Risk Factors Comparison 2024-02-23 to 2023-02-24 Form: 10-K

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In addition to the other information in this Annual Report on Form 10- K, you should carefully consider the risk factors discussed in this Annual Report on Form 10- K in evaluating FormFactor and our business. If any of the identified risks actually occur, our business, financial condition and results of operations could be materially adversely affected, the trading price of our common stock could decline, and you may lose all or part of your investment in our common stock. The risks and uncertainties described in this Annual Report on Form 10- K are not the only ones we face. Additional risks that we currently do not know about, or that we do not consider sufficiently important to describe here in accordance with applicable regulations, may also impair our business operations or the trading price of our common stock. Risks Relating to our Operations and the Nature of Our Business The markets in which we participate are competitive, and if we do not compete effectively, our operating results could be harmed. We have experienced increased competition in the markets in which we operate, and we expect competition to intensify in the future. Increased competition has resulted in, and in the future may result in, price reductions, reduced gross margins or loss of market share. Existing competitors might introduce new competitive products for the same markets that our products currently serve. These products may have better performance, lower prices, shorter delivery times or broader acceptance than our products. In addition, new competitors, including test equipment manufacturers, may offer comparable or new technologies that reduce the value of our products. Also, semiconductor manufacturers may implement chip designs or methodologies that increase test throughput, reduce test content, or change their test procedures, thereby eliminating some or all of our current product advantages. Our current or potential competitors may have larger customer bases, more established customer relationships or greater financial, technical, manufacturing, marketing and other resources than we do. As a result, they might be able to respond more quickly to new or emerging technologies and changes in customer requirements, devote greater resources to the development, promotion, sale and support of their products, and reduce prices to increase market share. If we do not innovate and keep pace with technological developments in the semiconductor industry, our products might not be competitive, and our revenues and operating results could suffer. We must continue to innovate and to invest in research and development to improve our competitive position and to meet the test and measurement requirements of our customers. Our future growth depends, in significant part, upon our ability to work effectively with and anticipate the future technical and operational needs of our customers and to develop and support new products and product enhancements to meet those needs on a timely and cost- effective basis **. This may become more difficult to do as the semiconductor industry innovates to address demand for AI- related products, which may develop more slowly than we anticipate or change from one period to another** . Our customers' needs are becoming more challenging as the semiconductor industry continues to experience rapid technological change driven by the demand for complex circuits that are shrinking in size, are increasing in speed and functionality, and are produced on shorter cycle times and at reduced unit cost. Successful product design, development and introduction on a timely basis require that we: • collaborate with customers to understand their future requirements; • design innovative and performance- enhancing product architectures, technologies and features that differentiate our products from those of our competitors; • in some cases, engage with third parties who have particular expertise in order to complete one or more aspects of the design and manufacturing process; • qualify with customers new products, or an existing product incorporating new technology; • transition our products to new manufacturing technologies, as necessary; • offer our products for sale at competitive price levels while maintaining our gross margins within our financial model; • identify emerging technological trends in our target markets; • maintain effective marketing strategies; • obtain and maintain intellectual property rights where necessary; • hire and retain high performing engineering personnel; • respond effectively to technological changes or product announcements by others; and • adjust to changing market conditions quickly and cost- effectively. Not only do we need the technical expertise to implement the changes necessary to keep our technologies current, but we must also rely heavily on the judgment of our management to anticipate future market trends. If we are unable to timely predict industry changes or industry trends, or if we are unable to modify our products or design, manufacture and deliver new products on a timely basis, or if a third party with which we engage does not timely deliver a component or service for one of our product modifications or new products, we might lose customers or market share. In addition, we might not be able to recover our research and development expenditures, which could harm our operating results. We depend upon the sale of our probe card products for the substantial majority of our revenues. We derive the majority of our revenues from the sale of our probe card products, primarily to manufacturers of microprocessors, foundry & logic and memory devices, despite progress in diversifying our product offerings. We anticipate that sales of probe cards will represent a substantial majority of our revenues for the foreseeable future. Our success depends in large part upon the continued acceptance of our products on the basis of a variety of factors including performance, quality, timely delivery and price, and depends upon our ability to continue to develop and introduce new products that meet our customers' requirements. The degree to which we depend upon the sales of our probe card products for our revenues may increase our susceptibility to failures to satisfy the customers for such products, which may adversely affect our revenues and our ability to grow our business. We derive a substantial portion of our revenues from a small number of customers. A relatively small number of customers account for a significant portion of our revenues. One customer represented **17. 1 % of total revenues in fiscal 2023, one customer represented** 19. 0 % of total revenues in fiscal 2022 ~~,~~ **and** two customers represented a combined 31. 8 % of total revenues in fiscal 2021 ~~and one customer represented 31. 5 % of total revenues in fiscal 2020~~ . We anticipate that sales of our products to a relatively small number of customers will continue to account for a significant portion of our revenues, which can drive material fluctuations in sales volume, gross margins due to changes in mix, and leverage on fixed costs. Consolidation in the semiconductor industry may increase this concentration. In the future, the loss of any of these customers, or cancellation, reduction or deferral of even a small number of purchases of our products by these customers, could significantly reduce our revenues. A decline in our customers' market share and commercial success, including their ability to compete favorably within their respective end markets, could significantly impact demand for our products and reduce our revenues. Cancellations, reductions, deferrals or non- payment of invoices could result from ~~another downturn~~ **downturns** in the semiconductor industry **, including the cyclical downturn we are now experiencing** , manufacturing delays, quality or reliability issues with our products, or from interruptions to our customers' operations due to fire, natural disasters or other events, or other issues with the financial stability of our customers. Furthermore, because our probe cards are custom products designed for our customers' unique wafer designs, any cancellations, reductions or delays can result in significant non- recoverable costs, including but not limited to the potential for impairment of inventories. In some situations, our customers might be able to cancel or reduce orders without a significant penalty. If our relationships with our customers deteriorate, our product development activities could be harmed. The success of our product development efforts depends upon our ability to anticipate market trends and to collaborate closely with our customers. Our relationships with these customers provide us with access to valuable information regarding manufacturing and process technology trends in the semiconductor industry, which enables us to better plan our product development activities. These relationships also provide us with opportunities to understand the performance and functionality requirements of our customers, which improves our ability to customize our products to fulfill their needs. Our relationships with our customers could deteriorate as a result of a variety of factors, such as if they become concerned about our ability to deliver quality products on a timely basis or to protect their intellectual property. Many of our customers are large companies that place significant orders with us, and the consequences of deterioration in our relationship with any of these companies could be significant due to the competitiveness of our industry and the significant influence that these companies exert in our market. Consolidation in the semiconductor industry and within the semiconductor test equipment market could adversely affect the market for our products and negatively impact our ability to compete. Consolidation in the semiconductor industry may reduce our customer base and could adversely affect the market for our products, which could **negatively impact** ~~cause a decline in~~ our revenues. With consolidation, the number of actual and potential customers for our products has decreased in recent years. Consolidation may lead to relatively fewer opportunities to sell our products if we are not chosen as a supplier by any given prospective customer, and may lead to increased pricing pressures from customers that have greater volume purchasing power. There has also been consolidation within the semiconductor test equipment market. This consolidation trend could change our interactions and relationships with complementary tester, instrument, and probe card suppliers, and negatively impact our revenue and operating results. Changes in customers' test strategies, equipment and processes could decrease customer demand for our products. The demand for our products depends in large part upon the number of semiconductor designs, the pace of technology and architecture transitions in chip designs and overall semiconductor unit volume. The number of probe cards involved in a customer' s wafer testing can depend upon the number of devices being tested, the complexity of these devices, the test software program, the test equipment itself, and the utilization of chip designs featuring design- for- testability or self- testing capabilities. Customers may demand fewer probe cards or probing systems if they use test strategies that reduce the technical requirements on test equipment, improve available data on device performance earlier in the manufacturing process, or test devices later in the manufacturing process. Changes in the effectiveness of test technologies and test strategies used by customers may cause us to lose sales and revenues. We may also lose sales if new semiconductor technologies or designs are implemented which cannot be efficiently tested using the products that we offer, or if semiconductor manufacturers reduce the amount or degree of testing that they perform. We may also incur significant research and development expenses in order to introduce new product architectures and platforms to serve the testing needs of new semiconductor technologies. **These expenses are often incurred in advance of customer adoption or other anticipated benefits, and the return on these investments may be lower, or may develop more slowly, than we expect. If we do not achieve the benefits anticipated from these investments, or if the achievement of these benefits is delayed, our operating results may be negatively impacted.** Cyclicality in the semiconductor industry **has in the past and** may **in the future** adversely impact our sales. The semiconductor industry has historically been cyclical and is characterized by wide fluctuations in product supply and demand. From time to time, this industry has experienced significant downturns, often in connection with, or in anticipation of, maturing product and technology cycles, excess inventories, and declines in general economic conditions. The global economic and semiconductor downturns have caused and may in the future cause our operating results to decline dramatically from one period to the next **. For example, the semiconductor industry has been experiencing a cyclical downturn since the second half of fiscal 2022, which has extended through fiscal 2023, resulting in a significant decline in demand for foundry & logic and DRAM products over the same period** . Global economic stability can be negatively affected by a variety of factors and interrelationships, including the impacts of epidemics and pandemics, military conflicts **or regional tensions** , climate change, trade barriers (such as the U. S.- China trade restrictions implemented ~~during~~ **since** fiscal 2022) and other factors acting alone or in combination. Some of these factors can also have a more direct adverse impact upon our operations to varying degrees. Our business depends heavily upon the development and manufacture of new semiconductors, the rate at which semiconductor manufacturers make transitions to smaller nanometer technology nodes and implement tooling cycles, the volume of production by semiconductor manufacturers, and the overall financial strength of our customers, which, in turn, depend upon the current and anticipated market demand for semiconductors and products that use semiconductors, such as servers, personal computers, automobiles and cell phones. During industry downturns, semiconductor manufacturers sharply curtail their spending, including their spending on our products, which may adversely impact our revenues, gross margins and results of operations. Further, a protracted downturn could cause one or more of our customers to become insolvent, resulting in a loss of revenue and impacting our ability to collect on accounts receivable. ~~For example, in the second half of fiscal 2022, we saw a significant decline in demand for foundry & logic and~~

~~DRAM products due to cyclicality in those markets.~~ The timing, length and severity of these cyclical downturns are difficult to predict, and our business depends on our ability to plan for and react to these cyclical changes. Because we generally do not have a sufficient backlog of unfilled orders to meet our quarterly revenue targets, revenues in any quarter are substantially dependent upon customer orders received and fulfilled in that quarter. Our revenues are difficult to forecast because we generally do not have sufficient backlog of unfilled orders to meet our quarterly revenue targets at the beginning of a quarter. Rather, a substantial percentage of our revenues in any quarter depend upon customer orders for our products that we receive and fulfill in that quarter. Because our expense levels are based in part on our expectations as to future revenues and to a large extent are fixed in the short term, we might be unable to adjust spending in time to compensate for any unexpected shortfall in revenues ~~, such as the decline in bookings and revenues in the second half of fiscal 2022. Accordingly, any significant shortfall of revenues in relation to our expectations could hurt our operating results~~ . If our ability to forecast demand for our products or the predictability of our manufacturing yields deteriorates, we could incur high inventory losses. Each semiconductor chip design requires a custom probe card. Because our probe card products are design- specific, demand for these products is difficult to forecast. Due to our customers' short delivery time requirements, we often design and procure materials and, at times, produce our products in anticipation of demand for our products rather than in response to an order. Our manufacturing yields and inventory requirements, particularly for new products or when we are operating at high output levels, have at times been unpredictable. If we do not obtain orders as we anticipate, if we suffer manufacturing errors, or if we build additional inventory to compensate for unpredictable manufacturing yields, we could have excess or obsolete inventory that we may not be able to sell, which would likely result in inventory write- offs or material charges for scrap. If we are unable to efficiently manufacture our existing and new products, our business may be materially adversely affected. We must continuously improve our manufacturing processes in an effort to increase yields and product performance, lower our costs and reduce the time required for us to design, manufacture and deliver our products in volume. If we ~~cannot~~ **fail to** do **so** ~~these things~~ , both our existing products and our new products may not be commercially successful, our revenues and profitability may be adversely affected, our customer relationships and our reputation may be harmed, and our business may be materially adversely affected. To improve our manufacturing processes, we have incurred, and may incur in the future, substantial costs in an effort to optimize capacity and yields, open new manufacturing facilities, implement new manufacturing technologies, methods and processes, purchase new equipment, upgrade existing equipment, and train technical personnel. We have experienced, and may experience in the future, manufacturing delays and other inefficiencies in connection with implementation of these improvements and customer qualifications of new processes or products. These delays and other inefficiencies may arise from a variety of factors. Further, these investments may consume available cash in the short term for **anticipated** ~~a presumed future~~ benefit that may or may not occur. **Our** ~~These impacts have caused, and could cause in the future, our~~ operating results and liquidity ~~to decline~~ **have been and may in the future be negatively impacted by these factors** . We have also experienced, and may experience in the future, difficulties in manufacturing our complex products in volume, on time, and at acceptable yields and cost, and / or have installation issues in the field, due to the complexity of customer requirements. These challenges, if not timely resolved could have a material adverse effect on operating results and our ability to compete effectively. If we are unable to continue to reduce the time it takes for us to design and produce products, our growth could be impeded. Our customers continuously seek to reduce the time it takes them to introduce new products to market. The cyclicality of the semiconductor industry, coupled with changing demands for semiconductor products, requires our customers to be flexible and highly adaptable to changes in the design, volume and mix of products they must produce. We may be unable to design, configure and produce our products within the short cycle times required to respond to such rapid changes. We have lost sales in the past where we were unable to meet a customer' s required delivery schedules. If we are unable to continue to reduce the time it takes for us to design, manufacture and ship our products in response to the needs of our customers, our competitive position could be harmed and we could lose sales. Products that do not meet specifications or that contain defects could damage our reputation, decrease market acceptance of our technology, cause us to lose customers and revenues, and result in liability to us. The complexity and ongoing development of our product designs and manufacturing processes could lead to design or manufacturing problems. Problems might result from a number of factors, including design defects, materials failure, failure of components manufactured by our suppliers to meet our specifications, contamination in the manufacturing environment, impurities in the materials used, unknown sensitivities to process conditions such as temperature and humidity, and equipment failures. Any errors or defects could: • cause lower than anticipated yields and lengthen delivery schedules; • cause delays in product shipments; • cause delays in new product introductions; • cause us to incur warranty expenses; • result in increased costs and diversion of development resources; • cause us to incur increased charges due to unusable inventory; • require design modifications; • have implications for timing of revenue recognition and associated costs; or • decrease market acceptance or customer satisfaction with these products. The occurrence of any one or more of these events could adversely affect our business, reputation and operating results. As part of our sales process, we could incur substantial sales and engineering expenses that do not result in revenues. Our customers generally expend significant efforts evaluating and qualifying our products prior to placing an order. While our customers are evaluating our products, we might incur substantial sales, marketing, and research and development expenses. For example, we typically expend significant resources educating our prospective customers regarding the uses and benefits of our products and customizing them to the potential customer' s needs, for which we might not be reimbursed. The substantial resources we commit to our sales efforts may not result in any revenues from a customer. For example, many semiconductor processes, architectures, and designs never reach production, including those for which we may have expended development effort and expense. In addition, prospective customers might decide not to use our products or use our products for a relatively small percentage of their requirements after we have expended significant effort and expense toward product design, development, and / or ~~manufacture~~ **manufacturing . If we do not achieve the benefits anticipated from any of these investments, or if the achievement any of these benefits is delayed, our operating results**

may be negatively impacted . We obtain some of the components and materials we use in our products from a sole source or a limited group of suppliers, and the partial or complete loss of one of these suppliers, or scarcity of raw materials from one of these suppliers, could cause production delays. We obtain some of the components and materials used in our products, such as printed circuit board assemblies, plating materials and ceramic substrates, from a sole source or a limited group of suppliers, and in some cases alternative sources are not currently available. Because we rely on purchase orders rather than long- term contracts with the majority of our suppliers, we cannot guarantee our ability to obtain components and materials in the long term. A sole or limited source supplier could increase prices, which could lead to a decline in our gross profit. Our dependence upon sole or limited source suppliers exposes us to several other risks, including inability to obtain an adequate supply of materials, late deliveries, poor component quality, and business disruptions while we seek to identify and qualify alternative suppliers. This could be exacerbated by certain events outside the control of either the supplier or us, such as global, regional or national health crises ~~or~~ **,** armed ~~conflict~~ **conflicts , regional tensions or other adverse global, regional and national events** . The occurrence of any of these risks could adversely impact our business, results of operations and financial condition. We are dependent on the availability of certain key raw materials and natural resources used in our products and various manufacturing processes, and we rely on third parties to supply us with these materials in a cost- effective and timely manner. Our access to raw materials may be adversely affected if our suppliers' operations were disrupted as a result of limited or delayed access to key raw materials and natural resources, which may result in increased cost for these items. Our operations, or those of our important suppliers, business partners and customers, could be adversely affected by events outside of our control such as natural disasters, pandemics and man- made disasters. Our business is vulnerable to the direct and indirect impact of natural and man- made disasters, such as floods, earthquakes, volcanic eruptions, nuclear accidents, acts of terrorism, epidemics, pandemics, military conflicts, climate change, and other factors acting alone or in combination. It is also possible that future natural and man- made disasters could negatively impact the sales of our products as a result of impacts upon our customers' ability to make or sell their products, or impacts upon our suppliers' ability to supply components to us on a timely basis. For example, the COVID- 19 pandemic has shown the extent to which new pathogens are capable of disrupting business operations and economic activity locally and worldwide. Health crises can severely disrupt global supply chains, including for parts and materials that we use to manufacture our products, and affect economic conditions in the markets for our products. The circumstances which give rise to epidemics and pandemics from new or existing pathogens with similar impacts are expected to persist indefinitely. Another example of events outside of our control arises from our manufacturing facilities being located in seismically active areas in California and Oregon. The manufacturing equipment and processes that we use can be severely disrupted by seismic activity. A significant seismic event in an area of our operations could have a materially negative impact on our operations, financial results or financial condition. Much of the infrastructure on which we rely for our operations is outside of our control, such as electric power infrastructure. We have previously experienced disruptions to electrical power at some of our premises in California and China, especially when aging infrastructure or inadequate electric power service has been impacted by high demand, fires, and weather which may worsen over time with climate change, and other events. Our efforts to mitigate the effects on us from interruptions in the availability of electric power, or other infrastructure, may not adequately prevent materially negative impacts on our operations, and in turn our financial results. Climate change, or legal, regulatory or market measures to address climate change, may negatively affect our business and operations. The physical impacts of climate change could adversely impact our costs and operations. There has been public discussion that climate change may be associated with rising sea levels as well as extreme weather conditions such as more intense hurricanes, thunderstorms, tornadoes, drought, and snow or ice storms. Extreme weather conditions may increase our costs or cause damage to our facilities, and any damage resulting from extreme weather may not be fully insured, and may also limit our ability to fully insure facilities on a cost- effective basis in the future. Periods of extended inclement weather may inhibit construction of our capital improvement projects. Any such events could adversely impact our costs or results of operations. Concerns relating to climate change have led to a range of local, state, federal, and international regulatory and policy efforts to seek to address greenhouse gas (" GHG ") emissions. In the U. S., various approaches are being proposed or adopted at the federal, state, and local government levels **, such as recent legislation enacted in California** . These efforts could lead to additional costs on the Company now or in the future, including increased energy and other capital or operational costs, or additional legal requirements on the Company. These efforts could also materially increase our costs of evaluating potential manufacturing sites, or in some cases eliminate some potential locations as feasible sites. In addition to the potential for additional GHG regulation or incentives, enhanced corporate, public, and stakeholder awareness of climate change could affect the Company' s reputation or customer demand. Climate change concerns and GHG regulatory efforts could also affect the Company' s customers themselves. We could also face pressure from these groups to adapt our physical facilities for alternative sources of energy, which may be less cost- effective than current sources. Any of these factors, individually or combined with one or more factors, or other unforeseen factors or other impacts of climate change, could affect the Company and adversely impact our business, operations, or financial condition. ~~Global, regional or national health crises, such as the COVID- 19 pandemic, have impacted, and could continue to negatively impact, our operations and those of our important suppliers, business partners and customers. We are exposed to risks associated with public health crises and outbreaks of contagious diseases, such as COVID- 19. To date, these outbreaks have had, and may continue to have, an adverse impact on our operations, our supply chains and our expenses, including as a result of precautionary measures that we take in response to them. For example, a variety of health orders and regulations arising from the COVID- 19 pandemic apply to our operations and employees in the regions where we operate which have had, and will continue to have, negative affects upon our operations and business. The extension of existing government orders and implementation of new orders or mandates, such as government vaccine and testing mandates, could impact the availability of members of our workforce or lead to the loss of key employees, further adversely impacting our business. Implementation of such mandates and requirements could also have similar consequences for our suppliers, which may impact their ability to~~

~~deliver their goods and services to us. Even as the availability of vaccines has relieved the economic effects of the COVID- 19 pandemic, new variants of the virus may continue to impede the vaccines' efficacy, or other factors may prolong or worsen the pandemic and its direct and indirect effects upon our business. In response, many of our employees continue to work remotely, which can increase operational risk and cybersecurity risks. If we do not respond appropriately to these health crises, or if employees, customers or others do not perceive our response positively, we could suffer damage to our reputation, which could also adversely affect our business. We obtain some of the components and materials used in our products from a sole source or a limited group of suppliers, and in some cases alternative sources are not readily available. Health crises may heighten the risks posed by our dependence upon sole or limited source suppliers to the extent that they could disrupt the operations of one or more of these suppliers, resulting in an inability to obtain an adequate supply of materials, late deliveries or poor component quality while we seek to identify and qualify alternative suppliers. The extent to which these health crises impact our operations and those of our important suppliers, business partners and customers will depend on numerous evolving factors and future developments that we are not able to predict, including but not limited to: the severity and duration of each event; governmental, business and other actions including government vaccine and testing mandates (which could include further restrictions on our operations); the ongoing requirements of social distancing and health orders; the impacts on our supply chain; the impact on economic activity; the extent and duration of the effect on business confidence and investments by our customers; the effects of changes to our operations that may continue indefinitely; the effects on our workforce and our ability to meet our staffing needs, particularly if members of our workforce are exposed or infected; any impairments in the value of our assets; and the potential impacts upon our internal controls, including those over financial reporting, that may result from changes in working environments and other circumstances. All of these circumstances are highly uncertain and cannot be predicted, and the circumstances which give rise to new or existing infectious diseases becoming epidemics or pandemics with potentially similar impacts to the COVID- 19 pandemic are expected to persist.~~ Adverse global, regional and national economic conditions could have a negative effect on our business, results of operations, financial condition, liquidity, and access to capital markets. A variety of factors, including natural disasters, health crises, climate change, military conflicts and other geopolitical events, may adversely affect national, regional and global economies and financial markets. Any ~~of these~~ **such adverse** events may result in global, regional or national economic slowdowns or other economic downturns. Such downturns could curtail or delay spending by businesses and consumers which may ultimately result in reductions in the demand for our products ~~and~~ **,** greater volatility in demand and supply conditions **and other adverse impacts** . **For example, any deterioration in the relations between Taiwan and China, and other factors affecting military, political or economic conditions in Taiwan or elsewhere in Asia, could adversely impact our suppliers, manufacturers and customers with operations located in the region, which could disrupt our business operations, affect demand for our products or increase our costs, negatively impacting our revenues, gross margins, and overall results of operations. Additionally,** ~~These~~ **these** events may also increase uncertainty in global credit and financial markets. The impacts of such uncertainty and disruptions to the availability of credit or other sources of capital could also adversely affect our ability to access capital on favorable terms or on a timely basis to meet our objectives. Any of these factors could have a material adverse impact on our business, results of operations, financial condition and cash flows. Sustained inflation could have a material adverse effect on our business, financial condition, results of operations and liquidity. Inflation rates in the markets in which we operate have increased and may continue to rise. ~~Recent inflation~~ **Inflation in recent periods** has led us to experience higher costs related to labor, materials from suppliers, and transportation. Our suppliers ~~have~~ raised their prices and may continue to raise prices, and in the competitive markets in which we operate, we may not be able to make corresponding price increases **, productivity improvements or cost reductions** to preserve our gross margins and profitability. If inflation rates continue to rise or remain elevated for a sustained period of time, they could have a material adverse effect on our business, financial condition, results of operations and liquidity. We have generally been able to offset increases in these costs through various productivity **improvement** and cost reduction initiatives, as well as by adjusting our selling prices to pass through some of these higher costs to our customers; however, our ability to raise our selling prices depends on market conditions and competitive dynamics. Given the timing of our actions compared to the timing of these inflationary pressures, there may be periods during which we are unable to fully recover the increases in our costs. We rely on the security and integrity of our electronic data systems, managed both internally and by third parties, for our business requirements, and our business can be damaged by disruptions, security breaches or compromises of these systems. We rely on electronic data systems, including a variety of software and networking, computing and storage equipment and other information technologies, to operate and manage our business and to collect, process, maintain, and safeguard information, including information belonging to our customers, partners, and personnel. Our electronic data systems may be subject to defects, failures or disruptions as a result of, among other things, natural disasters, accidents, power disruptions, telecommunications failures, deficiencies in new system designs and implementations, acts of terrorism or war, physical security breaches, computer viruses or other cyber attacks. Such incidents or other system failures or disruptions could subject us to downtime and delays, compromise or loss of sensitive or proprietary information, destruction or corruption of data, financial losses from remedial actions, breaches of obligations to third parties under privacy laws or contracts, or damage to our reputation or customer relationships. Any of the foregoing could have a material adverse effect on our business, operating results and financial condition. Because we conduct most of our business internationally, we are subject to operational, economic, financial and political risks abroad. Sales of our products to customers outside of the United States represent a significant part of our past and anticipated revenues. Our international sales as a percentage of our revenues were **74 %,** 83 % ~~,~~ **and** 84 ~~% and 82~~ % for fiscal **2023,** 2022 ~~,~~ **and** 2021 ~~and 2020~~ , respectively. Certain of our non- U. S. based customers also purchase through their subsidiaries in the United States. In the future we expect international sales to continue to account for a significant percentage of our revenues. Accordingly, we will be subject to risks and challenges that we would not otherwise face if we conducted our business solely in the United States. These risks and challenges include: • compliance with a wide variety of foreign laws and regulations **, including social, political, immigration, and tax and trade policies** ; • legal uncertainties regarding taxes, tariffs, quotas, export controls, export licenses and other trade barriers; • political and economic instability or foreign conflicts, including trade wars, that involve or affect the countries of our customers **; • government restrictions on, or nationalization of, our operations in any country, or restrictions on our ability to repatriate earnings from or distribute compensation or other funds in a particular country; • adverse changes relating to government grants, tax credits, or other government incentives, including more favorable incentives provided to competitors** ; • difficulties in collecting accounts receivable and longer accounts receivable payment cycles; • difficulties in staffing and managing personnel, distributors and representatives; • reduced protection for intellectual property rights in some countries; • currency exchange rate fluctuations, which could affect the value of our assets denominated in local currency, as well as the price of our products relative to locally produced products; • ~~the impact of pandemics~~ **global, regional and national geopolitical** or other ~~disruptions to trade~~ **events, such as political instability, acts of war or terrorism, regional tensions, health crises** and ~~production~~ **natural disasters** ; • seasonal fluctuations in purchasing patterns in other countries; and • fluctuations in freight rates and transportation disruptions. Any of these factors could harm our existing international operations, impair our ability to continue expanding into international markets or materially adversely affect our operating results. Political developments in the United States and elsewhere may increase the risks and uncertainties associated with conducting international business, including the possibilities of greater tariffs and other trade barriers in the regions where we conduct business. In fiscal ~~2022~~ **2023** , we observed a continuing trend of increasing risks and challenges in the conduct of our international business activities, including expanded tariffs and other trade barriers affecting the United States and China. Additionally, we are required to comply with foreign import and export requirements, customs and value added tax standards that can be unclear or complex. Our failure to meet these requirements and standards could negatively impact our business operations. Our foreign operations expose us to additional risks relating to currency fluctuations. Our international operations are significant to our revenues and net income, and we plan to continue to grow internationally. We have significant business operations located in Germany. While we report our financial results in U. S. dollars, we incur certain costs in other currencies, and have certain foreign currency denominated assets and liabilities. We, therefore, face exposure to fluctuations in currency exchange rates. Significant fluctuations in exchange rates between the U. S. dollar and foreign currencies may adversely affect our revenues and earnings, despite our hedging of a portion of our international currency exposures. Additionally, hedging programs are inherently risky and could expose us to additional costs and risks that could adversely affect our financial condition and results of operations. Increasingly restrictive export regulations and other trade barriers may materially harm our business. Sales of our products to customers outside of the United States represent a significant part of our past and anticipated revenues, including sales involving exports from the United States to China. **Geopolitical and** ~~There is a continuing trend of increasing~~ trade **tensions** ~~barriers affecting exports and imports~~ between the United States and China **, one of our largest markets, have led to increased tariffs and trade restrictions and have affected customer ordering patterns, and this dynamic between the countries may persist or increase for the foreseeable future** . For example, the U. S. Department of Commerce, Bureau of Industry and Security (" BIS "), has recently amended the U. S. Export Administration Regulations to expand license requirements on exports to entities in China that may support military end uses. These rules expand export license requirements on a broader set of items from the U. S., including many of our products, and for a broader set of customers in China and elsewhere. The BIS has also broadened the application of U. S. export controls to certain items which may be subject to Foreign Direct Product Rules (" FDPR "). There is no assurance that we will obtain any export licenses on a timely basis or at all. There also remains considerable uncertainty regarding the interpretation and implementation of new regulations. In ~~addition, the~~ reaction to ~~these rules by~~ **U. S. trade regulations,** governments and private businesses outside the **United States** ~~U. S.~~ , particularly in China, may **implement** ~~be expected to include~~ retaliatory controls and preferences for non- U. S. or local suppliers **, which can increase our manufacturing costs, make our products less competitive, reduce demand for our products, limit our ability to sell to certain customers, limit our ability to procure components or raw materials, or impede or slow the movement of our goods across borders** . ~~In~~ **For example,** China **has restricted U. S. access to certain minerals and has blocked certain companies that provide products to Taiwan' s military from selling products in China. Also, in China,** we are already observing stronger preferences for non- U. S. suppliers in general, and in favor of new and existing local suppliers in particular. These and other regulatory and policy changes, and the reactions of customers to such changes, in the U. S. and elsewhere, could materially and negatively affect our future sales and operating results. If we fail to protect our proprietary rights, our competitors might gain access to our technology, which could adversely affect our ability to compete successfully in our markets. If we choose not to protect our proprietary rights or fail in our efforts to protect our proprietary rights, our competitors might gain access to our technology. Unauthorized parties might attempt to copy aspects of our products or to obtain and use information that we regard as proprietary. Others might independently develop similar or competing technologies or methods or design around our patents. In addition, the laws of many foreign countries in which we or our customers do business do not protect our intellectual property rights to the same extent as the laws of the United States. As a result, our proprietary rights could be compromised, our competitors might offer products similar to ours, and we might not be able to compete successfully. We also cannot assure that: • our means of protecting our proprietary rights will be adequate; • patents will be issued from our pending or future applications; • our existing or future patents will be sufficient in scope or strength to provide any meaningful protection or commercial advantage to us; • our patents or other intellectual property will not be invalidated, circumvented or successfully challenged in the United States or foreign countries; or • others will not misappropriate our proprietary technologies or independently develop similar technologies, duplicate our products or design around any of our patents or other intellectual property, or attempt to manufacture and sell infringing products in countries that do not strongly enforce intellectual property rights. We have spent, and may be required to spend in the future, significant resources to monitor and protect our intellectual property rights. Any litigation, whether or not resolved in our favor, and whether initiated by us or by a third party, could result in significant and possibly material expenses to us and divert the efforts of our management and technical personnel. We might be subject to claims of infringement of other parties' proprietary rights. Our industry is characterized by uncertain and conflicting intellectual property claims. As we have in the past, we may receive claims that we are infringing intellectual property rights of others. The resolution of intellectual property claims, with or without merit, could be time consuming, result in costly litigation with highly uncertain outcomes, or impact our delivery of products. In the event of an adverse judgement or settlement, we might be required to pay substantial amounts, cease the use or sale of infringing products, spend significant resources to develop non-infringing technology, discontinue the use of certain technology, or enter into license agreements. License agreements might not be available on terms acceptable to us or at all. In addition, certain of our customer contracts contain provisions that require us to defend or indemnify our customers for third party intellectual property infringement claims, which could increase the costs and negative impacts of intellectual property claims. We have recorded restructuring, inventory write- offs and asset impairment charges in the past, and may do so again in the future, which could have a material negative impact on our business. We **have** recorded **significant** restructuring charges in **prior periods,** ~~fiscal 2022 and 2021~~ and we may implement restructuring plans in the future, which would require us to take additional, potentially material, restructuring charges related to employee terminations, asset disposal or exit costs. We may also be required to write- off additional inventory if our product build plans or usage of inventory experience declines, and such additional write- offs could constitute material charges. In addition, significant adverse changes in market conditions could require us to take additional material impairment charges related to our long- lived assets if the changes impact the critical assumptions or estimates that we use in our assessment of the recoverability of our long-lived assets. Any such additional charges, whether related to restructuring, asset impairment or factory underutilization, may have a material negative impact on our operating results and related financial statements. We may not be able to recruit or retain qualified personnel. We believe our ability to manage successfully and grow our business and to develop new products depends, in large part, on our ability to recruit and retain qualified employees, particularly highly skilled technical, sales, management, and other key personnel. Competition for qualified resources is intense ~~, and the increased availability of work- from- home arrangements accelerated by the COVID- 19 pandemic has intensified and expanded competition~~ . Other companies may have greater resources available to provide substantial inducements to lure key personnel away from us or to offer more competitive compensation packages to individuals we are trying to hire. Our failure to comply with environmental laws and regulations could subject us to significant fines and liabilities, and new laws and regulations or changes in regulatory interpretation or enforcement could make compliance more difficult and costly. We are subject to various U. S. federal, state and local, and foreign governmental laws and regulations relating to the protection of the environment, including those governing the discharge of pollutants into the air and water, the management and disposal of hazardous substances and wastes, the cleanup of contaminated sites and the maintenance of a safe workplace. We could incur substantial costs, including cleanup costs, civil or criminal fines or sanctions, and third- party claims for property damage or personal injury, as a result of violations of or liabilities under environmental laws and regulations or non- compliance with the environmental permits required at our facilities. Environmental laws, regulations and permits could require the installation of costly pollution or waste control equipment or operational changes to limit waste or emissions or decrease the likelihood of accidental releases of hazardous substances. In addition, changing laws and regulations, new laws and regulations, stricter enforcement of existing laws and regulations, the discovery of previously unknown contamination at our or others' sites, or the imposition of new cleanup requirements could require us to curtail our operations, restrict our future expansion, subject us to liability and cause us to incur future costs that could harm our operations, thereby adversely impacting our operating results and cash flow. We are exposed to additional risks as a result of increased attention by our stakeholders to environmental, social and governance (" ESG ") matters. Our stakeholders, including customers, investors, advisory firms, employees, and suppliers, among others, are increasing their attention to, and establishing expectations for, ESG and related matters. These expectations can extend to our corporate practices, initiatives, and disclosures, as well as stakeholder standards or preferences for investments or doing business. Third-party agencies have also established or added standards for rating companies on a range of ESG- related factors that may be inconsistent and subject to change. As a result, these expectations may impact the attractiveness of our business, the manner in which we do business, our reputation, the costs of doing business, and the willingness of these stakeholders to engage with, invest in, or retain us. We may be further impacted by the adoption and evolution of ESG- related regulation and legislation in the jurisdictions in which we do business, ~~such as the Securities and Exchange Commission disclosure requirements proposed earlier in 2022,~~ which could result in increased compliance, operational, and other costs. In addition, the Company has provided voluntary disclosures on ESG matters, including ~~regarding~~ energy usage, greenhouse gas emissions, health and safety, diversity and inclusion, and labor and human rights. Such disclosures are aspirational and based on frameworks and standards for such initiatives and progress that are still developing, assumptions that may change, and disclosure control and procedures that continue to evolve. We may fail, or be perceived to fail, in attaining or maintaining our ESG- related initiatives. The topics on which we focus may not be popular with our stakeholders. These events or perceptions may expose us to additional reputational and operational risks. Risks Relating to Our Acquisitions We have made acquisitions, and may make additional acquisitions or investments in the future, which could put a strain on our resources, cause ownership dilution to our stockholders, or adversely affect our financial results. Our acquisitions or investments may subject us to new or heightened risks. Integrating any newly acquired businesses, products or technologies into our company draws upon our resources in ways that can be expensive and time consuming. These activities can substantially affect our financial resources, could cause delays in product delivery and might not be successful. Acquisitions and investments can divert management' s attention and expose our business to new liabilities or risks associated with entering into new business activities. In addition, we might lose key employees while integrating new organizations. We might not be successful in integrating any acquired businesses, products or technologies, and might not achieve anticipated revenues and cost benefits. Investments that we make may not result in a return consistent with our projections upon which such investments are made, or may require additional investment that we did not originally anticipate. In addition, acquisitions can result in customer dissatisfaction, performance problems with an acquired company, potentially dilutive issuances of equity securities or the incurrence of debt and restrictive debt covenants, contingent liabilities, possible impairment charges related to goodwill or other intangible assets, or other adverse impacts or circumstances. If any of these risks were to come about, our business, financial results and stock price could be materially and adversely affected. If goodwill or other intangible assets that we recorded, or will record, in connection with our acquisitions become impaired, we could be required to take significant charges against earnings. In connection with our accounting for acquired businesses, we record a significant amount of goodwill and other intangible assets. Under U. S. generally accepted accounting principles, or GAAP, we must assess, at least annually and potentially more frequently, whether the value of goodwill and other indefinite-lived intangible assets have been impaired. Finite- lived intangible assets are assessed for impairment in the event of an impairment indicator. Any reduction or impairment of the value of goodwill or other intangible assets will result in a charge against earnings, which could materially adversely affect our results of operations and stockholders' equity in future periods. Risks Relating to Owning Our Stock If we fail to maintain an effective system of internal and disclosure controls and procedures, we may not be able to accurately report our financial results or prevent fraud. Effective internal and disclosure controls and procedures are necessary for us to provide reliable financial reports, to prevent fraud and to operate successfully as a public company. If we cannot provide reliable financial reports or prevent fraud, our business and reputation may be harmed. We regularly review and assess our internal controls over financial reporting and our disclosure controls and procedures. As part of that process, we may discover material weaknesses in our internal controls. If we fail to maintain effective controls or timely implement any necessary improvement of our internal and disclosure controls, we may not have accurate information to make management decisions, our operating results could be harmed, or we may fail to meet our reporting obligations. Ineffective internal and disclosure controls could also cause stockholders to lose confidence in our reported financial information and our ability to manage our business, which would likely have a negative effect on the trading price of our securities. The trading price of our common stock has been and is likely to continue to be volatile, and you might not be able to sell your shares at or above the price that you paid for them. The trading prices of the securities of technology companies have been highly volatile. During fiscal ~~2022~~ **2023** , our stock price (Nasdaq Global Market close price) ranged from $ ~~18~~ **21** . ~~19~~ **92** per share to $ ~~46~~ **42** . ~~74~~ **01** per share. The trading price of our common stock is likely to continue to be subject to wide fluctuations. Factors affecting the trading price of our common stock could include: • variations in our operating results; • our forecasts and financial guidance for future periods; • announcements of technological innovations, new products or product enhancements, new product adoptions at semiconductor customers or significant agreements by us or by our competitors; • reports regarding our ability to bring new products into volume production efficiently; • the gain or loss of significant orders or customers; • changes in the estimates of our operating results or changes in recommendations by any securities analysts that elect to follow our common stock; • rulings on litigation and proceedings; • seasonality, principally due to our customers' purchasing cycles; • market and competitive conditions in our industry, the entire semiconductor industry and the economy as a whole; • recruitment or departure of key personnel; • announcements of mergers and acquisition transactions and the ability to successfully integrate the business activities of the acquired / merged company; and • political and global economic instability, including as a result of trade barriers, natural disasters, epidemics and pandemics, military conflicts, climate change, and other factors acting alone or in combination. In addition, if the market for technology stocks or the stock market in general experiences loss of investor confidence, the trading price of our common stock could decline for reasons unrelated to our business, operating results or financial condition. The trading price of our common stock also might decline in reaction to events that affect other companies in our industry even if these events do not directly affect us. Provisions of our certificate of incorporation and bylaws or Delaware law might discourage, delay or prevent a change of control of our company or changes in our management and, therefore, depress the trading price of our common stock. Delaware corporate law and our certificate of incorporation and bylaws contain provisions that could discourage, delay or prevent a change in control of our company or changes in our management that the stockholders of our company may deem advantageous. These provisions: • establish a transition from a classified board of directors to a declassified board of directors, such that, until the annual shareholder meeting in 2024, not all members of our board are elected at one time; • provide that directors may only be removed " for cause " and only with the approval of 66. 7 % of our stockholders; • require super- majority voting to amend some provisions in our certificate of incorporation and bylaws; • authorize the issuance of " blank check " preferred stock that our board could issue to increase the number of outstanding shares and to discourage a takeover attempt; • limit the ability of our stockholders to call special meetings of stockholders; • prohibit stockholder action by written consent, which requires all stockholder actions to be taken at a meeting of our stockholders; • provide that the board of directors is expressly authorized to make, alter or repeal our bylaws; and • establish advance notice requirements for nominations for election to our board or for proposing matters that can be acted upon by stockholders at stockholder meetings. In addition, Section 203 of the Delaware General Corporation Law may discourage, delay or prevent a change in control of our company. Also, each of our named executive officers and certain other executives of the company have entered into change of control severance agreements, which were approved by our Compensation Committee, which could increase the costs associated with a change of control and thus potentially deter such a transaction.