Risk Factors Comparison 2023-11-13 to 2022-11-14 Form: 10-K

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Our business involves a high degree of risk. You should carefully consider the following risks and other information in this Annual Report in evaluating the Company and its common stock. If any of the following risks actually occurs, our business, financial condition or results of operations could suffer. The risks described below are not the only ones facing us. Additional risks not presently known to us or that we currently consider immaterial may also adversely affect our Company. Risks Relating to General Business Conditions We operate in the semiconductor industry, which is cyclical and subject to significant downturns. The semiconductor industry is highly cyclical and is characterized by constant and rapid technological change, price erosion, product obsolescence, evolving standards, short product lifecycles and significant fluctuations in supply and demand. The industry has historically experienced significant fluctuations in demand and product obsolescence, resulting in product overcapacity, high inventory levels and accelerated erosion of average selling prices **(" ASPs ")**. Downturns in this industry may be prolonged, and downturns in many sectors of the electronic systems industry have in the past contributed to extended periods of weak demand for semiconductor products. We have experienced decreases in our revenue, profitability, cash flows and stock price during such downturns in the past, and may be similarly harmed by future downturns, particularly if we are unable to effectively respond to reduced demand in a particular market. Our revenue growth and gross margin are substantially dependent on our successful development and release of new products. Maintaining or growing our revenue will depend, among other things, on our ability to timely develop products for existing and new markets that meet customers' performance, reliability and price expectations. In addition, the **ASPs** ~~average selling prices~~ of our products may decrease over time and we must introduce new products that can be manufactured at lower costs or that command higher prices based on superior performance to offset ~~this expected~~ price erosion. If we are not able to introduce ~~, in successive years,~~ products that ship in volume, our revenue will likely not grow and may decline significantly and rapidly. The development of products is a highly complex process, and we have in the past and may in the future experience delays and failures in completing the development and introduction of new products. Our successful product development depends on a number of factors, including ~~the~~ accurate prediction of market requirements, changes in technology and evolving standards; the availability of qualified product designers and process technologies needed to solve design challenges in a cost- effective, reliable manner; our ability to design products that meet customers' requirements; our ability to successfully design and manufacture products at competitive prices and volumes; our customers' acceptance of our product designs; the acceptance of our customers' products by the market and the lifecycle of such products; the strength of and ability to protect our intellectual property rights; our ability to obtain, on commercially reasonable terms, licenses to necessary third party intellectual property rights; and our ability to maintain and increase our level of product content in our customers' systems. A new product design effort may last over one year, and requires significant investment in engineering, as well as sales and marketing, which may not be recouped. Our failure to anticipate or timely develop new or enhanced products or technologies in response to technological shifts could result in decreased revenue and others obtaining design wins. As a result, our gross margin may decrease, we may not reach our expected level of production orders and we may lose market share, which could adversely affect our ability to sustain our revenue growth or maintain our current revenue levels. Sources for certain components, materials and services are limited, which could result in interruptions, delays or reductions in product shipments. Our industry may be affected from time to time, and is currently being affected, by limited supplies of certain key components, materials and services. We have in the past and may in the future, experience delays or reductions in supply shipments, which could reduce our revenue and profitability. In particular, the ~~ongoing~~ COVID- 19 pandemic ~~has~~ caused shortages of certain semiconductor components and delays in shipments, and these issues may be further exacerbated by supply chain disruptions caused by geopolitical unrest, including the ~~conflict~~ **conflicts in** ~~between Russia and~~ Ukraine **and Israel**. If key components, materials or services are unavailable, our costs could increase and our revenue could decline. Our manufacturing headquarters, design facilities, assembly and test facilities and supply chain, and those of our contract manufacturers, are subject to risk of catastrophic loss due to fire, flood or other natural or man- made disasters. Any catastrophic loss or significant damage to any of these facilities, particularly our Lowell, Massachusetts, Nashua, New Hampshire and Hsinchu, Taiwan locations, could materially disrupt our operations, delay production, shipments and revenue and result in significant expenses to repair or replace the facility and, in some instances, could significantly curtail our ~~research and development~~ **R & D** efforts, and adversely affect our business and financial results, revenue and profitability. We are subject to supply, order and shipment uncertainties. Our profitability will decline if we fail to accurately forecast customer demand when managing inventory. We generally sell our products on the basis of purchase orders rather than long- term purchase commitments from our customers. Our customers can typically cancel purchase orders or defer product shipments for some period without incurring ~~a~~ liability to us. We typically plan production and inventory levels based on internal forecasts of customer demand, which can be highly unpredictable and can fluctuate substantially, leading to excess inventory write- downs and resulting negative impacts on gross margin and net income. We have limited visibility into our customers' inventories, future customer demand and the product mix that our customers will require, which could adversely affect our production forecasts and operating margins. The difficulty in predicting demand may be compounded when we sell to OEM customers indirectly through distributors or contract manufacturers, as our forecasts of demand are then based on estimates provided by multiple parties. If we overestimate our customers' requirements, we may have excess inventory, which could lead to obsolete inventory, write- downs and unexpected costs. Conversely, if we underestimate our customers' requirements or are not able to secure components, materials and / or fabrication facility capacity, we may have inadequate inventory, which could lead to foregone revenue opportunities, loss of potential market share and damage to customer relationships. Furthermore, obtaining additional supply in the face of any component shortages may be costly or impossible, particularly in the short term, due to ongoing supply chain constraints and growing inflationary pressures, which could prevent us from fulfilling orders in a timely manner or at all. If our own supply chain or others from whom our customers source are unable to deliver required components to our customers, then our customers may delay or cancel their product orders from us. Any significant future cancellation or deferral of product orders could adversely affect our revenue and margins, increase inventory write- downs due to obsolete inventory or adversely affect our operating results and stock price. 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 has led us to experience higher labor costs, wafer and other costs for materials from suppliers, and transportation costs. 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 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 and cost reduction initiatives, as well as adjusting our selling prices to pass through some of these higher costs to our customers; however, our ability to raise **or maintain** 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. Underutilization, price competition, acquisitions and various other factors may reduce our gross margin, which could negatively affect our business, financial condition and results of operations. If we are unable to utilize our design, fabrication, assembly and test facilities at a high level, the significant fixed costs associated with these facilities may not be fully absorbed, resulting in higher than average unit costs and lower gross margin. Similarly, when we compete for business on the basis of our products' unit price, the **ASP** ~~average selling price~~ of our products is reduced, negatively affecting our gross margins. Increased sales of lower- margin products, increases in raw material costs, changes in manufacturing yields and other factors can reduce our gross margins from time to time, which could have an adverse impact on our business, financial condition and results of operations in the future. As a result of these or other factors, we may be unable to maintain or increase our gross margin in future periods and our gross margin may fluctuate from period to period. Our operating results may fluctuate significantly from period to period. We may not meet investors' quarterly or annual financial expectations and, as a result, our stock price may decline. Our quarterly and annual operating results and related expectations may vary significantly in the future based upon a number of factors, many of which are beyond our control, including: general economic growth or decline in the U. S. or foreign markets; reduction or cancellation of orders by customers; the amount of new customer orders we book and ship in any particular fiscal quarter; relative linearity of our shipments within any particular fiscal quarter; the gain or loss of a key customer or significant changes in demand and / or fluctuations in the markets we serve; fluctuations in the levels of component inventories held by our customers and accurate forecasting by customers; fluctuations in manufacturing output, yields, capacity levels, quality control or other potential problems or delays we or our subcontractors may experience in the fabrication, assembly, testing or delivery of our products; success of our investments in ~~research and development~~ **R & D** ; availability, quality and cost of semiconductor wafers and other raw materials, equipment, components and internal or outsourced manufacturing, packaging and test capacity, particularly where we have only one qualified source of supply; effects of seasonal and other changes in customer demand; effects of competitive pricing pressures, including decreases in **ASPs** ~~average selling prices~~ of our products; loss of key personnel or the shortage of available skilled workers; our failure to remain abreast of new and improved semiconductor process technologies; failure of our partners in strategic alliances, which may prevent us from achieving commercial success in such alliance; the exposure of our operations to possible capital and exchange controls, expropriation and other restrictive government actions, changes in intellectual property legal protections and remedies, as well as political unrest, unstable governments and legal systems and inter- governmental disputes; changes in laws and regulations in the U. S. and other countries, or the interpretations thereof; and the effects of war, natural disasters, global pandemics, acts of terrorism, macroeconomic uncertainty or decline including increased levels of inflation ~~,~~ or geopolitical unrest. The foregoing factors are difficult to forecast. These and similar factors could materially and adversely affect our quarterly and annual operating results and related expectations for future periods. If our operating results in any period do not meet our publicly stated guidance or the expectations of investors or securities analysts, our stock price may decline and has, in the past, declined as a result. If demand for our products in our primary markets declines or fails to grow, our revenue and profitability may suffer. Our future growth depends on our ability to anticipate demand and respond to it with products that address our customers' needs. To a significant extent, this growth depends on the continued growth in usage of advanced electronic systems in our primary markets: ~~Telecom, Data Center and~~ I & D **, Data Center and Telecom** . The rate and extent to which these markets will grow, if at all, is uncertain. For example, we have focused significant internal resources to meet potential product demand in the Cloud Data Center Market, but our ability to capitalize on this and other market opportunities in 100G optical networks and GaN technology will depend on, among other things, the future size and actual growth rates of these markets, the next generation technologies selected by customers, the timing of network upgrades in these markets and the pace of adoption of our products in these markets. If demand for electronic systems that incorporate our products declines, fails to grow or grows more slowly than we anticipate, purchases of our products may be reduced, which will adversely affect our business, financial condition and results of operations ~~. The effects of the COVID- 19 pandemic have materially impacted, and will likely further impact in the future, how we operate our business, and the extent to which this will impact our business, financial condition and results of operations remains uncertain. The ongoing COVID- 19 pandemic has resulted in authorities throughout the world, including areas in which we operate, implementing numerous measures to try to contain the virus, such as travel bans and restrictions, quarantines, stay- at- home directives and lockdowns and business shutdowns. These measures, as well as transportation disruptions, including reduced availability of air~~

~~transport, port closures and increased border controls, have impacted, and may further impact in the future, our operations, the operations of our customers and those of our respective vendors and suppliers. There is considerable uncertainty regarding the duration and effect of existing measures and potential future measures, and depending on the magnitude of the disruptions, our business, financial condition and results of operations may be materially and adversely affected. The ongoing impact of the COVID- 19 pandemic remains fluid and uncertain, and it could adversely affect our customers' ability or willingness to purchase our products, delay prospective customers' purchasing decisions, negatively impact our supply chain, restrict our ability to provide certain products or delay the introduction of new product offerings. In addition, there are ongoing global impacts resulting from the pandemic, including shortages of semiconductor components and delays in shipments, which has impacted product production and delivery to customers. We continue to assess our business practices in light of changing conditions and emerging trends resulting from the evolving pandemic and a resurgence of COVID- 19 may require us to further modify our business practices, including taking measures related to restricting employee travel, canceling physical participation in meetings, events and conferences, requiring employees to work from home and operating with a limited number of employees in certain locations, which could result in production delays and limit our ability to satisfy orders for certain products. We may take further actions as may be required by government authorities or that we determine are in the best interests of our employees, customers and suppliers. Moreover, the COVID- 19 pandemic or any worsening of the global economic environment as a result thereof, including increased inflationary pressures, may have the effect of exacerbating other risks described elsewhere in this Part I, " Item 1A- Risk Factors. " The degree to which the COVID- 19 pandemic may impact our business, financial condition, results of operations, liquidity and cash flows will continue to depend on future developments, which remain highly uncertain and cannot be predicted. Furthermore, the continued spread of COVID- 19 could cause a further economic slowdown or recession and result in adverse impacts to our overall business, such as increased credit and collectability risks, adverse impacts on our supply chain, asset impairments, declines in the value of our financial instruments and adverse impacts on our capital resources. The ultimate impact of the outbreak on our business, financial condition and results of operations remains highly uncertain and subject to change~~ . We depend on orders from a limited number of customers for a significant percentage of our revenue. In the fiscal year ended September ~~30~~ **29** , ~~2022~~ **2023** , no direct customer individually accounted for 10 % or more of our revenue and sales to our top 10 direct and distribution customers accounted for an aggregate of ~~48~~ **47** . ~~2~~ **6** % of our revenue. While the composition of our top 10 customers varies from year to year, we expect that sales to a limited number of customers will continue to account for a significant percentage of our revenue for the foreseeable future. The purchasing arrangements with our customers are typically conducted on a purchase order basis that does not require our customers to purchase any minimum amount of our products over a period of time. As a result, it is possible that any of our major customers could terminate their purchasing arrangements with us with little or no warning and without penalty, or significantly reduce or delay the amount of our products that they order, purchase products from our competitors or develop their own products internally. The loss of, or a reduction in, orders from any major customer may cause a material decline in revenue and adversely affect our results of operations. We may incur significant risk and expense in attempting to win new business and such efforts may never generate revenue. To obtain new business, we often need to win a competitive selection process to develop semiconductors for use in our customers' systems, known in the industry as a " design win. " Failure to obtain a design win can result in lost or foregone revenue and could weaken our position in future competitive selection processes or cause us to fail to meet revenue projections or expectations. Even when we achieve a design win, success is not guaranteed. Customer qualification and design cycles can be lengthy, and it may take a year or more following a successful design win and product qualification for one of our products to be purchased in volume by the customer. Furthermore, any difficulties our customer may experience in completing its own qualifications may delay or prevent us from translating the design win into revenue. Any of these events or any cancellation of a customer' s program or failure of our customer to market its own product successfully after our design win, could materially and adversely affect our business, financial condition and results of operations, as we may have incurred significant expense and generated no revenue. Our business may be adversely affected if we experience product returns ~~,~~ **and** product liability and defects claims. Our products are complex and frequently operate in high- performance, challenging environments. We may not be able to anticipate all of the possible performance or reliability problems that could arise with our products after they are released to the market. If such problems occur or become significant, we may experience reduced revenue and increased costs related to product recalls, inventory write- offs, warranty or damage claims, delays in, cancellations of or returns of product orders and other expenses. Certain of our distributors have inventory return and or rotation rights, which may result in higher than expected product returns. The many materials and vendors used in the manufacture of our products increase the risk that some defects may escape detection in our manufacturing process and subsequently affect our customers, even in the case of long- standing product designs. Our use of newly- developed or less mature semiconductor process technologies, such as GaN and InP, which have a less extensive track record of reliability in the field than other more mature process technologies, also increases the risk of performance and reliability problems. These matters have arisen in our operations from time to time in the past, have resulted in significant expense to us per occurrence and will likely occur again in the future. The occurrence of defects could result in product returns and liability claims, reduced product shipments, damage to our customer or supplier relationships, the loss of or delay in market acceptance of our products, costly litigation, harm to our reputation, diversion of management' s time and resources, lower revenue, increased expenses and reduced profitability. Any warranty or other rights we may have against our suppliers for quality issues caused by them may be more limited than those our customers have against us, based on our relative size, bargaining power or otherwise. In addition, any product recall or product liability claim brought against us, particularly in high- volume consumer markets, could have a material negative impact on our reputation, business, financial condition or results of operations. Our business and operations could suffer in the event of a security breach, cybersecurity incident or disruption of our information technology systems. We rely on our information technology systems for the effective operation of our business and for the secure maintenance and storage of confidential data relating to our business. Although our internal information technology team actively takes steps to protect our information and operational systems, unauthorized persons or disloyal insiders may be able to penetrate our security controls, and develop and deploy viruses, worms and other malicious software programs that compromise our confidential information or that of third parties and cause a disruption or failure of our information and / or operational technology systems. In addition, we have in the past and may in the future be subject to " phishing " attacks in which third parties send emails purporting to be from reputable companies to obtain personal information and infiltrate our systems to initiate wire transfers or otherwise obtain proprietary or confidential information or disrupt operations by deploying malicious code. A number of large, public companies have recently experienced losses based on ransomware and / or phishing attacks and other cyber- attacks. In addition to other factors, our position within the supply chain to the U. S. Government may increase our risk of being targeted by malicious actors. Similarly, attackers could implant malicious code into software that we may purchase, and this supply chain vulnerability could disrupt our operations, compromise our data or lead to other cyber harms. Recent global developments ~~, including the ongoing COVID- 19 pandemic, which has led to increased remote working arrangements, as well as the conflict between Russia and Ukraine, which has been associated with an increase in cyber- attacks,~~ have created an environment in which malicious actors may have increased opportunity and motivation for breaching or compromising our systems. Any compromise of our information or operational technology systems could result in unauthorized publication, exfiltration or misappropriation of our confidential business or proprietary information or intellectual property; result in the unauthorized release of customer, supplier or employee data; lead to violations of privacy or other laws; extortion; allow competitors to profit from our intellectual property or trade secrets; delay or disrupt our operations; expose us to a risk of investigations and litigation; cause us to incur direct losses if attackers access our bank or investment accounts; undermine investor or market confidence, or damage our reputation. The direct and indirect cost and operational consequences of implementing data protection measures either as a response to specific breaches or as a result of evolving risks could be significant. In addition, our inability to use or access our information or operational systems at critical points in time could adversely affect the timely and efficient operation of our business. Any delayed sales, significant costs or lost customers resulting from a technology failure could adversely affect our business, operations and financial results. Third parties with which we conduct business, such as foundries, assembly and test contractors and distributors, have access to certain portions of our sensitive data (including trade secrets and other intellectual property). In the event that these third parties do not properly safeguard our data ~~that they hold~~ , security breaches could result and negatively impact our business, operations and financial results. The outcome of any litigation in which we are involved in is unpredictable and an adverse decision in any such matter could subject us to damage awards and lower the market price of our stock. From time to time , we may be a party to certain litigation matters. Any such disputes, litigations, investigations, administrative proceedings or enforcement actions may divert financial and management resources that would otherwise be used to benefit our operations, result in negative publicity and harm our customer or supplier relationships. An adverse resolution of any such matter in the future, including the results of any amicable settlement, could subject us to material damage awards or settlement payments, loss of contractual or other rights, injunctions or other limitations on the operation of our business or other material harm to our business ~~. Our term loan could result in outstanding debt with a claim to our assets that is senior to that of our stockholders and may have other adverse effects on our results of operations. As of September 30, 2022, we had a term loan facility with an outstanding principal balance of $ 120. 8 million. The facility is secured by a first priority lien on our assets and those of our domestic subsidiaries. The amount of our indebtedness could have important consequences, including that we may be unable or limited in our ability to obtain additional financing on favorable terms in the future for working capital, capital expenditures, acquisitions, general corporate or other purposes; we may be limited in our ability to make distributions to our stockholders in a sale or liquidation until our debt is repaid in full; we may be more vulnerable to economic downturns, less able to withstand competitive pressures and less flexible in responding to changing business and economic conditions, including rising rates of inflation; and we cannot assure you that our business will generate sufficient cash flow from operations or other sources to enable us to meet our payment obligations under the facility and to fund other liquidity needs. Our credit facility also contains certain restrictive covenants that may limit or eliminate our ability to, among other things, incur additional debt, sell, lease or transfer our assets, pay dividends, make investments and loans, make acquisitions, guarantee debt or obligations, create liens, enter into transactions with our affiliates, enter into new lines of business and enter into certain merger, consolidation or other reorganizations transactions, any of which could place us at a competitive disadvantage relative to our competitors that are not subject to such restrictions. If we are unable to repay the indebtedness, the lenders could initiate a bankruptcy proceeding against us or collection proceedings with respect to our subsidiaries securing the facility, which could materially decrease the value of our common stock~~ . We rely on third parties to provide corporate infrastructure services necessary for the operation of our business. Any failure of one or more of our vendors to provide these services could have a material adverse effect on our business. We rely on third- party vendors to provide critical corporate infrastructure services, including, among other things, certain services related to information technology and network development and monitoring. We depend on these vendors to ensure that our corporate infrastructure will consistently meet our business requirements. The ability of these third- party vendors to successfully provide reliable, high quality services is subject to technical and operational uncertainties that are beyond our control. Any failure of our corporate infrastructure could have a material adverse effect on our business, financial condition and results of operations. Variability in self- insurance liability estimates could adversely impact our results of operations. We self- insure for employee health insurance and workers' compensation insurance coverage up to a predetermined level, beyond which we maintain stop- loss insurance from a third- party insurer. Our aggregate exposure varies from year to year based upon the number of participants in our insurance plans. We estimate our self- insurance liabilities using an analysis provided by our claims administrator and our historical claims experience. Our accruals for insurance reserves reflect these estimates and other management judgments, which are subject to a high degree of variability. If the number or severity of claims for which we self- insure increases, it could cause a material and adverse change to our reserves for self- insurance liabilities, as well as to our earnings. **Our short- term investment portfolio and certain cash balances could experience a decline in market value or otherwise become illiquid, which could materially and adversely affect our financial results. As of September 29, 2023, we had approximately $ 111. 4 million in money market funds and $ 340. 6 million in short- term investments, respectively. The debt security investments consisted of commercial paper, corporate bonds and U. S. Treasury securities. We currently do not use derivative financial instruments to adjust our investment portfolio risk or income profile. These investments, as well as any cash deposited in bank accounts, are subject to general credit, liquidity, market and interest rate risks, which may be exacerbated by unusual events, such as the COVID- 19 pandemic, the Eurozone crisis and the U. S. debt ceiling crisis, which affected various sectors of the financial markets and led to global credit and liquidity issues. For example, in March and April 2023, certain U. S. banks were closed and the Federal Deposit Insurance Corporation (" FDIC ") was appointed as receiver. While we were not directly impacted by these closures and did not have any deposits with these banks, there can be no assurance that our current or future banks will not face similar risks, and that we would be able to recover in full our deposits in the event of similar closures. We regularly maintain cash balances that are not insured or are in excess of the FDIC' s insurance limit. If the global financial markets continue to experience volatility or deteriorate, our investment portfolio and cash balances may be impacted and some or all of our investments may become illiquid or otherwise experience loss which could adversely impact our financial results and position. Any type of pandemic or epidemic related to an outbreak of communicable disease, including but not limited to COVID- 19, is unpredictable and could adversely impact our business, financial condition and results of operations. The impacts of a pandemic or epidemic related to an outbreak of communicable disease, including, but not limited to COVID- 19, could adversely affect our customers' ability or willingness to purchase our products, delay prospective customers' purchasing decisions, negatively impact our supply chain, restrict our ability to provide certain products or delay the introduction of new product offerings. In addition, we have experienced global impacts resulting from the COVID- 19 pandemic, including shortages of semiconductor components and delays in shipments, which has impacted product production and delivery to customers. Moreover, developments regarding a pandemic or epidemic or any worsening of the global economic environment as a result thereof, including increased inflationary pressures, may have the effect of exacerbating other risks described elsewhere in this Part I, " Item 1A- Risk Factors. " The ultimate impact of an outbreak on our business, financial condition and results of operations remains highly uncertain and subject to change.** Risks Relating to International Operations We are subject to risks from our international sales and operations. We have operations in Europe and Asia, and customers around the world. As a result, we are subject to regulatory, geopolitical and other risks associated with doing business outside of the U. S., including currency controls, currency exchange rate fluctuations, new or potential international trade agreements, tariffs, required import and export licenses, and other related international trade restrictions and regulations. Further, there is a risk that language barriers, cultural differences and other factors associated with our global operations may make them more difficult to manage effectively. The legal ~~system~~ **systems** in many of the regions where we conduct business or where we may potentially make future investments through expansion, which may include acquisitions, can lack transparency in certain respects relative to that of the U. S. and can accord local government authorities a higher degree of control and discretion over business than is customary in the U. S. This makes the process of obtaining necessary regulatory approvals and maintaining compliance inherently more difficult and unpredictable. In addition, the protection accorded to proprietary technology and know- how under certain legal systems may not be as strong as in the U. S., and, as a result, we may lose valuable trade secrets and competitive advantages. The cost of doing business in European jurisdictions can also be higher than in the U. S. due to exchange rates, local collective bargaining regimes and local legal requirements ~~and norms~~ regarding employee benefits and employer- employee relations, in particular. We are also subject to U. S. legal requirements related to our foreign operations, including the Foreign Corrupt Practices Act. Sales to customers located outside the U. S. accounted for ~~53~~ **51** . ~~3~~ **7** % of our revenue for the fiscal year ended September ~~30~~ **29** , ~~2022~~ **2023** . Sales to customers located in China and the Asia Pacific region typically account for a ~~substantial majority~~ **large portion** of our overall sales to customers located outside the U. S. For example, fiscal year ~~2022~~ **2023** sales to customers in China and the Asia Pacific region accounted for ~~26~~ **20** % and ~~16~~ **14** % of total fiscal year ~~2022~~ **2023** sales, respectively. We expect that revenue from international sales generally, and sales to China and the Asia Pacific region specifically, will continue to be a material part of our total revenue. Therefore, any financial crisis, trade war or dispute, domestic semiconductor supply chain initiatives, health crisis or other major event causing business disruption in international jurisdictions generally, and China and the Asia Pacific region in particular, could negatively affect our future revenues and results of operations. For example, in May 2019, the BIS added Huawei Technologies Co. Ltd. (" Huawei ") and many of its affiliates to its Entity List (and subsequently added additional Huawei affiliates), which effectively blocks exports of U. S. products to Huawei and such affiliates. Additionally, in October 2022 **and 2023** , the BIS introduced ~~novel~~ restrictions related to semiconductor manufacturing, supercomputer and advanced computing items and end- uses, which restrict or prohibit the ability to sell, ship and support certain equipment and services to China. Such actions in the future, as well as China' s continuously evolving policies, laws and regulations, including those related to antitrust, cybersecurity, data protection and data privacy, the environment, indigenous innovation (including actions in furtherance of China' s stated policy of reducing its dependence on foreign semiconductor manufacturers) and intellectual property rights and enforcement and protection of those rights, could increase the cost of doing business in China, foster the emergence of additional Chinese- based competitors and / or decrease the demand for our products in China, which could have a material adverse effect on our business and results of operations. Additionally, other factors affecting the Chinese economy, such as government- imposed lockdowns in response to **a** ~~the COVID- 19~~ pandemic, inflation, geopolitical conflict, or otherwise, could limit the demand in China for electronic devices containing our products, which could have a material adverse effect on our business and results of operations. Because the majority of our foreign sales are denominated in U. S. dollars, our products become less price- competitive in countries with currencies that are low or are declining in value against the U. S. dollar. Also, we cannot be sure that our international customers will continue to accept orders denominated in U. S. dollars. If they do not, our reported revenue and earnings will become more directly subject to foreign exchange fluctuations. Some of our customer purchase orders and agreements are governed by foreign laws, which may differ significantly from U. S. laws. As a result, we may be limited in our ability to enforce our rights under such agreements and to collect amounts owed to us. The majority of our assembly, packaging and test vendors are located in Asia. We generally do business with our foreign assemblers in U. S. dollars. Our manufacturing costs could increase in countries with currencies that are increasing in value against the U. S. dollar. Also, our international manufacturing suppliers may not continue to accept orders denominated in U. S. dollars. If they do not, our costs will become more directly subject to foreign exchange fluctuations. From time to time, we may attempt to hedge our exposure to foreign currency risk by buying currency contracts or otherwise, and any such efforts involve expense and associated risk that the currencies involved may not behave as we expect and we may lose money on such hedging strategies or not properly hedge our risk. In addition, if terrorist activity, armed conflict, civil, economic or military unrest, natural disasters, global pandemics, embargoes or other economic sanctions, enforcement actions against governments, governmental entities or private entities or political instability occurs in the U. S. or other locations, such events may disrupt our manufacturing, assembly, logistics, security and communications, labor issues and transportation and other disruptions, and could also result in reduced demand for our products. We have in the past and, may again in the future, experience difficulties relating to employees traveling in and out of countries facing civil unrest or political instability and with obtaining travel visas for our employees. There can be no assurance that we can mitigate all identified risks with reasonable effort. The occurrence of any of these events, including the ~~conflict~~ **conflicts in** ~~between Russia and~~ Ukraine **and Israel** , could have a material adverse effect on our operating results. **.Risks Relating to Business Strategies and Personnel We face intense competition in our industry,and our inability to compete successfully could negatively affect our operating results.The semiconductor industry is highly competitive.While we compete with a wide variety of companies,our significant competitors include,among others,ADI,Broadcom,Credo,Marvell,MaxLinear,Microchip,NXP,Qorvo,Semtech,Skyworks and Wolfspeed.We believe future competition could also come from companies developing new alternative technologies,component suppliers based in countries with lower production costs and IC manufacturers achieving higher levels of integration that exceed the functionality offered by our products.** Our **customers and suppliers could also develop products that compete with or replace our products.Increased competition has in the** past and ~~recent~~ **could in the future lead to lower prices for our products,reduced demand for our products and a corresponding reduction in our ability to recover development,engineering and manufacturing costs.Many of our existing and potential competitors have entrenched market positions,historical affiliations with OEMs,considerable internal manufacturing capacity,established intellectual property rights,strong brand recognition and substantial technological capabilities.Many of them may also have greater financial,technical,manufacturing or marketing resources than we do.Consolidation among our competitors could negatively impact our competitive position and market share and harm our results of operations.In addition,certain countries such as China have begun implementing initiatives to build domestic semiconductor supply chains and we may be at a disadvantage in attempting to compete with entities associated with such foreign government efforts.Our failure to successfully compete could result in lower revenue,decreased profitability and a lower stock price.We may make future** acquisitions ~~have required~~ and ~~continue~~ **investments,which involve numerous risks.We routinely evaluate potential acquisitions,investments,joint ventures and strategic alliances involving complementary technologies,design teams,products and companies.We may pursue such transactions if appropriate opportunities arise.However,we may not be able** to ~~require significant~~ **identify suitable transactions in the future or,if we do,we may face intense competition for such opportunities.In the event we pursue a potential transaction,we will face numerous risks,including diverting** management ~~time and~~ **' s** attention ~~relating~~ **from normal daily operations of our business;difficulties in integrating the financial reporting capabilities and operating systems of any acquired operations** to **maintain effective internal control over financial reporting and disclosure controls and procedures;potential loss of key personnel of the acquired company as well as** ~~the~~ **their know- how,relationships and expertise;challenges successfully integrating acquired personnel,operations and businesses;failing to realize the anticipated synergies and benefits of an acquisition;maintaining favorable business relationships of acquired operations;generating insufficient revenue from completed** transactions **to offset expenses associated with our efforts;acquiring material or unknown liabilities associated with any acquired operations;litigation associated with merger and acquisition transactions;and increasing expense associated with amortization or depreciation of intangible and tangible assets we acquire** .Past transactions,whether completed or abandoned by us,have resulted,and in the future may result,in significant time and attention,costs,expenses,liabilities and charges to earnings.The accounting treatment for any future transaction may result in significant amortizable intangible assets which,when amortized,will negatively affect our consolidated results of operations.The accounting treatment may also result in significant goodwill,which,if impaired,will negatively affect our consolidated results of operations.Furthermore,we may incur debt or issue equity securities to pay for transactions.The incurrence of debt could limit our operating flexibility and be detrimental to our profitability,and the issuance of equity securities would be dilutive to our existing stockholders.Any or all of the above factors may differ from the investment community' s expectations in a given quarter,which could negatively affect our stock price.In the event we make future investments,the investments may decline in value,we may lose all or part of our investment ~~.We may be unable to successfully integrate the businesses and personnel of acquired companies and businesses,and may not realize the anticipated synergies and benefits of such acquisitions.We may be unable to realize the expected benefits from acquisitions of companies and certain businesses of companies because of integration difficulties or other challenges.The success of our acquisitions will depend,in part,on our ability to realize all or some of the anticipated synergies and other benefits from integrating the acquired businesses with our existing businesses.For~~

~~example,assuming our acquisition of the RF business from Wolfspeed closes,we will need to integrate the operations of the business into our operations,including integrating the fabrication facility into our operations.The integration process may be complex,costly and time- consuming.The potential difficulties we may face in integrating the operations of our acquisitions include,among others:failure to implement our business plans for the combined businesses and consolidation or expansion of production capacity as planned and where applicable;unexpected losses of key employees,customers or suppliers of our acquired companies and businesses;unanticipated issues in conforming our acquired companies' and businesses' standards,processes,procedures and controls with our operations;coordinating new product and process development;increasing the scope,geographic diversity and complexity of our operations;diversion of management' s attention from other business concerns;adverse effects on our or our acquired companies' and businesses' existing business relationships;unanticipated changes in applicable laws and regulations;operating risks inherent in our acquired companies' and businesses' business and operations;unanticipated expenses and liabilities;potential unfamiliarity with our acquired companies and businesses technology,products and markets,which may place us at a competitive disadvantage;and other difficulties in the assimilation of our acquired companies and businesses operations,technologies,products and systems.Any acquired companies and businesses may have unanticipated or larger than anticipated liabilities for patent and trademark infringement claims,violations of applicable laws,rules and regulations,commercial disputes,taxes and other known and unknown types of liabilities.There may be liabilities that we underestimated or did not discover in the course of performing our due diligence investigation of our acquired companies and businesses.We may have no recourse or limited recourse under the applicable acquisition- related agreement to recover damages relating to the liabilities of our acquired companies and businesses.We may not be able to maintain or increase the levels of revenue,earnings or operating efficiency that we,and each of our acquired companies and businesses,had historically achieved or might achieve separately.In addition,we may not accomplish the integration smoothly,successfully or within the anticipated costs or timeframe.If we experience difficulties with the integration process or if the business of our acquired companies or businesses deteriorates,the anticipated cost savings,growth opportunities and other synergies of our acquired companies and businesses may not be realized fully or at all,or may take longer to realize than expected.If any of the above risks occur,our business,financial condition,results of operations and cash flows may be materially and adversely impacted,we may fail to meet the expectations of investors or analysts,and our stock price may decline as a result~~ .We may sell,wind down or exit one or more of our businesses or product lines,from time to time,as a result of our evaluation of our businesses,products and markets,and any such divestiture could adversely affect our continuing business.We periodically evaluate our various businesses and product lines and may,as a result,consider the divestiture,wind down or exit of one or more of those businesses or product lines.Divestitures have inherent risks,including the inability to find potential buyers with favorable terms,the expense of selling the product line,the possibility that any anticipated sale will be delayed or will not occur and the potential delay or failure to realize the perceived strategic or financial merits of the divestment.If we lose key personnel or fail to attract and retain key personnel,we may be unable to pursue business opportunities or develop our products.We believe our continued ability to recruit,hire,retain and motivate highly skilled engineering,operations,sales,administrative and managerial personnel is key to our future success.Competition for these employees is intense.Our failure to retain our present employees and hire additional qualified personnel in a timely manner and on reasonable terms could harm our competitiveness and results of operations.In particular,the loss of any member of our senior management team could strengthen a competitor,weaken customer relationships or harm our ability to implement our business strategy.In addition,from time to time,we may recruit and hire employees from our competitors,customers,suppliers and distributors,which could result in liability to us and has in the past and could in the future,damage our business relationship with these parties.We depend on third- party sales representatives and distributors for a material portion of our revenues.We sell many of our products to customers through independent sales representatives and distributors,as well as through our direct sales force.We are unable to predict the extent to which our independent sales representatives and distributors will be successful in marketing and selling our products.Our relationships with our representatives and distributors typically may be terminated by either party at any time,and do not require them to buy any of our products.Sales to distributors accounted for approximately ~~24~~ **30** . ~~0~~ **9** % of our revenue for the fiscal year ended September ~~29~~ **30** , ~~2023~~ **2022** .If our sales representatives or distributors cease doing business with us or fail to successfully market and sell our products,our ability to sustain and grow our revenue could be materially adversely affected.We may experience difficulties in managing any future growth.To successfully conduct business in a rapidly evolving market,we must effectively plan and manage any current and future growth.Our ability to do so will be dependent on a number of factors,including maintaining access to sufficient manufacturing capacity to meet customer demands;securing sufficient supply of raw materials and services to avoid shortages or supply bottlenecks;adequately building out our administrative infrastructure to support any current and future sales growth while maintaining operating efficiencies;adhering to our high quality and process execution standards,particularly as we hire and train new employees and during periods of high volume;and maintaining high levels of customer satisfaction.If we do not effectively manage any future growth,we may not be able to take advantage of attractive opportunities in our markets,our operations may be impacted,and we may experience delays in delivering products to our customers or damaged customer relationships and achieve lower than anticipated revenue and decreased profitability.We may incur higher than expected expense from or not realize the expected benefits,or any benefits,of consolidation,outsourcing and restructuring initiatives designed to reduce costs and increase revenue across our operations.We have pursued in the past and may pursue in the future various restructuring initiatives designed to reduce costs and increase revenue across our operations,including reductions in our number of manufacturing facilities and workforce,establishing certain operations closer in location to our global customers and evaluating functions that may be more efficiently performed through outsourcing arrangements.For example,in June 2019,we committed to a restructuring plan designed to streamline and improve our operations that included the refocusing of certain ~~R & D~~ **research and development** activities and a reduction in workforce.Any restructuring initiatives could result in potential adverse effects on employee capabilities,our continued ability to recruit,hire,retain and motivate highly skilled engineering,operations,sales,administrative,managerial and other key personnel,our ability to achieve design wins and our ability to maintain and enhance our customer base.Such events could harm our efficiency and our ability **to act quickly and effectively in the rapidly changing technology markets in which we sell our products.In addition,we may be unsuccessful in our efforts to realign our organizational structure and shift our investments.The potential negative impact of a restructuring plan on our employees may limit our ability to meet and satisfy the demands of our customers and,as a result,have a material impact on our business,financial condition and results of operations** Risks Relating to Production Operations Our internal and external manufacturing, assembly and test model subjects us to various manufacturing and supply risks. We operate ~~a~~ leased semiconductor wafer processing and manufacturing ~~facility~~ **facilities** at our headquarters in Lowell, Massachusetts, and at our Ann Arbor, Michigan site. These facilities are also important internal design, assembly and test facilities. We maintain other internal assembly and test operation facilities as well, including leased sites in **Hamilton, New Jersey, Limeil- Brévannes, France,** Nashua, New Hampshire, and Hsinchu, Taiwan. We also use multiple external foundries for outsourced semiconductor wafer supply, as well as multiple domestic and Asian assembly and test suppliers to assemble and test our products. A number of factors will affect the future success of these internal manufacturing facilities and outsourced supply and service arrangements, including the level of demand for our products; our ability to expand and contract our facilities and purchase commitments in a timely and cost- effective manner; our ability to generate revenue in amounts that cover the significant fixed costs of operating our facilities; our ability to qualify our facilities for new products and process technologies in a timely manner and avoid complications; the availability of raw materials; the availability and continued operation of key equipment; our manufacturing cycle times and yields; political and economic risks; the occurrence of natural disasters, pandemics, acts of terrorism, armed conflicts or unrest impacting our facilities and those of our outsourced suppliers; our ability to hire, train, manage and retain qualified production personnel; our compliance with applicable environmental and other laws and regulations; our ability to avoid prolonged periods of downtime or high levels of scrap in our and our suppliers' facilities for any reason; and our ability to negotiate renewals to our existing lease agreements on favorable terms and without disruption to our wafer processing and manufacturing and internal assembly and test operations at our sites where such activities take place. The effectiveness of our supply chain could be adversely affected by such issues and harm our results of operations. In August 2022, the U. S. enacted the ~~CHIPS~~ **Creating Helpful Incentives to Produce Semiconductors** and Science Act of 2022 (the " CHIPS Act "), which provides certain financial incentives to the semiconductor industry, primarily for manufacturing activities within the U. S., which may potentially be available to us and our competitors; however, there can be no assurance as to which companies will receive such incentives and whether the CHIPS Act will have a positive or negative impact on our competitive position. Minor deviations in the manufacturing process can cause substantial manufacturing yield loss or even cause halts in production, which could have a material adverse effect on our revenue and gross margin. Our products involve complexities in both their design and the semiconductor process technology employed in their fabrication. In many cases, the products are also assembled in customized packages or feature high levels of integration. Our products must meet exacting customer specifications for quality, performance and reliability. Our manufacturing yield, or the percentage of units of a given product in a given period that is usable relative to all such units produced, is a combination of yields including wafer fabrication, assembly and test yields. Due to the complexity of our products, we periodically experience difficulties in achieving acceptable yields as even minor deviations in the manufacturing process can cause substantial manufacturing yield loss or halt production. Our customers may also test our components once they have been assembled into their products. The number of usable products that result from our production process can fluctuate as a result of many factors, including design errors; defects in photomasks, used to print circuits on wafers; minute impurities in materials used; contamination of the manufacturing environment; equipment failure or variations in the manufacturing processes; losses from broken wafers or other human errors; defects in packaging; and issues and errors in testing. Typically, for a given level of sales, when our yields improve, our gross margin improves. Conversely, when our yields decrease, our unit costs are typically higher, our gross margin is lower and our profitability is adversely affected, any or all of which can harm our results of operations and lower our stock price. Our business may be harmed if systems manufacturers choose not to use components made of the compound semiconductor materials we utilize. Silicon semiconductor technologies are the dominant process technologies for the manufacture of ICs in high- volume, commercial markets and the performance of silicon ICs continues to improve. While we use silicon for some applications, we also often use compound semiconductor technologies such as GaAs, InP, SiGe or GaN to deliver reliable operation at higher power, higher frequency or smaller form factor than a silicon solution has historically allowed. While these compound semiconductor materials offer high- performance features, it is generally more difficult to design and manufacture products with reliability and in volume using them. Compound semiconductor technology tends to be more expensive than silicon technology. System designers in some markets may be reluctant to adopt our non- silicon products or may be likely to adopt silicon products in lieu of our products if silicon products meeting their demanding performance requirements are available, because of their unfamiliarity with designing systems using our products; concerns related to manufacturing costs and yields; unfamiliarity with our design and manufacturing processes; or uncertainties about the relative cost effectiveness of our products. We cannot be certain that additional systems manufacturers will design our compound semiconductor products into their systems or that the companies that have utilized our products will continue to do so in the future. If our products fail to achieve or maintain market acceptance for any of the above reasons, our results of operations will suffer. We face risks associated with government contracting. Some of our revenue is derived from contracts with agencies of the U. S. government or subcontracts with its prime contractors. As a U. S. government contractor or subcontractor, we may be subject to federal contracting regulations, including the Federal Acquisition Regulations, which govern, among other things, the allowability of costs incurred by us in the performance of U. S. government contracts. Certain contract pricing is based on estimated direct and indirect costs, which are subject to change. Additionally, the U. S. government is entitled after final payment on certain negotiated contracts to examine all of our cost records with respect to such contracts and to seek a downward adjustment to the price of the contract if it determines that we failed to furnish complete, accurate and current cost or pricing data in connection with the negotiation of the price of the contract. In connection with our U. S. government business, we may also be subject to government audits and to review and approval of our policies, procedures and internal controls for compliance with procurement regulations and applicable laws. In certain circumstances, if we do not comply with the terms of a contract or with regulations or statutes, we could be subject to downward contract price adjustments or refund obligations or could in extreme circumstances be assessed civil and criminal penalties or be debarred or suspended from obtaining future contracts for a specified period of time. Any such suspension or debarment or other sanction could have an adverse effect on our business. In addition, if we are unable to comply with security clearance requirements, we might be unable to perform these contracts or compete for other projects of this nature, which could adversely affect our revenue. Risks Relating to Research and Development, Intellectual Property and New Technologies Our investment in technology as well as ~~research and development~~ **R & D** may not be successful, which may impact our profitability. The semiconductor industry requires substantial investment in technology as well as ~~research and development~~ **R & D** in order to bring to market new and enhanced technologies and products. Our ~~research and development~~ **R & D** expenses were $ 148. ~~2~~ **5** million for the fiscal year ended September ~~30~~ **29** , ~~2022~~ **2023** . In each of the last three fiscal years, we invested in ~~research and development~~ **R & D** as part of our strategy toward the development of innovative products and solutions to help support our growth and profitability. We cannot assure you if, or when, the products and solutions where we have focused our ~~research and development~~ **R & D** expenditures will become commercially successful. In addition, we may not have sufficient resources to maintain the level of investment in ~~research and development~~ **R & D** required to remain competitive or succeed in our strategy. Our efforts to develop new and improved process technologies for use in our products require substantial expenditures that may generate an inadequate return on investment, if any, or may take longer than we anticipate to generate a return. For example, we have in the past and may continue to experience additional and new unexpected difficulties, expenses or delays in qualifying and completing certain of our development projects including our GaN- on- Silicon, ~~Silicon Photonics,~~ certain Laser products and our ~~AFRL~~ **Air Force Research Laboratory** related process technology transfer. These development risks may be associated with internal MACOM capabilities and / or external factors, which may include, but not limited to, matters with one or more third party foundries, assembly and test suppliers, qualifying related products with our customers and marketing efforts, and we may not be successful in process or product qualification and / or manufacturing cost reductions. In addition, we may not realize the competitive advantage we anticipate from related investments and may not realize customer demand ~~for this technology~~ that meets our expectations, any of which could lead to higher than expected operating expense, lower than expected revenue and gross margin, associated charges or otherwise reduce the price of our common stock. We may not be successful in our ~~research and development~~ **R & D** efforts or may not realize the competitive advantages, revenues or profits we anticipate from new products, any of which may lead to higher ~~research and development~~ **R & D** expense, lower than expected revenues and gross margin and reduced profitability, or may otherwise harm our business or reduce the price of our common stock. Such results, or anticipated results, may cause us to reevaluate our investment in those areas of our business. We may incur liabilities for claims of intellectual property infringement relating to our products. The semiconductor industry is generally subject to frequent litigation regarding patents and other intellectual property rights. In the past we have been, and may in the future be, subject to claims that we have breached, infringed or misappropriated patent, license or other intellectual property rights. Our customers may assert claims against us for indemnification if they receive claims alleging that their or our products infringe upon others' intellectual property rights, and have in the past and may in the future choose not to purchase our products based on their concerns over such a pending claim. In the event of an adverse result of any intellectual property rights litigation, we could be required to incur significant costs to defend or settle such litigation, pay substantial damages for infringement, expend significant resources to develop non- infringing technology, incur material liability for royalty payments or fees to obtain licenses to the technology covered by the litigation or be subjected to an injunction, which could prevent us from selling our products, and materially and adversely affect our revenue and results of operations. Any claims relating to the infringement of third- party proprietary rights, even if not meritorious, could result in costly litigation, lost sales or damaged customer relationships and diversion of management' s attention and resources. Certain of our products currently incorporate technology licensed or acquired from third parties and we expect our products in the future to also require technology from third parties. If the licenses to such technology that we currently hold become unavailable or the terms on which they are available become commercially unreasonable, or if we are unable to acquire or license necessary technology for our products in the future, our business could be adversely affected. We sell products in markets that are characterized by rapid technological changes, evolving industry standards, frequent new product introductions and increasing levels of integration. Our ability to keep pace with these markets at times depends on our ability to obtain technology from third parties on commercially reasonable terms to allow our products to remain competitive. If licenses to such technology are not available on commercially reasonable terms and conditions or at all and we cannot otherwise acquire or integrate such technology, our products or our customers' products could become unmarketable or obsolete, we could lose market share and our revenue and results of operations could materially decline. In addition, disputes with third party licensors over required payments, scope of licensed rights and compliance with contractual terms are common in our industry and we have in the past and may in the future be subjected to disputes over the terms of such licenses which could result in substantial unanticipated costs or delays in developing substitute technology to deliver competitive products, damaged customer and vendor relationships, indemnification liabilities and declining revenues and profitability. Such events could have an adverse effect on our financial condition and results of operations. We depend on third parties for products and services required for our business, which may limit our ability to meet customer demand, assure product quality and control costs. We purchase numerous raw materials, such as ceramic packages, precious metals, semiconductor wafers and ICs, from a limited number of external suppliers. We also currently use several external manufacturing suppliers for assembly and testing of our products, and in some cases for fully outsourced turnkey manufacturing of our products. We expect to increase our use of outsourced manufacturing in the future as a strategy. The use of external suppliers involves a number of risks, including the possibility of material disruptions in the supply of key components, the lack of control over delivery schedules, capacity constraints, manufacturing yields, quality and fabrication costs and misappropriation of our intellectual property. If these vendors' processes vary in reliability or quality, they could negatively affect our products and, therefore, our customer relations and results of operations. We generally purchase raw materials on a purchase order basis and we do not have significant long- term supply commitments from our vendors. The long- term supply commitments we have may result in an obligation to purchase excess material, which may materially and negatively impact our operating results. In terms of relative bargaining power, many of our suppliers are larger than we are, with greater resources, and many of their other customers are larger and have greater resources than we do. These vendors may choose to supply others in preference to us in times of capacity constraint or otherwise, particularly where the other customers purchase in higher volume. Third- party supplier capacity constraints have in the past and may in the future prevent us from supplying customer demand that we otherwise could have fulfilled at attractive prices. If we have a firm commitment to supply our customers but are unable to do so we may be liable for resulting damages and expense incurred by our customers. We utilize sole source suppliers for certain semiconductor packages and other materials and, in some cases, for the particular semiconductor fabrication process technologies manufactured at that supplier' s facility. Such supplier concentrations involve the risk of a potential future business interruption if the supplier becomes unable or unwilling to supply us at any point. While in some cases alternate suppliers may exist, because there are limited numbers of third- party wafer suppliers that use the process technologies we select for our products and that have sufficient capacity to meet our needs, it may not be possible or may be expensive to find an alternative source of supply. Even if we are able to find an alternative source, moving production to an alternative supplier requires an extensive qualification or re- qualification process that could prevent or delay product shipments or disrupt customers' production schedules, which could harm our business. The loss of a supplier can also significantly harm our business and operating results. Our limited ability to protect our proprietary information and technology may adversely affect our ability to compete. Our future success and ability to compete is dependent in part upon our protection of our proprietary information and technology through patent filings, enforcement of agreements related to intellectual property and otherwise. We cannot be certain that any patents we apply for will be issued or that any claims allowed from pending applications will be of sufficient scope or strength to provide meaningful protection or commercial advantage. Our competitors may also be able to design around our patents. Similarly, counterparties to our intellectual property agreements may fail to comply with their obligations under those agreements, requiring us to resort to expensive and time- consuming litigation in an attempt to protect our rights, which may or may not be successful. The laws of some countries in which our products are or may be developed, manufactured or sold, may not protect our products or intellectual property rights to the same extent as U. S. laws. Although we intend to vigorously defend our intellectual property rights, we may not be able to prevent misappropriation of our technology or may need to expend significant financial and other resources in defending our rights. In addition, we rely on trade secrets, technical know- how and other unpatented proprietary information relating to our product development and manufacturing activities. While we enter into confidentiality agreements with employees and other parties to protect this information, we cannot be sure that these agreements will be adequate and will not be breached, that we would have adequate remedies for any breach or that our trade secrets and proprietary know- how will not otherwise become known or independently discovered by others. Additionally, our competitors may independently develop technologies that are substantially equivalent or superior to our technology. Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy or otherwise obtain or use our products or technology. Patent litigation is expensive and our ability to enforce our patents and other intellectual property, is limited by our financial resources and is subject to general litigation risks. If we seek to enforce our rights, we may be subject to claims that the intellectual property rights are invalid, are otherwise not enforceable or are licensed to the party against whom we assert a claim. In addition, our assertion of intellectual property rights could result in the other party seeking to assert alleged intellectual property rights of its own against us, which is a frequent occurrence in such litigations. Risks Relating to Government Regulations Changes in U. S. and international laws, accounting standards, export and import controls and trade policies or the enforcement of, or attempt to enforce, such laws, standards, controls and policies may adversely impact our business and operating results. Our future results could be adversely affected by changes in interpretations of existing laws and regulations, or changes in laws and regulations, including, among others, changes in accounting standards, taxation requirements, competition laws, trade laws, import and export restrictions, privacy laws and environmental laws in the U. S. and other countries. The U. S. government has made statements and taken certain actions that have led to, and may lead to further, changes to U. S. and international export and import controls or trade policies, including tariffs affecting certain products exported by a number of U. S. trading partners, including China. In response, many of those trading partners, including China, have imposed or proposed new or higher tariffs on American products. It is unknown whether and to what extent new tariffs (or other new laws or regulations) will be adopted, or the effect that any such actions would have on us or our industry and customers. Any unfavorable government policies on international trade, such as export and import controls, capital controls or tariffs, may affect the demand for our products and services, increase the cost of components, delay production, impact the competitive position of our products or prevent us from being able to sell products in certain countries. If any new export or import controls, tariffs, legislation or regulations are implemented or if existing trade agreements are renegotiated such changes could have an adverse effect on our business, financial condition and results of operations. In addition, proceedings to enforce, or the enforcement of, any laws, regulations and policies by the U. S. or other countries, and the resulting response to such actions, may have an adverse effect on our business, financial condition and results of operations. If we fail to comply with export control regulations, we could be subject to substantial fines or other sanctions, including loss of export privileges. Certain of our products are subject to the Export Administration Regulations, administered by the BIS, which require that we obtain an export license before we can export products or technology to specified countries. Other products are subject to the International Traffic in Arms Regulations, which restrict the export of information and material that may be used for military or intelligence applications by a foreign person. **Ongoing** ~~U. S. regulators have announced “~~ export control reform ~~”~~ that has changed and is expected to **continue to** change ~~many of the~~ rules applicable to us ~~in this area~~ in the future in ways we do not yet fully understand and we have experienced and will continue to experience challenges in complying with the new rules as they become effective, resulting in difficulties or an inability to ship products to certain countries and customers. We are also subject to U. S. import regulations and the import and export regimes of other countries in which we operate. Failure to comply with these laws could result in sanctions by the U. S. government, including substantial monetary penalties, denial of export privileges and debarment from government contracts. Any change in export or import regulations or related legislation (or the interpretation thereof), shift in approach by regulators to the enforcement or scope of existing regulations, specific sanctions by regulators or change in the countries, persons or technologies targeted by such regulations, could harm our business by resulting in decreased use of our products by, or our decreased ability to export or sell our products to, existing or potential customers with international operations. In addition, our sale of our products to or through third- party distributors, resellers and sales representatives creates the risk that any violation of these laws they may engage in may disrupt our markets or otherwise bring liability on us. Our financial results may be adversely affected by increased tax rates and exposure to additional tax liabilities. Our effective tax rate is highly dependent upon the geographic composition of our worldwide earnings and tax regulations governing each region, each of which can change from period to period. We are subject to income taxes in both the U. S. and various foreign jurisdictions and significant judgment is required to determine our worldwide tax liabilities. Our effective tax rate as well as the actual tax ultimately payable could be adversely affected by changes in the amount of our earnings attributable to countries with differing statutory tax rates, changes in the valuation of our deferred tax assets, changes in tax laws (or the interpretation of those laws by regulators) or tax rates (particularly in the U. S. or Ireland), increases in non- deductible expenses, the availability of tax credits, material audit assessments or repatriation of non- U. S. earnings, each of which could materially affect our profitability. For example, as of September ~~30~~ **29** , ~~2022~~ **2023** , we had $ ~~645~~ **388** . ~~8~~ **6** million of gross federal net operating loss (“ NOL ”) carryforwards, which, for those generated prior to the effective date of the 2017 Tax Cuts and Jobs Act (“ Tax Act ”), will expire at various dates through 2038, while those generated subsequent to the Tax Act have an indefinite carryforward with no expiration. However, our ability to use these federal NOL carryforwards and other deferred tax assets may be limited. Realization of our deferred tax assets is dependent upon us generating sufficient future taxable income. Deferred tax assets are reviewed and assessed on a periodic basis for future realizability. Future charges against our earnings could result in all or some portion of the deferred tax asset to not be realized. This could be caused by, among other things, deterioration in our operational performance, future impairment charges, adverse market conditions, geopolitical unrest, adverse changes in tax and other applicable laws or regulations and a variety of other factors. Any significant increase in our effective tax rates could materially reduce our net income in future periods and decrease the value of your investment in our common stock. We may need to modify our activities or incur substantial costs to comply with environmental laws, and if we fail to comply with environmental laws, we could be subject to substantial fines or be required to change our operations. We are subject to a variety of international, federal, state and local governmental regulations directed at preventing or mitigating climate change and other environmental harms, as well as to the storage, discharge, handling, generation, disposal and labeling of toxic or other hazardous substances used to manufacture our products which could restrict our ability to expand our facilities or build new facilities, or require us to acquire additional expensive equipment, modify our manufacturing processes, or incur other substantial expenses which could harm our business, financial condition and results of operations. If we fail to comply with these regulations, substantial fines could be imposed on us and we could be required to suspend production, alter manufacturing processes, cease operations or remediate polluted land, air or groundwater, any of which could have a negative effect on our revenue, results of operations and business. Failure to comply with environmental regulations could subject us to civil or criminal sanctions and property damage or personal injury claims. We have incurred in the past and may in the future incur environmental liability based on the actions of prior owners, lessees or neighbors of sites we have leased or may lease in the future, third party commercial waste disposal sites we utilize or sites we become associated with due to acquisitions. In addition, we may in the future incur costs defending against environmental litigation brought by government agencies, lessors at sites we currently lease or have been associated with in the past and other private parties. A significant judgment or fine levied against us or agreed settlement payment could materially harm our business, financial condition and results of operations. For example, since 1993, one of our legal entities has been named as a potentially responsible party (“ PRP ”) along with more than 100 other companies that used the Omega Chemical Corporation waste treatment facility in Whittier, California (the “ Omega Site ”). The U. S. Environmental Protection Agency has alleged that the Omega Site failed to properly treat and dispose of certain hazardous waste material. We are a member of a large group of PRPs, which has agreed to fund certain ongoing remediation efforts at and nearby the Omega Site. Based on currently available information with respect to the total anticipated level of investigatory, remedial and monitoring costs to be incurred by the group of ~~PRP~~ **PRPs** ~~’ s~~ and our allocable share of those costs, we have a loss accrual for the Omega Site that is not material. However, the proceedings are ongoing and several factors beyond our control could cause this loss accrual to prove inadequate, and any future increases to our allocation of responsibility among the PRPs or the future reduction of parties participating in the PRP group could materially increase our potential liability relating to the Omega Site. Environmental regulations such as the WEEE and RoHS directives limit our flexibility and may require us to incur material expense. Various countries require companies selling a broad range of electrical equipment to conform to regulations such as the Waste Electrical and Electronic Equipment (“ WEEE ”) and the European Directive on Restriction of Hazardous Substances (“ RoHS ”). Environmental standards such as these could require us to redesign our products in order to comply with the standards, require the development of compliance administration systems or otherwise limit our flexibility in running our business or require us to incur substantial compliance costs. We have already invested significant resources into complying with these regimes, and further investments may be required. Alternative designs implemented in response to regulation may be costlier to produce, resulting in an adverse effect on our gross profit margin. If we cannot develop compliant products in a timely fashion or properly administer our compliance programs, our revenue may also decline due to lower sales, which would adversely affect our operating results. Further, if we were found to be non- compliant with any rule or regulation, we could be subject to fines, penalties and / or restrictions imposed by government agencies that could adversely affect our operating results. Environmental, social and governance responsibility regulations, policies and provisions, as well as customer and investor demands, may make our supply chain more complex and may adversely affect our relationships with customers and investors. There has been an increased focus on corporate environmental, social and governance (" ESG ") responsibility in the semiconductor industry, particularly with OEMs that manufacture consumer electronics. A number of our customers have adopted, or may adopt, procurement policies that include ESG provisions or requirements that their suppliers should comply with, or they may seek to include such provisions or requirements in their procurement terms and conditions. An increasing number of investors are also requiring companies to disclose corporate ESG policies, practices and metrics. Legal and regulatory requirements, as well as investor expectations, on corporate ESG practices and disclosure ~~,~~ are subject to change, can be unpredictable ~~,~~ and may be difficult and expensive for us to comply with, given the complexity of our supply chain and manufacturing. If we are unable to comply, or are unable to cause our suppliers or contract manufacturers to comply, with such policies or provisions or meet the requirements of our customers ~~and~~ **or** our investors, a customer may stop purchasing products from us or an investor may sell their shares ~~,~~ and ~~may~~ **/ or** take legal action against us, which could harm our reputation, revenue and results of operations. Customer demands and regulations related to " conflict " minerals may force us to incur additional expenses and liabilities. Pursuant to the Dodd- Frank Wall Street Reform and Consumer Protection Act, the SEC promulgated rules regarding disclosure and reporting requirements for companies who use " conflict " minerals mined from the Democratic Republic of Congo and adjoining countries in their products. In the semiconductor industry, these minerals are most commonly found in metals used in the manufacture of semiconductor devices and related assemblies. These requirements may adversely affect our ability to source related minerals and metals and increase our related ~~cost~~ **costs** . We face difficulties and increased expenses associated with complying with the related disclosure requirements, such as costs related to determining the source of any conflict minerals used in our products. Our supply chain is complex, and some suppliers may be unwilling to share related confidential information regarding the source of their products or may provide us information that is inaccurate or inadequate. If those risks arise or if our processes in obtaining that information do not fulfill the SEC' s requirements, we may face both reputational challenges and SEC enforcement risks based on our inability to sufficiently verify the origins of the subject minerals and metals or otherwise. Moreover, we may encounter challenges to satisfy any related requirements of our customers, which may be different from or more onerous than the requirements of SEC rules and executive orders. If we cannot satisfy such customers, they may choose a competitor' s products or disqualify us as a supplier, and we may experience lower than expected revenues or have to write off inventory in the event that it becomes unsalable as a result of these regulations. Failure to comply with data privacy regimes could subject us to significant expenses, litigation and reputational harm. In the ordinary course of our business, we have access to sensitive, confidential or personal data or information regarding our employees and others that is subject to privacy and security laws and regulations. The theft, loss, or misuse of personal data collected, used, stored or transferred by us, or by our third- party service providers, could result in damage to our reputation, disruption of our business activities, significantly increased business costs or costs related to defending legal claims or regulatory actions. Global privacy legislation, enforcement and policy activity are rapidly expanding and creating a complex data privacy compliance environment and the potential for high- profile negative publicity in the event of any data breach. We are subject to many privacy and data protection laws and regulations in the United States and around the world, some of which place restrictions on processing personal data across our business. For example, the General Data Protection Regulation (" GDPR ") requires compliance with rules regarding the handling of personal data belonging to individuals in the European Economic Area, and the California Consumer Privacy Act (" CCPA ") and the California Privacy Rights Act (" CPRA ") provide enhanced privacy rights and consumer protection for residents of California. It is costly to comply with the GDPR, CCPA, CPRA and other similar laws and regulations. Further, the GDPR provides for significant penalties in the case of non- compliance ~~of up to € 20 million or 4 % of worldwide annual revenues, whichever is greater~~ . We have invested, and continue to invest, human and technology resources into our data privacy compliance efforts. Despite those efforts, there is a risk that we may be subject to fines and penalties, litigation and reputational harm if we fail to protect the privacy of third party data or to comply with the applicable data privacy regimes . Risks Relating to Business Strategies and......, financial condition and results of operations . Risks Relating to Ownership of our Common Stock We may engage in future capital- raising transactions that dilute the ownership of our existing stockholders or cause us to incur debt. We may issue additional equity, debt or convertible securities to raise capital in the future. If we do, existing stockholders may experience significant further dilution. In addition, new investors may demand rights, preferences or privileges that differ from or are senior to, those of our existing stockholders. Our incurrence of indebtedness could limit our operating flexibility and be detrimental to our results of operations. The market price of our common stock may be volatile, which could result in substantial losses for investors. We cannot predict the prices at which our common stock will trade. The market price of our common stock may fluctuate significantly, depending upon many factors, some of which may be beyond our control. In addition to the risks described in this Annual Report, other factors that may cause the market price of our common stock to fluctuate include changes in general economic, political, industry and market conditions; general market price and volume fluctuations, including increased inflationary pressure and other volatility including pandemics; domestic and international economic factors unrelated to our performance; actual or anticipated fluctuations in our quarterly operating results; changes in or failure to meet publicly disclosed expectations as to our future financial performance; changes in securities analysts' estimates of our financial performance, lack of research and reports by industry analysts or negative research and reports by industry analysts; addition or loss of significant customers; announcements by us or our competitors, customers or suppliers of significant products, contracts, acquisitions, strategic partnerships or other events; any future sales of our common stock or other securities; and additions or departures of directors, executives or key personnel. For example, on August 1, 2017 we announced results of operations for our third quarter of fiscal year 2017 and a financial outlook for our fourth quarter of fiscal year 2017 that were below the then- current consensus of securities analyst expectations which resulted in a cumulative decline in the market price of our common stock of approximately 35. 0 %. ~~In the past, companies~~ **Companies** that have experienced volatility in the market price of their stock have been subject to securities class action litigation. We may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management' s attention from other business concerns, which could seriously harm our business. If we fail to maintain effective internal controls over financial reporting, we may not be able to accurately report our financial results, which could have a material adverse effect on our operations, investor confidence in our business and the trading prices of our securities. We are required to maintain disclosure controls and procedures and internal controls over financial reporting that are effective for the purposes described in " Item 9A- Controls and Procedures " below. The existence of a material weakness in our internal controls may adversely affect our ability to record, process, summarize and report financial information timely and accurately and, as a result, our financial statements may contain material misstatements or omissions, which could result in regulatory scrutiny, cause investors to lose confidence in our reported financial condition and otherwise have a material adverse effect on our business, financial condition, cash flow results of operations or the trading price of our stock. Some of our stockholders can exert control over us and they may not make decisions that reflect our interests or those of other stockholders. Our largest stockholders control a significant amount of our outstanding common stock. As of September ~~30~~ **29** , ~~2022~~ **2023** , John and Susan Ocampo beneficially owned ~~25~~ **23** . ~~2~~ **0** % of our common stock. As a result, these stockholders will be able to exert a significant degree of influence over our management and affairs and control over matters requiring stockholder approval, including the election of our directors and approval of significant corporate transactions. In addition, this concentration of ownership may delay or prevent a change in control of us and might affect the market price of our securities. In addition, the interests of these stockholders may not always coincide with your interests or the interests of other stockholders. Anti- takeover provisions in our charter documents and Delaware law could prevent or delay a change in control of our company that stockholders may consider beneficial and may adversely affect the price of our stock. Provisions of our fifth amended and restated certificate of incorporation and third amended and restated bylaws may discourage, delay or prevent a merger, acquisition or change of control that a stockholder may consider favorable. These provisions could also discourage proxy contests and make it more difficult for stockholders to elect directors and take other corporate actions. The existence of these provisions could limit the price that investors might be willing to pay in the future for shares of our common stock. These provisions include authorization of the issuance of " blank check " preferred stock, staggered elections of directors and advance notice requirements for nominations for election to the board of directors and for proposing matters to be submitted to a stockholder vote. Provisions of Delaware law may also discourage, delay or prevent someone from acquiring or merging with our company or obtaining control of our company. Specifically, Section 203 of the Delaware General Corporate Law may prohibit business combinations with stockholders owning 15 % or more of our outstanding voting stock. Our board of directors could rely on Delaware law to prevent or delay an acquisition of the Company and this reliance could reduce our value. We do not intend to pay dividends for the foreseeable future. We do not intend to pay any cash dividends on our common stock in the foreseeable future. The payment of cash dividends is restricted under the terms of the agreements governing our indebtedness. In addition, because we are a holding company, our ability to pay cash dividends may be limited by restrictions on our ability to obtain sufficient funds through dividends from subsidiaries, including restrictions under the terms of the agreements governing our indebtedness. We anticipate that we will retain all of our future earnings for use in the development of our business and for general corporate purposes. Any determination to pay dividends in the future will be at the discretion of our board of directors. Accordingly, investors must rely on sales of their common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investments. Risks Relating to our 2026 Convertible Notes Servicing our debt, including ~~the~~ **our** 2026 Convertible Notes, requires a significant amount of cash, and we may not have sufficient cash flow from our business to pay our indebtedness. Our ability to make payments of the principal of, to pay interest on, or to refinance, ~~the~~ **our** 2026 Convertible Notes **(as defined below)** , or to make cash payments in connection with any conversion of the 2026 Convertible Notes depends on our future performance, which is subject to economic, financial, competitive and other factors beyond our control. Our business may not continue to generate cash flow from operations in the future sufficient to service the 2026 Convertible Notes or other indebtedness and make necessary capital expenditures. If we are unable to generate such cash flow, we may be required to adopt one or more alternatives, such as selling assets, restructuring indebtedness or obtaining additional equity capital on terms that may be onerous or highly dilutive. Our ability to refinance the 2026 Convertible Notes or our other indebtedness will depend on the capital markets and our financial condition at such time. We may not be able to engage in any of these activities or engage in these activities on desirable terms, which could result in a default on our debt obligations. Provisions in indenture governing the 2026 Convertible Notes may delay or prevent an otherwise beneficial business combination. The terms of the 2026 Convertible Notes require us to repurchase the 2026 Convertible Notes in the event of a " fundamental change " as defined under the indenture governing the 2026 Convertible Notes. A fundamental change of our Company would trigger an option of the holders of the 2026 Convertible Notes to require us to repurchase the 2026 Convertible Notes. In addition, if a make- whole fundamental change occurs prior to the maturity date of the 2026 Convertible Notes, we will in some cases be required to increase the conversion rate for a holder that elects to convert its 2026 Convertible Notes. Furthermore, the indenture that governs the 2026 Convertible Notes prohibits us from engaging in certain mergers or acquisitions unless, among other things, the surviving entity assumes our obligations under the 2026 Convertible Notes. This may have the effect of delaying or preventing an acquisition of our Company that could be beneficial to investors. We may not have the ability to raise the funds necessary to settle conversions of the 2026 Convertible Notes in cash or to repurchase the 2026 Convertible Notes upon a fundamental change and our debt may limit our ability to pay cash upon conversion or repurchase of the 2026 Convertible Notes. Holders of the 2026 Convertible Notes have the right to require us to repurchase their

2026 Convertible Notes upon the occurrence of a fundamental change at a purchase price equal to 100 % of the principal amount of the 2026 Convertible Notes to be repurchased, plus accrued and unpaid interest, if any, to, but not including, the fundamental change repurchase date. In addition, unless we elect to deliver solely shares of our common stock upon conversion, we will be required to make cash payments in respect of the 2026 Convertible Notes being converted. However, we may not have enough available cash or be able to obtain financing at the time we are required to make purchases of the 2026 Convertible Notes, and our failure to do so would constitute a default under the indenture governing the 2026 Convertible Notes. In addition, our ability to repurchase the 2026 Convertible Notes or to pay cash upon conversion of the 2026 Convertible Notes could be limited by law, by regulatory authority or by agreements that will govern our future indebtedness. A default under the indenture governing the 2026 Convertible Notes or the fundamental change itself could also lead to a default under agreements governing our existing or future indebtedness.