our customers. We refer to our flip chip, wafer-level processing and related test services as "Advanced Products" and to our wirebond packaging, power device packaging and related test services as "Mainstream Products." The following table sets forth, for the periods indicated, net sales for Advanced Products and Mainstream Products and the percentage of total net sales for each service offering.

	For the Year Ended December 31,					
	2023		2022		2021	
	(In millions, except percentage of net sales)					
Advanced Products	$ 5,033	77.4 %	$ 5,368	75.7 %	$ 4,409	71.8 %
Mainstream Products	1,470	22.6 %	1,724	24.3 %	1,729	28.2 %
Total net sales	$ 6,503	100.0 %	$ 7,092	100.0 %	$ 6,138	100.0 %

Advanced Products

Our Advanced Products include flip chip chip scale packages ("FC CSP"), wafer-level packages and flip chip ball grid array ("FCBGA") packages. These package families use flip chip interconnect technology so that the die can be connected to a substrate package carrier or, in the case of wafer-level chip scale packages, directly to a printed circuit board.

FC CSP Products: FC CSP packages are small form factor packages where the substrate size is not much larger than the die itself. FC CSP can be a single die or multi die format. The size advantage provided by CSP technologies has made FC CSP an attractive choice for a wide variety of applications that require very small form factors, such as smartphones, tablets and other mobile consumer electronic devices.

Flip chip stacked chip scale packages ("FC SCSP") stack a second die on top of the original flip-chip die. The top die is typically a memory device, and wirebond interconnects are used to attach the top die to the substrate. FC SCSP is frequently used to stack memory on top of digital baseband and applications processors for use in mobile devices.

We continue to drive thinner package solutions for our Package on Package ("PoP") technology through the development of ultra-thin substrates and enhancing our pre-stacking and thin die handling capabilities.

We developed fine pitch copper pillar flip chip interconnect technology, which creates interconnections at finer pitches using a plating process to reduce the number of substrate layers to facilitate very thin packages. This innovative solution is also an enabling technology for package stacking with TSVs.

FCBGA Products: FCBGA packages are large form factor substrate-based packages which are used where processing power and speed are a higher priority than a small form factor. Our FCBGA packages are assembled using state-of-the-art substrates. Utilizing multiple high density routing layers, laser drilled vias, and ultra-fine line and space metallization, FCBGA substrates have the highest routing density available. The variety of FCBGA package options, from large single die to multi-chip packages with memory, allows package selection to be tailored to the specific thermal needs of the end product. We offer FCBGA packaging in a variety of product formats to fit a wide range of end application requirements, including networking, storage, computing, automotive and consumer applications.

Memory Products: Memory packages consist of either standalone packaging and testing or a combination of NAND Flash, DRAM, or a memory controller IC using a variety of packaging technologies, including FC, SCSP, SiP, PoP and other state-of-the-art packaging technologies. These products are used as system memory or platform data storage in all of our end markets.

Wafer-level Package Products: We offer three types of wafer-level packages: wafer-level CSP; WLFO; and SWIFT. Wafer-level CSP and WLFO are complementary technologies. Customers can choose between the two package types as their die sizes shrink or grow.

- Wafer-level CSP packages (also known as fan-in wafer-level packages) do not utilize a package carrier. The bumped wafer is singulated into individual die, and the wafer-level package is then attached directly to the system board. Wafer-level CSP offers one of the lowest total system costs, enabling higher semiconductor content while leveraging the smallest form factor and one of the highest performing, most reliable semiconductor package platforms on the market today. Applications for wafer-level CSP include power management, transceivers, sensors, wireless charging, codecs, and specialty silicon for new or unique functionality.

- WLFO packages (also known as low-density fan-out packages) are utilized for ICs where the die surface area is too small to accommodate all of the required bond pads. The fan-out package enlarges the bondable surface area by building a border around the die using low-cost molding compound. These packages can include multiple die. Applications for WLFO packages include power management, transceivers, radar and specialty silicon.

- SWIFT, also known as high-density fan-out, can either replace the laminate substrate with a thinner structure or reduce the complexity of the substrate by housing the dense interconnects in the SWIFT structure, allowing for a less expensive substrate that provides a high level of performance with a balanced cost structure. SWIFT solutions enable high performance in a compact form factor that combines tiled processors, memory, I/O (input/output) die and other peripheral ICs.

Mainstream Products

Our Mainstream Products use wirebond interconnect technology to connect a die to a leadframe or substrate package carrier and include leadframe packages, substrate-based wirebond packages and micro-electro-mechanical systems (“MEMS”) packages.

Leadframe Packages: Leadframe packages use wirebond or flip chip technology to connect a die to a leadframe package carrier. Leadframe packages are used in many electronic devices and remain the most practical and cost-effective solution for many low to medium pin count analog and mixed signal applications.

Traditional leadframe packages support a wide variety of device types and applications. Two of our most popular traditional leadframe package types are small outline integrated circuit and quad flat package, commonly known as “dual” and “quad” products, respectively, based upon the number of sides from which the leads extend. The traditional leadframe package family has evolved from “through hole design,” where the leads are plugged into holes on the circuit board to “surface mount design,” where the leads are soldered to the surface of the circuit board. We offer a wide range of lead counts and body sizes to satisfy variations in the size of customers’ semiconductor devices.

Through a process of continuous engineering and customization, we have designed several leadframe package types that are thinner and smaller than traditional leadframe packages and can accommodate more leads on the perimeter of the package. These leadframe packages typically have superior thermal and electrical characteristics, which allow them to dissipate heat generated by high-powered semiconductor devices while providing enhanced electrical connectivity. We are developing increasingly smaller versions of these packages to keep pace with continually shrinking semiconductor device sizes and demand for miniaturization of portable electronic products. One of our more successful leadframe package offerings is the *Micro*LeadFrame family of quad flat no lead packages. These packages offer cost effective, miniaturized solutions for multiple analog power and signal chain applications.

Power discrete devices use a leadframe as the package carrier and primarily use wirebond interconnect technology. However, power applications that require improved thermal and electrical performance will use packaging with copper clip interconnect technology that creates multi die power modules with wafers from silicon carbide and other wide band gap materials.

Substrate-based Wirebond Packages: Substrate-based wirebond packages use wirebond technology to connect a die to a substrate. Some of our packages in this category include stacked CSP, wirebond ball grid array packages and plastic ball grid array (“PBGA”) packages.

Stacked CSP technology enables the stacking of a wide range of different semiconductor devices to deliver high levels of silicon integration and area efficiency. Stacked CSP utilizes high density thin core substrates and advanced materials, along with leading-edge wafer thinning, die attach and molding capabilities, to stack multiple die on a substrate. Stacked CSP is ideal for memory and mixed signal applications.

Wirebond ball grid array packages offer a broad selection of ball array pitches, ball counts and body sizes, single and multi-die layouts, stacked die and passive component integration together with thermal management solutions. They are applicable for a wide range of semiconductors requiring a smaller package size than conventional PBGAs or leadframe packages.

PBGA packages are used in applications requiring higher pin count than leadframe packages, but typically have lower pin counts than flip chip. PBGA packages are designed for low inductance, improved thermal operation and enhanced surface-mount technology ability. Custom performance enhancements, like ground and power planes, are also available.

Micro-Electro-Mechanical Systems Packages: MEMS are miniaturized mechanical and electro-mechanical devices that can sense and provide information about the physical world and sometimes trigger a response. Examples of MEMS devices include microphones, accelerometers, airbag deployment sensors, gyrometers, magnetometers and humidity, temperature and pressure sensors. We also specialize in sensor fusion products which utilize our cavity MEMS platform and combine multiple sensors into a single package. MEMS packages leverage our expertise in wafer thinning, die stacking, wirebonding and flip chip interconnect to deliver sophisticated products with a very small form factor.

Advanced System-in-Package Modules

Advanced SiP modules combine multiple semiconductor and other electronic components with different functionalities into a single package. These modules use wirebond, flip chip or wafer-level interconnect technologies. Components can include ICs, passive devices (inductors, capacitors, resistors, filters and diplexers), antennas and mechanical parts.

The increasing demand for miniaturization and higher functionality at competitive cost is driving the adoption of advanced SiP in new products. Advanced SiP modules are used for many applications such as radio frequency (“RF”) and front-end modules, basebands, connectivity, fingerprint sensors, display and touch screen drivers, sensors and MEMS, NAND memory and solid state drives. Advanced SiP modules are found in many products including smartphones and tablets, automobiles, IoT wearables, high-performance gaming systems, computers and network systems.

In 2023, 2022 and 2021, we had net sales of approximately $2,955 million, $2,930 million and $2,280 million, respectively, from our advanced SiP modules, which are mostly included in Advanced Products, depending upon the interconnect technology used in the module.

Test Services

Our Test Services complement our wafer and packaging services across our Advanced and Mainstream Products. Our test services offer customers the cycle time and cost advantages of co-located turn-key services. Our test services are used as both an interim step or as the final testing step to ensure screening and rejection of defects, performance grading and overall outgoing quality and reliability. Interim testing eliminates the manufacturing costs of assembling the defective chips. Below is a description of our test services:

Wafer Level Test: Wafer level test is a manufacturing step performed while a wafer is still in its full form and before being singulated for further package processing.

Package Level Test: Package level test is performed on a product or products that have been assembled in a package.

Burn-In Test: Burn-in test is a process in which components of a system are exercised, monitored and measured in extreme operational conditions such as high temperature, voltage and frequency over time. The purpose of the environmental and operational stress conditions of burn-in testing is to accelerate and screen early life failures and estimate and monitor long-term degradation and ultimate lifetime.

System Level Test: System level test identifies defective SiP products that may not otherwise be screened by traditional wafer level, package level or burn-in testing. As advanced packaging proliferates and the integration of more individual components into a SiP grows, system level testing becomes more important.

Test Development Services: Prior to mass production, an integrated manufacturing ready test solution must be developed and deployed. Amkor's test development services offer both co-development and full development of complete test software and hardware solutions to our customers. These services also enable early engagement with our customers in the product design phases for maximum compatibility with manufacturing. Our test development teams are experienced in a full suite of test engineering disciplines for Memory, Power, RF, Mixed Signal, Analog and digital test solution development.

End Markets

The following table lists the end markets that use our products and sets forth, for the periods indicated, the percentage of net sales in each end market:

	2023	2022	2021
End Market Distribution Data (an approximation including representative devices and applications based on a sampling of our largest customers):			
Communications (smartphones, tablets)	50 %	44 %	41 %
Automotive, industrial and other (ADAS, electrification, infotainment, safety)	21 %	20 %	21 %
Computing (data center, infrastructure, PC/laptop, storage)	16 %	16 %	16 %
Consumer (AR & gaming, connected home, home electronics, wearables)	13 %	20 %	22 %
Total net sales	100 %	100 %	100 %

RESEARCH AND DEVELOPMENT

We believe that technology development is one of the keys to success in the semiconductor packaging and test industry. Our research efforts focus on developing new packaging solutions and test services, as well as improving the efficiency and capabilities of our existing production processes. By concentrating our research and development on our customers' needs for innovative packages, increased performance, higher density, smaller size and lower cost, we gain opportunities to enter markets early, successfully compete for new products and promote our new package offerings as industry leading technology.

One of our priorities is developing highly integrated SiP modules, such as DSMBGA packages, to reduce material and processing costs and minimize form factor for wearables and mobile devices. Another important focus area is the development of wafer-level and panel-level packages for chips in 2D and 3D system implementations. These wafer-level chip-scale packages and WLFO packages are increasingly the preferred package type for many applications in IoT and mobile devices, including processors, power management integrated circuits ("PMICs"), display drivers and antenna package products. Our development of Panel Level Fan Out ("PLFO") technology will permit higher economies of scale for fan-out package devices manufactured on a panel versus wafer basis. We are also developing new applications for the automotive market using existing and new package technologies as higher performance computing, energy efficiency, power distribution and sensor content are used to support new automotive features including ADAS, infotainment, optical sensors and electric vehicles. In addition, we are developing high power modules involving SiC-based devices.

Another focus for development is integrated multi-die solutions, including multichip modules and high-density WLFO solutions, which enable package level integration of different types and levels of silicon technologies for high performance computing, networking and data center applications. This is accomplished by combining processors and other chiplets into one packaged module. Through die partitioning and heterogeneous integration, these modules provide higher functionality at lower total product cost.

Our research and development employees are based in Korea, Portugal, the United States and other locations in Asia. At December 31, 2023, we had approximately 950 employees engaged in research and development activities. In 2023, 2022 and 2021, we incurred $177.5 million, $149.4 million and $166.0 million, respectively, of research and development expense.

SALES AND MARKETING

Our sales offices are located throughout Asia, Europe and the United States. Our support personnel manage and promote our packaging and test services and provide key customer and technical support. To provide comprehensive sales and customer service, we typically assign our customers a direct support team consisting of an account manager, technical program manager, test program manager and both field and factory customer support representatives. We also support our largest multinational customers from multiple office locations to ensure that we are aligned with their global operational and business requirements.

Our direct support teams are further supported by an extended staff of product, process, quality and reliability engineers, as well as marketing and advertising specialists, information systems technicians and factory personnel. Together, these direct and extended support teams deliver an array of services to our customers.

SEASONALITY

Our sales have generally been higher in the second half of the year than in the first half due to consumer buying patterns in the U.S., Europe and Asia and the timing of flagship mobile device launches. In addition, semiconductor companies generally reduce their production during the holidays at the end of December, which generally results in a decrease in packaging and test services during the first quarter. General economic conditions, changes in our product mix or overall demand in any of our end markets can impact our seasonality.

CUSTOMERS

Our customers include many of the largest semiconductor companies in the world. Our ten largest customers accounted for 69% of our net sales in 2023. Direct sales to Apple Inc. accounted for 27.7% of our net sales for the year ended December 31, 2023.

MATERIALS AND EQUIPMENT

Materials

Our materials are used primarily for packaging activities. Our packaging operations depend upon obtaining adequate supplies of materials on a timely basis. The principal materials used in our packaging process are laminate substrates, ICs, capacitors, leadframes and gold wire. The silicon wafer is generally consigned from the customer. We generally do not take ownership of the customer consigned wafer, and title and risk of loss remains with the customer for these materials. Test materials constitute a very small portion of our total test cost. Generally, we purchase materials based on Amkor's commitments to customer forecasts, and our customers are generally responsible for any unused materials we purchase based on such commitments.

We obtain the materials required for packaging services from various suppliers and source most of our materials, including critical materials such as leadframes, laminate substrates and gold wire, from a limited group of suppliers. We work closely with our primary material suppliers to ensure consistent quality, availability and timely delivery. We also negotiate worldwide pricing agreements with our major suppliers to take advantage of the scale of our operations.

Equipment

Our ability to meet the changing demand from our customers for manufacturing capacity depends upon obtaining packaging and test equipment in a timely manner. We work closely with our main equipment suppliers to coordinate the ordering and delivery of equipment to meet our expected capacity needs.

The primary types of equipment used in providing our packaging services are wirebonders, die bonders, chip shooters, and die attach. In addition, we maintain a variety of other packaging equipment, including mold, singulation, ball attach and wafer backgrind, along with numerous other types of manufacturing equipment. A substantial portion of our packaging equipment base can generally be used and adapted to support the manufacture of many of our packages, with equipment used in traditional wirebond packaging being easier to redeploy than the equipment used in advanced packaging.

We also purchase wafer bumping equipment to facilitate our flip chip and wafer level packaging services. Wafer bumping equipment includes sputter and spin coaters, electroplating equipment, reflow ovens and other types of equipment. This equipment tends to have longer lead times for delivery and installation than other packaging equipment and is sold in relatively larger increments of capacity.

The primary equipment used in the testing process includes testers, handlers and probers. Handlers are used to transfer individual or small groups of packaged ICs to a tester. Test equipment is generally a more capital-intensive activity than packaging, and test equipment tends to have longer delivery lead times than most types of packaging equipment. We focus our capital expenditures on standardized tester platforms to maximize test equipment utilization where possible. For tester platforms that are less standardized, we generally lease test equipment for the expected life cycle of the project. In some cases, our customers will consign test equipment to us.

GOVERNMENTAL REGULATIONS

As a public company with global operations, we are subject to various federal, state, local, and foreign laws, and our products and services are governed by a number of rules and regulations. These regulations, which differ among jurisdictions, include financial and other external reporting disclosure rules, accounting standards, and environmental, corporate governance, intellectual property, tax, trade, antitrust, employment, immigration and travel, privacy and anti-corruption laws. Costs and accruals incurred to comply with these governmental regulations are presently not material to our capital expenditures, results of operations and competitive position. Although there is no assurance that existing or future government laws applicable to our operations, services or products will not have a material adverse effect on our capital expenditures, results of operations and competitive position, we do not currently anticipate material expenditures for compliance with government regulations.

Environmental Matters

We use chemicals and materials in the semiconductor packaging process that generate byproducts such as wastewater, solid waste and flue gas. For example, water used for rinsing or cooling wafers being sawed or used in the etching or solder deposition process produces wastewater. Scrap from metal lead-frame or substrate processing or excessive molding resin produces solid waste. Emissions from solvents used for coating produce flue gases. In addition to byproducts, semiconductor packages have historically contained lead, a naturally occurring element that can be toxic. The use of lead in our packages has decreased over time due to the use of lead-free alternatives. The use and storage of chemicals and materials are subject to various laws and regulations governing waste disposal, water discharge, emissions into the atmosphere and employee health and safety. We are engaged in continuing efforts to comply with these environmental laws and regulations, including the establishment of environmental management systems, safety training for employees and installation of pollution control equipment at our factories.

In the future, we may be subject to changes to existing environmental regulations or new green initiatives required by our customers, investors, governments or other stakeholders. We do not believe that capital expenditures or other costs attributable to compliance with environmental laws and regulations or green initiatives will have a material adverse effect on our business, liquidity, results of operations, financial condition or cash flows.

We are also committed to responsible environmental practices that go beyond legal requirements in conducting our business. These environmental practices include:

- Certification of our factories worldwide to International Organization for Standards (“ISO”) framework 14001, widely recognized as the standard for effective environmental management systems.
- Measurement and independent verification of greenhouse gases (“GHGs”) generated by our factories worldwide. Once collected, our GHG data is submitted to, and disclosed publicly by, CDP, formerly known as the Carbon Disclosure Project. CDP is a leading organization that assesses the impact of climate change and promotes a sustainable economy.
- Membership in the Responsible Business Alliance (“RBA”), an international industry group dedicated to corporate social responsibility. RBA members agree to follow a uniform Code of Conduct that includes standards of environmental responsibility, and our factories have been subject to independent audits to assess compliance with these standards.
- Capital investment and process optimization activities to reduce GHGs include installation of solar photovoltaic panels, replacement of, or improvements to, chiller unit systems and use of light-emitting diode (“LED”) technology.

COMPETITION

The outsourced semiconductor packaging and test market is very competitive. We face substantial competition from established packaging and test service providers primarily located in Asia, including companies with significant manufacturing capacity, financial resources, research and development operations, marketing and other capabilities. These companies include ASE Technology Holding Co., Ltd. and JCET Group Co., Ltd. In addition, we compete with electronic manufacturing service providers or contract electronics manufacturers, including Universal Scientific Industrial (Shanghai) Co., Ltd., that also provide advanced integrated device solutions. Such companies also have developed relationships with most of the world's largest semiconductor companies, including current or potential customers of Amkor.

We also compete with the internal semiconductor packaging and test capabilities of many of our customers. Our IDM customers continually evaluate the attractiveness of outsourced services against their own in-house packaging and test services and at times may decide to shift some or all of their outsourced packaging and test services to internally sourced capacity. We also compete with contract foundries, such as Taiwan Semiconductor Manufacturing Company Limited, which offer full turnkey services from silicon wafer fabrication through packaging and final test. In addition, we compete with companies that offer test-only services.

The principal elements of competition in the outsourced semiconductor packaging and test services market include price, available capacity, flexibility, quality, customer service and support, new product introduction experience, cycle time, reputation and reliability, customer satisfaction, technological expertise and innovation, breadth of packaging and test services offered, including turnkey services, and the ability to invest in capacity, geographic location and scale of manufacturing. We believe that we compete favorably with respect to each of these elements.

INTELLECTUAL PROPERTY

We maintain an active program to protect and derive value from our investment in technology and the associated intellectual property rights. Intellectual property rights that apply to our various products and services include patents, copyrights, trade secrets and trademarks. We have filed and obtained a number of patents in the U.S. and other countries, and their durations vary depending on the jurisdiction in which each patent is filed. Although our patents are an important element of our intellectual property strategy, we are not materially dependent on any one patent or any one technology. We expect to continue to file patent applications when appropriate to protect our proprietary technologies, but we cannot provide assurances that we will receive patents from pending or future applications. In addition, any patents we obtain could be challenged, invalidated or circumvented and may not provide meaningful protection or other commercial advantage to us. Nonetheless, we believe that our patents afford an important means of protection for our technologies. Further, to distinguish our products from our competitors' products, we have obtained certain trademarks and service marks and may promote our particular brands through advertising and other marketing techniques.

We also protect and maintain the confidentiality of certain information about our processes, products and strategies which we believe provides us with a competitive advantage. We have ongoing programs designed to maintain the confidentiality of such information. As part of these efforts, all employees who have access to Amkor's information systems are required to participate in cybersecurity training within the first 15 days of employment, after which recurring mandatory training is required on an annual basis.

HUMAN CAPITAL RESOURCES

Employees

Amkor believes that its future success is highly dependent upon our continued ability to attract, retain and motivate qualified employees. As part of our effort to attract and motivate employees, Amkor is committed to providing competitive and comprehensive benefits that are designed to enable our employees and their families to live healthier and more secure lives. Additionally, Amkor has implemented various retention programs to incentivize and retain high-performing employees. We regularly evaluate such retention programs and our compensation practices generally to ensure they remain competitive and are aligned with local market practices. We look to promote our management-level employees from within Amkor, and we believe that we have been successful in this effort. Factory locations also maintain training and development programs that enable the continued learning and growth of our employees, and senior management regularly meets to share and implement best practices among our various facilities.

Amkor also uses human capital initiatives to support our broad geographic footprint. For career development and advancement, we may provide employees with the opportunity to move between factories, often in support of new factories or the introduction of new packaging offerings. We believe that these initiatives are efficient for training new local employees and allow existing employees to continue to develop in their careers.

We believe that our efforts to motivate, retain and support the growth of qualified employees is reflected in the long average tenure of our key employees.

As of December 31, 2023, Amkor employed 28,700 employees, of whom approximately 96%, 3% and 1% resided in the Asia-Pacific region, Europe and the United States, respectively. Our global workforce spans 12 countries, reflecting various cultures, backgrounds, ages, genders and ethnicities. Of our global employee base, 91% are employed in manufacturing roles. Our employees in France, Germany, the Philippines, Singapore, Taiwan, Vietnam and the United States are not represented by any union. Certain employees at our factories in China, Japan, Korea, Malaysia and Portugal are members of a union, and we operate subject to collective bargaining agreements that we have entered into with these unions. We believe that our relations with our employees are good, and we have not experienced a work stoppage in any of our factories.

Health and Safety

The health and safety of our employees is very important to us and, accordingly, we endeavor to provide comprehensive health benefits to our full-time employees. Our focus on health and safety is further evident in our response to the Covid-19 pandemic. Because our business involves the manufacturing and testing of physical products, many of our employees have been unable to work from home. To keep our employees safe and to maintain operations during the Covid-19 pandemic, we implemented increased health and safety-related measures across our global footprint. While the long-term impact of the Covid-19 pandemic remains uncertain, we have retained those enhanced measures as part of our commitment to protect the health and safety of our employees.

AVAILABLE INFORMATION

Amkor files annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains a website that contains annual, quarterly and current reports, proxy statements and other information that issuers (including Amkor) file electronically with the SEC. The SEC’s website is *www.sec.gov*.

Amkor’s website is *www.amkor.com*. Amkor makes available, free of charge, through its website: our annual reports on Form 10-K; quarterly reports on Form 10-Q; current reports on Form 8-K; Forms 3, 4 and 5 filed on behalf of directors and executive officers; and any amendments to those reports filed or furnished pursuant to the Securities Exchange Act of 1934, as amended (the “Exchange Act”), as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. We also make available, free of charge, through our website, our Corporate Governance Guidelines, the charters of the Audit Committee, Nominating and Governance Committee and Compensation Committee of our Board of Directors, our Code of Business Conduct, our Code of Ethics for Directors and other information and materials. The information on Amkor’s website is not incorporated by reference into this Form 10-K.

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

The factors discussed below are cautionary statements that identify important factors and risks that could cause actual results to differ materially from those anticipated by the forward-looking statements contained in this Form 10-K. For more information, see the Forward-Looking Statements within this Form 10-K. You should carefully consider the risks and uncertainties described below, together with all of the other information included in this Form 10-K, in considering our business and prospects. The risks and uncertainties described below are not the only ones facing Amkor. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also adversely affect our business operations. The occurrence of any of the risks and uncertainties described below could materially and adversely affect our business, liquidity, results of operations, financial condition or cash flows.

Summary of Risk Factors

An investment in our common stock involves various risks, and you are urged to carefully consider all of the matters discussed in Part I, Item 1A of this Form 10-K under the caption “Risk Factors” (in addition to those discussed under this

"Summary of Risk Factors" section) in considering our business and prospects. The following is a list of some of these risks:

Risks Related to Our Business, Operations and Industry

- competition with established competitors in the packaging and test business, the internal capabilities of IDMs, and new competitors, including foundries;
- changes in costs, quality, availability and delivery times of raw materials, components and equipment;
- fluctuations in operating results and cash flows;
- dependence on the cyclical and volatile semiconductor industry and vulnerability to industry downturns and declines in global economic and financial conditions;
- our substantial investments in equipment and facilities to support the demand of our customers;
- difficulty achieving the relatively high-capacity utilization rates necessary to realize satisfactory gross margins given our high percentage of fixed costs;
- our absence of backlog and the short-term nature of our customers' commitments;
- the historical downward pressure on the prices of our packaging and test services;
- fluctuations in our manufacturing yields;
- a downturn or lower sales to customers in the automotive industry;
- dependence on key customers or concentration of customers in certain end markets, such as mobile communications and automotive;
- difficulty funding our liquidity needs; and
- challenges with integrating diverse operations.

Risks Related to Our International Sales and Operations

- dependence on international factories and operations, and risks relating to trade restrictions and regional conflict; and
- significant severance plan obligations associated with our manufacturing operations in Korea.

Risks Related to Cybersecurity, Data Privacy and Intellectual Property

- our ability to develop new proprietary technology, protect our proprietary technology, operate without infringing the proprietary rights of others, and implement new technologies; and
- our continuing development and implementation of changes to, and maintenance and security of, our information technology systems.

Risks Related to Our Indebtedness

- restrictive covenants in the indentures and agreements governing our current and future indebtedness;
- our substantial indebtedness; and
- fluctuations in interest rates and changes in credit risk.

Risks Related to Our Common Stock

- the ability of certain of our stockholders to effectively determine or substantially influence the outcome of matters requiring stockholder approval; and

- the possibility that we may decrease or suspend our quarterly dividend.

Risks Related to Human Capital and Management

- difficulty attracting, retaining or replacing qualified personnel.

Risks Related to Regulatory, Legal and Tax Challenges

- warranty claims, product return and liability risks, and the risk of negative publicity if our products fail, as well as the risk of litigation incident to our business;
- maintaining an effective system of internal controls;
- any changes in tax laws, taxing authorities not agreeing with our interpretation of applicable tax laws, including whether we continue to qualify for conditional reduced tax rates, or any requirements to establish or adjust valuation allowances on deferred tax assets; and
- environmental, health and safety liabilities and expenditures.

General Risk Factors

- health conditions or pandemics, such as the Covid-19 pandemic, impacting labor availability and operating capacity, capital availability, the supply chain and consumer demand for our customers' products and services; and
- natural disasters and other calamities, health conditions or pandemics, political instability, hostilities or other disruptions.

Risks Related to Our Business, Operations and Industry

Our packaging and test services are used in volatile industries, and industry downturns, and declines in global economic and financial conditions could harm our performance.

Our business is impacted by market conditions in the semiconductor industry, which is cyclical by nature and impacted by broad economic factors, such as worldwide gross domestic product and consumer spending. We believe that the general semiconductor market is currently going through a cyclical correction. The semiconductor industry has experienced significant and sometimes sudden and prolonged downturns in the past. If the industry or markets in which we compete experience slower, or even negative growth, our business and results of operations may be materially and adversely affected.

Since our business is, and will continue to be, dependent on the requirements of semiconductor companies for outsourced packaging and test services, any downturn in the semiconductor industry or any other industry that uses a significant number of semiconductor devices, such as telecommunications, automotive, computing, or consumer electronics, could have a material adverse effect on our business and operating results. During downturns, we have experienced, among other things, reduced demand, excess capacity and reduced sales. For example, the Covid-19 pandemic disrupted demand in the automotive and industrial end market in 2020, and during 2019, there was weakness in the general market and an inventory correction in the smartphone market.

New variants or the potential re-emergence of the Covid-19 pandemic or the occurrence of other epidemics or pandemics, and the imposition of related public health measures and travel and business restrictions, may materially and adversely impact our business, financial condition, operating results and cash flows. For example, as part of a broad effort to mitigate a rising number of Covid-19 cases in Shanghai, the Chinese government mandated a lockdown of our Shanghai factory from March 2022 to June 2022. Other national, regional, and local governments have implemented, and may implement in the future, public health measures in jurisdictions in which we, our customers and our suppliers operate, and such restrictions may materially and adversely impact our operations and the operations of our customers and suppliers. We also remain subject to industry-wide supply constraints and inflationary price pressures, which have resulted in long lead times, rising prices and supply chain disruptions.

It is difficult to predict the timing, strength or duration of any economic disruption caused by epidemics or pandemics or which end markets will experience a slowdown or subsequent economic recovery which, in turn, makes it more challenging for us to forecast our operating results, make business decisions and identify risks that may materially affect our business, sources and uses of cash, financial condition and results of operations. Additionally, if industry conditions deteriorate, we could suffer significant losses, as we have in the past, that could materially and adversely impact our business, liquidity, results of operations, financial condition and cash flows.

Our business may suffer if the cost, quality or supply of materials or equipment changes adversely.

We obtain the materials and equipment required for the packaging and test services performed by our factories from various vendors. We source most of our materials, including critical materials such as leadframes, laminate substrates and gold wire, from a limited group of suppliers. A disruption to the operations of one or more of our suppliers could extend lead times for materials and equipment and have a negative impact on our business. For example, the Covid-19 pandemic and resulting supply chain disruptions and economic turbulence created extended lead times for some materials and equipment. To the extent the impact of such disruptive events continues or worsens, we anticipate having greater difficulty obtaining, or waiting longer to obtain, certain equipment, supplies and other materials necessary for performance of our services or necessary to increase the services we provide to customers. Furthermore, fire, severe weather, earthquakes, flooding and tsunamis in the past have impacted the supply of specialty chemicals, substrates, silicon wafers, equipment and other supplies to the electronics industry.

In addition, we purchase the majority of our materials on a purchase order basis. Our business may be harmed if we cannot obtain materials and other supplies from our vendors in a timely manner, in sufficient quantities, at acceptable quality or at competitive prices or are unable to increase our prices sufficiently to recover inflationary price increases in materials or supplies. Some of our customers are also dependent on a limited number of suppliers for certain materials and silicon wafers. Shortages or disruptions in our customers' supply channels, including any disruptions arising out of the conflicts in Ukraine and Israel or other future conflicts, could have a material adverse effect on our business, financial condition, results of operations and cash flows.

SEC rules and related industry initiatives require diligence and disclosure regarding the use of certain minerals originating from the conflict zones of the Democratic Republic of Congo and adjoining countries. Many of our customers' initiatives require us to certify that the covered materials we use in our packages do not come from the conflict areas. We incur costs associated with complying with these requirements and customer initiatives, and we may be required to increase our efforts in the future to cover additional materials and geographic areas. These requirements and customer initiatives could affect the pricing, sourcing and availability of materials used in the manufacture of semiconductor devices, and we cannot assure you that we will be able to obtain conflict-free materials or other materials covered by customer initiatives in sufficient quantities and at competitive prices or that we will be able to verify the origin of all of the materials we procure. If we are unable to meet these requirements and customer initiatives, some customers may move their business to other suppliers, and our reputation and business could be materially and adversely affected.

We purchase new packaging and test equipment to maintain and expand our operations. From time to time, increased demand for new equipment or supply chain disruptions and economic turbulence may cause lead times to extend beyond those normally required by equipment vendors. In periods of increased demand and reduced availability, equipment suppliers may delay orders or only partially satisfy our equipment orders in the normal time frame. The unavailability of equipment or failures to deliver equipment on a timely basis could delay or impair our ability to meet customer orders. If we are unable to meet customer orders, we could lose potential and existing customers. Generally, we acquire our equipment on a purchase order basis and do not enter into long-term equipment agreements. As a result, depending on market conditions, we could experience adverse changes in pricing, currency risk and potential shortages in equipment, any of which could have a material adverse effect on our results of operations.

We are a large buyer of gold and other commodity materials, including substrates and copper. The prices of gold and other commodities used in our business fluctuate. Historically, we have been able to partially offset the effect of commodity price increases through price adjustments to some customers and changes in our product designs that reduce the material content and cost, such as the use of shorter, thinner gold wire and migration to copper wire. However, we typically do not have long-term contracts that permit us to impose price adjustments, and market conditions may limit our ability to do so. Significant price increases may materially and adversely impact our gross margin in future periods to the extent we are unable to pass along past or future commodity price increases to our customers.

Our operating results and cash flows have varied and may vary significantly as a result of factors that we cannot control.

Many factors could have a material adverse effect on our net sales, gross profit, operating results and cash flows or lead to significant variability of quarterly or annual operating results. Our profitability and ability to generate cash from operations is principally dependent upon demand for semiconductors, the utilization of our capacity, semiconductor package mix, the average selling price of our services, our ability to manage our capital expenditures and our ability to control our costs including labor, material, overhead and financing costs.

Our net sales, gross margin, gross profit, operating income, net income and cash flows have historically fluctuated significantly from quarter to quarter as a result of many of the following factors, over which we have little or no control and which we expect to continue to impact our business:

- fluctuations in demand for semiconductors and conditions in the semiconductor industry generally, as well as by specific customers, such as inventory reductions by our customers impacting demand in key markets;
- changes in cost, quality, availability and delivery times of raw materials, components, equipment and labor;
- inflation, including wage inflation, and fluctuations in commodity prices, including gold, copper and other precious metals;
- our ability to achieve our major growth objectives, including transitioning second-wave customers to advanced packages and increasing our share of the automotive and industrial end market;
- changes in our capacity and capacity utilization rates;
- fluctuations in interest rates and currency exchange rates, including the current rising interest rate environment;
- changes in average selling prices which can occur quickly due to the absence of long-term agreements on price;
- changes in the mix of the semiconductor packaging and test services that we sell;
- fluctuations in our manufacturing yields;
- the development, transition and ramp to high volume manufacture of more advanced silicon nodes and evolving wafer, packaging and test technologies may cause production delays, lower manufacturing yields and supply constraints for new wafers and other materials;
- the absence of backlog, the short-term nature of our customers' commitments, double bookings by customers and deterioration in customer forecasts and the impact of these factors, including the possible delay, rescheduling and cancellation of large orders, or the timing and volume of orders relative to our production capacity;
- the timing of expenditures in anticipation of future orders;
- changes in effective tax rates;
- the availability and cost of financing;
- leverage and debt covenants;
- intellectual property transactions and disputes;
- warranty and product liability claims and the impact of quality excursions and customer disputes and returns;
- costs associated with legal claims, indemnification obligations, judgments and settlements;
- political instability, conflicts (such as the ongoing conflict in Ukraine and Israel) and government shutdowns, civil disturbances and international events;
- environmental or natural disasters such as earthquakes, typhoons and volcanic eruptions;
- pandemics or other widespread illnesses that may impact our labor force, operations, liquidity, supply chain and end-user demand for products which incorporate semiconductors, such as the Covid-19 pandemic;

- costs of acquisitions and divestitures and difficulties integrating acquisitions;
- our ability to attract and retain qualified personnel to support our global operations;
- our ability to penetrate new end markets or expand our business in existing end markets;
- dependence on key customers or concentration of customers in certain end markets, such as mobile communications and automotive; and
- restructuring charges, asset write-offs and impairments.

On October 7, 2022 and October 17, 2023, the U.S. Bureau of Industry and Security announced export control regulations applicable to Chinese acquisition of U.S. semiconductor technology (collectively, the "BIS Regulations"). The above factors, in addition to the BIS Regulations and other similarly restrictive trade barriers adopted by U.S. and foreign governments applicable to the semiconductor supply chain, could impact our business and the businesses of our customers. These factors may have a material and adverse effect on our business, liquidity, results of operations, financial condition and cash flows or lead to significant volatility in our quarterly or annual operating results. In addition, these factors may materially and adversely affect our credit ratings, which could make it more difficult and expensive for us to raise capital and could materially and adversely affect the price of our securities.

We compete against established competitors in the packaging and test business as well as internal capabilities of IDMs and face competition from new competitors, including foundries.

The outsourced semiconductor packaging and test services market is very competitive. We face substantial competition from established and emerging packaging and test service providers primarily located in Asia, including companies with significantly greater processing capacity, financial resources, local presence, research and development operations, marketing, technology and other capabilities. In addition, we may compete with electronics manufacturing service providers or contract electronics manufacturers that also provide advanced integrated device solutions. We also may face increased competition from domestic companies located in China, where there are government-supported efforts to promote and subsidize the development and growth of the local semiconductor industry. We may be at a disadvantage in attempting to compete with entities associated with such government-supported initiatives based on their lower cost of capital, access to government resources and incentives, preferential sourcing practices, stronger local relationships or otherwise. Our competitors may also have established relationships, or enter into new strategic relationships, with one or more of the large semiconductor companies that are our current or potential customers or key suppliers to these customers. Consolidation among our competitors could also strengthen their competitive position.

Historically, we have also been dependent on the trend in outsourcing of packaging and test services by IDM and foundry customers. Our IDM and foundry customers continually evaluate the need for outsourced services against their own in-house packaging and test services. As a result, at any time and for a variety of reasons, IDMs and foundries may decide to shift some or all of their outsourced packaging and test services to internally sourced capacity. To the extent we limit capacity commitments for certain customers, these customers may increase their level of in-house packaging and test capabilities, which could make it more difficult for us to regain their business when we have available capacity. If we experience a significant loss of IDM or foundry business, it could have a material adverse effect on our business, liquidity, results of operations, financial condition and cash flows, especially during a prolonged industry downturn.

We also face competition from contract foundries, such as Taiwan Semiconductor Manufacturing Company Limited and Samsung Electronics Co., Ltd., which offer full turnkey services from silicon wafer fabrication through packaging and final test. These foundries, which are substantially larger than us and have greater financial resources than we do, have expanded their operations to include packaging and test services and may continue to expand these capabilities in the future. If a key customer decides to purchase wafers from a semiconductor foundry that provides packaging and test services, our business could be adversely affected if the customer also engages that foundry for related packaging and test services.

We cannot assure you that we will be able to compete successfully in the future against our existing or potential competitors, that our customers will not rely on internal sources or foundries for packaging and test services or that our business, liquidity, results of operations, financial condition or cash flows will not be materially and adversely affected by such increased competition.

We make substantial investments in equipment and facilities to support the demand of our customers, which may materially and adversely affect our business if the demand of our customers does not develop as we expect or is adversely affected.

We make significant investments in equipment and facilities in order to service the demand of our customers. The amount of our capital expenditures depends on several factors, including the performance of our business, our assessment of future industry and customer demand, our capacity utilization levels and availability, advances in technology, our liquidity position and the availability of financing. Our ongoing capital expenditure requirements may strain our cash and liquidity, and, in periods when we are expanding our capital base, we expect that depreciation expense and factory operating expenses associated with capital expenditures to increase production capacity will put downward pressure on our gross profit, at least in the near term. From time to time, we also make significant capital expenditures based on specific business opportunities with one or a few key customers, and the additional equipment purchased may not be readily usable to support other customers. If demand is insufficient to fill our capacity, or we are unable to efficiently redeploy such equipment, our capacity utilization and gross profit could be negatively impacted.

Furthermore, if we cannot generate or raise additional funds to pay for capital expenditures, particularly in some of the advanced packaging and bumping areas, as well as research and development activities, our growth and future profitability may be materially and adversely affected. Our ability to obtain external financing in the future is subject to a variety of uncertainties, including: our future financial condition, results of operations and cash flows; general market conditions for financing; volatility in fixed income, credit and equity markets; and economic, political and other global conditions.

In October 2023, we completed the initial phase of construction for our Vietnam Facility. There can be no assurance, however, that high-volume manufacturing will begin on schedule or that the actual scope, costs or benefits of the project will be consistent with our current expectations.

Due to our high percentage of fixed costs, we may be unable to maintain satisfactory gross margins if we are unable to achieve relatively high-capacity utilization rates.

Our operations are characterized by high fixed costs and the absence of any material backlog. Our profitability depends in part not only on pricing levels for our packaging and test services but also on the efficient utilization of our human resources and packaging and test equipment. Increases or decreases in our capacity utilization can significantly affect gross margins. Transitions between different packaging technologies can also impact our capacity utilization if we do not efficiently redeploy our equipment for other packaging and test opportunities. We cannot assure you that we will be able to achieve consistently high-capacity utilization, and if we fail to do so, our gross margins may be negatively impacted.

In addition, our fixed operating costs have increased as a result of capital expenditures for capacity expansion. The anticipated customer demand for which we have made capital investments may not materialize, and our sales may not adequately cover fixed costs, resulting in reduced profit levels or even significant losses, either of which may materially and adversely impact our business, liquidity, results of operations, financial condition and cash flows.

The lack of contractually committed customer demand may materially and adversely affect our sales.

Our packaging and test business does not typically operate with any material backlog. Our quarterly net sales from packaging and test services are substantially dependent upon our customers' demand in that quarter. Generally, our customers do not commit to purchase any significant amount of packaging or test services or provide us with binding forecasts of demand for packaging and test services for any future period, in any material amount. In addition, we sometimes experience double booking by customers, and our customers often reduce, cancel or delay their purchases of packaging and test services for a variety of reasons, including industry-wide, customer-specific and Amkor-specific reasons. This makes it difficult for us to forecast our capacity utilization and net sales in future periods. Since a large portion of our costs is fixed and our expense levels are based in part on our expectations of future sales, we may not be able to adjust costs in a timely manner to compensate for any sales shortfall. If we are unable to adjust costs in a timely manner, our margins, operating results, financial condition and cash flows could be materially and adversely affected.

Historically, there has been downward pressure on the prices of our packaging and test services.

Prices for packaging and test services have generally declined over time, and sometimes prices can change significantly in relatively short periods of time. We expect downward pressure on average selling prices for our packaging and test services to continue in the future, and this pressure may intensify during downturns in business. If we experience declining average selling prices and are unable to offset such declines by developing and marketing new packages with higher prices, reducing our purchasing costs, recovering more of our material cost increases from our customers and reducing our manufacturing costs, our business, liquidity, results of operations, financial condition and cash flows could be materially and adversely affected.

Packaging and test processes are complex, and our production yields and customer relationships may suffer from defects in the services we provide or if we do not successfully implement new technologies.

Semiconductor packaging and test services are complex processes that require significant technological and process expertise, and in line with industry practice, customers usually require us to pass a lengthy and rigorous qualification process that may take several months. Once qualified and in production, defective packages primarily result from one or more of the following:

- contaminants in the manufacturing environment;
- human error;
- equipment malfunction;
- changing processes to address environmental requirements;
- defective raw materials; or
- defective plating services.

Test is also complex and involves sophisticated equipment and software. Similar to many software programs, these software programs are complex and may contain programming errors or "bugs." The test equipment is also subject to malfunction, and the test process is subject to operator error.

These and other factors have, from time to time, contributed to lower production yields. They may also do so in the future, particularly as we adjust our capacity, change our processing steps or ramp new technologies. In addition, we must continue to develop and implement new packaging and test technologies and expand our offering of packages to be competitive. Our production yields on new packages, particularly those packages which are based on new technologies, typically are significantly lower than our production yields on our more established packages.

Our failure to qualify new processes, maintain quality standards or acceptable production yields, if significant and prolonged, could result in the loss of customers, increased costs of production, delays, substantial amounts of returned goods and claims by customers relating thereto. Any of these problems could have a material adverse effect on our business, liquidity, results of operations, financial condition and cash flows.

A significant portion of our revenue is derived from customers in the automotive industry. A downturn or lower sales to customers in the automotive industry could materially affect our business and results of operations.

A significant portion of our sales are to customers within the automotive industry. The automotive industry is cyclical, and, as a result, our customers in the automotive end-market are sensitive to changes in general economic conditions, inflationary pressure, disruptive innovation and end-market preferences, which can adversely affect sales of our products and, correspondingly, our results of operations. The automotive industry is also subject to long design-in time frames, long product life cycles and a high degree of regulatory and safety requirements, necessitating suppliers to the industry to comply with stringent qualification processes, very low defect rates and high reliability standards, all of which result in significant operational challenges, risk to our results of operations, and increased costs of our investments in serving customers in the automotive end-market. Additionally, the quantity and price of our products sold to customers in the automotive end-market could decline despite continued growth in such end-market. Lower sales to customers in the automotive end-market may have a material adverse effect on our business and results of operations.

The loss of certain customers or reduced orders or pricing from existing customers may have a material adverse effect on our operations and financial results.

We have derived and expect to continue to derive a large portion of our revenues from a small group of customers during any particular period due in part to the concentration of market share in the semiconductor industry. Our ten largest customers accounted for, in the aggregate, 69% of our net sales for the year ended December 31, 2023. In addition, we have significant customer concentration within our end markets. The loss of a significant customer, a business combination among our customers, a reduction in orders or decrease in price from a significant customer or disruption in any of our significant commercial arrangements may result in a decline in our sales and profitability and could have a material adverse effect on our business, liquidity, results of operations, financial condition and cash flows.

The demand for our services from each customer is directly dependent upon that customer's financial health, level of business activity and purchasing decisions, the quality and price of our services, our cycle time and delivery performance, the customer's qualification of additional competitors on products we package or test and a number of other factors. Each of these factors could vary significantly from time to time resulting in the loss or reduction of customer orders, and we cannot be sure that our key customers or any other customers will continue to place orders with us in the future at the same levels as in past periods.

For example, as seen in the automotive end market in 2020, the Covid-19 pandemic and restrictions imposed by governmental authorities to mitigate the spread of Covid-19 in our customers' end markets may decrease demand for our customers' products and services, thereby adversely impacting their demand for our services.

In addition, from time to time, we may acquire or build new facilities or migrate existing business among our facilities. In connection with these facility changes or new facility constructions, our customers require us to qualify the new facilities even though we have already qualified to perform the services at our other facilities. We cannot assure that we will successfully qualify facility changes, that we will complete construction of new facilities in a timely manner or that our customers will not qualify our competitors and move the business for such services.

We may have difficulty funding liquidity needs.

We assess our liquidity based on our current expectations regarding sales and operating expenses, capital spending, dividend payments, stock repurchases, debt service requirements and other funding needs. We fund our operations, including capital expenditures and other investments and servicing principal and interest obligations with respect to our debt, from cash flows from our operations, existing cash and cash equivalents, borrowings under available debt facilities, or proceeds from any additional debt or equity financing. Our liquidity is affected by, among other factors, volatility in the global economy and credit markets, the performance of our business, our capital expenditures and other investment levels, other uses of our cash, including any payments of dividends and purchases of stock under any stock repurchase program, any acquisitions or investments in joint ventures and any decisions we might make to either repay debt and other long-term obligations out of our operating cash flows or refinance debt at or prior to maturity with the proceeds of debt or equity financings.

Servicing our current and future customers requires that we incur significant operating expenses and continue to make significant capital expenditures and other investments, and the amount of our capital expenditures for 2024 and thereafter may vary materially and will depend on several factors. These factors include, among others, the amount, timing and implementation of our capital projects, the performance of our business, economic and market conditions, advances in technology, the cash needs and investment opportunities for the business, the need for additional capacity and facilities and the availability of cash flows from operations or financing.

The health of the worldwide banking system and capital markets also affects our liquidity. If financial institutions that have extended credit commitments to us are adversely affected by the conditions of the United States, foreign or international banking system and capital markets (including as a result of rising interest rates, economic downturns or other developments), they may refuse or be unable to fund borrowings under their credit commitments to us. The U.S. Federal Reserve has raised interest rates several times during 2022 and 2023. Volatility in the banking system and capital markets, as well as any further increase in interest rates or adverse economic, political, public health or other global conditions, could also make it difficult or more expensive for us to maintain our existing credit facilities or refinance our debt.

The trading price of our common stock has been, and is likely to continue to be, highly volatile and could be subject to wide fluctuations. Such fluctuations could impact our decision or ability to utilize the equity markets as a potential source of our funding needs in the future.

In addition, there is a risk that we could fail to generate the necessary net income or operating cash flows to meet the funding needs of our business due to a variety of factors, including the other factors discussed in this "Risk Factors" section. If we fail to generate the necessary cash flows or we are unable to access the capital markets when needed, our liquidity could be materially and adversely impacted.

We face challenges as we integrate diverse operations.

We have experienced, and expect to continue to experience, change in the scope and complexity of our operations resulting primarily from existing and future facility and operational consolidations, facility and operational expansions, strategic acquisitions, joint ventures and other partnering arrangements. Some of the risks from these activities include those associated with the following:

- increasing the scope, geographic diversity and complexity of our operations;
- conforming an acquired company's standards, practices, systems and controls with our operations;
- increasing complexity from combining recent acquisitions of an acquired business;
- unexpected losses of key employees or customers of an acquired business;
- difficulties in the assimilation of acquired operations, technologies or products; and
- diversion of management and other resources from other parts of our operations and adverse effects on existing business relationships with customers.

In connection with these activities, we may:

- incur costs associated with personnel reductions and voluntary retirement programs;
- record restructuring charges to cover costs associated with facility consolidations and related cost reduction initiatives;
- use a significant portion of our available cash;
- incur substantial debt;
- issue equity securities, which may dilute the ownership of current stockholders;
- incur or assume known or unknown contingent liabilities; and
- incur large, immediate accounting write offs and face antitrust or other regulatory inquiries or actions.

For example, the businesses we have acquired had, at the time of acquisition, multiple systems for managing their own production, sales, inventory and other operations. Migrating these businesses to our systems typically is a slow, expensive process requiring us to divert significant resources from other parts of our operations. We may continue to face these challenges in the future. As a result of the risks discussed above, the anticipated benefits of these or other future acquisitions, consolidations and partnering arrangements may not be fully realized, if at all, and these activities could have a material adverse effect on our business, financial condition and results of operations.

Risks Related to Our International Sales and Operations

Our factories and operations, and those of our customers and vendors, are located in various foreign jurisdictions, which exposes us to risks arising from international trade restrictions and regional conflict.

We provide packaging and test services through our factories and other operations located in China, Japan, Korea, Malaysia, the Philippines, Portugal, Singapore and Taiwan and are preparing to offer packaging and test services from the Vietnam Facility. Substantially all of our property, plant and equipment is located outside of the United States, and many of our customers and the vendors in our supply chain are also located outside the United States. The following are some of the risks we face in doing business internationally:

- restrictive trade barriers considered or adopted by U.S. and foreign governments applicable to the semiconductor supply chain, including laws, rules, regulations and policies in areas such as national security, licensing requirements for exports, tariffs, customs and duties, including the export rules and regulations applicable to U.S. companies that sell certain semiconductor and chipmaking equipment products to customers in China;
- laws, rules, regulations and policies within China and other countries that may favor domestic companies over non-domestic companies, including customer- or government-supported efforts to promote the development and growth of local competitors;
- health and safety concerns, including widespread outbreak of infectious diseases, such as Covid-19, and governmental responses thereto;
- changes in consumer demand resulting from current or expected inflation or other variations in local economies;
- laws, rules, regulations and policies imposed by U.S. or foreign governments in areas such as data privacy, cybersecurity, antitrust and competition, tax, currency and banking, labor, environmental, and health and safety;
- the payment of dividends and other payments by non-U.S. subsidiaries may be subject to prohibitions, limitations or taxes in local jurisdictions;
- fluctuations in currency exchange rates, particularly the U.S. dollar to Japanese yen exchange rate for our operations in Japan;
- political and social conditions, and the potential for civil unrest, terrorism or other hostilities (such as the ongoing conflicts in Ukraine and Israel);
- disruptions or delays in shipments caused by customs brokers or government agencies;
- difficulties in attracting and retaining qualified personnel and managing foreign operations, including foreign labor disruptions;
- difficulty in enforcing contractual rights and protecting our intellectual property rights;
- potentially adverse tax consequences resulting from tax laws in the United States and in other jurisdictions; and
- local business and cultural factors that differ from our normal standards and practices, including business practices that we are prohibited from engaging in by the U.S. Foreign Corrupt Practices Act and other anti-corruption laws and regulations.

Many of these factors and risks are present and may be heightened within our business operations in China. For example, changes in U.S.-China relations, the political environment or international trade policies could result in further revisions to laws or regulations or their interpretation and enforcement, increased taxation, trade sanctions, the imposition of import or export duties and tariffs, restrictions on imports or exports, currency revaluations or retaliatory actions, which have had and may continue to have an adverse effect on our business plans and operating results. Additionally, the BIS Regulations place limitations on the ability of companies to export certain advanced computing semiconductor chips, as well as chipmaking equipment, by requiring companies to obtain licenses to export such products and equipment into China or other designated countries. These expanded export restrictions limit our ability to sell to certain Chinese companies and to third parties that do business with those companies. Certain of the Company’s competitors may be exempt from the BIS Regulations by virtue of being non-U.S. manufacturers. To the extent required, Amkor would evaluate pursuing export licenses and authorizations, but there can be no assurances that Amkor would obtain such licenses or authorizations on a timely or cost-effective basis or at all, or that our customers will not reroute business that would have otherwise been given to Amkor to one or more of our competitors as a result of the BIS Regulations, particularly if our competitors have, or are not required to have, required licenses or authorizations that we have not obtained. It is also possible that government agencies in China or in other countries may adopt retaliatory export control rules in response to the BIS Regulations, which could further impact our business, liquidity, results of operations, financial condition and cash flows. These restrictions have created, and these and similar restrictions may continue to create, uncertainty and caution with our current or prospective customers and may cause them to amass large inventories of our products, replace our products with products from another supplier that is not subject to the export restrictions or focus on building indigenous semiconductor capacity to reduce reliance on U.S. suppliers. Furthermore, if these export restrictions cause our current or potential customers to view U.S. companies as unreliable, we could suffer reputational damage or lose business to foreign competitors who are not subject to such export restrictions, and our business could be materially harmed. We are continuing to evaluate the impact of these restrictions on our business, but these actions may have direct and indirect material adverse impacts on our revenues and results of operations in China and elsewhere. In addition, our success in the Chinese markets may be adversely affected by China’s evolving policies, laws and regulations, including those relating to antitrust, cybersecurity, data protection and data privacy, the environment, indigenous innovation and the promotion of a domestic semiconductor industry and intellectual property rights and enforcement and protection of those rights.

We also have significant facilities and other investments in Korea, and there have been heightened security concerns in recent years stemming from North Korea’s nuclear weapon and long-range missile programs as well as its military actions in the region. Furthermore, there has been a history of conflict and tension within and among other countries in the region.

The Covid-19 pandemic impacted our operations and the operations of our customers and suppliers as a result of illness, quarantines, facility closures and travel and logistics restrictions in connection with the outbreak. National, regional, and local governments have implemented, and may implement in the future, public health measures to mitigate the spread of Covid-19, the emergence of new variants or the re-emergence of Covid-19 in jurisdictions in which we, our customers and our suppliers operate, and such restrictions may materially and adversely impact our operations and the operations of our customers and suppliers. Such restrictions may also affect end-user demand in each geography where our customers sell their products and services, which may materially and adversely affect demand for our services, our operating results and financial condition. We also remain subject to industry-wide supply constraints and inflationary price pressures, which have resulted in long lead times, rising prices and supply chain disruptions.

We have significant severance plan obligations associated with our manufacturing operations in Korea which could reduce our cash flow and negatively impact our financial condition.

Our subsidiary in Korea maintains an unfunded severance plan, under which we have an accrued liability of $47.8 million as of December 31, 2023. The plan covers certain employees that were employed prior to August 1, 2015. In the event of a significant layoff or other reduction in our labor force in Korea, our subsidiary in Korea would be required to make lump-sum severance payments under the plan, which could have a material adverse effect on our liquidity, financial condition and cash flows. We have made, and may in the future make, offers to some or all of the covered employees the option to convert from the severance plan to a defined contribution plan. Some employees have accepted previous offers, and future offers to make similar conversions could impact the timing of future payments, reducing our cash flow and materially and adversely affecting our financial condition.

Risks Related to Cybersecurity, Data Privacy and Intellectual Property

Our business will suffer if we are not able to develop new proprietary technology, protect our proprietary technology and operate without infringing the proprietary rights of others.

The complexity and scope of semiconductor packaging, SiP modules and test services are rapidly increasing. As a result, we expect to develop, acquire and implement new manufacturing processes and packaging technologies and tools in order to respond to competitive industry conditions and customer requirements. Technological advances may lead to rapid and significant price erosion and may make our existing packages less competitive or our existing inventories obsolete. If we cannot achieve advances in packaging design or obtain access to advanced packaging designs developed by others, our business could suffer.

The need to develop and maintain advanced packaging capabilities and equipment could require significant research and development, capital expenditures and acquisitions in future years. In addition, converting to new packaging designs or process methodologies could result in delays in producing new package types, which could impact our ability to meet customer orders and materially and adversely impact our business.

Although we seek patent protection for some of our technology under U.S. and foreign patent laws, the process of seeking patent protection takes a long time and is expensive. There can be no assurance that patents will issue from pending or future applications or that, if patents are issued, the rights granted under the patents will provide us with meaningful protection or any commercial advantage. Any patents we do obtain may be challenged, invalidated or circumvented and will eventually expire. As a result, such patents may not offer us meaningful protection or provide the commercial advantage for which they were designed.

Some of our technologies are not covered by any patent or patent application. The confidentiality agreements on which we rely to protect these technologies may be breached or may not be adequate to protect our proprietary technologies. There can be no assurance that other countries in which we market our services will protect our intellectual property rights to the same extent as the U.S.

Our competitors may develop, patent or gain access to know-how and technology similar or superior to our own. In addition, many of our patents are subject to cross licenses, several of which are with our competitors. The semiconductor industry is characterized by frequent claims regarding the infringement of patent and other intellectual property rights. If any third party makes an enforceable infringement claim against us or our customers, we could be required to:

- discontinue the use of certain processes or cease to provide the services at issue, which could curtail our business;
- pay substantial damages;
- develop non-infringing technologies, which may not be feasible; or
- acquire licenses to such technology, which may not be available on commercially reasonable terms or at all.

We may need to enforce our patents or other intellectual property rights, including our rights under patent and intellectual property licenses with third parties, or defend ourselves against claimed infringement of the rights of others through litigation, which could result in substantial cost and diversion of our resources and may not be successful. Furthermore, if we fail to obtain necessary licenses, our business could suffer, and we could be exposed to claims for damages and injunctions from third parties, as well as claims from our customers for indemnification. Unfavorable outcomes in any legal proceedings involving intellectual property could result in significant liabilities or loss of commercial advantage and could have a material adverse effect on our business, liquidity, results of operations, financial condition and cash flows. The potential impact from the legal proceedings referred to in this Form 10-K on our results of operations, financial condition and cash flows could change in the future.

We face risks in connection with the continuing development and implementation of changes to, and maintenance and security of, our information technology systems.

We depend on our information technology systems for many aspects of our business. Our systems may be susceptible to damage, disruptions or shutdowns due to failures during the process of upgrading, replacing or maintaining software, databases or components thereof, power outages, hardware failures, interruption or failures of third-party provider systems, computer viruses, attacks by computer hackers, ransomware attacks, telecommunication failures, user errors, malfeasance or catastrophic events. Such events have occurred in the past and may occur in the future. Cybersecurity breaches could result in unauthorized disclosure of confidential information and/or disruptions to our operations. While we have not experienced a material information security breach, we cannot be sure that such a breach will not occur in the future. The IT systems in our factories are at varying levels of sophistication and maturity as the factories have different sets of products, processes and customer expectations. Some of our key software has been developed by our own programmers, and this software may not be easily integrated with other software and systems. From time to time, we make additions or changes to our information technology systems. For example, we continue to further integrate our Japan operations' information technology systems into our existing systems and processes. We face risks in connection with current and future projects to install or integrate new information technology systems or upgrade our existing systems. These risks include:

- delays in the design and implementation of the system;
- costs may exceed our plans and expectations; and
- disruptions resulting from the implementation, integration or cybersecurity breach of the systems may impact our ability to process transactions and delay shipments to customers, impact our results of operations or financial condition or harm our control environment.

Our business could be materially and adversely affected if our information technology systems are disrupted or if we are unable to successfully install new systems or improve, upgrade, integrate or expand upon our existing systems. We maintain insurance policies for various types of information security risks, including network security and privacy liability for third party claims, and business interruption and system failure reimbursement coverage, but we do not carry insurance for all the above referred risks. With regard to the insurance we do maintain, we cannot assure you that it would be sufficient to cover all of our potential losses. As a result, our business, financial condition, results of operations and cash flows could be materially and adversely affected by a disruption, failure or breach of our information technology systems.

Risks Related to Our Indebtedness

Covenants in the indentures and agreements governing our current and future indebtedness could restrict our operating flexibility.

The indentures and agreements governing our existing debt contain, and debt we incur in the future may contain, affirmative and negative covenants that materially limit our ability to take certain actions, including our ability to incur debt, pay dividends and repurchase stock, make certain investments and other payments, enter into certain mergers and consolidations, engage in sale leaseback transactions and encumber and dispose of assets. In addition, certain of our debt agreements contain, and our future debt agreements may contain, financial covenants and ratios.

The breach of any of these covenants by us, or the failure by us to meet any of the financial ratios or conditions, could result in a default under any or all of such indebtedness. If a default occurs under any such indebtedness, all of the outstanding obligations thereunder could become immediately due and payable, which could result in a default under our other outstanding debt and could lead to an acceleration of obligations related to other outstanding debt. The existence of such a default or event of default could also preclude us from borrowing funds under our revolving credit facilities. Our ability to comply with the provisions of the indentures, credit facilities and other agreements governing our outstanding debt and indebtedness we may incur in the future can be affected by events beyond our control, and a default under any debt instrument, if not cured or waived, could have a material adverse effect on us.

Our substantial indebtedness could have a material adverse effect on our financial condition and prevent us from fulfilling our obligations.

We have a substantial amount of debt, and the terms of the agreements governing our indebtedness allow us and our subsidiaries to incur more debt, subject to certain limitations. As of December 31, 2023, our total debt balance was $1,203.5 million, of which $131.6 million was classified as a current liability and $679.7 million was collateralized indebtedness at our subsidiaries. We may consider investments in joint ventures, increased capital expenditures, refinancings or acquisitions which may increase our indebtedness. If new debt is added to our consolidated debt level, the related risks that we face could increase.

Our substantial indebtedness could:

- make it more difficult for us to satisfy our obligations with respect to our indebtedness, including our obligations under our indentures to purchase notes tendered as a result of a change in control of Amkor;
- increase our vulnerability to general adverse economic and industry conditions;

- limit our ability to fund future working capital, capital expenditures, research and development and other business opportunities, including joint ventures and acquisitions;
- require us to dedicate a substantial portion of our cash flow from operations to service payments of interest and principal on our debt, thereby reducing the availability of our cash flow to fund future working capital, capital expenditures, research and development expenditures and other general corporate requirements;
- increase the volatility of the price of our common stock;
- limit our flexibility to react to changes in our business and the industry in which we operate;
- place us at a competitive disadvantage to any of our competitors that have less debt;
- limit, along with the financial and other covenants in our indebtedness, our ability to borrow additional funds;
- limit our ability to refinance our existing indebtedness, particularly during periods of adverse credit market conditions when refinancing indebtedness may not be available under interest rates and other terms acceptable to us or at all; and
- increase our cost of borrowing.

We are exposed to fluctuations in interest rates and changes in credit risk, which could have a material adverse impact on our earnings as it relates to the market value of our investment portfolio.

We maintain an investment portfolio of various holdings, types and maturities. Our portfolio includes available-for-sale debt investments, the values of which are subject to market price volatility resulting from interest rate movements, changes in credit risk and financial market conditions. If such investments suffer market price declines, we may recognize in earnings the decline in the fair value of our investments below their cost basis when the decline is judged to be an impairment, including an allowance for credit loss.

Risks Related to Our Common Stock

James J. Kim and members of his family can effectively determine or substantially influence the outcome of all matters requiring stockholder approval.

As of December 31, 2023, James J. Kim, the Executive Chairman of our Board of Directors, Susan Y. Kim, the Executive Vice Chairman of our Board of Directors, and members of the Kim family and affiliates owned approximately 132.0 million shares, or approximately 54%, of our outstanding common stock. The Kim family also has options to acquire approximately 0.6 million shares. If the options are exercised, the Kim family's total ownership would be an aggregate of approximately 132.6 million shares, or approximately 54% of our outstanding common stock.

In June 2013, the Kim family exchanged convertible notes issued by Amkor in 2009 for approximately 49.6 million shares of common stock (the "Convert Shares"). As of December 31, 2023, the Kim family owns 39.6 million Convert Shares. The Convert Shares owned by the Kim family are subject to a voting agreement. The voting agreement requires the Kim family to vote these shares in a "neutral manner" on all matters submitted to our stockholders for a vote, so that such Convert Shares are voted in the same proportion as all of the other outstanding securities (excluding the other shares owned by the Kim family) that are actually voted on a proposal submitted to Amkor's stockholders for approval. The Kim family is not required to vote in a "neutral manner" any Convert Shares that, when aggregated with all other voting shares held by the Kim family, represent 41.6% or less of the total then-outstanding voting shares of our common stock. The voting agreement for the Convert Shares terminates upon the earliest of (i) such time as the Kim family no longer beneficially owns any of the Convert Shares, (ii) consummation of a change of control (as defined in the voting agreement) or (iii) the mutual agreement of the Kim family and Amkor.

Mr. Kim and his family and affiliates, acting together, have the ability to effectively determine or substantially influence matters submitted for approval by our stockholders by voting their shares or otherwise acting by written consent, including the election of our Board of Directors. There is also the potential, through the election of members of our Board of Directors, that the Kim family could substantially influence matters decided upon by our Board of Directors. This concentration of ownership may also have the effect of impeding a merger, consolidation, takeover or other business consolidation involving us, or discouraging a potential acquirer from making a tender offer for our shares, and could also negatively affect our stock's market price or decrease any premium over market price that an acquirer might otherwise pay. Concentration of ownership also reduces the public float of our common stock. There may be less liquidity and higher price volatility for the stock of companies with a smaller public float compared to companies with broader public ownership. Also, the sale or the prospect of the sale of a substantial portion of the Kim family shares may cause the market price of our stock to decline significantly.

We may decrease or suspend our quarterly dividend, and any decrease in or suspension of the dividend could cause our stock price to decline.

Since October 2020, we have declared a regular quarterly cash dividend on our outstanding common stock. However, the payment, amount and timing of future cash dividends are subject to the final determination each quarter by our Board of Directors or a committee thereof that there are sufficient funds available to lawfully pay a dividend, that the dividend is compliant with the applicable restrictions in our debt agreements and that the payment of the dividend remains in our and our stockholders' best interests. The determination will be based on our results of operations, financial condition, cash requirements, debt restrictions and other factors. Given these considerations, we may increase or decrease the amount of the dividend at any time and may also decide to vary the timing of or suspend the payment of dividends in the future. Any decrease or suspension of dividend payments could cause our stock price to decline.

Risks Related to Human Capital and Management

We face risks trying to attract, retain or replace qualified employees to support our operations.

Our success depends to a significant extent upon the continued service of our key senior management, sales and technical personnel, any of whom may be difficult to replace. Competition for qualified employees is intensifying, accelerated by increasing competition in the semiconductor industry for talent to meet strong demand, and our business could be materially and adversely affected by the loss of the services of any of our existing key personnel, including senior management and technical talent, as a result of competition or for any other reason. Labor shortages could also result in higher wages that would increase our labor costs, which could reduce our profits. Although we have entered into agreements with our Chief Executive Officer and certain other executives that would prevent them from working for, or impose financial penalties for doing business with, our competitors in the event that those executives cease working for us, we cannot assure you that we will be successful in our efforts to retain or replace key employees or in hiring and properly training sufficient numbers of qualified personnel and in effectively managing our growth. Our inability to attract, retain, motivate and train qualified new personnel could have a material adverse effect on our business.

Risks Related to Regulatory, Legal and Tax Challenges

We may face warranty claims, product return and liability risks, economic damage claims and negative publicity if our packages fail.

Our packages are incorporated into a number of end products. If our packages fail, our business may be exposed to warranty claims, product return and liability risks, economic damage claims and negative publicity.

We receive warranty claims from our customers from time to time in the ordinary course of our business. If we were to experience an unusually high incidence of warranty claims, we could incur significant costs and our business could be materially and adversely affected. In addition, we are exposed to the product and economic liability risks and the risk of negative publicity affecting our customers. Our sales may decline if any of our customers are sued on a product liability claim. We also may suffer a decline in sales from the negative publicity associated with such a lawsuit or with adverse public perceptions in general regarding our customers’ products. Further, if our packages are delivered with defects, we could incur additional development, repair or replacement costs or suffer other economic losses, and our credibility and the market’s acceptance of our packages could be harmed.

If we fail to maintain an effective system of internal controls, we may not be able to accurately report financial results or prevent fraud.

Our internal controls over financial reporting may not prevent or detect misstatements because of their inherent limitations, including the possibility of human error, the circumvention or overriding of controls, fraud or corruption. Therefore, even effective internal controls can provide only reasonable assurance with respect to the preparation and fair presentation of financial statements. In addition, projections concerning the effectiveness of internal controls in future periods are subject to the risk that our internal controls may become inadequate because of changes in conditions, or that the degree of compliance with our policies or procedures may deteriorate.

We assess our internal controls and systems on an ongoing basis, and from time-to-time, we update and make modifications to our global enterprise resource planning system. We have implemented several significant enterprise resource planning and shop floor management systems and expect to implement additional similar systems in the future. There is a risk that deficiencies may occur that could constitute significant deficiencies or, in the aggregate, a material weakness.

If we fail to remedy any deficiencies or maintain the adequacy of our internal controls, we could be subject to regulatory scrutiny, civil or criminal penalties or shareholder litigation. In addition, failure to maintain adequate internal controls could result in financial statements that do not accurately reflect our operating results or financial condition.

We could suffer adverse tax and other financial consequences if there are changes in tax laws or taxing authorities do not agree with our interpretation of applicable tax laws, including whether we continue to qualify for conditional reduced tax rates, or if we are required to establish or adjust valuation allowances on deferred tax assets.

We earn a substantial portion of our income in foreign countries, and our operations are subject to tax in multiple jurisdictions with complicated and varied tax regimes. Tax laws and income tax rates in these jurisdictions are subject to change due to economic and political conditions. Changes in the tax laws of foreign jurisdictions could arise as a result of the base erosion and profit shifting project that was undertaken by the Organization for Economic Cooperation and Development ("OECD"). The OECD, which represents a coalition of member countries, recommended changes to long-standing tax principles related to transfer pricing and has developed model rules including establishing a global minimum corporate income tax tested on a jurisdictional basis (the "Pillar Two Model Rules"). Some countries have already started to implement laws based on the Pillar Two Model Rules to be effective in 2024. There can be no assurance that our effective tax rate, tax payments or conditional reduced tax rates will not be adversely affected as countries independently amend their tax laws to adopt Pillar Two Model Rules. Changes in U.S. or foreign tax laws, including new or modified guidance with respect to existing tax laws, could have a material adverse impact on our liquidity, results of operations, financial condition and cash flows.

Our tax liabilities are based, in part, on our corporate structure, interpretations of various U.S. and foreign tax laws, including withholding tax, compliance with conditional reduced tax rate requirements, application of changes in tax law to our operations and other relevant laws of applicable taxing jurisdictions. From time to time, taxing authorities may conduct examinations of our income tax returns and other regulatory filings. We cannot assure you that the taxing authorities will agree with our interpretations, including whether we continue to qualify for conditional reduced tax rates. If they do not agree, we may seek to enter into settlements with the taxing authorities. We may also appeal a taxing authority's determination to the appropriate governmental authorities, but we cannot be sure we will prevail. If we do not prevail or if we enter into settlements with taxing authorities, we may have to make significant payments or otherwise record charges (or reduce tax assets) that materially and adversely affect our results of operations, financial condition and cash flows. Additionally, certain of our subsidiaries operate under conditional reduced tax rates, which will expire in whole or in part at various dates in the future. As those conditional reduced tax rates expire, we expect that our tax expense will increase as income from those jurisdictions becomes subject to higher statutory income tax rates, thereby reducing our liquidity and cash flow.

We monitor on an ongoing basis our ability to utilize our deferred tax assets and whether there is a need for a related valuation allowance. In evaluating our ability to recover our deferred tax assets, in the jurisdiction from which they arise, we consider all available positive and negative evidence, including scheduled reversals of deferred tax liabilities, projected future taxable income, tax-planning strategies and recent results of operations. In the event taxable income falls short of current expectations, we may need to establish a valuation allowance against such deferred tax assets that, if required, could materially and adversely affect our results of operations.

Environmental, health and safety liabilities and expenditures could have a material adverse effect on our business, results of operation and financial condition.

Environmental, health and safety laws and regulations in places we do business impose various controls on the use, storage, handling, discharge and disposal of chemicals used or generated in, or emitted by, our production processes, on the factories we occupy and on the materials contained in semiconductor products. For example, at our foreign facilities we produce liquid waste when semiconductor wafers are diced into chips with the aid of diamond saws, then cooled with running water. In addition, semiconductor packages have historically utilized metallic alloys containing lead within the interconnect terminals typically referred to as leads, pins or balls. The European Union's Restriction of Hazardous Substances in Electrical and Electronic Equipment directive and similar laws in other jurisdictions, including China, impose strict restrictions on the placement into the market of electrical and electronic equipment containing lead and certain other hazardous substances. We may become liable under these and other environmental, health and safety laws and regulations, including for the cost of compliance and cleanup of any disposal or release of hazardous materials arising out of our former or current operations, or otherwise as a result of the emission of GHGs or other chemicals, the existence of hazardous materials on our properties or the existence of hazardous substances in the products for which we perform our services. We could also be held liable for damages, including fines, penalties and the cost of investigations and remedial actions, and we could be subject to revocation of permits, which may materially and adversely affect our ability to maintain or expand our operations. Additionally, if Amkor is unable to align its environmental, health and safety practices with shifting customer preferences, we could suffer reputational harm, which could have a material and adverse effect on our business, results of operations, liquidity and cash flows.

There has also been an increase in regulatory and public attention and industry and customer focus on the materials contained in semiconductor products, the environmental impact of semiconductor operations and the risk of chemical releases from such operations, climate change, sustainability and related environmental concerns. Increased regulation of and restriction on the use of hazardous substances may impact our supply chain due to decreased availability, necessitate changes in our packaging processes, require us to seek substitutes that may not be readily available in the marketplace or eliminate the use of such hazardous substances although there may not be a technically feasible alternative. This increased focus on sustainability and the environmental impact of semiconductor operations and products has caused industry groups and customers to impose additional requirements on us and our suppliers, sometimes exceeding regulatory standards. These industry and customer requirements include increased tracking and reporting of GHG emissions, reductions in waste and wastewater from operations, additional reporting on the materials and components used in the products for which we perform our services, and the use of renewable energy sources in our factory operations. In addition, recent and ongoing changes to climate change regulation could increase our compliance costs, including as a result of carbon pricing impacts on electrical utilities as well as increased indirect costs resulting from our customers, suppliers, and other stakeholders incurring additional compliance costs that are passed on to us. We have started to incur compliance costs within our existing manufacturing infrastructure, and such costs may increase as we expand our manufacturing capacity. To comply with these additional requirements, we may need to procure additional, or increase the use of, renewable energy, procure additional equipment or make factory or process changes, which could result in increased operating costs.

General Risk Factors

The Covid-19 pandemic has impacted, and may impact in the future, the supply chain and consumer demand for our customers' products and services, and such impact on the supply chain and consumer demand may ultimately have a material and adverse effect on our business, results of operations and financial condition.

The impacts of the Covid-19 pandemic varied by location, by industry and by end market. We, our suppliers and our customers were disrupted by worker illness and absenteeism, quarantines and restrictions on employees' ability to work, office and factory closures, disruptions to ports and other shipping infrastructure and border closures or other travel or health-related restrictions. Restrictions on our workforce or access to our manufacturing facilities, or similar limitations for our suppliers, or restrictions or disruptions of transportation in order to contain the spread of Covid-19 caused disruptions to our supply chain in connection with the sourcing of equipment, supplies and other materials, and similar restrictions in the future could limit our capacity to meet customer demand and have a material adverse effect on our business, results of operations and financial condition. Restrictions may be implemented in response to the emergence of new variants or re-emergence of Covid-19, and such restrictions may materially and adversely impact our operations and the operations of our customers and suppliers. We also remain subject to industry-wide supply constraints and inflationary price pressures, which have resulted in long lead times, rising prices and supply chain disruptions.

The spread of Covid-19 caused us to modify our business practices (including corporate hygiene protocols at factories, restricting employee travel and employee work locations and cancelling physical participation in meetings, events and conferences) and, while the long-term impact of the Covid-19 pandemic remains uncertain, we have retained certain of those enhanced measures as part of our commitment to protect the health and safety of our employees. We may also take further actions in the future as may be required by government authorities or that we determine to be in the best interests of our employees, customers and suppliers. There is no certainty that such measures will be sufficient to mitigate the future impact of Covid-19, and our ability to perform critical functions could be harmed.

Our business and financial condition has been adversely affected, and could be adversely affected in the future, by natural disasters and other calamities, health conditions or pandemics, political instability, hostilities or other disruptions.

We have significant packaging and test services and other operations in China, Japan, Korea, Malaysia, the Philippines, Portugal, Singapore, Taiwan and the Vietnam Facility. Such operations are or could be subject to: natural disasters, such as earthquakes, tsunamis, typhoons, floods, droughts, volcanoes and other severe weather and geological events, and other calamities, such as fire; the outbreak of infectious diseases (such as Covid-19 and other coronaviruses, Ebola or flu); industrial strikes; government-imposed travel restrictions or quarantines; breakdowns of equipment; difficulties or delays in obtaining materials, equipment, utilities and services; political events or instability; acts of war or armed conflict (such as ongoing conflicts in Ukraine and Israel); terrorist incidents and other hostilities in regions where we have facilities; and industrial accidents and other events, that could disrupt or even shut down our operations. While our global manufacturing footprint allows us to shift production to other factories without substantial cost or production delays, certain of our services are currently performed using equipment located in one or only a subset of our factories. A major disruption or shutdown of any such factory could completely impair our ability to perform those services or require us to shift them to another location. As a result, our ability to fulfill customer orders may be impaired or delayed, and we could incur significant losses.

For example, in April 2016, our Kumamoto factory was damaged by earthquakes in Japan. As a result of these earthquakes, our sales were reduced due to the temporary disruption in operations, and we incurred earthquake-related costs for damaged inventory, buildings and equipment. Our suppliers and customers also have significant operations in such locations, and this could compound the effect of any such disruption. In the event of such a disruption or shutdown, we may be unable to reallocate production to other facilities in a timely or cost-effective manner (if at all), and we may not have sufficient capacity, or customer approval, to service customer demands in our other facilities. A natural disaster or other calamity, political instability, the occurrence of hostilities or other event that results in a prolonged disruption to our operations, or the operations of our customers or suppliers, could have a material adverse effect on our business, financial condition, results of operations and cash flows.

In addition, some of the processes that we utilize in our operations place us at risk of fire and other damage. For example, highly flammable gases are used in the preparation of wafers holding semiconductor devices for flip chip packaging.

We maintain insurance policies for various types of property, casualty and other risks, but we do not carry insurance for all the above referred risks. With regard to the insurance we do maintain, we cannot assure you that it would be sufficient to cover all of our potential losses. As a result, our business, financial condition, results of operations and cash flows could be materially and adversely affected by natural disasters and other calamities.

Item 1B. ***Unresolved Staff Comments***

None.

Item 1C. ***Cybersecurity***

Cybersecurity Risk Management and Strategy

Our cybersecurity measures are designed to help protect our information security systems from cybersecurity threats. Our Global Information Security Team is led by our Corporate Vice President and Chief Information Officer ("CIO") and is composed of key functional leaders. Our Global Information Security Team assesses, identifies and manages cybersecurity risks to the Company, including by:

- ***Assessing, identifying and managing cybersecurity risks to our information systems:*** We assess, identify and manage cybersecurity risks to our information systems, including by: (i) establishing and maintaining a governance structure that includes policies, procedures and processes designed to manage cybersecurity threats and cybersecurity incidents; (ii) conducting ongoing risk assessments, including to identify and assess cybersecurity risks; (iii) developing and implementing an overall risk management strategy, which includes cybersecurity risks; (iv) overseeing, identifying and managing risks from cybersecurity threats associated with our use of third-party service providers and our supply chain; and (v) engaging external experts, including cybersecurity assessors, consultants and auditors to evaluate and test our cybersecurity measures and risk management processes; and

- ***Establishing a program to assess and help mitigate cybersecurity threats:*** We are committed to establishing a program to assess and help mitigate cybersecurity threats through: (i) conducting employee training on cybersecurity risks and best practices; (ii) implementing measures to classify and protect data; and (iii) taking steps to be aware of and address new cybersecurity threats, including through the receipt of threat information from third-parties that helps us proactively prevent and detect cybersecurity threats.

Impact of Cybersecurity Risks

We assess, on an ongoing basis, the potential impact of risks from cybersecurity threats on us and our business. During the reporting period, we have not identified any risks from cybersecurity threats, including as a result of any previous cybersecurity incidents, that have materially affected, or are reasonably likely to materially affect us, including our business strategy, results of operations or financial condition.

Board Oversight of Cybersecurity Risks

Our Board of Directors, through the Audit Committee, provides strategic oversight regarding risks from cybersecurity threats through oversight of our overarching cybersecurity posture and risk management practices. The Audit Committee receives periodic updates from our CIO on the current status of our cybersecurity program and risks from cybersecurity threats, and our Board of Directors is apprised of significant cybersecurity matters.

Management's Role in Assessing and Managing Material Risks from Cybersecurity Threats

Management is responsible for assessing and managing risks from cybersecurity threats. Specifically, our CIO, supported by our Global Information Security Team, is responsible for the overall management of our information security program, which includes assessing, identifying and managing cybersecurity risks and material risks from cybersecurity threats. The Company's CIO was promoted to the position in January 2024 after serving as Senior Vice President – Enterprise Applications since July 2022. The CIO has more than 25 years of manufacturing experience, mostly in IT leadership roles in the semiconductor industry, and holds electrical and computer engineering degrees from the University of Missouri and an MBA from The Ohio State University.

Members of the Global Information Security Team possess expertise in various disciplines that are key to effectively managing our information security program. Team members represent relevant functions within the organization (e.g., Risk and Compliance, Security Operation Center & Network Engineering and Operational Technology). Each Global Information Security Team member has more than 15 years of experience working for large enterprises in the information technology and information security space. This includes, but is not limited to, expertise in data infrastructure, operations and information security and risk and compliance. In addition, our CIO and certain members of the Global Information Security Team are informed about and monitor the prevention, detection, mitigation and remediation of cybersecurity incidents through their participation in incident response protocols.

Item 2. *Properties*

The location and size of our manufacturing and research and development facilities are set forth in the table below. All facilities are owned unless otherwise specified. Generally, our facilities are collateral for indebtedness incurred by our subsidiary for the jurisdiction in which the facilities are located.

	Approximate Facility Size (Square Feet)		
	Owned	**Leased**	**Total**
China (1)	1,398,000	—	1,398,000
Japan	1,488,000	285,000	1,773,000
Korea	4,440,000	—	4,440,000
Malaysia (1)	386,000	—	386,000
Philippines (2)	765,000	557,000	1,322,000
Portugal	519,000	—	519,000
Taiwan (1)	1,100,000	16,000	1,116,000
Vietnam (1) (3)	1,181,000	—	1,181,000
Total all facilities	11,277,000	858,000	12,135,000

(1) Land is leased.

(2) As a result of foreign ownership restrictions in the Philippines, the land is leased. A portion of the land we lease is owned by realty companies in which we own a 40% interest.

(3) In October 2023, we completed construction for the first phase of the Vietnam Facility. High-volume manufacturing is expected to begin in the second half of 2024.

Our executive offices, which are leased, are located in Tempe, Arizona and Singapore. We believe that our existing properties are in good condition and suitable for the conduct of our business and that the productive capacity of such properties is substantially being utilized or we have plans to utilize it.

Item 3. *Legal Proceedings*

From time to time, we may become involved in various disputes and litigation matters that arise in the ordinary course of our business. These include disputes and lawsuits related to intellectual property, acquisitions, licensing, contracts, tax, regulatory compliance, employee relations and other matters. For a discussion of our material legal proceedings, see Note 17 to our Consolidated Financial Statements in Part II, Item 8 of this Form 10-K.

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*

LISTING ON THE NASDAQ GLOBAL SELECT MARKET

Our common stock is traded on the Nasdaq Global Select Market under the symbol "AMKR." There were approximately 79 holders of record of our common stock as of February 9, 2024.

DIVIDEND POLICY

In October 2020, our Board of Directors approved the initiation of a regular quarterly cash dividend on our common stock. Each quarter since the adoption of this dividend policy, the Company has declared and paid a quarterly dividend. In November 2023, our Board of Directors approved a quarterly dividend of $0.07875 per share, a 5% increase from the rate set in November 2022.

We currently anticipate that we will continue to pay quarterly cash dividends in the future. However, the payment, amount and timing of future dividends remain within the discretion of our Board of Directors and will depend upon our results of operations, financial condition, cash requirements, debt restrictions and other factors. Refer to the "Liquidity" section in Item 7 of this Form 10-K for additional information.

RECENT SALES OF UNREGISTERED SECURITIES

None.

EQUITY COMPENSATION PLANS

The information required by this item regarding equity compensation plans is set forth in Part III, Item 12 of this Form 10-K.

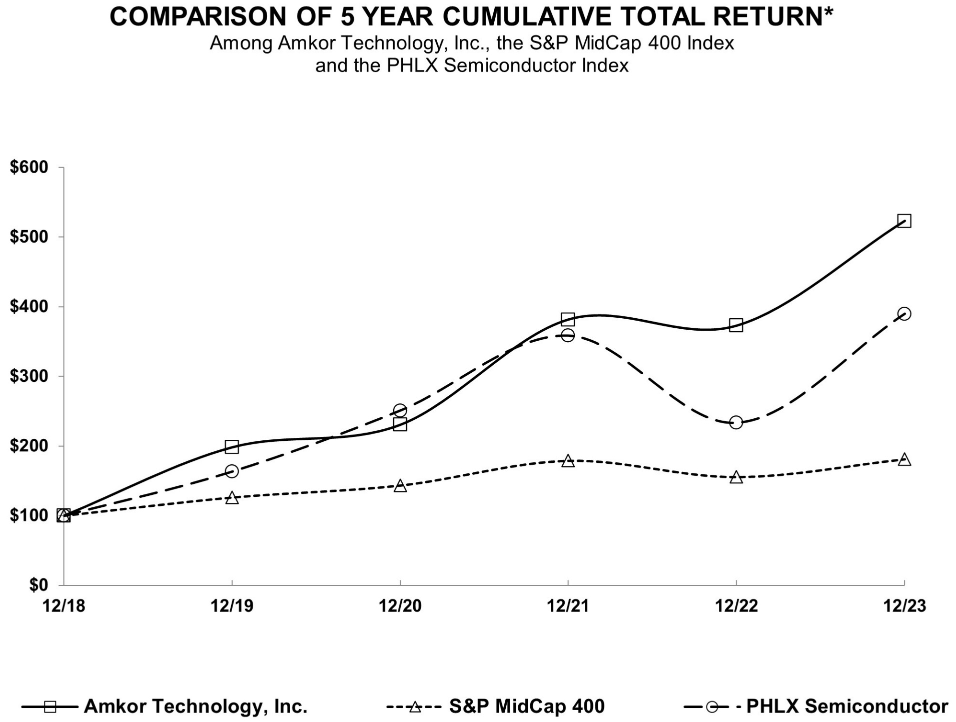
PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS

The following table provides information regarding repurchases of our common stock during the three months ended December 31, 2023:

Period	Total Number of Shares Purchased (a)	Average Price Paid Per Share ($)	Total Number of Shares Purchased as part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs ($)
October 1 - October 31	—	$ —	—	$ —
November 1 - November 30	—	—	—	—
December 1 - December 31	2,949	29.40	—	—
Total	2,949	$ 29.40	—	

(a) Represents shares of common stock surrendered to us to satisfy tax withholding obligations associated with share-based compensation awards issued to employees.

PERFORMANCE GRAPH [(1)]



*$100 invested on 12/31/18 in stock or index, including reinvestment of dividends.
Fiscal year ending December 31.

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(1) The preceding Stock Performance Graph is not deemed filed with the SEC and shall not be incorporated by reference in any of our filings under the Securities Act of 1933, as amended (the "Securities Act"), or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing. The stock performance shown on the performance graph above is not necessarily indicative of future performance. We will not make or endorse any predictions as to Amkor's future stock performance.

The following table sets forth the cumulative total returns included in the preceding Stock Performance Graph for the years ended December 31, 2018 through 2023:

	For the Year Ended December 31,					
	2018	2019	2020	2021	2022	2023
Amkor Technology, Inc.	$ 100.00	$ 198.17	$ 230.48	$ 381.57	$ 372.81	$ 523.13
S&P Midcap 400	100.00	126.20	143.44	178.95	155.58	181.15
PHLX Semiconductor	100.00	163.26	250.87	358.37	233.37	389.74

Item 6. *<Reserved>*

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

This section includes comparisons of certain 2023 financial information to the same information for 2022. For discussion of 2022 results in comparison with 2021 results refer to “Management’s Discussion and Analysis of Financial Conditions and Results of Operations” in our Annual Report on Form 10-K filed with the SEC on February 22, 2023.

Overview

Amkor is one of the world’s leading providers of outsourced semiconductor packaging and test services. Our financial goal is profitable sales growth. To achieve this goal, we are focused on leveraging our leadership position in services for advanced technologies, providing our customers with a geographically diverse manufacturing footprint, growing within the industry secular growth markets of 5G, automotive, HPC and IoT, optimizing utilization of existing assets, and selectively growing our scale and scope through strategic investments.

We are an industry leader in developing and commercializing advanced packaging and test technologies, which we believe provide substantial value to our customers. Advanced packages, which account for a significant portion of mobile phone semiconductor value, are the preferred choice in the high-end smartphone market. The use of advanced packages in automotive applications is also growing, largely due to new, data-intensive applications which require increased pin count and performance. With the continuing trend towards cloud-based computing and the expanding use of artificial intelligence, innovative advanced packaging solutions are needed to achieve the increased performance and power consumption requirements for this market. In consumer devices, further miniaturization and increasing functionality within IoT devices also require advanced packaging. We believe that demand for advanced packaging services will continue to grow as our customers and leading electronics OEMs strive for smaller device geometries, higher levels of integration and performance and lower power consumption. We intend to continue to leverage our investments in advanced technology to meet the demand for these services in high growth markets.

Our broad geographic footprint, including our manufacturing presence in Portugal and our headquarters in the United States, are key differentiators for us and position us to continue to support global supply chains and to participate in initiatives to regionalize supply chains. We are preparing to deliver advanced SiP modules and other advanced packages from our Vietnam Facility beginning in the second half of 2024, which we believe will provide customers with a cost-competitive high-volume manufacturing location that offers additional supply chain diversification.

Another key factor in our success is the optimization of asset utilization. We build and utilize manufacturing lines which support multiple customers, and we increase factory utilization through sophisticated planning processes and intensive efficiency improvement activities.

From time to time, we identify attractive opportunities to strengthen our leadership position and market share through expansion of our operations, joint ventures, acquisitions and other strategic investments. We believe that selective growth through these strategic actions can further strengthen customer relationships, help to maintain and enhance our technological leadership, diversify our revenue streams and improve our profits.

As a supplier in the semiconductor industry, our business is cyclical and impacted by broad economic factors. Historical trends indicate there has been a strong correlation between worldwide gross domestic product levels, consumer spending and semiconductor industry cycles. We believe that the general semiconductor market is currently going through a cyclical correction. The semiconductor industry has experienced significant and sometimes prolonged cyclical upturns and downturns in the past. We cannot predict the timing, strength or duration of any correction, economic slowdown, recession or subsequent economic recovery.

We operate in a capital-intensive industry. Servicing our current and future customers requires that we incur significant operating expenses and continue to make significant capital expenditures, which are generally made in advance of the related revenues and without firm customer commitments. We fund our operations, including capital expenditures and debt service requirements, with cash flows from operations, existing cash and cash equivalents, short-term investments, borrowings under available credit facilities and proceeds from any additional financing. Maintaining an appropriate level of liquidity is important to our business and depends on, among other considerations, the performance of our business, our capital expenditure levels, our ability to repay debt out of our operating cash flows or proceeds from debt or equity financings and our investment strategy. As of December 31, 2023, we had cash and cash equivalents and short-term investments of $1,119.8 million and $474.9 million, respectively.

Our net sales, gross profit, operating income, cash flows, liquidity and capital resources have historically fluctuated significantly from quarter to quarter due to many factors, including the seasonality of our business, the cyclical nature of the semiconductor industry and other factors discussed in Part 1, Item 1A of this Form 10-K. We expect macroeconomic conditions to be challenging in the first half of 2024. To prepare for future growth, we will continue to make prudent investments, and we will closely manage capacity expansion and control costs in response to changes in market conditions.

2023 Financial Summary

Our net sales decreased $588.5 million or 8.3% to $6,503.1 million in 2023 from $7,091.6 million in 2022. The decrease was primarily due to lower sales in our consumer and computing end markets, partially offset by growth in our communications end market.

Gross margin decreased to 14.5% in 2023 compared to 18.8% in 2022. The decrease in gross margin was primarily due to an increase in the mix of products sold with higher material content, the decrease in net sales and resulting lower factory utilization.

Operating income margin decreased 550 basis points to 7.2% in 2023 from 12.7% in 2022. The decrease in our operating income margin was due to the decrease in our gross margin discussed above along with an increase in research and development expenses, primarily due to additional equipment and overhead costs to support development projects in advanced packaging technologies, partially offset by projects that moved into production. Operating income margin was also impacted by an increase in selling, general and administrative expenses, primarily due to costs associated with the opening of the Vietnam Facility and increased bad debt expense, partially offset by a reduction in employee compensation costs.

In 2023, our capital expenditures totaled $749.5 million, or 11.5% of net sales, compared to $908.3 million, or 12.8% of net sales in 2022. Our spending was primarily focused on investments in advanced packaging and test equipment and the Vietnam Facility.

Net cash provided by operating activities was $1,270.0 million for the year ended December 31, 2023, compared to $1,098.8 million for the year ended December 31, 2022. This increase was primarily due to changes in working capital, offset by lower net sales and operating profits.

In November 2023, our Board of Directors approved a quarterly dividend of $0.07875 per share, a 5% increase from the rate set in November 2022. In 2023, we paid total quarterly cash dividends of $74.7 million.

Results of Operations

The following table sets forth certain operating data as a percentage of net sales for the periods indicated:

	For the Year Ended December 31		
	2023	2022	2021
Net sales	100.0 %	100.0 %	100.0 %
Materials	55.1 %	51.4 %	46.1 %
Labor	9.9 %	10.0 %	12.3 %
Other manufacturing costs	20.5 %	19.8 %	21.6 %
Gross margin	14.5 %	18.8 %	20.0 %
Selling, general and administrative	4.5 %	4.0 %	4.8 %
Research and development	2.7 %	2.1 %	2.7 %
Operating income	7.2 %	12.7 %	12.4 %
Net income attributable to Amkor	5.5 %	10.8 %	10.5 %

Net Sales

	2023	2022	2021	Change 2023 over 2022		Change 2022 over 2021	
	(In thousands, except percentages)						
Net sales	$ 6,503,065	$ 7,091,585	$ 6,138,329	$ (588,520)	(8.3)%	$ 953,256	15.5 %

The $588.5 million decrease in net sales in 2023 compared to 2022 was primarily due to lower sales in our consumer and computing end markets, partially offset by growth in our communications end market. The consumer and computing end markets decreased 38% and 11%, respectively, in 2023 compared to 2022. These end markets were impacted by the cyclical correction of the semiconductor market, product lifecycle changeovers and weaker demand. Despite this cyclical correction, communications, our largest end market, grew 4% in 2023 compared to 2022, due to market share gains and the increase in silicon content within premium tier smartphones.

Gross Profit and Gross Margin

	2023	2022	2021	Change 2023 over 2022	Change 2022 over 2021
	(In thousands, except percentages)				
Gross profit	$ 943,153	$ 1,329,987	$ 1,225,554	$ (386,834)	$ 104,433
Gross margin	14.5 %	18.8 %	20.0 %	(4.3)%	(1.2)%

Our cost of sales consists principally of materials, labor, depreciation and manufacturing overhead. Since a substantial portion of the costs at our factories is fixed, there tends to be a strong relationship between our revenue levels and gross margin. Accordingly, relatively modest increases or decreases in revenue can have a significant effect on margin and on labor and other manufacturing costs as a percentage of revenue, depending on product mix, utilization, foreign currency exchange rate movements and seasonality. We have expanded our business in advanced packaging which tends to have higher material costs than our other products. As we continue to increase production of these higher material cost products, there could be an impact on our profitability, depending on overall utilization.

Gross profit and gross margin decreased for 2023 compared to 2022 primarily due to an increase in the mix of products sold with higher material content, the decrease in net sales and resulting lower factory utilization.

Selling, General and Administrative

	2023	2022	2021	Change 2023 over 2022		Change 2022 over 2021	
	(In thousands, except percentages)						
Selling, general and administrative	$ 295,393	$ 283,372	$ 296,084	$ 12,021	4.2 %	$ (12,712)	(4.3)%

Selling, general and administrative expenses increased in 2023 compared to 2022. The increase was primarily due to costs associated with the opening of the Vietnam Facility and increased bad debt expense, partially offset by a reduction in employee compensation costs.

Research and Development

	2023	2022	2021	Change 2023 over 2022		Change 2022 over 2021	
	(In thousands, except percentages)						
Research and development	$ 177,473	$ 149,429	$ 166,037	$ 28,044	18.8 %	$ (16,608)	(10.0)%

Research and development activities are focused on developing new packaging and test services and improving the efficiency and capabilities of our existing production processes. The costs related to our technology and product development projects are included in research and development expense until the project moves into production. Once production begins, the costs relating to production become part of the cost of sales, including ongoing depreciation for the equipment previously held for research and development activities.

Research and development expenses increased in 2023 compared to 2022 primarily due to additional equipment and overhead costs to support development projects in advanced packaging technologies, partially offset by projects that moved into production.

Other Income and Expense

	2023	2022	2021	Change 2023 over 2022		Change 2022 over 2021	
	(In thousands, except percentages)						
Interest expense	$ 59,000	$ 58,563	$ 51,508	$ 437	0.7 %	$ 7,055	13.7 %
Interest income	(48,458)	(12,762)	(1,065)	(35,696)	>100%	(11,697)	>100%
Foreign currency (gain) loss, net	18,361	(1,572)	723	19,933	>(100)%	(2,295)	>(100)%
Loss on debt retirement	—	464	—	(464)	(100.0)%	464	100 %
Other	(2,457)	(4,439)	(2,799)	1,982	(44.6)%	(1,640)	58.6 %
Total other expense, net	$ 26,446	$ 40,254	$ 48,367	$ (13,808)	(34.3)%	$ (8,113)	(16.8)%

Interest income increased in 2023 compared to 2022, primarily due to higher interest rates on our cash and cash equivalents and available-for-sale debt investment balances.

The changes in foreign currency (gain) loss, net for the 2023 compared to the 2022 were primarily due to the higher costs associated with our derivative instruments, which are used to reduce our exposure to foreign currency gains and losses.

Income Tax Expense

	2023	2022	2021	Change 2023 over 2022	Change 2022 over 2021
	(In thousands, except percentages)				
Income tax expense	$ 81,710	$ 89,890	$ 69,459	$ (8,180)	$ 20,431
Effective tax rate	18.4 %	10.5 %	9.7 %		

Income tax expense, which includes foreign withholding taxes and minimum taxes, reflects the applicable tax rates in effect in the various countries where our income is earned and is subject to volatility depending on the relative mix of earnings in each location.

The effective tax rate is below the U.S. statutory rate of 21% primarily due to lower tax rates applicable to our operations in some foreign jurisdictions where we earn income. The effective tax rate in 2022 includes a $17.8 million tax benefit from the recognition of deferred tax assets we expect to utilize in future years.

During 2023, 2022 and 2021, our subsidiaries in Korea and Singapore operated under various conditional reduced tax rates. The conditional reduced tax rates granted to certain operations in the Philippines expired during 2021. As these conditional reduced tax rates expire, income earned in these jurisdictions will be subject to higher statutory income tax rates, which may cause our effective tax rate to increase.

See Note 4 to our Consolidated Financial Statements included in Part II, Item 8 of this Form 10-K for additional information about our income tax expense.

Liquidity

We assess our liquidity based on our current expectations regarding sales and operating expenses, capital spending, dividend payments, stock and debt repurchases, debt service requirements and other funding needs. Based on this assessment, we believe that our cash flow from operating activities, together with existing cash and cash equivalents, short-term investments and availability under our credit facilities, will be sufficient to fund our working capital, capital expenditures, dividend payments, debt service, debt repurchases and other financial requirements for at least the next twelve months.

Our liquidity is affected by, among other factors, volatility in the global economy and credit markets, the performance of our business, our capital expenditure levels, other uses of our cash including any dividends and purchases of stock or debt under any repurchase program, any acquisitions, joint ventures or other investments and our ability to either repay debt out of operating cash flow or refinance it at or prior to maturity with the proceeds from debt or equity offerings. There can be no assurance that we will generate the necessary net income or operating cash flows, or be able to borrow sufficient funds, to meet the funding needs of our business beyond the next twelve months due to a variety of factors, including the cyclical nature of the semiconductor industry and other factors discussed in Part I, Item 1A of this Form 10-K.

Our primary source of cash and the source of funds for our operations are cash flows from operations, current cash and cash equivalents, short-term investments, borrowings under available credit facilities and proceeds from any additional debt or equity financings. Please refer to Note 6 and Note 11 to our Consolidated Financial Statements in Part II, Item 8 of this Form 10-K for additional information on our investments and borrowings, respectively.

As of December 31, 2023, we had cash and cash equivalents and short-term investments of $1,594.7 million. Included in our cash and short-term investments balances as of December 31, 2023, is $1,439.6 million held offshore by our foreign subsidiaries. We have the ability to access cash held offshore by our foreign subsidiaries primarily through the repayment of intercompany debt obligations. If we were to distribute this offshore cash to the U.S. as dividends from our foreign subsidiaries, the dividends generally would not be subject to U.S. federal income tax, but the distributions may be subject to foreign withholding and state income taxes. For the year ended December 31, 2023, we estimate that repatriation of this foreign cash and short-term investments would generate withholding taxes and state income taxes of approximately $48 million.

As of December 31, 2023, our net liability associated with unrecognized tax benefits is $27.5 million. Due to the uncertainty regarding the amount and timing of any future cash outflows associated with our unrecognized tax benefits, we are unable to reasonably estimate the amount and timing of ultimate settlement, if any, with the various taxing authorities.

For certain accounts receivable, we use non-recourse factoring arrangements with third party financial institutions to manage our working capital and cash flows. Under these arrangements, we sell receivables to a financial institution for cash at a discount to the face amount. Available capacity under these arrangements is dependent on the level of our trade accounts receivable eligible to be sold, the financial institutions' willingness to purchase such receivables and the limits provided by the financial institutions. These factoring arrangements can be reduced or eliminated at any time due to market conditions and changes in the creditworthiness of customers. For the year ended December 31, 2023 and 2022, we sold accounts receivable totaling $253.9 million and $386.5 million, net of discounts and fees of $1.3 million and $1.1 million, respectively.

We operate in a capital-intensive industry. Servicing our current and future customers may require that we incur significant operating expenses and make significant investments in equipment and facilities, which are generally made in advance of the related revenues and without firm customer commitments.

The maximum borrowing capacity under our $600.0 million senior secured revolving credit facility ("2022 Singapore Revolver") is limited to a base amount equal to the lesser of: (1) $600.0 million; or (2) $250 million plus a variable amount equal to 37.5% of our consolidated accounts receivable balance. As of December 31, 2023, we had availability of $600.0 million. As of December 31, 2023, our foreign subsidiaries had $615.0 million available for future borrowings under revolving credit facilities, including the 2022 Singapore Revolver, and $69.7 million available to be borrowed under term loan credit facilities for working capital purposes and capital expenditures. For additional information regarding the 2022 Singapore Revolver, please refer to Note 11 to our Consolidated Financial Statements in Part II, Item 8 of this Form 10-K.

As of December 31, 2023, we had debt of $1,203.5 million, with $131.6 million payable within 12 months. As of December 31, 2023, the interest payment obligations, based on stated coupon rates for fixed rate debt and interest rates applicable at December 31, 2023 for variable rate debt, were $183.1 million during the remaining term of the debt.

Interest payment obligations payable within 12 months is $52.4 million. We were in compliance with all debt covenants as of December 31, 2023, and we expect to remain in compliance with these covenants for at least the next twelve months. For additional information regarding our debt arrangements, please refer to Note 11 to our Consolidated Financial Statements in Part II, Item 8 of this Form 10-K.

Certain of our debt agreements have restrictions on dividend payments and the repurchase of stock and subordinated securities. These restrictions are determined in part by our covenant compliance and on calculations based upon cumulative net income and do not currently have a material impact on our ability to make dividend payments or stock repurchases.

The debt of Amkor Technology, Inc. is structurally subordinated in right of payment to all existing and future debt and other liabilities of our subsidiaries. From time to time, Amkor Technology, Inc., Amkor Technology Taiwan Ltd. ("ATT"), Amkor Advanced Technology Taiwan, Inc. ("AATT") and Amkor Technology Singapore Holding Pte. Ltd. ("ATSH") guarantee certain debt of our subsidiaries.

In order to reduce our debt and future cash interest payments, we may from time to time repurchase or redeem our outstanding senior notes for cash or exchange shares of our common stock for our outstanding senior notes. Any such transaction may be made in the open market, through privately negotiated transactions or otherwise, and would be subject to the terms of our indentures and other debt agreements, market conditions and other factors.

Our subsidiary in Korea maintains an unfunded severance plan that covers certain employees who were employed prior to August 1, 2015. As of December 31, 2023, the severance liability was $47.8 million, with $7.9 million payable within 12 months. Accrued severance benefits are estimated assuming all eligible employees were to terminate their employment at the balance sheet date. For service periods subsequent to August 1, 2015, employees participate in either a defined benefit pension plan or a defined contribution pension plan. From time to time, we may offer employees the option to convert from the severance plan to the defined contribution plan which would require us to fund the converted portion of the liability. In addition, as of December 31, 2023, we had foreign pension plan obligations of $47.1 million, for which the timing and actual amount of impact on our future cash flow is uncertain. For additional information regarding our pension and severance plans, please refer to Note 12 to our Consolidated Financial Statements in Part II, Item 8 of this Form 10-K.

We lease certain machinery and equipment, office space and manufacturing facilities. As of December 31, 2023, our total remaining operating lease obligations and finance lease obligations were $105.2 million and $118.0 million, respectively, with $36.9 million and $62.3 million payable within 12 months, respectively. The lease obligations represent our future minimum lease payments including interest payments. For additional information regarding our leases, please refer to Note 9 to our Consolidated Financial Statements in Part II, Item 8 of this Form 10-K.

We had off-balance sheet purchase obligations for capital expenditures, long-term supply contracts and other contractual commitments. As of December 31, 2023, the purchase obligations were $408.5 million, with $402.0 million payable within 12 months.

Capital Returns

In 2023, we paid total quarterly cash dividends of $74.7 million, and we currently anticipate that we will continue to pay quarterly cash dividends in the future. However, the payment, amount and timing of future dividends remain within the discretion of our Board of Directors and will depend upon our results of operations, financial condition, cash requirements, debt restrictions and other factors.

Capital Resources

We make significant capital expenditures in order to service the demand of our customers. In 2023, our capital expenditures totaled $749.5 million or approximately 11.5% of net sales, which are primarily focused on investments in advanced packaging and test equipment and the Vietnam Facility.

We expect that our 2024 capital expenditures will be approximately $750 million. Ultimately, the amount of our 2024 capital expenditures will depend on several factors including, among others, the timing and implementation of any capital projects under review, the performance of our business, economic and market conditions, the cash needs and

investment opportunities for the business, the need for additional capacity to service anticipated customer demand, equipment lead times and the availability of cash flows from operations or financing. We expect that our 2024 capital expenditures related to our planned advanced packaging and test facility in Arizona will be primarily for the design and construction planning. The primary sources of funds for our capital expenditures are cash flows from operations, current cash and cash equivalents, short-term investments, borrowings under available credit facilities and proceeds from any additional debt or equity financings. Please refer to Note 6 and Note 11 to our Consolidated Financial Statements in Part II, Item 8 of this Form 10-K for additional information on our investments and borrowings, respectively.
In addition, we are subject to risks associated with our capital expenditures, including those discussed in Part I, Item 1A of this Form 10-K under the caption "We make substantial investments in equipment and facilities to support the demand of our customers, which may materially and adversely affect our business if the demand of our customers does not develop as we expect or is adversely affected."

Cash Flows

Net cash provided by (used in) operating, investing and financing activities for each of the three years ended December 31, 2023 was as follows:

	For the Year Ended December 31		
	2023	2022	2021
		(In thousands)	
Operating activities	$ 1,270,020	$ 1,098,756	$ 1,121,295
Investing activities	(951,910)	(1,007,169)	(943,879)
Financing activities	(149,207)	55,597	(30,102)

Operating activities: Our cash flow provided by operating activities for the year ended December 31, 2023 increased by $171.3 million compared to the year ended December 31, 2022, primarily due to changes in working capital, offset by lower net sales and operating profits.

Investing activities: Our cash flow used in investing activities for the year ended December 31, 2023 decreased by $55.3 million compared to the year ended December 31, 2022, primarily due to decreased payments related to property, plant and equipment and decreased net payments for foreign exchange forward contracts, offset by higher net payments for short-term investments. Payments for property, plant and equipment can fluctuate based on the timing of purchase, receipt and acceptance of equipment.

Financing activities: The net cash used in financing activities for the year ended December 31, 2023 was primarily due to the payments of our quarterly dividends and finance lease obligations. The net cash provided by financing activities for the year ended December 31, 2022 was primarily due to net debt borrowings, offset by the payments of our quarterly dividends and finance lease obligations.

We provide the following supplemental data to assist our investors and analysts in understanding our liquidity and capital resources. We define "free cash flow" as net cash provided by operating activities less payments for property, plant and equipment, plus proceeds from the sale of, insurance recovery for and grants for property, plant and equipment, if applicable. Free cash flow is not defined by U.S. GAAP. We believe free cash flow to be relevant and useful information to our investors because it provides them with additional information in assessing our liquidity, capital resources and financial operating results. Our management uses free cash flow in evaluating our liquidity, our ability to service debt, our ability to fund capital expenditures and our ability to pay dividends and the amount of dividends to be paid. However, free cash flow has certain limitations, including that it does not represent the residual cash flow available for discretionary expenditures since other, non-discretionary expenditures, such as mandatory debt service, are not deducted from the measure. The amount of mandatory versus discretionary expenditures can vary significantly between periods. This measure should be considered in addition to, and not as a substitute for, or superior to, other measures of liquidity or financial performance prepared in accordance with U.S. GAAP, such as net cash provided by operating activities. Furthermore, our definition of free cash flow may not be comparable to similarly titled measures reported by other companies.

	For the Year Ended December 31		
	2023	2022	2021
	(In thousands)		
Net cash provided by operating activities	$ 1,270,020	$ 1,098,756	$ 1,121,295
Payments for property, plant and equipment	(749,467)	(908,294)	(779,779)
Proceeds from sale of, insurance recovery for and grants for property, plant and equipment	13,032	3,148	3,261
Free cash flow	$ 533,585	$ 193,610	$ 344,777

Contingencies, Indemnifications and Guarantees

Please refer to Note 17 to our Consolidated Financial Statements in Part II, Item 8 of this Form 10-K for a discussion of contingencies related to litigation and other legal matters.

Critical Accounting Policies and Use of Estimates

We have identified the policies below as critical to our business operations and the understanding of our results of operations. A summary of our significant accounting policies used in the preparation of our Consolidated Financial Statements appears in Note 1 to our Consolidated Financial Statements included in Part II, Item 8 of this Form 10-K. Our preparation of this Form 10-K requires us to make estimates and assumptions that affect the reported amount of assets and liabilities, disclosure of contingent assets and liabilities at the date of our financial statements and the reported amounts of revenue and expenses during the reporting period. There can be no assurance that actual results will not differ from those estimates, including the impact of any deterioration in the global business and economic environment.

We believe the following critical accounting estimates and policies, which have been reviewed with the Audit Committee of our Board of Directors, affect our more significant judgments and estimates used in the preparation of our Consolidated Financial Statements.

Revenue Recognition. We recognize revenue, net of sales, use, value-added and other similar taxes, as a performance obligation is satisfied in an amount reflecting the consideration to which we expect to be entitled. We apply a five-step approach in determining the amount and timing of revenue to be recognized: (1) identifying the contract with a customer; (2) identifying the performance obligations in the contract; (3) determining the transaction price; (4) allocating the transaction price to the performance obligations in the contract; and (5) recognizing revenue when the performance obligation is satisfied. Substantially all of our revenue is recognized as services are rendered.

Our packaging and test services are our performance obligations to our customers. Our packaging services include wafer bump, probe and assembly. We provide packaging and test services to our customers either individually or as part of a combined offering. In a combined offering, we account for the individual services separately if they are determined to be distinct. We determine a service to be distinct if it is separately identifiable from other services in the combined offering and if a customer can benefit from the unique service on its own or with other resources that are readily available to the customer.

The consideration, including variable consideration, is allocated between the distinct services in a combined offering based upon the stand-alone selling prices of the individual services. Our services involve a high degree of specialization which are unique based on the design and purpose of the customer's wafers. Accordingly, our negotiated pricing reflects the customized nature of our services and represents a customer-specific stand-alone selling price. We recognize revenue as services are rendered, which generally occurs over the course of two to three weeks. Services are generally billed at completion of each individual packaging or test service or in some instances at the completion of all services in a combined offering.

We recognize revenue over time as services are rendered because our services create or enhance the customer's wafer. We utilize an input method (cost incurred plus estimated margin) to determine the amount of revenue to recognize for in-process, but incomplete, customer orders at a reporting date. During the period of providing our services, we generally do not control or take ownership of customers' wafers, nor do we include the cost of the wafer in our cost calculations.

We believe that a cost-based input method is the most appropriate manner to measure how we satisfy our performance obligations to customers because the effort and costs incurred to package and/or test customer wafers are not linear over the duration of these services.

Shipping and handling costs are accounted for as a cost to fulfill our performance obligations to customers. Accordingly, we record customer payments of shipping and handling costs as a component of net sales, and the costs incurred for shipping and handling are then charged to cost of sales.

Income Taxes. We operate in and file income tax returns in various U.S. and non-U.S. jurisdictions which are subject to examination by tax authorities. The tax returns for years where the statute of limitations remains open in all jurisdictions in which we do business are subject to change upon examination. We believe that we have estimated and provided adequate accruals for potential additional taxes and related interest expense that may ultimately result from such examinations. We believe that any additional taxes or related interest over the amounts accrued will not have a material effect on our financial condition, results of operations or cash flows. However, resolution of these matters involves uncertainties, and there can be no assurance that the outcomes will be favorable. In addition, changes in the mix of income from our foreign subsidiaries, expiration of conditional reduced tax rates or changes in tax laws or regulations could result in increased tax expense and effective tax rates in the future.

Additionally, we monitor on an ongoing basis our ability to utilize our deferred tax assets and whether there is a need for a related valuation allowance. In evaluating our ability to recover our deferred tax assets in the jurisdictions from which they arise, we consider all available positive and negative evidence, including scheduled reversals of deferred tax liabilities, projected future taxable income, tax planning strategies and results of recent operations. With the exception of a certain foreign jurisdiction and select U.S. and foreign carryforwards, we consider it more likely than not that we will have sufficient taxable income to allow us to realize these deferred tax assets. However, in the event taxable income falls short of current expectations, we may need to establish a valuation allowance against such deferred tax assets. We have valuation allowances on certain U.S. federal net operating losses and U.S. foreign tax credit carryforwards expected to expire unused and on select deferred tax assets in certain foreign jurisdictions. Such valuation allowances are released as the related tax benefits are realized or when sufficient evidence exists to conclude that it is more likely than not that the deferred tax assets will be realized.

Valuation of Inventory. We order raw materials based on customers' forecasted demand. If our customers change their forecasted requirements and we are unable to cancel our raw materials order, or if our vendors require that we order a minimum quantity that exceeds the current forecasted demand, we will experience a build-up in raw material inventory. We will either seek to recover the cost of the materials from our customers or utilize the inventory in production. However, we may not be successful in recovering the cost from our customers or be able to use the inventory in production and, accordingly, if we believe that it is probable that we will not be able to recover such costs, we reduce the carrying value of our inventory. Additionally, we reduce the carrying value of our inventories by the cost of inventory we estimate is excess and obsolete based on the age of our inventories. When a determination is made that the inventory will not be utilized in production or is not saleable, it is written off. The forecast of demand and the evaluation of inventory recoverability require estimates and judgment. Although we make an effort to ensure forecasted demand and estimates of inventory are accurate, any unanticipated changes could have a material effect on our financial condition and result of operations.

Inventories consist of raw materials and purchased components and are stated at the lower of cost and net realizable value. Cost is principally determined by standard cost or the weighted moving average method, both of which approximate actual cost. For inventory valued using the standard cost method, we review and set our standard costs as needed, but at a minimum on a quarterly basis.

Valuation of Long-lived Assets. We review long-lived assets, which include property, plant and equipment and goodwill, for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. Factors we consider important which could trigger an impairment review include the following:

- significant under-performance relative to expected historical or projected future operating results;
- significant changes in the manner of our use of the asset;
- significant negative industry or economic trends; and
- our market capitalization relative to net book value.

Recoverability of a long-lived asset group to be held and used in operations is measured by a comparison of the carrying amount to the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset group. If such asset group is considered to be impaired, the impairment loss is measured as the amount by which the carrying amount of the asset group exceeds its fair value. Long-lived assets to be disposed of are carried at the lower of cost or fair value less the costs of disposal.

We review goodwill for impairment annually during the fourth quarter of each year and whenever events or changes in circumstances indicate that an impairment may exist. Impairment losses are recorded when the carrying amount of the reporting unit exceeds its fair value.

Recently Issued Standards

For information regarding recently adopted and recently issued accounting standards, see Note 1 to our Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K.

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

Market Risk Sensitivity

We are exposed to market risks, primarily related to foreign currency and interest rate fluctuations. In the normal course of business, we employ established policies and procedures to manage the exposure to fluctuations in foreign currency values and changes in interest rates.

Foreign Currency Risk

The U.S. dollar is our reporting and functional currency for our subsidiaries, except for our Japan operations, where the Japanese yen is the functional currency. In order to reduce our exposure to foreign currency gains and losses, we use natural hedging techniques and forward contracts to mitigate foreign currency risk.
We have foreign currency exchange rate risk associated with the remeasurement of monetary assets and liabilities on our Consolidated Balance Sheets that are denominated in currencies other than the functional currency. We performed a sensitivity analysis of our foreign currency exposure as of December 31, 2023, to assess the potential impact of fluctuations in exchange rates for all foreign denominated assets and liabilities. Assuming that all foreign currencies appreciated 10% against the U.S. dollar and taking into account our foreign currency forward contracts, our income before taxes as of December 31, 2023 would have been approximately $14 million lower, due to the remeasurement of monetary assets and liabilities.

In addition, we have foreign currency exchange rate exposure on our results of operations. For the year ended December 31, 2023, approximately 90% of our net sales were denominated in U.S. dollars. Our remaining net sales were principally denominated in Japanese yen. For the year ended December 31, 2023, approximately 60% of our cost of sales and operating expenses were denominated in U.S. dollars and were largely for raw materials and costs associated with property, plant and equipment. The remaining portion of our cost of sales and operating expenses was principally denominated in the Asian currencies where our production facilities are located and largely consisted of labor. To the extent that the U.S. dollar weakens against these Asian-based currencies, similar foreign currency denominated income and expenses in the future will result in higher sales, higher cost of sales and operating expenses, with cost of sales and operating expenses having the greater impact on our financial results. Similarly, our sales, cost of sales and operating expenses will decrease if the U.S. dollar strengthens against these foreign currencies. We performed a sensitivity analysis of our foreign currency exposure as of December 31, 2023 to assess the potential impact of fluctuations in exchange rates for all foreign denominated sales and operating expenses. Assuming that all foreign currencies appreciated 10% against the U.S. dollar, our operating income for the year ended December 31, 2023 would have been approximately $144 million lower.

There are inherent limitations in the sensitivity analysis presented, primarily the assumption that foreign exchange rate movements across multiple jurisdictions would change instantaneously in an equal fashion. As a result, the analysis is unable to reflect the potential effects of more complex market or other changes that could arise which may positively or negatively affect our results of operations.

Our Consolidated Financial Statements are impacted by changes in exchange rates at the entity where the local currency is the functional currency. The effect of foreign exchange rate translation for these entities was a loss of $3.8 million and $10.7 million for the years ended December 31, 2023 and 2022, respectively, and was recognized as an adjustment to equity through other comprehensive income (loss).

Interest Rate Risk

We have interest rate risk with respect to our available-for-sale debt investments. Our investment portfolio consists of various security types and maturities, with a significant portion of our portfolio having maturity of one year or less. Our primary objective with our investment portfolio is to invest available cash while preserving capital and meeting liquidity needs. These securities are subject to interest rate risk and will decrease in value if market interest rates increase. Due to the relatively short-term nature of our investment portfolio, we believe that an immediate increase in interest rates will not have a material impact on the fair value of our available-for-sale debt investments. For information regarding our available-for-sale debt investments, see Note 6 to our Consolidated Financial Statements in Part II, Item 8 of this Form 10-K.

In addition, we have interest rate risk with respect to our debt. Our fixed and variable rate debt includes foreign borrowings, revolving credit facilities and senior notes. Changes in interest rates have different impacts on the fixed and variable rate portions of our debt portfolio. A change in interest rates on the fixed portion of the debt portfolio impacts the fair value of the debt instrument but has no impact on interest expense or cash flows. A change in interest rates on the variable portion of the debt portfolio impacts the interest incurred and cash flows but does not generally impact the fair value of the instrument.

The table below presents the interest rates, maturities and fair value of our fixed and variable rate debt as of December 31, 2023:

	2024	2025	2026	2027	2028	Thereafter	Total	Fair Value
	($ in thousands)							
Fixed rate debt	$ 121,526	$ 131,112	$ 115,655	$ 622,079	$ 74,815	$ —	$ 1,065,187	$ 1,055,635
Average interest rate	1.4 %	1.7 %	1.8 %	5.9 %	2.0 %	— %	4.2 %	
Variable rate debt	$ 10,098	$ 91,500	$ 43,000	$ —	$ —	$ —	$ 144,598	$ 142,459
Average interest rate	3.2 %	6.1 %	6.8 %	— %	— %	— %	6.1 %	
Total debt maturities	$ 131,624	$ 222,612	$ 158,655	$ 622,079	$ 74,815	$ —	$ 1,209,785	$ 1,198,094

For information regarding the fair value of our long-term debt, see Note 16 to our Consolidated Financial Statements in Part II, Item 8 of this Form 10-K.

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

We present the information required by Item 8 of Form 10-K here in the following order:

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Amkor Technology, Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Amkor Technology, Inc. and its subsidiaries (the "Company") as of December 31, 2023 and 2022, and the related consolidated statements of income, of comprehensive income, of stockholders' equity and of cash flows for each of the three years in the period ended December 31, 2023, including the related notes and financial statement schedule of valuation and qualifying accounts for each of the three years in the period ended December 31, 2023 appearing under Item 8 (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2023, 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 consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2023 and 2022, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2023 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2023, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control Over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (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 audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated 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 consolidated 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 consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

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

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

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Accounting for Income Taxes

As described in Notes 1 and 4 to the consolidated financial statements, the Company recorded income tax expense of $81.7 million for the year ended December 31, 2023, and net deferred tax assets of $61.6 million and unrecognized tax benefits of $31.5 million as of December 31, 2023. Income taxes are accounted for using the asset and liability method. Under this method, deferred income tax assets and liabilities are recognized for the future tax consequences attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax basis as well as for net operating loss and tax credit carryforwards. Management monitors on an ongoing basis its ability to utilize deferred tax assets and whether there is a need for a related valuation allowance. In evaluating the ability to recover deferred tax assets in the jurisdictions from which they arise, management considers all available positive and negative evidence, including scheduled reversals of deferred tax liabilities, projected future taxable income, tax-planning strategies and recent results of operations. The Company operates in and files income tax returns in various U.S. and foreign jurisdictions, which are subject to examination by tax authorities. Years open to examination contain matters that could be subject to differing interpretations of applicable tax laws and regulations related to the amount and/or timing of income, deductions and tax credits.

The principal considerations for our determination that performing procedures relating to accounting for income taxes is a critical audit matter are the significant judgment by management in determining the income tax provision and other tax positions. This in turn led to a high degree of auditor judgment, subjectivity and effort in performing procedures and in evaluating audit evidence relating to income taxes. The audit effort involved the use of professionals with specialized skill and knowledge to assist in evaluating the audit evidence obtained.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to accounting for income taxes, including the controls addressing the completeness and accuracy of the data utilized. These procedures also included, among others (i) testing the income tax provision calculation and underlying data, including the effective tax rate reconciliation, significant return to provision adjustments, and permanent and temporary differences, (ii) evaluating management's assessment of the realizability of deferred tax assets on a jurisdictional basis, (iii) evaluating the identification of reserves for unrecognized tax benefits and the reasonableness of the "more likely than not" determination considering the jurisdictions, court decisions, legislative actions, statute of limitations, and developments in tax examinations, and (iv) using professionals with specialized skill and knowledge to assist in evaluating the reasonableness of management's judgment and estimates, including application of foreign and domestic tax laws and regulations.

/s/ PricewaterhouseCoopers LLP

Phoenix, Arizona
February 16, 2024

We have served as the Company's auditor since 2000.

AMKOR TECHNOLOGY, INC.
CONSOLIDATED STATEMENTS OF INCOME

	For the Year Ended December 31,		
	2023	2022	2021
	(In thousands, except per share data)		
Net sales	$ 6,503,065	$ 7,091,585	$ 6,138,329
Cost of sales	5,559,912	5,761,598	4,912,775
Gross profit	943,153	1,329,987	1,225,554
Selling, general and administrative	295,393	283,372	296,084
Research and development	177,473	149,429	166,037
Total operating expenses	472,866	432,801	462,121
Operating income	470,287	897,186	763,433
Interest expense	59,000	58,563	51,508
Other (income) expense, net	(32,554)	(18,309)	(3,141)
Total other expense, net	26,446	40,254	48,367
Income before taxes	443,841	856,932	715,066
Income tax expense	81,710	89,890	69,459
Net income	362,131	767,042	645,607
Net income attributable to noncontrolling interests	(2,318)	(1,219)	(2,612)
Net income attributable to Amkor	$ 359,813	$ 765,823	$ 642,995
Net income attributable to Amkor per common share:			
Basic	$ 1.46	$ 3.13	$ 2.64
Diluted	$ 1.46	$ 3.11	$ 2.62
Shares used in computing per common share amounts:			
Basic	245,628	244,676	243,878
Diluted	247,176	246,205	245,704

The accompanying notes are an integral part of these statements.

AMKOR TECHNOLOGY, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	For the Year Ended December 31,		
	2023	2022	2021
	(In thousands)		
Net income	$ 362,131	$ 767,042	$ 645,607
Other comprehensive income (loss), net of tax:			
Adjustments to net unrealized gains (losses) on available-for-sale debt investments	1,785	(1,225)	(369)
Adjustments to unrealized components of defined benefit pension plans	1,685	8,604	9,834
Foreign currency translation	(3,819)	(10,658)	(16,757)
Total other comprehensive income (loss)	(349)	(3,279)	(7,292)
Comprehensive income	361,782	763,763	638,315
Comprehensive income attributable to noncontrolling interests	(2,318)	(1,219)	(2,612)
Comprehensive income attributable to Amkor	$ 359,464	$ 762,544	$ 635,703

The accompanying notes are an integral part of these statements.

AMKOR TECHNOLOGY, INC.
CONSOLIDATED BALANCE SHEETS

	December 31, 2023	December 31, 2022
	(In thousands, except per share data)	
ASSETS		
Current assets:		
Cash and cash equivalents	$ 1,119,818	$ 959,072
Short-term investments (amortized cost of $474,663 and $283,641, respectively)	474,869	281,964
Accounts receivable, net of allowances of $8,114 and $365, respectively	1,149,493	1,365,504
Inventories	393,128	629,576
Other current assets	58,502	65,123
Total current assets	3,195,810	3,301,239
Property, plant and equipment, net	3,299,445	3,135,614
Operating lease right of use assets	117,006	171,163
Goodwill	20,003	21,517
Restricted cash	799	3,334
Other assets	138,062	188,890
Total assets	$ 6,771,125	$ 6,821,757
LIABILITIES AND EQUITY		
Current liabilities:		
Short-term borrowings and current portion of long-term debt	$ 131,624	$ 143,813
Trade accounts payable	754,453	899,164
Capital expenditures payable	106,368	146,602
Short-term operating lease liability	33,616	70,991
Accrued expenses	358,414	401,841
Total current liabilities	1,384,475	1,662,411
Long-term debt	1,071,832	1,088,521
Pension and severance obligations	87,133	93,540
Long-term operating lease liabilities	56,837	75,745
Other non-current liabilities	175,813	201,839
Total liabilities	2,776,090	3,122,056
Commitments and contingencies (Note 17)		
Stockholders' equity:		
Preferred stock, $0.001 par value, 10,000 shares authorized, designated Series A, none issued	—	—
Common stock, $0.001 par value, 500,000 shares authorized, 292,167 and 291,249 shares issued, and 245,888 and 245,091 shares outstanding, respectively	292	291
Additional paid-in capital	2,008,170	1,996,344
Retained earnings	2,159,831	1,874,644
Accumulated other comprehensive income (loss)	16,350	16,699
Treasury stock, at cost, 46,279 and 46,158 shares, respectively	(222,335)	(219,226)
Total Amkor stockholders' equity	3,962,308	3,668,752
Noncontrolling interests in subsidiaries	32,727	30,949
Total equity	3,995,035	3,699,701
Total liabilities and equity	$ 6,771,125	$ 6,821,757

The accompanying notes are an integral part of these statements.

AMKOR TECHNOLOGY, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

	Common Stock		Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Treasury Stock		Total Amkor Stockholders' Equity	Noncontrolling Interest in Subsidiaries	Total Equity
	Shares	Par Value				Shares	Cost			
	(In thousands)									
Balance at December 31, 2020	288,923	$ 289	$ 1,953,378	$ 562,502	$ 27,270	(46,094)	$ (217,740)	$ 2,325,699	$ 28,260	$ 2,353,959
Net income	—	—	—	642,995	—	—	—	642,995	2,612	645,607
Other comprehensive income (loss)	—	—	—	—	(7,292)	—	—	(7,292)	—	(7,292)
Treasury stock acquired through surrender of shares for tax withholding	—	—	—	—	—	(57)	(1,325)	(1,325)	—	(1,325)
Issuance of stock through share-based compensation plans	1,543	1	12,786	—	—	—	—	12,787	—	12,787
Share-based compensation	—	—	10,970	—	—	—	—	10,970	—	10,970
Cash dividends declared ($0.17 per common share)	—	—	—	(41,558)	—	—	—	(41,558)	—	(41,558)
Subsidiary dividends to noncontrolling interests	—	—	—	—	—	—	—	—	(602)	(602)
Balance at December 31, 2021	290,466	$ 290	$ 1,977,134	$ 1,163,939	$ 19,978	(46,151)	$ (219,065)	$ 2,942,276	$ 30,270	$ 2,972,546
Net income	—	—	—	765,823	—	—	—	765,823	1,219	767,042
Other comprehensive income (loss)	—	—	—	—	(3,279)	—	—	(3,279)	—	(3,279)
Treasury stock acquired through surrender of shares for tax withholding	—	—	—	—	—	(7)	(161)	(161)	—	(161)
Issuance of stock through share-based compensation plans	783	1	5,648	—	—	—	—	5,649	—	5,649
Share-based compensation	—	—	13,562	—	—	—	—	13,562	—	13,562
Cash dividends declared ($0.225 per common share)	—	—	—	(55,118)	—	—	—	(55,118)	—	(55,118)
Subsidiary dividends to noncontrolling interests	—	—	—	—	—	—	—	—	(540)	(540)
Balance at December 31, 2022	291,249	$ 291	$ 1,996,344	$ 1,874,644	$ 16,699	(46,158)	$ (219,226)	$ 3,668,752	$ 30,949	$ 3,699,701
Net income	—	—	—	359,813	—	—	—	359,813	2,318	362,131
Other comprehensive income (loss)	—	—	—	—	(349)	—	—	(349)	—	(349)
Treasury stock acquired through surrender of shares for tax withholding	—	—	—	—	—	(121)	(3,109)	(3,109)	—	(3,109)
Issuance of stock through share-based compensation plans	918	1	3,549	—	—	—	—	3,550	—	3,550
Share-based compensation	—	—	8,277	—	—	—	—	8,277	—	8,277
Cash dividends declared ($0.30375 per common share)	—	—	—	(74,626)	—	—	—	(74,626)	—	(74,626)
Subsidiary dividends to noncontrolling interests	—	—	—	—	—	—	—	—	(540)	(540)
Balance at December 31, 2023	292,167	$ 292	$ 2,008,170	$ 2,159,831	$ 16,350	(46,279)	$ (222,335)	$ 3,962,308	$ 32,727	$ 3,995,035

The accompanying notes are an integral part of these statements.

AMKOR TECHNOLOGY, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS

	For the Year Ended December 31,		
	2023	2022	2021
	(In thousands)		
Cash flows from operating activities:			
Net income	$ 362,131	$ 767,042	$ 645,607
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	631,508	612,702	563,582
Amortization of deferred debt issuance costs and premiums	3,523	3,247	2,508
Deferred income taxes	13,394	(11,623)	10,676
Gain on disposal of fixed assets, net	(2,200)	(2,807)	(1,446)
Share-based compensation	8,277	13,562	10,970
Other, net	16,660	(1,957)	13,752
Changes in assets and liabilities:			
Accounts receivable	205,491	(103,990)	(298,854)
Inventories	233,797	(148,137)	(190,555)
Other current assets	2,673	(23,802)	5,335
Other assets	10,875	(34,835)	14,746
Trade accounts payable	(134,618)	86,574	215,646
Accrued expenses	(48,389)	(40,637)	108,283
Pension and severance obligations	(844)	(10,547)	(30,013)
Net operating lease ROU asset	50,650	(14,483)	(14,781)
Operating lease liabilities	(52,543)	1,574	16,293
Other non-current liabilities	(30,365)	6,873	49,546
Net cash provided by operating activities	1,270,020	1,098,756	1,121,295
Cash flows from investing activities:			
Payments for property, plant and equipment	(749,467)	(908,294)	(779,779)
Proceeds from sale of property, plant and equipment	8,444	3,148	3,157
Proceeds from foreign exchange forward contracts	44,013	33,578	16,608
Payments for foreign exchange forward contracts	(75,786)	(104,703)	(69,835)
Payments for short-term investments	(657,583)	(438,803)	(414,208)
Proceeds from sale of short-term investments	94,242	33,972	87,273
Proceeds from maturities of short-term investments	379,344	370,924	204,679
Other investing activities	4,883	3,009	8,226
Net cash used in investing activities	(951,910)	(1,007,169)	(943,879)
Cash flows from financing activities:			
Proceeds from revolving credit facilities	370,000	80,000	—
Payments of revolving credit facilities	(370,000)	(80,000)	—
Proceeds from short-term debt	20,712	29,711	15,514
Payments of short-term debt	(19,448)	(27,187)	(19,927)
Proceeds from issuance of long-term debt	168,335	366,386	353,587
Payments of long-term debt	(175,427)	(214,290)	(316,635)
Payments for debt issuance costs	(1,385)	(7,297)	(1,294)
Payments of finance lease obligations	(66,398)	(40,673)	(20,373)
Proceeds from issuance of stock through share-based compensation plans	3,562	5,635	12,787
Payments of dividends	(74,686)	(55,116)	(51,213)
Other financing activities	(4,472)	(1,572)	(2,548)
Net cash (used in) provided by financing activities	(149,207)	55,597	(30,102)
Effect of exchange rate fluctuations on cash, cash equivalents and restricted cash	(10,692)	(16,299)	(17,990)
Net increase in cash, cash equivalents and restricted cash	158,211	130,885	129,324
Cash, cash equivalents and restricted cash, beginning of period	962,406	831,521	702,197
Cash, cash equivalents and restricted cash, end of period	$ 1,120,617	$ 962,406	$ 831,521

The accompanying notes are an integral part of these statements.

AMKOR TECHNOLOGY, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS

	For the Year Ended December 31,		
	2023	2022	2021
	(In thousands)		
Supplemental disclosures of cash flow information:			
Cash paid during the period for:			
Interest	$ 54,306	$ 54,355	$ 46,932
Income taxes	90,458	97,333	24,011
Non-cash investing and financing activities:			
Property, plant and equipment included in capital expenditures payable	104,109	142,160	211,421
Right of use assets acquired through operating lease liabilities	6,270	64,849	63,314
Right of use assets acquired through finance lease liabilities	58,232	58,166	73,894
Dividends declared and unpaid	—	25	58

The accompanying notes are an integral part of these statements.

AMKOR TECHNOLOGY, INC.

Notes to Consolidated Financial Statements

1. Description of Business and Summary of Significant Accounting Policies

Description of Business

Amkor is one of the world's leading providers of outsourced semiconductor packaging and test services. Amkor was a pioneer in the outsourcing of semiconductor packaging and test services, and over the years we have built a leading position by:

- Designing and developing innovative packaging and test technologies focused on advanced packaging solutions in high growth markets, including artificial intelligence;
- Building expertise in high-volume manufacturing processes and developing a reputation for high quality and solid execution;
- Cultivating long-standing relationships with our customers, which include many of the world's leading semiconductor companies;
- Collaborating with customers, foundries, OEMs and equipment and material suppliers;
- Focusing on strategic end markets that offer solid growth potential;
- Providing a geographically diverse operating base with manufacturing facilities in multiple countries across Asia and in Europe; and
- Developing a competitive cost structure through disciplined capital investment.

Basis of Presentation

Our Consolidated Financial Statements include the accounts of Amkor Technology, Inc. and its subsidiaries. Our Consolidated Financial Statements reflect the elimination of all significant inter-company accounts and transactions. Our investments in variable interest entities in which we are the primary beneficiary are consolidated. We reflect the remaining portion of variable interest entities and foreign subsidiaries that are not wholly owned as noncontrolling interests.

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. On an ongoing basis, we evaluate our estimates, including those related to revenue recognition, income taxes, inventory and long-lived assets. These estimates are based on management's best knowledge of current events, historical experience, actions that we may undertake in the future and on various other assumptions that are believed to be reasonable under the circumstances. As a result, actual results could differ materially from these estimates and assumptions, including the impact of any deterioration in the global business and economic environment. Certain prior year amounts have been reclassified to conform to current year presentation.

Consolidation of Variable Interest Entities

We have variable interests in certain Philippine realty corporations in which we have a 40% ownership. We lease land and buildings in the Philippines from these entities and we are the primary beneficiary of these arrangements. As of December 31, 2023, the combined book value of the assets and liabilities associated with these Philippine realty corporations included in our Consolidated Balance Sheet was $17.3 million and $0.1 million, respectively. The impact of consolidating these variable interest entities on our Consolidated Statements of Income was not significant, and other than our lease payments, we have not provided any significant assistance or other financial support to these variable interest entities for the years ended December 31, 2023, 2022 or 2021. The creditors of the Philippine realty corporations have no recourse to our general credit.

Foreign Currency Translation

The U.S. dollar is the functional currency of our subsidiaries other than our Japan operations. The foreign currency asset and liability amounts at these subsidiaries are remeasured into U.S. dollars at end-of-period exchange rates, except for nonmonetary items which are remeasured at historical rates. Foreign currency income and expenses are remeasured at daily exchange rates, except for expenses related to balance sheet amounts which are remeasured at historical exchange rates. Exchange gains and losses arising from remeasurement of foreign currency-denominated monetary assets and liabilities are included in other (income) expense, net in the period in which they occur.

The Japanese yen is the functional currency of our Japan operations. The asset and liability amounts of our Japan operations are translated into U.S. dollars at end-of-period exchange rates. Income and expenses are translated into U.S. dollars at the daily exchange rate. The resulting translation adjustments are reported as a component of accumulated other comprehensive income in the stockholders' equity section of the balance sheet. Assets and liabilities denominated in a currency other than the functional currency are remeasured into the functional currency prior to translation into U.S. dollars, and the resulting transaction exchange gains or losses are included in other (income) expense, net in the period in which they occur.

Risks and Concentrations

The semiconductor industry is characterized by rapid technological change, competitive pricing pressures and cyclical market patterns. Our financial results are affected by a wide variety of factors, including general economic conditions worldwide, economic conditions specific to the semiconductor industry, the timely implementation of new package and test technologies, the ability to safeguard patents and intellectual property in a rapidly evolving market and reliance on materials and equipment suppliers. In addition, the semiconductor market has historically been cyclical and subject to significant economic downturns at various times. Our profitability and ability to generate cash from operations is principally dependent upon demand for semiconductors, the utilization of our capacity, semiconductor package mix, the average selling price of our services, our ability to manage our capital expenditures and our ability to control our costs including labor, material, overhead and financing costs.

A significant portion of our revenues is concentrated with a small group of customers (Note 18). Direct sales to our largest customer accounted for 27.7% of our net sales for the year ended December 31, 2023. The loss of a significant customer, a business combination among customers, a reduction in orders or decrease in price from a significant customer or disruption in any of our significant strategic partnerships or other commercial arrangements could have a material adverse effect on our business, liquidity, results of operations, financial condition and cash flows.

Financial instruments, for which we are subject to credit risk, consist principally of accounts receivable and cash, cash equivalents and short-term investments. With respect to accounts receivable, we mitigate our credit risk by selling primarily to well-established companies, performing ongoing credit evaluations and making frequent contact with customers. In addition, we may utilize non-recourse factoring to mitigate credit risk when considered appropriate. We have historically mitigated our credit risk with respect to cash and cash equivalents through diversification of our holdings into various high quality money market funds and bank deposit accounts. Our short-term investments are principally investments in debt securities with maximum duration of twenty-four months and range from AAA to BBB-rated financial instruments. Our short-term investments are primarily in corporate bonds, direct obligations of the U.S. Government or its agencies, asset-backed securities and commercial paper. At December 31, 2023, our cash and cash equivalents were primarily maintained in various U.S. and foreign bank operating and time deposit accounts and invested in various available-for-sale debt investments. See Note 6 for further discussion regarding our available-for-sale debt investments.

Contingencies and Litigation

We may be subject to certain legal proceedings, lawsuits and other claims, as discussed in Note 17. We accrue for a loss contingency, including legal proceedings, lawsuits, pending claims and other legal matters, when we conclude that the likelihood of a loss is probable and the amount of the loss can be reasonably estimated. When the reasonable estimate of the loss is within a range of amounts, and no amount in the range constitutes a better estimate than any other amount, we accrue for the amount at the low end of the range. We adjust our accruals from time to time as we receive additional information, but the loss we incur may be significantly greater than or less than the amount we have accrued. We disclose loss contingencies if we believe they are material and there is at least a reasonable possibility that a loss has been incurred. Attorney fees related to legal matters are expensed as incurred.

Cash and Cash Equivalents

We consider all highly liquid investments with a maturity of three months or less when purchased to be cash equivalents. Our cash and cash equivalents are primarily maintained in various U.S. and foreign bank operating and time deposit accounts and invested in various available-for-sale debt investments. See Note 6 for further discussion regarding our available-for-sale debt investments.

Restricted Cash

Restricted cash, non-current, mainly consists of collateral to fulfill utility requirements.

Investments

Generally, we classify our short-term investments in fixed income securities as available-for-sale debt investments. All of our available-for-sale debt investments as of December 31, 2023 are available to fund current operations and are recorded at fair value (Note 6). Unrealized gains and losses on our available-for-sale debt investments are included as a separate component of accumulated other comprehensive income (loss), net of tax. Realized gains and losses on our available-for-sale debt investments and declines in value judged to be an impairment are included in other (income) expense, net. The cost of short-term investments matured or sold is based on the average cost method.

We evaluate on an ongoing basis the market conditions, trends of earnings, financial condition, credit ratings, any underlying collateral and other key measures for our short-term investments in determining if and when a decline in value below the adjusted cost of our available-for-sale debt investments is an impairment. An impairment is considered if (i) we have the intent to sell the security, (ii) it is more likely than not that we will be required to sell the security before recovery of the entire amortized cost basis or (iii) we do not expect to recover the entire amortized cost basis of the security. If impairment is considered on condition (i) or (ii) above, the entire difference between the amortized cost and the fair value of the debt security is recognized in earnings. If impairment is considered based on condition (iii), the amount representing credit losses will be recognized in earnings and as an allowance for credit losses. The amount relating to all other factors will be recognized in other comprehensive income.

Inventories

Inventories consist of raw materials and purchased components and are stated at the lower of cost and net realizable value. Cost is principally determined by standard cost or the weighted moving average method, both of which approximate actual cost. We review and set our standard costs as needed, but at a minimum on a quarterly basis. We reduce the carrying value of our inventories for the cost of inventory we estimate is excess and obsolete based on the age of our inventories. When a determination is made that the inventory will not be utilized in production or is not saleable, it is written-off.

Other Current Assets

Other current assets consist principally of prepaid assets.

Property, Plant and Equipment

Property, plant and equipment are stated at cost. Depreciation is calculated by the straight-line method over the estimated useful lives of depreciable assets which are as follows:

Buildings and improvements	10 to 40 years
Machinery and equipment	2 to 7 years
Software and computer equipment	3 to 5 years
Furniture, fixtures and other equipment	4 to 10 years

Cost and accumulated depreciation for property retired or disposed of are removed from the accounts, and any resulting gain or loss is included in earnings. Expenditures for maintenance and repairs are charged to expense as incurred.

We review long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. Recoverability of a long-lived asset group to be held and used in operations is measured by a comparison of the carrying amount to the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset group. If such asset group is considered to be impaired, the impairment loss is measured as the amount by which the carrying amount of the asset group exceeds its fair value. Long-lived assets to be disposed of are carried at the lower of cost or fair value less the costs of disposal.

Leases

We lease certain machinery and equipment, office space, and manufacturing facilities. Leases with an initial term of 12 months or less are not recorded on the balance sheet, and we recognize lease expense for these leases on a straight-line basis over the lease term. We combine lease components (e.g., fixed payments including rent, real estate taxes and insurance costs) with the non-lease components (e.g., common-area maintenance costs) for all asset classes. We use our incremental borrowing rate based on the information available at the lease commencement date to determine the lease liability. Our leases have remaining lease terms ranging from less than one year to 82 years. For purposes of calculating our lease liabilities, our lease terms include options to extend or terminate the lease when it is reasonably certain that we will exercise those options. Certain leases also include options to purchase the leased property. Total long-term finance lease liabilities as of December 31, 2023 and December 31, 2022 were $47.8 million and $54.8 million, respectively.

Goodwill

Goodwill is recorded when the cost of an acquisition exceeds the fair value of the net tangible and identifiable intangible assets acquired. We review goodwill for impairment annually during the fourth quarter of each year and whenever events or changes in circumstances indicate that an impairment may exist. Impairment losses are recorded when the carrying amount of the reporting unit exceeds its fair value. The balance of goodwill in our Consolidated Balance Sheets reflects adjustments for foreign currency translation.

Other Assets

Other assets consist principally of deferred tax assets, refundable security deposits and advanced payments to vendors.

Derivatives

We use foreign exchange forward contracts, generally settled monthly, to manage a portion of our exposure to foreign exchange risk. The derivatives are recorded at the fair value either in other current assets or accrued expenses, with the associated gains and losses charged to other (income) expense, net in the period in which they occur. We do not apply hedge accounting to the derivatives. Gains and losses recognized on our derivatives are classified as operating activities and are included within other, net in our Consolidated Statements of Cash Flows. See Note 15 for further discussion about the derivatives.

Fair Value Measurements

We apply fair value accounting for assets and liabilities that are recognized or disclosed at fair value in the financial statements on a recurring or nonrecurring basis. We define fair value as the price that would be received from selling an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants at the measurement date. See Note 16 for further discussion of fair value measurements.

Revenue Recognition

We recognize revenue, net of sales, use, value-added and other similar taxes, as a performance obligation is satisfied in an amount reflecting the consideration to which we expect to be entitled. We apply a five-step approach in determining the amount and timing of revenue to be recognized: (1) identifying the contract with a customer; (2) identifying the performance obligations in the contract; (3) determining the transaction price; (4) allocating the transaction price to the performance obligations in the contract; and (5) recognizing revenue when the performance obligation is satisfied. Substantially all of our revenue is recognized as services are rendered.

Our packaging and test services are our performance obligations to our customers. Our packaging services include wafer bump, probe and assembly. We provide packaging and test services to our customers either individually or as part of a combined offering. In a combined offering, we account for the individual services separately if they are determined to be distinct. We determine a service to be distinct if it is separately identifiable from other services in the combined offering and if a customer can benefit from the unique service on its own or with other resources that are readily available to the customer.

The consideration, including variable consideration, is allocated between the distinct services in a combined offering based upon the stand-alone selling prices of the individual services. Our services involve a high degree of specialization which are unique based on the design and purpose of the customer’s wafers. Accordingly, our negotiated pricing reflects the customized nature of our services and represents a customer-specific stand-alone selling price. We recognize revenue as services are rendered, which generally occurs over the course of two to three weeks. Services are generally billed at completion of each individual packaging or test service or in some instances at the completion of all services in a combined offering.

We recognize revenue over time as services are rendered because our services create or enhance the customer’s wafer. We utilize an input method (cost incurred plus estimated margin) to determine the amount of revenue to recognize for in-process, but incomplete, customer orders at a reporting date. During the period of providing our services, we generally do not control or take ownership of customers’ wafers, nor do we include the cost of the wafer in our cost calculations. We believe that a cost-based input method is the most appropriate manner to measure how we satisfy our performance obligations to customers because the effort and costs incurred to package and/or test customer wafers are not linear over the duration of these services.

Shipping and handling costs are accounted for as a cost to fulfill our performance obligations to customers. Accordingly, we record customer payments of shipping and handling costs as a component of net sales, and the costs incurred for shipping and handling are then charged to cost of sales.

Unbilled receivables are revenues that have been recognized for performance obligations that have been satisfied, or partially satisfied, in advance of billing the customer. Revenue may be recognized in advance of billing as our contracts provide us with an unconditional right to consideration for work that is performed. Total unbilled receivables as of December 31, 2023 and 2022 were $260.8 million and $301.7 million, respectively. These amounts are included in accounts receivable, net of allowances in our Consolidated Balance Sheets.

At times, the company receives cash payments from customers in advance of the company’s performance. In such cases, we record deferred revenue until the performance obligation is satisfied, which represents a contract liability and is included in accrued expenses and other non-current liabilities in the consolidated balance sheets. These contract liabilities are classified as either current or long-term based on the timing of when the company expects to recognize revenue. Contract liabilities were $135.5 million and $170.6 million as of December 31, 2023 and December 31, 2022, respectively. As of December 31, 2023 and December 31, 2022, the short-term portion of the liability was $71.1 million and $81.5 million, respectively. The remainder of the December 31, 2023 contract liability balance is expected to be recognized in revenue over the next 1-5 years. Revenue recognized during the year that was included in the contract liability balance at the beginning of the period was $66.9 million, $101.2 million, and $29.0 million, for 2023, 2022 and 2021, respectively.

Research and Development Costs

Research and development expenses include costs attributable to the conduct of research and development programs primarily related to the development of new package designs or technologies and improving the efficiency and capabilities of our existing production processes. Such costs include labor, materials, supplies, depreciation and maintenance of research equipment, services provided by outside contractors and the allocable portions of facility costs such as rent, utilities, insurance, repairs and maintenance, depreciation and general support services. Costs associated with research and development are expensed as incurred.

Income Taxes

Income taxes are accounted for using the asset and liability method. Under this method, deferred income tax assets and liabilities are recognized for the future tax consequences attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax basis as well as for net operating loss and tax credit carryforwards. Deferred income tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which these temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. A valuation allowance is provided for those deferred tax assets for which it is more likely than not that the related tax benefits will not be realized.

We monitor on an ongoing basis our ability to utilize our deferred tax assets and whether there is a need for a related valuation allowance. In evaluating our ability to recover our deferred tax assets in the jurisdictions from which they arise, we consider all available positive and negative evidence, including scheduled reversals of deferred tax liabilities, projected future taxable income, tax-planning strategies and recent results of operations. With the exception of a certain foreign jurisdiction and select U.S. and foreign carryforwards, we consider it more likely than not that we will have sufficient taxable income to allow us to realize these deferred tax assets. However, in the event taxable income falls short of current expectations, we may need to establish a valuation allowance against such deferred tax assets.

We recognize in our Consolidated Financial Statements the impact of an income tax position, if that position is more likely than not of being sustained on audit, based on the technical merits of the position. Related interest and penalties are classified as income taxes in the financial statements. See Note 4 for further discussion regarding unrecognized income tax benefits.

Recently Issued Standards

In December 2023, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2023-09, *Income Taxes (Topic 740): Improvements to Income Tax Disclosures* ("ASU 2023-09"). ASU 2023-09 requires disclosure of additional income tax information, primarily related to effective tax rate reconciliation and income taxes paid. ASU 2023-09 is effective for annual periods beginning after December 15, 2024. Early adoption is permitted. Adoption of this ASU should be applied on a prospective basis, but retrospective application is permitted. We are currently evaluating the impact of this new standard on our financial statements, which is expected to result in enhanced disclosures.

2. Share-Based Compensation Plans

For the years ended December 31, 2023, 2022 and 2021, we recognized share-based compensation of $8.3 million, $13.6 million and $11.0 million, respectively, primarily in selling, general and administrative expenses. The amount of compensation expense to be recognized is adjusted for an estimated forfeiture rate which is based on historical data. The corresponding deferred income tax benefits are $0.7 million, $1.7 million and $1.4 million for 2023, 2022 and 2021, respectively.

Equity Incentive Plans

Second Amended and Restated 2007 Equity Incentive Plan. The Second Amended and Restated 2007 Equity Incentive Plan (as amended, the “2007 Plan”) provided for the grant of the following types of incentive awards: (i) stock options; (ii) restricted stock; (iii) restricted stock units; (iv) stock appreciation rights; (v) performance units and performance shares; and (vi) other stock or cash awards. Those eligible for awards included employees, directors and consultants who provide services to Amkor and its subsidiaries. There were originally 17.0 million shares of our common stock reserved for issuance under the 2007 Plan. No awards have been or will be granted under the 2007 Plan after the effective date of the 2021 Plan (as defined below), but all outstanding awards under the 2007 Plan will continue in full force and effect, subject to their original terms.

2021 Equity Incentive Plan. On May 18, 2021, at our 2021 Annual Meeting of Stockholders (the “2021 Annual Meeting”), our stockholders approved the Amkor Technology, Inc. 2021 Equity Incentive Plan (as amended, the “2021 Plan”) to replace the 2007 Plan. The 2021 Plan provides for the grant of the following types of incentive awards: (i) stock options; (ii) restricted stock; (iii) restricted stock units; (iv) stock appreciation rights; (v) performance units and performance shares; and (vi) other stock or cash awards. Those eligible for awards include employees, directors and consultants who provide services to Amkor and its subsidiaries. The number of shares authorized and available for issuance under the 2021 Plan is 23,100,000 shares, reduced for certain awards granted under the 2007 Plan after December 31, 2020, but before May 18, 2021. There were originally 22.8 million shares of our common stock reserved for issuance under the 2021 Plan, and at December 31, 2023, there were 20.6 million shares available for grant under the 2021 Plan.

Stock options

Stock options are generally granted with an exercise price equal to the market price of the stock at the date of grant. Substantially all of the options granted are exercisable pursuant to a one to four year vesting schedule, and the term of the options granted is no longer than ten years. Upon option exercise, we may issue new shares of common or treasury stock.

In order to calculate the fair value of stock options at the date of grant, we use the Black-Scholes option pricing model. Expected volatilities are based on historical performance of our stock. We also use historical data to estimate the timing and amount of option exercises and forfeitures within the valuation model. The expected term of the options is based on evaluations of historical and expected future employee exercise behavior and represents the period of time that options granted are expected to be outstanding. The risk-free interest rate for periods within the contractual life of the option is based on the U.S. Treasury yield curve in effect at the time of grant. The dividend yield is based on the annualized declared quarterly dividend rate divided by our closing stock price at the date of the grant.

The following table summarizes our stock option activity for the year ended December 31, 2023:

	Number of Shares (In thousands)		Weighted-Average Exercise Price per Share	Weighted-Average Remaining Contractual Term (Years)		Aggregate Intrinsic Value (In thousands)
Outstanding at December 31, 2022	2,376	$	10.54			
Granted	—		—			
Exercised	(345)		10.31			
Forfeited or expired	—		—			
Outstanding at December 31, 2023	2,031	$	10.58	4.98 years	$	46,068
Fully vested at December 31, 2023 and expected to vest thereafter	2,029	$	10.58	4.98 years	$	46,029
Exercisable at December 31, 2023	1,973	$	10.51	4.93 years	$	44,903

Total unrecognized compensation expense from stock options was $0.3 million as of December 31, 2023, which is expected to be recognized over a weighted-average period of approximately 0.79 years beginning January 1, 2024. The total intrinsic value of options exercised during fiscal years 2023, 2022, and 2021 was $5.8 million, $8.0 million, and $17.7 million, respectively.

Restricted shares

Restricted shares granted to our non-employee directors vest on the earlier of the one year anniversary of the grant date or the date of the annual meeting of stockholders immediately following the grant date, subject to the recipient's continued service as a director of Amkor on the applicable vesting date. Generally, other restricted shares vest ratably over three years, with 8.33% of the shares vesting in equal quarterly installments such that 100% of the shares will become vested on the third anniversary of the award, subject to the recipient's continued employment with us on the applicable vesting date. In addition, provided that the restricted shares have not been forfeited earlier, under the terms and conditions of the applicable award agreements for certain grants, the restricted shares will vest upon the recipient's death or disability, or upon a change in control of Amkor. The value of the restricted shares is determined based on the fair market value of the underlying shares on the date of the grant and is recognized ratably over the vesting period.

The following table summarizes our restricted share activity for the year ended December 31, 2023:

	Number of Shares (In thousands)		Weighted- average Grant Date Fair Value (Per Share)
Non-vested at December 31, 2022	109	$	15.38
Awards granted	—		—
Awards vested	(109)		15.38
Awards forfeited	—		—
Non-vested at December 31, 2023	—	$	—

For the year ended December 31, 2023, the total fair value of our vested restricted shares was $2.9 million, respectively.

Restricted stock units

From time to time, and pursuant to the 2021 Plan, we grant time-vested restricted stock units ("RSUs") to our non-employee directors and certain employees and performance-vested restricted stock units ("PSUs") to certain employees. RSUs generally vest in four equal installments over a four-year period such that 100% of the RSUs will become vested on the fourth anniversary of the award, subject to the recipient's continued employment with us on the applicable vesting dates. In some circumstances, we have granted RSUs subject to different vesting conditions, including RSUs that vest in full in a single installment. Provided that the RSUs have not been forfeited earlier, they will generally vest upon the recipient's retirement, death or disability, or upon a change in control of Amkor, in accordance with the terms and conditions of the applicable award agreement. The value of the RSUs is determined based on the fair market value of the underlying shares on the date of the grant, reduced by the present value of dividends or dividend equivalent rights expected to be paid on our common stock prior to vesting, and is recognized ratably over the vesting period.

PSUs generally vest in one installment after a two-year period such that any earned PSUs will become vested within 90 days of the second anniversary of the award, subject to the recipient's continued employment with us on the applicable vesting date. Generally for PSUs, the number of shares of our common stock to be received at vesting will range from 0% to 200% of the target grant amount based on Cumulative Basic EPS (as defined in the applicable award agreement) over a two-year performance measurement period. In some circumstances, we have granted PSUs subject to different vesting conditions, including PSUs that vest in full upon the achievement of performance goals other than Cumulative Basic EPS. Provided the PSUs have not been forfeited earlier, the PSUs will generally vest upon the recipient's retirement, death or disability, or upon a change of control of Amkor, in accordance with the terms and conditions of the applicable award agreement. The value of the PSUs is initially determined based on the fair market value of the underlying shares on the date of the grant, reduced by the present value of dividends expected to be paid on our common stock prior to vesting, and is recognized over the vesting period.

The following table summarizes our RSU and PSU activity:

	Number of Shares (In thousands)	Weighted- average Grant Date Fair Value (Per Share)
Non-vested at December 31, 2020	—	$ —
Awards granted	295	22.48
Awards vested	—	—
Awards forfeited	(9)	22.58
Non-vested at December 31, 2021	286	22.48
Awards granted	531	22.29
Awards vested	(22)	22.23
Awards forfeited	(57)	22.63
Non-vested at December 31, 2022	738	22.34
Awards granted	1,049	26.72
Awards vested	(464)	22.19
Awards forfeited	(16)	25.24
Non-vested at December 31, 2023	1,307	$ 25.87

Total unrecognized compensation expense from RSUs and PSUs was $12.1 million as of December 31, 2023, which is expected to be recognized over a weighted-average period of approximately 1.3 years beginning January 1, 2024.

For the years ended December 31, 2023 and 2022, the total fair value of our vested RSUs and PSUs were $11.6 million and $0.5 million, respectively.

AMKOR TECHNOLOGY, INC.

Notes to Consolidated Financial Statements — (Continued)

3. Other Income and Expense

Other income and expense consists of the following:

	For the Year Ended December 31,		
	2023	2022	2021
	(In thousands)		
Interest income	$ (48,458)	$ (12,762)	$ (1,065)
Foreign currency (gain) loss, net	18,361	(1,572)	723
Loss on debt retirement	—	464	—
Other	(2,457)	(4,439)	(2,799)
Total other (income) expense, net	$ (32,554)	$ (18,309)	$ (3,141)

4. Income Taxes

Geographic sources of income (loss) before taxes are as follows:

	For the Year Ended December 31,		
	2023	2022	2021
	(In thousands)		
United States	$ 94,643	$ 81,488	$ 81,994
Foreign	349,198	775,444	633,072
Income before taxes	$ 443,841	$ 856,932	$ 715,066

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

	For the Year Ended December 31,		
	2023	2022	2021
	(In thousands)		
Current:			
Federal	$ 19,831	$ 40,063	$ 9,649
State	7	150	198
Foreign	48,478	61,300	48,936
	68,316	101,513	58,783
Deferred:			
Federal	8,899	(10,156)	20,478
State	1	1,458	361
Foreign	4,494	(2,925)	(10,163)
	13,394	(11,623)	10,676
Income tax expense	$ 81,710	$ 89,890	$ 69,459

The reconciliation between the U.S. federal statutory income tax rate of 21% and our effective tax rate is as follows:

	For the Year Ended December 31,		
	2023	2022	2021
U.S. federal statutory income tax rate	21.0 %	21.0 %	21.0 %
Foreign income taxed at different rates	(4.2)	(12.0)	(9.5)
Foreign exchange (loss) gain	0.5	2.2	(2.3)
Change in valuation allowance	2.9	(2.4)	0.1
Income tax credits generated	(7.5)	(6.1)	(5.1)
Foreign earnings and profits	7.0	9.0	5.7
Foreign derived intangible income	(1.6)	(0.9)	(1.1)
Settlements and changes in uncertain tax positions	(0.5)	(0.2)	0.8
Other	0.8	(0.1)	0.1
Income tax expense	18.4 %	10.5 %	9.7 %

In 2022, we reversed $17.8 million of valuation allowance recorded against U.S. foreign tax credit carryforwards previously projected to expire unused due to the limitations to utilize the credits under current tax law. Realization of these carryforwards is dependent on generating sufficient taxable income to overcome the foreign tax credit limitation provisions. Although utilization of these carryforwards is not assured, in light of our current earnings and recent estimates of future taxable income, management believes sufficient positive evidence exists to conclude that the respective valuation allowances are no longer needed, resulting in the reversal of these valuation allowances.

As a result of certain capital investments, export commitments and employment levels, income from operations in Korea, the Philippines and Singapore was subject to reduced income tax rates and, in some cases, was exempt from income taxes. The most significant tax rate impact is in Singapore where we have been granted a conditional reduced tax rate that expires at the end of 2028. We recognized $18.6 million, $84.5 million and $56.7 million in tax benefits as a result of the conditional reduced tax rates in 2023, 2022 and 2021, respectively. The benefit of the conditional reduced tax rates on diluted earnings per share was approximately $0.08, $0.34 and $0.23 for 2023, 2022 and 2021, respectively.

The following is a summary of the components of our deferred tax assets and liabilities:

	December 31, 2023	December 31, 2022
	(In thousands)	
Deferred tax assets:		
Net operating loss carryforwards	$ 33,679	$ 49,846
Tax credit carryforwards	88,147	92,368
Property, plant and equipment	21,387	15,328
Deferred interest expense	476	—
Accrued liabilities	37,832	39,929
Receivable	30,086	29,178
Unrealized foreign exchange loss	7,205	8,018
Revenue recognition	—	1,564
Operating lease liabilities	16,053	26,955
Other	15,219	14,665
Total deferred tax assets	250,084	277,851
Valuation allowance	(114,811)	(101,869)
Total deferred tax assets net of valuation allowance	135,273	175,982
Deferred tax liabilities:		
Property, plant and equipment	34,206	50,215
Deferred gain	5,739	7,839
Unrealized foreign exchange gain	3,129	5,242
Unbilled receivables	8,995	822
Operating lease right of use assets	16,031	26,241
Other	5,533	7,433
Total deferred tax liabilities	73,633	97,792
Net deferred tax assets	$ 61,640	$ 78,190
Recognized as:		
Other assets	$ 73,585	$ 86,616
Other non-current liabilities	(11,945)	(8,426)
Total	$ 61,640	$ 78,190

We monitor on an ongoing basis our ability to utilize our deferred tax assets and whether there is a need for a related valuation allowance. In evaluating our ability to recover our deferred tax assets in the jurisdictions from which they arise, we consider all available positive and negative evidence, including scheduled reversals of deferred tax liabilities, projected future taxable income, tax-planning strategies and recent results of operations.

Valuation allowance against deferred tax assets consist of the following:

	December 31,	
	2023	2022
	(In thousands)	
Valuation allowance:		
U.S.	$ 44,426	$ 40,610
Foreign	70,385	61,259
Total valuation allowance	$ 114,811	$ 101,869

Our net operating loss carryforwards are as follows:

	December 31,		
	2023	2022	Expiration
	(In thousands)		
U.S. federal net operating loss carryforwards	$ 5,611	$ 13,003	2024
U.S. state net operating loss carryforwards	32,612	38,384	2024-2036
Foreign net operating loss carryforwards	196,636	240,740	2027-2031

At December 31, 2023 and 2022, a portion of our remaining U.S. federal net operating loss carryforwards was reserved with a valuation allowance due to ownership change limitations from a prior year acquisition as well as certain state net operating loss carryforwards expected to expire unused. Also, we have a valuation allowance against foreign net operating loss carryforwards that we do not expect to have sufficient taxable income to realize as of December 31, 2023 and 2022.

Our tax credit carryforwards are as follows:

	December 31,		
	2023	2022	Expiration
	(In thousands)		
U.S. Foreign Tax Credits	$ 51,512	$ 54,130	2027-2033
U.S. Other Tax Credits	2,559	110	2026-2033
Foreign Tax Credits	34,546	38,128	2024-2033

At December 31, 2023 and 2022, a portion of our U.S. and foreign tax credit carryforwards were reserved with a valuation allowance for the amount expected to expire unused.

Distributions of cash to the U.S. as dividends generally will not be subject to U.S. federal income tax. We have not provided foreign withholding taxes or state income taxes on the undistributed earnings of our foreign subsidiaries, over which we have sufficient influence to control the distribution of such earnings and have determined that substantially all such earnings have been reinvested indefinitely. These earnings could become subject to foreign withholding tax if they are remitted as dividends. For the year ended December 31, 2023, we estimate that repatriation of these foreign earnings would generate withholding taxes and state income taxes of approximately $165.9 million.

We operate in and file income tax returns in various U.S. and foreign jurisdictions which are subject to examination by tax authorities. We have tax returns that are open to examination in various jurisdictions for tax years 2013-2023. The open years contain matters that could be subject to differing interpretations of applicable tax laws and regulations related to the amount and/or timing of income, deductions and tax credits. There can be no assurance that the outcome of examinations will be favorable. Our unrecognized tax benefits are subject to change as examinations of specific tax years are completed in the respective jurisdictions. In certain circumstances where we elect to appeal the results of an examination, we may be required to make tax assessment payments to proceed with the administrative appeal process. Current examinations include 2019-2022 Korean income tax returns, 2017-2021 Malaysia income tax returns and 2021 Philippine income tax return.

A reconciliation of the beginning and ending gross amount of unrecognized tax benefits is as follows:

	For the Year Ended December 31,		
	2023	2022	2021
	(In thousands)		
Balance at January 1	$ 33,253	$ 37,293	$ 32,598
Additions based on tax positions related to the current year	—	1,519	9,562
Additions for tax positions of prior years	495	1,909	1,740
Reductions for tax positions of prior years	(345)	(5,755)	(66)
Reductions related to settlements with tax authorities	—	(988)	(1,266)
Reductions from lapse of statutes of limitations	(1,866)	(725)	(5,275)
Balance at December 31	$ 31,537	$ 33,253	$ 37,293

The net decrease in our unrecognized tax benefits was $1.7 million from December 31, 2022 to December 31, 2023. The decrease was primarily related to the lapse of statutes of limitations. At December 31, 2023, all of our gross unrecognized tax benefits would reduce our effective tax rate, if recognized. It is reasonably possible that unrecognized tax benefits related to income attribution will decrease in the next 12 months by up to $0.8 million due to the lapse of statutes of limitations in foreign jurisdictions.

The liability related to our unrecognized tax benefits, before interest and penalties, is $23.0 million as of December 31, 2023 and is reported as a component of other non-current liabilities. The unrecognized tax benefits presented in the table above also include positions that have reduced deferred tax assets by $8.5 million. The balance of accrued and unpaid interest and penalties is $4.5 million and $4.9 million as of December 31, 2023 and 2022, respectively, and is included as a component of other non-current liabilities in connection with our unrecognized tax benefits.

5. Earnings Per Share

Basic earnings per share (“EPS”) is computed by dividing net income attributable to Amkor common stockholders by the weighted-average number of common shares outstanding during the period. The weighted-average number of common shares outstanding is reduced for treasury stock.

Diluted EPS is computed based on the weighted-average number of common shares outstanding plus the effect of dilutive potential common shares outstanding during the period. Dilutive potential common shares include outstanding stock options, PSUs, RSUs and unvested restricted shares.

The following table summarizes the computations of basic and diluted EPS:

	For the Year Ended December 31,		
	2023	2022	2021
	(In thousands, except per share data)		
Net income attributable to Amkor common stockholders	$ 359,813	$ 765,823	$ 642,995
Weighted-average number of common shares outstanding — basic	245,628	244,676	243,878
Effect of dilutive securities:			
Share-based awards	1,548	1,529	1,826
Weighted-average number of common shares outstanding — diluted	247,176	246,205	245,704
Net income attributable to Amkor per common share:			
Basic	$ 1.46	$ 3.13	$ 2.64
Diluted	$ 1.46	$ 3.11	$ 2.62

The following table summarizes the potential shares of common stock that were excluded from diluted EPS, because the effect of including these potential shares was anti-dilutive:

	For the Year Ended December 31,		
	2023	2022	2021
	(In thousands)		
Share-based awards	2	180	112

6. Investments

The following table summarizes our cash equivalents and available-for-sale debt investments:

	December 31, 2023					
					Fair Value Level	
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses (1)	Total Fair Value	Level 1	Level 2
	(In thousands)					
Cash equivalents						
Asset-backed securities	$ 138	$ —	$ —	$ 138	$ —	$ 138
Commercial paper	48,063	—	—	48,063	—	48,063
Money market funds	60,719	—	—	60,719	60,719	—
U.S. government bonds	2,996	—	—	2,996	2,996	—
Total cash equivalents (2)	111,916	—	—	111,916	63,715	48,201
Short-term investments						
Asset-backed securities	65,340	170	(22)	65,488	—	65,488
Certificate of deposits	17,086	—	—	17,086	17,086	—
Commercial paper	56,273	—	—	56,273	—	56,273
Corporate bonds	251,671	432	(299)	251,804	—	251,804
U.S. government agency bonds	13,200	—	(9)	13,191	—	13,191
U.S. government bonds	65,881	13	(79)	65,815	65,815	—
Total short-term investments	469,451	615	(409)	469,657	82,901	386,756
Total	$ 581,367	$ 615	$ (409)	$ 581,573	$ 146,616	$ 434,957

AMKOR TECHNOLOGY, INC.

Notes to Consolidated Financial Statements — (Continued)

	December 31, 2022					
					Fair Value Level	
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses (1)	Total Fair Value	Level 1	Level 2
	(In thousands)					
Cash equivalents						
Asset-backed securities	$ 25	$ —	$ —	$ 25	$ —	$ 25
Commercial paper	69,101	—	—	69,101	—	69,101
Money market funds	97,650	—	—	97,650	97,650	—
Municipal bonds	1,001	—	—	1,001	—	1,001
US government bonds	10,767	1	—	10,768	10,768	—
US government agency bonds	16,982	3	—	16,985	—	16,985
Total cash equivalents (2)	195,526	4	—	195,530	108,418	87,112
Short-term investments						
Asset-backed securities	25,677	7	(134)	25,550	—	25,550
Certificate of deposits	17,362	—	—	17,362	17,362	—
Commercial paper	27,866	—	—	27,866	—	27,866
Corporate bonds	198,868	7	(1,529)	197,346	—	197,346
Foreign government bonds	996	—	(4)	992	—	992
Mortgage-backed securities	696	—	(2)	694	—	694
Municipal bonds	364	—	(2)	362	—	362
U.S. government agency bonds	735	—	(1)	734	—	734
U.S. government bonds	6,704	1	(20)	6,685	6,685	—
Total short-term investments	279,268	15	(1,692)	277,591	24,047	253,544
Total	$ 474,794	$ 19	$ (1,692)	$ 473,121	$ 132,465	$ 340,656

(1) All unrealized losses have been in a continuous loss position for less than 12 months. We do not intend to sell the investments in an unrealized loss position, and we do not believe it is more likely than not that we will be required to sell these investments before recovery of their amortized cost bases.

(2) During the years ended December 31, 2023, 2022, and 2021 we sold cash equivalent investments for proceeds of $47.0 million, $29.6 million and $12.8 million, respectively, and realized no gain or loss on such sales.

The following table summarizes the contractual maturities of our cash equivalents and available-for-sale debt investments as of December 31, 2023:

	Amortized Cost	Fair Value
Within 1 year	$ 406,551	$ 406,346
After 1 year through 5 years	109,338	109,601
Asset-backed securities	65,478	65,626
Total	$ 581,367	$ 581,573

Actual maturities can differ from contractual maturities due to various factors including whether the issuers have the right to call or prepay obligations without call or prepayment penalties, and we view our available-for-sale debt investments as available for current operations.

As of December 31, 2023, the amortized cost and fair market value of our held-to-maturity government bonds (Level 1) maturing within a year were $5.2 million. As of December 31, 2022 the amortized cost and fair market value of our held-to-maturity government bonds (Level 1) maturing within a year were $4.4 million and $4.3 million, respectively.

7. Factoring of Accounts Receivable

For certain accounts receivable, we use non-recourse factoring arrangements with third-party financial institutions to manage our working capital and cash flows. Under these arrangements, we sell receivables to a financial institution for cash at a discount to the face amount. As part of the factoring arrangements, we perform certain collection and administrative functions for the receivables sold. For the years ended December 31, 2023 and 2022, we sold accounts receivable totaling $253.9 million and $386.5 million, net of discounts and fees of $1.3 million and $1.1 million, respectively.

8. Property, Plant and Equipment

Property, plant and equipment consist of the following:

	December 31,	
	2023	2022
	(In thousands)	
Land	$ 212,722	$ 214,763
Buildings and improvements	2,080,589	1,817,135
Machinery and equipment	7,022,614	6,757,652
Finance lease assets	209,506	165,122
Furniture, fixtures and other equipment	22,655	23,240
Software and computer equipment	200,362	240,610
Construction in progress	223,332	152,809
Total property, plant and equipment	9,971,780	9,371,331
Accumulated depreciation and amortization	(6,672,335)	(6,235,717)
Total property, plant and equipment, net	$ 3,299,445	$ 3,135,614

The following table summarizes our depreciation expense:

	For the Year Ended December 31,		
	2023	2022	2021
	(In thousands)		
Depreciation expense	$ 630,941	$ 612,105	$ 562,962

In October 2023, we completed the first phase of construction for our Vietnam Facility and transferred $244.3 million from construction in progress to buildings and improvements.

9. Leases

The components of lease expense were as follows:

	For the Year Ended December 31,		
	2023	2022	2021
	(In thousands)		
Operating lease cost	$ 70,722	$ 81,410	$ 64,902
Finance lease cost			
Amortization of leased assets	42,345	24,644	14,196
Interest on lease liabilities	5,521	3,891	2,768
Total finance lease cost	47,866	28,535	16,964
Short-term lease cost	4,788	5,749	6,264
Variable lease cost	6,921	6,592	7,409
Net lease cost	$ 130,297	$ 122,286	$ 95,539

Other information related to leases was as follows:

	For the Year Ended December 31,		
	2023	2022	2021
Supplemental Cash Flows Information (in thousands)			
Cash paid for amounts included in the measurement of lease liabilities:			
Operating cash flows for operating leases	$ 73,774	$ 81,044	$ 64,786
Operating cash flows for finance leases	5,419	3,933	1,745
Financing cash flows for finance leases	66,398	40,673	20,373
Weighted Average Remaining Lease Term (years)			
Operating leases	6.1	4.2	3.2
Finance leases	3.2	2.3	3.1
Weighted Average Discount Rate			
Operating leases	5.2 %	4.4 %	3.6 %
Finance leases	5.7 %	4.1 %	3.2 %

Maturities of lease liabilities were as follows:

	December 31, 2023	
	Operating Leases	Finance Leases
	(In thousands)	
2024	$ 36,916	$ 62,306
2025	19,869	25,259
2026	12,752	11,436
2027	9,144	3,568
2028	6,017	2,511
Thereafter	20,488	12,913
Total future minimum lease payments	105,186	117,993
Less: Imputed interest	(14,733)	(12,438)
Total	$ 90,453	$ 105,555

As of December 31, 2023, we have entered into additional lease agreements that have not yet commenced of approximately $8 million.

10. Accrued Expenses

Accrued expenses consist of the following:

	December 31,	
	2023	2022
	(In thousands)	
Payroll and benefits	$ 115,604	$ 137,445
Deferred revenue and customer advances	71,117	81,459
Short-term finance lease liability	57,761	56,570
Income taxes payable	35,215	50,685
Accrued interest	11,175	10,878
Accrued severance plan obligations (Note 12)	7,906	7,422
Other accrued expenses	59,636	57,382
Total accrued expenses	$ 358,414	$ 401,841

11. Debt

Short-term borrowings and long-term debt consist of the following:

	December 31, 2023	December 31, 2022
	(In thousands)	
Debt of Amkor Technology, Inc.:		
Senior notes:		
6.625% Senior notes, due September 2027	$ 525,000	$ 525,000
Debt of subsidiaries:		
Amkor Technology Korea, Inc.:		
Term loan, fixed rate at 1.85%, due April 2024 (1)	—	—
Term loan, fixed rate at 2.12%, due December 2028	200,000	200,000
Amkor Technology Japan, Inc.:		
Short-term term loans, variable rate (2)	5,098	4,042
Term loan, fixed rate at 1.30%, due July 2023	—	29,744
Term loan, fixed rate at 1.35%, due December 2024	40,414	86,943
Term loan, fixed rate at 1.20%, due December 2025	30,913	49,878
Term loan, fixed rate at 1.23%, due December 2026	55,729	79,927
Term loan, fixed rate at 1.59%, due December 2027	89,053	119,738
Term loan, fixed rate at 1.80%, due December 2028 (3)	124,078	—
Amkor Assembly & Test (Shanghai) Co., Ltd.:		
Term loans, SOFR plus 0.75%, due March 2024 (4)	—	46,000
Term loans, SOFR plus 0.75%, due June 2025 (4)	37,000	39,000
Term loans, SOFR plus 0.75%, due 2025 (4)	57,500	59,500
Term loans, SOFR plus 1.40%, due December 2026 (5)	45,000	—
Other:		
Credit facility, TAIFX plus the applicable bank rate, due December 2024 (Taiwan) (6)	—	—
Senior secured revolving credit facility, applicable bank rate plus 1.75%, due March 2027 (Singapore) (7)	—	—
	1,209,785	1,239,772
Less: Unamortized discount and deferred debt costs, net	(6,329)	(7,438)
Less: Short-term borrowings and current portion of long-term debt	(131,624)	(143,813)
Long-term debt	$ 1,071,832	$ 1,088,521

(1) In April 2021, we entered into a ₩80 billion term loan agreement with the option to borrow and re-borrow the funds up to six times per year through April 2024. Principal is payable at maturity, and interest is payable monthly. As of December 31, 2023, ₩80.0 billion, or approximately $62 million, was available to be drawn.

(2) We entered into various short-term term loans which mature semiannually. Principal and interest are payable in monthly installments. As of December 31, 2023, $7.7 million was available to be drawn.

(3) In December 2023, we borrowed ¥17.5 billion (US$123.3 million) under a new term loan agreement due December 2028, guaranteed by Amkor Technology, Inc. and our subsidiary, ATSH. Principal is due in 20 equal, quarterly installments plus accrued interest, through maturity.

(4) In June 2023, Amkor Assembly & Test (Shanghai) Co. Ltd. amended all term loans to replace London Interbank Offered Rate ("LIBOR") with a Secured Overnight Financing Rate ("SOFR") plus 0.75% annual base rate. This contractual amendment is treated as a modification with no recognized gain or loss.

(5) In December 2023, we entered into a $45.0 million term loan. Principal is payable in semiannual installments of $0.5 million, with the remaining balance due at maturity. Interest is payable quarterly.

(6) In March 2022, ATT amended an existing revolving credit facility to reduce the availability from $36.0 million to $15.0 million. As of December 31, 2023, $15.0 million was available for future borrowings under such credit facility.

(7) In March 2022, ATSH entered into the 2022 Singapore Revolver, which is guaranteed by Amkor Technology, Inc., ATT and AATT. The maximum borrowing capacity under the 2022 Singapore Revolver is limited to a base amount equal to the lesser of: (1) $600.0 million; or (2) $250.0 million plus a variable amount equal to 37.5% of our consolidated accounts receivable balance. As of December 31, 2023, $600.0 million was available for future borrowings under the 2022 Singapore Revolver.

Certain of our foreign debt is collateralized by the land, buildings, equipment and accounts receivable in the respective locations. As of December 31, 2023 the collateralized debt balance was $679.7 million, of which $326.5 million of assets were pledged as collateral.

Interest Rates

Interest is payable semiannually on our senior notes and quarterly or monthly on our other fixed- and variable-rate debt. Refer to the table above for the interest rates on our fixed-rate debt and to the table below for the interest rates on our variable-rate debt.

	December 31,	
	2023	2022
Amkor Technology Japan, Inc:		
Short-term term loans, variable rate	0.24 %	0.29 %
Amkor Assembly & Test (Shanghai) Co., Ltd.:		
Term loans, SOFR plus 0.75% due March 2024	—	5.83 %
Term loans, SOFR plus 0.75% due June 2025	6.07 %	5.55 %
Term loans, SOFR plus 0.75%, due 2025	6.07 %	5.48 %
Term loans, SOFR plus 1.40%, due December 2026	6.76 %	—

Compliance with Debt Covenants

The debt of Amkor Technology, Inc. is structurally subordinated in right of payment to all existing and future debt and other liabilities of our subsidiaries. From time to time, Amkor Technology, Inc., ATT, AATT and ATSH guarantee certain debt of our subsidiaries. The agreements governing our indebtedness contain affirmative and negative covenants which restrict our ability to pay dividends and could restrict our operations. These restrictions are determined in part by calculations based upon cumulative net income and do not currently have a material impact on our ability to make dividend payments or stock repurchases.

We were in compliance with all debt covenants at December 31, 2023 and 2022.

Maturities

	Total Debt
	(In thousands)
Payments due for the year ending December 31,	
2024	$ 131,624
2025	222,612
2026	158,655
2027	622,079
2028	74,815
Thereafter	—
Total debt	$ 1,209,785

12. Pension and Severance Plans

Korean Severance Plan

Our subsidiary in Korea maintains an unfunded severance plan that covers certain employees that were employed prior to August 1, 2015. To the extent eligible employees are terminated, our subsidiary in Korea would be required to make lump-sum severance payments on behalf of these eligible employees for service provided prior to August 1, 2015. Factors used to determine severance benefits include employees' length of service, seniority and rate of pay. The employees' length of service and seniority are fixed as of July 31, 2015. The employees' rate of pay is adjusted to the rate of pay at the time of termination. Accrued severance benefits are estimated assuming all eligible employees were to terminate their employment at the balance sheet date. Our contributions to the National Pension Plan of the Republic of Korea are deducted from accrued severance benefit liabilities. On August 1, 2015, our subsidiary in Korea began sponsoring a defined benefit pension plan and a defined contribution plan. Existing employees at that time were given the option of choosing either a defined benefit pension plan or a defined contribution plan for their future benefits and new employees since that date are enrolled in a defined contribution plan.

The changes to the balance of our accrued severance plan obligations are as follows:

	For the Year Ended December 31,	
	2023	2022
	(In thousands)	
Balance at January 1	$ 56,289	$ 73,345
Provision of severance benefits	1,653	2,119
Severance payments	(8,770)	(15,295)
Foreign currency (gain) loss	(1,266)	(3,880)
Balance at December 31	47,906	56,289
Payments remaining with the National Pension Fund	(119)	(124)
Total accrued severance plan obligations at December 31	47,787	56,165
Less current portion of accrued severance plan obligations (Note 10)	7,906	7,422
Non-current portion of accrued severance plan obligations	$ 39,881	$ 48,743

Foreign Defined Benefit Pension Plans

Our subsidiaries in Japan, Korea, Malaysia, the Philippines and Taiwan sponsor defined benefit plans (the "Plans"). Charges to expense are based upon actuarial analyses. The following table summarizes the changes to the Plans' benefit obligations, fair value of the Plans' assets and the funded status of the Plans at December 31, 2023 and 2022:

	For the Year Ended December 31,	
	2023	2022
	(In thousands)	
Change in projected benefit obligation:		
Projected benefit obligation at January 1	$ 159,760	$ 200,187
Service cost	15,032	20,072
Interest cost	6,202	4,731
Benefits paid	(14,056)	(8,573)
Actuarial (gain) loss	4,150	(24,571)
Effects of curtailment	(617)	508
Settlement	(1,073)	(16,914)
Foreign exchange (gain) loss	(5,117)	(15,680)
Projected benefit obligation at December 31	164,281	159,760
Change in plan assets:		
Fair value of plan assets at January 1	127,338	157,012
Actual gain (loss) on plan assets	12,325	(6,528)
Employer contributions	7,368	12,946
Settlement	(1,073)	(16,914)
Benefits paid	(14,056)	(8,573)
Foreign exchange gain (loss)	(2,706)	(10,605)
Fair value of plan assets at December 31	129,196	127,338
Funded status of the Plans at December 31	$ (35,085)	$ (32,422)

	December 31,	
	2023	2022
	(In thousands)	
Amounts recognized in the Consolidated Balance Sheets consist of:		
Prepaid benefit cost (included in non-current assets)	$ 12,039	$ 12,308
Accrued benefit liability (included in pension and severance obligations)	(47,124)	(44,730)
Net amount recognized at year end	$ (35,085)	$ (32,422)

The accumulated benefit obligation as of December 31, 2023 and 2022 was $128.3 million and $125.6 million, respectively.

The following table summarizes, by component, the change in accumulated other comprehensive income (loss), net of tax related to our Plans:

	Prior Service Cost	Actuarial Net Gain (Loss)	Total
		(In thousands)	
Balance at December 31, 2021	$ 602	$ 5,014	$ 5,616
Amortization and settlement gain included in net periodic pension cost	—	(1,021)	(1,021)
Net gain (loss) arising during period	—	9,625	9,625
Adjustments to unrealized components of defined benefit pension plan included in other comprehensive income (loss)	—	8,604	8,604
Balance at December 31, 2022	$ 602	$ 13,618	$ 14,220
Amortization and settlement gain included in net periodic pension cost	—	(46)	(46)
Net gain (loss) arising during period	—	1,731	1,731
Adjustments to unrealized components of defined benefit pension plan included in other comprehensive income (loss)	—	1,685	1,685
Balance at December 31, 2023	$ 602	$ 15,303	$ 15,905

Information for pension plans with benefit obligations in excess of plan assets is as follows:

	December 31,	
	2023	2022
	(In thousands)	
Plans with underfunded or non-funded projected benefit obligation:		
Aggregate projected benefit obligation	$ 100,662	$ 96,310
Aggregate fair value of plan assets	53,539	51,581
Plans with underfunded or non-funded accumulated benefit obligation:		
Aggregate accumulated benefit obligation	60,638	61,764
Aggregate fair value of plan assets	21,304	20,740

The following table summarizes total pension expense:

	For the Year Ended December 31,		
	2023	2022	2021
		(In thousands)	
Components of net periodic pension cost and total pension expense:			
Service cost	$ 15,032	$ 20,072	$ 25,908
Interest cost	6,202	4,731	4,900
Expected return on plan assets	(5,144)	(5,605)	(5,600)
Recognized actuarial (gain) loss	(156)	53	128
Net periodic pension cost	15,934	19,251	25,336
Curtailment (gain) loss	(617)	—	(954)
Settlement (gain) loss	132	(1,374)	(743)
Total pension expense	$ 15,449	$ 17,877	$ 23,639

The components of net periodic pension cost other than the service cost component are included in other (income) expense, net in our Consolidated Statements of Income.

The following table summarizes the weighted-average assumptions used in computing the net periodic pension cost and projected benefit obligations:

	For the Year Ended December 31,		
	2023	2022	2021
Discount rate for determining net periodic pension cost	4.2 %	2.6 %	2.3 %
Discount rate for determining benefit obligations at December 31	3.8 %	4.2 %	2.6 %
Rate of compensation increase for determining net periodic pension cost	3.6 %	3.7 %	3.7 %
Rate of compensation increase for determining benefit obligations at December 31	3.7 %	3.6 %	3.7 %
Expected rate of return on plan assets for determining net periodic pension cost	4.1 %	3.8 %	3.7 %

The measurement date for determining the Plans' assets and benefit obligations is December 31, each year. Discount rates are generally derived from yield curves constructed from high-quality corporate or foreign government bonds, for which the timing and amount of cash outflows approximate the estimated payouts.

The expected rate of return assumption is based on weighted-average expected returns for each asset class. Expected returns reflect a combination of historical performance analysis and the forward-looking views of the financial markets and include input from our actuaries. We have no control over the direction of our investments in our defined benefit plans in Taiwan as the local Labor Standards Law Fund mandates such contributions into a cash account balance at the Bank of Taiwan. Our defined benefit pension plan in Malaysia is a non-funded plan, and as such, no asset exists related to this plan. Our investment strategies for our defined benefit plans in Japan, Korea and the Philippines are based on long-term, sustained asset growth through low to medium risk investments. The current rate of return assumption targets are based on asset allocation strategies as follows:

	Allocation		
	Debt	Equity	Other
Japan defined benefit plan	64 %	34 %	2 %
Korea defined benefit plan	30 %	20 %	50 %
Philippine defined benefit plan	56 %	42 %	2 %

The fair value of our pension plan assets, by asset category utilizing the fair value hierarchy as discussed in Note 16, is as follows:

	December 31, 2023			December 31, 2022		
	Level 1	Level 2	Total	Level 1	Level 2	Total
	(In thousands)			(In thousands)		
Cash and cash equivalents	$ 217	$ —	$ 217	$ 1,117	$ —	$ 1,117
Equity securities	13,680	—	13,680	13,339	—	13,339
Debt securities						
Government bonds	3,674	—	3,674	2,982	—	2,982
Corporate bonds	1,130	—	1,130	540	—	540
Treasury notes	11,993	—	11,993	11,561	—	11,561
Mutual and commingled funds						
Equity funds	29,016	7,807	36,823	23,931	7,157	31,088
Debt funds	12,031	13,163	25,194	11,651	13,409	25,060
Guaranteed investment contracts	—	23,189	23,189	—	28,340	28,340
Taiwan retirement fund	12,478	—	12,478	12,845	—	12,845
Other, net	—	818	818	(383)	849	466
Total fair value of pension plan assets	$ 84,219	$ 44,977	$ 129,196	$ 77,583	$ 49,755	$ 127,338

The Taiwan retirement fund category of our plan assets represents accounts that our subsidiaries in Taiwan have in a government labor retirement fund in the custody of the Bank of Taiwan. The accounts earn a minimum guaranteed rate of return and are invested in a mix of cash, domestic and foreign equity securities and domestic and foreign debt securities.

We expect to make contributions of approximately $11 million during 2024. We closely monitor the funded status of the Plans with respect to legislative requirements. We intend to make at least the minimum contribution required by law each year.

The estimated future benefit payments related to our foreign defined benefit plans are as follows:

	Payments
	(In thousands)
2024	$ 9,369
2025	11,715
2026	12,383
2027	15,185
2028	16,062
2029 to 2033	98,940

Defined Contribution Plans

We sponsor defined contribution plans in Korea, Malaysia, Taiwan and the U.S. Total defined contribution expense was $27.0 million, $24.2 million and $21.8 million for 2023, 2022 and 2021, respectively.

13. Dividends

In October 2020, our Board of Directors approved the initiation of a regular quarterly cash dividend on our common stock. Each quarter since the adoption of this dividend policy, the Company has declared and paid a quarterly dividend. In November 2023, our Board of Directors approved a quarterly dividend of $0.07875 per share, a 5% increase from the rate set in November 2022.

14. Accumulated Other Comprehensive Income (Loss)

The following table reflects the changes in accumulated other comprehensive income (loss), net of tax:

	Unrealized Gain (Losses) on Available-for-Sale Debt Investments (1)	Defined Benefit Pension (2)	Foreign Currency Translation	Total
	(In thousands)			
Balance at December 31, 2021	$ (348)	$ 5,616	$ 14,710	$ 19,978
Other comprehensive income (loss) before reclassifications	(1,243)	9,625	(10,658)	(2,276)
Amounts reclassified from accumulated other comprehensive income (loss)	18	(1,021)	—	(1,003)
Other comprehensive income (loss)	(1,225)	8,604	(10,658)	(3,279)
Balance at December 31, 2022	$ (1,573)	$ 14,220	$ 4,052	$ 16,699
Other comprehensive income (loss) before reclassifications	2,265	1,731	(3,819)	177
Amounts reclassified from accumulated other comprehensive income (loss)	(480)	(46)	—	(526)
Other comprehensive income (loss)	1,785	1,685	(3,819)	(349)
Balance at December 31, 2023	$ 212	$ 15,905	$ 233	$ 16,350

(1) Amounts reclassified out of accumulated other comprehensive income (loss) are included as other (income) expense, net (Note 3).

(2) Amounts reclassified out of accumulated other comprehensive income (loss) are included as a component of net periodic pension cost (Note 12) or other (income) expense, net (Note 3).

15. Derivatives

We use foreign currency forward contracts to mitigate foreign currency risk of certain assets and monetary liabilities denominated in foreign currencies. We do not enter into such contracts for trading or speculative purposes. These derivative instruments are not designated as hedging instruments.

As of December 31, 2023 and 2022, our foreign exchange forward contracts consisted of the following:

	December 31, 2023			December 31, 2022		
	Notional Value	Fair Value (Level 2)	Balance Sheet Location	Notional Value	Fair Value (Level 2)	Balance Sheet Location
	(In thousands)					
Japanese yen	$ 279,027	$ 2,745	Other current assets	$ 330,179	$ 6,284	Other current assets
Korean won	59,036	(97)	Accrued expenses	65,927	333	Other current assets
Philippine peso	6,553	(20)	Accrued expenses	3,085	(6)	Accrued expenses
Singapore dollar	11,506	20	Other current assets	—	—	N/A
Taiwan dollar	37,914	89	Other current assets	28,763	(57)	Accrued expenses
Total forward contracts	$ 394,036	$ 2,737		$ 427,954	$ 6,554	

For the years ended December 31, 2023, 2022 and 2021, the derivatives resulted in a net loss of $38.6 million, $60.2 million and $58.8 million, respectively, which were partially offset by the foreign currency gains associated with the underlying net assets or liabilities.

16. Fair Value Measurements

The accounting framework for determining fair value includes a hierarchy for ranking the quality and reliability of the information used to measure fair value, which enables the reader of the financial statements to assess the inputs used to develop those measurements. The fair value hierarchy consists of three tiers as follows: Level 1, defined as quoted market prices in active markets for identical assets or liabilities; Level 2, defined as inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, model-based valuation techniques for which all significant assumptions are observable in the market or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities; and Level 3, defined as unobservable inputs that are not corroborated by market data. For our Level 2 short-term investments, we consider factors such as actual trade data, benchmark yields, broker/dealer quotes, and other similar data obtained from quoted market prices and independent pricing vendors to determine the fair value of these assets and liabilities.

The fair values of cash, accounts receivable, trade accounts payable, capital expenditures payable, and certain other current assets and accrued expenses approximate carrying values because of their short-term nature. The carrying value of certain other non-current assets and liabilities approximates fair value. Our assets and liabilities recorded at fair value on a recurring basis include restricted cash money market funds and short-term investments, including investments classified as cash equivalents. Cash equivalent money market funds and restricted cash money market funds are invested in U.S. money market funds and various U.S. and foreign bank operating and time deposit accounts, which are due on demand or carry a maturity date of less than three months when purchased. No restrictions have been imposed on us regarding withdrawal of balances with respect to our cash equivalents as a result of liquidity or other credit market issues affecting the money market funds we invest in or the counterparty financial institutions holding our deposits.

Our derivative financial instruments are valued using quoted market prices for similar assets. Counterparties to these derivative contracts are highly rated financial institutions.

We also measure certain assets and liabilities, including property, plant and equipment and goodwill, at fair value on a nonrecurring basis.

We measure the fair value of our debt for disclosure purposes. The following table presents the fair value of our debt:

	December 31, 2023		December 31, 2022	
	Fair Value	Carrying Value	Fair Value	Carrying Value
	(In thousands)			
Senior notes (Level 1)	$ 531,778	$ 521,839	$ 523,016	$ 521,114
Revolving credit facilities and term loans (Level 2)	666,316	681,617	686,728	711,220
Total financial instruments	$ 1,198,094	$ 1,203,456	$ 1,209,744	$ 1,232,334

The estimated fair value of our senior notes is based primarily on quoted market prices reported on or near the respective balance sheet dates. The estimated fair value of our revolving credit facilities and term loans is calculated using a discounted cash flow analysis, which utilizes market-based assumptions including forward interest rates adjusted for credit risk.

17. Commitments and Contingencies

We generally warrant that our services will be performed in a professional and workmanlike manner and in compliance with our customers' specifications. We accrue costs for known warranty issues. Historically, our warranty costs have been immaterial.

Legal Proceedings

We are involved in claims and legal proceedings and may become involved in other legal matters arising in the ordinary course of our business. We evaluate these claims and legal matters on a case-by-case basis to make a determination as to the impact, if any, on our business, liquidity, results of operations, financial condition or cash flows. Although the outcome of these matters is uncertain, we believe that the ultimate outcome of these claims and proceedings, individually and in the aggregate, will not have a material adverse impact to us. Our evaluation of the potential impact of these claims and legal proceedings on our business, liquidity, results of operations, financial condition or cash flows could change in the future.

18. Business Segments, Customer Concentrations and Geographic Information

We operate as a single operating segment as managed by our Chief Executive Officer, who is considered our chief operating decision maker ("CODM"). The CODM bears the ultimate responsibility for, and is actively engaged in, the allocation of resources and the evaluation of our operating and financial results. We have concluded that we have a single operating segment based on the following:

- We are managed under a functionally-based organizational structure with the head of each function reporting directly to the CODM;
- We assess performance, including incentive compensation, based on consolidated operating performance and financial results;
- Our CODM allocates resources and makes other operating decisions based on specific customer business opportunities and
- We have an integrated process for the design, development and manufacturing services we provide to all of our customers. We also have centralized sales and administrative functions.

Net sales by product group consist of the following:

	For the Year Ended December 31,		
	2023	2022	2021
	(In thousands)		
Advanced Products	$ 5,032,859	$ 5,367,589	$ 4,409,207
Mainstream Products	1,470,206	1,723,996	1,729,122
Total net sales	$ 6,503,065	$ 7,091,585	$ 6,138,329

(1) Advanced Products include flip chip, memory and wafer-level processing and related test services.

(2) Mainstream Products include all other wirebond packaging and related test services.

Net sales by end market consist of the following**:**

	For the Year Ended December 31,		
	2023	2022	2021
Communications (smartphones, tablets)	50 %	44 %	41 %
Automotive, industrial and other (ADAS, electrification, infotainment, safety)	21 %	20 %	21 %
Computing (data center, infrastructure, PC/laptop, storage)	16 %	16 %	16 %
Consumer (AR & gaming, connected home, home electronics, wearables)	13 %	20 %	22 %
Total net sales	100 %	100 %	100 %

Net sales by region based on customer headquarters location consist of the following:

	For the Year Ended December 31,		
	2023	2022	2021
	(In thousands)		
Europe, Middle East and Africa	$ 1,043,880	$ 1,084,853	$ 1,061,369
Japan	935,620	1,132,121	1,253,717
Asia Pacific (excluding Japan)	704,520	1,017,246	999,591
Total foreign countries	2,684,020	3,234,220	3,314,677
United States	3,819,045	3,857,365	2,823,652
Total net sales	$ 6,503,065	$ 7,091,585	$ 6,138,329

In 2023, 2022 and 2021 one customer accounted for 27.7%, 20.6% and 13.7% of total net sales, respectively. In 2022, a second customer accounted for 10.1% of total net sales.

AMKOR TECHNOLOGY, INC.

Notes to Consolidated Financial Statements — (Continued)

Property, plant and equipment, net, based on physical location, consist of the following:

	December 31,	
	2023	2022
	(In thousands)	
China	$ 385,544	$ 476,945
Japan	143,399	121,842
Korea	1,781,632	1,868,956
Malaysia	51,164	41,978
Philippines	183,430	195,805
Portugal	108,982	82,454
Taiwan	272,428	261,449
Vietnam	365,059	79,630
Other foreign countries	272	583
Total foreign countries	3,291,910	3,129,642
United States	7,535	5,972
Total property, plant and equipment, net	$ 3,299,445	$ 3,135,614

SCHEDULE II — VALUATION AND QUALIFYING ACCOUNTS

	Balance at Beginning of Period	Additions (Credited) Charged to Expense	Write-offs	Balance at End of Period
	(In thousands)			
Deferred tax asset valuation allowance:				
Year ended at December 31, 2021	$ 121,310	3,653	(2,606)	$ 122,357
Year ended at December 31, 2022	$ 122,357	(17,762)	(2,726)	$ 101,869
Year ended at December 31, 2023	$ 101,869	15,838	(2,896)	$ 114,811

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

None.

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

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our periodic reports to the SEC is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including the Chief Executive Officer and the Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure, based on the definition of "disclosure controls and procedures" in Rule 13a-15(e) and Rule 15d-15(e) under the Securities Exchange Act of 1934, as amended. In designing and evaluating the disclosure controls and procedures, management recognizes that any disclosure controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management necessarily is required to apply its judgment in evaluating the cost-benefit relationship of possible disclosure controls and procedures.

We carried out an evaluation, under the supervision and with the participation of management, including our Chief Executive Officer and our Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures as of December 31, 2023, and concluded those disclosure controls and procedures were effective as of that date.

Management's Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f). 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.

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

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. 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 and procedures may deteriorate.

Management conducted an assessment of the effectiveness of our internal control over financial reporting as of December 31, 2023, based on the framework established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). Based on the results of this evaluation, our management concluded that our internal control over financial reporting was effective as of December 31, 2023, based on criteria in Internal Control — Integrated Framework (2013) issued by the COSO.
The effectiveness of our internal control over financial reporting as of December 31, 2023, has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears under Item 8 of this Form 10-K.

Changes in Internal Control Over Financial Reporting

There have been no changes in our internal control over financial reporting that occurred during the three months ended December 31, 2023 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. *Other Information*

On November 8, 2023, Giel Rutten, Amkor's President and Chief Executive Officer, adopted a "Rule 10b5-1 trading arrangement" as such term is defined in paragraph (a) of Item 408 of Regulation S-K promulgated under the Securities Act, which is intended to satisfy the affirmative defense of Rule 10b5-1(c). Mr. Rutten's Rule 10b5-1 trading arrangement will terminate on the earliest of: (a) August 30, 2024; (b) the first date on which all trades have been executed or all trading orders relating to such trades have expired; and (c) the date on which Mr. Rutten gives notice to terminate his Rule 10b5-1 trading arrangement. 175,000 shares of our common stock are to be sold under Mr. Rutten's Rule 10b5-1 trading arrangement.

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

Not applicable.

PART III

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

The information required by this Item 10, with the exception of information relating to our Code of Business Conduct (the "Code of Business Conduct") as disclosed below, is incorporated herein by reference from the material included under the captions "Proposal One: Election of Directors," "Corporate Governance," "Executive Officers" and "Delinquent Section 16(a) Reports" in our definitive proxy statement to be filed with the SEC pursuant to Regulation 14A within 120 days after our fiscal year ended December 31, 2023 in connection with our 2024 Annual Meeting of Stockholders (the "Proxy Statement").

The Code of Business Conduct is written and is applicable to all employees, including our Chief Executive Officer, Chief Financial Officer and Controller. The Code of Business Conduct and our Code of Ethics for Directors, Corporate Governance Guidelines and the charters of the Audit Committee, Nominating and Governance Committee and Compensation Committee of our Board of Directors are available and maintained on our website (http://www.amkor.com). We intend to disclose on our website future amendments or waivers of the Code of Business Conduct required to be disclosed pursuant to applicable rules and regulations.

Item 11. *Executive Compensation*

The information required by this Item 11 is incorporated herein by reference from the material included under the captions "Director Compensation," "Executive Compensation," "Compensation Committee Interlocks and Insider Participation" "Pay Ratio" and "Compensation Committee Report" in the Proxy Statement.

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

The information required by this Item 12, with the exception of the equity compensation plan information presented below, is incorporated herein by reference from the material included under the caption "Security Ownership of Certain Beneficial Owners and Management" in the Proxy Statement.

EQUITY COMPENSATION PLAN

The following table summarizes our equity compensation plan as of December 31, 2023:

	(a) Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights (In thousands)	(b) Weighted Average Exercise Price of Outstanding Options, Warrants and Rights (1)	(c) Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column(a)) (In thousands)
Equity compensation plan approved by stockholders (2)	3,338 (3)	$ 10.58	20,582 (4)
Equity compensation plans not approved by stockholders	—	—	—
Total equity compensation plans	3,338		20,582

(1) Calculated without taking into account shares of common stock subject to outstanding RSUs and PSUs that will become issuable as those units vest without any cash consideration or other payment required for such shares.

(2) Consists of the 2007 Plan and the 2021 Plan.

(3) Includes 1.3 million shares of common stock subject to RSUs and PSUs, which entitle each holder to one share of common stock for each unit that vests over the holder's period of continued service or based on the achievement of certain performance criteria.

(4) Represents the number of shares of common stock available for issuance under the 2021 Plan, as adjusted to account for full-value awards, which reduce the shares of common stock available for future issuance at a fungible ratio of 1:1.5 for each full-value award previously awarded. The 2007 Plan terminated on the date of the 2021 Annual Meeting, and, accordingly, there were no shares available for future grants under the 2007 Plan as of December 31, 2023. However, if an award under the 2021 Plan or under the 2007 Plan is forfeited, terminated, canceled, expires or is paid in cash, the shares subject to such award, to the extent of the forfeiture, termination, cancellation, expiration or cash payment, may be added back to the shares available for issuance under the 2021 Plan on a 1:1 basis for options and stock appreciation rights and on a 1.5:1 basis for all other equity awards.

The 2021 Plan, which was approved by our stockholders at the 2021 Annual Meeting, superseded and replaced the 2007 Plan. As of December 31, 2023, a total of 20.6 million shares were available for issuance under the 2021 Plan. Shares available for issuance under our 2021 Plan can be granted pursuant to stock options, restricted stock, RSUs, stock appreciation rights, PSUs and performance shares. For additional information regarding the 2007 Plan and the 2021 Plan, see Note 2 to our Consolidated Financial Statements in Part II, Item 8 of this Form 10-K.

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

The information required by this Item 13 is incorporated herein by reference from the material included under the captions "Corporate Governance - Certain Relationships and Related Transactions" and "Proposal One: Election of Directors" in the Proxy Statement.

Item 14. ***Principal Accountant Fees and Services***

The information required by this Item 14 is incorporated herein by reference from the material included under the caption "Proposal Three: Ratification of Appointment of Independent Registered Public Accounting Firm" in the Proxy Statement.

PART IV

Item 15. *Exhibits and Financial Statement Schedules*

(a) *Financial Statements, Financial Statement Schedules and Exhibits*

The financial statements and schedules filed as part of this Form 10-K are listed in the index under Part II, Item 8 of this Form 10-K.

The exhibits required by Item 601 of Regulation S-K that are filed with this Form 10-K or incorporated by reference herein are set forth below. Management contracts or compensatory plans or arrangements are identified by an asterisk.

Exhibit Number	Exhibit Description	Incorporated by Reference				Included Herewith
		Form	Period Ending	Exhibit	Filing Date	
2.1	Sales Contract of Commodity Premises between Shanghai Waigaoqiao Free Trade Zone Xin Development Co., Ltd. and Amkor Assembly & Test (Shanghai) Co., Ltd. dated May 7, 2004.	10-Q	6/30/04	2.3	8/6/04	
3.1	Certificate of Incorporation.	S-1		3.1	10/6/97	
3.2	Certificate of Correction to Certificate of Incorporation.	POSAM		—	8/26/98	
3.3	Restated Bylaws as amended on November 5, 2013.	10-K	12/31/13	3.3	2/28/14	
4.1	Specimen Common Stock Certificate.	S-1/A		4.1	3/31/98	
4.2	Indenture, dated March 15, 2019, by and between Amkor Technology, Inc. and U.S. Bank National Association, as trustee, regarding the 6.625% Senior Notes due 2027.	8-K		4.1	3/5/19	
4.3	Description of the Registrant's Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934.	10-K	12/31/19	4.3	2/19/20	
10.1	Form of Indemnification Agreement for directors and officers.	S-1/A		10.1	3/31/98	
10.2	2009 Voting Agreement, dated as of March 26, 2009, between Amkor Technology, Inc., James J. Kim and 915 Investments, LP.	8-K		10.1	4/1/09	
10.3	Form of Stock Option Award Agreement under the Second Amended and Restated 2007 Equity Incentive Plan.*	10-Q	3/31/17	10.2	5/5/17	
10.4	Form of Restricted Stock Award Agreement under the Second Amended and Restated 2007 Equity Incentive Plan.*	10-Q	3/31/17	10.3	5/5/17	
10.5	Form of Outside Director Stock Option Award Agreement under the Second Amended and Restated 2007 Equity Incentive Plan.*	10-Q	3/31/17	10.4	5/5/17	
10.6	Second Amended and Restated 2007 Equity Incentive Plan*	8-K		10.1	5/5/17	
10.7	Amendment One to Second Amended and Restated 2007 Equity Incentive Plan*	10-Q	6/30/19	10.3	8/1/19	
10.8	Form of Global Stock Option Award Agreement under the Second Amended and Restated 2007 Equity Incentive Plan.*	10-Q	6/30/20	10.1	7/30/20	

Exhibit Number	Exhibit Description	Incorporated by Reference				Included Herewith
		Form	Period Ending	Exhibit	Filing Date	
10.9	Form of Global Restricted Stock Award Agreement under the Second Amended and Restated 2007 Equity Incentive Plan.*	10-Q	6/30/20	10.2	7/30/20	
10.10	Form of Global Outside Director Nonstatutory Stock Option Award Agreement under the Second Amended and Restated 2007 Equity Incentive Plan.*	10-Q	9/30/20	10.1	10/30/20	
10.11	Form of Global Outside Director Restricted Stock Award Agreement under the Second Amended and Restated 2007 Equity Incentive Plan.*	10-Q	9/30/20	10.2	10/30/20	
10.12	Form of Global Performance-Vested Restricted Stock Unit Award Agreement under the Second Amended and Restated 2007 Equity Incentive Plan.*	8-K		10.1	2/5/21	
10.13	Form of Global Time-Vested Restricted Stock Unit Award Agreement under the Second Amended and Restated 2007 Equity Incentive Plan.*	8-K		10.2	2/5/21	
10.14	Amkor Technology, Inc. 2021 Equity Incentive Plan*	8-K		10.1	5/20/21	
10.15	Amendment One to the Amkor Technology, Inc. 2021 Equity Incentive Plan*	10-K	12/31/21	10.36	2/18/22	
10.16	Form of Global Non-Employee Director Nonstatutory Stock Option Award Agreement*	8-K		10.2	5/20/21	
10.17	Form of Global Non-Employee Director Restricted Stock Award Agreement*	8-K		10.3	5/20/21	
10.18	Form of Global Stock Option Award Agreement*	8-K		10.4	5/20/21	
10.19	Form of Global Restricted Stock Award Agreement*	8-K		10.5	5/20/21	
10.20	Form of Global Performance-Vested Restricted Stock Unit Award Agreement*	8-K		10.6	5/20/21	
10.21	Global Performance-Vested Restricted Stock Unit Award Agreement Guillaume Marie Jean Rutten December 2023*					X
10.22	Form of Global Performance-Vested Restricted Stock Unit Award Agreement December 2023*					X
10.23	Form of Global Time-Vested Restricted Stock Unit Award Agreement*	8-K		10.7	5/20/21	
10.24	Form of Global Non-Employee Director Time-Vested Restricted Stock Unit Award Agreement*	10-K	12/31/21	10.35	2/18/22	
10.25	Amended and Restated Non-Employee Director Compensation Policy	10-Q	6/30/22	10.1	8/4/22	
10.26	Second Amended and Restated Non-Employee Director Compensation Policy	10-K	12/31/22	10.25	2/22/23	
10.27	Amended and Restated Executive Incentive Bonus Plan*	8-K		10.2	5/5/17	
10.28	Employment Letter Agreement, dated June 24, 2020, between Amkor Technology, Inc. and Guillaume Marie Jean Rutten.*	10-Q	6/30/20	10.3	7/30/20	
10.29	Separation Agreement and Release, effective July 4, 2020, between Amkor Technology, Inc. and Stephen D. Kelley.*	10-Q	6/30/20	10.4	7/30/20	
10.30	Separation and Release Agreement, dated September 27, 2021, between Amkor Technology, Inc. and John C. Stone*	10-Q	9/30/21	10.1	10/29/21	

Exhibit Number	Exhibit Description	Incorporated by Reference				Included Herewith
		Form	Period Ending	Exhibit	Filing Date	
10.31	Executive Severance Agreement, dated November 15, 2022, between Amkor Technology, Inc. and Giel Rutten*	10-K	12/31/22	10.30	2/22/23	
10.32	Executive Severance Agreement, dated November 15, 2022, between Amkor Technology, Inc. and Megan Faust*	10-K	12/31/22	10.31	2/22/23	
10.33	Executive Severance Agreement, dated November 15, 2022, between Amkor Technology, Inc. and Farshad Haghighi*	10-K	12/31/22	10.32	2/22/23	
10.34	Executive Severance Agreement, dated November 15, 2022, between Amkor Technology, Inc. and Mark Rogers*	10-K	12/31/22	10.33	2/22/23	
10.35	Executive Severance Agreement, dated February 13, 2023, between Amkor Technology, Inc. and Kevin Engel*	10-K	12/31/22	10.34	2/22/23	
10.36	Executive Employment Agreement, effective January 1, 2023, between Amkor Technology Korea, Inc. and Steve Shin*†	10-K	12/31/22	10.35	2/22/23	
10.37	Syndicated Loan Agreement among J-Devices Corporation, Sumitomo Mitsui Banking Corporation and other financial institutions, dated as of July 13, 2018 (English translation).	8-K		10.1	7/19/18	
10.38	Guaranty by Amkor Technology, Inc. in favor of Sumitomo Mitsui Banking Corporation and other financial institutions, dated as of July 13, 2018 (English translation).	8-K		10.2	7/19/18	
10.39	Loan and Security Agreement, dated as of July 13, 2018, by and among Amkor Technology Singapore Holding Pte, Ltd., Bank of America, N.A. and other financial institutions.	8-K		10.3	7/19/18	
10.40	Amendment to Loan and Security Agreement, dated as of July 8, 2019, by and amount Amkor Technology Singapore Holding Pte, Ltd., Bank of America, N.A. and other financial institutions.	10-Q	6/30/19	10.2	8/1/19	
10.41	Guaranty and Security Agreement, dated as of July 13, 2018, by and among Amkor Technology, Inc., and Bank of America, N.A.	8-K		10.4	7/19/18	
10.42	Syndicated Loan Agreement among J-Devices Corporation, Sumitomo Mitsui Banking Corporation and other financial institutions, dated as of December 23, 2019 (English translation)	8-K		10.1	12/26/19	
10.43	Guaranty by Amkor Technology, Inc. in favor of Sumitomo Mitsui Banking Corporation and other financial institutions, dated as of December 23, 2019 (English translation)	8-K		10.2	12/26/19	
10.44	Deed of Guaranty by Amkor Technology Singapore Holding Pte. Ltd. in favor of Sumitomo Mitsui Banking Corporation and other financial institutions, dated as of December 23, 2019 (English translation)	8-K		10.3	12/26/19	

Exhibit Number	Exhibit Description	Incorporated by Reference Form	Period Ending	Exhibit	Filing Date	Included Herewith
10.45	Secured Facility Agreement, dated March 28, 2022, between Amkor Technology, Inc., as parent, Amkor Technology Singapore Holding Pte. Ltd., as borrower, the subsidiaries of the borrower set forth in the schedules thereto, as original guarantors, the Hongkong and Shanghai Banking Corporation Limited, Singapore Branch ("HSBC") and DBS Bank Ltd., each as mandated lead arranger and bookrunner, the other financial institutions party thereto, as lenders, HSBC, as agent and offshore security trustee, and CTBC Bank Co., Ltd., as onshore security agent.	8-K		10.1	3/29/22	
21.1	List of subsidiaries of the Registrant.					X
23.1	Consent of PricewaterhouseCoopers LLP.					X
24.1	Power of Attorney (included on the Signatures page of this Report on Form 10-K).					X
31.1	Certification of Guillaume Marie Jean Rutten, Chief Executive Officer of Amkor Technology, Inc., Pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934, as amended.					X
31.2	Certification of Megan Faust, Chief Financial Officer of Amkor Technology, Inc., Pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934, as amended.					X
32.1	Certification of Chief Executive Officer and Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.**					X
97.1	Excess Compensation Recovery Policy.**					X
101.INS	Inline XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.					X
101.SCH	Inline XBRL Taxonomy Extension Schema Document					X
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document					X
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document					X
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document					X
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document					X
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)					X

* Indicates management compensatory plan, contract or arrangement.

** Furnished herewith

† Exhibit includes confidential information that has been redacted.

Item 16. *Form 10-K Summary*

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this Annual Report on Form 10-K to be signed, on its behalf by the undersigned, thereunto duly authorized.

AMKOR TECHNOLOGY, INC.

By: /s/ Guillaume Marie Jean Rutten
Guillaume Marie Jean Rutten
President and Chief Executive Officer
Date: February 16, 2024

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Guillaume Marie Jean Rutten and Megan Faust, and each of them, his or her attorneys-in-fact, and agents, each with the power of substitution, for and in the name, place and stead of such person, in any and all capacities, to sign any and all amendments to this Form 10-K, and all documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and conforming all that said attorneys-in-fact and agents of any of them, or his, her or their 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, as amended, this Form 10-K has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Name	Title	Date
/s/ Guillaume Marie Jean Rutten Guillaume Marie Jean Rutten	President and Chief Executive Officer (Principal Executive Officer)	February 16, 2024
/s/ Megan Faust Megan Faust	Executive Vice President, Chief Financial Officer, and Treasurer (Principal Financial Officer and Principal Accounting Officer)	February 16, 2024
/s/ James J. Kim James J. Kim	Executive Chairman	February 16, 2024
/s/ Susan Y. Kim Susan Y. Kim	Executive Vice Chairman	February 16, 2024
/s/ Douglas A. Alexander Douglas A. Alexander	Director	February 16, 2024
/s/ Roger A. Carolin Roger A. Carolin	Director	February 16, 2024

Name	Title	Date
/s/ Winston J. Churchill Winston J. Churchill	Director	February 16, 2024
/s/ Daniel Liao Daniel Liao	Director	February 16, 2024
/s/ MaryFrances McCourt MaryFrances McCourt	Director	February 16, 2024
/s/ Robert R. Morse Robert R. Morse	Director	February 16, 2024
/s/ Gil C. Tily Gil C. Tily	Director	February 16, 2024
/s/ David N. Watson David N. Watson	Director	February 16, 2024

Exhibit 10.21

AMKOR TECHNOLOGY, INC.

2021 EQUITY INCENTIVE PLAN

GLOBAL PERFORMANCE-VESTED RESTRICTED STOCK UNIT AWARD AGREEMENT

Unless otherwise defined herein, each term used in this Global Performance-Vested Restricted Stock Unit Award Agreement, including the performance goals set forth in the Appendix A attached hereto, the general terms and conditions for all non-U.S. Participants and the additional terms and conditions for certain countries, all as set forth in the Appendix B attached hereto (Appendices A and B, together with the Global Performance-Vested Restricted Stock Unit Award Agreement, the "Award Agreement") and defined in the Amkor Technology, Inc. 2021 Equity Incentive Plan (the "Plan") will have the same meaning as is given to such term in the Plan.

Participant Name: Guillaume Marie Jean Rutten

You have been granted the right to receive an Award of Performance-Vested Restricted Stock Units, subject to the terms and conditions of the Plan and this Award Agreement, as follows:

Grant Number ____

Date of Grant ____

Number of Restricted Stock Units Granted ____

1. Grant. The Company hereby grants to the individual named above ("Participant") under the Plan as a separate incentive and not in lieu of any salary or other compensation for the Participant's services, an Award of Restricted Stock Units (the "Award"), subject to all of the terms and conditions in this Award Agreement and the Plan, which is incorporated herein by reference. In the event of a conflict between the terms and conditions of the Plan and the terms and conditions of this Award Agreement, the terms and conditions of the Plan will prevail.

2. Vesting Schedule. Except as may be otherwise provided in Section 4 or Section 5 of this Award Agreement, the Award shall vest on the Determination Date (as defined below) (a) if the Participant's continuous status as a Service Provider has not terminated prior to the Determination Date and (b) to the extent that one or both of the Performance Goals (as defined in Appendix A) have been attained and all the other conditions for the vesting of the Restricted Stock Units have been satisfied, as determined on or prior to the Determination Date by the Administrator, whose good faith determination shall be final, binding and conclusive on all persons, including, but not limited to, the Company and the Participant. The Determination Date shall be the date on which the Administrator determines and certifies in writing that the corresponding Performance Goal(s) and all other conditions for the vesting of the Restricted Stock Units have been satisfied, which date shall not be more than ninety (90) days after the last day of the Performance Period ("Determination Date").

For the avoidance of doubt, unless otherwise set forth in Section 4 of this Award Agreement, employment or other service during only a portion of the vesting period until the Determination Date shall not entitle the Participant to vest in a pro rata portion of the Restricted Stock Units scheduled to vest on such date.

3. Settlement. Subject to Sections 7 and 22 hereof, promptly following each applicable vesting date (including any accelerated vesting date under Section 4), and in any event within forty-five (45) days thereof, the Company shall, in the Administrator's sole discretion, either (i) pay to Participant an amount in cash equal to the Fair Market Value of the Shares represented by the RSUs that vested as of the most recent vesting date, or (ii) (a) issue and deliver to the Participant the number of Shares equal to the number of vested Restricted Stock Units and (b) enter the Participant's name on the books of the Company as the stockholder of record with respect to the Shares delivered to the Participant.

4. Termination of Status as a Service Provider.

(a) Termination Due to Death or Disability. If the Participant's termination as a Service Provider is due to death or Disability and such termination occurs before the Determination Date, the Participant shall become vested at the time of the Determination Date in a number of Restricted Stock Units equal to the product of (i) the number of Restricted Stock Units that the Participant would have become vested in accordance with Section 2 had the Participant's continuous status as a Service Provider had continued through the Determination Date and (ii) a fraction, the numerator of which is the number of days during the Performance Period that the Participant provided services as a Service Provider and the denominator of which is the total number of days in the Performance Period.

(b) Termination Due to Retirement. If the Participant's termination as a Service Provider is due to Retirement (as defined herein), and such Retirement occurs before the Determination Date, the Participant shall become vested at the time of the Determination Date in a number of Restricted Stock Units equal to the product of (i) the number of Restricted Stock Units that the Participant would have earned in accordance with Section 2 had the Participant remained as a Service Provider through the end of the Performance Period and (ii) a fraction, the numerator of which is the number of days during the Performance Period that the Participant provided services as a Service Provider during such year and the denominator of which is the total number of days in the Performance Period. Notwithstanding the preceding sentence, if such Retirement occurred within six (6) months following the Date of Grant, all the Restricted Stock Units will be forfeited (with no consideration due the Participant), and Participant will have no further rights thereunder. "Retirement" for purposes of this Award Agreement shall mean the Participant's resignation from the Company (or the Subsidiary employing or retaining Participant) on or after the date on which the sum of (i) the Participant's age (rounded down to the nearest whole month) plus (ii) the number of years (rounded down to the nearest whole month) that the Participant has provided services as a Service Provider to the Company equals or is greater than seventy-five (75).

Notwithstanding the foregoing, if the Company receives a legal opinion that there has been a legal judgment and/or legal development in Participant's jurisdiction that likely would result in the favorable treatment that applies to the Restricted Stock Units when Participant's status as a Service Provider terminates as a result of Participant's Retirement being deemed unlawful and/or discriminatory, the provisions of this Section 4(b) regarding the treatment of the Restricted Stock Units when Participant's status as a Service Provider terminates as a result of Participant's Retirement will not be applicable to Participant and the remaining provisions of this Award Agreement will govern.

(c) Termination Without Cause. If Participant's status as a Service Provider is terminated by the Company without Cause before this Award is vested in full, the Award shall automatically and immediately vest in full.

(d) Change in Control. If a Change in Control occurs, the Award is assumed by the successor in connection with the Change in Control and the Participant either (i) remains a Service Provider through the Determination Date or (ii) the Participant's continuous status as a Service Provider is terminated prior to the Determination Date (A) by the Company (or the Subsidiary employing or retaining Participant) for any reason other than Cause or (B) by the Participant for Good Reason, the Participant shall become vested at the time of the Determination Date in a number of Restricted Stock Units equal to the greater of (i) the amount of Restricted Stock Units that the Participant would have received had the Performance Goal been attained at the 100% attainment level and (ii) the actual attainment level of the Performance Goal measured as of the time of the Change in Control. For purposes of this Award Agreement, "Good Reason" shall mean: (i) a material reduction in the Participant's authority, duties or responsibilities; (ii) a material reduction in the Participant's base salary or bonus opportunity (other than a general reduction in base salary that affects all similarly situated executives in substantially the same proportions); or (iii) any material breach by the Company of any material provision of this Agreement. However, Good Reason shall not be deemed to exist unless (x) Participant shall have given written notice to the Company specifying in reasonable detail the circumstances that Participant alleges constitute Good Reason within thirty (30) calendar days of learning of such act or omission and (y) the Company has failed to cure any such circumstances within thirty (30) calendar days of receipt of such written notice.

5. Forfeiture upon Termination of Status as a Service Provider. Notwithstanding any contrary provision of this Award Agreement, but subject to the vesting provisions set forth in this Award Agreement and Section 4 above, the balance of the Restricted Stock Units that have not vested at the time of Participant's termination as a Service Provider for any reason will be forfeited (with no consideration due to Participant) and automatically transferred to and reacquired by the Company at no cost to the Company upon the date of such termination and Participant will have no further rights thereunder.

For purposes of the Restricted Stock Units, Participant's status as a Service Provider will be deemed terminated as of the date Participant is no longer actively providing services to the Company or one of its Subsidiaries (regardless of the reason for such termination and whether or not later found to be invalid or in breach of labor laws in the jurisdiction where Participant is providing service or the terms of Participant's employment or other service agreement, if any) and such date will not be extended by any notice period (e.g., Participant's period of service would not include any contractual notice period or any period of "garden leave" or similar period mandated under labor laws in the jurisdiction where the Participant is providing service or the terms of Participant's employment or other service agreement, if any). The Administrator shall have the exclusive discretion to determine when Participant is no longer actively provides services for purposes of the Restricted Stock (including whether Participant may still be considered to be providing services while on a leave of absence).

6. Clawback. Notwithstanding any provision of this Award Agreement to the contrary, the Award is subject in all respects to the Amkor Technology, Inc. Excess Compensation Recovery Policy, as amended from time to time (the "Policy"). In the event of an "Accounting Restatement" (as defined in the Policy), the Award (or any portion thereof) may be subject to recovery by the Company if the Award (or any portion thereof) is determined to be "Erroneously Awarded Compensation" (as defined in the Policy). In addition, the Award is subject to recovery by the Company if the Company is required to restate its financial statements resulting in the financial results being reduced such that the Award (or any portion thereof) would not have been paid, if the Company determines, in its sole discretion, that the Participant engaged in intentional misconduct or fraud that resulted in such restatement.

7. Death of Participant. Notwithstanding any provision of this Award Agreement to the contrary, any distribution or delivery to be made to Participant under this Award Agreement will, if Participant is then deceased, be made to the administrator or executor of Participant's estate, Participant's legal heirs or, provided such designation has been permitted by the Company and/or is valid under Applicable Laws, Participant's designated beneficiary. Any such transferee must furnish the Company with (a) written notice of his or her status as transferee and (b) evidence satisfactory to the Company to establish the validity of the transfer and compliance with any laws or regulations pertaining to said transfer.

8. Responsibility for Taxes.

(a) Participant acknowledges and agrees that, regardless of any action taken by the Company or, if different, the Subsidiary to which Participant is providing services (the "Service Recipient"), the ultimate liability for all income tax, social insurance, payroll tax, fringe benefits tax, payment on account or other tax-related items related to Participant's participation in the Plan and legally applicable to Participant ("Tax-Related Items") is and remains Participant's responsibility and may exceed the amount, if any, actually withheld by the Company or the Service Recipient. Participant further acknowledges that the Company and/or the Service Recipient: (i) make no representations or undertakings regarding the treatment of any Tax-Related Items in connection with any aspect of the Restricted Stock Units, including, but not limited to, the grant or vesting of Restricted Stock Units, or the subsequent sale of Shares acquired at vesting and the receipt of any dividends; and (ii) do not commit to and are under no obligation to structure the terms of the grant or any aspect of the Restricted Stock Units to reduce or eliminate Participant's liability for Tax-Related Items or achieve any particular tax result. Further, if Participant is subject to Tax-Related Items in more than one jurisdiction, Participant acknowledges that the Company and/or the Service Recipient (or former service recipient, as applicable) may be required to withhold or account for Tax-Related Items in more than one jurisdiction.

(b) Prior to the relevant taxable or tax withholding event, as applicable, Participant agrees to make adequate arrangements satisfactory to the Company and/or the Service Recipient to satisfy all Tax-Related Items. In this regard, Participant authorizes the Company and/or the Service Recipient, or their respective agents, at their discretion, to satisfy any applicable withholding obligations with regard to all Tax-Related Items by one or a combination of the following: (i) withholding from Participant's salary, wages or other compensation payable to Participant by the Company and/or the Service Recipient; (ii) withholding from proceeds of the sale of the Shares subject to the Restricted Stock Units either through a voluntary sale or through a mandatory sale arranged by the Company (on Participant's behalf pursuant to this authorization without further consent); (iii) withholding Shares subject to the Restricted Stock Units; or (iv) any method determined by the Administrator to be in compliance with Applicable Laws. Notwithstanding the foregoing, if Participant is subject to Section 16 of the Exchange Act at the time the withholding obligation for Tax-Related Items becomes due, the Administrator will satisfy any applicable withholding obligation by directing the Company to withhold Shares subject to the Restricted Stock Units (except in the case of U.S. Federal Insurance Contribution Act taxes or other Tax-Related Items which become payable in a year prior to the year in which the Shares are issued).

(c) The Company and/or the Service Recipient may withhold or account for Tax-Related Items by considering statutory withholding amounts or other applicable withholding rates, including maximum rates applicable in Participant's jurisdiction(s). In the event of over-withholding, Participant may receive a refund of any over-withheld amount in cash (with no entitlement to the equivalent in Shares), or if not refunded, Participant may seek a refund from local tax authorities. In the event of under-withholding, Participant may be required to pay any additional Tax-Related Items directly to the applicable tax authority or to the Company and/or the Service Recipient. If the obligation for Tax-Related Items is satisfied by withholding Shares, for tax purposes, Participant is deemed to have received the full number of Shares subject to the vested Restricted Stock Units, notwithstanding that a number of the Shares is held back solely for the purpose of paying the Tax-Related Items.

Participant agrees to pay to the Company or the Service Recipient any amount of Tax-Related Items that the Company or the Service Recipient may be required to withhold or account for as a result of Participant's participation in the Plan that cannot be satisfied by the means previously described. The Company may refuse to issue or deliver the Shares or the proceeds of the sale of the Shares acquired upon vesting of the Restricted Stock Units, if Participant fails to comply with his or her obligations in connection with the Tax-Related Items.

9. Rights as Stockholder. Neither Participant nor any person claiming under or through Participant will have any of the rights or privileges of a stockholder of the Company in respect of any Shares deliverable hereunder unless and until the Restricted Stock Units have vested and are settled by the issuance of Shares in accordance with Section 3, the Share issuance is recorded on the records of the Company or its transfer agents or registrars, and certificates representing such Shares have been issued (if the Shares are certificated or evidence of book entry if the Shares are not certificated) and delivered to Participant. After such vesting, settlement, issuance, recordation and delivery, Participant will have all the rights of a stockholder of the Company with respect to such Shares for which such conditions are met, including voting and receipt of dividends and distributions on such Shares. The Participant shall not be entitled to any Dividend Equivalents with respect to the Restricted Stock Units to reflect any dividends payable on Shares.

10. No Guarantee of Continued Service. PARTICIPANT ACKNOWLEDGES AND AGREES THAT THE VESTING OF THE RESTRICTED STOCK UNITS PURSUANT TO THE VESTING SCHEDULE HEREOF IS EARNED ONLY BY CONTINUING AS A SERVICE PROVIDER AND NOT THROUGH THE ACT OF BEING HIRED, BEING GRANTED THESE RESTRICTED STOCK UNITS OR ACQUIRING SHARES HEREUNDER. PARTICIPANT FURTHER ACKNOWLEDGES AND AGREES THAT THIS AWARD AGREEMENT, THE TRANSACTIONS CONTEMPLATED HEREUNDER AND THE VESTING AND SETTLEMENT SCHEDULE SET FORTH HEREIN DO NOT CONSTITUTE AN EXPRESS OR IMPLIED PROMISE OF CONTINUED ENGAGEMENT AS A SERVICE PROVIDER FOR THE VESTING PERIOD, FOR ANY PERIOD, OR AT ALL, AND WILL NOT INTERFERE IN ANY WAY WITH PARTICIPANT'S RIGHT OR THE RIGHT OF THE COMPANY OR THE SERVICE RECIPIENT, AS APPLICABLE. TO TERMINATE PARTICIPANT'S RELATIONSHIP AS A SERVICE PROVIDER AT ANY TIME, WITH OR WITHOUT CAUSE.

11. Appendix B. For Participants outside the United States, the Restricted Stock Units shall be subject to the general terms and conditions for all non-U.S. Participants and the additional terms and conditions for certain countries set forth in the Appendix B attached hereto. Moreover, if Participant relocates from the U.S. to one of the countries included in the Appendix B or if Participant relocates between countries included in the Appendix B during the vesting period of the Restricted Stock Units, the general terms and conditions for non-U.S. Participants and the additional terms and conditions for such country shall apply to Participant, to the extent the Company determines that the application of such terms and conditions is necessary or advisable for legal or administrative reasons. The Appendix B constitutes part of this Award Agreement.

12. No Advice Regarding Grant. The Company is not providing any tax, legal or financial advice, nor is the Company making any recommendations regarding participation in the Plan, or Participant's acquisition or sale of the underlying Shares. Participant acknowledges that he or she should consult with his or her own personal tax, legal and financial advisors regarding participation in the Plan before taking any action related to the Restricted Stock Units.

13. Address for Notices. Any notice to be given to the Company under the terms of this Award Agreement will be addressed to the Company, in care of its General Counsel at Amkor Technology, Inc., 2045 East Innovation Circle, Tempe, AZ 85284, or at such other address as the Company may hereafter designate in writing.

14. Waivers. Participant acknowledges that a waiver by the Company of breach of any provision of this Award Agreement shall not operate or be construed as a waiver of any other provision of this Award Agreement, or of any subsequent breach by Participant or any other participants.

15. Grant is Not Transferable. Except to the limited extent provided in Section 6, the unvested Restricted Stock Units subject to this grant and the rights and privileges conferred hereby will not be transferred, assigned, pledged or hypothecated in any way (whether by operation of law or otherwise) and will not be subject to sale under execution, attachment or similar process. Upon any attempt to transfer, assign, pledge, hypothecate or otherwise dispose of any unvested Restricted Stock Units subject to this grant, or any right or privilege conferred hereby, or upon any attempted sale under any execution, attachment or similar process, this grant and the rights and privileges conferred hereby immediately will become null and void.

16. Binding Agreement. Subject to the limitation on the transferability of this grant contained herein, this Award Agreement will be binding upon and inure to the benefit of the heirs, legatees, legal representatives, successors and assigns of the parties hereto (provided that neither the Restricted Stock Units nor this Award Agreement may be assigned by Participant).

17. Additional Conditions. The Company will not be required to issue any certificate or certificates (or evidence of book entry) for Shares hereunder prior to fulfillment of all the following conditions: (a) the admission of such Shares to listing on all stock exchanges on which such class of stock is then listed; (b) the completion of any registration or other qualification of such Shares under any Applicable Laws or under the rulings or regulations of the U.S. Securities and Exchange Commission or any other U.S. or non-U.S. governmental regulatory body, which the Administrator, in its absolute discretion, deems necessary or advisable; (c) the obtaining of any approval or other clearance from any U.S. or non-U.S. governmental agency, which the Administrator, in its absolute discretion, determines to be necessary or advisable; and (d) the lapse of such reasonable period of time following the date of grant of the Restricted Stock Units as the Administrator may establish from time to time for reasons of administrative convenience. Participant understands that the Company is under no obligation to register or qualify the Shares subject to the Restricted Stock Units with any U.S. state or non-U.S. securities commission or to seek approval or clearance from any governmental authority for the issuance or sale of the Shares. Further, Participant agrees that the Company shall have unilateral authority to amend the Plan and this Award Agreement without Participant's consent to the extent necessary to comply with Applicable Laws. In addition, Participant acknowledges and agrees that the Award is subject to all legal requirements and stock exchange listing rules as currently in effect and as revised from time to time.

18. Administrator Authority. The Administrator has the power to interpret the Plan and this Award Agreement and to adopt such rules for the administration, interpretation and application of the Plan and this Award Agreement as are consistent therewith and to interpret or revoke any such rules (including, but not limited to, the determination of whether or not any Restricted Stock Units have vested). All actions taken and all interpretations and determinations made by the Administrator in good faith will be final and binding upon Participant, the Company and all other interested persons. No member of the Administrator will be personally liable for any action, determination or interpretation made in good faith with respect to the Plan or this Award Agreement.

19. Electronic Delivery and Acceptance. The Company may, in its sole discretion, decide to deliver any documents related to the Restricted Stock Units or the Plan by electronic means or request Participant's consent to participate in the Plan by electronic means. Participant hereby consents to receive such documents by electronic delivery and agrees to participate in the Plan through any on-line or electronic system established and maintained by the Company or a third party designated by the Company.

20. Captions. Captions provided herein are for convenience only and are not to serve as a basis for interpretation or construction of this Award Agreement.

21. Agreement Severable. In the event that any provision in this Award Agreement is held invalid or unenforceable, such provision will be severable from, and such invalidity or unenforceability will not be construed to have any effect on, the remaining provisions of this Award Agreement.

22. Modifications to the Award Agreement. The Plan and this Award Agreement constitute the entire understanding of the parties on the subjects covered herein. Participant expressly warrants that he or she is not accepting this Award Agreement in reliance on any promises, representations, or inducements other than those contained herein. Except as otherwise provided herein or in the Plan, modifications to this Award Agreement can be made only in an express written contract executed by Participant and a duly authorized officer of the Company.

23. Code Section 409A. The Award Agreement is intended to comply with, or be exempt from, Code Section 409A and all regulations, guidance, compliance programs and other interpretative authority thereunder, and shall be interpreted in a manner consistent therewith. Notwithstanding anything contained herein to the contrary, in the event the Award Agreement is subject to Code Section 409A, the Company may, in its sole discretion and without Participant's prior consent, amend the Plan and/or the Award Agreement, adopt policies and procedures, or take any other actions as deemed appropriate by the Company to (i) exempt the Plan and/or the Award Agreement from the application of Code Section 409A, (ii) preserve the intended tax treatment of the Award Agreement or (iii) comply with the requirements of Code Section 409A. Notwithstanding anything contained herein to the contrary, in no event shall the Company or any Subsidiary have any liability or obligation to any Participant or any other person in the event that the Plan or the Award Agreement is not exempt from, or compliant with, Code Section 409A.

Furthermore, notwithstanding anything in this Award Agreement to the contrary, any Restricted Stock Units that become vested under this Agreement as of the date or at a time that is by reference to Participant's termination as a Service Provider and that constitute an item of non-qualified deferred compensation subject to Code Section 409A shall not be settled unless Participant experiences a "separation from service" within the meaning of Code Section 409A (a "Separation from Service"); provided that if Participant is a "specified employee" within the meaning of Code Section 409A as of the date of the Separation from Service (as determined according to the methodology established by the Company as in effect on the date of Participant's termination as a Service Provider), the Restricted Stock Units shall instead be settled on the first business day that is after the earlier of (i) the date that is six months following the date of the Separation from Service or (ii) the date of Participant's death, to the extent such delayed payment is otherwise required in order to avoid a prohibited distribution under Section 409A(a)(2) of the Code, or any successor provision thereto.

24. Effect of Plan. By accepting the Restricted Stock Units, Participant expressly warrants that he or she has received an Award of Restricted Stock Units under the Plan, and has received, read and understands the Plan. Participant understands that the Plan is discretionary in nature and may be amended, suspended or terminated by the Company at any time, to the extent permitted by the Plan.

25. Governing Law; Venue. This Award Agreement will be governed by the laws of the State of Delaware, without giving effect to the conflict of law principles thereof. For purposes of litigating any dispute that arises under this Award or this Award Agreement, the parties hereby submit to and consent to the exclusive jurisdiction of the State of Arizona and agree that such litigation will be conducted solely in the courts of Maricopa County, Arizona, or the federal courts for the United States for the District of Arizona in Maricopa County, Arizona, and no other courts.

26. Insider Trading Restrictions/Market Abuse Laws. By accepting the Restricted Stock Units, Participant acknowledges that he or she is bound by all the terms and conditions of the Company's insider trading policy as may be in effect from time to time. Participant further acknowledges that, depending on Participant's or his or her broker's country or the country in which the Shares are listed, he or she may be subject to insider trading restrictions and/or market abuse laws which may affect Participant's ability to accept, acquire, sell or otherwise dispose of Shares, rights to Shares, or rights linked to the value of Shares during such times as Participant is considered to have "inside information" regarding the Company (as defined by the laws in the applicable jurisdictions). Local insider trading laws and regulations may prohibit the cancellation or amendment of orders Participant placed before Participant possessed inside information. Furthermore, Participant could be prohibited from (i) disclosing the inside information to any third party, which may include fellow employees and (ii) "tipping" third parties or causing them otherwise to buy or sell securities. Any restrictions under these laws or regulations are separate from and in addition to any restrictions that may be imposed under the Company's insider trading policy as may be in effect from time to time. Participant acknowledges that it is Participant's responsibility to comply with any applicable restrictions, and Participant should speak to his or her personal advisor on this matter.

27. Agreement. Participant's acceptance of the Restricted Stock Units by signing below or by otherwise accepting the Restricted Stock Units following such procedures as established by the Company (including an online acceptance process) constitute Participant's agreement to be bound by the terms and conditions of this Award Agreement and the Plan. The Company may refuse to allow Participant to vest in the Restricted Stock Units unless Participant has signed this Award Agreement or otherwise accepted the Restricted Stock Units following such procedures as established by the Company (including an online acceptance process).

PARTICIPANT AMKOR TECHNOLOGY, INC.

Signature: __________________________ By: ________________________________

Print Name: Title:

APPENDIX B TO
AMKOR TECHNOLOGY, INC.
2021 EQUITY INCENTIVE PLAN
GLOBAL PERFORMANCE-VESTED RESTRICTED STOCK UNIT AWARD AGREEMENT

Capitalized terms used but not defined in this Appendix B shall have the same meanings assigned to them in the Plan and/or the Global Performance-Vested Restricted Stock Unit Award Agreement.

Terms and Conditions

This Appendix B includes general terms and conditions for all non-U.S. Participants and additional terms and conditions that govern the Restricted Stock Units if Participant works and/or resides in one of the countries listed below. If Participant is a citizen or resident of a country other than the one in which Participant is currently working and/or residing (or is considered as such for local law purposes), or if Participant transfers employment and/or residency to a different country after the Restricted Stock Units are granted, the Company will, in its discretion, determine the extent to which the terms and conditions contained herein will apply to Participant.

Notifications

This Appendix B also includes information regarding certain other issues of which Participant should be aware with respect to Participant's participation in the Plan. The information is based on the securities, exchange control and other laws in effect in the respective countries as of March 2021. Such laws are often complex and change frequently. As a result, Participant should not rely on the information noted herein as the only source of information relating to the consequences of participation in the Plan because the information may be out-of-date at the time the Restricted Stock Units vest or Participant sells any Shares acquired under the Plan.

In addition, the information contained herein is general in nature and may not apply to Participant's particular situation. As a result, the Company is not in a position to assure Participant of any particular result. Accordingly, Participant should seek appropriate professional advice as to how the relevant laws in Participant's country may apply to Participant's individual situation.

If Participant is a citizen or resident of a country other than the one in which Participant is currently working and/or residing (or is considered as such for local law purposes), or if Participant transfers employment and/or residency to a different country after the Restricted Stock Units are granted, the information contained in this Appendix B may not be applicable to Participant in the same manner.

GENERAL TERMS AND CONDITIONS APPLICABLE TO ALL NON-U.S. PARTICIPANTS

1. Data Privacy Information and Consent.

(a) Data Collection and Usage. The Company and the Service Recipient collect, process and use certain personal information about Participant, including, but not limited to, Participant's name, home address, telephone number, email address, date of birth, social insurance number, passport or other identification number, salary, nationality, job title, any shares or directorships held in the Company, details of all awards granted under the Plan or any other entitlement to shares awarded, canceled, exercised, vested, unvested or outstanding in Participant's favor ("Data"), for purposes of implementing, administering and managing the Plan. The legal basis, where required, for the processing of Data is Participant's consent.

(b) Stock Plan Administration Service Providers. The Company transfers Data to E*TRADE Financial Corporate Services, Inc. and certain of its affiliates ("E*TRADE)", an independent service provider which is assisting the Company with the implementation, administration and management of the Plan. The Company may select a different service provider or additional service providers and share Data with such other provider serving in a similar manner. Participant may be asked to agree on separate terms and data processing practices with E*TRADE and such other service providers, with such agreement being a condition to the ability to participate in the Plan.

(c) International Data Transfers. The Company and E*TRADE are based in the U.S., which means that it will be necessary for Data to be transferred to, and processed in, the U.S. Participant's country or jurisdiction may have different data privacy laws and protections than the U.S. The Company's legal basis for the transfer of Data, where required, is Participant's consent.

(d) Data Retention. The Company will hold and use Data only as long as is necessary to implement, administer and manage Participant's participation in the Plan, or as required to comply with legal or regulatory obligations, including under tax, exchange control, labor and securities laws. This period may extend beyond the Participant's period as a Service Provider. When the Company and/or the Service Recipient no longer need Data for any of the above purposes, they will cease processing it in this context and remove it from all of their systems used for such purposes to the fullest extent practicable.

(e) Voluntariness and Consequences of Consent Denial or Withdrawal. Participation in the Plan is voluntary and Participant is providing the consents herein on a purely voluntary basis. If Participant does not consent, or if Participant later seeks to revoke his or her consent, Participant's salary from or employment or service with the Service Recipient will not be affected; the only consequence of refusing or withdrawing consent is that the Company would not be able to grant the Restricted Stock Units or other equity awards to Participant under the Plan or administer or maintain such awards.

(f) Data Subject Rights. Participant may have a number of rights under data privacy laws in his or her jurisdiction. Depending on where Participant is based, such rights may include the right to (i) request access to or copies of Data the Company processes, (ii) rectify incorrect Data, (iii) delete Data, (iv) restrict the processing of Data, (v) restrict the portability of Data, (vi) lodge complaints with competent authorities in Participant's jurisdiction, and/or (vii) receive a list with the names and addresses of any potential recipients of Data. To receive clarification regarding these rights or to exercise these rights, Participant can contact his or her local human resources representative.

(g) Other Legal Basis and Additional Consent. Participant understands that the Company may rely on a different legal basis for the collection, processing or transfer of Data in the future and/or request Participant to provide another data privacy consent. If applicable, upon request of the Company or the Service Recipient, Participant will provide a separate executed data privacy agreement (or any other agreements or consents) that the Company and/or the Service Recipient may deem necessary to obtain from Participant for the purpose of administering his or her participation in the Plan in compliance with the data privacy laws in Participant's country, either now or in the future. Participant understands and agrees that Participant will not be able to participate in the Plan if Participant fails to provide any such agreement requested by the Company and/or the Service Recipient.

2. Nature of Grant. By accepting the Restricted Stock Units, Participant acknowledges, understands, and agrees that:

(a) the grant of the Restricted Stock Units is exceptional, voluntary and occasional and does not create any contractual or other right to receive future grants of restricted stock units, or benefits in lieu of restricted stock units, even if restricted stock units have been granted in the past;

(b) all decisions with respect to future restricted stock unit or other grants, if any, will be at the sole discretion of the Company;

(c) Participant is voluntarily participating in the Plan;

(d) the Restricted Stock Units and any Shares subject to the Restricted Stock Units, and the income from and value of same, are not intended to replace any pension rights or compensation;

(e) unless otherwise agreed with the Company, the Restricted Stock Units and the Shares subject to the Restricted Stock Units, and the income from and value of same, are not granted as consideration for, or in connection with, the service Participant may provide as a director of a Subsidiary;

(f) the Restricted Stock Units and any Shares subject to the Restricted Stock Units, and the income from and value of same, are not part of normal or expected compensation for any purpose, including, without limitation to, calculating any severance, resignation, termination, redundancy, dismissal, end-of-service payments, bonuses, long-service awards, holiday pay, pension or retirement or welfare benefits or similar mandatory payments;

(g) the future value of the Shares underlying the Restricted Stock Units is unknown, indeterminable, and cannot be predicted with certainty;

(h) no claim or entitlement to compensation or damages shall arise from forfeiture of the Restricted Stock Units resulting from the termination of Participant's status as a Service Provider (for any reason whatsoever, whether or not later found to be invalid or in breach of labor laws in the jurisdiction where the Participant is providing service or the terms of the Participant's employment or other service agreement, if any);

(i) unless otherwise provided in the Plan or by the Company in its discretion, the Restricted Stock Units and the benefits evidenced by this Award Agreement do not create any entitlement to have the Restricted Stock Units or any such benefits transferred to, or assumed by, another company nor to be exchanged, cashed out or substituted for, in connection with any corporate transaction affecting the Shares; and

(j) neither the Company, the Service Recipient nor any other Subsidiary shall be liable for any foreign exchange rate fluctuation between Participant's local currency and the U.S. dollar that may affect the value of the Restricted Stock Units or of any amounts due to Participant pursuant to the Restricted Stock or the subsequent sale of any Shares subject to the Restricted Stock Units.

3. Language. Participant acknowledges that he or she is sufficiently proficient in English or has consulted with an advisor who is sufficiently proficient in English, so as to allow Participant to understand the terms and conditions of this Award Agreement. If Participant has received this Award Agreement, or any other documents related to the Restricted Stock Units and/or the Plan translated into a language other than English and if the meaning of the translated version is different than the English version, the English version will control.

4. Foreign Asset/Account, Exchange Control and Tax Reporting. Participant may be subject to foreign asset/account, exchange control, tax reporting or other requirements which may affect Participant's ability acquire or hold Restricted Stock Units, Shares or cash received from participating in the Plan (including dividends and the proceeds arising from the sale of Shares) in a brokerage/bank account outside Participant's country. The applicable laws of Participant's country may require that he or she report such Restricted Stock Units, Shares, accounts, assets or transactions to the applicable authorities in such country and/or repatriate funds received in connection with the Plan to Participant's country within a certain time period or according to certain procedures. Participant acknowledges that he or she is responsible for ensuring compliance with any applicable requirements and should consult his or her personal legal advisor to ensure compliance with Applicable Laws.

ADDITIONAL TERMS AND CONDITIONS FOR CERTAIN COUNTRIES

KOREA

Notifications

Foreign Asset/Account Reporting Information. Korean residents must declare all foreign financial accounts (*e.g.,* non-Korean bank accounts, brokerage accounts) to the Korean tax authorities and file a report with respect to such accounts if the monthly balance of such accounts exceeds KRW 500 million (or an equivalent amount in foreign currency) on any month-end during a calendar year. Participant should consult with his or her personal tax advisor to determine his or her personal reporting obligations.

SINGAPORE

Terms and Conditions

Restriction on Sale of Shares. The Restricted Stock Units are subject to section 257 of the Securities and Futures Act (Chapter 289, 2006 Ed.) ("SFA") and Participant will not be able to make any subsequent offer to sell or sale of the Shares in Singapore, unless such offer or sale is made (1) after six (6) months from the Date of Grant, (2) pursuant to the exemptions under Part XIII Division (1) Subdivision (4) (other than section 280) of the SFA or (3) pursuant to, and in accordance with, the conditions of any other applicable exemptions under the SFA.

Notifications

Securities Law Information. The offer of the Plan, the grant of the Restricted Stock Units, and the issuance of the Shares subject to the Restricted Stock Units are being made pursuant to the "Qualifying Person" exemption under section 273(1)(f) of the SFA. The Plan has not been lodged or registered as a prospectus with the Monetary Authority of Singapore.

Director Notification. Participant understands and acknowledges that if Participant is a director, associate director or shadow director of a Singapore Subsidiary, Participant is subject to certain notification requirements under the Singapore Companies Act, regardless of whether Participant is a Singapore resident or providing services in Singapore. Among these requirements is an obligation to notify the Singapore Subsidiary in writing when Participant receives an interest (*e.g.*, Restricted Stock Units) in the Company. In addition, Participant must notify the Singapore Subsidiary when Participant sells Shares (including when Participant sells Shares acquired under the Plan). These notifications must be made within two days of acquiring or disposing of any interest in the Company. In addition, a notification must be made of Participant's interests in the Company within two days of becoming a director, associate director or shadow director.

Exhibit 10.22

AMKOR TECHNOLOGY, INC.

2021 EQUITY INCENTIVE PLAN

GLOBAL PERFORMANCE-VESTED RESTRICTED STOCK UNIT AWARD AGREEMENT

Unless otherwise defined herein, each term used in this Global Performance-Vested Restricted Stock Unit Award Agreement, including the performance goals set forth in the Appendix A attached hereto, the general terms and conditions for all non-U.S. Participants and the additional terms and conditions for certain countries, all as set forth in the Appendix B attached hereto (Appendices A and B, together with the Global Performance-Vested Restricted Stock Unit Award Agreement, the "Award Agreement") and defined in the Amkor Technology, Inc. 2021 Equity Incentive Plan (the "Plan") will have the same meaning as is given to such term in the Plan.

Participant Name:

You have been granted the right to receive an Award of Performance-Vested Restricted Stock Units, subject to the terms and conditions of the Plan and this Award Agreement, as follows:

Grant Number ____

Date of Grant ____

Number of Restricted Stock Units Granted ____

1. Grant. The Company hereby grants to the individual named above ("Participant") under the Plan as a separate incentive and not in lieu of any salary or other compensation for the Participant's services, an Award of Restricted Stock Units (the "Award"), subject to all of the terms and conditions in this Award Agreement and the Plan, which is incorporated herein by reference. In the event of a conflict between the terms and conditions of the Plan and the terms and conditions of this Award Agreement, the terms and conditions of the Plan will prevail.

2. Vesting Schedule. Except as may be otherwise provided in Section 4 or Section 5 of this Award Agreement, the Award shall vest on the Determination Date (as defined below) (a) if the Participant's continuous status as a Service Provider has not terminated prior to the Determination Date and (b) to the extent that one or both of the Performance Goals (as defined in Appendix A) have been attained and all the other conditions for the vesting of the Restricted Stock Units have been satisfied, as determined on or prior to the Determination Date by the Administrator, whose good faith determination shall be final, binding and conclusive on all persons, including, but not limited to, the Company and the Participant. The Determination Date shall be the date on which the Administrator determines and certifies in writing that the corresponding Performance Goal(s) and all other conditions for the vesting of the Restricted Stock Units have been satisfied, which date shall not be more than ninety (90) days after the last day of the Performance Period ("Determination Date").

For the avoidance of doubt, unless otherwise set forth in Section 4 of this Award Agreement, employment or other service during only a portion of the vesting period until the Determination Date shall not entitle the Participant to vest in a pro rata portion of the Restricted Stock Units scheduled to vest on such date.

3. Settlement. Subject to Sections 7 and 22 hereof, promptly following each applicable vesting date (including any accelerated vesting date under Section 4), and in any event within forty-five (45) days thereof, the Company shall, in the Administrator's sole discretion, either (i) pay to Participant an amount in cash equal to the Fair Market Value of the Shares represented by the RSUs that vested as of the most recent vesting date, or (ii) (a) issue and deliver to the Participant the number of Shares equal to the number of vested Restricted Stock Units and (b) enter the Participant's name on the books of the Company as the stockholder of record with respect to the Shares delivered to the Participant.

4. Termination of Status as a Service Provider.

(a) Termination Due to Death or Disability. If the Participant's termination as a Service Provider is due to death or Disability and such termination occurs before the Determination Date, the Participant shall become vested at the time of the Determination Date in a number of Restricted Stock Units equal to the product of (i) the number of Restricted Stock Units that the Participant would have become vested in accordance with Section 2 had the Participant's continuous status as a Service Provider had continued through the Determination Date and (ii) a fraction, the numerator of which is the number of days during the Performance Period that the Participant provided services as a Service Provider and the denominator of which is the total number of days in the Performance Period.

(b) Termination Due to Retirement. If the Participant's termination as a Service Provider is due to Retirement (as defined herein), and such Retirement occurs before the Determination Date, the Participant shall become vested at the time of the Determination Date in a number of Restricted Stock Units equal to the product of (i) the number of Restricted Stock Units that the Participant would have earned in accordance with Section 2 had the Participant remained as a Service Provider through the end of the Performance Period and (ii) a fraction, the numerator of which is the number of days during the Performance Period that the Participant provided services as a Service Provider during such year and the denominator of which is the total number of days in the Performance Period. Notwithstanding the preceding sentence, if such Retirement occurred within six (6) months following the Date of Grant, all the Restricted Stock Units will be forfeited (with no consideration due the Participant), and Participant will have no further rights thereunder. "Retirement" for purposes of this Award Agreement shall mean the Participant's resignation from the Company (or the Subsidiary employing or retaining Participant) on or after the date on which the sum of (i) the Participant's age (rounded down to the nearest whole month) plus (ii) the number of years (rounded down to the nearest whole month) that the Participant has provided services as a Service Provider to the Company equals or is greater than seventy-five (75).

Notwithstanding the foregoing, if the Company receives a legal opinion that there has been a legal judgment and/or legal development in Participant's jurisdiction that likely would result in the favorable treatment that applies to the Restricted Stock Units when Participant's status as a Service Provider terminates as a result of Participant's Retirement being deemed unlawful and/or discriminatory, the provisions of this Section 4(b) regarding the treatment of the Restricted Stock Units when Participant's status as a Service Provider terminates as a result of Participant's Retirement will not be applicable to Participant and the remaining provisions of this Award Agreement will govern.

(c) Change in Control. If a Change in Control occurs, the Award is assumed by the successor in connection with the Change in Control and the Participant either (i) remains a Service Provider through the Determination Date or (ii) the Participant's continuous status as a Service Provider is terminated prior to the Determination Date (A) by the Company (or the Subsidiary employing or retaining Participant) for any reason other than Cause or (B) by the Participant for Good Reason, the Participant shall become vested at the time of the Determination Date in a number of Restricted Stock Units equal to the greater of (i) the amount of Restricted Stock Units that the Participant would have received had the Performance Goal been attained at the 100% attainment level and (ii) the actual attainment level of the Performance Goal measured as of the time of the Change in Control. For purposes of this Award Agreement, "Good Reason" shall mean: (i) a material reduction in the Participant's authority, duties or responsibilities; (ii) a material reduction in the Participant's base salary or bonus opportunity (other than a general reduction in base salary that affects all similarly situated executives in substantially the same proportions); or (iii) any material breach by the Company of any material provision of this Agreement. However, Good Reason shall not be deemed to exist unless (x) Participant shall have given written notice to the Company specifying in reasonable detail the circumstances that Participant alleges constitute Good Reason within thirty (30) calendar days of learning of such act or omission and (y) the Company has failed to cure any such circumstances within thirty (30) calendar days of receipt of such written notice.

5. Forfeiture upon Termination of Status as a Service Provider. Notwithstanding any contrary provision of this Award Agreement, but subject to the vesting provisions set forth in this Award Agreement and Section 4 above, the balance of the Restricted Stock Units that have not vested at the time of Participant's termination as a Service Provider for any reason will be forfeited (with no consideration due to Participant) and automatically transferred to and reacquired by the Company at no cost to the Company upon the date of such termination and Participant will have no further rights thereunder.

For purposes of the Restricted Stock Units, Participant's status as a Service Provider will be deemed terminated as of the date Participant is no longer actively providing services to the Company or one of its Subsidiaries (regardless of the reason for such termination and whether or not later found to be invalid or in breach of labor laws in the jurisdiction where Participant is providing service or the terms of Participant's employment or other service agreement, if any) and such date will not be extended by any notice period (e.g., Participant's period of service would not include any contractual notice period or any period of "garden leave" or similar period mandated under labor laws in the jurisdiction where the Participant is providing service or the terms of Participant's employment or other service agreement, if any). The Administrator shall have the exclusive discretion to determine when Participant is no longer actively provides services for purposes of the Restricted Stock (including whether Participant may still be considered to be providing services while on a leave of absence).

6. Clawback. Notwithstanding any provision of this Award Agreement to the contrary, the Award is subject in all respects to the Amkor Technology, Inc. Excess Compensation Recovery Policy, as amended from time to time (the "Policy"). In the event of an "Accounting Restatement" (as defined in the Policy), the Award (or any portion thereof) may be subject to recovery by the Company if the Award (or any portion thereof) is determined to be "Erroneously Awarded Compensation" (as defined in the Policy). In addition, the Award is subject to recovery by the Company if the Company is required to restate its financial statements resulting in the financial results being

reduced such that the Award (or any portion thereof) would not have been paid, if the Company determines, in its sole discretion, that the Participant engaged in intentional misconduct or fraud that resulted in such restatement.

7. Death of Participant. Notwithstanding any provision of this Award Agreement to the contrary, any distribution or delivery to be made to Participant under this Award Agreement will, if Participant is then deceased, be made to the administrator or executor of Participant's estate, Participant's legal heirs or, provided such designation has been permitted by the Company and/or is valid under Applicable Laws, Participant's designated beneficiary. Any such transferee must furnish the Company with (a) written notice of his or her status as transferee and (b) evidence satisfactory to the Company to establish the validity of the transfer and compliance with any laws or regulations pertaining to said transfer.

8. Responsibility for Taxes.

(a) Participant acknowledges and agrees that, regardless of any action taken by the Company or, if different, the Subsidiary to which Participant is providing services (the "Service Recipient"), the ultimate liability for all income tax, social insurance, payroll tax, fringe benefits tax, payment on account or other tax-related items related to Participant's participation in the Plan and legally applicable to Participant ("Tax-Related Items") is and remains Participant's responsibility and may exceed the amount, if any, actually withheld by the Company or the Service Recipient. Participant further acknowledges that the Company and/or the Service Recipient: (i) make no representations or undertakings regarding the treatment of any Tax-Related Items in connection with any aspect of the Restricted Stock Units, including, but not limited to, the grant or vesting of Restricted Stock Units, or the subsequent sale of Shares acquired at vesting and the receipt of any dividends; and (ii) do not commit to and are under no obligation to structure the terms of the grant or any aspect of the Restricted Stock Units to reduce or eliminate Participant's liability for Tax-Related Items or achieve any particular tax result. Further, if Participant is subject to Tax-Related Items in more than one jurisdiction, Participant acknowledges that the Company and/or the Service Recipient (or former service recipient, as applicable) may be required to withhold or account for Tax-Related Items in more than one jurisdiction.

(b) Prior to the relevant taxable or tax withholding event, as applicable, Participant agrees to make adequate arrangements satisfactory to the Company and/or the Service Recipient to satisfy all Tax-Related Items. In this regard, Participant authorizes the Company and/or the Service Recipient, or their respective agents, at their discretion, to satisfy any applicable withholding obligations with regard to all Tax-Related Items by one or a combination of the following: (i) withholding from Participant's salary, wages or other compensation payable to Participant by the Company and/or the Service Recipient; (ii) withholding from proceeds of the sale of the Shares subject to the Restricted Stock Units either through a voluntary sale or through a mandatory sale arranged by the Company (on Participant's behalf pursuant to this authorization without further consent); (iii) withholding Shares subject to the Restricted Stock Units; or (iv) any method determined by the Administrator to be in compliance with Applicable Laws. Notwithstanding the foregoing, if Participant is subject to Section 16 of the Exchange Act at the time the withholding obligation for Tax-Related Items becomes due, the Administrator will satisfy any applicable withholding obligation by directing the Company to withhold Shares subject to the Restricted Stock Units (except in the case of U.S. Federal Insurance Contribution Act taxes or other Tax-Related Items which become payable in a year prior to the year in which the Shares are issued).

(c) The Company and/or the Service Recipient may withhold or account for Tax-Related Items by considering statutory withholding amounts or other applicable withholding rates, including maximum rates applicable in Participant's jurisdiction(s). In the event of over-withholding, Participant may receive a refund of any over-withheld amount in cash (with no entitlement to the equivalent in Shares), or if not refunded, Participant may seek a refund from local tax authorities. In the event of under-withholding, Participant may be required to pay any additional Tax-Related Items directly to the applicable tax authority or to the Company and/or the Service Recipient. If the obligation for Tax-Related Items is satisfied by withholding Shares, for tax purposes, Participant is deemed to have received the full number of Shares subject to the vested Restricted Stock Units, notwithstanding that a number of the Shares is held back solely for the purpose of paying the Tax-Related Items.

Participant agrees to pay to the Company or the Service Recipient any amount of Tax-Related Items that the Company or the Service Recipient may be required to withhold or account for as a result of Participant's participation in the Plan that cannot be satisfied by the means previously described. The Company may refuse to issue or deliver the Shares or the proceeds of the sale of the Shares acquired upon vesting of the Restricted Stock Units, if Participant fails to comply with his or her obligations in connection with the Tax-Related Items.

9. Rights as Stockholder. Neither Participant nor any person claiming under or through Participant will have any of the rights or privileges of a stockholder of the Company in respect of any Shares deliverable hereunder unless and until the Restricted Stock Units have vested and are settled by the issuance of Shares in accordance with Section 3, the Share issuance is recorded on the records of the Company or its transfer agents or registrars, and certificates representing such Shares have been issued (if the Shares are certificated or evidence of book entry if the Shares are

not certificated) and delivered to Participant. After such vesting, settlement, issuance, recordation and delivery, Participant will have all the rights of a stockholder of the Company with respect to such Shares for which such conditions are met, including voting and receipt of dividends and distributions on such Shares. The Participant shall not be entitled to any Dividend Equivalents with respect to the Restricted Stock Units to reflect any dividends payable on Shares.

10. No Guarantee of Continued Service. PARTICIPANT ACKNOWLEDGES AND AGREES THAT THE VESTING OF THE RESTRICTED STOCK UNITS PURSUANT TO THE VESTING SCHEDULE HEREOF IS EARNED ONLY BY CONTINUING AS A SERVICE PROVIDER AND NOT THROUGH THE ACT OF BEING HIRED, BEING GRANTED THESE RESTRICTED STOCK UNITS OR ACQUIRING SHARES HEREUNDER. PARTICIPANT FURTHER ACKNOWLEDGES AND AGREES THAT THIS AWARD AGREEMENT, THE TRANSACTIONS CONTEMPLATED HEREUNDER AND THE VESTING AND SETTLEMENT SCHEDULE SET FORTH HEREIN DO NOT CONSTITUTE AN EXPRESS OR IMPLIED PROMISE OF CONTINUED ENGAGEMENT AS A SERVICE PROVIDER FOR THE VESTING PERIOD, FOR ANY PERIOD, OR AT ALL, AND WILL NOT INTERFERE IN ANY WAY WITH PARTICIPANT'S RIGHT OR THE RIGHT OF THE COMPANY OR THE SERVICE RECIPIENT, AS APPLICABLE. TO TERMINATE PARTICIPANT'S RELATIONSHIP AS A SERVICE PROVIDER AT ANY TIME, WITH OR WITHOUT CAUSE.

11. Appendix B. For Participants outside the United States, the Restricted Stock Units shall be subject to the general terms and conditions for all non-U.S. Participants and the additional terms and conditions for certain countries set forth in the Appendix B attached hereto. Moreover, if Participant relocates from the U.S. to one of the countries included in the Appendix B or if Participant relocates between countries included in the Appendix B during the vesting period of the Restricted Stock Units, the general terms and conditions for non-U.S. Participants and the additional terms and conditions for such country shall apply to Participant, to the extent the Company determines that the application of such terms and conditions is necessary or advisable for legal or administrative reasons. The Appendix B constitutes part of this Award Agreement.

12. No Advice Regarding Grant. The Company is not providing any tax, legal or financial advice, nor is the Company making any recommendations regarding participation in the Plan, or Participant's acquisition or sale of the underlying Shares. Participant acknowledges that he or she should consult with his or her own personal tax, legal and financial advisors regarding participation in the Plan before taking any action related to the Restricted Stock Units.

13. Address for Notices. Any notice to be given to the Company under the terms of this Award Agreement will be addressed to the Company, in care of its General Counsel at Amkor Technology, Inc., 2045 East Innovation Circle, Tempe, AZ 85284, or at such other address as the Company may hereafter designate in writing.

14. Waivers. Participant acknowledges that a waiver by the Company of breach of any provision of this Award Agreement shall not operate or be construed as a waiver of any other provision of this Award Agreement, or of any subsequent breach by Participant or any other participants.

15. Grant is Not Transferable. Except to the limited extent provided in Section 6, the unvested Restricted Stock Units subject to this grant and the rights and privileges conferred hereby will not be transferred, assigned, pledged or hypothecated in any way (whether by operation of law or otherwise) and will not be subject to sale under execution, attachment or similar process. Upon any attempt to transfer, assign, pledge, hypothecate or otherwise dispose of any unvested Restricted Stock Units subject to this grant, or any right or privilege conferred hereby, or upon any attempted sale under any execution, attachment or similar process, this grant and the rights and privileges conferred hereby immediately will become null and void.

16. Binding Agreement. Subject to the limitation on the transferability of this grant contained herein, this Award Agreement will be binding upon and inure to the benefit of the heirs, legatees, legal representatives, successors and assigns of the parties hereto (provided that neither the Restricted Stock Units nor this Award Agreement may be assigned by Participant).

17. Additional Conditions. The Company will not be required to issue any certificate or certificates (or evidence of book entry) for Shares hereunder prior to fulfillment of all the following conditions: (a) the admission of such Shares to listing on all stock exchanges on which such class of stock is then listed; (b) the completion of any registration or other qualification of such Shares under any Applicable Laws or under the rulings or regulations of the U.S. Securities and Exchange Commission or any other U.S. or non-U.S. governmental regulatory body, which the Administrator, in its absolute discretion, deems necessary or advisable; (c) the obtaining of any approval or other clearance from any U.S. or non-U.S. governmental agency, which the Administrator, in its absolute discretion, determines to be necessary or advisable; and (d) the lapse of such reasonable period of time following the date of grant of the Restricted Stock Units as the Administrator may establish from time to time for reasons of administrative convenience. Participant understands that the Company is under no obligation to register or qualify

the Shares subject to the Restricted Stock Units with any U.S. state or non-U.S. securities commission or to seek approval or clearance from any governmental authority for the issuance or sale of the Shares. Further, Participant agrees that the Company shall have unilateral authority to amend the Plan and this Award Agreement without Participant's consent to the extent necessary to comply with Applicable Laws. In addition, Participant acknowledges and agrees that the Award is subject to all legal requirements and stock exchange listing rules as currently in effect and as revised from time to time.

18. Administrator Authority. The Administrator has the power to interpret the Plan and this Award Agreement and to adopt such rules for the administration, interpretation and application of the Plan and this Award Agreement as are consistent therewith and to interpret or revoke any such rules (including, but not limited to, the determination of whether or not any Restricted Stock Units have vested). All actions taken and all interpretations and determinations made by the Administrator in good faith will be final and binding upon Participant, the Company and all other interested persons. No member of the Administrator will be personally liable for any action, determination or interpretation made in good faith with respect to the Plan or this Award Agreement.

19. Electronic Delivery and Acceptance. The Company may, in its sole discretion, decide to deliver any documents related to the Restricted Stock Units or the Plan by electronic means or request Participant's consent to participate in the Plan by electronic means. Participant hereby consents to receive such documents by electronic delivery and agrees to participate in the Plan through any on-line or electronic system established and maintained by the Company or a third party designated by the Company.

20. Captions. Captions provided herein are for convenience only and are not to serve as a basis for interpretation or construction of this Award Agreement.

21. Agreement Severable. In the event that any provision in this Award Agreement is held invalid or unenforceable, such provision will be severable from, and such invalidity or unenforceability will not be construed to have any effect on, the remaining provisions of this Award Agreement.

22. Modifications to the Award Agreement. The Plan and this Award Agreement constitute the entire understanding of the parties on the subjects covered herein. Participant expressly warrants that he or she is not accepting this Award Agreement in reliance on any promises, representations, or inducements other than those contained herein. Except as otherwise provided herein or in the Plan, modifications to this Award Agreement can be made only in an express written contract executed by Participant and a duly authorized officer of the Company.

23. Code Section 409A. The Award Agreement is intended to comply with, or be exempt from, Code Section 409A and all regulations, guidance, compliance programs and other interpretative authority thereunder, and shall be interpreted in a manner consistent therewith. Notwithstanding anything contained herein to the contrary, in the event the Award Agreement is subject to Code Section 409A, the Company may, in its sole discretion and without Participant's prior consent, amend the Plan and/or the Award Agreement, adopt policies and procedures, or take any other actions as deemed appropriate by the Company to (i) exempt the Plan and/or the Award Agreement from the application of Code Section 409A, (ii) preserve the intended tax treatment of the Award Agreement or (iii) comply with the requirements of Code Section 409A. Notwithstanding anything contained herein to the contrary, in no event shall the Company or any Subsidiary have any liability or obligation to any Participant or any other person in the event that the Plan or the Award Agreement is not exempt from, or compliant with, Code Section 409A.

Furthermore, notwithstanding anything in this Award Agreement to the contrary, any Restricted Stock Units that become vested under this Agreement as of the date or at a time that is by reference to Participant's termination as a Service Provider and that constitute an item of non-qualified deferred compensation subject to Code Section 409A shall not be settled unless Participant experiences a "separation from service" within the meaning of Code Section 409A (a "Separation from Service"); provided that if Participant is a "specified employee" within the meaning of Code Section 409A as of the date of the Separation from Service (as determined according to the methodology established by the Company as in effect on the date of Participant's termination as a Service Provider), the Restricted Stock Units shall instead be settled on the first business day that is after the earlier of (i) the date that is six months following the date of the Separation from Service or (ii) the date of Participant's death, to the extent such delayed payment is otherwise required in order to avoid a prohibited distribution under Section 409A(a)(2) of the Code, or any successor provision thereto.

24. Effect of Plan. By accepting the Restricted Stock Units, Participant expressly warrants that he or she has received an Award of Restricted Stock Units under the Plan, and has received, read and understands the Plan. Participant understands that the Plan is discretionary in nature and may be amended, suspended or terminated by the Company at any time, to the extent permitted by the Plan.

25. Governing Law; Venue. This Award Agreement will be governed by the laws of the State of Delaware, without giving effect to the conflict of law principles thereof. For purposes of litigating any dispute that arises under

this Award or this Award Agreement, the parties hereby submit to and consent to the exclusive jurisdiction of the State of Arizona and agree that such litigation will be conducted solely in the courts of Maricopa County, Arizona, or the federal courts for the United States for the District of Arizona in Maricopa County, Arizona, and no other courts.

26. Insider Trading Restrictions/Market Abuse Laws. By accepting the Restricted Stock Units, Participant acknowledges that he or she is bound by all the terms and conditions of the Company's insider trading policy as may be in effect from time to time. Participant further acknowledges that, depending on Participant's or his or her broker's country or the country in which the Shares are listed, he or she may be subject to insider trading restrictions and/or market abuse laws which may affect Participant's ability to accept, acquire, sell or otherwise dispose of Shares, rights to Shares, or rights linked to the value of Shares during such times as Participant is considered to have "inside information" regarding the Company (as defined by the laws in the applicable jurisdictions). Local insider trading laws and regulations may prohibit the cancellation or amendment of orders Participant placed before Participant possessed inside information. Furthermore, Participant could be prohibited from (i) disclosing the inside information to any third party, which may include fellow employees and (ii) "tipping" third parties or causing them otherwise to buy or sell securities. Any restrictions under these laws or regulations are separate from and in addition to any restrictions that may be imposed under the Company's insider trading policy as may be in effect from time to time. Participant acknowledges that it is Participant's responsibility to comply with any applicable restrictions, and Participant should speak to his or her personal advisor on this matter.

27. Agreement. Participant's acceptance of the Restricted Stock Units by signing below or by otherwise accepting the Restricted Stock Units following such procedures as established by the Company (including an online acceptance process) constitute Participant's agreement to be bound by the terms and conditions of this Award Agreement and the Plan. The Company may refuse to allow Participant to vest in the Restricted Stock Units unless Participant has signed this Award Agreement or otherwise accepted the Restricted Stock Units following such procedures as established by the Company (including an online acceptance process).

PARTICIPANT	**AMKOR TECHNOLOGY, INC.**
Signature: ___________________________	By: _________________________________
Print Name:	Title:
Address:	

APPENDIX B TO
AMKOR TECHNOLOGY, INC.
2021 EQUITY INCENTIVE PLAN
GLOBAL PERFORMANCE-VESTED RESTRICTED STOCK UNIT AWARD AGREEMENT

Capitalized terms used but not defined in this Appendix B shall have the same meanings assigned to them in the Plan and/or the Global Performance-Vested Restricted Stock Unit Award Agreement.

Terms and Conditions

This Appendix B includes general terms and conditions for all non-U.S. Participants and additional terms and conditions that govern the Restricted Stock Units if Participant works and/or resides in one of the countries listed below. If Participant is a citizen or resident of a country other than the one in which Participant is currently working and/or residing (or is considered as such for local law purposes), or if Participant transfers employment and/or residency to a different country after the Restricted Stock Units are granted, the Company will, in its discretion, determine the extent to which the terms and conditions contained herein will apply to Participant.

Notifications

This Appendix B also includes information regarding certain other issues of which Participant should be aware with respect to Participant's participation in the Plan. The information is based on the securities, exchange control and other laws in effect in the respective countries as of March 2021. Such laws are often complex and change frequently. As a result, Participant should not rely on the information noted herein as the only source of information relating to the consequences of participation in the Plan because the information may be out-of-date at the time the Restricted Stock Units vest or Participant sells any Shares acquired under the Plan.

In addition, the information contained herein is general in nature and may not apply to Participant's particular situation. As a result, the Company is not in a position to assure Participant of any particular result. Accordingly, Participant should seek appropriate professional advice as to how the relevant laws in Participant's country may apply to Participant's individual situation.

If Participant is a citizen or resident of a country other than the one in which Participant is currently working and/or residing (or is considered as such for local law purposes), or if Participant transfers employment and/or residency to a different country after the Restricted Stock Units are granted, the information contained in this Appendix B may not be applicable to Participant in the same manner.

GENERAL TERMS AND CONDITIONS APPLICABLE TO ALL NON-U.S. PARTICIPANTS

1. Data Privacy Information and Consent.

(a) Data Collection and Usage. The Company and the Service Recipient collect, process and use certain personal information about Participant, including, but not limited to, Participant's name, home address, telephone number, email address, date of birth, social insurance number, passport or other identification number, salary, nationality, job title, any shares or directorships held in the Company, details of all awards granted under the Plan or any other entitlement to shares awarded, canceled, exercised, vested, unvested or outstanding in Participant's favor ("Data"), for purposes of implementing, administering and managing the Plan. The legal basis, where required, for the processing of Data is Participant's consent.

(b) Stock Plan Administration Service Providers. The Company transfers Data to E*TRADE Financial Corporate Services, Inc. and certain of its affiliates ("E*TRADE)", an independent service provider which is assisting the Company with the implementation, administration and management of the Plan. The Company may select a different service provider or additional service providers and share Data with such other provider serving in a similar manner. Participant may be asked to agree on separate terms and data processing practices with E*TRADE and such other service providers, with such agreement being a condition to the ability to participate in the Plan.

(c) International Data Transfers. The Company and E*TRADE are based in the U.S., which means that it will be necessary for Data to be transferred to, and processed in, the U.S. Participant's country or jurisdiction may have different data privacy laws and protections than the U.S. The Company's legal basis for the transfer of Data, where required, is Participant's consent.

(d) Data Retention. The Company will hold and use Data only as long as is necessary to implement, administer and manage Participant's participation in the Plan, or as required to comply with legal or regulatory obligations, including under tax, exchange control, labor and securities laws. This period may extend beyond the Participant's period as a Service Provider. When the Company and/or the Service Recipient no longer need Data for any of the above purposes, they will cease processing it in this context and remove it from all of their systems used for such purposes to the fullest extent practicable.

(e) Voluntariness and Consequences of Consent Denial or Withdrawal. Participation in the Plan is voluntary and Participant is providing the consents herein on a purely voluntary basis. If Participant does not consent, or if Participant later seeks to revoke his or her consent, Participant's salary from or employment or service with the Service Recipient will not be affected; the only consequence of refusing or withdrawing consent is that the Company would not be able to grant the Restricted Stock Units or other equity awards to Participant under the Plan or administer or maintain such awards.

(f) Data Subject Rights. Participant may have a number of rights under data privacy laws in his or her jurisdiction. Depending on where Participant is based, such rights may include the right to (i) request access to or copies of Data the Company processes, (ii) rectify incorrect Data, (iii) delete Data, (iv) restrict the processing of Data, (v) restrict the portability of Data, (vi) lodge complaints with competent authorities in Participant's jurisdiction, and/or (vii) receive a list with the names and addresses of any potential recipients of Data. To receive clarification regarding these rights or to exercise these rights, Participant can contact his or her local human resources representative.

(g) Other Legal Basis and Additional Consent. Participant understands that the Company may rely on a different legal basis for the collection, processing or transfer of Data in the future and/or request Participant to provide another data privacy consent. If applicable, upon request of the Company or the Service Recipient, Participant will provide a separate executed data privacy agreement (or any other agreements or consents) that the Company and/or the Service Recipient may deem necessary to obtain from Participant for the purpose of administering his or her participation in the Plan in compliance with the data privacy laws in Participant's country, either now or in the future. Participant understands and agrees that Participant will not be able to participate in the Plan if Participant fails to provide any such agreement requested by the Company and/or the Service Recipient.

2. Nature of Grant. By accepting the Restricted Stock Units, Participant acknowledges, understands, and agrees that:

(a) the grant of the Restricted Stock Units is exceptional, voluntary and occasional and does not create any contractual or other right to receive future grants of restricted stock units, or benefits in lieu of restricted stock units, even if restricted stock units have been granted in the past;

(b) all decisions with respect to future restricted stock unit or other grants, if any, will be at the sole discretion of the Company;

(c) Participant is voluntarily participating in the Plan;

(d) the Restricted Stock Units and any Shares subject to the Restricted Stock Units, and the income from and value of same, are not intended to replace any pension rights or compensation;

(e) unless otherwise agreed with the Company, the Restricted Stock Units and the Shares subject to the Restricted Stock Units, and the income from and value of same, are not granted as consideration for, or in connection with, the service Participant may provide as a director of a Subsidiary;

(f) the Restricted Stock Units and any Shares subject to the Restricted Stock Units, and the income from and value of same, are not part of normal or expected compensation for any purpose, including, without limitation to, calculating any severance, resignation, termination, redundancy, dismissal, end-of-service payments, bonuses, long-service awards, holiday pay, pension or retirement or welfare benefits or similar mandatory

payments;

(g) the future value of the Shares underlying the Restricted Stock Units is unknown, indeterminable, and cannot be predicted with certainty;

(h) no claim or entitlement to compensation or damages shall arise from forfeiture of the Restricted Stock Units resulting from the termination of Participant's status as a Service Provider (for any reason whatsoever, whether or not later found to be invalid or in breach of labor laws in the jurisdiction where the Participant is providing service or the terms of the Participant's employment or other service agreement, if any);

(i) unless otherwise provided in the Plan or by the Company in its discretion, the Restricted Stock Units and the benefits evidenced by this Award Agreement do not create any entitlement to have the Restricted Stock Units or any such benefits transferred to, or assumed by, another company nor to be exchanged, cashed out or substituted for, in connection with any corporate transaction affecting the Shares; and

(j) neither the Company, the Service Recipient nor any other Subsidiary shall be liable for any foreign exchange rate fluctuation between Participant's local currency and the U.S. dollar that may affect the value of the Restricted Stock Units or of any amounts due to Participant pursuant to the Restricted Stock or the subsequent sale of any Shares subject to the Restricted Stock Units.

3. Language. Participant acknowledges that he or she is sufficiently proficient in English or has consulted with an advisor who is sufficiently proficient in English, so as to allow Participant to understand the terms and conditions of this Award Agreement. If Participant has received this Award Agreement, or any other documents related to the Restricted Stock Units and/or the Plan translated into a language other than English and if the meaning of the translated version is different than the English version, the English version will control.

4. Foreign Asset/Account, Exchange Control and Tax Reporting. Participant may be subject to foreign asset/account, exchange control, tax reporting or other requirements which may affect Participant's ability acquire or hold Restricted Stock Units, Shares or cash received from participating in the Plan (including dividends and the proceeds arising from the sale of Shares) in a brokerage/bank account outside Participant's country. The applicable laws of Participant's country may require that he or she report such Restricted Stock Units, Shares, accounts, assets or transactions to the applicable authorities in such country and/or repatriate funds received in connection with the Plan to Participant's country within a certain time period or according to certain procedures. Participant acknowledges that he or she is responsible for ensuring compliance with any applicable requirements and should consult his or her personal legal advisor to ensure compliance with Applicable Laws.

ADDITIONAL TERMS AND CONDITIONS FOR CERTAIN COUNTRIES

KOREA

Notifications

Foreign Asset/Account Reporting Information. Korean residents must declare all foreign financial accounts (*e.g.,* non-Korean bank accounts, brokerage accounts) to the Korean tax authorities and file a report with respect to such accounts if the monthly balance of such accounts exceeds KRW 500 million (or an equivalent amount in foreign currency) on any month-end during a calendar year. Participant should consult with his or her personal tax advisor to determine his or her personal reporting obligations.

SINGAPORE

Terms and Conditions

Restriction on Sale of Shares. The Restricted Stock Units are subject to section 257 of the Securities and Futures Act (Chapter 289, 2006 Ed.) ("SFA") and Participant will not be able to make any subsequent offer to sell or sale of the Shares in Singapore, unless such offer or sale is made (1) after six (6) months from the Date of Grant, (2) pursuant to the exemptions under Part XIII Division (1) Subdivision (4) (other than section 280) of the SFA or (3) pursuant to, and in accordance with, the conditions of any other applicable exemptions under the SFA.

Notifications

Securities Law Information. The offer of the Plan, the grant of the Restricted Stock Units, and the issuance of the Shares subject to the Restricted Stock Units are being made pursuant to the "Qualifying Person" exemption under section 273(1)(f) of the SFA. The Plan has not been lodged or registered as a prospectus with the Monetary Authority of Singapore.

Director Notification. Participant understands and acknowledges that if Participant is a director, associate director or shadow director of a Singapore Subsidiary, Participant is subject to certain notification requirements under the Singapore Companies Act, regardless of whether Participant is a Singapore resident or providing services in Singapore. Among these requirements is an obligation to notify the Singapore Subsidiary in writing when Participant receives an interest (*e.g.*, Restricted Stock Units) in the Company. In addition, Participant must notify the Singapore Subsidiary when Participant sells Shares (including when Participant sells Shares acquired under the Plan). These notifications must be made within two days of acquiring or disposing of any interest in the Company. In addition, a notification must be made of Participant's interests in the Company within two days of becoming a director, associate director or shadow director.

Exhibit 21.1

AMKOR TECHNOLOGY, INC.

LIST OF SUBSIDIARIES

Subsidiary	Jurisdiction of Organization
Amkor Advanced Technology Taiwan, Inc.	Taiwan
Amkor Assembly & Test (Shanghai) Co., Ltd.	China
Amkor Technology Arizona, Inc.	Arizona
Amkor Technology Euroservices, S.A.S.	France
Amkor Technology Germany GmbH	Germany
Amkor Technology Japan, Inc.	Japan
Amkor Technology Korea, Inc.	Korea
Amkor Technology Limited	Cayman Islands
Amkor Technology Malaysia Sdn. Bhd.	Malaysia
Amkor Technology Philippines, Inc. (A Branch of a Singapore Company)	Philippines
Amkor Technology Singapore Investment Pte. Ltd.	Singapore
Amkor Technology Singapore Holding Pte. Ltd.	Singapore
Amkor Technology Singapore Holding Pte. Ltd., Taiwan Branch (A Branch of a Singapore Company)	Taiwan
Amkor Technology Taiwan Ltd.	Taiwan
Amkor Technology Vietnam Limited Liability Company	Vietnam
Amkor Worldwide Services LLC	Delaware
Amkor Worldwide Services LLC - ROHQ (A Branch of a United States Company)	Philippines
ATEP - Amkor Technology Portugal, S.A.	Portugal
Guardian Assets, Inc.	Delaware

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 333-149376 and 333-256241) and Form S-3 (No. 333-255655) of Amkor Technology, Inc. of our report dated February 16, 2024 relating to the financial statements, financial statement schedule and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP
Phoenix, Arizona
February 16, 2024

Exhibit 31.1

SECTION 302(a) CERTIFICATION

I, Guillaume Marie Jean Rutten, certify that:

1. I have reviewed this annual report on Form 10-K of Amkor Technology, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ Guillaume Marie Jean Rutten

By:	Guillaume Marie Jean Rutten
Title:	President and Chief Executive Officer
Date:	February 16, 2024

Exhibit 31.2

SECTION 302(a) CERTIFICATION

I, Megan Faust, certify that:

1. I have reviewed this annual report on Form 10-K of Amkor Technology, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ Megan Faust

By:	Megan Faust
Title:	Executive Vice President,
	Chief Financial Officer and Treasurer
Date:	February 16, 2024

Exhibit 32.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED
PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

For purposes of Section 1350 of Chapter 63 of Title 18 of the United States Code, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, each of the undersigned officers of Amkor Technology, Inc., a Delaware corporation (the "Company"), does hereby certify, to such officer's knowledge, that the Company's Annual Report on Form 10-K for the year ended December 31, 2023 (the "Form 10-K") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)) and that the information contained in the Form 10-K fairly presents in all material respects the financial condition and results of operations of the Company.

/s/ Guillaume Marie Jean Rutten

By:	Guillaume Marie Jean Rutten
Title:	President and Chief Executive Officer
Date:	February 16, 2024

/s/ Megan Faust

By:	Megan Faust
Title:	Executive Vice President, Chief Financial Officer and Treasurer
Date:	February 16, 2024

Exhibit 97.1

AMKOR TECHNOLOGY, INC.

EXCESS COMPENSATION RECOVERY POLICY

(Adopted on November 15, 2023)

1. POLICY PURPOSE

The Board of Directors (the "Board of Directors") of Amkor Technology, Inc. (the "Company") has established this Excess Compensation Recovery Policy (the "Policy") to provide for the recovery of certain incentive compensation in the event of an Accounting Restatement (as defined below).

This Policy is designed to comply with, and shall be interpreted to be consistent with, Section 10D of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), Rule 10D-1 promulgated under the Exchange Act ("Rule 10D-1"), and Listing Rule 5608 of The Nasdaq Stock Market LLC ("Nasdaq") Listing Rules (the "Listing Rules").

2. SCOPE

a. Incentive-Based Compensation.

This Policy applies to Incentive-Based Compensation (as defined below) received by a person:

i. After beginning service as an Executive Officer (as defined below);

ii. Who served as an Executive Officer at any time during the performance period for that Incentive-Based Compensation;

iii. While the Company has a class of securities listed on a national securities exchange or a national securities association; and

iv. During the Applicable Period (as defined below).

b. Erroneously Awarded Compensation.

i. The Incentive-Based Compensation subject to recovery under this Policy is the amount of Incentive-Based Compensation received by an Executive Officer that exceeds the amount of Incentive-Based Compensation that otherwise would have been received by such Executive Officer had such Incentive-Based Compensation been determined based on the restated amounts in the Accounting Restatement, computed without regard to any taxes paid by such Executive Officer ("Erroneously Awarded Compensation").

ii. For Incentive-Based Compensation based on stock price or total shareholder return, where the amount of Erroneously Awarded Compensation is not subject to mathematical recalculation directly from the information in the applicable Accounting Restatement:

(A) The amount of Erroneously Awarded Compensation will be based on the Company's reasonable estimate of the effect of the Accounting Restatement on the stock price or total shareholder return upon which the Incentive-Based Compensation was received; and

(B) The Company will maintain documentation of the determination of such reasonable estimate and provide such documentation to Nasdaq.

3. STATEMENT OF POLICY

a. Required Recovery.

In the event that the Company is required to prepare an Accounting Restatement, the Company will reasonably promptly recover the amount of Erroneously Awarded Compensation received by any Executive Officer during the Applicable Period.

b. Exception to Required Recovery.

The Company is not required to recover Erroneously Awarded Compensation if the Compensation Committee (or, in the absence of such a committee, a majority of the Independent Directors (as such term is defined in the Listing Rules) of the Board of Directors) determines that recovery would be impracticable for one of the three following reasons:

i. *Expense of Enforcement*. The direct expense paid to a third party to assist in enforcing the Policy would exceed the amount to be recovered. Before concluding that it would be impracticable to recover any amount of Erroneously Awarded Compensation based on expense of enforcement, the Company must make a reasonable attempt to recover such Erroneously Awarded Compensation, document such reasonable attempt and provide documentation related such reasonable attempt to Nasdaq.

ii. *Violation of Home Country Law*. Recovery would violate home country law where that law was adopted prior to November 28, 2022. Before concluding that it would be impracticable to recover any amount of Erroneously Awarded Compensation based on violation of home country law, the Company must obtain an opinion of home country counsel, acceptable to Nasdaq, that recovery would result in such a violation and provide such opinion to Nasdaq.

iii. *Tax-qualified Retirement Plan Failure*. Recovery would likely cause an otherwise tax-qualified retirement plan, under which benefits are broadly available to Company employees, to fail to meet the requirements of 26 U.S.C. 401(a)(13) or 26 U.S.C. 411(a) and regulations thereunder.

4. RECOUPMENT

The Administrator (as defined below) shall determine, in its sole discretion, the timing and method for promptly recouping Erroneously Awarded Compensation hereunder, which may include, without limitation:

i. seeking reimbursement of all or part of any cash or equity-based award;

ii. cancelling prior cash or equity-based awards, whether vested or unvested or paid or unpaid;

iii. cancelling or offsetting against any planned future cash or equity-based awards;

iv. forfeiture of deferred compensation, subject to compliance with Section 409A of the Internal Revenue Code of 1986, as amended, and the regulations promulgated thereunder; and

v. any other method authorized by applicable law or contract.

Subject to compliance with any applicable law, the Administrator may effect recovery under this Policy from any amount otherwise payable to an Executive Officer, including amounts payable to such individual under any otherwise applicable Company plan or program, including base salary, bonuses, commissions or compensation previously deferred by such Executive Officer.

This Policy shall be applied to the fullest extent of the law and Listing Rules. Any right of recoupment under this Policy is in addition to, and not in lieu of, any other remedies or rights of recoupment that may be available to the Company or any of its subsidiaries under applicable law or pursuant to the terms of any similar policy of the Company or any of its subsidiaries or the terms of any employment agreement, equity award agreement, or similar agreement with the Company or any of its subsidiaries and any other legal remedies available to the Company or any of its subsidiaries. Nothing contained in this Policy, and no recoupment or recovery as contemplated by this Policy, shall limit any claims, damages, or other legal remedies the Company or any of its subsidiaries may have against an Executive Officer arising out of or resulting from any actions or omissions by the Executive Officer.

5. INDEMNIFICATION

a. No Indemnification of Executive Officers.

The Company shall not indemnify any Executive Officer against the loss of Erroneously Awarded Compensation, including any payment or reimbursement for the cost of third-party insurance purchased by any Executive Officer to fund potential clawback obligations under this Policy.

b. Indemnification of Administrator.

The members of the Administrator, and any other members of the Board of Directors who assist in the administration of this Policy, shall not be personally liable for any action, determination, or interpretation made with respect to this Policy and shall be fully indemnified by the Company to the fullest extent under applicable law and Company policy with respect to any such action, determination, or interpretation. The foregoing sentence shall not limit any other rights to indemnification of the members of the Board of Directors under applicable law or Company policy.

6. DEFINITIONS

a. Accounting Restatement.

"Accounting Restatement" means an accounting restatement of the Company's financial statements due to material noncompliance with any financial reporting requirement under the securities laws of the United States of America, including any required accounting restatement to correct an error in previously issued financial statements that is material to the previously issued financial statements, or that would result in a material misstatement if the error were corrected in the current period or left uncorrected in the current period.

b. Applicable Period.

"Applicable Period" means the three completed fiscal years immediately preceding the date on which the Company is required to prepare an Accounting Restatement, as well as any transition period (that results from a change in the Company's fiscal year) within or immediately following those three completed fiscal years (except that a transition period that comprises a period of at least nine months shall count as a completed fiscal year). The "date on which the Company is required to prepare an Accounting Restatement" is the earlier to occur of (i) the date the Board of Directors, a committee of the Board of Directors, or the officer or officers authorized to take such action if action by the Board of Directors is not required, concludes, or reasonably should have concluded, that the Company is required to prepare an Accounting Restatement or (ii) the date a court, regulator or other legally authorized body directs the Company to prepare an Accounting Restatement, in each case regardless of if or when the restated financial statements are filed.

c. Executive Officer.

For the purposes of this Policy, the term "Executive Officer" means (i) the Company's president, principal financial officer, principal accounting officer (or if there is no such accounting officer, the controller) of the Company, any vice-president of the Company in charge of a principal business unit, division, or function (such as sales, administration, or finance), any other officer of the Company who performs a policy-making function and any other person (including executive officers of a parent or subsidiary of the Company) who performs similar policy-making functions for the Company and (ii) any person who used to be such a person referred to in clause (i), in the case of clauses (i) and (ii) as determined by the Administrator in accordance with the definition of "executive officer" set forth in Rule 10D-1 and the Listing Rule 5608.

d. Financial Reporting Measures.

Financial Reporting Measures are measures that are determined and presented in accordance with the accounting principles used in preparing the Company's financial statements and any measures that are derived wholly or in part from such measures. Stock price and total shareholder return are also examples of Financial Reporting Measures. A Financial Reporting Measure need not be presented within the financial statements or included in a filing with the Securities and Exchange Commission.

e. Incentive-Based Compensation.

Incentive-Based Compensation is any compensation that is granted, earned, or vested based wholly or in part upon the attainment of a Financial Reporting Measure.

f. Received.

Incentive-Based Compensation is deemed received in the Company's fiscal period during which the Financial Reporting Measure specified in the Incentive-Based Compensation award is attained, even if the payment or grant of the Incentive-Based Compensation occurs after the end of that fiscal period.

7. ADMINISTRATION

This Policy shall be administered by the Compensation Committee of the Board of Directors (the "Administrator"). The Administrator is authorized to interpret and construe this Policy and to make all determinations necessary, appropriate or advisable for the administration of this Policy. Any determinations made by the Administrator shall be final and binding on all affected individuals and need not be uniform with respect to each individual covered by the Policy. In the administration of this Policy, the Administrator is authorized and directed to consult with the full Board of Directors or such other committees of the Board of Directors as necessary or appropriate as to matters within the scope of such other committee's responsibility and authority. Subject to any limitation of applicable law, the Administrator may authorize and empower any officer or employee of the Company to take any and all actions necessary or appropriate to carry out the purpose and intent of this Policy (other than with respect to any recovery under this Policy involving such officer or employee).

8. DISCLOSURE

The Company shall file all disclosures with respect to this Policy in accordance with the requirement of the federal securities laws.

9. EFFECTIVE DATE

The terms of this Policy shall apply to any Incentive-Based Compensation that is received by Executive Officers on or after October 2, 2023 (the "Effective Date"), even if such Incentive-Based Compensation was approved, awarded, or granted to Executive Officers prior to the Effective Date.

10. AMENDMENT

The Board of Directors may amend, modify, supplement, rescind or replace all or any portion of this Policy at any time and from time to time in its discretion and shall amend this Policy as it deems necessary to comply with applicable law or any rules or standards adopted by a national securities exchange on which the Company's securities are listed.

11. SUCCESSORS

This Policy shall be binding and enforceable against all Executive Officers and their beneficiaries, heirs, executors, administrators or other legal representative.

12. ACKNOWLEDGEMENT

Each Executive Officer shall sign and return to the Company, within 30 calendar days following the later of (i) November 15, 2023 or (ii) the date the individual becomes an Executive Officer, the Acknowledgement Form attached hereto as **Exhibit A**, pursuant to which the Executive Officer agrees to be bound by, and to comply with, the terms and conditions of this Policy.

13. GOVERNING LAW; VENUE

This Policy and all rights and obligations hereunder are governed by and construed in accordance with the internal laws of the State of Arizona, excluding any choice of law rules or principles that may direct the application of the laws of another jurisdiction. All actions arising out of or relating to this Policy shall be heard and determined exclusively in a federal or state court of competent jurisdiction in Maricopa County in the State of Arizona.

EXHIBIT A

AMKOR TECHNOLOGY, INC.
EXCESS COMPENSATION RECOVERY POLICY

ACKNOWLEDGEMENT FORM

By signing below, the undersigned acknowledges and confirms that the undersigned has received and reviewed a copy of the Amkor Technology, Inc. Excess Compensation Recovery Policy. Any capitalized terms used in this Acknowledgment without definition shall have the meaning set forth in the Policy.

By signing this Acknowledgement Form, the undersigned acknowledges and agrees that, for good and valuable consideration (the receipt and sufficiency of which the undersigned also acknowledges), notwithstanding anything to the contrary in any agreement between the Company or any of its subsidiaries and the undersigned (or any compensatory plan or program of the Company or any of its subsidiaries in which the undersigned participates) now or in the future, the undersigned: (1) is and will continue to be subject to the Policy both during and after the undersigned's employment with the Company or any of its subsidiaries, with respect to Incentive-Based Compensation that is received by the undersigned on or after the Effective Date, even if such Incentive-Based Compensation was approved, awarded, or granted to the undersigned prior to the Effective Date; (2) will abide by the terms of the Policy, including, without limitation, by returning any Erroneously Awarded Compensation to the Company to the extent required by, and in a manner consistent with, the Policy; and (3) pursuant to Section 5(a) of the Policy, will not be indemnified by the Company for the loss of any Erroneously Awarded Compensation.

EXECUTIVE OFFICER

Signature

Print Name

Date