

Risk Factors Comparison 2023-03-10 to 2022-03-10 Form: 10-K

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You should carefully consider the following risk factors and the other information included herein as well as the information included in other reports and filings made with the SEC before investing in our common stock. The following factors, as well as other factors affecting our operating results and financial condition, could cause our actual future results and financial condition to differ materially from those projected. The trading price of our common stock could decline due to any of these risks, should they materialize, and you may lose part or all of your investment. Risks Related To Our Financial Position There is substantial doubt about our ability to continue as a going concern. If we are unable to continue as a going concern, our securities will have little or no value. Our independent registered public accounting firm has issued a report for our financial statements at December 31, ~~2021~~**2022** that includes an explanatory paragraph referring to our negative cash flow and recurring losses from operations, which raises substantial doubt about our ability to continue as a going concern without additional capital becoming available. As a result of our historical losses and current financial condition, there is substantial doubt about our ability to continue as a going concern for the twelve months from the issuance date of those financial statements. Our ability to continue as a going concern is dependent upon our uncertain ability to generate sufficient cash flows from operations, obtain equity and / or debt financing and reduce expenditures. Specifically, we have incurred substantial net losses in the past and we may incur further losses in the future. Our net losses were \$ **1.1 million and \$ 5.2 million** and ~~\$ 11.4 million~~ for the years ended December 31, **2022 and 2021** and ~~2020~~, respectively. As of December 31, ~~2021~~**2022** we had an accumulated deficit of \$ ~~257~~**258** million. We can give no assurances that our losses will not continue in the future or that we will be profitable in the future. Our prior losses and potential continuing or future losses have had, and will continue to have, an adverse effect on our financial condition. In order for us to achieve profitability, we must, among other things, generate sufficient cash flows and / or obtain the additional financing we need in order to continue as a going concern; generate additional revenue; manufacture our products on a timely basis and at a competitive cost; continue to remediate manufacturing issues that have resulted in production delays; integrate new equipment on our manufacturing line, including equipment provided under government awards, meet our yield improvement initiatives; and successfully reduce expenses. If we are unable to successfully take these and other necessary steps, we may never operate profitably, and, even if we do achieve profitability, we may be unable to sustain or increase our profitability in the future. As of December 31, ~~2021~~**2022**, the Company had \$ ~~54.73~~ million of cash, \$ ~~21.0~~ million of outstanding indebtedness and borrowing availability of \$ ~~21.38~~ million under its ABL Facility. Our cash position as of December 31, ~~2021~~**2022** reflects the receipt of approximately \$ ~~05.28~~ million in net proceeds from sales of our common shares under an at-the-market, or ATM, facility entered into in November 2021. Our ongoing operations may require us to raise additional funds, and there are no assurances that such financing will be available on terms acceptable to us, or at all. Our financial statements do not include any adjustments that may result from the outcome of this uncertainty. If we are unable to reduce our expenditures or generate additional funds in the future through sales of our products, financings, government grants, loans or from other sources or transactions, we will exhaust our resources and will be unable to maintain our currently planned operations. If we cannot continue as a going concern, our stockholders would likely lose most or all of their investment in us. Our financial condition is limited. If we are unable to generate sufficient revenue or secure additional external financing when required we may have to curtail our operations or cease our development plans and operations. Our ability to continue current operations and to execute on our plans is dependent on our ability to generate sufficient cash flows from operations, **the lenders continued willingness to extend credit under our ABL Facility and** raise additional capital ~~or refinance our indebtedness~~ to meet our obligations. Since the maximum amount of the borrowing base under our ABL Facility is based, in part, on our eligible accounts receivables, our borrowing ability could also be negatively impacted by any decrease in our accounts receivables. As of the December 31, ~~2021~~**2022** we had \$ ~~21.0~~ million in borrowings outstanding, and unused borrowing availability of \$ ~~21.38~~ million, under our ABL Facility. We incurred net losses of \$ **1.1 million and \$ 5.2 million** and ~~\$ 11.4 million~~ for the years ended December 31, **2022 and 2021** and ~~2020~~, respectively. Net cash used in operating activities for the years ended December 31, **2022 and 2021** and ~~2020~~ was \$ **3.5 million and \$ 7.4 million**, respectively. **As of December 31, 2022, we had cash and cash equivalents of \$ 4.39 million, respectively. As of December 31, 2021, we had cash and cash equivalents of \$ 5.7 million,** net working capital of \$ ~~117.80~~ million, accounts payable of \$ ~~2.13~~ million and an accumulated deficit of \$ ~~257~~**258** million. If we are unable to generate sufficient revenue or secure additional external financing when required we may have to curtail our operations or cease our development plans and operations. If we are unable to meet our obligations as they become due over the next twelve months, we may not be able to continue our current operations. Our ability to continue current operations and to execute on our plans is dependent on our ability to generate sufficient cash flows from operations, maintain our relationships with vendors and customers, secure alternative financing or refinance our indebtedness to meet our obligations. If adequate funds are not available to us on a timely basis, or at all, we may have to reduce current operations and delay capital expenditures in order to conserve cash. Based on our current operating plan, working capital levels, financial projections, and our ability to borrow under our ABL Facility, we anticipate being able to meet our financial obligations as they become due through the first quarter of ~~2023~~**2024**. However, there can be no assurance that our plans will be achieved. If we do not achieve our current financial projections we will be unable to maintain our currently planned operations after the first quarter of ~~2023~~**2024**, and we may violate one or more of our financial covenants under our ABL Facility. In addition, there can be no assurance that we will be able to renew or extend our ABL Facility when it matures on December 31, ~~2022~~**2023**. Although relations with the lender are positive and the Company expects the facility to be renewed upon expiration, there is no assurance the lender will

renew or extend this facility or continue to make funds available during 2022-2023 and beyond at present availability levels, or at all. We have no additional committed external sources of funds and additional financing may not be available when we need it or on terms that are favorable to us, if at all. In addition, we may seek additional capital, or consider strategic alternatives. We cannot provide assurance that any actions by us to raise additional funds would be successful or, if such efforts were successful, that we would generate sufficient funds to meet our financial obligations as they become due and allow us to continue current operations or that these actions would be permitted (i) under the terms of our existing or future debt agreements or (ii) by the holders of a majority of the then outstanding Series B convertible preferred stock, whose approval is required in order for us to take certain actions. If we do not have enough cash to fund our operations to profitability and if we are unable to secure additional capital, we may be required to seek strategic alternatives, including but not limited to a potential business combination, a sale of our company or our business, or a reduction and / or cessation of our operations. We may require significant additional capital funding **and to meet our business requirements, such as Such capital may be difficult to obtain or** may not be available to us **at all**. In the event that our operating expenses or working capital levels are higher than anticipated, we may be required to implement contingency plans within our control to conserve and / or enhance our liquidity to meet operating needs. Such plans include implementing cost reductions and restricting our operations. Our cash requirements relate primarily to working capital needed to operate and grow our business, including funding operating expenses and increasing production and inventory levels. Our ability to meet future liquidity needs and capital requirements will depend upon numerous factors, including the timing and quantity of product orders and shipments, the timing and amount of our operating expenses; the ability to raise additional funding, the timing and costs of working capital needs; the extent to which our products gain market acceptance; the timing and costs of product development and introductions; the extent of our ongoing and any new research and development programs, and any potential changes in our strategy or our planned activities. If we are unable to fund our operations without additional financing and therefore cannot sustain future operations, we may be required to delay, reduce and / or cease our operations. Alternatives we would consider for additional funding include additional equity or debt financings, or licensing of our technology. In addition to raising capital, **we it may also be necessary for us to** consider strategic **transactions, such as** partnerships **or entering into a business combination**, and government programs that may be available to us. If we are unable to obtain additional capital, we may not be able to sustain our future operations and may be required to **reduce our headcount, sell all or a portion of our assets, delay, reduce, reorganize** and / or cease our operations **through bankruptcy or otherwise**. We cannot assure you that any necessary additional financing will be available on terms favorable to us, or at all. Additionally, even if we raise sufficient capital through additional equity or debt financings, strategic **alternatives transactions** or otherwise, there can be no assurance that the revenue or capital infusion will be sufficient to enable us to develop our business to a level where it will be profitable or generate positive cash flow. If we raise additional funds through the issuance of equity or convertible debt securities, the percentage ownership of our stockholders could be significantly diluted, and these newly issued securities may have rights, preferences or privileges senior to those of existing stockholders. In addition, there can be no assurances that the majority holder of our Series B convertible preferred stock, will not withhold its consent for any future capital raise **or strategic transaction** we propose. See “ The holders of shares of our Series B convertible preferred stock have exercised, and may continue to exercise, significant influence over us. ” If we incur additional debt, a substantial portion of our operating cash flow may be dedicated to the payment of principal and interest on such indebtedness, thus limiting funds available for our business activities. The terms of any debt securities issued could also impose significant restrictions on our operations. Broad market and industry factors may seriously harm the market price of our common stock, regardless of our operating performance, and may adversely impact our ability to raise additional funds. **Our 2022 total gross profit and total gross margin reflect the favorable impact of reclaimed displays that were previously written off. Our 2022 total gross profit and total gross margin reflect the favorable impact of our successful qualification and sale of reclaimed displays that were previously written off because of an initial quality issue that was ultimately resolved. Total gross profit and total gross margin for 2022 do not reflect costs associated with the production of such reclaimed displays, as such costs were written off to expense in prior quarters. Such sales had a positive effect on 2022 total gross profit in the amount of approximately \$ 1. 3 million. If we exclude gross profits attributable to such previously written off products, our 2022 gross profit would have been \$ 9. 0 million and our 2022 gross margin would have been 30 %. Although we expect to sell additional previously written off products in the first quarter of 2023, the gross margin and yield may vary from 2022 levels. In the absence of such sales of reclaimed displays our future quarterly and fiscal year gross margins may decrease, which likely would have a negative effect on the market price of our common stock.** Risks Related To Our Business and Industry Our operating results have significant fluctuations. In addition to the variability resulting from the short-term nature of commitments from our customers, other factors contribute to significant periodic quarterly fluctuations in results of operations. These factors include, but are not limited to, the following: [?] demand for our products; [?] the receipt and timing of orders and the timing of delivery of orders; [?] the amount of R & D contract or nonrecurring engineering work we may have in a given year; [?] the inability to adjust expense levels or delays in adjusting expense levels, in either case in response to lower than expected revenues or gross margins; [?] the volume of orders relative to our manufacturing capacity; [?] manufacturing delays due to equipment failures; [?] changes due to quarterly fair value adjustments of our warrant liability; [?] product introductions and market acceptance of new products or new generations of products; [?] changes in cost and availability of labor and components; [?] product mix; [?] variation in operating expenses; regulatory requirements and changes in duties and tariffs; [?] pricing and availability of competitive products and services; and [?] changes, whether or not anticipated, in economic conditions. The manufacture of active matrix OLED microdisplays encompasses several complex processes resulting in irregular production schedules, including production delays and interruptions, which could adversely affect our operating results. Our product technology and manufacturing processes are evolving which can result in production challenges and difficulties. We cannot assure you that we will be able to produce our products in sufficient quantity and quality to maintain

existing customers and attract new customers. In addition, we cannot assure you that we will not experience manufacturing problems which could result in delays in delivery of orders or product introductions. Several steps of our production processes are dependent upon certain critical machines and tools which have in the past, and could in the future, result in delivery interruptions and reduced revenues. We currently have equipment that is critical to our manufacturing operations for which there is no redundancy. If we experience any significant disruption in the operation of our manufacturing facility or a serious failure of a critical piece of equipment, we may be unable to supply microdisplays to our customers in a timely manner. Interruptions in our manufacturing could be caused by equipment problems, the introduction of new equipment into the manufacturing process or delays in the delivery of new manufacturing equipment. Lead- time for delivery, installation, testing, repair, and maintenance of manufacturing equipment can be extensive. ~~We have experienced production interruptions and / or delays in the past, including in 2020 and 2021, and also had delays in getting vendor support personnel due to COVID-19 travel restrictions during 2021.~~ While we are continually making improvements in production processes; no assurance can be given that we will not lose potential sales or be unable to meet production orders due to future production delays or interruptions in our manufacturing line. We rely on key sole source and limited source suppliers. We depend on a number of sole source or limited source suppliers for certain raw materials, components, and services. These include silicon wafers, circuit boards, graphic integrated circuits, passive components, materials and chemicals, and equipment support. We maintain several single- source supplier relationships either because alternative sources are not available or because the relationship is advantageous to us due to performance, quality, support, delivery, capacity, or price considerations or a combination thereof. Even where alternative sources of supply are available, qualification of the alternative suppliers and establishment of reliable supplies could result in delays and a possible loss of sales, which could materially and adversely affect our operating results. We do not manufacture the silicon integrated circuits on which we incorporate our OLED technology. Instead, we provide the design layouts to semiconductor contract manufacturers who manufacture the integrated circuits on silicon wafers. Our industry relies on a limited number of foundries to produce the silicon wafers and backplanes required by our manufacturing process. Should foundries be unable to provide the required amount of silicon wafers for production, because of either capacity constraints or natural disasters, our ability to manufacture microdisplays would be affected. Our inability to obtain sufficient quantities of components and other materials or services on a timely basis could result in manufacturing delays, increased costs and ultimately in reduced or delayed sales or lost orders which could materially and adversely affect our operating results. Generally, we do not have long- term contracts or written agreements with our source suppliers but instead operate on the basis of short-term purchase orders. Semiconductor industry supply chain shortages and increased demand may reduce the availability of raw materials we need for production and have led to longer lead times and increased material costs. If we are unable to purchase sufficient quantities of raw materials at acceptable prices, we may be unable to meet demand for our products in a timely manner or within budget. Currently, the semiconductor industry is experiencing supply chain shortages, which have impacted our semiconductor industry suppliers' ability to provide us with the raw materials in the amounts we require for production. Shortages in the semiconductor industry, whether due to capacity constraints, ongoing supply chain disruptions, or natural disasters, adversely affect our ability to manufacture microdisplays. Our inability to obtain components and other materials or services on a timely basis could result in manufacturing delays, increased costs, and ultimately, in reduced or delayed sales or lost orders which could materially and adversely affect our business, financial condition, and results of operations. Prolonged inflation and supply chain disruptions could result in lost revenue, higher costs and decreased profit margins. Recent inflationary pressures have resulted in the increased cost of raw materials we use in the production of our products. Rising prices for not only raw materials, but also semiconductor chips, freight, packaging, labor and energy, increases the costs to manufacture and distribute our products. In addition, we have experienced shortages in certain raw materials and component inputs of our products, some suppliers have been unable to meet delivery schedules due to excess demand and labor shortages, and lead times have lengthened throughout our supply chain. Our efforts to mitigate supply chain weaknesses may not be successful or may have unfavorable effects. For example, efforts to purchase raw materials in advance for product manufacturing may result in increased storage costs or excess supply. **During 2022 we have experienced cost increases in wafers, chemicals and other materials and supplies used in our production process.** If our costs continue to rise due to ~~ongoing~~ **ongoing continuing significant** inflationary pressures or supply chain disruptions, we may not be able to fully offset such higher costs through price increases. In addition, delays in obtaining materials from our suppliers could result in lost opportunities to sell our products due to their availability. Increased costs and decreased product availability due to supply chain issues could adversely impact our revenue and / or gross margin, and could thereby harm our business, financial condition, and results of operation. The COVID- 19 pandemic has affected our business and **future pandemics** could materially adversely affect our financial condition and results of operations and ability to continue as a going concern. The COVID- 19 pandemic has resulted in authorities imposing, and businesses and individuals implementing, numerous unprecedented measures to try to contain the virus, such as travel bans and restrictions, quarantines, shelter- in- place / stay- at- home and social distancing orders, and shutdowns. These measures have impacted and may further impact our workforce and operations, the operations of our customers, and those of our respective vendors, suppliers, and partners. The COVID- 19 pandemic has impacted our business. We have experienced occasional production disruptions related to the unwillingness or inability of certain of our equipment repair vendors to travel to our facility, the temporary loss of services of employees quarantined due to COVID- 19 and delays in the supply of raw materials caused by disruptions due to COVID- 19. Any period of interrupted access to our manufacturing facilities or our workforce **, caused by COVID- 19 or future pandemics**, or similar limitations for our vendors and suppliers, can impact our ability to meet customer demand and could have a material adverse effect on our financial condition and results of operations, particularly if prolonged. In addition, if we are unable to continue regularly scheduled maintenance of our manufacturing equipment, our manufacturing capabilities may be negatively impacted and we may experience further unscheduled closures and / or production disruptions, which could have a material adverse effect on our financial condition and

results of operations. Due to the measures implemented to contain the COVID- 19 outbreak, our suppliers, located both inside and outside of the United States, may have limited supplies of, or may be unable to produce, the components we use to manufacture our products. Any significant disruption in the supply of such components could impair our ability to satisfy customer orders, which could have a material adverse effect on our financial condition and results of operations. Certain of our customers have experienced, and may continue to experience, disruptions in their operations and supply chains, which can result in delayed, reduced, or canceled orders, or collection risks, and which may adversely affect our results of operations. Any existing or future delays, reductions or cancellation of orders from our customers military, commercial or consumer market customers may adversely affect our results of operations. COVID- 19 has caused us to modify our business practices (including employee travel, employee work locations, cancellation of physical participation in meetings, events and conferences, and social distancing measures), and 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, partners, vendors, and suppliers. Work- from- home and other measures introduce additional operational risks, including cybersecurity risks, and have affected the way we conduct our activities, which could have an adverse effect on our operations. Due to the increase in employees working from home and accessing our network and systems remotely, we face increased risk of security breaches and other disruptions which could compromise our information technology systems, and expose to liability, theft of sensitive data or damage to our reputation. There is no certainty that such measures will be sufficient to mitigate the risks posed by the virus, and future employee virus or workforce disruptions could lead to unavailability of key personnel and harm our ability to perform critical functions. In addition, our ability to attract, recruit and retain highly skilled and qualified technical and consulting personnel or other employees may be impacted by COVID- 19 travel restrictions, and other COVID- 19 health concerns related to relocation on the part of potential employees and their families. The pandemic has significantly increased economic and demand uncertainty. It is possible that the current outbreak and continued spread of COVID- 19, and any resurgence related to the Omicron variant, or other vaccine resistant strains, **or future pandemics**, will cause the economic slowdown to continue, and it is possible that it could cause a global recession. Although vaccines are becoming more widely available, there is a significant degree of uncertainty and lack of visibility as to the extent and duration of the COVID- 19 pandemic and related slowdowns or economic trends. Although demand for the Company' s products has remained steady, the Company' s inability to obtain components and other materials or services on a timely basis has resulted in manufacturing delays, increased costs, and in reduced or delayed sales. If these trends worsen or result in lost orders it could materially and adversely affect our business, financial condition, and results of operations. Although many jurisdictions are now open with social distancing measures implemented to curtail the spread of COVID- 19, we cannot predict the length of time that it will take for our supply chain to be restored and any meaningful economic recovery to take place. We also cannot predict whether the Omicron variant or other vaccine resistant strains will lead to additional surges in new cases of COVID- 19, or the severity of such surges if / when they occur, such that governmental authorities decide to reimpose quarantines, lockdowns or travel restrictions, which could further materially and adversely affect our results and financial condition. It is also not possible to predict with certainty the impact of executive orders providing for mandatory COVID- 19 vaccinations will have on our workforce. Our implementation of these requirements may result in attrition, including attrition of critically skilled labor, and difficulty securing future labor needs, which could have a material adverse effect on our business, financial condition, and results of operations. We have experienced occasional delays in product shipments, which may be exacerbated if there are additional surges of quarantines, lockdowns or travel restrictions are re-imposed or heightened. There is no assurance that our operations will not be further disrupted in the future by additional impacts of the COVID- 19 virus or any resurgences, on either our internal operations or those of our suppliers or customers, including the possible impact of travel restrictions on key support personnel for our critical production equipment. A continued economic slowdown could adversely affect our business in **2022-2023**. Given the significant economic uncertainty and volatility created by the pandemic, it is difficult to predict the nature and extent of the impact on demand for our products. These expectations are subject to change without warning and investors are cautioned not to place undue reliance on them. Unanticipated consequences of the **current or any future** pandemic and resulting economic uncertainty could adversely affect our liquidity and capital resources in the future as well as our ability to continue as a going concern. Our results of operations, financial condition and business would be harmed if we were unable to balance customer demand and capacity. As customer demand for our products changes, and as we enter new markets which may require higher volume mass production, we must be able to ramp up or adjust our production capacity to meet demand or enter into relationships with high volume manufacturers. We are continually taking steps to address our manufacturing capacity needs for our products. If we are not able to expand our manufacturing capacity or enter into relationships with high volume manufacturers, our prospects may be limited, and our business and results of operations could be adversely impacted. If we experience delays or unforeseen costs associated with adjusting our capacity levels, we may not be able to achieve our financial targets. For some of our products, vendor lead times exceed our customers' required delivery time, causing us to order to forecast rather than order based on actual demand. Ordering raw material, building finished goods, and scheduling contract manufacturer production for our consumer products based on forecasts exposes us to numerous risks, including potential inability to service customer demand within an acceptable timeframe, holding excess inventory or having unabsorbed manufacturing overhead. Variations in our production yields impact our ability to reduce our costs and could cause our margins to decline and our operating results to suffer. All of our products are manufactured using technologies and processes that are highly complex. The number of usable items, or yield, from our production processes may fluctuate as a result of many factors, including but not limited to the following: [?] variability in our manufacturing process and repeatability; [?] changes in manufacturing personnel due to turnover or employee absences; [?] production challenges associated with the introduction of new display types; [?] contamination of the manufacturing environment or equipment; [?] equipment failure, power outages, or modification to our manufacturing processes; [?] lack of consistency and adequate quality and quantity of component parts and other raw materials; [?] defects in packaging either within or without our control; [?] any

transitions or changes in our production process, planned or unplanned; [?] certain customer requirements outside of our normal specifications; and [?] changes in the mix of display types produced from period to period. Variations in our production yields impact our costs and cause our margins to decline and our operating results to suffer. For example, in the fiscal years 2019, 2020, and 2021, we experienced low production yields and output and an adverse impact on our gross margins and operating results due to equipment failures. Demand for our products is dependent on economic conditions, changes in government regulation and could be impacted by alternative display technologies. Historically, over the past two fiscal years approximately 8-12% of our revenue comes from sales to customers using our displays for commercial applications, including within the industrial and medical sectors. Demand by commercial customers for OLED displays could decline due to overall economic conditions and the development of alternative technologies that might offer the enhanced performance of OLED displays at a lower price. Demand for products incorporating our displays could be also affected if our OEM customers are impacted by changes in governmental, regulation or medical regulation or insurance reimbursements that influence demand for medical devices that use our products. Our competitors have many advantages over us. The industry in which we operate is highly competitive. We face competition from legacy technologies such as transmissive liquid crystal displays from Kopin Corporation and liquid crystal on silicon displays as well as from alternative display technologies such as virtual scanning retinal displays. There are many large and small companies that manufacture or have in development products based on these technologies. In addition, we compete with liquid crystal on silicon displays, small transmissive liquid crystal displays, and OLED microdisplays manufactured by competitors. Competition can also come from inorganic micro LEDs, a technology still in the development stage but which could become a major competitor if the technological hurdles are overcome. Certain of our competitors have operations based in China, where lower manufacturing and production costs may provide them with a competitive advantage. For example, OLIGHTTEK and BOE recently funded a joint venture to build a manufacturing facility that came online in 2019, BOE has plans to build additional OLED manufacturing facilities in China and Kopin Corporation has entered into a supply agreement with both BOE and other Chinese manufacturers. We cannot assure you that we will be able to compete successfully against current and any future competition, and the failure to do so would have a materially adverse effect upon our business, operating results and financial condition. We are subject to cyclical demand. Our business strategy is dependent on OEM manufacturers' building and selling products that incorporate our OLED displays as components into those products. Fluctuations in demand could cause significant harm to our business. Our inventory levels may increase if we build products to meet an anticipated demand that does not develop. Alternatively, we may experience production shortages if demand increases sharply and we are unable to meet requirements to produce an increased number of displays. Our products are subject to lengthy OEM development periods. We sell most of our microdisplays to OEMs who will incorporate them into products they sell. OEMs determine during their product development phase whether they will incorporate our products. The time elapsed between initial sampling of our products by OEMs, the custom design of our products to meet specific OEM product requirements, and the ultimate incorporation of our products into OEM consumer products is significant, often with a duration of between one and three years. If our products fail to meet our OEM customers' cost, performance or technical requirements or if unexpected technical challenges arise in the integration of our products into OEM consumer products, our operating results could be significantly and adversely affected. Long delays in achieving customer qualification and incorporation of our products also could adversely affect our business and our operating results. In order to increase or maintain our profit margins we may have to continuously develop new products, product enhancements and new technologies. In some markets, prices of established products tend to decline over time. In order to increase or maintain our profit margins over the long-term, we believe that we will need to continuously develop new products, product enhancements and new technologies that will either slow price declines of our products or reduce the cost of producing and delivering our products. While we anticipate many opportunities to reduce production costs over time, there can be no assurance that these cost reduction plans will be successful, that we will have the resources to fund the expenditures necessary to implement certain cost-saving measures, or that our costs can be reduced as quickly as any reduction in unit prices. We may also attempt to offset the anticipated decrease in our average selling price by introducing new products with higher selling prices that may or may not offset price declines in more mature products. If we fail to do so successfully, our results of operations could be materially and adversely affected. Our business strategy for the consumer market will fail if we cannot continue to form strategic relationships with consumer and other companies that manufacture and use products that could incorporate our active matrix OLED technology. Our prospects could be significantly affected by our ability to maintain and develop strategic alliances with tier-one consumer companies and high-volume manufacturers and with OEMs for incorporation of our active matrix OLED microdisplay technology into their products. While we intend to continue to establish strategic relationships with manufacturers of electronic consumer products, personal computers, chipmakers, lens makers, equipment makers, material suppliers, and / or systems assemblers; there is no assurance that we will be able to continue to establish and maintain strategic relationships on commercially acceptable terms, or that the alliances we do enter into will realize their objectives. Failure to do so would have a material and adverse effect on our business. Our military and commercial, and consumer contract revenue is variable and dependent on a small number of customers. The continuation of our consumer contract revenue and our goal of developing a licensing revenue stream using our dPd and other display technology is subject to many risks and uncertainties. Our military and commercial, and consumer contract revenue is historically comprised of a small number of customers and can vary significantly from year to year. Specifically, our military and commercial, and consumer contract revenue has varied from \$ 2.4 - 4.4 million in the year ended December 31, 2019, to \$ 4.1 - 4.9 million in the year ended December 31, 2020-2021, to \$ 1.9-7 million in the year ended December 31, 2021-2022. Our prospects for commercial contract revenue are dependent on the market and technology for AR / VR systems which is in its early stages. Industry players are evaluating numerous display alternatives including OLED microdisplays, LCOS displays, smartphone screens and other display technologies. Numerous AR / VR devices are presently available in the marketplace and beginning to gain acceptance. Our 2021-2022 commercial contract revenue primarily relates to work with high

brightness display design for the PEO STRI contract and a proof of concept display for a tier one consumer company customer that is presently in the development and proof of concept stages. In the event that companies with which we are not engaged launch AR / VR devices that gain widespread market acceptance, continued business with us may not serve the strategic interests of our present or future consumer customers. This consumer customer may not be satisfied with the performance of our dPd displays and terminate their development process with us, or choose to use OLED microdisplays produced by a competing company, or alternative display technologies. In the event we were no longer engaged in OLED microdisplay development for consumer companies, if this customer were to terminate its development process with us or if we were to lose other commercial or military contract revenue, our business and operating results could be adversely affected. The success of our AR / VR efforts is dependent upon widespread acceptance of AR / VR systems and products in the consumer and commercial marketplace. The market for AR / VR systems and products is developing slower than originally forecast. The success of our efforts in the AR / VR market will depend on the widespread acceptance of AR / VR systems and products in the consumer, enterprise and commercial markets. At present, it is difficult to assess or predict with any assurance the potential size, timing and viability of the consumer and commercial AR / VR market, as well as our ability to partner with a foundry or other mass production partner to produce a sufficient number of displays to address this potential market. The market segment for AR / VR systems and products may take longer to develop than we anticipate or may not develop, which may impact our ability to grow display and contract revenues. Although we believe our displays are suitable for AR / VR systems and products that hold great potential for use in various consumer market applications, our success will depend on the acceptance of systems and products by consumers and in particular the widespread adoption of our displays and dPd technology for AR / VR hardware. We are unable to predict when or if customers will choose to incorporate our displays into their AR / VR hardware, or if consumers will accept their systems. In addition, even if consumers accept AR / VR products, manufacturers may choose to manufacture systems using our competitors' displays, or their own in-house display designs. Our success in commercializing and licensing our dPd displays suitable for AR / VR products is important in our ability to achieve positive cash flow and profitability. If we are unable to commercialize our dPd displays for AR / VR products, we may be unable to increase revenues or achieve profitability or positive cash flow. We seek to develop widespread market acceptance of our displays for AR / VR systems and products in the consumer market which is extremely competitive and is highly susceptible to fluctuations in demand. We seek to partner with companies to develop widespread market acceptance of our displays and related AR / VR systems and products in the consumer market. This market is extremely competitive and is highly susceptible to fluctuations in demand. The consumer products market is intensely competitive and price sensitive. Sales of consumer products have historically been dependent upon discretionary spending by consumers. Consumers may defer or alter purchasing decisions based on economic conditions or other factors, and accordingly could cause a reduction in demand for products such as AR / VR systems and products using our displays. Any downturn in global economic conditions may cause a decrease in overall consumer demand and in demand for our products in the near term and possibly longer and prevent our systems and products using our displays from gaining widespread market acceptance. Amounts included in our backlog may not result in actual revenue or translate into profits. Our backlog is subject to rescheduling and / or cancellation and is, therefore an uncertain indicator of future operating results. As of December 31, ~~2021~~ **2022**, we had a backlog of approximately \$ ~~13.14~~ **8** million, an increase of approximately \$ ~~2.1~~ **9.0** million over the backlog of \$ ~~10.13~~ **9.8** million at December 31, ~~2020~~ **2021**. Backlog is comprised of scheduled delivery dates through ~~2022~~ **2023** of non-binding customer purchase orders and purchase agreements. Our backlog may vary depending upon the timing of when orders are received and shipment dates scheduled. Variations in the magnitude and duration of purchase orders and customer delivery requirements may result in substantial fluctuations in backlog from period to period. Many of our purchase orders allow for rescheduling or cancellation by the customer with no or limited penalties. We have experienced postponements, cancellations and reductions in expected purchase orders due to changes in our customers' spending plans, market volatility, regulatory delays and / or other factors, including the impact of the COVID- 19 pandemic and our inability to meet customer demand due to unexpected down time of our manufacturing equipment. There can be no assurance as to our customers' requirements, our ability to meet customer demands, or that actual purchases will be consistent with our stated backlog. As a result, our backlog as of any particular date is an uncertain indicator of future revenue and earnings. If any significant portion of our backlog fails to materialize, our results of operations, cash flows and liquidity would be materially and adversely affected.

Risks Related To Our Common StockThe market price of our common stock may be volatile. The market price of our common stock has been subject to wide fluctuations. During our four most recently completed fiscal quarters, the closing price of our stock ranged from a low of \$ **0.55 to a high of \$ 1.83** ~~17 to a high of \$ 4.84~~. The market price of our common stock in the future is likely to continue to be subject to wide fluctuations in response to various factors, including, but not limited to, the following: variations in our operating results and financial conditions; sales by our existing shareholders; changes in financial estimates or investment recommendations by securities analysts following our business; actual or anticipated announcements of technical innovations, commercial partnerships, new product developments, or design wins by us or our competitors; general conditions in the semiconductor and display industries; and worldwide economic and financial conditions. In addition, the public stock markets have experienced extreme price and volume fluctuations that have particularly affected the market price for many technology companies and that have often been unrelated to the operating performance of these companies. The broad market fluctuations and other factors may continue to adversely affect the market price of our common stock. Provisions in certain of our commercial agreements and our military business may prevent or delay an acquisition of partnership with, or investment in us, and our ability to develop OEM and mass production partnerships, which could decrease the market value of our common stock. Provisions in certain of our commercial agreements may discourage, delay or prevent a merger, acquisition or other change in control that stockholders may consider favorable. In addition, as a contractor and subcontractor to the U. S. federal government, we are subject to and must comply with various government regulations that impact our operating costs, profit margins and the internal organization and operation of our business. As a

result, these provisions and business may prevent or delay an acquisition of, partnership with, or investment in, our Company and our ability to develop OEM and mass production partnerships and could limit the price that strategic investors may be willing to pay in the future for shares of our common stock. They could also deter potential partners or acquirers of our Company, thereby reducing the likelihood that you could receive a premium for your common stock in an acquisition. Failure to meet the maintenance criteria of the NYSE American may result in the delisting of our common stock, which could result in lower trading volumes and liquidity, lower prices of our common shares and make it more difficult for us to raise capital. Our common stock is listed on the NYSE American, and we are subject to its continued listing requirements, including maintaining certain share prices and a minimum amount of shareholder's equity. If we are unable to comply with the NYSE American continued listing requirements, including its trading price requirements, our common stock may be suspended from trading on and / or delisted from the NYSE American. Although we have not been notified of any delisting proceedings, there is no assurance that we will not receive such notice in the future or that we will be able to then comply with NYSE American listing standards. The delisting of our common stock from the NYSE American may materially impair our stockholders' ability to buy and sell our common stock and could have an adverse effect on the market price of, and the efficiency of the trading market for, our common stock. In addition, the delisting of our common stock could significantly impair our ability to raise capital. Future issuances of our common stock could lower our stock price and dilute the interests of existing stockholders. We may issue additional shares of our common stock in the future, including shares of our common stock in connection with acquisitions, strategic partnerships or joint ventures that we believe will allow us to complement our growth strategy, increase market share in our current markets and expand into adjacent markets, broaden our technology and intellectual property, and strengthen our relationships with distributors and OEMs. Any future issuances of shares of our common stock, including in connection with any future acquisition, partnership or joint venture, may result in the dilution of existing stockholders to the extent we are required to issue equity securities. The issuance of a substantial amount of common stock could have the effect of substantially diluting the interests of our current stockholders. In addition, the sale of a substantial amount of common stock in the public market, either in the initial issuance or in a subsequent resale by investors who acquired such common stock in a private placement, could have a material adverse effect on the market price of our common stock. In addition, we notified the holders of our Series B convertible preferred stock that the \$ 0.75 conversion price was reduced to \$ 0.3022 due to sales of our common stock in December 2019, as required by a dilution provision in the related Series B preferred stock agreements. As a result, the number of shares of common stock issuable upon the conversion of the Series B preferred stock was increased from ~~7.5 million~~, **652,000 shares** to ~~18.3 million~~, **726,009 shares**. **In December 2022, a holder of the Series B convertible preferred stock converted 303 preferred shares and was issued 1,002,647 shares of common stock**. If the holders of the Series B convertible preferred stock sell any or all of the common stock issuable upon conversion of the Series B convertible preferred stock, this could have a material adverse effect on the market price of our common stock. We do not intend to pay cash dividends. We last paid a dividend on our capital stock in 2012 and we do not anticipate paying any dividends in the foreseeable future. Consequently, any gains from an investment in our securities will likely depend on whether the price of our common stock increases. We have not paid dividends on any of our capital stock since 2012. We currently intend to retain our future earnings, if any, to fund the development and growth of our business. In addition, our ABL Facility prohibits us from paying cash dividends on our common stock. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future. Consequently, in the foreseeable future, you will likely only experience a gain from your investment in our securities if the price of our common stock increases. If industry or financial analysts do not publish research or reports about our business, or if they issue inaccurate or unfavorable research regarding our common stock, our share price and trading volume could decline. Due to our continued losses and lack of consistent revenue growth, there may be little or no incentive for securities analysts of brokerage and other financial firms to provide investment coverage of us or to recommend the purchase of our common stock. Any reports that industry or financial analysts publish about us or our business may influence the trading market for our common stock. We do not control these analysts, whether they provide investment coverage of us, or the content and opinions included in any of their reports. If any of the analysts who cover us issues an inaccurate or unfavorable opinion regarding our company, our stock price would likely decline. In addition, the stock prices of many companies in the technology industry have declined significantly after those companies have failed to meet, or significantly exceed, the financial guidance publicly announced by the companies or the expectations of analysts. If our financial results fail to meet, or significantly exceed, our announced guidance or the expectations of analysts or public investors, analysts could downgrade our common stock or publish unfavorable research about us. If, after initiating coverage of us and our common stock, one or more analysts were to cease coverage of our company or fail to publish reports on us regularly, our visibility in the financial markets could decrease, which in turn could cause our stock price or trading volume to decline. A provision in our certificate of incorporation and by-laws may prevent or delay an acquisition of our company, which could decrease the market value of our common stock. Provisions of Delaware law, our certificate of incorporation and our by-laws may discourage, delay or prevent a merger, acquisition or other change in control that stockholders may consider favorable. These provisions may also prevent or delay attempts by stockholders to replace or remove our current management or members of our Board of Directors. These provisions include: limitations on the removal of directors; advance notice requirements for stockholder proposals and nominations; the inability of stockholders to act by written consent or to call special meetings; the ability of our Board of Directors to make, alter or repeal our by-laws; and the authority of our Board of Directors to issue preferred stock with such terms as our Board of Directors may determine. In addition, we are subject to the provisions of Section 203 of the Delaware General Corporation Law, which limits business combination transactions with stockholders of 15% or more of our outstanding voting stock that our Board of Directors has not approved. These provisions and other similar provisions make it more difficult for stockholders or potential acquirers to acquire us without negotiation. These provisions may apply even if some stockholders may consider the transaction beneficial to them. As a result, these provisions could limit the price that investors are willing to pay in the future for

shares of our common stock. These provisions might also discourage a potential acquisition proposal or tender offer, even if the acquisition proposal or tender offer is at a premium over the then current market price for our common stock. The holders of shares of our Series B convertible preferred stock have **exercised**, and may continue to exercise, significant influence over us. Under the terms of the certificate of designations governing our Series B convertible preferred stock, the Series B convertible preferred stock generally ranks, with respect to liquidation and dividends, senior to our other securities and, so long as any shares of Series B convertible preferred stock remain outstanding, the approval of the holders of a majority of the Series B convertible preferred stock outstanding at the time of approval is required in order for us to, among other things, (i) amend, alter or repeal our certificate of incorporation if such amendment, alteration or repeal adversely affects the powers, preferences or special rights of the Series B convertible preferred stock; (ii) create any series or class of stock ranking senior as to liquidation rights or dividends with the Series B convertible preferred stock (other than series A senior secured convertible preferred stock, or series A convertible preferred stock); (iii) redeem, or pay dividends on, any class or series of our capital stock (other than the series A convertible preferred stock); ~~or (iv) sell, lease or convey all or substantially all of our assets, or merge, consolidate, or enter into a business combination with any other person; or (v)~~ so long as there are holders of at least 577 outstanding shares of Series B convertible preferred stock, issue any shares of Series B convertible preferred stock. The terms of the certificate of designations also provide that so long as any shares of Series B convertible preferred stock are outstanding, we may not offer, sell or issue, or enter into any agreement, arrangement or understanding to offer, sell or issue, any common stock or common stock equivalent (other than offerings that are underwritten on a firm commitment basis and registered with the SEC under the Securities Act) without the approval of holders of a majority of the Series B convertible preferred stock outstanding. These and other rights granted to holders of the Series B convertible preferred stock enable the holders thereof to exert substantial control over our affairs and potentially exercise their control in a manner adverse to the interest of our other stockholders. The majority holder of our Series B convertible stock, has prevented, and may in the future prevent, us from entering into significant corporate transactions that our management and Board have otherwise approved, including certain capital raising transactions. **Certain provisions of the certificate documents governing the issuance and sale of designations has our Series B convertible preferred stock have** impaired, and may in the future impair, our ability to enter into significant corporate transactions, including certain capital raising transactions **and business combinations**. For example, the securities purchase agreement pursuant to which we sold the Series B convertible preferred stock provides that so long as there are holders of at least 577 outstanding shares of Series B convertible preferred stock and until such date that (i) all shares of our Series B convertible stock become eligible for resale under Rule 144 without volume restrictions or (ii) a registration statement registering the sale of such shares become effective, unless we obtain the prior written consent of the majority holders, we may not issue or sell any securities in a capital raising transaction, unless such securities are not and will not be registered under the Securities Act until on or after the effective date of a registration statement registering the sale of the Series B convertible stock. The majority holder of our Series B convertible preferred stock, has previously withheld consent to certain capital raises that were proposed by our management and approved by our Board, most recently in September 2021. As a result, we were unable to proceed with the proposed offerings and raise capital at the times, at the prices, and in the amounts, that our management and our Board deemed most beneficial to the Company. **In addition, the certificate of designations. The certificate of designations also requires, among other things, that we obtain the consent of the majority holder of our Series B convertible preferred stock before we may sell, lease or convey all or substantially all of our assets, or merge, consolidate, or enter into a business combination with another party. The requirement to obtain this consent may also delay or prevent an acquisition of our company on terms that our other stockholders may desire and may adversely affect the market price of our common stock.** There can be no assurances that the majority holder of our Series B convertible preferred stock ~~will ultimately grant not withhold its consent for any future capital raise we propose. The, any proposed asset sale, merger, consolidation or similar business combination, or any other transaction or other matter that is subject to its consent pursuant requirements set forth in the Series B certificate of designations may also delay or prevent any acquisition of our or company on terms that our other~~ **the securities purchase agreement** stockholders may desire and ~~may adversely affect the market price of our common stock~~. Concentration of ownership of our stock may enable one stockholder or a small number of stockholders to significantly influence matters requiring stockholder approval. As of March 1, ~~2022~~ **2023**, Stillwater Holdings LLC (f / k / a Stillwater LLC) beneficially owned or controlled shares representing approximately ~~15~~ **16** % of our outstanding voting stock including ownership in Series B preferred shares that vote on an if converted basis. Flat Creek Fiduciary Management, as trustee for, a trust which the sole member of Stillwater Holdings LLC has investment control, owned approximately 3 % of our outstanding voting stock, Flat Creek Fiduciary Management LLC, as trustee for a trust for the benefit of the sole member of Stillwater Holdings LLC and the descendants of such member, which owned approximately ~~3~~ **0** % of our outstanding voting stock. Together such stockholders owned approximately ~~21~~ **19** % of our outstanding voting stock. As a result, these stockholders, if they act together, may be able to exert a significant degree of influence over matters requiring stockholder approval, including the election of directors and approval of significant corporate transactions. Further, if these stockholders act together with another stockholder, Ginola Limited, which has common directors with Mount Union Corp. and Chelsea Trust Company, as of March 1, ~~2022~~ **2023**, they would collectively own or control shares representing approximately ~~24~~ **22** % of our outstanding voting stock. This concentration of ownership may facilitate or hinder a change of control and might affect the market price of our common stock. Furthermore, the interests of this concentration of ownership may not always coincide with our interests or the interests of other stockholders. ~~Since~~ **In** January ~~2022~~ **2023**, the holders of the Series B preferred shares have ~~not~~ sold **29.8 thousand** shares of our outstanding common stock. Future sales of common stock by the holders of the Series B preferred shares or any other large shareholder may negatively impact the price or our common stock. We are subject to significant corporate regulation as a public company and failure to comply with all applicable regulations could subject us to liability or negatively affect our stock price. As a publicly traded company, we are

subject to a significant body of regulation, including the Sarbanes Oxley Act of 2002. While we have developed and instituted a corporate compliance program based on what we believe are the current best practices in corporate governance, internal and disclosure controls and continue to update this program in response to newly implemented or changing regulatory requirements, we cannot provide assurance that we are or will be in compliance with all applicable regulations. If we fail to comply with any of these regulations, we could be subject to a range of regulatory actions, fines or other sanctions or litigation. As part of the review of our compliance program, we continually review and analyze our internal control over financial reporting for Sarbanes- Oxley Section 404 compliance. As part of that process we have and in the future may discover material weaknesses or significant deficiencies in our internal control as defined under standards adopted by the Public Company Accounting Oversight Board that require remediation. ~~For example, in connection with our 2020 year end audit, we identified a significant deficiency in our internal controls over financial reporting related to our failure to reflect an increase in potentially dilutive common stock equivalents that could be issued as a result of sales of our common stock under our at- the- market sales agreement priced below our Series B preferred stock conversion rate. This correction had no impact on any financial statement amounts or earnings per share.~~ Any failure to maintain effective controls or timely effect any necessary improvement of our internal and disclosure controls could harm operating results or cause us to fail to meet our reporting obligations, which could affect our ability to remain listed with NYSE American. Ineffective internal and disclosure controls could also cause investors to lose confidence in our reported financial information, which would likely have a negative effect on the trading price of our securities. **In connection with our management team’s monitoring and review of our internal control over financial reporting, we identified two material weaknesses: the first was reported as of September 30, 2022 and the second was reported as of the year ended December 31, 2022. Any future material weakness in our internal control over financial reporting could adversely affect our ability to report our financial condition and results of operations accurately or on a timely basis and materially and adversely affect our business, financial condition, results of operations and reputation. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis. As previously disclosed in Part I, item 4 of our Quarterly Report on Form 10- Q for the quarter ended September 30, 2022, we identified a material weakness in internal control over financial reporting related to complex and non- routine transactions. Specifically, management concluded that it had not designed or maintained controls at a sufficient level of precision to verify the reliability of data used in its calculation of our right of use asset and lease liability. This control deficiency could have resulted in a misstatement of right of use asset and lease liability, which would have resulted in a material misstatement of the annual or interim financial statements that would not have been prevented or detected. Accordingly, management concluded that this control deficiency constitutes a material weakness. Management did not identify a material misstatement within our financial statements in this or any previously filed quarterly report on Form 10- Q or annual report on Form 10- K as a result of this material weakness. In the fourth quarter of 2022, we commenced a remediation plan with respect to this material weakness by modifying existing key controls at a sufficient level of precision to identify, discuss, and address any complex or non- routine transactions. Also in the fourth quarter of 2022, we completed our testing of these controls to verify that such controls are operating effectively and at a sufficient level of precision. As of the year ended December 31, 2022, we also identified a material weakness in internal control over financial reporting related to the calculation of year- to- date diluted earnings per share. Specifically, management concluded that it had not operated or maintained controls at a sufficient level of precision to accurately calculate the year- to- date diluted earnings per share for the year ended December 31, 2022. This control deficiency could have resulted in a misstatement of diluted earnings per share for the year ended December 31, 2022, which would have resulted in a material misstatement of the annual or interim financial statements that would not have been prevented or detected. Accordingly, management has concluded that this control deficiency constitutes a material weakness. Management did not identify a material misstatement within our financial statements in this or any previously filed quarterly report on Form 10- Q or annual report on Form 10- K as a result of this material weakness, and we have commenced a remediation plan with the goal of remediating this material weakness as soon as possible. However, we cannot estimate when the remediation will be completed, nor can we assure you that the measures we take will fully remediate this material weakness. We cannot assure you that we have identified all of our existing deficiencies and material weaknesses or that we will not in the future have additional significant deficiencies or material weaknesses. The occurrence of any additional material weaknesses or deficiencies, or any failure to timely remedy a material weakness or deficiency, could result in misstatements of our results of operations or restatements of our financial statements, cause us to fail to meet our reporting obligations, negatively impact our ability to enter into certain corporate transactions, cause investors to lose confidence in our financial reporting or harm our operating results, any of which could adversely affect our reputation, the market price of our common stock or our ability to remain listed with NYSE American.** Risks Related To Our Indebtedness Our ABL Facility contains various covenants limiting the discretion of our management in operating our business, which could prevent us from capitalizing on business opportunities and taking some corporate actions. Our ABL Facility imposes operating and financial restrictions on us. These restrictions limit or restrict, among other things, our ability to: incur additional indebtedness; make restricted payments (including paying dividends on, redeeming, repurchasing or retiring our capital stock); make investments; create liens; sell assets; engage in transactions with affiliates; and consolidate, merge or sell all or substantially all of our assets. In addition, the ABL Facility also requires us to maintain compliance with certain financial covenants. Our ability to comply with these covenants may be affected by events beyond our control, including those described in this “ Risk Factors ” section. Any breach of any of the covenants contained in the ABL Facility could result in an event of default under one or more of the documents governing such obligations which would allow the lenders under the ABL Facility to prevent us from borrowing under the ABL Facility and / or

declare all borrowings outstanding to be due and payable. Although relations with the lender under our ABL Facility are positive, there can be no assurance that the lender will grant a future covenant waiver or continue to lend to us at present availability levels, or at all. In the event of an acceleration of payment obligations under the ABL Facility, we may be unable to pay our outstanding indebtedness with our cash and cash equivalents then on hand. We could be required to seek alternative sources of funding, which may not be available on commercially reasonable terms, or terms as favorable as our current agreement or at all. If we are unable to provide alternative means of financing our operations, we may be required to reduce our operations or take other actions that are inconsistent with our current business practices or strategy. Repayment of any outstanding indebtedness under our ABL Facility is dependent, and repayment of any future indebtedness we may incur, will be dependent upon our ability to generate cash from operations. Our ability to make payments on our ABL Facility and to fund planned capital expenditures depends, and our ability to make payments on any additional future debt we may incur will depend, upon our ability to generate cash from our future operations. This, to a certain extent, is subject to financial, competitive, legislative, regulatory, and other factors that are beyond our control. In addition, if we cannot service the indebtedness under our ABL Facility, or any future indebtedness we may incur, we may have to take actions such as selling assets, raising additional capital or reducing or delaying capital expenditures, any of which could impede the implementation of our business strategy, prevent us from entering into transactions that would otherwise benefit our business and / or negatively affect our financial condition and results of operations. Our ABL Facility matures on December 31, ~~2022~~ 2023 and there can be no assurance that we will be able to extend or renew the facility. Our ABL Facility expires on December 31, ~~2022~~ 2023. While relations with the lender are positive, there is no assurance the lender will renew or extend this facility or continue to make funds available during ~~2022~~ 2023 and beyond at present availability levels, or at all. We may not be able to refinance our indebtedness under our ABL Facility, or any future indebtedness we may incur, or take such other actions, if necessary, on commercially reasonable terms, or at all. Our ability to meet our obligations as they become due is dependent, in part, on our ability to borrow under our ABL Facility. If the ABL Facility is not renewed or extended it may impair our ability to continue current operations and to execute on our plans. Our debt is variable rate debt, and increases in interest rates could adversely affect us by causing us to incur higher interest costs with respect to such variable rate debt. The ABL Facility subjects us to interest rate risk. The rate at which we pay interest on amounts borrowed under such facility fluctuates with changes in interest rates. Accordingly, with respect to any amounts from time to time outstanding under the ABL Facility, we are and will be exposed to changes in interest rates. If we are unable to adequately manage our debt structure in response to changes in the market, our interest expense could increase, which would negatively affect our financial condition and results of operations. There were \$ ~~2~~ 1.0 million net outstanding borrowings under the ABL Facility as of December 31, ~~2021~~ 2022.

Risks Related To Our Intellectual Property

We may not be successful in protecting our intellectual property and proprietary rights. We rely on a combination of patents, trade secret protection, licensing agreements and other arrangements to establish and protect our proprietary technologies. If we fail to successfully enforce our intellectual property rights, our competitive position could suffer, which could harm our operating results. Patents may not be issued for our current patent applications; third parties may challenge, invalidate or circumvent any patent issued to us; unauthorized parties could obtain and use information that we regard as proprietary despite our efforts to protect our proprietary rights; rights granted under patents issued to us may not afford us any competitive advantage; others may independently develop similar technology or design around our patents; and protection of our intellectual property rights may be limited in certain foreign countries. Any future infringement or other claims or prosecutions we may bring against third parties based on our intellectual property could have a material adverse effect on our business. Any such claims could be time consuming to assert, result in costly litigation, divert management's attention and resources, or result in our entering into royalty or licensing agreements. Protection of intellectual property has historically been a large yearly expense for us. For a period prior to 2008, we were not in a financial position to properly protect all of our intellectual property, and may not be in a position to properly protect our position or stay ahead of competition in new research and the protecting of the resulting intellectual property. Some of our commercial agreements may limit our ability to enforce certain of our intellectual property rights against certain parties. In addition to patent protection, we also rely on trade secrets and other non-patented proprietary information relating to our product development and manufacturing activities. We try to protect this information through appropriate efforts to maintain its secrecy, including requiring employees and third parties to sign confidentiality agreements. We cannot be sure that these efforts will be successful or that the confidentiality agreements will not be breached. We also cannot be sure that we would have adequate remedies for any breach of such agreements or other misappropriation of our trade secrets or that our trade secrets and proprietary know-how will not otherwise become known or be independently discovered by others. We might incur intellectual property and technology risk by conducting business in certain foreign jurisdictions. Conducting business in certain foreign jurisdictions might increase our risk of direct or indirect theft or compromise of our intellectual property. We rely on a combination of patents, trade secret protection, licensing agreements, and other arrangements to establish and protect our proprietary technologies. We cannot be sure that these efforts will be successful nor can we be sure that we have appropriate remedies for any breach. Changes to the patent law in the United States could diminish the value of patents in general, thereby impairing our ability to protect our products. Obtaining and enforcing our patents involves both technological and legal complexity and is therefore costly, time consuming and inherently uncertain. Patent reform legislation in the United States, including the Leahy-Smith America Invents Act, or the America Invents Act, could increase those uncertainties and costs. The America Invents Act was signed into law on September 16, 2011, and many of the substantive changes became effective on March 16, 2013. The America Invents Act reforms United States patent law in part by changing the U. S. patent system from a "first to invent" system to a "first inventor to file" system, expanding the definition of prior art, and developing a post-grant review system. This legislation changes United States patent law in a way that may weaken our ability to obtain patent protection in the United States for those applications filed after March 16, 2013. Further, the America Invents Act created new procedures to challenge the validity of issued patents in the United States, including post-grant review and inter partes review

proceedings, which some third parties have been using to cause the cancellation of selected or all claims of issued patents. For a patent with an effective filing date of March 16, 2013 or later, a petition for post-grant review can be filed by a third party in a nine-month window from issuance of the patent. A petition for inter partes review can be filed immediately following the issuance of a patent if the patent has an effective filing date prior to March 16, 2013. A petition for inter partes review can be filed after the nine-month period for filing a post-grant review petition has expired for a patent with an effective filing date of March 16, 2013 or later. Post-grant review proceedings can be brought on any ground of invalidity, whereas inter partes review proceedings can only raise an invalidity challenge based on published prior art and patents. In these adversarial actions, the U. S. Patent and Trademark Office or USPTO reviews patent claims without the presumption of validity afforded to U. S. patents in lawsuits in U. S. federal courts and uses a lower burden of proof than used in litigation in U. S. federal courts. Therefore, it is generally considered easier for a competitor or third party to have a U. S. patent invalidated in a USPTO post-grant review or inter partes review proceeding than invalidated in a litigation in a U. S. federal court. If any of our patents are challenged by a third party in such a USPTO proceeding, there is no guarantee that we will be successful in defending the patent, which could result in a loss of the challenged patent right to us. Depending on future actions by the U. S. Congress, the U. S. courts and the USPTO, the laws and regulations governing U. S. patents could change in unpredictable ways that would weaken our ability to obtain new patents or to enforce our existing patents and patents that we might obtain in the future. Third parties may assert claims against us which could harm our business. We may face third party claims from competitors, non-practicing entities, and others that our business practices or products infringe adversely held intellectual property rights. We may face third party claims that our employees or contractors have misappropriated and unlawfully disclosed to us for our benefit third party trade secrets or other proprietary information. Furthermore, we have agreed to indemnify customers, licensees and partners for certain intellectual property claims brought against them. Defending any such claims, whether or not meritorious, would cause us to incur costs and may divert the attention of management and technical personnel. Resolution of any such claims by litigation or settlement may entail payment of damages, entry into license agreements, changes to our business practices or products, and changes in our relationships with our customers, employees, licensees, partners, or contractors. Risks Related to Governmental, Legal or Regulatory Matters Procurement of microdisplays for military systems is subject to changes in federal budget priorities and if government funding is discontinued or reduced, our ability to develop or enhance products could be limited and our business results, operations and financial conditions could be adversely affected. Historically, a large portion of our revenue is from military contracts. Procurement of microdisplays for military systems is subject to changes in federal budget priorities. Government programs are subject to authorization, appropriation and allocation of funding on an annual basis. Additionally, funding can be shifted to other programs if the government changes budget priorities, such as in a time of war or for other reasons. Government contracts are also subject to the risk that the government may not appropriate and allocate all funding contemplated by the contract. Government contracts generally permit the contracting authority to terminate the contract for the convenience of the government and in the event of a premature termination of a contract, the full value of such contract will not be realized. The research and development and product procurement contracts of the customers we supply may be similarly impacted by government budget decisions. If the government funding is discontinued or reduced, our ability to develop or enhance products could be limited and our business results, operations and financial conditions could be adversely affected. In addition, we must comply with certain laws and regulations relating to the administration and performance of federal government contracts. These laws and regulations affect how we conduct business under our federal government contracts, including in our role as a subcontractor. In complying with these laws and regulations, we may incur additional costs, and non-compliance may lead to the assessment of fines and penalties, including contractual damages or the loss of business. **Significant congressional delays or reductions in appropriations for programs our military customers participate in, and U. S. government funding more broadly, can negatively impact our sales of microdisplays and could have a material adverse effect on our financial position, results of operations and / or cash flows. U. S. government programs are subject to annual congressional budget authorization and appropriation processes. For many military programs, including those our customers participate in, Congress appropriates funds on an annual fiscal year basis even though the program performance period may extend over several years. Programs are often partially funded initially, and additional funds are committed only as Congress makes further appropriations. We cannot predict the extent to which funding for individual programs will be included, increased, or reduced in annual appropriations or in separate supplemental appropriations or continuing resolutions or what the impact will be on our customers' buying decisions regarding purchases of our microdisplays.** If government agencies or companies discontinue or curtail their funding for our research and development programs, our business may suffer. Changes in federal budget priorities could adversely affect our contract and display product revenue. Historically, U. S. government agencies have funded a significant part of our research and development activities. Our funding has the risk of being redirected to other programs when the government changes budget priorities, such as in time of war or for other reasons. Government contracts are also subject to the risk that the government agency may not appropriate and allocate all funding contemplated by the contract. In addition, our government contracts generally permit the contracting authority to terminate the contract for the convenience of the government. The full value of the contracts would not be realized if they were prematurely terminated. We may be unable to incur sufficient allowable costs to generate the full estimated contract values. Furthermore, the research and development and product procurement contracts of the customers we supply may be similarly impacted. If the government funding is discontinued or reduced, our ability to develop or enhance products could be limited and our business results or operations and financial conditions could be adversely affected. We are subcontracted by certain prime contractors who obtain their military contracts through a request for proposal, or RFP, process, which is a competitive bidding process that involves unique risks that could materially reduce our revenues or profits. Our customers include certain prime contractors who contract directly with the military and U. S. government agencies, and then subcontract certain of those contracts to us. These prime contractors customers obtain their military and government agency

contracts through an RFP process, which typically involves intense competition and presents a number of risks that may not typically be present in the market, including the need to devote substantial time and attention of management and key employees to the preparation of a proposal that may not be accepted. The rules governing government purchasing typically require open bidding by possible providers against a list of requirements established under existing or specially created procedures, which results in significant pricing pressure in order to ensure a bid is competitive. This pricing pressure can lead our prime contractor customers to seek lower prices for our products and services, as a subcontractor, which could lead to lower margins than we may otherwise be able to obtain from other parties in the market. Additional risks associated with RFPs which may impact the revenue we receive from our prime contractor customers include the ability of the U. S. government unilaterally to: suspend or prevent contractors for a set period of time from receiving new U. S. government contracts or extending existing contracts based on violations or suspected violations of laws or regulations; terminate our customers' existing U. S. government contracts, including for poor performance or if funds become unavailable or are not provided to the applicable governmental agency; reduce the scope and value of our customers' U. S. government contracts and / or revise the timing for work to be performed; audit and object to our customers' contract-related costs and fees, including allocated indirect costs; control and potentially prohibit the export of our customers' products developed under the contract; claim rights to products, including intellectual property, developed under our customers' contracts; change certain terms and conditions in our customers' U. S. government contracts; and cancel outstanding RFP solicitations. The rules governing RFPs also allow the U. S. government to terminate any of its contracts with our prime contractor customers, either for its convenience or if our customers default by failing to perform in accordance with the contract schedule and terms, and also allow our prime contractor customers to terminate their contracts with subcontractors, including our company, in the event of U. S. government terminations, or if we default by failing to perform. Termination- for- convenience provisions generally enable our customers to recover only costs incurred or committed, settlement expenses, and profit on the work completed prior to termination. Termination- for- default provisions do not permit these recoveries and would make our prime contractor customers liable for excess costs incurred by the government in procuring undelivered items from another source. These factors may reduce or eliminate our expected revenue from subcontracts with our prime contractor customers .~~We may not be able to satisfy all of the conditions of the total of \$ 39. 1 million in U. S. governmental awards we were awarded during 2020 for purchases of capital equipment over a three- year period~~. The receipt of the significant amount of U. S. government awards during 2020 may impact the U. S. government' s decisions regarding future awards for capital equipment contracts for R & D development work we may apply for. As a result, our business and prospects may be adversely affected. Our customers and potential customers applying for government grants, incentives or loans may condition purchases of our products upon their receipt of these funds or delay purchases of our products until their receipt of these funds. **We have been In 2020, we were** awarded a total of \$ 39. 1 million in awards under government programs designed specifically for microdisplay industry contractors and participants. We anticipate that in the future there will be new opportunities for us to apply for grants, incentives and other forms of funding from the United States government. Despite our position as the only U. S. commercial manufacturer of OLED microdisplays, there is a risk that future funding decisions, including awards of contracts for R & D development work may be influenced by political or other considerations that encompass the significant amount of awards we received during 2020. Our ability to obtain grants, incentives and other forms of funding from government sources is subject to the availability of funds under applicable government programs and approval of our applications to participate in such programs. The application process for these grants, incentives and other forms of funding is and will be highly competitive, often involving multiple levels of military and U. S. government approval before a grant or incentive can be approved and funds disbursed, each of which is subject to risk and uncertain timing. ~~Moreover, we may not be able to satisfy or continue to satisfy the requirements and milestones imposed by the granting authority as conditions to the receipt of the \$ 39. 1 million in awards we received during 2020. Some of these conditions include, improvements in yield, throughput and profitability, sourcing and installation of related equipment, and quarterly and annual reporting of progress and compliance with program terms. In addition, not all of the terms and conditions associated with such funds have been finalized, and once disclosed, there may be terms and conditions with which we are unable to comply or which are commercially unacceptable to us.~~ There is also a risk that the actual price of equipment purchased **or facilities and installation costs,** may exceed the amounts budgeted under the awards, which would require use of our resources. The U. S. government will retain title to approximately 80 % of the equipment purchased under this multi- year program, until a determination of performance is made at the end of the program. The award agreements contain an obligation to prioritize U. S. Department of Defense related orders, as well as penalties if we do not continue to produce OLED microdisplays for five years past the end of the program. Should the U. S. government retain title to our equipment at the end of the program, this could cause a disruption or limitation in our ability to operate. In addition, conditions imposed by these government awards could limit our flexibility, or the desire of potential partners to engage in business combinations. There is no assurance that any future applications we submit for grants, incentives or other forms of funding will ultimately be approved, and if approved, that approval and funding will occur within our desired timeframe or that we will be able to satisfy or continue to meet any ongoing requirements or milestones. If we are not successful in obtaining government grants or incentives and we are unable to find alternative sources of funding to meet our planned capital needs, our business and prospects could be materially adversely affected. In addition, certain of our customers and potential customers that also apply for government grants, incentives or loans may condition purchases of our products and systems upon receipt of such funds or delay purchases of our products and systems until receipt of such funds, and if those customers and potential customers do not receive these funds or the receipt of these funds is significantly delayed, our results of operations could suffer. Some of our business is subject to U. S. government procurement laws and regulations. We must comply with certain laws and regulations relating to the formation, administration and performance of federal government contracts, including the EAR and the ITAR. These laws and regulations affect how we conduct business under our federal government contracts, including the business that we do as a

subcontractor. In complying with these laws and regulations, we may incur additional costs, and non-compliance may lead to the assessment of fines and penalties, including contractual damages, or the loss of business. Our international sales and operations are subject to export laws and regulations. We must comply with all applicable export control laws, including the EAR and ITAR. Certain of our products may be deemed to be controlled for export by the U. S. Commerce Department's Bureau of Industry and Security under the EAR or by the DDTTC under the ITAR. Certain of our products are controlled as defense articles and subject to license requirements from the DDTTC for export. Failure to comply with these export control laws can lead to severe penalties, both civil and criminal, and can include debarment from contracting with the U. S. government. Continued trade tensions among the United States, China, and Russia have led to increased tariffs, trade restrictions and buy American initiatives, and have affected customer ordering patterns. The United States has imposed restrictions on the export of U. S.- regulated products and technology to our international customers, including those located in China, Russia, and certain regions of Ukraine. As a result of these ongoing tensions, we believe there is a risk that U. S. laws and regulations governing the export of goods and technology, including the EAR and ITAR, may be revised to impose even tighter restrictions, which could negatively impact our ability to successfully market and sell our non-military products to customers located in China, Russia, and certain regions of the Ukraine. Existing and future restrictions could also potentially interfere with our ability to pursue manufacturing in China and our efforts to partner with consumer companies who might seek to build displays using our technology at high volume manufacturing facilities located in China. Our business is subject to environmental regulation and possible liability. Our operations are subject to various federal, state and local regulations related to toxic, volatile, experimental, and other hazardous chemicals used in our design and manufacturing process. Although we believe that we are currently in material compliance with all applicable environmental regulations, we cannot be certain that we or our suppliers have not in the past violated applicable laws or regulations, which violations could result in required remediation or other liabilities. We also cannot be certain that past use or disposal of environmentally sensitive materials in conformity with then existing environmental laws and regulations will protect us from required remediation or other liabilities under current or future environmental laws or regulations. Any failure to comply with environmental regulations could result in the imposition of fines or in the suspension or cessation of our operations, and our business, results of operations and financial condition could be adversely affected.

Related To Information Technology We rely on our information technology systems to conduct our business. If we experience an interruption in our operation, our business and financial results could be adversely affected. The efficient operation of our business is highly dependent on our information technology systems including our manufacturing equipment and process. If our information technology systems are damaged or an interruption is caused by a computer systems failure, viruses, fire, natural disasters, or power loss, the disruption to our normal business operations and impact on our costs, competitiveness, and financial results could be significant. Security breaches and other disruptions could compromise our information technology systems and expose us to liability, which could cause our business and reputation to suffer. In the ordinary course of our business, we will collect and store sensitive data on our systems and networks, including our proprietary business information and that of our customers and suppliers, and personally identifiable information of our customers and employees. The secure storage, processing, maintenance, and transmission of this information is critical to our operations. Despite the security measures we employ, **including systems information and event management software,** our information technology systems and networks may be vulnerable to attacks by hackers or breached due to employee error, malfeasance or other disruptions. Any such breach could compromise such systems and networks and the information stored therein could be accessed, publicly disclosed and / or lost or stolen. Although we have cyber insurance coverage, any such access, disclosure or other loss of information could result in legal claims or proceedings, liability under laws that protect the privacy of personal information, disruption to our operations, damage to our reputation and / or loss of competitive position.

General Risks Our success depends in large part on attracting and retaining highly skilled and qualified management, technical and consulting personnel. We must recruit and hire highly skilled technical personnel as employees and as independent contractors in order to develop our products **and,** to assist with servicing and upgrades to our equipment, **and to successfully market and sell our products.** The competition for **qualified management and** skilled technical employees is intense and we may not be able to retain or recruit such personnel. We must compete with companies that possess greater financial and other resources than we do, and that may be more attractive to potential employees and contractors. To be competitive, we may have to increase the compensation, including salaries, bonuses, stock options and other fringe benefits, offered to employees in order to attract and retain such personnel. The costs of attracting and retaining new personnel may have a materially adverse effect on our business and our operating results. Changes in management could have an adverse effect on our business. **We In October 2022, our vice president of business development resigned from his position and in March 2023, our vice president of operations resigned from his position. As we** are dependent upon the active participation of ~~several such~~ key management personnel in our strategic planning and in our day-to-day business operations, **turnover in such positions may, in the short term, harm our ability to successfully implement our business strategy, develop our business and / or remain competitive.** We **also will** need to recruit additional management **in order to address these departures from our management team and to further** expand our business **in the future.** **The Our search for additional management or other personnel may temporarily distract management's attention from our day-to-day business, which could have a materially adverse effect on our operating results and financial performance. In addition, the** failure to attract and retain additional management or personnel could **also** have a material adverse effect on our operating results and financial performance. Due to our limited resources, if we are unable to retain our key employees, we may not be able to effectively manage our operations or timely replace qualified personnel, which may result in weaknesses in operations, further loss of employees and / or reduced productivity among remaining employees. Economic conditions may adversely impact our business, operating results and financial condition. Economic conditions, market and political instability, **inflationary factors, and** changes in trade agreements and conflicts, such as the conflict between Russia and Ukraine, could adversely affect global markets and transactions and may adversely affect our customers and suppliers. Any adverse financial or

economic impact to our customers may impact their ability to pay timely, or result in their inability to pay. It may also impact their ability to fund future purchases, or increase the sales cycles which could lead to a reduction in revenue and accounts receivable. Our suppliers may increase their prices or may be unable to supply needed raw materials on a timely basis which could result in our inability to meet customers' demand or affect our gross margins. Our suppliers may also impose more stringent payment terms on us. The timing and nature of any recovery from the effects of adverse economic conditions or market and political instability on credit and financial markets is uncertain, and there can be no assurance that market conditions will improve in the near future or that our results will not be materially and adversely affected. Our business depends on international transactions. We purchase materials from and subcontract manufacturing processes to companies located abroad and may be adversely affected by political and currency risk, as well as the additional costs of doing business with foreign entities. In addition, **38 % and 39 % and 44 %** of our sales were to OEMs **located** outside the United States in **2022 and 2021 and 2020**, respectively. These sales **also** expose us to currency and political risk. **In addition, some of our non- U. S. customers have longer receivable periods as is customary in those countries, which may lengthen our accounts receivable cycles For or example collection period. Moreover**, the U. S. government has imposed sanctions through several executive orders restricting U. S. companies from conducting business with specified Russian and Ukrainian individuals and companies. As a result of **the uncertainty regarding these executive orders and other export sanctions** we have stopped shipments **to from** Russia, **and placed all are no longer accepting orders for Russian on hold. In addition, some of our non- U. S. customers have longer receivable periods as is customary in those countries. Political uncertainty and** Our business may expose us to product liability **instability** claims. Our business may expose us to potential product liability claims. We may face liability to product users for damages resulting from the faulty design **military incursion into Ukraine by Russia could negatively impact or our business** manufacture of our products. While we maintain product liability insurance coverage, **financial condition and operations. Russia's invasion of Ukraine and there-- the uncertainty surrounding** can be no assurance that product liability claims will not exceed coverage limits, fall outside the **escalating war could** scope of such coverage, or that such insurance will continue to **negatively impact global and regional economic conditions and** be available at commercially reasonable rates, if at all. Our reported financial results **markets, which** may be adversely affected **-- affect** by changes in accounting principles generally accepted in **our business operations. In response to the war,** the United States, **European Union and** GAAP are subject to interpretation by the **other countries** Financial Accounting Standards Board, or FASB, the United States Securities and Exchange Commission, or the SEC, and various bodies formed to promulgate and interpret appropriate accounting principles. A change in these principles or interpretations could have **imposed** a significant effect on our reported financial results for periods prior and **economic** subsequent to such change. The adoption of new standards may require enhancements or changes in our systems and will continue to require significant time and effort of our financial management team. We cannot predict the impact of all of the future changes to accounting principles or our accounting policies on our consolidated financial statements going forward, which could have a significant effect on our reported financial results and could affect the reporting of transactions **-- sanctions against Russia** completed before the announcement of the change. In addition, if we were to change our critical accounting estimates, including those related to inventory, contract revenue and **certain businesses and 34** other revenue sources, our **33**