

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

FORM 10-K

- ☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the Fiscal Year December 31, 2021 or
- ☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
Commission file number: 000-32929

PERASO INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

77-0291941
(IRS Employer
Identification Number)

2309 Bering Drive
San Jose, California 95131
(Address of principal executive offices)

(408) 418-7500
(Registrant's telephone number, including area code)

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

Title of each class		Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value \$0.001 per share		PRSO	The Nasdaq Stock Market, LLC

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

Title of each class		Name of each exchange on which registered
Series AA Preferred Stock, par value \$0.01 per share		None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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

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

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

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the Registrant, based on the closing price of the shares of common stock on the Nasdaq Stock Market on June 30, 2021 was \$54,027,405.

The number of shares of Registrant's Common Stock outstanding, par value \$0.001 per share, as of March 25, 2022, was 21,578,908 .

**ANNUAL REPORT ON FORM 10-K
FOR THE YEAR ENDED DECEMBER 31, 2021**

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS AND OTHER INFORMATION CONTAINED IN THIS REPORT

This Annual Report on Form 10-K, or this Report, and the documents incorporated herein by reference contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), which include, without limitation, statements about the market for our products, technology, our strategy, competition, expected financial performance and other aspects of our business identified in this Report, as well as other reports that we file from time to time with the Securities and Exchange Commission. Any statements about our business, financial results, financial condition and operations contained in this Report that are not statements of historical fact may be deemed to be forward-looking statements. These forward-looking statements represent our intentions, plans, expectations, assumptions and beliefs about future events and are subject to risks, uncertainties and other factors including, without limitation, the direct and indirect effects of coronavirus disease 2019, or COVID-19, and related issues that may arise therefrom. Without limiting the foregoing, the words “believes,” “anticipates,” “expects,” “intends,” “plans,” “projects,” or similar expressions are intended to identify forward-looking statements. Our actual results could differ materially from those expressed or implied by these forward-looking statements as a result of various factors, including the risk factors described in Part I, Item 1A, “Risk Factors,” and elsewhere in this Report. We undertake no obligation to update publicly any forward-looking statements for any reason, except as required by law, even as new information becomes available or other events occur in the future.

Peraso®, MoSys®, 1T-SRAM® and Bandwidth Engine® are registered trademarks of Peraso Inc. QPR™, LineSpeed™ and GigaChip™ are trademarks of Peraso Inc.

Unless expressly indicated or the context requires otherwise, the terms “Peraso,” the “Company,” “we,” “us” or “our” in this Report refer to Peraso Inc., a Delaware corporation, and, where appropriate, its subsidiaries.

Part I

Item 1. Business

Overview

Peraso Inc., together with its subsidiaries (“Peraso,” the “Company,” “we,” “our” or “us”), is a fabless semiconductor company focused on the development and sale of: i) semiconductor devices and modules based on our proprietary semiconductor devices and ii) performance of non-recurring engineering, or NRE, services and licensing of intellectual property, or IP. Our primary focus is the development of millimeter wavelength, or mmWave, wireless technology, for the 60 Gigahertz, or GHz, spectrum and for 5G cellular networks, or 5G. Our mmWave products enable a range of applications, such as 5G with low latency and high reliability, as well as multi-gigabit, mmWave links over 25 kilometers. Our mmWave products address consumer applications, such as wireless video streaming and untethered augmented reality and virtual reality, or AR/VR. We also have a line of memory-denominated integrated circuits for high-speed cloud networking, communications, security appliance, video, monitor and test, data center and computing markets that deliver time-to-market, performance, power, area and economic benefits for system original equipment manufacturers, or OEMs.

Business Combination

We were formerly known as MoSys, Inc., or MoSys. On September 14, 2021, we and our subsidiaries, 2864552 Ontario Inc. and 2864555 Ontario Inc., entered into an Arrangement Agreement, or the Arrangement Agreement, with Peraso Technologies Inc., or Peraso Tech, a privately-held corporation existing under the laws of the province of Ontario, to acquire all of the issued and outstanding common shares of Peraso Tech, or the Peraso Shares, including those Peraso Shares to be issued in connection with the conversion or exchange of secured convertible debentures and common share purchase warrants of Peraso Tech, as applicable, by way of a statutory plan of arrangement, or the Arrangement, under the Business Corporations Act (Ontario). On December 17, 2021, following the satisfaction of the closing conditions set forth in the Arrangement Agreement, the Arrangement was completed and we changed our name from MoSys to “Peraso Inc.” and began trading on the Nasdaq Stock Market, or the Nasdaq, under the symbol “PRSO.”

Industry Trends and Performance

mmWave and 5G

The demand for wireless services is increasing exponentially, therefore, wireless users and service providers will be required to eventually utilize higher frequency spectrum to meet the demand. We believe the 5G wireless industry is the best and latest example of how and why mmWave is the future of wireless networks. The 5G specification includes low, mid and mmWave frequencies. There are significant expectations that 5G will significantly improve cellular network performance, as evidenced by slogans as “10X the bandwidth” and “10X reduction in latency.” From our perspective, in reality, only part of the 5G specification truly offers such improvement, and we believe this is represented by mmWave.

mmWave is not without challenges, as mmWave signals do not typically travel as far as traditional wireless signals and are more attenuated by solid objects. Mitigation strategies must be deployed, in particular with regards to the management of signal propagation. Whereas traditional wireless devices utilize a broad, omni-antenna pattern, mmWave systems rely on phased array technology, which focusses the radio signal into a narrow beam to improve propagation characteristics. Peraso is a global leader in implementing these sophisticated radio systems and is one of the few companies in the market that is successfully shipping phased array devices in mass production.

In terms of specific market opportunity, mmWave is a key differentiating update from 4G/LTE networks to 5G. Within the 5G market, there are several primary applications for mmWave. The initial target for Peraso is referred to as the fixed wireless access, or FWA, segment. In this market segment, carriers provide their customers with a fixed wireless link to a base station or small cell, thus providing the customer with high-speed access to the Internet. mmWave can provide download speeds of over 1 Gbps and upload speeds of several hundred megabits per second. In addition, mmWave is a much cheaper alternative to fiber and allows carriers an additional advantage and competitive advantage against other access technologies, such as cable. Additionally, Peraso 5G mmWave RF modules can be utilized in other applications, including hotspots, laptops and tablets.

5G mmWave has support from major industry players. Apple has incorporated mmWave wireless into all versions of the iPhone12 for sale in the US market. The basic premise is common, which is the ever-increasing demand for bandwidth. Verizon is the leading carrier in the US at deploying mmWave for both mobile and fixed wireless access. The initial use case for cellular service providers is to provide their customer base (primarily smart phone customers) with continuity of network access in highly congested environments, such as sporting events, public beaches, music festivals or generally any large gathering where thousands of users are attempting to access the network simultaneously. Peraso believes that mmWave will gain universal acceptance, as users will demand full continuity in terms of network access.

Below are some early examples of carriers deploying mmWave technology:

- May 9, 2021: Major Japanese carriers, including NTT DOCOMO, KDDI, Rakuten and SoftBank deploy mmWave technology;
- June 8, 2021: UScellular sets record with 5G mmWave links of 10 kilometers;
- June 9, 2021: the United States Department of Defense announces use of 5G mmWave for secure communications;
- June 11, 2021: Verizon launches *On Site*, for the use of mmWave for on-premises, private 5G networks; and

- July 11, 2021: Verizon announces expansion of 5G home-internet, fixed-wireless service using mmWave spectrum.

Longer term, we believe we are well positioned to address the mobile opportunity for mmWave, which is expected to present an order of magnitude increase in the total available market.

Memory

Our memory solutions deliver time-to-market, performance, power, area and economic benefits for system original equipment manufacturers, or OEMs. Our primary product line is marketed under the Accelerator Engine name and comprises our Bandwidth Engine and Programmable HyperSpeed Engine IC products, which integrate our proprietary, 1T-SRAM high-density embedded memory and a highly-efficient serial interface protocol resulting in a monolithic memory IC solution optimized for memory bandwidth and transaction access performance. Further performance benefits can be achieved to offload statistical, search or other custom functions using our optional integrated logic and processor elements.

As data rates and the amount of high-speed processing increase, critical memory access bottlenecks occur. Our Accelerator Engine ICs dramatically increase memory accesses per second, removing these bottlenecks. In addition, the serial interface and high-memory capacity reduce the board footprint, number of pins and complexity, while using less power.

Our Products

Our primary focus is the development, marketing and sale of our mmWave products. mmWave is generally described as the frequency band from 24 GHz to 300 GHz. Currently, there are two industry standards that incorporate mmWave technology for wireless communications: (i) IEEE 802.11ad/ay and (ii) 3GPP Release 15-17 (commonly referred to as 5G). We have developed and continue to develop products that conform to these standards.

mmWave ICs

Our first product line operates in the 60 GHz band and conforms to the IEEE 802.11ad standard. This product line includes a baseband IC, including multiple variations of mmWave radio frequency, or RF, integrated circuits, or ICs, as well as associated antenna technology. The second product line is currently in development and addresses the 5G mmWave opportunity. Given our experience in the development of mmWave technology and devices, we believe 5G mmWave, is a logical adjacent market.

The first market targeted was the 60GHz IEEE 802.11ad market. Our 60GHz IEEE802.11ad products had two very important advantages over traditional 2.4GHz and 5GHz Wi-Fi products: very high data rates (up to 4.5 gigabits per second, or nGb/s) and low latency (less than 5 meters per second). The first application that had traction was outdoor broadband. This included applications such as point-to-point, or PtP, backhaul links or fixed wireless access, FWA, using point-to-multipoint links, or PtMP. products using the 60GHz band are for this market. As the spectrum is unlicensed (free), wireless carriers can provide services without having to spend significantly on wireless spectrum. We are a leading supplier of semiconductors in the PtP and PtMP markets. We are currently shipping to leading equipment suppliers in this space, as well as directly to service providers building their own equipment. We believe our products and technology bring key advantages to the market. First, our products support the spectrum from 66 GHz to 71 GHz. These are often referred to as channels 5 and 6 in the 802.11ad/ay specifications. The key advantage in supporting these channels is that the signals are able to propagate much further than channels 1-4; this is a result of significantly lower oxygen absorption at frequencies above 66 GHz. Currently, customers have achieved links in the range of 25 kilometers, which we believe is substantially longer than any 60 GHz links achieved to date.

In the indoor area, the 802.11ad technology is ideal for high speed, low latency video applications. In indoor environments, our products can support 3 Gb/s links with under 5ms of latency. Example applications include:

- AR/VR links between the headset and the video console;
- Universal serial bus, or USB, video cameras for corporate video conferencing;
- Wireless security cameras; and
- Smart factory safety and surveillance.

We have developed a high-volume mmWave production test methodology using standard, low-cost production test equipment. It has taken us several years to refine performance of this production test methodology, and we believe this places us in a leadership position in addressing the operational challenges of competitively producing and delivering mmWave products into high-volume markets.

mmWave modules

In 2021, we began producing and selling complete mmWave modules. The primary advantage provided by a module is that the silicon and the antenna are integrated into a single device. A differentiating characteristic of mmWave technology is that the RF amplifiers must be as close as possible to the antenna to minimize loss. By providing a module, we can guarantee the performance of the amplifier to antenna interface, which simplifies the RF design engineering, facilitating more opportunities for companies that have not provided RF-type systems, as well as shortening the time to market for new products. It is possible for third parties to provide module products, but, given our significant mmWave antenna technology and intellectual property portfolio, we believe it enables us to provide a highly competitive solution, as we own the module technology and produce the significant module components.

Memory

Accelerator Engines

Our Accelerator Engine IC products are targeted for FPGA-based systems and include the Bandwidth Engine, which is targeted for high-performance applications where throughput is critical, and the Programmable HyperSpeed Engine, which combines the features of the Bandwidth Engine with 32 RISC processors to allow user-defined functions or algorithms to be embedded in the Programmable HyperSpeed Engine. The target applications for our memory ICs include a broad range of markets, including test and measurement, 5G networks, router, switching, security, computational storage, database acceleration, Big Data, aerospace and defense, advanced video, high-performance computing, machine learning and AI and other data-driven areas.

The Bandwidth Engine is a memory-dominated IC that has been designed to be a high-performance companion IC to packet processors. While the Bandwidth Engine primarily functions as a memory device with a high-performance and high-efficiency interface, it also can accelerate certain processing operations by serving as a co-processor element. Our Bandwidth Engine ICs combine: (1) our proprietary high-density, high-speed, low latency embedded memory, (2) our high-speed serial interface technology, or SerDes, (3) an open-standard interface protocol and (4) intelligent access technology. We believe an IC combining our 1T-SRAM memory and serial interface with logic and other intelligence functions provides a system-level solution and significantly improves overall system performance at lower cost, size and power consumption. Our Bandwidth Engine ICs can provide up to and over 6.5 billion memory accesses per second externally and 12 billion memory accesses per second internally, which we believe is more than three times the performance of current memory-based solutions. They also can enable system designers to significantly narrow the gap between processor and memory IC performance. Our customers that design Bandwidth Engine ICs onto the line cards in their systems will re-architect their systems at the line-card level and use our product to replace traditional memory solutions. When compared with existing commercially available solutions, our Bandwidth Engine ICs may:

- provide up to four times the performance;
- reduce power consumption by approximately 50%;
- reduce cost by greater than 50%; and
- result in a dramatic reduction in IC pin counts on the line card.

Our Bandwidth Engine 2 IC products contain 576 megabits, or Mb, of memory and use a SerDes interface with up to 16 lanes operating at up to 12.5Gbps per lane. We have been shipping our Bandwidth Engine 2 IC products since 2013. Our Bandwidth Engine 3 IC products contain 1152Mb of memory and use a SerDes interface with up to 16 lanes operating at up to 25Gbps per lane. Our Bandwidth Engine 3 ICs target support for packet-processing applications with up to five billion memory single word accesses per second, as well as burst mode to enable full duplex buffering up to 400 Gbps for ingress, egress and oversubscription applications. The devices provide benefits of size, power, pin count and cost savings to our customers.

Our Programmable HyperSpeed Engine IC products further leverage our proven serial interface technology and high-density integrated memory with the processor engine architecture to enable high-speed customizable

search, security, and data analysis functions for networking, security, and data center applications, as well as new markets such as video and compute acceleration. The product architecture features 32 search-optimized processor engines, data flow schedulers, and over a terabit of internal access bandwidth. The device leverages our GCI interface technology and high-density integrated memory (1152Mb of 1T-SRAM embedded memory).

QPR

Our quad partition rate, or QPR, family of low cost, ultra-high speed SRAM memory devices features an architecture that allows for parallel accesses to multiple partitions of the memory simultaneously and allows access of up to 576 bits per read or write cycle. The QPR device includes four independent partitions per input/output and each partition functions as a stand-alone random-access SRAM. The high-performance interface, larger density and the multiple partitions work together to support multiple independent functional blocks within an FPGA with one QPR device. The MoSys MSQ220 and MSQ230 QPR devices are ideally suited for random-access applications. We also offer an optional FPGA RTL memory controller to simplify the interface to its high capacity 567Mb or 1Gb devices. We also offer an RTL memory controller that presents an SRAM-like interface to simplify the QPR design effort.

Research and Development

Our ability to compete in the future depends on successfully improving our technology to meet the market's increasing demand for higher performance and lower cost solutions. Development of new IC products requires specialized chip design and product engineers, as well as significant fabrication and testing costs, including mask costs.

We have over 12 years' worth of technical know-how in the design and manufacturing of mmWave technology. The most important aspect of this knowledge is knowing how mmWave circuits will perform in a real-world environment. Traditionally, semiconductor design utilizes sophisticated computer-aided design tools to simulate the performance of a device that is manufactured at a specific semiconductor manufacturing plant. However, mmWave is extremely difficult to model precisely. Therefore, the only path to understand how well a device will perform is to produce the device and test it in a real-world application. Over the last decade, many companies have attempted to develop mmWave semiconductor devices, however, given that the devices had inconsistent or weak performance, a number of them were unsuccessful and abandoned their design and product development efforts.

At a system level, there are additional technical challenges presented by mmWave technology that Peraso has overcome and form a key part of the internal know-how of Peraso. For example, a key technology of mmWave is the concept of beamforming and beam steering using a phased array antenna. This technology is utilized to concentrate the RF energy into a narrow beam to improve the range and coverage of mmWave devices. We have developed effective of beamforming and beam steering technology for phased array circuits and antennas. While there are many academic examples of successful phased array implementations, there is a vast barrier between a "laboratory" version of phased array technology and a version that is deployed for commercial use. One such aspect is the implementation of the beamforming procedure, which seeks to maximize throughput and do so while not impacting latency. While the details of achieving this are complex, it is important-intellectual property that we have gained through real-world experience.

With regard to our memory products, we do not have internal resources to develop new, memory IC products, and do not intend to expend any development efforts to develop new memory products. That said, we believe our Accelerator Engine IC products will provide us with meaningful revenue and gross margin contributions for the foreseeable future. We intend to continue to devote substantially all of our research and development efforts toward further expanding our mmWave technology portfolio.

Sales and Marketing

In addition to our direct sales personnel, we sell through sales representatives and distributors in the United States and Asia. During 2020, we entered into new distribution relationships with Arrow Electronics and DigiKey Electronics, which are two of the largest worldwide IC distributors. These distributors have a global presence with offices and technical selling and applications engineering capabilities, which we believe will enable us to reach new potential customers for our products.

We also have applications engineers who support our customer engagements and engage with the customers' system architects and designers to propose and implement our IC and IP solutions to address system design challenges and improve performance.

In the markets we serve, the time from a design win to production volume shipments of our IC products can range from 12 to 36 months. Networking, wireless and wired communication and security appliance systems can have a product life from a few years to over 10 years once a product like ours has been designed into the system. Historically, our revenue has been highly concentrated, with a few customers accounting for a significant percentage of our total revenue.

During the year ended December 31, 2021, three customers accounted for 10% or more of our net revenues, including CEAC International Limited at 48%, WeLink Communications LLC at 19% and Alltek Technology Corp at 12%. During the year ended December 31, 2020, three customers accounted for 10% or more of our net revenues, including Ubiquiti Inc. at 55%, XCOM Labs, Inc. at 27% and Alltek Technology Corp at 12%.

Intellectual Property

We regard our patents, copyrights, trademarks, trade secrets and similar intellectual property as critical to our success and rely on a combination of patent, trademark, copyright, and trade secret laws to protect our proprietary rights.

As of December 31, 2021, we held 105 United States and 55 foreign patents on various aspects of our mmWave, antenna, memory and other technology, with expiration dates ranging from 2022 to 2040. We also held 25 pending patent applications in the United States and abroad. There can be no assurance that others will not independently develop or patent similar or competing technology or design around any patents that may be issued to us, or that we will be able to successfully enforce our patents against infringement by others.

We were also an active participant in the development of the IEEE 802.11ay wireless specification and, to date, have been granted nine essential claims patents with respect to this standard. Essential claims patents are of particular value as a specification cannot be implemented without violating the patents.

The semiconductor industry is characterized by frequent litigation regarding patent and other intellectual property rights. Our IC customers, licensees or we might, from time to time, receive notice of claims that we have infringed patents or other intellectual property rights owned by others. Our successful protection of our patents and other intellectual property rights and our ability to make, use, import, offer to sell, and sell products free from the intellectual property rights of others are subject to a number of factors, particularly those described in Part I, Item 1A, "Risk Factors."

Competition

mmWave

mmWave circuit and system design is a highly specialized engineering skill, as well as a challenging technology to ship in mass production. At frequencies above 24 GHz, circuits are extremely vulnerable to small variances in the semiconductor manufacturing process. Designing circuits that minimize susceptibility to these variances takes years of practice, and we believe we are one of the few companies in the world that is skilled in mmWave design. Further, we have shipped mmWave devices in volume, and ensuring all devices sold adhere to strict performance standards is a core competency we have developed. In addition, we have developed our own mmWave phased array antenna technology, which allows us to be highly competitive in terms of overall system cost. Our customers do not need to engage with third-party antenna suppliers, thus eliminating the additional cost for a third-party antenna.

IEEE 802.11ad/ay Market:

Our primary competitor in the IEEE802.11ad/ay market is Qualcomm. The primary benefit that we provide to the market is the support of the higher frequency bands from 66 GHz to 71 GHz. The advantage at these frequencies is that oxygen attenuation is significantly reduced, and signals can travel much further.

We also have key points of differentiation compared to Qualcomm for wireless video devices. We are well positioned in this market, as we have USB 3.0 built into our devices, so our products generally support USB architectures. A prime example is the replacement of the USB cable with a wireless version using our technology. There are many applications where this can be of use, including USB web cams, wireless displays, and AR/VR headsets. We have invested significant software resources into providing the market with wireless USB solutions, and we believe there is no other mmWave vendor in the world that can offer multi-gigabit solutions as a replacement for wired USB.

5G Market:

With 5G, our efforts are focused on the mmWave RF front-end phased array component of the system. This focus is in contrast to the IEEE solution, in which Peraso provides a baseband device as well as an mmWave RF front-end phased array device. The 5G product instantiation is an RF module that embraces a broad swath of intellectual property that establishes a substantial moat to potential competitors. Key elements of our mmWave intellectual property include:

- RF circuits;
- phased array antenna; and
- in-system circuit calibration, beam forming, real-time system monitoring.

From a competitive perspective, we are currently the only pure-play, 5G vendor to offer a dual-band (28/39GHz) RF solution for the FWA market. Qualcomm does offer a 5G RF solution for the FWA market, however its solution is based on aggregating its mobile RF solution, which requires several compromises in terms of cost, performance, and power consumption. With an initial focus on fixed wireless access, we can derive advantages by optimizing our silicon for that specific market. Furthermore, we have experienced initial success in the unlicensed, 60 GHz, FWA market, and we believe we will be able to transfer all of our knowledge gained from the 60 GHz market to the 5G market. However, this market opportunity is more competitive, and potential competitors, in addition to Qualcomm, include Mediatek and Samsung Electronics Co., Ltd., or Samsung.

Memory

The markets for our memory products are highly competitive. We believe that the principal competitive factors are:

- processing speed and performance;
- density and cost;
- power consumption;
- reliability;
- interface requirements;
- ease with which technology can be customized for and incorporated into customers' products; and
- level of technical support provided.

We believe that our products compete favorably with respect to each of these criteria. Our proprietary 1T-SRAM embedded memory and high-speed serial interface IP can provide our Accelerator Engine ICs with a competitive advantage over alternative devices. Alternative solutions are either DRAM or SRAM-based and can support either the memory size or speed requirements of high-performance networking systems, but generally not both. DRAM solutions provide a significant amount of memory at competitive cost, but DRAM solutions do not have the required fast access and cycle times to enable high-performance. The DRAM solutions currently used in networking systems include RLDRAM from Micron Technology, Inc., or Micron, LLDRAM from Renesas, DDR from Samsung, Micron and others, and HBM, which is stacked DRAM memory from Samsung and SK Hynix. SRAM solutions can meet high-speed performance requirements, but often lack adequate memory size. The SRAM solutions currently used in networking systems primarily include QDR or similar SRAM products from Cypress Semiconductor Corporation and GSI Technology, Inc. Most of the currently available SRAM and DRAM solutions use a parallel, rather than a serial interface. To offset these drawbacks, system designers generally must use more discrete memory ICs, resulting in higher power consumption and greater utilization of space on the line card.

Our competitors include established semiconductor companies with significantly longer operating histories, greater name recognition and reputation, large customer bases, dedicated manufacturing facilities and greater financial, technical, sales and marketing resources. This may allow them to respond more quickly than us to new or emerging technologies or changes in customer requirements. Generally, customers prefer suppliers with greater financial resources than we have currently. Many of our competitors also have significant influence in the semiconductor industry. They may be able to introduce new technologies or devote greater resources to the development, marketing and sales of their products than we can. Furthermore, in the event of a manufacturing capacity shortage, these competitors may be able to manufacture products when we are unable to do so.

Our Accelerator Engine ICs compete with embedded memory solutions, stand-alone memory ICs, including both DRAM and SRAM ICs, ASICs designed by customers in-house to meet their system requirements, and NPUs that use significant internal memory and customer-designed software to implement tasks.

Manufacturing

We depend on third-party vendors to manufacture, package, assemble and test our IC products, as we do not own or operate a semiconductor fabrication, packaging or production testing facility. By outsourcing manufacturing, we can avoid the high cost associated with owning and operating our own facilities, allowing us to focus our efforts on the design and marketing of our products.

We perform an ongoing review of our product manufacturing and testing processes. Our IC products are subjected to extensive testing to assess whether their performance meets design specifications. Our test vendors provide us with immediate test data and the ability to generate characterization reports that are made available to our customers.

Employees

As of December 31, 2021, we had 82 employees, including 22 located in the United States and 60 located in Canada. Our headcount consists of 64 in research and development and manufacturing operations and 18 in sales, marketing and general and administrative functions.

Available Information

We were founded in 1991 and reincorporated in Delaware in 2000. Our website address is www.peraso.com. The information in our website is not incorporated by reference into this report. Through a link on the Investor section of our website, we make available our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and any amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act, as soon as reasonably practicable after they are filed with, or furnished to, the Securities and Exchange Commission, or SEC. You can also read any materials submitted electronically by us to the SEC on its website (www.sec.gov), which contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC, including us.

Item 1A. Risk Factors

The following risks could materially and adversely affect our business, financial condition, cash flows, and results of operations, and the trading price of our common stock could decline. These risk factors do not identify all risks that we face. Our operations could also be affected by factors that are not presently known to us or that we currently consider to be immaterial to our operations. Due to risks and uncertainties, known and unknown, our past financial results may not be a reliable indicator of future performance, and historical trends should not be used to anticipate results or trends in future periods. Refer also to the other information set forth in this Annual Report on Form 10-K, including in Part II, Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations” as well as our Consolidated Financial Statements and the related notes in Part II, Item 15.

We may not realize all of the anticipated benefits of the recent business combination.

In December 2021, we completed the Arrangement. The success of the Arrangement will depend on, among other things, our ability to integrate the businesses of Peraso Tech and MoSys in a timely fashion. Additionally, we may not be able to successfully achieve the level of cost savings, revenue enhancements and synergies that we expect. If we are not able to successfully achieve these objectives, the anticipated benefits of the Arrangement may not be realized fully or at all or may take longer to realize than expected. In addition, failure to successfully integrate the businesses in the expected timeframe may adversely affect our business, financial condition, results of operations or cash flows. In addition, the combined operation of two businesses may be a complex, costly and time-consuming process. The difficulties of combining the operations of the companies include, *inter alia*:

- the ability of officers and directors to, as required, effectively transfer operational knowledge of MoSys, especially the production of the MoSys products, to the new management team;
- the diversion of management attention to integration matters;
- difficulties in integrating functions, personnel, and systems;
- difficulties in assimilating employees and in attracting and retaining key personnel;
- difficulties in achieving anticipated cost savings, synergies, business opportunities, and growth prospects from the combination;
- challenges of managing a larger company following the Arrangement, including challenges of conforming standards, controls, procedures, and accounting and other policies and compensation structures;
- declines in our results of operations, financial condition or cash flows;
- a decline in the market price of our common stock;
- contingent liabilities that are larger than expected;
- disruption of existing relationships, with existing customers, business partners, and other constituencies; and
- the disruption of, or the loss of momentum in, ongoing research and development.

Many of these factors are outside our control, and any one of them could result in increased costs, decreased expected revenues and diversion of management time and energy, which could materially impact our business, financial condition, results of operations and cash flows. These factors could cause our operating results to suffer, decrease or delay the expected benefits of the Arrangement and negatively impact the price of our common stock. As a result, it cannot be assured that we will realize the full benefits anticipated from the Arrangement within the anticipated time frames, or at all.

Even if the businesses are integrated, there can be no assurance that the Arrangement will result in the realization of the full benefit of the anticipated synergies and cost savings or that these benefits will be realized within the expected time frames or at all. Difficulties in integrating the businesses could harm our reputation. In addition, by engaging in the Arrangement, MoSys and Peraso may forego or delay pursuit of other opportunities that may have proven to have greater commercial potential.

We have a history of losses and we may need to raise additional capital in the future.

We recorded a net loss of approximately \$10.9 million for the year ended December 31, 2021, and ended the period with an accumulated deficit of approximately \$117.1 million. We recorded a net loss of approximately \$15.3 million for the year ended December 31, 2020, and ended the period with an accumulated deficit of approximately \$106.3 million. These and prior-year losses have resulted in significant negative cash flows. To remain competitive and expand our product offerings to customers, we will need to increase revenues substantially beyond levels that we have attained in the past in order to generate sustainable operating profit and sufficient cash flows to continue doing business without raising additional capital from time to time. Given our history of fluctuating revenues and operating losses, and the challenges we face in securing customers for our products, we cannot be certain that we will be able to achieve and maintain profitability on either a quarterly or annual basis in the future. As a result, we may need to raise additional capital in the future, which may or may not be available to us at all or only on unfavorable terms.

The full effects of COVID-19 and other potential future public health crises, epidemics, pandemics or similar events are uncertain and could have a material and adverse effect on our business, financial condition, operating results and cash flows.

The global outbreak of the coronavirus disease 2019, or COVID-19, was declared a pandemic by the World Health Organization and a national emergency by the U.S. government in March 2020. This has negatively affected the world economy, disrupted global supply chains, significantly restricted travel and transportation, resulted in mandated closures and orders to “shelter-in-place” and created significant disruption of the financial markets. The extent of the impact on our operational and financial performance will depend on future developments, including the duration and spread of the pandemic and related actions U.S. and foreign government agencies continue to take to prevent disease spread, all of which are uncertain, out of our control and cannot be predicted.

In accordance with applicable U.S. governmental ordinances generally exempting essential businesses and/or critical infrastructure workforces from mandated closures and orders to “shelter-in-place,” we are operating in support of essential products and services, subject to limitations and requirements in applicable state and county orders. We have been complying with county and state orders and have implemented a teleworking policy for our employees and contractors and significantly minimized the number of employees who visit our office. Since the outbreak of COVID-19, while we have experienced increased lead times for wafers, substrates and assembly services, we have experienced minimal impact on our production operations and have been able to satisfy all customer purchase orders timely. However, a facility closure, work slowdowns or temporary stoppage at one of our manufacturing suppliers could occur, which could have a longer-term impact and could delay our production and ability to conduct business and negatively impact our business, financial condition, operating results and cash flows.

If our workforce is unable to work effectively, including because of illness, quarantines, absenteeism, government actions, facility closures, travel restrictions or other restrictions in connection with the COVID-19 pandemic, our operations will be negatively impacted. We may be unable to produce and sell our IC products, and our costs may increase as a result of the COVID-19 outbreak. The impacts could worsen if there is an extended duration of any COVID-19 outbreak or a resurgence of COVID-19 infection in affected regions after they have begun to experience improvement.

The continued spread of COVID-19 has also led to disruption and volatility in the global capital markets. We may be unable to access the capital markets, and additional capital may only be available to us on terms that could be significantly detrimental to our existing stockholders and to our business.

We are working with our stakeholders, including customers, suppliers and employees, to address the impact of this global pandemic. We continue to monitor the situation, to assess further possible implications to our business, supply chain and customers, and to take actions in an effort to mitigate adverse consequences. Should such disruption continue for an extended period of time, or if and when the pandemic ends, the resumption of normal business operations may be delayed or constrained by lingering effects of the pandemic (including limitations imposed by governmental authorities on our ability to return to normal operating practices). These effects, alone or taken together, could have a material adverse impact on our business, results of operations or financial condition.

Our failure to generate the significant capital necessary or raise additional capital to expand our operations and invest in new products could reduce our ability to compete and could harm our business.

We intend to continue spending to grow our business. If we do not achieve and maintain profitability, we will need additional financing to pursue our business strategy, develop new products, respond to competition and market opportunities and acquire complementary businesses or technologies. There can be no assurance that such additional capital, whether in the form of debt or equity financing, will be sufficient or available and, if available, that such capital will be offered on terms and conditions acceptable to us.

If we were to raise additional capital through sales of our equity securities, our stockholders would suffer dilution of their equity ownership. If we engage in debt financing, we may be required to accept terms that restrict our ability to incur additional indebtedness, prohibit us from paying dividends, repurchasing our stock or making investments, and force us to maintain specified liquidity or other ratios, any of which could harm our business, operating results and financial condition. If we need additional capital and cannot raise it on acceptable terms, we may not be able to, among other things:

- Develop or enhance our products;
- Continue to expand our product development and sales and marketing organizations;
- Acquire complementary technologies, products or businesses;
- Expand operations, in the United States or internationally;
- Hire, train and retain employees; or
- Respond to competitive pressures or unanticipated working capital requirements.

Our failure to successfully market our products could seriously harm our ability to execute our business strategy and may force us to curtail our research and development plans or existing operations.

Our success depends upon the acceptance by our target markets of our products and technologies by original equipment manufacturers or OEMs. Our prospective customers may be unwilling to adopt and design-in our products due to the uncertainties and risks surrounding designing a new IC or module and/or incorporating new IP into their systems and relying on a small, sole-sourced supplier. Thus, currently, we do not know whether we will be able to generate adequate profit from making and selling our products and licensing our technologies.

An important part of our strategy to gain market acceptance is to penetrate new markets by targeting market leaders to accept our technology solutions. This strategy is designed to encourage other participants in those markets to follow these leaders in adopting our solutions. If a high-profile industry participant adopts our products for one or more of its products but fails to achieve success with those products, or is unable to successfully implement our products, other industry participants' perception of our solutions could be harmed. Any such event could reduce the amount of future sales of our products.

Future revenue growth depends on our winning designs with existing and new customers, retaining current customers, and having those customers design our solutions into their product offerings and successfully selling and marketing such products. If we do not continue to win designs in the short term, our product revenue in the following years will not grow.

We sell our ICs to OEM customers that include our ICs and modules in their products. Our technology is generally incorporated into products at the design stage, which we refer to as a design win, and which we define as the point at which a customer has made a commitment to build a board against a fixed schematic for its system, and this board will utilize our products. As a result, our future revenue depends on our OEM customers designing our products into their products, and on those products being produced in volume and successfully commercialized. If we fail to retain our current customers or convince our current or prospective customers to include our products in their products and fail to achieve a consistent number of design wins, our results of operations and business will be harmed. In addition, if a current or prospective customer designs a competitor's offering into its product, it becomes significantly more difficult for us to sell our products to that customer because changing suppliers involves significant cost, time, effort and risk for the OEM. Even if a customer designs one of our ICs or modules into its product, we cannot be assured that the OEM's product will be commercially successful over time, or at all, or that we will receive or continue to receive any revenue from that customer. Furthermore, the customer product for which we obtain a design win may be canceled before the product enters production or before or after it is introduced into the market. Because of our extended sales cycle, our revenue in future years is highly dependent on design wins we are awarded today. Our lack of capital and uncertainty about our future technology roadmap also may limit our

success in achieving additional design wins, as discussed under “We may experience difficulties in transitioning to new wafer fabrication process technologies or in achieving higher levels of design integration, which may result in reduced manufacturing yields, delays in product deliveries and increased costs.”

The design win process for our products is generally lengthy, expensive and competitive, with no guarantee of revenue, and, if we fail to generate sufficient revenue to offset our expenses, our business and operating results would suffer.

Achieving a design win for one of our products is typically a lengthy, expensive and competitive process because our customers generally take a considerable amount of time to evaluate our products. In the markets we serve, the time from initial customer engagement to design win to production volume shipments can range from one to three years, though it may take longer for new customers or markets we intend to address. In order to win designs, we are required to both incur design and development costs and dedicate substantial engineering resources in pursuit of a single customer opportunity. Even though we incur these costs we may not prevail in the competitive selection process, and, even if we do achieve a design win, we may never generate sufficient, or any, revenue to offset our development expenditures. Our customers have the option to decide whether or not to put our solutions into production after initially designing our products in the specification. The customer can make changes to its product after a design win has been awarded to us, which can have the effect of canceling a previous design win. This occurred in 2018 when a large customer decided to phase out its use of our memory products. The delays inherent in our protracted sales cycle increase the risk that a customer will decide to cancel, curtail, reduce or delay its product plans, causing us to lose anticipated revenue. In addition, any change, delay or cancellation of a customer’s plans could harm our financial results, as we may have incurred significant expense while generating no revenue.

If our foundries do not achieve satisfactory yields or quality, our cost of net revenue will increase, our operating margins will decline and our reputation and customer relationships could be harmed.

We depend not only on sufficient foundry manufacturing capacity and wafer prices, but also on good production yields (the number of good die per wafer) and timely wafer delivery to meet customer demand and maintain profit margins. The fabrication of our products is a complex and technically demanding process. Minor deviations in the manufacturing process can cause substantial decreases in yields and, in some cases, cause production to be suspended. From time to time, our foundries experience manufacturing defects and reduced manufacturing yields. Changes in manufacturing processes or the inadvertent use of defective or contaminated materials by our foundries could result in lower than anticipated manufacturing yields, which would harm our revenue or increase our costs. For example, in the past, one of our foundries produced ICs and met its process specification range but did not meet our customer’s specifications causing us to write off a portion of our production lot. Many of these problems are difficult to detect at an early stage of the manufacturing process and may be time consuming and expensive to correct. Poor yields from our foundry, or defects, integration issues or other performance problems in our ICs, could cause us significant customer relations and business reputation problems, harm our operating results and give rise to financial or other damages to our customers. Our customers might consequently seek damages from us for their losses. A product liability claim brought against us, even if unsuccessful, would likely be time consuming and costly to defend.

We may experience difficulties in transitioning to new wafer fabrication process technologies or in achieving higher levels of design integration, which may result in reduced manufacturing yields, delays in product deliveries and increased costs.

We aim to use the most advanced manufacturing process technology appropriate for our solutions that is available from our foundries. As a result, we periodically evaluate the benefits of migrating our solutions to other technologies in order to improve performance and reduce costs. These ongoing efforts require us from time to time to modify the manufacturing processes for our products and to redesign some products, which in turn may result in delays in product deliveries. We are dependent on our foundries to support the production of wafers for future versions of our IC. Such production may require changes to the foundry’s existing process technology. If the foundry elects to not alter their process technology to support future versions of our ICs, we would need to identify a new foundry.

For example, our 1T-SRAM technology used in our Accelerator Engine products is not available at process nodes below 40 nanometers. To date, we have not developed any memory products below the 40-nanometer process node and have no plans to continue the product roadmap for our Accelerator Engine products. We do not consider this to adversely affect our current product offerings, but our inability to continue our product roadmap can adversely affect, and has in the past affected, our efforts to win new customers for these products, secure additional design wins and grow our future revenues.

If Taiwan Semiconductor Manufacturing, or TSMC, which is the sole foundry for producing our memory ICs were to discontinue the foundry process used to produce our Accelerator Engine products, we would not be in a position to transition production of these products to a new foundry and continue to manufacture our products and this would require us to discontinue production of these products and would negatively impact our future revenues results of operations and cash flows.

To date, we have not achieved the anticipated benefits of a fabless semiconductor company.

Our goal has been to increase our total available market by creating high-performance ICs for mmWave, 5G, networking communications, data center systems and other markets using our proprietary technology and design expertise. Historically, this development effort required that we add headcount and design resources, such as expensive software tools, which increased our losses from, and cash used in, operations. Due to our limited financial resources, we were unable to sustain our memory IC development efforts and curtailed them in 2017. Our efforts to increase our revenue and expand our markets have been subject to various risks and uncertainties, including, but not limited to:

- a lack of working capital;
- customer acceptance;
- difficulties and delays in our product development, manufacturing, testing and marketing activities;
- timeliness of new product introductions;
- the anticipated costs and technological risks of developing and bringing ICs to market;
- the willingness of our manufacturing partners to assist successfully with fabrication;
- our ability to qualify our products for mass production and achieve wafer yield levels and the final test results necessary to be price competitive;
- the availability of quantities of ICs supplied by our manufacturing partners at a competitive cost;
- our ability to generate the desired gross margin percentages and return on our product development investment;
- competition from established IC suppliers;
- the adequacy of our IP protection for our proprietary IC designs and technologies;
- customer concerns over our financial condition and viability to be a long-term profitable supplier; and
- the vigor and growth of markets served by our current and prospective customers.

If we experience significant delays in bringing our IC products to market, if customer adoption of our products is delayed or if our customers' products that include our IC products are not successful, this could have a material adverse effect on our anticipated revenues in upcoming years due to the potential loss of design wins and future revenues.

Our main objective is the development and sale of our technologies to cloud networking, security, test and video system providers and their subsystem and component vendors and, if demand for these products does not grow, we may not achieve revenue growth and our strategic objectives.

We market and sell our ICs and IP to mmWave, 5G, cloud networking, communications, data center and other equipment providers and their subsystem and component vendors. We believe our future business and financial success depends on market acceptance and increasing sales of these products. To meet our growth and strategic objectives, networking infrastructure OEMs must incorporate our products into their systems and the demand for their systems must grow as well. We cannot provide assurance that sales of our products to these OEMs will increase substantially in the future or that the demand for our customers' systems will increase. Our future revenues from these products may not increase in accordance with our growth and strategic objectives if, instead, our OEM customers modify their product designs, select products sold by our competitors or develop their own proprietary technologies. Moreover, demand for their products that incorporate our technologies may not grow or result in significant sales of such products due to factors affecting the customers and their business such as industry downturns, declines in capital spending in the enterprise and carrier markets or unfavorable macroeconomic conditions. Thus, the future success of our business depends in large part on factors outside our control, and sales of our products may not meet our revenue growth and strategic objectives.

Our failure to continue to develop new products and enhance our products on a timely basis could diminish our ability to attract and retain customers.

The existing and potential markets for our products are characterized by ever-increasing performance requirements, evolving industry standards, rapid technological change and product obsolescence. These characteristics lead to periodic changes in customer requirements, shorter product life cycles and changes in industry demands and mandate new product introductions and enhancements to maintain customer engagements and design wins. In order to attain and maintain a significant position in the market, we will need to continue to enhance and evolve our products and the underlying proprietary technologies in anticipation of these market trends although we do not have a large engineering staff.

Our future performance depends on a number of factors, including our ability to:

- identify target markets and relevant emerging technological trends;
- develop and maintain competitive technology by improving performance and adding innovative features that differentiate our products from alternative technologies;
- enable the incorporation of our products into customers' products on a timely basis and at competitive prices;
- develop and establish a market for our VAE products; and
- respond effectively to new technological developments or new product introductions by others.

Our failure to enhance our existing products and develop future products that achieve broad market acceptance will harm our competitive position and impede our future growth.

Our ICs have a lengthy sales cycle, which makes it difficult to predict success in this market and the timing of future revenue.

Our ICs have a lengthy sales cycle, ranging from six to 24 months from the date of our initial proposal to a prospective customer until the date on which the customer confirms that it has designed our product into its system. An even lengthier period could ensue before we would know the volume of products that such customer will, or is likely to, order. A number of factors can contribute to the length of the sales cycle including technical evaluations of our products by the customers, the design process required to integrate our products into the customers' products and the timing of the customers' new product announcements. In anticipation of product orders, we may incur substantial costs before the sales cycle is complete and before we receive any customer payments. As a result, in the event that a sale is not completed or is cancelled or delayed, we may have incurred substantial expenses, making it more difficult for us to become profitable or otherwise negatively impacting our financial results. Furthermore, because of this lengthy sales cycle, the recording of revenues from our selling efforts may be substantially delayed, our ability to forecast our future revenue may be more limited and our revenue may fluctuate significantly from quarter to quarter. We cannot provide any assurances that our efforts to build a strong and profitable business based on the sale of ICs will succeed. If these efforts are not successful, in light of the substantial resources that we have invested, our future operating results and cash flows could be materially and adversely affected.

The semiconductor industry is cyclical in nature and subject to periodic downturns, which can negatively affect our revenue.

The semiconductor industry is cyclical and has experienced pronounced downturns for sustained periods of up to several years. To respond to any downturn, many semiconductor manufacturers and their customers will slow their research and development activities, cancel or delay new product developments, reduce their workforces and inventories and take a cautious approach to acquiring new equipment and technologies. As a result, our business has been in the past and could be adversely affected in the future by an industry downturn which could negatively impact our future revenue and profitability. Also, the cyclical nature of the semiconductor industry may cause our operating results to fluctuate significantly from year-to-year.

Our revenue has been highly concentrated among a small number of customers, and our results of operations could be harmed if we lose a key revenue source and fail to replace it.

Our overall revenue has been highly concentrated, with a few customers accounting for a significant percentage of our total revenue. For the year ended December 31, 2021, our three largest customers represented approximately 81% of total revenue. We expect that a relatively small number of customers will continue to account for a substantial portion of our revenue for the foreseeable future.

As a result of this revenue concentration, our results of operations could be adversely affected by the decision of a single key customer to cease using our technology or products or by a decline in the number of products that incorporate our technology that are sold by a single licensee or customer or by a small group of licensees or customers.

Our revenue concentration may also pose credit risks which could negatively affect our cash flow and financial condition.

We might also face credit risks associated with the concentration of our revenue among a small number of licensees and customers. At December 31, 2021, four customers represented approximately 92% of total trade receivables. Our failure to collect receivables from any customer that represents a large percentage of receivables on a timely basis, or at all, could adversely affect our cash flow or results of operations.

Our products must meet exact specifications and defects and failures may occur, which may cause customers to return or stop buying our products.

Our customers generally establish demanding specifications for quality, performance and reliability that our products must meet. However, our products are highly complex and may contain defects and failures when they are first introduced or as new versions are released. If defects and failures occur in our products during the design phase or after, we could experience lost revenues, increased costs, including warranty and customer support expenses and penalties for non-performance stipulated in customer purchase agreements, delays in or cancellations or rescheduling of orders or shipments, product returns or discounts, diversion of management resources or damage to

our reputation and brand equity, and in some cases consequential damages, any of which would harm our operating results. In addition, delays in our ability to fill product orders as a result of quality control issues may negatively impact our relationship with our customers. We cannot assure you that we will have sufficient resources to satisfy any asserted claims. Furthermore, any such defects, failures or delays may be particularly damaging to us as we attempt to establish our reputation as a reliable provider of IC and module products.

Because we sell our products on a purchase order basis and rely on estimated forecasts of our customers' needs, inaccurate forecasts could adversely affect our business.

We sell our products pursuant to individual purchase orders rather than long-term purchase commitments. Therefore, we will rely on estimated demand forecasts, based upon input from our customers, to determine how much product to manufacture. Because our sales are based primarily on purchase orders, our customers may cancel, delay or otherwise modify their purchase commitments with little or no notice to us. For these reasons, we will generally have limited visibility regarding our customers' product needs. In addition, the product design cycle for networking OEMs is lengthy and it may be difficult for us to accurately anticipate when they will commence commercial shipments of products that include our ICs or modules.

Furthermore, if we experience substantial warranty claims, our customers may cancel existing orders or cease to place future orders. Any cancellation, delay or other modification in our customers' orders could significantly reduce our revenue, cause our operating results to fluctuate from period to period and make it more difficult for us to predict our revenue. In the event of a cancellation or reduction of an order, we may not have enough time to reduce operating expenses to mitigate the effect of the lost revenue on our business.

If we overestimate customer demand for our products, we may purchase products from our manufacturers that we cannot sell. Conversely, if we underestimate customer demand or if sufficient manufacturing and testing capacity are unavailable, we would forego revenue opportunities and could lose market share in the markets served by our products and could incur penalty payments under our customer purchase agreements. In addition, our inability to meet customer requirements for our products could lead to delays in product shipments, force customers to identify alternative sources and otherwise adversely affect our ongoing relationships with our customers.

We depend on contract manufacturers for a significant portion of our revenue from the sale of our products.

Many of our current and prospective OEM customers use third party contract manufacturers to manufacture their systems and these contract manufacturers purchase our products directly from us on behalf of the OEMs. Although we expect to work with our OEM customers in the design and development phases of their systems, these OEMs often give contract manufacturers some authority in product purchasing decisions. If we cannot compete effectively for the business of these contract manufacturers, or if any of the contract manufacturers that work with our OEM customers experience financial or other difficulties in their businesses, our revenue and our business could be adversely affected. For example, if a contract manufacturer becomes subject to bankruptcy proceedings, we may not be able to obtain our products held by the contract manufacturer or recover payments owed to us by the contract manufacturer for products already delivered to the contract manufacturer. If we are unable to persuade contract manufacturers to purchase our products, or if the contract manufacturers are unable to deliver systems with our products to OEMs on a timely basis, our business would be adversely affected.

We rely on independent foundries and contractors for the manufacture, assembly, testing and packaging of our integrated circuits and modules, and the failure of any of these third parties to deliver products or otherwise perform as requested could damage our relationships with our customers and harm our sales and financial results.

As a fabless semiconductor company, we rely on third parties for substantially all of our manufacturing operations. We depend on these parties to supply us with material in a timely manner that meets our standards for yield, cost and quality. We do not have long-term supply contracts with any of our suppliers or manufacturing service providers, and therefore they are not obligated to manufacture products for us for any specific period, in any specific quantity or at any specified price except as may be provided in a particular purchase order. Any problems with our manufacturing supply chain, including disruptions due to the COVID-19 global pandemic, could adversely impact our ability to ship our products to our customers on time and in the quantity required which in turn could damage our customer relationships and impede market acceptance of our IC solutions.

Our third-party wafer foundry and testing and assembly vendors are located in regions at high risk for earthquakes and other natural disasters and adverse consequences related to the outbreak of contagious diseases such as COVID-19. Any disruption to the operations of these foundries and vendors resulting from earthquakes or other natural disasters could cause significant delays in the development, production, shipment and sales of our IC products.

Certain vendors that we utilize to manufacture our products are located in Asia, as are other foundries we may use in the future. Our vendors that provide substrates and wafer sorting and handle the testing of our products are headquartered in either Asia or the San Francisco Bay Area of California. The risk of an earthquake in the Pacific Rim region is significant due to the proximity of major earthquake fault lines. The occurrence of earthquakes or other natural disasters could result in the disruption of the wafer foundry or assembly and test capacity of the third parties that supply these services to us and may impede our research and development efforts as well as our ability to market and sell our products. We may not be able to obtain alternate capacity on favorable terms, if at all.

The COVID-19 global pandemic, along with outbreaks of new contagious diseases or the resurgence of existing diseases that significantly affect the Asia-Pacific region could disrupt the operations of our key suppliers and manufacturing partners.

Disruptions in our supply chain due to shortages in the global semiconductor business could cause delays for customers and impact revenue.

We may experience disruptions in our global semiconductor supply chain, with suppliers increasing lead times or placing products on allocation, including procuring necessary components, wafers, substrates and assembly services in a timely fashion. As a result of these potential supply chain disruptions, we may be required to increase customer order lead times and placed some products on allocation. We may be unable to satisfy all of the demand for our products, which may adversely affect customer relationships and impact revenue.

Price increases from our supply chain can adversely impact revenue or reduce margins.

Our suppliers can increase the price of products and services provided to us. Finding and qualifying alternate or additional suppliers in response to increased pricing from suppliers can be a lengthy process and can lead to production delays or additional costs, and such alternatives are sometimes not available. If we are unable to increase the price of our products to our customers in response to increased costs, we would face reduced margins.

Any claim that our products or technology infringe third party IP rights could increase our costs of operation and distract management and could result in expensive settlement costs or the discontinuance of our technology licensing or product offerings. In addition, we may incur substantial litigation expense which would adversely affect our profitability.

The semiconductor industry is characterized by vigorous protection and pursuit of IP rights or positions which has resulted in often protracted and expensive litigation. We are not aware of any third party IP that our products or technology would infringe. However, like many companies of our size with limited resources, we have not searched for all potentially applicable IP in the public databases. It is possible that a third party now has, or may in the future obtain, patents or other intellectual property rights that our products or technology may now, or in the future, infringe. Our licensees and IC customers, or we, might, from time to time, receive notice of claims that we have infringed patents or other IP rights of others. Litigation against us can result in significant expense and divert the efforts of our technical and management personnel whether or not the litigation has merit or results in a determination adverse to us.

The discovery of defects in our technology and products could expose us to liability for damages.

The discovery of a defect in our technologies and products could lead our customers to seek damages from us. Many of our agreements with customers include provisions waiving implied warranties regarding our technology and products and limiting our liability to our customers. We cannot be certain, however, that the waivers or limitations of liability contained in our agreements with customers will be enforceable.

We might not be able to protect and enforce our IP rights which could impair our ability to compete and reduce the value of our technology.

Our technology is complex and is intended for use in complex systems. Our licensees' products utilize our embedded memory and/or interface technology and a large number of companies manufacture and market these products. Because of these factors, policing the unauthorized use of our IP is difficult and expensive. We cannot be certain that we will be able to detect unauthorized use of our technology or prevent other parties from designing and marketing unauthorized products based on our technology. In the event we identify any past or present infringement of our patents, copyrights or trademarks, or any violation of our trade secrets, confidentiality procedures or licensing agreements, we cannot assure you that the steps taken by us to protect our proprietary information will be adequate to prevent misappropriation of our technology. Our inability to adequately protect our IP would reduce significantly the barriers of entry for directly competing technologies and could reduce the value of our technology. Furthermore, we might initiate claims or litigation against third parties for infringement of our proprietary rights or to establish the validity of our proprietary rights. Litigation by us could result in significant expense and divert the efforts of our technical and management personnel whether or not such litigation results in a determination favorable to us.

Our existing patents might not provide us with sufficient protection of our IP, and our patent applications might not result in the issuance of patents, either of which could reduce the value of our core technology and harm our business.

We rely on a combination of patents, trademarks, trade secret laws and confidentiality procedures to protect our IP rights. We cannot be sure that any patents will be issued from any of our pending applications or that any claims allowed from pending applications will be of sufficient scope or strength, or issued in all countries where our products can be sold, to provide meaningful protection or any commercial advantage to us. Failure of our patents or patent applications to provide meaningful protection might allow others to utilize our technology without any compensation to us.

If we fail to retain key personnel, our business and growth could be negatively affected.

Our business has been dependent to a significant degree upon the services of a small number of executive officers and technical employees. The loss of key personnel could negatively impact our technology development efforts, our ability to deliver products under our existing agreements, maintain strategic relationships with our partners and obtain new customers. We generally have not entered into employment or non-competition agreements with any of our employees and do not maintain key-man life insurance on the lives of any of our key personnel.

Our ability to utilize our net operating loss carryforwards is limited as a result of an “ownership change,” as defined in Section 382 of the Internal Revenue Code of 1986, as amended.

As of December 31, 2021, we had over \$100.0 million of net operating loss, or NOL, carryforwards for U.S. federal tax purposes. Under U.S. federal income tax law, we generally can use our NOL carryforwards (and certain related tax credits) to offset ordinary taxable income, thereby reducing our U.S. federal income tax liability, for up to 20 years from the year in which the losses were generated, after which time they will expire. Our California NOL carryforwards (and certain related tax credits) generally may be used to offset future state taxable income for 20 years from the year in which the losses are generated, depending on the state, after which time they will expire. The rate at which we can utilize our NOL carryforwards is limited (which could result in NOL carryforwards expiring prior to their use) each time we experience an “ownership change,” as determined under Section 382 of the Internal Revenue Code. A Section 382 ownership change generally occurs if a shareholder or a group of shareholders who are deemed to own at least 5% of our common stock increase their ownership by more than 50 percentage points over their lowest ownership percentage within a rolling three-year period. If an ownership change occurs, Section 382 generally would impose an annual limit on the amount of post-ownership change taxable income that may be offset with pre-ownership change NOL carryforwards equal to the product of the total value of our outstanding equity immediately prior to the ownership change (reduced by certain items specified in Section 382) and the U.S. federal long-term tax-exempt interest rate in effect at the time of the ownership change. A number of special and complex rules apply in calculating this Section 382 limitation. While the complexity of Section 382 makes it difficult to determine whether and when an ownership change has occurred, and a formal study has not been performed, we believe that a Section 382 ownership change occurred as a result of a financing effected in October 2018. The Company believes this Section 382 limitation will result in substantially all of our federal and state NOLs federal tax credit carryforwards incurred prior to October 2018 expiring before they can be utilized. An additional ownership change may occur upon the consummation of this offering. In addition, our ability to use our NOL carryforwards will be limited to the extent we fail to generate enough taxable income in the future before they expire. Existing and future Section 382 limitations and our inability to generate enough taxable income in the future could result in a substantial portion of our NOL carryforwards expiring before they are used. We have recorded a full valuation allowance for our deferred tax assets.

Acquisitions or other business combinations that we pursue in the future, whether or not consummated, could result in other operating and financial difficulties.

In the future we may seek to acquire additional product lines, technologies or businesses in an effort to increase our growth, enhance our ability to compete, complement our product offerings, enter new and adjacent markets, obtain access to additional technical resources, enhance our IP rights or pursue other competitive opportunities. If we seek acquisitions or other business combinations, we may not be able to identify suitable candidates at prices we consider appropriate. We cannot readily predict the timing or size of our future acquisitions or combinations, or the success of any such transactions.

To the extent that we consummate acquisitions, combinations or investments, we may face financial risks as a result, including increased costs associated with merged or acquired operations, increased indebtedness, economic dilution to gross and operating profit and earnings per share, or unanticipated costs and liabilities. Acquisitions may involve additional risks, including:

- the acquired product lines, technologies or businesses may not improve our financial and strategic position as planned;
- we may determine we have overpaid for the product lines, technologies or businesses, or that the economic conditions underlying our acquisition have changed;
- we may have difficulty integrating the operations and personnel of the acquired company;

- we may have difficulty retaining the employees with the technical skills needed to enhance and provide services with respect to the acquired product lines or technologies;
- the acquisition may be viewed negatively by customers, employees, suppliers, financial markets or investors;
- we may have difficulty incorporating the acquired product lines or technologies with our existing technologies;
- we may encounter a competitive response, including price competition or IP litigation;
- we may become a party to product liability or IP infringement claims as a result of our sale of the acquired company's products;
- we may incur one-time charges, such as for acquired in-process research and development costs, and restructuring charges;
- we may acquire goodwill and other intangible assets that are subject to impairment tests, which could result in future impairment charges;
- our ongoing business and management's attention may be disrupted or diverted by transition or integration issues and the complexity of managing geographically or culturally diverse enterprises; and
- our due diligence process may fail to identify significant existing issues with the target business.

From time to time, we may enter into negotiations for acquisitions or investments that are not ultimately consummated. These negotiations could result in significant diversion of management time, as well as substantial out-of-pocket costs, any of which could have a material adverse effect on our business, operating results and financial condition.

Provisions of our certificate of incorporation and bylaws or Delaware law might delay or prevent a change-of-control transaction and depress the market price of our stock.

Various provisions of our certificate of incorporation and bylaws might have the effect of making it more difficult for a third party to acquire, or discouraging a third party from attempting to acquire, control of our company. These provisions could limit the price that certain investors might be willing to pay in the future for shares of our common stock. Certain of these provisions eliminate cumulative voting in the election of directors, limit the right of stockholders to call special meetings and establish specific procedures for director nominations by stockholders and the submission of other proposals for consideration at stockholder meetings.

We are also subject to provisions of Delaware law that could delay or make more difficult a merger, tender offer or proxy contest involving our company. In particular, Section 203 of the Delaware General Corporation Law prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years unless specific conditions are met. Any of these provisions could have the effect of delaying, deferring or preventing a change in control, including without limitation, discouraging a proxy contest or making more difficult the acquisition of a substantial block of our common stock.

Under our certificate of incorporation, our board of directors may issue up to 20,000,000 shares of preferred stock, potentially without stockholder approval on such terms as the board might determine. The rights of the holders of common stock will be subject to, and might be adversely affected by, the rights of the holders of any preferred stock that might be issued in the future.

Potential volatility of the price of our common stock could negatively affect your investment.

We cannot assure you that there will continue to be an active trading market for our common stock. Historically, the stock market, as well as our common stock, has experienced significant price and volume fluctuations. Market prices of securities of technology companies have been highly volatile and frequently reach levels that bear no relationship to the operating performance of such companies. These market prices generally are not sustainable and are subject to wide variations. If our common stock trades to unsustainably high levels, it is likely that the market price of our common stock will thereafter experience a material decline.

In the past, securities class action litigation has often been brought against a company following periods of volatility in the market price of its securities. We could be the target of similar litigation in the future. Securities litigation could cause us to incur substantial costs, divert management's attention and resources, harm our reputation in the industry and the securities markets and negatively impact our operating results.

Holders of exchangeable shares are expected to experience a delay in receiving shares of our common stock from the date they request an exchange, which may affect the value of the shares the holder receives in an exchange.

Holders of exchangeable shares who request to receive shares of our common stock in exchange for their exchangeable shares will not receive shares of our common stock until several business days after the applicable request is received. During this period, the market price of our common stock may increase or decrease. Any such increase or decrease would affect the value of the consideration to be received by such holder of exchangeable shares upon a subsequent sale of the common stock received in the exchange.

We are a "smaller reporting company" and, as a result of the reduced disclosure and governance requirements applicable to smaller reporting companies, our common stock may be less attractive to investors.

We are a "smaller reporting company," and are subject to lesser disclosure obligations in our SEC filings compared to other issuers. Specifically, "smaller reporting companies" are able to provide simplified executive compensation disclosures in their filings, are exempt from the provisions of Section 404(b) of the Sarbanes-Oxley Act requiring that independent registered public accounting firms provide an attestation report on the effectiveness of internal control over financial reporting and have certain other decreased disclosure obligations in their SEC filings, including, among other things, only being required to provide two years of audited financial statements in annual reports. Decreased disclosures in our SEC filings due to our status as a "smaller reporting company" may make it harder for investors to analyze our operating results and financial prospects.

If we fail to maintain compliance with the continued listing requirements of the Nasdaq Stock Market, our common stock may be delisted and the price of our common stock and our ability to access the capital markets could be negatively impacted.

Our common stock currently trades on the Nasdaq Stock Market, or Nasdaq, under the symbol "PRSO." This market has continued listing standards that we must comply with in order to maintain the listing of our common stock. The continued listing standards include, among others, a minimum bid price requirement of \$1.00 per share and any of: (i) a minimum stockholders' equity of \$2.5 million; (ii) a market value of listed securities of at least \$35.0 million; or (iii) net income from continuing operations of \$500,000 in the most recently completed fiscal year or in the two of the last three fiscal years. Our results of operations and fluctuating stock price directly impact our ability to satisfy these continued listing standards. In the event we are unable to maintain these continued listing standards, our common stock may be subject to delisting from the Nasdaq.

If we were to be delisted, we would expect our common stock to be traded in the over-the-counter market which could adversely affect the liquidity of our common stock. Additionally, we could face significant material adverse consequences, including:

- a limited availability of market quotations for our common stock;
- a reduced amount of analyst coverage;
- a decreased ability to issue additional securities or obtain additional financing in the future;
- reduced liquidity for our stockholders;
- potential loss of confidence by customers, collaboration partners and employees; and
- loss of institutional investor interest.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

We currently maintain facilities in San Jose, California and Toronto and Waterloo, Ontario, Canada. Our administrative, sales, marketing, support and research and development functions are located in the leased facilities in San Jose and Toronto. We occupy approximately 10,000 square feet of space in the San Jose facility, and the lease extends until July 2022. We occupy approximately 12,700 square feet of space in the Toronto, Ontario facility, and the lease extends until December 2023. We also occupy approximately 2,400 square feet of space in the Waterloo, Ontario facility for research and development functions, and the lease extends until September 2022. We are presently seeking additional space to replace our Waterloo facility. We believe that our existing facilities are adequate to meet our current needs.

Item 3. Legal Proceedings

The information set forth under the “Legal Matters” subheading in Note 10 (Commitments and Contingencies) of the Notes to Consolidated Financial Statements in Part II, Item 15, of this Annual Report on Form 10-K is incorporated herein by reference.

Item 4. Mine Safety Disclosures

Not applicable.

Part II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information for Common Stock

Our common stock is currently listed on the Nasdaq Stock Market under the symbol "PRSO."

Holders of Record

As of December 31, 2021, there were 66 holders of record of our common stock. The actual number of stockholders is significantly greater than this number of record stockholders and includes stockholders who are beneficial owners but whose shares are held in street name by brokers and other nominees. This number of stockholders of record also does not include stockholders whose shares may be held in trust by other entities.

Securities Authorized for Issuance under Equity Compensation Plan

For information regarding securities authorized for issuance under equity compensation plans, please refer to Item 12—Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

Item 6. [Reserved]

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

This Management's Discussion and Analysis of Financial Condition and Results of Operations should be read in conjunction with the accompanying consolidated financial statements and notes included in this Report.

Overview

We were formerly known as MoSys, Inc. (MoSys) and were incorporated in California in 1991 and reincorporated in 2000 in Delaware. On September 14, 2021, we and our subsidiaries, 2864552 Ontario Inc. and 2864555 Ontario Inc., entered into an Arrangement Agreement (the Arrangement Agreement) with Peraso Technologies Inc. (Peraso Tech), a corporation existing under the laws of the province of Ontario, to acquire all of the issued and outstanding common shares of Peraso Tech (the Peraso Shares), including those Peraso Shares to be issued in connection with the conversion or exchange of secured convertible debentures and common share purchase warrants of Peraso Tech, as applicable, by way of a statutory plan of arrangement (the Arrangement) under the Business Corporations Act (Ontario). On December 17, 2021, following the satisfaction of the closing conditions set forth in the Arrangement Agreement, the Arrangement was completed and the Company changed its name to "Peraso Inc." and began trading on the Nasdaq Stock Market (the Nasdaq) under the symbol "PRSO."

For accounting purposes, the legal subsidiary, Peraso Tech, has been treated as the accounting acquirer and we, the legal parent, have been treated as the accounting acquiree. The transaction has been accounted for as a reverse acquisition in accordance with Accounting Standards Codification (ASC) No. 805, *Business Combinations* (ASC 805). Accordingly, the financial condition and results of operations discussed herein are a continuation of Peraso Tech's financial results prior to December 17, 2021 and exclude the financial results of us prior to December 17, 2021. See Note 2 to the consolidated financial statements for additional disclosure.

Our strategy and primary business objective is to be a profitable, IP-rich fabless semiconductor company offering integrated circuits, or ICs, modules and related non-recurring engineering services. We specialize in the development of mmWave semiconductors, primarily in the 60 GHz spectrum band for 802.11ad/ay compliant devices and in the 28/39 GHz spectrum bands for 5G-compliant devices. We derive our revenue from selling semiconductor devices, as well as modules based on using those mmWave semiconductor devices. We have pioneered a high-volume mmWave production test methodology using standard low cost production test equipment. It has taken us several years to refine performance of this production test methodology, and we believe this places us in a leadership position in addressing operational challenges of delivering mmWave products into high-volume markets. During 2021, we augmented our business model by selling complete mmWave modules. The primary advantage provided by a module is the silicon and the antenna are integrated into a single device. A differentiating characteristic of mmWave technology is that the RF amplifiers must be as close as possible to the antenna to minimize loss, and by providing a module, we can guarantee the performance of the amplifier/antenna interface.

We also acquired a memory product line marketed under the Accelerator Engine name and comprises our Bandwidth Engine and Programmable HyperSpeed Engine IC products, which integrate our proprietary, 1T-SRAM high-density embedded memory and a highly-efficient serial interface protocol resulting in a monolithic memory IC solution optimized for memory bandwidth and transaction access performance. As we are not developing new memory products, from a product development perspective, we continue to leverage our current technologies and core competencies to expand our product offerings without incurring significant additional R&D expenses.

We incurred net losses of approximately \$10.9 million and \$10.2 million for the years ended December 31, 2021 and 2020, respectively, and had an accumulated deficit of approximately \$117.1 million as of December 31, 2021. These and prior year losses have resulted in significant negative cash flows for almost a decade and have necessitated that we raise substantial amounts of additional capital during this period.

We expect to incur operating losses and will need to increase revenues substantially beyond levels that we have attained in the past in order to generate sustainable operating profit and sufficient cash flows to continue doing business without raising additional capital from time to time.

COVID-19

The global outbreak of the coronavirus disease 2019 (COVID-19) was declared a pandemic by the World Health Organization and a national emergency by the U.S. government in March 2020. This has negatively affected the U.S. and global economy, disrupted global supply chains, significantly restricted travel and transportation, resulted in mandated closures and orders to “shelter-in-place” and created significant disruption of the financial markets. The full extent of the COVID-19 impact on our operational and financial performance will depend on future developments, including the duration and spread of the pandemic and related actions taken by the U.S. and foreign government agencies to prevent disease spread, all of which are uncertain, out of our control, and cannot be predicted.

Since March 2020, certain jurisdictions in which we operate have issued “shelter-in-place” orders. We have complied with these orders and, when such orders were in place, minimized business activities at our facilities. We have implemented a teleworking policy for our employees and contractors to reduce on-site activity at our facilities.

We remain diligent in continuing to identify and manage risks to our business given the changing uncertainties related to COVID-19. The ultimate impact of the COVID-19 pandemic on our business and results of operations is uncertain and difficult to predict, and we are closely monitoring impacts, especially to customer programs and our supply chain. We have and continue to experience longer lead times for certain components used to manufacture our products. While we believe that our operations personnel are currently in a position to meet expected customer demand levels in the coming quarters, we recognize that unpredictable events could create difficulties in the months ahead. We may not be able to address these difficulties in a timely manner, which could negatively impact our business, results of operations, financial condition and cash flows.

The continued spread of COVID-19 has also led to disruption and volatility in the global capital markets. Our ability to raise additional capital to support operations in the future may be impacted, and we may be unable to access the capital markets and additional capital may only be available to us on terms that could be significantly detrimental to our existing stockholders and to our business.

Critical Accounting Policies and Use of Estimates

Our consolidated financial statements are prepared in conformity with accounting principles generally accepted in the United States of America. Note 1 to the consolidated financial statements included in Item 15 of this Report describes the significant accounting policies and methods used in the preparation of our consolidated financial statements.

We have identified the accounting policies below as some of the more critical to our business and the understanding of our results of operations. These policies may involve estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses. Although we believe our judgments and estimates are appropriate, actual future results may differ from our estimates, and if different assumptions or conditions were to prevail, the results could be materially different from our reported results.

Business Combination

We allocate the fair value of purchase consideration to the tangible assets acquired, liabilities assumed and intangible assets acquired based on their estimated fair values. The excess of the fair value of purchase consideration over the fair values of these identifiable assets and liabilities is recorded as goodwill to reporting units based on the expected benefit from the business combination. Allocation of purchase consideration to identifiable assets and liabilities affects the amortization expense, as acquired finite-lived intangible assets are amortized over the useful life, whereas any indefinite-lived intangible assets, including goodwill, are not amortized. During the measurement period, which is not to exceed one year from the acquisition date, our records adjustments to the assets acquired and liabilities assumed, with the corresponding offset to goodwill. Upon the conclusion of the measurement period, any subsequent adjustments are recorded to earnings. Acquisition-related expenses are recognized separately from business combinations and are expensed as incurred.

Acquired Intangibles

Acquired intangible assets consist of developed technology and customer relationships that are measured at fair value at date of acquisition. In valuing acquired intangible assets, we make assumptions and estimates based in part on projected financial information, which makes assumptions and estimates inherently uncertain, particularly for early-stage technology companies. The significant estimates and assumptions used by us in the determination of the fair value of acquired intangible technology assets include the revenue growth rate, the royalty rate and the discount rate. The significant estimates and assumptions used by us in the determination of the fair value of acquired customer contract intangible assets include the revenue growth rate and the discount rate.

As a result of the judgments that need to be made, we obtain the assistance of independent valuation firms. We complete these assessments as soon as practical after the closing dates. Any excess of the purchase price over the estimated fair values of the identifiable net assets acquired is recorded as goodwill.

Revenue Recognition

We recognize revenue in accordance with Financial Accounting Standards Board (FASB) ASC Topic 606, *Revenue from Contracts with Customers*, and its amendments (ASC 606). As described below, the analysis of contracts under ASC 606 supports the recognition of revenue at a point in time, resulting in revenue recognition timing that is materially consistent with our historical practice of recognizing product revenue when title and risk of loss pass to the customer.

We generate revenue primarily from sales of integrated circuits and module products, performance of engineering services and licensing of its intellectual property. Revenues are recognized when control is transferred to customers in amounts that reflect the consideration we expect to be entitled to receive in exchange for those goods. Revenue recognition is evaluated through the following five steps: (i) identification of the contract, or contracts, with a customer; (ii) identification of the performance obligations in the contract; (iii) determination of the transaction price; (iv) allocation of the transaction price to the performance obligations in the contract; and (v) recognition of revenue when or as a performance obligation is satisfied.

Product revenue

Revenue is recognized when performance obligations under the terms of a contract with a customer are satisfied. The majority of our contracts have a single performance obligation to transfer products. Accordingly, we recognize revenue when title and risk of loss have been transferred to the customer, generally at the time of shipment of products. Revenue is measured as the amount of consideration we expect to receive in exchange for transferring products and is generally based upon a negotiated, formula, list or fixed price. We sell our products both directly to customers and through distributors generally under agreements with payment terms typically 60 days or less.

We may record an estimated allowance, at the time of shipment, for future returns and other charges against revenue consistent with the terms of sale.

License and other

Our licensing contracts typically provide for royalties based on the licensee's use of our memory technology in its currently shipping commercial products. We estimate its royalty revenue in the calendar quarter in which the licensee uses the licensed technology. Payments are received in the subsequent quarter. We also generate revenue from licensing its technology. We recognize License fee as revenue at the point of time when the control of the license has been transferred and we have no continuing performance obligations to the customer.

Engineering services revenue

Engineering and development contracts with customers generally contain a single performance obligation that is delivered over time. Revenue is recognized using an output method that is consistent with the satisfaction of the performance obligation as a measure of progress.

Contract liabilities – deferred revenue

Our contract liabilities consist of advance customer payments and deferred revenue. We classify advance customer payments and deferred revenue as current or non-current based on the timing of when we expect to recognize revenue. As of December 31, 2021, contract liabilities were in a current position and included in deferred revenue.

Fair Value Measurements of Financial Instruments

We measure the fair value of financial instruments using a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three broad levels, as follows:

Level 1—Inputs used to measure fair value are unadjusted quoted prices that are available in active markets for the identical assets or liabilities as of the reporting date.

Level 2—Pricing is provided by third party sources of market information obtained from investment advisors rather than models. We do not adjust for or apply any additional assumptions or estimates to the pricing information we receive from advisors. Our Level 2 securities include cash equivalents and available-for-sale securities, which consisted primarily of corporate debt, and government agency and municipal debt securities from issuers with high quality credit ratings. Our investment advisors obtain pricing data from independent sources, such as Standard & Poor's, Bloomberg and Interactive Data Corporation, and rely on comparable pricing of other securities because the Level 2 securities we hold are not actively traded and have fewer observable transactions. We consider this the most reliable information available for the valuation of the securities.

Level 3—Unobservable inputs that are supported by little or no market activity and reflect the use of significant management judgment are used to measure fair value. These values are generally determined using pricing models for which the assumptions utilize management's estimates of market participant assumptions. The determination of fair value for Level 3 investments and other financial instruments involves the most management judgment and subjectivity.

The carrying amounts of financial assets and liabilities, such as cash and cash equivalents, accounts receivable, accounts payable, notes payable and other payables, approximate their fair values because of the short maturity of these instruments. The carrying values of lease obligations and long-term financing obligations approximate their fair values because interest rates on these obligations are based on prevailing market interest rates

Valuation of long-lived Assets

We evaluate our long-lived assets for impairment at least annually, or more frequently when a triggering event is deemed to have occurred. This assessment is subjective in nature and requires significant management judgment to forecast future operating results, projected cash flows and current period market capitalization levels. If our estimates and assumptions change in the future, it could result in a material write-down of long-lived assets. We amortize our finite-lived intangible assets, such as developed technology and patent license, on a straight-line basis over their estimated useful lives of three to seven years. We recognize an impairment charge as the difference between the net book value of such assets and the fair value of the assets on the measurement date.

Deferred tax valuation allowance

When we prepare our consolidated financial statements, we estimate our income tax liability for each of the various jurisdictions where we conduct business. This requires us to estimate our actual current tax exposure and to assess temporary differences that result from differing treatment of certain items for tax and accounting purposes. These differences result in deferred tax assets, which we show on our consolidated balance sheet under the category of other assets. The net deferred tax assets are reduced by a valuation allowance if, based upon weighted available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized. We must make significant judgments to determine our provision for income taxes, our deferred tax assets and liabilities and any valuation allowance to be recorded against our net deferred tax asset. We believe that utilization of our net operating loss and tax credit carryforwards, which comprise the majority of our deferred tax assets, may be subject to a substantial annual limitation due to the ownership change limitations provided by the Internal Revenue Code and

similar state provisions. See Note 4 to the consolidated financial statements in Item 15 of this report for an additional description of these limitations.

Stock-based compensation

We recognize stock-based compensation for equity awards on a straight-line basis over the requisite service period, usually the vesting period, based on the grant-date fair value. We estimate the value of employee stock options on the date of grant using the Black-Scholes model. The determination of fair value of share-based payment awards on the date of grant using an option-pricing model is affected by our stock price, as well as assumptions regarding a number of highly complex and subjective variables. These variables include, but are not limited to, the expected stock price volatility over the term of the awards, and actual and projected employee stock option exercise behaviors. The expected term of options granted is derived from historical data on employee exercises and post-vesting employment termination behavior. The expected volatility is based on the historical volatility of our stock price.

Results of Operations

Net Revenue

	<u>Years Ended December 31,</u>		<u>Year-Over-Year Change</u>	
	<u>2021</u>	<u>2020</u>	<u>2020 to 2021</u>	
	(dollar amounts in thousands)			
Product	\$ 4,906	\$ 1,540	\$ 3,366	219%
Percentage of total net revenue	86%	17%		

Product revenue increased in 2021 compared with 2020 due to increased shipments of our mmWave IC and module products. We commenced selling our module products in 2021. We expect revenues to increase in 2022, as we expect increased sales of our mmWave products and full-year contribution of revenues from our memory products.

	Years Ended December 31,		Year-Over-Year Change	
	2021	2020	2020 to 2021	
	(dollar amounts in thousands)			
License and other	\$ 773	\$ 7,550	\$ (6,777)	(90)%
Percentage of total net revenue	14%	83%		

License and other includes license, non-recurring engineering, or NRE, services and royalty revenues. The decrease from 2021 to 2020 was primarily due to a one-time license of \$5.0 million from a lead customer recognized in the fourth quarter of 2020, decrease of \$5.0 million one license revenue combined with reduced NRE revenues.

Cost of Net Revenue and Gross Profit

	<u>Years Ended December 31,</u>		<u>Year-Over-Year Change</u>	
	<u>2021</u>	<u>2020</u>	<u>2020 to 2021</u>	
	<u>(dollar amounts in thousands)</u>			
Cost of net revenue	\$ 3,270	\$ 1,748	\$ 1,522	87%
Percentage of total net revenue	58%	19%		

	Years Ended December 31,		Year-Over-Year Change	
	2021	2020	2020 to 2021	
	(dollar amounts in thousands)			
Gross profit	\$ 2,409	\$ 7,342	\$ (4,933)	(67)%
Percentage of total net revenue	42%	81%		

In 2021 and 2020 cost of net revenue primarily consisted of direct and indirect costs related to IC and module sales.

Cost of net revenue increased in 2021 from 2020 due to increased product shipments.

Gross profit decreased from 2021 to 2020 primarily due to the lower license and NRE revenue, which have higher margins than product revenues.

Research and Development

	Years Ended December 31,		Year-Over-Year Change	
	2021	2020	2020 to 2021	
	(dollar amounts in thousands)			
Research and development	\$ 11,471	\$ 8,289	\$ 3,182	38%
Percentage of total net revenue	202%	91%		

Our research and development expenses include costs related to the development of our products. We expense research and development costs as they are incurred.

Research and development expenses increased in 2021 compared with 2020 primarily due to increased personnel costs and consulting expenses were offset by the government wage and rent subsidies.

Research and development expenses included stock-based compensation expenses of \$2.8 million and \$1.0 million for the years ended December 31, 2021 and 2020, respectively. We expect that total research and development expenses will increase in 2022, as we continue development of our products and technologies.

Selling, General and Administrative (SG&A)

	Years Ended December 31,		Year-Over-Year Change	
	2021	2020	2020 to 2021	
	(dollar amounts in thousands)			
SG&A	\$ 7,016	\$ 7,198	\$ (182)	(3)%
Percentage of total net revenue	124%	79%		

Selling, general and administrative expenses consist primarily of personnel and related overhead costs for sales, marketing, finance, human resources and general management.

Selling, general and administrative expenses decreased slightly for 2021, compared with the prior year, primarily as a result of decreased legal expenses, bad debt expense and wage and rent expenses. The decrease in wage and rent expenses was attributed to higher government wage and rent subsidies received from the Canadian government, which are recorded as a reduction of operating expenses. This was partially offset by \$1.6 million in transaction costs, including legal consulting and accounting and auditing) incurred in connection with the business combination with MoSys and a \$1.0 million increase in stock-based compensation expense.

Selling, general and administrative expenses included stock-based compensation expenses of \$1.7 million for the year ended December 31, 2021 and of \$0.7 million for the year ended December 31, 2020. We expect total selling, general and administrative expenses to increase in 2022, as our 2022 will include the results of the MoSys business for the full year.

Interest expense

	Years Ended December 31,		Year-Over-Year Change	
	2021	2020	2020 to 2021	
	(dollar amounts in thousands)			
Interest expense	\$ 2,979	\$ 2,101	\$ 878	42%
Percentage of total net revenue	52%	23%		

Interest expense was incurred on our loans payable and convertible debentures, which were retired during 2021. See Note 11 to the consolidated financial statements in Item 15 of this Report for additional disclosure.

Liquidity and Capital Resources

At December 31, 2021, we had cash, cash equivalents and investments totaling \$18.1 million compared with cash, cash equivalents and short-term investments of \$1.7 million as of December 31, 2020. We believe that cash generated from our liquidity sources will be sufficient to meet our working capital and capital expenditure needs for at least the next twelve months.

In 2021, we used \$12.0 million in cash from operating activities, which primarily resulted from the net loss of \$10.9 million, adjusted for non-cash charges and gains, which included the change in fair value of warrant liability of \$8.1 million, changes to operating assets and liabilities of approximately \$1.4 million, partially offset by stock-based compensation expenses of \$4.5 million, depreciation and amortization expenses of \$1.1 million, accrued interest of \$0.7 million and amortization of debt discount of \$2.1 million. The changes in assets and liabilities primarily related to the timing of the collection of receivables from customers, payments to vendors and decreases in inventory balances.

In 2020, we used \$10.2 million in cash from operating activities, which primarily resulted from the net loss of \$10.2 million, adjusted for non-cash charges and gains, which included stock-based compensation expenses of \$1.7 million, depreciation and amortization expenses of \$1.4 million, finance cost related to warrants of \$1.0 million, accrued interest expense of \$0.3 million and amortization of debt discount of \$0.6 million, offset by changes to operating assets and liabilities of approximately \$5.0 million. The changes in assets and liabilities primarily related to the timing of the collection of receivables from customers and payments to vendors.

In 2021, net cash provided from investing activities of \$6.6 million represented \$6.5 million of proceeds from the Arrangement, \$0.4 million proceeds from the maturities of short-term investments partially offset by \$0.2 million for purchases of fixed assets and intangible assets. The net cash used in investing activities in 2020 consisted of minimal spend for purchases of fixed assets.

In 2021, net cash provided by financing activities was \$9.6 million and consisted of \$9.1 million in net proceeds received from convertible debentures and net proceeds of \$1.3 million from a loan facility, partially offset by \$0.8 million for the repayment of loans. In 2020, net cash provided by financing activities was \$10.1 million and consisted of \$3.4 million in net proceeds received from convertible debentures, \$6.2 million in net proceeds received from debtor-in-possession loans, and net proceeds of \$0.6 million from a loan facility, partially offset by \$0.1 million for the repayment of loans.

Our future liquidity and capital requirements are expected to vary from quarter to quarter, depending on numerous factors, including:

- level of revenue;
- cost, timing and success of technology development efforts;
- inventory levels, timing of product shipments and length of billing and collection cycles;
- fabrication costs, including mask costs, of our ICs, currently under development;
- variations in manufacturing yields, materials costs and other manufacturing risks;
- costs of acquiring other businesses and integrating the acquired operations; and
- profitability of our business.

Working Capital

Our primary need for liquidity is to fund working capital requirements of our businesses, capital expenditures and for general corporate purposes. We expect our cash expenditures to exceed receipts in 2022, as we do not expect our revenues will be sufficient to offset our working capital requirements. We incurred net losses of approximately \$10.8 million and \$10.2 million for the years ended December 31, 2021 and 2020, respectively, and had an accumulated deficit of approximately \$117.1 million as of December 31, 2021. These and prior year losses have resulted in significant negative cash flows and have required us to raise substantial amounts of additional capital during this period. To date, we have primarily financed our operations through multiple equity offerings of preferred stock, issuances of convertible debentures, utilization of loan facilities and government subsidies and credits. However, there can be no assurance that our capital is sufficient to fund operations until such time as we begin to achieve positive cash flows. We have an effective shelf registration statement under which we could sell additional securities without advance notice.

We may need to raise additional capital, but there can be no assurance that such funding will be available to us on favorable terms, if at all. The failure to raise capital when needed could have a material adverse effect on our business and financial condition. We may not be able to obtain additional financing as needed on acceptable terms, or at all, which may require us to reduce our operating costs and other expenditures, including reductions of personnel, salaries and capital expenditures. Alternatively, or in addition to such potential measures, we may elect to implement additional cost reduction actions as we may determine are necessary and in our best interests. Any such actions undertaken might limit our opportunities to realize plans for revenue growth and we might not be able to reduce our costs in amounts sufficient to achieve break-even or profitable operations.

If we were to raise additional capital through sales of our equity securities, our stockholders would suffer dilution of their equity ownership. If we engage in debt financing, we may be required to accept terms that restrict our ability to incur additional indebtedness, prohibit us from paying dividends, repurchasing our stock or making investments, and force us to maintain specified liquidity or other ratios, any of which could harm our business, operating results and financial condition. If we need additional capital and cannot raise it on acceptable terms, we may not be able to, among other things:

- develop or enhance our products;
- expand our product development and sales and marketing organizations;
- acquire complementary technologies, products or businesses;
- expand operations;
- hire, train and retain employees; or
- respond to competitive pressures or unanticipated working capital requirements.

Our failure to do any of these things could seriously harm our ability to execute our business strategy and may force us to curtail our existing operations or research and development plans.

Off-Balance Sheet Arrangements

We do not maintain any off-balance sheet arrangements or obligations that are reasonably likely to have a material current or future effect on our financial condition, results of operations, liquidity or capital resources.

Indemnifications

In the ordinary course of business, we enter into contractual arrangements under which we may agree to indemnify the counter-party from losses relating to a breach of representations and warranties, a failure to perform certain covenants, or claims and losses arising from certain external events as outlined within the contract, which may include, for example, losses arising from litigation or claims relating to past performance. Such indemnification clauses may not be subject to maximum loss clauses. We have also entered into indemnification agreements with our officers and directors. No material amounts related to these indemnifications are reflected in our consolidated financial statements for the years ended December 31, 2021 or 2020.

Recent Accounting Pronouncements

See Note 1 to the consolidated financial statements in Item 15 of this Report for a full description of recent accounting pronouncements.

Item 8. Financial Statements and Supplementary Data

Reference is made to the consolidated financial statements listed under the heading (a) (1) Consolidated Financial Statements and Report of Independent Registered Public Accounting Firm of Item 15, which consolidated financial statements are incorporated by reference in response to this Item 8.

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

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our chief executive officer and chief financial officer, we conducted an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934. Based on this evaluation, our management concluded that as of December 31, 2021, our disclosure controls and procedures were effective.

Management's Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management necessarily is required to apply its judgment in evaluating the cost-benefit relationship of possible controls. Under the supervision and with the participation of our management, including our chief executive officer and chief financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in *Internal Control—Integrated Framework (2013 Framework)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on the evaluation, our management concluded that our internal control over financial reporting was effective as of December 31, 2021.

Changes in Internal Control over Financial Reporting

There were no changes in our internal controls over financial reporting during the fourth fiscal quarter of 2021 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not Applicable.

Part III

Item 10. Directors, Executive Officers and Corporate Governance

The names of our directors and certain information about each of them are set forth below.

Name	Age	Position(s) with the Company
Ronald Glibbery	60	Chief Executive Officer and Director
Daniel Lewis	72	President and Director
Ian McWalter(1)(2)	70	Director
Andreas Melder(1)(2)	62	Director
Robert Y. Newell(1)(2)	73	Director

(1) Member of Audit Committee

(2) Member of Compensation Committee

The principal occupations and positions for at least the past five years of our directors are described below. There are no family relationships among any of our directors or executive officers.

Ronald Glibbery. Mr. Glibbery was appointed as our chief executive officer and to our board of directors in December 2021. He founded Peraso Technologies Inc. (Peraso Tech) in 2008 and served as its chief executive officer. In June 2020, Peraso Tech applied for and obtained an order under the Companies' Creditors Arrangement Act (the CCAA), providing certain relief. Pursuant to the Initial Order issued by the Ontario Superior Court of Justice (Commercial List) (the Court), Ernst & Young Inc. was appointed as the Monitor of Peraso Tech. In addition, the Monitor, in its capacity as Foreign Representative, filed a voluntary petition in the United States under Chapter 15 of the U.S. Bankruptcy Code, seeking recognition of the CCAA proceeding. In October 2020, the Court granted an order authorizing the termination of Peraso Tech's CCAA proceedings upon the completion of certain defined steps. In December 2020, the United States Bankruptcy Court for the Southern District of New York issued an Order that: (i) recognized and gave full force and effect in the United States to the Court's order approving the Settlement Agreement; and (ii) terminated the Chapter 15 Proceedings. Mr. Glibbery has over 25 years of experience in the semiconductor industry. Prior to co-founding Peraso Tech, Mr. Glibbery held executive positions at Kleer Semiconductor, a fabless semiconductor company focused on wireless audio technology and Intellon, a pioneer and leader in the development of semiconductor devices used for powerline communications. He has held other executive roles at Cogency Semiconductor, LSI Logic Canada, Inc. and LSI Logic Corporation. Mr. Glibbery holds a B.E.Sc. in Electrical and Electronics Engineering from the University of Western Ontario.

We believe that Mr. Glibbery's qualifications to serve on the board of directors include his service as an officer of ours and his extensive general management and technical expertise in the semiconductor industry, as well as his experience as a chief executive officer.

Daniel Lewis. Mr. Lewis has served as a member of the board of directors since September 2017 and currently serves as our president. He has served as our president since August 2018 and previously served as chief executive officer of MoSys, Inc. (MoSys) from August 2018 until the business combination with Peraso Tech. Before joining MoSys, Mr. Lewis served as the managing member and an owner of GMS Manufacturing Solution LLC, a firm focused on providing engineering services to manufacturing companies. He previously held various executive and leadership roles at View Box Group, Xicor, Integrated Device Technology, Accelerant Networks, Intel Corporation, Zilog and Digital Equipment Corporation. Mr. Lewis holds a B.S. in Electrical Engineering from the University of Michigan. We believe that Mr. Lewis's qualifications to serve on the board of directors include his service as an officer of ours and his extensive business experience, having held senior management positions at several companies in the semiconductor, computer and networking industries. He brings strategic and operational insight to the board of directors.

Ian McWalter. Dr. McWalter was appointed to our board of directors in December 2021. He currently serves as a member of the board of directors for Evertz Technologies, a publicly traded manufacturer of video and audio infrastructure solutions for television, telecom and new-media industries. Dr. McWalter served as the president and chief executive officer of CMC Microsystems from 2007 until 2018. Prior to this role, Dr. McWalter was chief executive officer of Toumaz Technology. Before joining Toumaz, Dr. McWalter spent 15 years at Gennum Corporation, including five years as president and chief executive officer from 2000 to 2005. Previously, he held management and technical positions at Bell Northern Research Ltd., the research and development arm of Northern Telecom and Bell Canada, and Plessey Semiconductors. Dr. McWalter was awarded a B.Sc. in physics and a Ph.D. in Electrical Engineering from the Imperial College of Science and Technology in London, England. We believe that Dr. McWalter's qualifications to serve on the board of directors include his extensive general management and technical expertise in the semiconductor industry, as well as his experience as a chief executive officer and his experience serving as a director on public-company boards of directors.

Andreas Melder. Mr. Melder was appointed to our board of directors in December 2021. He is a veteran technology executive in the semiconductor, communications and consumer electronics industries and previously served as vice president of business development at Gigle Networks, which was acquired in 2011 by Broadcom, where he continued to serve in executive marketing roles. Prior to Broadcom, Mr. Melder served as senior vice president of sales, marketing and business development for Intellon, which was acquired by Atheros/Qualcom. Previously, he was founder and vice president of marketing and business development for Microtune, a designer of RF integrated circuits and subsystem modules, which was acquired by Zoran Semiconductor, and vice president of sales & marketing for Tripath, an audio controller company acquired by Etelos. Additionally, Mr. Melder was a senior executive for companies that were acquired by Broadcom, Cirrus Logic and RFMD. Mr. Melder earned a B.S. in Electrical Engineering/Business from Carnegie-Mellon University and a M.S. in Electrical Engineering and Operations Research from Southern Methodist University. We believe that Mr. Melder's qualifications to serve on the board of directors include his extensive business experience, having held senior management positions at several companies in the semiconductor, computer and networking industries. Additionally, he brings additional operational, and fund-raising expertise, and business development and mergers and acquisitions experience. public markets, participated in investor roadshows and positioned additional companies for M&A exits through proper strategic industry positioning.

Robert Y. Newell. Mr. Newell has served as a member of the board of directors since October 2018 and is currently a consultant and advisor to emerging technology and healthcare companies. He has held financial management positions for companies in Silicon Valley for over 25 years. From 2003 to 2018, Mr. Newell was chief financial officer of Dexter Surgical, a developer of advanced surgical stapling and medical devices. In December 2017, after entering into an agreement to sell substantially all of its assets, Dexter Surgical, Inc. filed a voluntary petition for reorganization under Chapter 11 of Title 11 of the United States Code in the United States Bankruptcy Court for the District of Delaware. He served on the board of directors of ARI Network Services, a leading publicly traded supplier of SaaS and data as a service solutions. Previously, Mr. Newell served as chief financial officer of Omnicell, an automated medication and hospital supply management company, and prior to 2000, he held executive positions with the Beta Group and Cardiometrics. Prior to his business career, he was a pilot in the United States Air Force. Mr. Newell holds a B.A. in mathematics from the College of William & Mary and an MBA from Harvard Business School. We believe that Mr. Newell's qualifications to serve on the board of directors include his substantial financial and public-company experience, as he has served as chief financial officer at multiple medical device and other technology companies. He also has previous experience serving as a director on public-company boards of directors.

The names of our executive officers and certain information about them are set forth either above or below, as the case may be:

Name	Age	Position(s) with the Company
Ronald Glibbery	60	Chief Executive Officer and Director
Daniel Lewis	72	President and Director
James W. Sullivan	52	Chief Financial Officer
Bradley Lynch	49	Chief Operating Officer
Alexander Tomkins	38	Chief Technology Officer

James Sullivan. Mr. Sullivan has served as our chief financial officer since January 2008. From July 2006 until January 2008, Mr. Sullivan served as Vice President of Finance and Chief Financial Officer at Apptera, Inc., a venture-backed company providing software for mobile advertising, search and commerce. From July 2002 until June 2006, Mr. Sullivan was the chief financial officer at 8x8, Inc., a publicly-traded SAAS provider of VoIP and unified communication solutions. Mr. Sullivan's prior experience includes various positions at 8x8, Inc. and PricewaterhouseCoopers LLP. He received a Bachelor of Science degree in Accounting from New York University and is a certified public accountant.

Bradley Lynch. Mr. Lynch has served as chief operating officer since December 2021. He co-founded Peraso Tech in 2009 and served as executive vice president of engineering and operations. In June 2020, Peraso Tech applied for and obtained an order under the Companies' Creditors Arrangement Act (the CCAA), providing certain relief. Pursuant to the Initial Order issued by the Ontario Superior Court of Justice (Commercial List) (the Court), Ernst & Young Inc. was appointed as the Monitor of Peraso Tech. In addition, the Monitor, in its capacity as Foreign Representative, filed a voluntary petition in the United States under Chapter 15 of the U.S. Bankruptcy Code, seeking recognition of the CCAA proceeding. In October 2020, the Court granted an order authorizing the termination of Peraso Tech's CCAA proceedings upon the completion of certain defined steps. In December 2020, the United States Bankruptcy Court for the Southern District of New York issued an Order that: (i) recognized and gave full force and effect in the United States to the Court's order approving the Settlement Agreement; and (ii) terminated the Chapter 15 Proceedings. Prior to founding Peraso Tech, Mr. Lynch worked as a system architect at Kleer Semiconductor, a fabless company focused on wireless audio technology. Before Kleer, he was director of software engineering at Intellon Corporation, a pioneer and leader in the development of semiconductor devices used for powerline communications. Previously, Mr. Lynch held various technical roles at Cogency Semiconductor and Power Trunk. Mr. Lynch holds a B.A.Sc in Computer Engineering from the University of Waterloo.

Alexander Tomkins. Mr. Tomkins has served as our chief technology officer since December 2021. He co-founded Peraso Tech in 2009 and served as its chief technology officer. In June 2020, Peraso Tech applied for and obtained an order under the Companies' Creditors Arrangement Act (the CCAA), providing certain relief. Pursuant to the Initial Order issued by the Ontario Superior Court of Justice (Commercial List), Ernst & Young Inc. was appointed as the Monitor of Peraso Tech. In addition, the Monitor, in its capacity as Foreign Representative, filed a voluntary petition in the United States under Chapter 15 of the U.S. Bankruptcy Code, seeking recognition of the CCAA proceeding. In October 2020, the Court granted an order authorizing the termination of Peraso Tech's CCAA proceedings upon the completion of certain defined steps. In December 2020, the United States Bankruptcy Court for the Southern District of New York issued an Order that: (i) recognized and gave full force and effect in the United States to the Court's order approving the Settlement Agreement; and (ii) terminated the Chapter 15 Proceedings. Mr. Tomkins holds a Masters of Applied Science from the University of Toronto and a B.S. in Engineering Physics from Carleton University. He also attended the University of Toronto as a doctoral candidate in Applied Science.

Code of Ethics

We have adopted a code of ethics that applies to all of our employees. The code of ethics is designed to deter wrongdoing and to promote, among other things, honest and ethical conduct, full, fair, accurate, timely, and understandable disclosures in reports and documents submitted to the SEC and other public communications, compliance with applicable governmental laws, rules and regulations, the prompt internal reporting of violations of the code to an appropriate person or persons identified in the code and accountability for adherence to such code.

The code of ethics is available on our website, www.perasoinc.com. If we make any substantive amendments to the code of ethics or grant any waiver, including any implicit waiver, from a provision of the code to our chief executive officer or chief financial officer, or persons performing similar functions, where such amendment or waiver is required to be disclosed under applicable SEC rules, we intend to disclose the nature of such amendment or waiver on our website.

Audit Committee

Our board of directors established the Audit Committee for the purpose of overseeing the accounting and financial reporting processes and audits of our financial statements. The Audit Committee also is charged with reviewing reports regarding violations of our code of ethics and complaints with respect thereto, and internal control violations under our whistleblower policy are directed to the members of the Audit Committee. The responsibilities

of our Audit Committee are described in the Audit Committee Charter adopted by our board of directors, a current copy of which can be found on the investors section of our website, www.peraso.com.

Robert Y. Newell, Ian McWalter and Andreas Melder are the current members of the Audit Committee. All are independent, as determined in accordance with Rule 5605(a)(2) of the Nasdaq listing rules and Rule 10A-3 of the Exchange Act. Mr. Newell serves as the chairman and has been designated by the board of directors as the “audit committee financial expert,” as defined by Item 407(d)(5) of Regulation S-K under the Securities Act and the Exchange Act. That status does not impose duties, liabilities or obligations that are greater than the duties, liabilities or obligations otherwise imposed on him as a member of the Audit Committee and the board of directors, however. The Audit Committee has delegated authority to Mr. Newell for review and pre-approval of services proposed to be provided by our independent registered public accounting firm.

Compensation Committee

Ian McWalter, Andreas Melder and Robert Y. Newell are the current members of the Compensation Committee, and Dr. McWalter serves as the chairman. The Compensation Committee is responsible for reviewing, recommending and approving our compensation policies and benefits, including the compensation of all of our executive officers and directors. Our Compensation Committee also has the principal responsibility for the administration of our equity incentive and stock purchase plans. The responsibilities of our Compensation Committee are described in the Compensation Committee Charter adopted by our board of directors, a current copy of which can be found on the investors section of our website, www.peraso.com.

Nominations Process

We do not have a nominating committee, as we are a small company and currently only have five directors. Instead of having such a committee, our board of directors historically has appointed all of the independent directors on our board to search for and evaluate qualified individuals to become nominees for director and board committee members. The independent directors recommend candidates for nomination for election or reelection at each annual meeting of stockholders and, as necessary, to fill vacancies and newly created directorships, and evaluate candidates for appointment to and removal from committees. The independent directors operate in this capacity under authority granted by resolution of the board of directors, rather than by charter.

When new candidates for our board of directors are sought, the independent directors evaluate each candidate for nomination as a director within the context of the needs and the composition of the board of directors as a whole. The independent directors conduct any appropriate and necessary inquiries into the backgrounds and qualifications of candidates. When evaluating director nominees, our board of directors generally seeks to identify individuals with diverse, yet complementary business backgrounds. Although we have no formal policy regarding diversity, our directors consider both the personal characteristics and experience of director nominees, including each nominee’s independence, diversity, age, skills, expertise, time availability and industry background in the context of the needs of the board of directors and the Company. The board of directors believes that director nominees should exhibit proven leadership capabilities and experience at a high level of responsibility within their chosen fields, and must have the experience and ability to analyze the complex business issues facing us, and specifically, the issues inherent in the semiconductor industry. In addition to business expertise, the board of directors requires that director nominees have the highest personal and professional ethics, integrity and values and, above all, are committed to representing the long-term interests of our stockholders and other stakeholders. To date, we have not paid any fee to a third party to assist in the process of identifying or evaluating director candidates. Our independent directors will consider candidates for nomination as director who are recommended by a stockholder and will not evaluate any candidate for nomination for director differently because the candidate was recommended by a stockholder. To date, we have not received or rejected any suggestions for a director candidate recommended by any stockholder or group of stockholders owning more than 5% of our common stock. The recommendation must include the information specified in our bylaws for stockholder nominees to be considered at an annual meeting, including the following:

- The stockholder’s name and address and the beneficial owner, if any, on whose behalf the nomination is proposed;
- The stockholder’s reason for making the nomination at the annual meeting, and the signed consent of the nominee to serve if elected;
- The number of shares owned by, and any material interest of, the record owner and the beneficial owner, if any, on whose behalf the record owner is proposing the nominee;

- A description of any arrangements or understandings between the stockholder, the nominee and any other person regarding the nomination; and
- Information regarding the nominee that would be required to be included in our proxy statement by the rules of the SEC, including the nominee's age, business experience for the past five years and any other directorships held by the nominee.

The information listed above is not a complete list of the information required by our bylaws. The secretary will forward any timely recommendations containing the required information to our independent directors for consideration.

Item 11. Executive Compensation

Compensation Committee

Ian McWalter, Andreas Melder and Robert Y. Newell are the current members of our Compensation Committee, with Dr. McWalter serving as the chairman. The Compensation Committee is responsible for reviewing, recommending and approving our compensation policies and benefits, including the compensation of all of our executive officers and directors. Our Compensation Committee also has the principal responsibility for the administration of our equity incentive and stock purchase plans and the approval of equity awards to the named executive officers. The responsibilities of our Compensation Committee are described in the Compensation Committee Charter adopted by our board of directors, a current copy of which can be found on the investors section of our website, www.peraso.com.

Overview of Compensation Program

The Compensation Committee of the board of directors has responsibility for establishing, implementing and monitoring adherence to our compensation philosophy. The board of directors has delegated to the Compensation Committee the responsibility for determining our compensation policies and procedures for senior management, including the named executive officers, periodically reviewing these policies and procedures, and making recommendations concerning executive compensation to be considered by the full board of directors, when such approval is required under any of our plans or policies or by applicable laws.

The compensation received by our named executive officers in fiscal year 2021 is set forth in the Summary Compensation Table, below. For 2021, the named executive officers included Ronald Glibbery, chief executive officer, Daniel Lewis, our president and former chief executive officer, and James Sullivan, chief financial officer.

Compensation Philosophy

In general, our executive compensation policies are designed to recruit, retain and motivate qualified executives by providing them with a competitive total compensation package based in large part on the executive's contribution to our financial and operational success, the executive's personal performance and increases in stockholder value, as measured by the price of our common stock. We believe that the total compensation paid to our executives should be fair, reasonable and competitive.

We seek to have a balanced approach to executive compensation with each primary element of compensation (base salary, variable compensation and equity incentives) designed to play a specific role. Overall, we design our compensation programs to allow for the recruitment, retention and motivation of the key executives and high-level talent required in order for us to:

- supply high-value and high-quality integrated circuit solutions to our customer base;
- achieve or exceed our annual financial plan and be profitable;
- make continuous progression towards achieving our long-term strategic objectives to be a high-growth company with growing profitability; and
- increase our share price to provide greater value to our stockholders.

Role of Executive Officers in Compensation Decisions

The chief executive officer (CEO) makes recommendations for equity and non-equity compensation for executives to be approved by the Compensation Committee. The Compensation Committee reviews these guidelines

annually. The CEO annually reviews the performance of our executives (other than himself) and presents his recommendations for proposed salary adjustments, bonuses and equity awards to the Compensation Committee once a year. In its discretion, the Compensation Committee may accept, modify or reject the CEO's recommendations. The Compensation Committee evaluates the compensation of the CEO on its own without the participation or involvement of the CEO. Only the Compensation Committee and the board of directors are authorized to approve the compensation for any named executive officer. Compensation of new executives is based on hiring negotiations between the individuals and our CEO and/or Compensation Committee.

Elements of Compensation

Consistent with our compensation philosophy and objectives, we offer executive compensation packages consisting of the following three components:

- base salary;
- annual incentive compensation; and
- equity awards.

In each fiscal year, the Compensation Committee determines the amount and relative weighting of each component for all executives, including the named executive officers. Base salaries are paid in fixed amounts and thus do not encourage risk taking. Our widespread use of long-term compensation consisting of restricted stock units (RSUs) focuses recipients on the achievement of our longer-term goals and conserves cash for other operating expenses. Historically, the RSUs granted to our executives have vested in increments over three years. The Compensation Committee does not believe that these awards encourage unnecessary or excessive risk taking because the ultimate value of the awards is tied to our stock price, and the use of multi-year vesting schedules helps to align our employees' interests even more closely with those of our long-term investors.

Base Salary

Because our compensation philosophy stresses performance-based awards, base salary is intended to be a smaller portion of total executive compensation relative to long-term equity. The Compensation Committee takes into account the executive's scope of responsibility and significance to the execution of our long-term strategy, past accomplishments, experience and personal performance and compares each executive's base salary with those of the other members of senior management. The Compensation Committee may give different weighting to each of these factors for each executive, as it deems appropriate. The Compensation Committee did not retain a compensation consultant or determine a compensation peer group for 2021. In May 2021, there were changes to the base salaries paid to our named executive officers.

Annual Incentive Compensation

The Compensation Committee authorized incentive compensation for the named executive officers in 2021.

Equity Awards

Although we do not have a mandated policy regarding the ownership of shares of common stock by officers and directors, we believe that granting equity awards to executives and other key employees on an ongoing basis gives them a strong incentive to maximize stockholder value and aligns their interests with those of our other stockholders on a long-term basis. Our Amended and Restated Peraso Inc. 2019 Stock Incentive Plan (the "Peraso Stock Incentive Plan"), which was approved by our stockholders and became effective in August 2019, enables us to grant equity awards, as well as other types of stock-based compensation, to our executive officers and other employees. The Compensation Committee reviews and approves all equity awards granted under the Peraso Stock Incentive Plan to the named executive officers. We grant equity awards to achieve retention and motivation:

- upon the hiring of key executives and other personnel;
- annually, when we review progress against corporate and personal goals; and
- when we believe that competitive forces or economic conditions threaten to cause our key executives to lose their motivation and/or where retention of these key executives is in jeopardy.

With the Compensation Committee's approval, we grant equity awards to acquire shares of common stock when we initially hire executives and other employees, as a long-term performance incentive. The Compensation Committee has determined the size of the initial equity awards to newly hired executives with reference to equity awards held by existing executives, the percentage that such award represents of our total shares outstanding and hiring negotiations with the individual. In addition, the Compensation Committee would consider other relevant information regarding the size and type of compensation package considered necessary to enable us to recruit, retain and motivate the executive.

Typically, when we hire an executive, the equity awards vest on over a three-year period. The options granted to executives in connection with annual performance reviews typically vest monthly over a three-to-four year period, and RSUs granted typically vest annually over a period of from one-to-three years, as the Compensation Committee may decide. As matters of policy and practice, we grant stock options with an exercise price equal to fair market value, although the 2019 Plan allows us to use a different exercise price. In determining fair market value, we use the closing price of the common stock on the Nasdaq on the grant date.

Historically, no employee has been eligible for an annual performance grant until the employee has been employed for at least six months. Annual performance reviews are generally conducted in the first half of each fiscal year. Our CEO conducts the performance review of all other executives, and makes his recommendations to the Compensation Committee. The Compensation Committee also reviews the CEO's annual performance and determines whether he should receive additional equity awards. Aside from equity award grants in connection with annual performance reviews, we do not have a policy of granting additional awards to executives during the year. The board of directors and Compensation Committee have not adopted a policy with respect to setting the dates of award grants relative to the timing of the release of material non-public information. Our policy with respect to prohibiting insider trading restricts sales of shares during specified black-out periods, including at all times that our insiders are considered to possess material non-public information.

In determining the size of equity awards in connection with the annual performance reviews of our executives, the Compensation Committee takes into account the executive's current position with and responsibilities to us, and current and past equity awards to the executive.

Going forward, we intend to continue to evaluate and consider equity grants to our executives on an annual basis. We expect to consider potential equity awards for executives at the same time as we annually review our employees' performance and determine whether to award grants for all employees.

Accounting and Tax Considerations

Our Compensation Committee has reviewed the impact of tax and accounting treatment on the various components of our executive compensation program. Section 162(m) of the Internal Revenue Code, as amended (the "Code"), generally disallows a tax deduction to publicly-held companies for compensation paid to "covered" executive officers, to the extent that compensation paid to such an officer exceeds \$1 million during the taxable year. The Tax Cuts and Jobs Act repealed the performance-based exception to the deduction limit for remuneration that is deductible in tax years commencing after December 31, 2017. However, certain remuneration is specifically exempt from the deduction limit under a transition rule to the extent that it is "performance-based," as defined in Section 162(m) of the Code, and subject to a "written binding contract" in effect as of November 2, 2017 that is not later modified in any material respect. We endeavor to award compensation that will be deductible for income tax purposes, though other factors will also be considered. None of the compensation paid to our covered executive officers for the year ended December 31, 2021 that would be taken into account for purposes of Section 162(m) exceeded the \$1 million limitation for 2020. Because of ambiguities and uncertainties as to the application and interpretation of Section 162(m) of the Code and the regulations issued thereunder, including the uncertain scope of the transition relief under the Tax Cuts and Jobs Act, no assurance can be given that compensation intended to satisfy the requirements for exemption from Section 162(m) of the Code in fact will satisfy such requirements. Our Compensation Committee may authorize compensation payments that do not comply with the exemptions to Section 162(m) when we believe that such payments are appropriate to attract and retain executive talent.

Say-on-Pay

In 2020, we gave our stockholders an opportunity to provide feedback on our executive compensation through an advisory vote at our annual stockholder meeting. Stockholders were asked to approve, on an advisory basis, the compensation paid to our named executive officers. A majority of stockholders indicated approval of the compensation of the named executive officers, with approximately 90% of the shares that voted on such matter voting in favor of the proposal. Additionally, in 2017, stockholders were asked to approve, on an advisory basis, in favor of having a stockholder vote to approve the compensation of our named executive officers every three years. A majority of stockholders indicated approval of having a stockholder vote to approve the compensation of our named executive officers every three years, with approximately 60% of the shares that voted on such matter voting in favor of the proposal. Based on these results and consistent with the previous recommendation and determination of its board of directors, we will hold non-binding advisory votes on executive compensation every three years until the next vote on the frequency of the stockholder advisory vote on executive compensation.

In light of the results of the advisory vote, the Compensation Committee continued to apply principles that were substantially similar to those applied historically in determining compensation policies and decisions and did not make any significant changes to executive compensation decisions and policies with respect to 2021 executive compensation.

SUMMARY COMPENSATION TABLE

The following table sets forth compensation information for fiscal years 2021 and 2020 for each of our named executive officers. Compensation paid by Peraso Tech prior to the closing of the Arrangement is not reflected in the Summary Compensation Table.

Name and principal position	Year	Salary (\$)	Stock Option Awards \$(1)	Restricted Stock Awards \$(1)	Non-Equity Incentive Plan Compensation (\$)	Total (\$)
Ronald Glibbery	2021	16,667	—	—	—	16,667
Chief Executive Officer (2)						
Daniel Lewis	2021	266,667	—	32,500	500,000	799,167
President	2020	250,000	—	—	—	250,000
James Sullivan	2021	256,668	—	—	200,000	456,668
Chief Financial Officer	2020	250,000	—	—	—	250,000

(1) Award amounts reflect the aggregate grant date fair value with respect to awards granted during the years indicated, as determined pursuant to FASB ASC Topic 718. The assumptions used to calculate the aggregate grant date fair value of option and stock awards are set forth in the notes to the consolidated financial statements included in item 15 of this Report. These amounts do not reflect actual compensation earned or to be earned by our named executive officers.

(2) Ronald Glibbery was appointed as our CEO at the effective time of the Arrangement on December 17, 2021.

GRANTS OF PLAN-BASED AWARDS

In February 2021, we granted 10,000 RSUs to Daniel Lewis.

OUTSTANDING EQUITY AWARDS AT FISCAL YEAR-END

The following table sets forth information regarding the outstanding equity awards held by our named executive officers as of December 31, 2021.

Name	Option Awards					Stock Awards	
	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#)	Option Exercise Price(\$)	Option Expiration Date(1)	Number of Units That Have Not Vested (#)	Market Value of Units That Have Not Vested (\$)
Ron Glibbery	22,619	(2)	—	1.73	11/17/2024	—	—
	18,095	(2)	—	2.59	12/29/2025	—	—
	278,891	(2)	—	2.59	9/17/2030	—	—
	109,599	(2)	—	2.59	12/16/2031	—	—
Daniel Lewis	4,000	(3)	—	15.00	10/19/2023	—	—
	1,000	(4)	—	25.60	1/4/2024	—	—
	15,000	(5)	—	3.92	2/6/2029	—	—
	60,000	(6)	—	1.57	11/20/2029	—	—
James Sullivan	300	(7)	—	410.00	3/30/2025	—	—
	787	(8)	—	144.00	8/23/2026	—	—
	5,500	(9)	—	3.92	2/6/2029	—	—
	16,108	(10)	3,892	1.57	11/20/2029	—	—
						1,375	(11) 5,775 (12)

- (1) The standard option term is generally six to ten years, but all of the options expire automatically unless exercised within 90 days after the cessation of service as an employee, director or consultant.
- (2) The stock options were acquired on December 17, 2021 as consideration for the person's securities of Peraso Technologies Inc., which the Company acquired by way of reverse takeover pursuant to the Arrangement.
- (3) The stock option was granted on October 19, 2017 for service as a non-employee director, and the shares subject to this option vest annually over three years beginning September 26, 2017 subject to continued employment (or service as a director or consultant).
- (4) The stock option was granted on January 4, 2018 for service as a non-employee director, and the shares subject to this option vest annually over three years beginning September 26, 2017 subject to continued service as an employee, director or consultant.
- (5) The stock option was granted on February 6, 2019, and the shares subject to this option vest monthly over three years subject to continued service as an employee, director or consultant. The shares were fully vested on December 17, 2021 per the Arrangement Agreement.
- (6) The stock option was granted on November 20, 2019, and the shares subject to this option vested monthly over three years subject to continued service as an employee, director or consultant. The shares were fully vested on December 17, 2021 per the Arrangement Agreement.
- (7) The stock option was granted on March 30, 2015, and the shares subject to this option vested monthly over 48 months subject to continued employment (or service as a director or consultant).
- (8) In August 2016, officers tendered their eligible options and received new options at a rate of 1 replacement option share for each 1.75 option shares tendered. The stock option was granted on August 23, 2016, and the shares subject to this option vested monthly over 48 months subject to continued employment (or service as a director or consultant).

- (9) The stock option was granted on February 6, 2019, and the shares subject to this option vest monthly over three years subject to continued service as an employee, director or consultant).
- (10) The stock option was granted on November 20, 2019, and the shares subject to this option vested monthly over three years subject to continued service as an employee, director or consultant.
- (11) The shares subject to each restricted stock unit grant vest on each semi-annual anniversary over a three-year period commencing on February 6, 2019 subject to continued employment (or service as a director or consultant).
- (12) The amount is calculated using the Company's closing price on the Nasdaq of \$4.20 per share of common stock on December 31, 2021.

OPTION EXERCISES AND STOCK VESTED

The following table sets forth the number of shares acquired and aggregate dollar amount realized pursuant to the vesting of stock awards by our named executive officers during 2021.

Name	Option Awards		Stock Awards	
	Number of Shares Acquired on Exercise(#)	Value Realized on Exercise(\$)	Number of Shares Acquired on Vesting(#)	Value Realized on Vesting\$(1)
Daniel Lewis	—	—	13,750	71,975
James Sullivan	—	—	1,709	7,794

- (1) The aggregate dollar value realized upon vesting represents the closing price of a share of common stock on the Nasdaq at the date of vesting, multiplied by the total number of shares vested.

Employment and Change-in-Control Arrangements and Agreements

Our Executive Change-in-Control and Severance Policy (the "Policy") provides benefits that are intended to encourage the continued dedication of our executive officers and to mitigate potential disincentives to the consideration of a transaction that would result in a change in control, particularly where the services of our named executive officers may not be required by a potential acquirer. The Policy provides for benefits for our named executive officers in the event of a "Change-in-Control," which is generally defined as:

- an acquisition of 45% or more of our common stock or voting securities by any "person" as defined under the Exchange Act; or
- consummation of a complete liquidation or dissolution of the Company or a merger, consolidation, reorganization or sale of all or substantially all of our assets (collectively, a "Business Combination") other than a Business Combination in which (A) our stockholders receive 50% or more of the stock of the corporation resulting from the Business Combination and (B) at least a majority of the board of directors of such resulting corporation were our incumbent directors immediately prior to the consummation of the Business Combination, and (C) after which no individual, entity or group (excluding any corporation or other entity resulting from the Business Combination or any employee benefit plan of such corporation or of ours) who did not own 45% or more of the stock of the resulting corporation or other entity immediately before the Business Combination owns 45% or more of the stock of such resulting corporation or other entity.

Under the Policy, the following compensation and benefits are to be provided to our chief executive officer upon the occurrence of a Change-in-Control, and in the case of our other named executive officers, upon a Change-in-Control combined with a termination of the named executive officer's employment without cause, or due to disability or resignation for good reason (as defined in the Policy) in connection with the Change-in-Control or within 24 months after it:

- any base salary earned but not yet paid through the date of termination;
- any annual or discretionary bonus earned but not yet paid to him for any calendar year prior to the year in which his termination occurs;

- any compensation under any deferred compensation plan of ours or deferred compensation agreement with us then in effect;
- a single lump sum payment equal to the sum of (a) one year of his or her then-current base salary plus (b) the average of his or her annual bonus payments in the preceding three years or such shorter time as he or she has been employed by us (with prorated weighting assigned to any bonus earned for a partial year of employment), which payment will be made within 60 days following the Change-in-Control (in the case of the chief executive officer), or 60 days following the date of employment termination (in the case of all other named executive officers).
- vesting in 100% of all outstanding equity awards as of the date of the Change-in-Control for the chief executive officer, or as of the date of termination of employment for all other named executive officers;
- reimbursement of any business expenses incurred by him through the date of termination but not yet paid;
- reimbursement of the cost of continuation of medical benefits for a period of 12 months; and
- outstanding equity awards that are structured as stock options, stock appreciation rights or similar awards shall be amended effective as of the date of termination to provide that such awards will remain outstanding and exercisable until the earlier of (a) 12 months following the date of the Change-in-Control for the chief executive officer, or the termination of employment for the other named executive officers, and (b) the expiration of the award's initial term.

Under the Policy, "cause" means the executive's:

- willful failure to attend to the executive's duties that is not cured by the executive within 30 days of receiving written notice from the CEO (or, in the case of the CEO, from the board of directors) specifying such failure;
- material breach of the executive's then-current employment agreement (if any) that is not cured by the executive within 30 days of receiving written notice from the CEO (or, in the case of the CEO, from the board of directors) specifying such breach;
- conviction of (or plea of guilty or *nolo contendere* to) any felony or any misdemeanor involving theft or embezzlement; or
- misconduct resulting in material harm to our business or reputation, including fraud, embezzlement, misappropriation of funds or a material violation of the executive's Employment, Confidential Information, Invention Assignment and Arbitration Agreement; and

Under the Policy, "good reason" means the occurrence of any of the following conditions without the executive's consent, but only if such condition is reported by the executive within 90 days of the executive's knowledge of such condition and remains uncured 30 days after written notice from the executive to the board of directors of said condition:

- a material reduction in the executive's then-current base salary or annual target bonus (expressed as a percentage of Executive's then-current base salary), except for a reduction proportionate to reductions concurrently imposed on all other members of the Company's executive management;
- a material reduction in the executive's then-current employee benefits package, taken as a whole, except for a reduction proportionate to reductions concurrently imposed on all other members of executive management;
- a material reduction in the executive's responsibilities with respect to our overall operations, such that continuity of responsibilities with respect to business operations existing prior to a corporate transaction will serve as a material reduction in responsibilities if such business operations represent only a subsidiary or business unit of the larger enterprise after the corporate transaction;

- a material reduction in the responsibilities of the executive's direct reports, including a requirement for the chief executive officer to report to another officer as opposed to our board of directors or a requirement for any other executive to report to any officer other than our chief executive officer;
- a material breach by us of any material provision of the executive's then-current employment agreement (if any);
- a requirement that the executive relocate to a location more than 35 miles from the executive's then-current office location, unless such office relocation results in the distance between the new office and Executive's home being closer or equal to the distance between the prior office and the executive's home;
- a failure of a successor or transferee to assume our obligations under this Policy; or
- a failure to nominate the executive for election as a Board director, if, at the proper time for nomination, the executive is a member of the board of directors.

Notwithstanding the above, in lieu of the payments and benefits payable under the Policy to Mr. Glibbery as the Company's chief executive officer, Mr. Glibbery will receive change-in control payments and benefits in accordance with the terms and conditions of his employment agreement. The table below summarizes the payments Mr. Glibbery would be entitled to depending on the respective type of termination of his employment.

<u>Termination Type</u>	<u>Payments and Benefits</u>
Termination for Cause or Voluntary Resignation	<ul style="list-style-type: none"> (i) accrued and unpaid base salary and any other payments required by law, including those in connection with accrued vacation; and (ii) reimbursement for business expenses.
Termination Without Cause, for Good Reason, upon Change of Control, Death or Disability	<ul style="list-style-type: none"> (i) accrued and unpaid base salary and any other payments required by law including those in connection with accrued vacation; (ii) reimbursement for business expenses; (iii) the payment of the greater of (A) the sum of: (x) pay in lieu of notice of termination, in the amount required pursuant to the ESA (as defined in Mr. Glibbery's employment agreement), and (y) statutory severance pay (if applicable) in the amount required to be provided pursuant to the ESA; or (B) twenty-four (24) months of base salary in lieu of notice, calculated solely by reference to the base salary except and only to the extent as otherwise minimally required by the ESA, to be paid in the form of a lump sum; (iv) any bonus awarded but not yet paid in respect of the fiscal year preceding the termination date; (v) bonus for the year in which the employment terminates, prorated pursuant to the employment agreement; (vi) all benefits (as existed on the date notice of termination is provided) for the duration of the Severance Period (as defined in the employment agreement); (vii) any unvested equity and equity-related compensation that has been issued pursuant to the Plan will be immediately accelerated and vested as of the termination date; (viii) any vested equity and equity-related compensation that has been issued under the Plan will remain exercisable until 24 months following such termination; and (ix) any other benefits and/or perquisites shall continue until the end of the ESA Notice Period (as defined in the employment agreement).

The information below describes the severance benefits payable to (i) Mr. Glibbery under his employment agreement and (ii) Messrs. Lewis and Sullivan under the Policy, as if such arrangements had been in effect and a Change-in-Control occurred on December 31, 2021, and the employment of each of our named executive officers was terminated without cause immediately following the Change-in-Control:

Name	Base Salary\$(1)	Incentive Plans\$(2)	Continuation of Benefits\$(3)	Stock Option Vesting\$(4)	Stock Award Vesting\$(5)	Total\$(6)
Ronald Glibbery	800,000	300,000	13,766	—	—	1,113,766
Daniel Lewis	275,000	—	24,506	—	—	299,506
James Sullivan	260,000	66,667	24,506	16,165	5,775	373,113

- (1) Represents cash severance payments based on the executive's salary at December 31, 2021, in an amount equal to two years of base salary for Mr. Glibbery and one year of base salary for each of Messrs. Lewis and Sullivan.
- (2) For Mr. Glibbery, the amount represents payment of his annual target bonus amount. For Mr. Sullivan, the amounts represents the average of his annual performance incentive payments in the preceding three years.
- (3) Represents the aggregate amount of all premiums payable for the continuation of the executive's health benefits for one or two years, as applicable, based on the amounts of such premiums at December 31, 2021.
- (4) The value is calculated as the intrinsic value per share, multiplied by the number of shares that would become fully vested upon the Change-in-Control. The intrinsic value per share would be calculated as the excess of the closing price of the common stock on the Nasdaq of \$4.20 on December 31, 2021 over the exercise price of the option. If the value is less than zero, it is deemed to be zero for the purposes of these calculations.
- (5) The value is calculated as the intrinsic value per share, multiplied by the number of shares that would become fully vested upon the Change-in-Control. The intrinsic value per share is considered as the closing price of our common stock on the Nasdaq of \$4.20 on December 31, 2021.

If a Change-in-Control occurred on December 31, 2021, under the Policy, the following numbers of option and award shares would have vested immediately as a result of acceleration on December 31, 2021:

Name	Number of Accelerated Option and Award Shares
James Sullivan	7,794

As a result of the business combination that was effective December 17, 2021, Dan Lewis received a \$275,000 payment in December 2021 and, in addition, all of his unvested equity awards vested in full. The payment and accelerated vesting were in accordance with the terms and conditions of the Policy.

Employment Agreements

In addition to the agreements containing the Change-in-Control provisions summarized above, we have entered into our standard form of employment, confidential information, invention assignment and arbitration agreement with each of the named executive officers.

We also have entered into agreements to indemnify our current and former directors and certain executive officers, in addition to the indemnification provided for in our certificate of incorporation and bylaws. These agreements, among other things, provide for indemnification of our directors and certain executive officers for many expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by any such person in any action or proceeding, including any action by or in the right of the Company, arising out of such person's services as a director or executive officer of the Company, any subsidiary of the Company or any other company or enterprise to which the person provided services at our request.

Director Compensation

The following table summarizes the compensation we paid to our non-employee directors in 2021:

Name	Fee Compensation (\$)	Restricted Stock Awards \$(1)	Option Awards \$(1)(2)	All Other Compensation	Total (\$)
Robert Y. Newell	31,500	63,460	83,750	—	178,710
Ian McWalter	—	50,000	83,750	—	133,750
Andreas Melder	—	50,000	83,750	—	133,750
Daniel J. O'Neil (3)	33,000	13,460	—	—	46,460
Scott Lewis (3)	30,000	13,460	—	—	43,460

- (1) Award amounts reflect the aggregate grant date fair value with respect to awards granted during the years indicated, as determined pursuant to FASB ASC Topic 718. The assumptions used to calculate the aggregate grant date fair value of option and stock awards are set forth in the notes to the consolidated financial statements included in item 15 of this Report. These amounts do not reflect actual compensation earned or to be earned by our named executive officers. Restricted stock award amounts consist of: awards granted to Messrs. Newell, McWalter and Melder on December 22, 2021 to purchase 9,862 shares each.
- (2) As of December 31, 2021, our non-employee directors each held outstanding options to purchase 19,724 of shares of our common stock.
- (3) As of December 17, 2021, effective with the Arrangement, Mr. O'Neil and Mr. Lewis resigned as board members.

Director Fee Compensation

The challenges our business has faced have made it challenging for us to attract new non-employee directors. Nasdaq and SEC regulations require that a majority of the directors on our board of directors and its committees be independent, non-employee directors, as defined by each entity. In December 2021, we amended our director compensation structure and adopted our Outside Director Compensation Plan (the Director Plan). Under the Director Plan, we pay the following annual cash retainer fees, payable in quarterly installments, to our non-employee directors for their service on our board of directors and, as applicable, for service on committees of our board of directors:

- \$35,000 for service on the board of directors;
- \$8,000 for service as chairperson of the Audit Committee; and
- \$6,000 for service as chairperson of the Compensation Committee.

Director Equity Compensation

Under the Director Plan, upon initial appointment to our board of directors, each non-employee director will receive a stock option with a value of \$100,000, calculated by dividing the \$100,000 by the closing trading price of our common stock on the date of grant. The initial stock option will have an exercise price equal to the closing price

of our common stock on the date of grant and will vest as to one-third of the shares on the first annual anniversary of the grant and the remaining shares quarterly over the subsequent two years, provided the non-employee director continues to serve on the board of directors. In the event of a merger, sale of substantially all of our assets or similar transaction, vesting of all director options would accelerate as to 100% of the unvested shares subject to the award.

Non-employee directors will also receive an annual equity award of restricted stock units of common stock equal to \$50,000 of value per non-employee director. The restricted stock unit award will be made upon initial appointment to our board of directors and then subsequently at the first scheduled meeting of the board of directors following our annual meeting of stockholders. The number of restricted stock units will be calculated by dividing \$50,000 by the closing trading price of our common stock on the date of the award. The restricted stock unit award will vest in full on the earlier to occur of the next annual meeting of stockholders or the one-year anniversary of the award. All equity awards granted under the Director Plan will be made from the 2019 Plan.

Prior to the adoption of the Director Plan, our basic annual service award to a non-employee director had been a restricted stock unit award for 1,000 to 2,000 shares of our common stock. In December 2021, we awarded restricted stock units for 2,000 shares to each of our non-employee directors. As a result of the business combination that was effective December 17, 2021, these awards vested and become non-forfeitable on December 17, 2021.

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

The following table sets forth certain information as of March 1, 2022 concerning the ownership of our common stock by:

- each stockholder known by us to be the beneficial owner of more than 5% of the outstanding shares of our common stock (currently our only class of voting securities);
- each of our directors;
- each of our executive officers; and
- all directors and executive officers as a group.

Beneficial ownership is determined in accordance with Rule 13d-3 of the Exchange Act, and includes all shares over which the beneficial owner exercises voting or investment power. Shares that are issuable upon the exercise of options, warrants and other rights to acquire common stock that are presently exercisable or exercisable within 60 days of March 1, 2022 are reflected in a separate column in the table below. These shares are taken into account in the calculation of the total number of shares beneficially owned by a particular holder and the total number of shares outstanding for the purpose of calculating percentage ownership of the particular holder. We have relied on information supplied by our officers, directors and certain stockholders and on information contained in filings with the SEC. Except as otherwise indicated, and subject to community property laws where applicable, we believe, based on information provided by these persons, that the persons named in the table have sole voting and investment power with respect to all shares of common stock shown as beneficially owned by them. The percentage of beneficial ownership is based on 21,578,908 shares of common stock outstanding as of March 1, 2022.

Unless otherwise stated, the business address of each of our directors and executive officers listed in the table is 2309 Bering Drive, San Jose, California 95131.

Name and Principal Position	Amount and Nature of Beneficial Ownership		Percent of Class
	Number of Shares Beneficially Owned (Excluding Outstanding Options)(1)	Number of Shares Issuable on Exercise of Outstanding Options or Convertible Securities(2)	
Entities affiliated with Roadmap Capital General Partner Ltd.	8,562,520 (3)	—	39.68%
Directors and Officers:			
Ronald Glibbery	71,639	429,204	2.3%
Daniel Lewis	41,000	80,000	*
Robert Y. Newell	33,000	5,000	*
Ian McWalter	—	—	*
Andreas Melder	—	—	*
James Sullivan	5,970	22,695	*
Bradley Lynch	24,904	69,130	*
Alexander Tomkins	16,477	85,246	*
All current directors and executive officers as a group (8 persons)	192,990	691,275	4.0%

* Represents holdings of less than one percent.

- (1) Excludes shares subject to outstanding options, warrants, convertible securities or other rights to acquire common stock that are exercisable within 60 days of March 1, 2022.
- (2) Represents the number of shares subject to outstanding options, warrants, convertible securities or other rights to acquire common stock that are exercisable within 60 days of March 1, 2022.
- (3) Based on information reported by Roadmap Capital General Partner Ltd. (“Roadmap GP”) on Schedule 13D filed with the SEC on December 27, 2021, Roadmap GP reported that it has shared dispositive power with respect to 8,562,520 shares, and shared voting power with respect to 8,562,520 shares. Roadmap GP is the general partner of Roadmap Innovation I, Roadmap Innovation II, Roadmap Peraso, Roadmap Peraso (U.S. and Offshore), Roadmap Peraso II, Roadmap Peraso II (U.S. and Offshore), Roadmap Peraso III and Roadmap Peraso III (U.S. and Offshore) (collectively, the “Roadmap Funds”), which own these shares. Roadmap Capital Inc. is the sole shareholder of Roadmap GP. Because of the relationship between Roadmap GP and each of the Roadmap Funds, Roadmap GP may be deemed to beneficially own securities beneficially owned by each of the Roadmap Funds. Because of the relationship between Roadmap Capital and Roadmap GP, Roadmap Capital may be deemed to beneficially own the securities beneficially owned by Roadmap GP. Roadmap GP listed its address as 130 Bloor Street West, Suite 603, Toronto, Ontario, Canada M5S 1N5.

Securities Authorized for Issuance under Equity Compensation Plans

The following table provides information as of December 31, 2021 regarding equity compensation plans approved by our security holders. As of December 31, 2021, we had no awards outstanding under equity compensation plans that have not been approved by our security holders.

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights	Weighted Average Exercise Price of Outstanding Options, Warrants and Rights	Number of Securities Remaining Available for Future Issuance under Equity Compensation Plans (excluding Securities reflected in Column (a))(1)
	(a)	(b)	(c)
Equity compensation plans approved by security holders	1,646,549 (2) \$	3.49	3,018,179

(1) Consists of shares of common stock available for future issuance under the 2019 Plan.

(2) Consists of 305,532 shares of common stock subject to outstanding equity awards under the 2019 Plan and 1,341,017 shares of common stock subject to outstanding options assumed by us in connection with the business combination with Peraso Technologies Inc. that was completed in December 2021.

Item 13. Certain Relationships and Related Transactions and Director Independence

Related Party Transactions

None.

Director Independence

Our board of directors has determined that each of the current directors, with the exception of Daniel Lewis and Ronald Glibbery, is “independent,” as defined by the listing rules of the NASDAQ Stock Market, or Nasdaq, and the rules and regulations of the SEC. Our board of directors has standing Audit and Compensation Committees, each of which is comprised solely of independent directors in accordance with the Nasdaq listing rules. No director qualifies as independent unless the board of directors affirmatively determines that he has no direct or indirect relationship with us that would impair his independence. We independently review the relationship of the Company to any entity employing a director or on whose board of directors he is serving currently.

Item 14. Principal Accountant Fees and Services

Weinberg & Co., P.A. (“Weinberg”) was our independent registered public accounting firm for the years ended December 31, 2021 and 2020.

The following table shows the fees billed (in thousands of dollars) to us by Weinberg for the financial statement audits and other services provided for fiscal 2021 and 2020.

	2021	2020
Audit Fees(1)	\$ 121	\$ 195
Audit-Related Fees(2)	13	14
Total(3)	<u>\$ 134</u>	<u>\$ 209</u>

- (1) Audit fees consisted of fees for professional services rendered for the audit of our annual consolidated financial statements, review of our quarterly financial statements and services normally provided in connection with statutory and regulatory filings.
- (2) Audit-related fees consisted of fees related to the issuance of SEC registration statements.
- (3) Weinberg did not provide any non-audit or other services other than those reported under “Audit Fees” and “Audit-Related Fees.”

The Audit Committee meets with our independent registered public accounting firm at least four times a year. At such times, the Audit Committee reviews both audit and non-audit services performed by the independent registered public accounting firm, as well as the fees charged for such services. The Audit Committee is responsible for pre-approving all auditing services and non-auditing services (other than non-audit services falling within the *de minimis* exception set forth in Section 10A(i)(1)(B) of the Exchange Act and non-audit services that independent auditors are prohibited from providing to us) in accordance with the following guidelines: (1) pre-approval policies and procedures must be detailed as to the particular services provided; (2) the Audit Committee must be informed about each service; and (3) the Audit Committee may delegate pre-approval authority to one or more of its members, who shall report to the full committee, but shall not delegate its pre-approval authority to management. Among other things, the Audit Committee examines the effect that performance of non-audit services may have upon the independence of the auditors.

Item 15. Exhibits

(a)(1) Consolidated Financial Statements:

The following documents are filed as part of this Report:

Consolidated Financial Statements and Report of Independent Registered Public Accounting Firm, all of which are set forth on pages [60](#) through [89](#) of this Report.

(2) Financial Statement Schedules:

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

(3) Exhibits:

Required exhibits are incorporated by reference or are filed with this Report.

2.1(1)**	Arrangement Agreement with Peraso Technologies Inc.
2.2(2)	First Amending Agreement dated October 21, 2021
3.1(3)	Restated Certificate of Incorporation of the Company
3.1.1(4)	Certificate of Amendment to Restated Certificate of Incorporation of the Company
3.1.2(5)	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of Peraso Inc., filed with the Secretary of State of the State of Delaware on August 27, 2019
3.1.3(6)	Certificate of Amendment to Articles of Incorporation (Name Change)
3.1.4(7)	Certificate of Designation of Series A Special Voting Preferred Stock
3.2(8)	Amended and Restated Bylaws of the Company
4.1(9)	Specimen Common Stock Certificate
4.2(10)	Form of Common Stock Purchase Warrant
4.3(11)	Form of Securities Purchase Agreement
4.5(12)	Form of Common Stock Purchase Warrant
4.6	Description of Securities
4.7.1(13)*	Peraso Inc. 2010 Amended and Restated Equity Incentive Plan
4.7.2(14)*	Amended and Restated Peraso Inc. 2019 Stock Incentive Plan
4.8.1(15)	Form of Agreement for Stock Option Grant pursuant to the Peraso Inc. Amended and Restated 2010 Equity Incentive Plan
4.8.2(16)	Form of Notice of Grant of Stock Option Award and Agreement pursuant to the Peraso Inc. 2019 Stock Incentive Plan
4.9.1(17)	Form of Notice of Grant of Restricted Stock Unit Award and Agreement under the Peraso Inc. Amended and Restated 2010 Equity Incentive Plan
4.9.2(18)	Form of Notice of Grant of Restricted Stock Unit Award and Agreement under the Peraso Inc. 2019 Stock Incentive Plan
4.10(19)*	Amended Peraso Technologies Inc. 2009 Share Option Plan
10.1(20)*	Employment offer letter agreement between the Company and James Sullivan dated December 21, 2007
10.2(21)*	Change-in-control Agreement between the Company and James Sullivan dated January 18, 2008
10.3(22)*	Form of Option Agreement for Stock Option Grant pursuant to 2010 Equity Incentive Plan
10.4(23)*	Form of Notice of Restricted Stock Unit Award and Agreement under the Peraso Inc. 2010 Amended and Restated Equity Incentive Plan
10.5(24)*	Form of New Employee Inducement Grant Stock Option Agreement (revised February 2012)
10.6(25)	Form of Indemnification Agreement used from June 2012 to present
10.7(26)	Sublease Agreement with Cyren, Inc. dated October 3, 2017
10.8(27)*	Executive Change-in-Control and Severance Policy
10.9(28)*	Employment offer letter agreement between the Company and Daniel Lewis dated August 8, 2018

10.10(29)	Securities Purchase Agreement
10.11(30)	Securities Purchase Agreement
10.12(31)	Sublease Addendum #2 to the Lease between Cyren Ltd. and Peraso Inc., dated September 30, 2020, by and between Peraso Inc., and Cyren Ltd.
10.13(32)	Form of Lock-Up Agreement
10.14(33)	Intercompany Services Agreement
10.15(34)*	Employment Agreement (Ronald Glibbery)
21.1	List of Subsidiaries
23.1	Consent of Independent Registered Public Accounting Firm—Weinberg & Co., P.A.
24.1	Power of Attorney (see signature page)
31.1	Rule 13a-14 certification
31.2	Rule 13a-14 certification
32	Section 1350 certification
101.INS	Inline XBRL Instance Document
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Labels Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

- (1) Incorporated by reference to the same-numbered exhibit to Form 8-K, filed by the Company on September 15, 2021 (Commission File No. 000-32929).
- (2) Incorporated by reference to Exhibit 2.1 to Form 8-K, filed by the Company on October 22, 2021 (Commission File No. 000-32929)
- (3) Incorporated by reference to Exhibit 3.6 to Form 8-K filed by the Company on November 12, 2010 (Commission File No. 000-32929)
- (4) Incorporated by reference to Exhibit 3.1 to Form 8-K filed by the Company on February 14, 2017 (Commission File No. 000-32929).
- (5) Incorporated by reference to Exhibit 3.1 to Form 8-K filed by the Company on August 27, 2019 (Commission File No. 000-32929).
- (6) Incorporated by reference to Exhibit 3.1 to Form 8-K filed by the Company on December 20, 2021 (Commission File No. 000-32929).
- (7) Incorporated by reference to Exhibit 3.2 to Form 8-K filed by the Company on December 20, 2021 (Commission File No. 000-32929).
- (8) Incorporated by reference to Exhibit 3.1 to Form 8-K filed by the Company on November 23, 2021 (Commission File No. 000-32929).
- (9) Incorporated by reference to Exhibit 4.1 to the Company's Registration Statement on Form S-1, as amended, originally filed August 4, 2000, declared effective June 27, 2001 (Commission File No. 333-43122).
- (10) Incorporated by reference to Exhibit 4.1 to Form 8-K filed by the Company on June 30, 2017 (Commission File No. 000-32929).

- (11) Incorporated by reference to Exhibit 10.1 to Form 8-K filed by the Company on June 30, 2017 (Commission File No. 000-32929).
- (12) Incorporated by reference to Exhibit 4.6 to Form 8-K filed by the Company on October 3, 2018 (Commission File No. 000-32929).
- (13) Incorporated by reference to Exhibit 3.1 to Form 8-K filed by the Company on August 27, 2019 (Commission File No. 000-32929).
- (14) Incorporated by reference to Exhibit 4.2 to Form S-8 filed by the Company on January 7, 2022 (Commission File No. 333-262062).
- (15) Incorporated by reference to Exhibit 4.10 to the Company's Registration Statement on Form S-8, filed July 28, 2010 (Commission File No. 333-168358).
- (16) Incorporated by reference to Exhibit 4.10 to the Company's Current Report on Form S-8, filed on November 13, 2019 (Commission File No. 000-32929).
- (17) Incorporated by reference to Exhibit 10.23 to the Company's Form 10-Q filed on August 8, 2013 (Commission File No. 000-32929).
- (18) Incorporated by reference to Exhibit 4.10 to the Company's Current Report on Form S-8, filed November 13, 2019 (Commission File No. 000-32929).
- (19) Incorporated by reference to Exhibit 4.5 to the registration statement on Form S-8 filed by the Company on January 7, 2022 (Commission File No. 333-262062).
- (20) Incorporated by reference to Exhibit 10.26 to Form 10-K filed by the Company on March 17, 2008 (Commission File No. 000-32929).
- (21) Incorporated by reference to Exhibit 10.27 to Form 10-K filed by the Company on March 17, 2008 (Commission File No. 000-32929).
- (22) Incorporated by reference to Exhibit 4.10 to Form S-8 filed by the Company on July 28, 2010 (Commission File No. 333-168358).
- (23) Incorporated by reference to Exhibit 4.8 to Form S-8 filed by the Company on June 5, 2009 (Commission File No. 333-159753).
- (24) Incorporated by reference to Exhibit 10.19 to Form 10-K filed by the Company on March 15, 2012 (Commission File No. 000-32929).
- (25) Incorporated by reference to Exhibit 10.22 to Form 10-Q filed by the Company on August 9, 2012 (Commission File No. 000-32929).
- (26) Incorporated by reference to Exhibit 99.2 to Form 10-Q filed by the Company on November 14, 2017 (Commission File No. 000-32929).
- (27) Incorporated by reference to Exhibit 99 to Schedule TO filed by the Company on July 26, 2016 (Commission File No. 005-78033).
- (28) Incorporated by reference to Exhibit 10.28 to Form S-1/A filed by the Company on September 17, 2018 (Commission File No. 333-225193).
- (29) Incorporated by reference to Exhibit 10.26 to Form 8-K filed by the Company on October 3, 2018 (Commission File No. 000-32929).
- (30) Incorporated by reference to Exhibit 10.1 to Form 8-K filed by the Company on April 17, 2020 (Commission File No. 000-32929).
- (31) Incorporated by reference to Exhibit 10.21 to Form 10-K filed by the Company on March 18, 2021 (Commission File No. 000-32929).
- (32) Incorporated by reference to Exhibit 10.1 to Form 8-K filed by the Company on December 20, 2021 (Commission File No. 000-32929).
- (33) Incorporated by reference to Exhibit 10.2 to Form 8-K filed by the Company on December 20, 2021 (Commission File No. 000-32929).

(34) Incorporated by reference to Exhibit 10.3 to Form 8-K filed by the Company on December 20, 2021 (Commission File No. 000-32929).

* Management contract, compensatory plan or arrangement.

** Certain schedules, exhibits and similar attachments have been omitted pursuant to Item 601(a)(5) of Regulation S-K. The Company hereby undertakes to furnish copies of such omitted materials supplementally upon request by the SEC

Item 16. Form 10-K Summary

Not applicable.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized, on the 31st day of March 2022.

PERASO INC.

By: /s/ Ronald Glibbery
Ronald Glibbery
Chief Executive Officer and Director

POWER OF ATTORNEY

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

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
<u>/s/ Ronald Glibbery</u> Ronald Glibbery	Chief Executive Officer and Director (principal executive officer)	March 31, 2022
<u>/s/ James Sullivan</u> James Sullivan	Chief Financial Officer (principal financial and accounting officer)	March 31, 2022
<u>/s/ Daniel Lewis</u> Daniel Lewis	Director	March 31, 2022
<u>/s/ Ian McWalter</u> Ian McWalter	Director	March 31, 2022
<u>/s/ Andreas Melder</u> Andreas Melder	Director	March 31, 2022
<u>/s/ Robert Y. Newell</u> Robert Y. Newell	Director	March 31, 2022

PERASO INC.
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

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Report of Independent Registered Public Accounting Firm

Board of Directors and Stockholders
Peraso Inc.
San Jose, California

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Peraso Inc. (the “Company”) and subsidiaries as of December 31, 2021 and 2020, the related consolidated statements of operations, stockholders’ equity (deficit), and cash flows for the years ended December 31, 2021 and 2020, and the related notes (collectively referred to as the “consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company and its subsidiaries as of December 31, 2021 and 2020, and the results of their operations and their cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (“PCAOB”) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audit we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the financial statements and (2) involved especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Reverse Acquisition

As described further in Note 2 to the consolidated financial statements, on December 17, 2021 the Company completed the transaction pursuant to the terms of the Arrangement Agreement between the Company and Peraso Technologies Inc. (“Peraso Tech”), a private company domiciled in Canada. Immediately following the Effective Time, there were 21,569,158 shares of Common Stock outstanding and 23,272,641 shares of Common Stock outstanding on a fully-diluted basis, with the former stockholders of Peraso Tech owning approximately 61% of the economic and voting interest of the Company and the Company’s stockholders immediately prior to the Effective Time holding the remaining 39% economic and voting interest.

The Company has accounted for the above described transaction as a reverse acquisition using the acquisition method of accounting in accordance with Accounting Standards Codification (ASC) Topic 805, Business Combinations, with the Company as the accounting acquiree and Peraso Tech as the accounting acquiror. The acquisition method of accounting requires the assets acquired and liabilities assumed to be recorded at fair value as of the transaction date and for which the Company utilized a valuation report from a third-party valuation firm. As of December 31, 2021, the fair value estimates for intangible assets and goodwill are provisional as the valuation report has not been finalized yet. We identified the estimation of the fair value of the assets acquired and liabilities assumed in the reverse acquisition as a critical audit matter.

The principal considerations for our determination that the estimation of the fair value of the assets acquired and liabilities assumed in the reverse acquisition was a critical audit matter are that there was a high estimation uncertainty due to significant management and specialist judgements with respect to the selection of the valuation methodologies applied by the third party valuation firm, including the assumptions used to estimate the future revenues and cash flows, revenue growth rates, forecasted costs, technology migration curves, discount rates and future market conditions in the determination of the fair value of the intangible assets acquired. This in turn required the exercise of a high degree of auditor judgment, including the evaluation of the reasonableness of the valuation models and significant assumptions. Professionals with specialized skill and knowledge were used to assist in the evaluation of the Company's discounted cash flow models and the and discount rates assumptions.

Our audit procedures responsive to the estimation of the fair value of the assets acquired and liabilities assumed in the reverse acquisition included the following procedures, among others:

- We evaluated management's and the valuation specialist's identification of assets acquired and liabilities assumed.
- We assessed the reasonableness of the fair value measurements prepared by management and their third-party valuation specialists, including the discount rates, revenue growth rates, technology migration curves and projected profit margins used in valuing the intangible assets.
- We evaluated the reasonableness of the methodologies used to value the assets acquired and liabilities assumed and whether such approaches were appropriate given the nature of the item being valued.
- We evaluated the qualifications of the third-party firm engaged by the Company based on their credentials and experience.
- We evaluated the accuracy and completeness of the financial statement presentation and disclosure of the acquisition.

We have served as the Company's auditor since 2020.

/s/ Weinberg & Company

Los Angeles, California
March 31, 2022

PERASO INC.
CONSOLIDATED BALANCE SHEETS
(In thousands, except par value data)

	December 31,	
	2021	2020
ASSETS		
Current assets		
Cash and cash equivalents	\$ 5,893	\$ 1,712
Short-term investments	9,267	—
Accounts receivable, net	2,436	922
Inventories	3,824	1,274
Tax credits and receivables	1,099	1,711
Prepaid expenses and other	1,159	963
Total current assets	23,678	6,582
Long-term investments	2,928	—
Property and equipment, net	2,349	2,621
Right-of-use lease assets	617	731
Intangible assets, net	8,355	—
Goodwill	9,946	—
Other	78	53
Total assets	\$ 47,951	\$ 9,987
LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)		
Current liabilities		
Accounts payable	\$ 1,937	\$ 1,086
Accrued expenses and other	2,903	456
Deferred revenue	375	—
Short-term lease liabilities	379	225
Loan payable	—	581
Total current liabilities	5,594	2,348
Long-term lease liabilities	288	532
Warrant liability	—	6,706
Convertible debentures	—	4,322
Total liabilities	5,882	13,908
Commitments and contingencies (Note 10)		
Stockholders' equity (deficit)		
Preferred stock, \$0.01 par value; 20,000 shares authorized; none issued and outstanding	—	—
Common stock, \$0.001 par value; 120,000 shares authorized; 21,579 shares and 5,241 shares issued and outstanding at December 31, 2021 and December 31, 2020, respectively	22	5
Additional paid-in capital	159,246	102,362
Accumulated deficit	(117,199)	(106,288)
Total stockholders' equity (deficit)	42,069	(3,921)
Total liabilities and stockholders' equity	\$ 47,951	\$ 9,987

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

PERASO INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except per share data)

	Year Ended December 31,	
	2021	2020
Net revenue		
Product	\$ 4,906	\$ 1,540
License and other	773	7,550
Total net revenue	5,679	9,090
Cost of net revenue	3,270	1,748
Gross profit	2,409	7,342
Operating expenses		
Research and development	11,471	8,289
Selling, general and administrative	7,016	7,198
Total operating expenses	18,487	15,487
Loss from operations	(16,078)	(8,145)
Interest expense	(2,979)	(2,101)
Change in fair value of warrant liability	8,102	96
Other income (expense), net	44	(77)
Net loss	(10,911)	(10,227)
Deemed dividend on inducement of conversion of Class C Preferred Shares	—	(11,134)
Accretion of preferred shares presented as dividends	—	(1,666)
Effect of foreign exchange on preferred shares	—	7,756
Net loss attributable to common stockholders	\$ (10,911)	\$ (15,271)
Net loss per share attributable to common stockholders		
Basic and diluted	\$ (1.86)	\$ (3.60)
Shares used in computing net loss per share		
Basic and diluted	5,869	4,242

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

PERASO INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (DEFICIT)
(In thousands)

	Common Stock		Additional Paid-In Capital	Accumulated Deficit	Total
	Shares	Amount			
Balance as of December 31, 2019	164	\$ —	\$ (17,443)	\$ (96,061)	\$ (113,504)
Issuance of common stock under stock plans, net	5	—	8	—	8
Conversion of Convertible Class A Preferred Shares	124	—	4,229	—	4,229
Conversion of Convertible Class B Preferred Shares	1,989	2	52,101	—	52,103
Conversion of Convertible Class C Preferred Shares	2,959	3	55,666	—	55,669
Dividends on preferred shares	—	—	(1,666)	—	(1,666)
Effect of foreign exchange on preferred shares	—	—	7,756	—	7,756
Stock-based compensation	—	—	1,711	—	1,711
Net loss	—	—	—	(10,227)	(10,227)
Balance as of December 31, 2020	5,241	5	102,362	(106,288)	(3,921)
Issuance of common stock under stock plans, net	30	—	37	—	37
Settlement of warrants to common stock	287	1	1,207	—	1,208
Conversion of convertible debentures to common stock	7,305	7	13,538	—	13,545
Effect of business combination	8,716	9	37,618	—	37,627
Stock-based compensation	—	—	4,484	—	4,484
Net loss	—	—	—	(10,911)	(10,911)
Balance as of December 31, 2021	21,579	\$ 22	\$ 159,246	\$ (117,199)	\$ 42,069

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

PERASO INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Year Ended December 31,	
	2021	2020
Cash flows from operating activities:		
Net loss	\$ (10,911)	\$ (10,227)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	1,116	1,436
Stock-based compensation	4,484	1,711
Change in fair value of warrant liability	(8,102)	(96)
Finance costs related to warrants	—	1,043
Accrued interest	721	325
Amortization of lease right-of-use assets	252	226
Change in operating lease liabilities	(236)	(248)
Amortization of debt discount	2,091	627
Other	27	7
Changes in assets and liabilities		
Accounts receivable	(848)	(4,029)
Inventories	(1,418)	(166)
Prepaid expenses and other assets	560	(513)
Tax credits and receivables	(484)	(416)
Accounts payable	804	(26)
Deferred revenue and other liabilities	(72)	109
Net cash used in operating activities	(12,016)	(10,237)
Cash flows from investing activities:		
Purchases of property and equipment	(71)	(38)
Purchases of intangible assets	(165)	—
Proceeds from maturities of marketable securities and investments	400	—
Cash acquired in business combination	6,464	—
Net cash provided by (used in) investing activities	6,628	(38)
Cash flows from financing activities:		
Repayment of loans	(785)	(100)
Proceeds from exercise of stock options	37	8
Net proceeds from loan facility	1,262	573
Net proceeds from convertible debentures	9,055	3,452
Net proceeds from debtor-in-possession loans	—	6,150
Net cash provided by financing activities	9,569	10,083
Net increase (decrease) in cash and cash equivalents	4,181	(192)
Cash and cash equivalents at beginning of year	1,712	1,904
Cash and cash equivalents at end of year	<u>\$ 5,893</u>	<u>\$ 1,712</u>

Supplemental disclosure:

Noncash investing and financing activities:			
Reclassification of prepaids to fixed assets	\$	—	\$ 532
Settlement of accounts receivable through debtor-in-possession loans	\$	—	\$ 3,500
Conversion of debtor-in-possession loan into convertible debentures	\$	—	\$ 2,550
Fair value of new warrant liability issued recognized as debt discount	\$	2,604	\$ 2,550
Conversion of preferred shares to common stock	\$	—	\$ 112,001
Deemed dividend on inducement of conversion of Class C preferred shares	\$	—	\$ 11,134
Dividends and foreign exchange effect on preferred shares	\$	—	\$ 6,090
Settlement of loan facility against tax receivables	\$	1,097	\$ —
Effect of business combination	\$	37,627	\$ —
Settlement of warrants to common stock	\$	1,208	\$ —
Conversion of convertible debentures into common stock	\$	13,545	\$ —

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

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1: The Company and Summary of Significant Accounting Policies***The Company***

Peraso Inc., formerly known as MoSys, Inc. (the Company), was incorporated in California in 1991 and reincorporated in 2000 in Delaware. The Company is a fabless semiconductor company specializing in the development of mmWave technology, including 60GHz and 5G products and derives revenue from selling semiconductor devices and licensing of intellectual property (IP) and performance of non-recurring engineering services (NRE) for customers and prospective customers. The Company also manufactures and sells memory semiconductor devices that enable fast, intelligent data access and decision making for a wide range of markets.

On September 14, 2021, the Company and its subsidiaries, 2864552 Ontario Inc. (Calco) and 2864555 Ontario Inc. (Canco), entered into an Arrangement Agreement (the Arrangement Agreement) with Peraso Technologies Inc. (Peraso Tech), a corporation existing under the laws of the province of Ontario, to acquire all of the issued and outstanding common shares of Peraso Tech (the Peraso Shares), including those Peraso Shares to be issued in connection with the conversion or exchange of secured convertible debentures and common share purchase warrants of Peraso Tech, as applicable, by way of a statutory plan of arrangement (the Arrangement) under the Business Corporations Act (Ontario). On December 17, 2021, following the satisfaction of the closing conditions set forth in the Arrangement Agreement, the Arrangement was completed and, the Company changed its name to “Peraso Inc.” and began trading on the Nasdaq Stock Market (the Nasdaq) under the symbol “PRSO.”

For accounting purposes, the legal subsidiary, Peraso Tech, has been treated as the accounting acquirer and the Company, the legal parent, has been treated as the accounting acquiree. The transaction has been accounted for as a reverse acquisition in accordance with Accounting Standards Codification (ASC) No. 805, *Business Combinations* (ASC 805). Accordingly, these consolidated financial statements are a continuation of Peraso Tech’s consolidated financial statements prior to December 17, 2021 and exclude the balance sheets, statements of operations and comprehensive loss, statement of changes in stockholders’ equity and statements of cash flows of the Company prior to December 17, 2021. See Note 2 for additional disclosure.

Basis of Presentation

The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All significant intercompany transactions and balances have been eliminated in consolidation. The Company’s fiscal year ends on December 31 of each calendar year.

Going Concern

The accompanying financial statements have been prepared on a going concern basis, which contemplates the realization of assets and satisfaction of liabilities in the normal course of business. The realization of assets and the satisfaction of liabilities in the normal course of business are dependent on, among other things, the Company’s ability to operate profitably, to generate cash flows from operations, and to pursue financing arrangements to support its working capital requirements.

At issuance of the Company’s financial statements for the year ended December 31, 2020, management had determined that there was significant doubt as to the ability of the Company to meet its obligations and continue as a going concern. As a result of the Arrangement, which was completed in December 2021, and resulting improved financial position, the Company believes it has sufficient liquidity to meet its obligations as they come due and conduct its business for a period of at least 12 months from the date of issuance of these financial statements.

Risk and Uncertainties

The Company is subject to risks from, among other things, competition associated with the industry in general, other risks associated with financing, liquidity requirements, rapidly changing customer requirements, limited operating history and the volatility of public markets.

COVID-19

The global outbreak of the coronavirus disease 2019 (COVID-19) was declared a pandemic by the World Health Organization and a national emergency by the U.S. government in March 2020. This has negatively affected the U.S. and global economy, disrupted global supply chains, significantly restricted travel and transportation, resulted in mandated closures and orders to “shelter-in-place” and created significant disruption of the financial markets. The full extent of the COVID-19 impact on the Company’s operational and financial performance will depend on future developments, including the duration and spread of the pandemic and related actions taken by U.S. and foreign government agencies to prevent disease spread, all of which are uncertain, out of the Company’s control, and cannot be predicted.

Use of Estimates

The preparation of financial statements in accordance with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses recognized during the reported period. Material estimates may include assumptions made in determining reserves for uncollectible receivables, inventory write-downs, impairment of long-term assets, purchase price allocations, valuation allowance on deferred tax assets, accruals for potential liabilities and assumptions made in valuing equity instruments. Actual results could differ from those estimates.

Cash Equivalents and Investments

The Company has invested its excess cash in money market accounts, certificates of deposit, corporate debt, government-sponsored enterprise bonds and municipal bonds and considers all highly liquid debt instruments purchased with an original maturity of three months or less to be cash equivalents. Investments with original maturities greater than three months and remaining maturities less than one year are classified as short-term investments. Investments with remaining maturities greater than one year are classified as long-term investments. Management generally determines the appropriate classification of securities at the time of purchase. All securities are classified as available-for-sale. The Company’s available-for-sale short-term and long-term investments are carried at fair value, with the unrealized holding gains and losses reported in accumulated other comprehensive income (loss). Realized gains and losses and declines in the value judged to be other-than-temporary are included in the other income, net line item in the consolidated statements of operations. The cost of securities sold is based on the specific identification method.

Fair Value Measurements

The Company measures the fair value of financial instruments using a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three broad levels:

Level 1—Inputs used to measure fair value are unadjusted quoted prices that are available in active markets for the identical assets or liabilities as of the reporting date.

Level 2—Pricing is provided by third party sources of market information obtained through the Company’s investment advisors, rather than models. The Company does not adjust for, or apply, any additional assumptions or estimates to the pricing information it receives from advisors. The Company’s Level 2 securities include cash equivalents and available-for-sale securities, which consisted primarily of certificates of deposit, corporate debt, and government agency and municipal debt securities from issuers with high-quality credit ratings. The Company’s investment advisors obtain pricing data from independent sources, such as Standard & Poor’s, Bloomberg and Interactive Data Corporation, and rely on comparable pricing of other securities because the Level 2 securities are not actively traded and have fewer observable transactions. The Company considers this the most reliable information available for the valuation of the securities.

Level 3—Unobservable inputs that are supported by little or no market activity and reflect the use of significant management judgment are used to measure fair value. These values are generally determined using pricing models for which the assumptions utilize management’s estimates of market participant assumptions. The determination of fair value for Level 3 investments and other financial instruments involves the most management judgment and subjectivity.

The carrying amounts of financial assets and liabilities, such as cash and cash equivalents, accounts receivable, accounts payable, notes payable and other payables, approximate their fair values because of the

short maturity of these instruments. The carrying values of lease obligations and long-term financing obligations approximate their fair values because interest rates on these obligations are based on prevailing market interest rates.

Allowance for Doubtful Accounts

The Company establishes an allowance for doubtful accounts to ensure that its trade receivables balances are not overstated due to uncollectibility. The Company performs ongoing customer credit evaluations within the context of the industry in which it operates and generally does not require collateral from its customers. A specific allowance of up to 100% of the invoice value is provided for any problematic customer balances. Delinquent account balances are written off after management has determined that the likelihood of collection is remote. The Company grants credit only to customers deemed creditworthy in the judgment of management. The allowance for doubtful accounts receivable was approximately \$61,000 and \$85,000 as of December 31, 2021 and 2020, respectively.

Inventories

The Company values its inventories at the lower of cost, which approximates actual cost on a first-in, first-out basis, or net realizable value. Costs of inventories primarily consisted of material and third party assembly costs. The Company records inventory reserves for estimated obsolescence or unmarketable inventories based upon assumptions about future demand and market conditions. Once a reserve is established, it is maintained until the product to which it relates is sold or otherwise disposed of. If actual market conditions are less favorable than those expected by management, additional adjustment to inventory valuation may be required. Charges for obsolete and slow-moving inventories are recorded based upon an analysis of specific identification of obsolete inventory items and quantification of slow-moving inventory items. The Company recorded no inventory write-downs for each of the years ended December 31, 2021 and 2020.

Tax credits and receivables

The Company is registered for the Canadian federal and provincial goods and services taxes. As such, the Company is obligated to collect from third parties, and is entitled to claim sales taxes paid on its expenses and capital expenditures incurred in Canada.

In addition, the Company is also a part of the Scientific Research and Experimental Development (SR&ED) Program, which uses tax incentives to encourage Canadian businesses of all sizes and in all sectors to conduct research and development (R&D) in Canada. As a part of the program, the Company may be entitled to a receivable in the form of tax credit or incentive. The Company records refundable tax credits as a reduction of expense and receivable when the Company can reasonably estimate the amounts and it is more likely than not, they will be received.

A government refund or subsidy that is compensation for expenses or losses already incurred, or for which there are no future related costs, is recognized in the statement of operations in the period in which it becomes receivable.

Property and Equipment

Property and equipment are originally recorded at cost. Depreciation is computed using the straight-line method over the estimated useful lives of the assets, generally three to six years. Depreciation is recorded in cost of sales and operating expenses in the consolidated statements of operations and comprehensive loss. Leasehold improvements and assets acquired through capital leases are amortized over the shorter of their estimated useful life or the lease term, and related amortization is recorded in operating expenses in the consolidated statements of operations.

Intangible and Long-lived Assets

Intangible assets are recorded at cost and amortized on a straight-line method over their estimated useful lives of three to ten years. The Company regularly reviews the carrying value and estimated lives of its long-lived assets and finite-lived intangible asset to determine whether indicators of impairment may exist which warrant adjustments to carrying values or estimated useful lives. The determinants used for this evaluation include management's estimate of the asset's ability to generate positive income from operations and positive cash flow in future periods as well as the strategic significance of the assets to the Company's business objective. Should an impairment exist, the impairment loss would be measured based on the excess of the carrying amount of the long-lived asset group over the asset's fair value.

Business combinations

The Company allocates the fair value of purchase consideration to the tangible assets acquired, liabilities assumed and intangible assets acquired based on their estimated fair values. The excess of the fair value of purchase consideration over the fair values of these identifiable assets and liabilities is recorded as goodwill to reporting units based on the expected benefit from the business combination. Allocation of purchase consideration to identifiable assets and liabilities affects the amortization expense, as acquired finite-lived intangible assets are amortized over the useful life, whereas any indefinite-lived intangible assets, including goodwill, are not amortized. During the measurement period, which is not to exceed one year from the acquisition date, the Company records adjustments to the assets acquired and liabilities assumed, with the corresponding offset to goodwill. Upon the conclusion of the measurement period, any subsequent adjustments are recorded to earnings. Acquisition-related expenses are recognized separately from business combinations and are expensed as incurred.

Goodwill

The Company determines the amount of a potential goodwill impairment by comparing the fair value of the reporting unit with its carrying amount. To the extent the carrying value of a reporting unit exceeds its fair value, a goodwill impairment charge is recognized.

The Company has determined that it has a single reporting unit for purposes of performing its goodwill impairment test. As the Company uses the market approach to determine the step one fair value of the reporting unit, the price of its common stock is an important component of the fair value calculation. If the Company's stock price experiences significant price and volume fluctuations, this will impact the fair value of the reporting unit, which can lead to potential impairment in future periods. The Company reviews goodwill for impairment on an annual basis or whenever events or changes in circumstances indicate the carrying value of an asset may not be recoverable. The Company first assesses qualitative factors to determine whether it is more-likely-than-not that the fair value of the reporting unit is less than the carrying amount as a basis for determining whether it is necessary to perform an impairment test. If the qualitative assessment warrants further analysis, the Company compares the fair value of the reporting unit to its carrying value. The fair value of the reporting unit is determined using the market approach. If the fair value of the reporting unit exceeds the carrying value of net assets of the reporting unit, goodwill is not impaired. If the carrying value of the reporting unit's goodwill exceeds its fair value, then the Company must record an impairment charge equal to the difference.

Acquired intangibles

Acquired intangible assets consist of developed technology and customer relationships that are measured at fair value at date of acquisition. In valuing acquired intangible assets, the Company makes assumptions and estimates based in part on projected financial information, which makes assumptions and estimates inherently uncertain, particularly for early-stage technology companies. The significant estimates and assumptions used by the Company in the determination of the fair value of acquired intangible technology assets include the revenue growth rate, the royalty rate and the discount rate. The significant estimates and assumptions used by the Company in the determination of the fair value of acquired customer contract intangible assets include the revenue growth rate and the discount rate.

As a result of the judgments that need to be made, the Company obtains the assistance of independent valuation firms. The Company completes these assessments as soon as practical after the closing dates. Any excess of the purchase price over the estimated fair values of the identifiable net assets acquired is recorded as goodwill.

Warrant liability

The Company issued detachable warrants with its preferred shares and convertible debentures. The warrants have exercise prices that are denominated in foreign currency (Canadian dollars or CND) that differs from the Company's functional currency (United States dollars or USD) and accordingly are accounted for as liability in accordance with ASC No. 815, *Derivatives and Hedging*. These warrants are initially recorded at fair value and then re-valued at each reporting date, with changes in the fair value reported in the statements of operations. The classification of these instruments, including whether such instruments should be recorded as liability or as equity, is evaluated at the end of each reporting period.

Leases

Effective January 1, 2019, the Company adopted ASC No. 842, *Leases* (ASC 842). ASC 842 requires an entity to recognize a right-of-use asset and a lease liability for all leases with terms longer than 12 months. The Company adopted ASC 842 utilizing the modified retrospective transition method. The Company elected the practical expedient afforded in ASC 842 in which the Company did not reassess whether any contracts that existed prior to adoption have or contain leases or the classification of its existing leases.

Revenue Recognition

The Company recognizes revenue in accordance with Financial Accounting Standards Board (FASB) ASC Topic 606, *Revenue from Contracts with Customers*, and its amendments (ASC 606). As described below, the analysis of contracts under ASC 606 supports the recognition of revenue at a point in time, resulting in revenue recognition timing that is materially consistent with the Company's historical practice of recognizing product revenue when title and risk of loss pass to the customer.

The Company generates revenue primarily from sales of integrated circuits and module products, performance of engineering services and licensing of its intellectual property. Revenues are recognized when control is transferred to customers in amounts that reflect the consideration the Company expects to be entitled to receive in exchange for those goods. Revenue recognition is evaluated through the following five steps: (i) identification of the contract, or contracts, with a customer; (ii) identification of the performance obligations in the contract; (iii) determination of the transaction price; (iv) allocation of the transaction price to the performance obligations in the contract; and (v) recognition of revenue when or as a performance obligation is satisfied.

Product revenue

Revenue is recognized when performance obligations under the terms of a contract with a customer are satisfied. The majority of the Company's contracts have a single performance obligation to transfer products. Accordingly, the Company recognizes revenue when title and risk of loss have been transferred to the customer, generally at the time of shipment of products. Revenue is measured as the amount of consideration the Company expects to receive in exchange for transferring products and is generally based upon a negotiated, formula, list or fixed price. -The Company sells its products both directly to customers and through distributors generally under agreements with payment terms typically 60 days or less.

The Company may record an estimated allowance, at the time of shipment, for future returns and other charges against revenue consistent with the terms of sale.

License and other

The Company's licensing contracts typically provide for royalties based on the licensee's use of the Company's memory technology in its currently shipping commercial products. The Company estimates its royalty revenue in the calendar quarter in which the licensee uses the licensed technology. Payments are received in the subsequent quarter. The Company also generates revenue from licensing its technology. The Company recognizes License fee as revenue at the point of time when the control of the license has been transferred and the Company has no continuing performance obligations to the customer.

Engineering services revenue

Engineering and development contracts with customers generally contain a single performance obligation that is delivered over time. Revenue is recognized using an output method that is consistent with the satisfaction of the performance obligation as a measure of progress.

Contract liabilities – deferred revenue

The Company's contract liabilities consist of advance customer payments and deferred revenue. The Company classifies advance customer payments and deferred revenue as current or non-current based on the timing of when the Company expects to recognize revenue. As of December 31, 2021, contract liabilities were in a current position and included in deferred revenue.

During the year ended December 31, 2021, the Company had no recognized revenue that had been included in deferred revenue at December 31, 2020. During the year ended December 31, 2020, the Company had no revenue that had been included in deferred revenue at December 31, 2019.

See Note 8 for disaggregation of revenue by geography.

The Company does not have significant financing components, as payments from customers are typically due within 60 days of invoicing, and the Company has elected the practical expedient to net value financing components that are less than one year. Shipping and handling costs are generally incurred by the customer, and, therefore, are not recorded as revenue.

Cost of Net Revenue

Cost of net revenue consists primarily of direct and indirect costs of product sales.

Advertising Costs

Advertising costs are expensed as incurred. Advertising costs were not significant for the years ended December 31, 2021 and 2020.

Government Subsidies

A grant or subsidy that is compensation for expenses or losses already incurred, or for which there are no future related costs, is recognized in the statement of operations in the period in which it becomes receivable.

Starting in 2020, certain Canadian businesses, which experienced a drop in revenue during the COVID-19 pandemic, became eligible for a rent and wage subsidy from the government. The Company's subsidiary, Peraso Tech, began receiving this subsidy on a monthly basis beginning in the fourth quarter of 2020.

During the year ended December 31, 2021, the Company recognized payroll subsidies of \$1,120,475 as a reduction in the associated wage costs and rent subsidies of \$199,235 as a reduction of operating expenses in the consolidated statement of operations.

During the year ended December 31, 2020, the Company recognized payroll subsidies of \$1,085,066 as a reduction in the associated wage costs and rent subsidies of \$89,992 as a reduction of operating expenses in the consolidated statement of operations.

In addition, as a Canadian Controlled Private Corporation (CCPA), Peraso Tech was eligible for the Canadian government's Scientific Research and Experimental Development (SR&ED) refund program, which refunds 35% of eligible costs for Canadian businesses of all sizes and in all sectors to conduct research and development in Canada. The Company records refundable SR&ED credits as a receivable when the Company can reasonably estimate the amounts and it is more likely than not, such amounts will be received.

As of December 17, 2021, Peraso Tech ceased to be a CCPA and is no longer eligible for the expenditure refund program. However, it is eligible for a tax credit of 15% on qualified SR&ED expenditures. Unused tax credits can be carried back three years or forward for 20 years.

The Company is registered for the Canadian federal and provincial goods and services taxes. As such, the Company is obligated to collect from third parties, and is entitled to claim sales taxes paid on its expenses and capital expenditures incurred in Canada

Research and Development

Engineering costs are recorded as research and development expense in the period incurred.

Stock-Based Compensation

The Company periodically issues stock options and restricted stock awards to employees and non-employees. The Company accounts for such grants based on ASC No. 718, whereby the value of the award is measured on the date of grant and recognized as compensation expense on a straight-line basis over the vesting period. The fair value of the Company's stock options is estimated using the Black-Scholes-Merton Option Pricing (Black Scholes) model, which uses certain assumptions related to risk-free interest rates, expected volatility, expected life of the options, and future dividends. Compensation expense is recorded based upon the value derived from the Black-Scholes model. The assumptions used in the Black-Scholes model could materially affect compensation expense recorded in future periods.

Foreign Currency Transactions

The functional currency of the Company is the U.S dollar. All foreign currency transactions are initially measured and recorded in an entity's functional currency using the exchange rate on the date of the transaction. All monetary assets and liabilities are remeasured at the end of each reporting period using the exchange rate at that date. All non-monetary assets and related expense, depreciation or amortization are not subsequently remeasured and are measured using the historical exchange rate. An average exchange rate may be used to recognize income and expense items earned or incurred evenly over a period. Foreign exchange gains and losses resulting from the settlement of such transactions are recognized in the statement of operations, except for the gains and losses arising from the conversion of the carrying amount of the foreign currency denominated convertible preferred shares into the functional currency that are presented as adjustment to the net loss to arrive at net loss attributable to common stockholders.

Per-Share Amounts

Basic net loss per share is computed by dividing net loss for the period by the weighted-average number of shares of common stock outstanding during the period. Diluted net loss per share gives effect to all potentially dilutive common shares outstanding during the period. Potentially dilutive common shares consist of incremental shares of common stock issuable upon the exercise of stock options, vesting of stock awards and purchases under the employee stock purchase plan, conversion of convertible debt and exercise of warrants. The following table sets forth securities outstanding which were excluded from the computation of diluted net loss per share as their inclusion would be anti-dilutive (in thousands):

	December 31,	
	2021	2020
Escrow Shares	1,815	—
Options to purchase common stock	1,558	1,053
Unvested restricted common stock units	88	—
Convertible debt	—	3,266
Warrants	134	375
Total	3,595	4,694

Income Taxes

The Company determines deferred tax assets and liabilities based upon the differences between the financial statement and tax bases of the Company's assets and liabilities using tax rates in effect for the year in which the Company expects the differences to affect taxable income. A valuation allowance is established for any deferred tax assets for which it is more likely than not that all or a portion of the deferred tax assets will not be realized.

The Company files U.S. federal and state and foreign income tax returns in jurisdictions with varying statutes of limitations. The 2014 through 2018 tax years generally remain subject to examination by U.S. federal and state tax authorities, and the 2010 through 2019 tax years generally remain subject to examination by foreign tax authorities.

At December 31, 2021, the Company did not have any material unrecognized tax benefits nor expect its unrecognized tax benefits to change significantly over the next 12 months. The Company recognizes interest related to unrecognized tax benefits as income tax expense and penalties related to unrecognized tax benefits as other income and expense. During the years ended December 31, 2021 and 2020, the Company did not recognize any interest or penalties related to unrecognized tax benefits.

Comprehensive Loss

Comprehensive loss represents the changes in equity of an enterprise, other than those resulting from stockholder transactions. Accordingly, comprehensive loss may include certain changes in equity that are excluded from net loss. For the years ended December 31, 2021 and 2020, the Company's comprehensive loss was the same as its net loss.

Recently Issued Accounting Pronouncements

In June 2016, the FASB issued Accounting Standards Update (ASU) No. 2016-13, *Financial Instruments—Credit Losses*. This ASU added a new impairment model (known as the current expected credit loss (CECL) model) that is based on expected losses rather than incurred losses. Under the new guidance, an entity recognizes an allowance for its estimate of expected credit losses and applies to most debt instruments, trade receivables, lease receivables, financial guarantee contracts, and other loan commitments. The CECL model does not have a minimum threshold for recognition of impairment losses and entities will need to measure expected credit losses on assets that have a low risk of loss. This update is effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years for smaller reporting companies. The Company is still evaluating the impact of this accounting guidance on its results of operations and financial position.

In August 2020, the FASB issued ASU No. 2020-06 (ASU 2020-06), *Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging—Contracts in Entity's Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity's Own Equity*. The ASU will simplify the accounting for convertible instruments by reducing the number of accounting models for convertible debt instruments and convertible preferred stock. Limiting the accounting models will result in fewer embedded conversion features being separately recognized from the host contract as compared with current GAAP. Convertible instruments that continue to be subject to separation models are (1) those with embedded conversion features that are not clearly and closely related to the host contract, that meet the definition of a derivative, and that do not qualify for a scope exception from derivative accounting and (2) convertible debt instruments issued with substantial premiums for which the premiums are recorded as paid-in capital. The ASU also amends the guidance for the derivatives scope exception for contracts in an entity's own equity to reduce form-over-substance-based accounting conclusions. ASU 2020-06 will be effective for the Company January 1, 2024, and early adoption is permitted, but no earlier than January 1, 2021, including interim periods within that year. The Company is currently evaluating what effect(s) the adoption of ASU 2020-06 may have on its financial statements, but the Company does not believe the impact of the ASU will be material to its financial position, results of operations and cash flows. The effect will largely depend on the composition and terms of the Company's financial instruments at the time of adoption.

Note 2: Business Combination

Arrangement

As discussed in Note 1, on September 14, 2021, the Company and its newly formed subsidiaries Callco and Canco entered into the Arrangement Agreement with Peraso Tech..

On December 17, 2021, following the satisfaction of the closing conditions set forth in the Arrangement Agreement, including approvals from the stockholders of the Company and Peraso Tech, the Arrangement was completed. The Company's common stock, previously traded on the Nasdaq under the ticker symbol "MOSY," commenced trading on the Nasdaq under the ticker symbol "PRSO."

Securities Conversion

Pursuant to the completion of the Arrangement, each Peraso Share that was issued and outstanding immediately prior to December 17, 2021 was converted into the right to receive 0.045239122387267 (the Exchange Ratio) newly issued shares of common stock of the Company or shares of Canco, which are exchangeable for shares of the Company's common stock (Exchangeable Shares) at the election of each former Peraso Tech stockholder. In addition, all of Peraso Tech's outstanding stock options and other securities exercisable or exchangeable for, or convertible into, and any other rights to acquire Peraso Shares were exchanged for securities exercisable or exchangeable for, or convertible into, or other rights to acquire the Company's common stock. Immediately following the completion of the Arrangement, the former security holders of Peraso Tech owned approximately 61%, on a fully-diluted basis, of the Company's common stock, and the former shareholders of Peraso Tech, as a group, obtained control of the Company. While the Company was the legal acquirer of Peraso Tech, Peraso Tech was deemed to be the acquirer for accounting purposes.

In addition, pursuant to the terms of the Arrangement Agreement, (i) certain warrants to purchase Peraso Shares outstanding immediately prior to the closing of the Arrangement were exercised in consideration for the issuance of Peraso Shares; (ii) each convertible debenture of Peraso Tech outstanding immediately prior to the closing of the Arrangement and all principal and accrued but unpaid interest thereon was converted into Peraso Shares at a conversion price equal to the conversion price set out in each such debenture; and (iii) each outstanding option to purchase Peraso Shares (each, a Peraso Option) was exchanged for a replacement option to purchase such number of shares of common stock that was equal to the product of (a) the number of Peraso Shares subject to the Peraso Options immediately before the closing of the Arrangement and (b) the Exchange Ratio, rounded down to the nearest whole number of shares of common stock.

Upon the closing of the Arrangement, an aggregate of 9,295,097 Exchangeable Shares and 3,558,151 shares of common stock were issued to the holders of Peraso Shares. Of such shares, pursuant to the terms of the Agreement, the Company held in escrow an aggregate of 1,312,878 Exchangeable Shares and 502,567 shares of common stock (collectively, the Escrow Shares). The Escrow Shares are escrowed pursuant to the terms of an escrow agreement on a pro rata basis from the aggregate consideration received by the holders of Peraso Shares, subject to the offset by the Company for any losses in accordance with the Agreement. Such Escrow Shares shall be released, subject to any offset claim, upon the satisfaction of the earlier of: (a) any date following the first anniversary of December 17, 2021 and prior to December 17, 2024 where the volume weighted average price of the common stock for any 20 trading days within a period of 30 consecutive trading days is at least \$8.57 per share, subject to adjustment for stock splits or other similar transactions; (b) the date of any sale of all or substantially all of the assets or shares of the Company; or (c) the date of any bankruptcy, insolvency, restructuring, receivership, administration, wind-up, liquidation, dissolution, or similar event involving the Company. All and any voting rights and other stockholder rights, other than with respect to dividends and distributions, with respect to the Escrow Shares are suspended until the Escrow Shares are released from escrow.

In connection with the Arrangement, on December 15, 2021, the Company filed the Certificate of Designation of Series A Special Voting Preferred Stock with the Secretary of State of the State of Delaware to designate Series A Special Voting Preferred Stock (the Special Voting Share) in accordance with the terms of the Arrangement Agreement in order to enable the holders of Exchangeable Shares to exercise their voting rights. Each Exchangeable Share is exchangeable for one share of common stock of the Company and while outstanding, the Special Voting Share enables holders of Exchangeable Shares to cast votes on matters for which holders of the common stock are entitled to vote, and by virtue of the share terms relating to the Exchangeable Shares, to receive dividends that are economically equivalent to any dividends declared with respect to the shares of common stock.

The Exchangeable Shares, which can be converted into common stock at the option of the holder and have the same voting rights as common stock, are similar in substance to shares of common stock and, therefore, have been included in the determination of outstanding common stock.

Outstanding Shares of Common Stock

The following table details the outstanding shares of the common stock that were outstanding immediately following the consummation of the Arrangement:

	Number of shares
MoSys common stock outstanding prior to business combination	8,715,910
Common stock issued to Peraso Tech stockholders	3,055,584
Exchangeable Shares issued to Peraso Tech stockholders	7,982,219
Escrow Shares - common stock	502,567
Escrow Shares - Exchangeable Shares	1,312,878
Total shares issued and outstanding	21,569,158

Reverse Acquisition Determination

Pursuant to ASC 805, the transaction was accounted for as a reverse acquisition because: (i) the stockholders of Peraso Tech owned the majority of the outstanding common stock of the Company after the share exchange; (ii) Peraso Tech appointed a majority of the Company's board of directors; and (iii) Peraso Tech determined the officers of the Company.

Measuring the Consideration Transferred

In the reverse acquisition, the accounting acquirer did not issue any consideration to the accounting acquiree, rather the accounting acquiree issued its equity shares to the owners of the accounting acquirer in exchange for the accounting acquirer's shares. The acquisition date fair value of the consideration transferred by the accounting acquirer for its interest in the accounting acquiree was calculated by Peraso Tech, as the fair value of the consideration effectively transferred. In accordance with ASC 805, the consideration effectively transferred between the Company (a public company as the accounting acquiree) and Peraso Tech (a private company as the accounting acquirer), was calculated as the fair value of the Company's equity including the fair value of its common shares outstanding and its warrants, plus the portion of the share-based award fair value allocated to the pre-combination service of the accounting acquiree's awards. The fair value of the total consideration effectively transferred was determined to be \$37.6 million.

The following table summarizes the preliminary provisional allocation of the purchase price to the net assets acquired based on the respective fair value of the acquired assets and assumed liabilities of the accounting acquiree, which is the Company. The Company believes that information gathered to date provides a reasonable basis for estimating the fair value of assets acquired and liabilities assumed. However, the provisional measurements of fair value set forth below are subject to change. The Company expects to complete the purchase price allocation as soon as practical but no later than one year from the acquisition date.

	December 31,
	2021
	(in thousands)
Assets:	
Cash, cash equivalents and investments	\$ 19,064
Other current assets	2,558
Other assets	833
Intangibles	
Developed technology (provisional)	5,726
Customer relationships (provisional)	2,556
	8,282
Goodwill	9,946
Liabilities:	
Current liabilities	3,056
	<u>\$ 37,627</u>

Presentation of Consolidated Financial Statements Post Reverse Acquisition

The consolidated financial statements reflect all of the following:

- the assets and liabilities of the legal subsidiary (Peraso Tech, as the accounting acquirer) recognized and measured at their pre-combination carrying amounts;
- the assets and liabilities of the legal parent (the Company, as the accounting acquiree) recognized and measured in accordance with ASC 805;
- the retained earnings and other equity balances of the legal subsidiary (Peraso Tech, as the accounting acquirer) before the business combination; and
- the amount recognized as issued equity interests in the consolidated financial statements determined by adding the issued equity interest of Peraso Tech outstanding immediately before the business combination to the fair value of the Company. However, the equity structure (that is, the number and type of equity interests issued) reflects the equity structure of the Company.

All references to common stock, stock options and warrants as well as per share amounts have been retroactively restated to reflect the number of shares of the Company issued in the reverse acquisition.

Unaudited proforma results of operations for the years ended December 31, 2021 and 2020 are included below as if the business combination occurred on January 1, 2020. This summary of the unaudited pro forma results of operations is not necessarily indicative of what the Company's results of operations would have been had Peraso Tech been acquired at the beginning of 2020, nor does it purport to represent results of operations for any future periods.

	Year ended December 31,	
	2021	2020
Revenue	\$ 10,670	\$ 15,885
Net loss	(19,977)	(16,077)
add back: acquisition costs	1,628	—
Adjusted net loss	<u>\$ (18,349)</u>	<u>\$ (16,077)</u>

The goodwill recognized from the reverse acquisition is attributed to the operational synergies from the combined operations of the Company and Peraso Tech.

Revenue and earnings of the Company from acquisition date to December 31, 2021 that were included in the consolidated financial statements as of December 31, 2021 amounted to \$263,000 and \$74,000, respectively.

Note 3: Consolidated Balance Sheet Detail

	December 31,	
	2021	2020
	(in thousands)	
Inventories:		
Raw materials	\$ 879	\$ 48
Work-in-process	2,170	885
Finished goods	775	341
	<u>\$ 3,824</u>	<u>\$ 1,274</u>
Prepaid expenses and other:		
Prepaid inventory and production costs	\$ 671	\$ 329
Prepaid insurance	44	13
Prepaid software	277	508
Prepaid legal	34	113
Other	133	—
	<u>\$ 1,159</u>	<u>\$ 963</u>
Property and equipment, net:		
Equipment, furniture and fixtures and leasehold improvements	\$ 11,821	\$ 11,077
Less: Accumulated depreciation and amortization	(9,472)	(8,456)
	<u>\$ 2,349</u>	<u>\$ 2,621</u>

Accrued expenses and other:

	December 31,	
	2021	2020
	(in thousands)	
Accrued wages and employee benefits	\$ 506	\$ 168
Professional fees, legal and consulting	1,252	287
Insurance	340	—
Accrued taxes	190	—
Accrued inventory	233	1
Warranty accrual	29	—
Other	353	—
	<u>\$ 2,903</u>	<u>\$ 456</u>

Note 4: Fair Value of Financial Instruments

The estimated fair values of financial instruments outstanding were (in thousands):

	December 31, 2021			
	Cost	Unrealized Gains	Unrealized Losses	Fair Value
Cash and cash equivalents	\$ 5,893	\$ —	\$ —	\$ 5,893
Short-term investments	9,276	—	(9)	9,267
Long-term investments	2,935	—	(7)	2,928
	<u>\$ 18,104</u>	<u>\$ —</u>	<u>\$ (16)</u>	<u>\$ 18,088</u>

	December 31, 2020			
	Cost	Unrealized Gains	Unrealized Losses	Fair Value
Cash	\$ 1,712	\$ —	\$ —	\$ 1,712

The unrealized losses from available-for-sale securities as of December 31, 2021 and 2020 were not material.

The following table represents the Company's fair value hierarchy for its financial assets (cash equivalents and investments) as of December 31, 2021 (in thousands):

	December 31, 2021			
	Fair Value	Level 1	Level 2	Level 3
Money market funds (1)	\$ 1,159	\$ 1,159	\$ —	\$ —
Corporate notes and commercial paper	\$ 12,195	\$ —	\$ 12,195	\$ —

(1) Included in cash and cash equivalents.

There were no cash equivalents and investments as of December 31, 2020.

During the year ended December 31, 2021, \$0.4 million of corporate notes and commercial paper matured and were transferred to Level 1. There were no transfers in or out of Level 1 and Level 2 securities during the year ended December 31, 2020.

Note 5: Income Taxes

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amount of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes.

Significant components of the Company's deferred tax assets and liabilities were (in thousands):

	Year Ended December 31,	
	2021	2020
Deferred tax assets:		
Net operating loss carryforwards	\$ 5,409	\$ 3,031
Reserves, accruals and other	198	239
Depreciation and amortization	917	1,284
Deferred stock based compensation	2,691	2,698
Research and development credit carryforwards	6,675	6,613
Total deferred tax assets	15,890	13,865
Less: Valuation allowance	(15,890)	(13,865)
Net deferred tax assets, net	<u>\$ —</u>	<u>\$ —</u>

The \$2.0 million increase in the valuation allowance during 2021 was primarily the result of an increase to the net operating loss carryforwards for the current year. The valuation allowance increased by \$1.1 million during the year ended December 31, 2020.

Utilization of the Company's net operating losses (NOLs) and tax credit carryforwards is subject to a substantial annual limitation due to the ownership change limitations provided by the IRC and similar state provisions. Section 382 of the IRC (Section 382) imposes limitations on a corporation's ability to utilize its NOL and tax credit carryforwards, if it experiences an "ownership change." In general terms, an ownership change may result from transactions increasing the ownership percentage of certain stockholders in the stock of the corporation by more than 50% over a three-year period. In the event of an ownership change, utilization of the NOLs would be subject to an annual limitation under Section 382 determined by multiplying the value of the Company's stock at the time of the ownership change by the applicable long-term tax-exempt rate. While a formal study has not been performed, the Company believes that Section 382 ownership changes occurred as a result of financing transactions and the Arrangement. The Company believes the Section 382 limitations will result in approximately 89% of the federal and state NOLs expiring before they can be utilized, and approximately 88% of the federal tax credit carryforwards expiring before they can be utilized.

As of December 31, 2021, the Company had NOLs of approximately \$214.1 million for federal income tax purposes and approximately \$134.1 million for state income tax purposes. Only approximately \$20.2 million of the federal NOLs and \$16.7 million of the state NOLs are expected to be available before expiration due to the Section 382 limitation. These NOLs are available to reduce future taxable income and will expire at various times from 2025 through 2041, except federal NOLs from 2018 to 2021 which will never expire. The Company also had federal research and development tax credit carryforwards of approximately \$8.6 million, which will begin expiring in 2022, and California research and development credits of approximately \$8.4 million, which do not have an expiration date.

A reconciliation of income taxes provided at the federal statutory rate (21%) to the actual income tax provision is as follows (in thousands):

	Year Ended December 31,	
	2021	2020
Income tax benefit computed at U.S. statutory rate	\$ (1,503)	\$ (794)
Research and development credits	(131)	(66)
Amortization of intangible assets	(60)	(60)
Valuation allowance changes affecting tax provision	1,693	919
Other	1	1
Income tax provision	<u>\$ —</u>	<u>\$ —</u>

The losses before income tax provision for the years ended December 31, 2021 and 2020 were solely attributable to US operations.

Note 6: Stock-Based Compensation

Equity Compensation Plans

Common Stock Equity Plans

In 2010, the Company adopted the 2010 Equity Incentive Plan and later amended it in 2014, 2017 and 2018 (the Amended 2010 Plan). The Amended 2010 Plan was terminated in August 2019 and remains in effect as to outstanding equity awards granted prior to the date of expiration. No new awards may be made under the Amended 2010 Plan.

In August 2019, the Company's stockholders approved the 2019 Stock Incentive Plan (the 2019 Plan), and it replaced the Amended 2010 Plan. The 2019 Plan authorizes the board of directors or the compensation committee of the board of directors to grant a broad range of awards including stock options, stock appreciation rights, restricted stock, performance-based awards, and restricted stock units. Under the 2019 Plan, 182,500 shares were initially reserved for issuance.

In November 2021, in connection with the approval of the Arrangement, the Company's stockholders approved an amendment increasing the number of shares reserved for issuance under the 2019 Plan by 3,106,937 shares.

Under the 2019 Plan, the term of all incentive stock options granted to a person who, at the time of grant, owns stock representing more than 10% of the voting power of all classes of the Company's stock may not exceed five years. The exercise price of stock options granted under the 2019 Plan must be at least equal to the fair market value of the shares on the date of grant. Generally, awards under the 2019 Plan will vest over a three to four-year period, and options will have a term of 10 years from the date of grant. In addition, the 2019 Plan provides for automatic acceleration of vesting for options granted to non-employee directors upon a change of control of the Company.

In connection with the Arrangement, the Company assumed the Peraso Technologies Inc. 2009 Share Option Plan (the 2009 Plan) and all outstanding options granted pursuant to the terms of the 2009 Plan. Each outstanding, unexercised and unexpired option under the 2009 Plan, whether vested or unvested, was assumed by the Company and converted into options to purchase shares of the Company's common stock and became exercisable by the holder of such option in accordance with its terms, with (i) the number of shares of common stock subject to each option multiplied by the Exchange Ratio and (ii) the per share exercise price upon the exercise of each option divided by the Exchange Ratio. In connection with the Arrangement, no further awards will be made under the 2009 Plan

The 2009 Plan, the Amended 2010 Plan and the 2019 Plan are referred to collectively as the "Plans."

Stock-Based Compensation Expense

At December 31, 2021, the unamortized compensation cost was approximately \$12.2 million related to stock options and is expected to be recognized as expense over a weighted average period of approximately 3.5 years. The unamortized compensation cost, at December 31, 2021, was \$0.1 million related to restricted stock units and is expected to be recognized as expense over a weighted average period of approximately 1.8 years. For the years ended December 31, 2021 and 2020, the fair value of options and awards vested was approximately \$1.0 million and \$0.3 million, respectively.

Valuation Assumptions and Expense Information for Stock-based Compensation

The fair value of the Company's share-based payment awards for the years ended December 31, 2021 and 2020 was estimated on the grant dates using the Black-Scholes model with the following assumptions:

	Year Ended December 31,	
	2021	2020
Risk-free interest rate	1.22% - 1.47%	0.46% - 2.74%
Volatility	100% - 132%	104%
Expected life (years)	3.0 - 6.25	5.5 - 6.5
Dividend yield	0 %	0 %

The risk-free interest rate was derived from the Daily Treasury Yield Curve Rates as published by the U.S. Department of the Treasury as of the grant date for terms equal to the expected terms of the options. The expected volatility was based on the historical volatility of the Company's stock price over the expected term of the options. The expected term of options granted was derived from historical data based on employee exercises and post-vesting employment termination behavior. A dividend yield of zero is applied because the Company has never paid dividends and has no intention to pay dividends in the near future.

In accordance with ASU No. 2016-09, the Company accounts for forfeitures as they occur.

Common Stock Options and Restricted Stock

A summary of stock option activity under the Plans is presented below (in thousands, except exercise price):

	Options outstanding	
	Number of Shares	Weighted Average Exercise Prices
Balance as of January 1, 2020	467	\$ 8.20
Options granted	845	\$ 2.65
Options cancelled and returned to the Plans	(254)	\$ 6.85
Options exercised	(5)	\$ 1.77
Balance as of December 31, 2020	1,053	\$ 2.54
Options granted	409	\$ 3.00
Options exercised	(42)	\$ 2.72
Options cancelled and returned to the Plans	(20)	\$ 1.72
Effect of business combination	158	\$ 10.35
Balance as of December 31, 2021	1,558	\$ 3.49

As of December 31, 2021, the Company had approximately 3.0 million shares available for grant.

A summary of RSU activity under the Plans is presented below (in thousands, except fair value):

	Number of Shares	Weighted Average Grant-Date Fair Value
Non-vested shares as of December 31, 2020	—	\$ 0.00
Granted	30	\$ 5.07
Vested	(10)	\$ 4.21
Effect of business combination	68	\$ 4.21
Non-vested shares as of December 31, 2021	88	\$ 4.50

The following table summarizes significant ranges of outstanding and exercisable options at December 31, 2021 (in thousands, except contractual life and exercise price):

Range of Exercise Price	Options Outstanding			Options Exercisable		
	Number Outstanding	Weighted Average Remaining Contractual Life (in Years)	Weighted Average Exercise Price	Number Exercisable	Weighted Average Exercise Price	Aggregate Intrinsic value
\$1.57 - \$14.99	1,542	6.64	\$ 2.67	552	\$ 2.55	\$ 908
\$15.00 - \$25.59	8	1.78	\$ 15.00	8	\$ 15.00	\$ —
\$25.60 - \$143.99	2	3.62	\$ 40.15	2	\$ 41.81	\$ —
\$144.00 - \$409.99	5	4.69	\$ 144.00	5	\$ 144.00	\$ —
\$410.00 - \$924.00	1	3.05	\$ 410.00	1	\$ 430.64	\$ —
\$1.57 - \$924.00	1,558		\$ 3.49	568	\$ 4.71	\$ 908

There were approximately 20,000 and 5,000 options exercised during the years ended December 31, 2021 and 2020, respectively.

Note 7: Stockholders' Equity

Convertible Preferred Shares

The following tables summarize the movement in preferred shares for the year ended December 31, 2020.

(amounts in thousands)	Class A		Class B		Class C		Total
	preferred shares		preferred shares		preferred shares		
Balance at January 1, 2020	124	\$ 4,457	1,989	\$ 54,831	2,959	\$ 58,803	\$ 118,091
Dividends accrued	65		796		-		861
Amortization of issuance costs and warrants	-		77		728		805
Foreign exchange impact	(293)		(3,601)		(3,862)		(7,756)
Preferred shares converted into Peraso Shares	(124)	(4,229)	(1,989)	(52,103)	(2,959)	(55,669)	(112,001)
Balance at December 31, 2020	-	-	-	-	-	-	-

In March 2020, the Company issued 124,408 Peraso Shares upon conversion of all outstanding Class A preferred shares amounting to \$4,229,288 and 1,988,554 Peraso Shares upon conversion of all outstanding Class B preferred shares amounting to \$52,102,651. The Class A and B preferred shares were converted into Peraso Shares based on the original conversion price of CDN\$1.00 (\$0.72 USD). The outstanding accumulated dividends of \$22,732,543 were reclassified into additional paid-in capital.

In March 2020, the Company also issued 2,958,787 Peraso Shares amounting to \$55,668,932 upon conversion of all outstanding Class C preferred shares based on the amended conversion price of CDN\$1.18 (\$0.85 USD). As a conversion inducement, the Company amended the ratio for the conversion of the Class C preferred shares into Peraso Shares from 1:1 to 1:1.25. The Company determined that the additional Peraso Shares issuable arising from such modification totaled 591,757 with a fair value of \$11,133,786 and recognized such amount as a deemed dividend.

These convertible preferred shares were accounted for as mezzanine equity prior to their conversion into Peraso Shares in March 2020.

Warrants classified as equity

At December 31, 2021, the Company had the following warrants outstanding (share amounts in thousands):

Warrant Type	Number of Shares	Exercise Price	Expiration
Common stock	33	\$ 47.00	January 2023
Common stock	101	\$ 2.40	October 2023

Warrants classified as liability

Warrants outstanding at December 31, 2020 and their respective exercise price and expiration dates, were as follows:

Year Issued	Number of warrants issued (recast)	Exercise price	Expiration
2014	27	CDN\$1.00	December 31, 2025
2015	4	CDN\$1.00	August 31, 2022
2016	19	CDN\$1.479	December 31, 2025
2017	7	CDN\$1.479	December 31, 2022
2017	15	CDN\$1.479	December 31, 2025
2019	3	CDN\$1.479	December 31, 2025
2020	98	CDN\$0.15	December 31, 2025
2020	202	CDN\$0.15	December 31, 2023
Total	375		

Exercise prices in USD were \$0.79, \$1.16, and \$0.12 at December 31, 2020.

Warrant activity and the related changes in the estimated fair values during the years ended December 31, 2021 and 2020 were:

	Number of shares (recast)	Amount
Balance - December 31, 2019	75	\$ 1,501,307
Issued in the year	300	5,300,798
Change in fair value of warrants	—	(96,267)
Balance - December 31, 2020	375	6,705,838
Issued in the year	133	2,604,420
Effect of business combination	(508)	(1,208,250)
Change in fair value of warrants	—	(8,102,008)
Balance - December 31, 2021	—	\$ —

The fair value of the warrant liability was estimated using the Black-Scholes option-pricing model. Peraso Tech was a private company and lacked company-specific historical and implied volatility information. Therefore, it estimated its expected stock volatility based on the historical volatility of a publicly traded set of peer companies within the semiconductor industry with characteristics similar to the Company. The risk-free interest rate is determined by reference to the U.S. Treasury yield curve in effect at the time of grant of the award for time periods approximately equal to the expected term of the award. Expected dividend yield is zero, based on the fact that the Company had never paid cash dividends and did not expect to pay any cash dividends in the foreseeable future.

The Company granted warrants with exercise price of CDN\$0.15 (\$0.12 USD) to purchase 6,628,495 common shares of the Company in 2020 to certain holders of convertible debentures (Note 7). The total fair values of these warrants at grant date amounted to \$5.3 million in 2020. The fair values were determined using Black-Scholes model with the following assumptions: expected term based on the contractual term of 3.2 - 5 years, risk-free interest rate of 0.37%-0.38% based on a comparable US Treasury Bond, expected volatility of 104.37%, and expected dividend of zero.

The fair values of the outstanding warrants at December 31, 2020 was calculated based on the following assumptions used in the Black-Scholes model: expected term based on the remaining contractual term of 1.92-5.25 years, risk-free interest rate of 0.36% based on a comparable US Treasury Bond, expected volatility of 104.37%, and expected dividend of zero.

In accordance with the Arrangement Agreement, on December 16, 2021, the warrants were settled in exchange for a defined number of common shares. Upon settlement, the fair value of the warrants were calculated using the intrinsic fair value of the common shares. The change in fair value was recognized in other income (expense) in the consolidated statements of operations.

Note 8: Retirement Savings Plan

Effective January 1997, the Company adopted the MoSys 401(k) Plan (the Savings Plan), which qualifies as a thrift plan under Section 401(k) of the Internal Revenue Code. Full-time and part-time employees who are at least 21 years of age are eligible to participate in the Savings Plan at the time of hire. Participants may contribute up to 15% of their earnings to the Savings Plan. No matching contributions were made by the Company during the years ended December 31, 2021 and 2020.

Note 9: Business Segment, Concentration of Credit Risk and Significant Customers

The Company operates in one business segment and uses one measurement of profitability for its business. Revenue attributed to the United States and to all foreign countries is based on the geographical location of the customer.

Financial instruments that potentially subject the Company to significant concentrations of credit risk consist principally of cash, cash equivalents, investments and accounts receivable. Cash, cash equivalents and investments are deposited with high credit-quality institutions.

The Company recognized revenue from licensing of its technologies, performance of engineering services and shipment of products to customers in the following geographical locations (in thousands):

	Year Ended December 31,	
	2021	2020
North America	\$ 1,968	\$ 7,727
Hong Kong	2,955	—
Taiwan	693	1,351
Rest of world	63	12
Total net revenue	<u>\$ 5,679</u>	<u>\$ 9,090</u>

Customers who accounted for at least 10% of total net revenues were:

	Year Ended December 31,	
	2021	2020
Customer A	48%	*
Customer B	19%	*
Customer C	11%	12%
Customer D	*	55%
Customer E	*	27%

* Represents percentage less than 10%.

Three customers accounted for 96% of net accounts receivable at December 31, 2021. Three customers accounted for 95% of net accounts receivable at December 31, 2020.

All net long-lived assets (property and equipment) were held in the United States and Canada.

Note 10: Commitments and Contingencies

Leases

The Company has three leases that it accounts for under ASC 842, and these include the operating leases for its corporate facility in San Jose, California, and facilities in Toronto and Waterloo, Ontario, Canada. The San Jose lease expires in July 2022, and the Waterloo and Toronto leases expire in September 2022 and December 2023, respectively.

The right-to-use assets and corresponding liabilities for the facility leases were measured at the present value of the future minimum lease payments. The discount rate used to measure the lease assets and liabilities were 8%. Lease expense is recognized on a straight line basis over the lease term.

Future minimum payments under the facility leases at December 31, 2021 are listed in the table below (in thousands).

Year ended December 31,	Operating lease
2022	\$ 409
2023	299
Total future lease payments	708
Less: imputed interest	(41)
Present value of lease liabilities	\$ 667

	Year ended December 31,	
	2021	2020
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows for leases	\$ 286	\$ 248

Rent expense was approximately \$0.6 million for each of the years ended December 31, 2021 and 2020. In addition to the minimum lease payments, the Company is responsible for property taxes, insurance and certain other operating costs.

Indemnification

In the ordinary course of business, the Company enters into contractual arrangements under which it may agree to indemnify the counterparties from any losses incurred relating to breach of representations and warranties, failure to perform certain covenants, or claims and losses arising from certain events as outlined within the particular contract, which may include, for example, losses arising from litigation or claims relating to past performance. Such indemnification clauses may not be subject to maximum loss clauses. The Company has also entered into indemnification agreements with its officers and directors. No material amounts were reflected in the Company's consolidated financial statements for the years ended December 31, 2021 and 2020 related to these indemnifications.

The Company has not estimated the maximum potential amount of indemnification liability under these agreements due to the limited history of prior claims and the unique facts and circumstances applicable to each particular agreement. To date, the Company has not made any payments related to these indemnification agreements.

Product warranties

The Company warrants certain of its products to be free of defects generally for a period of three years. The Company estimates its warranty costs based on historical warranty claim experience and includes such costs in cost of net revenues. Warranty costs were not material for the years ended December 31, 2021 and 2020.

Legal

On June 3, 2020, Peraso Tech applied for and obtained an order under the Companies' Creditors Arrangement Act (the CCAA), providing certain relief. Pursuant to the Initial Order issued by the Ontario Superior Court of Justice (Commercial List) (the Court), Ernst & Young Inc. was appointed as the Monitor (the Monitor) of Peraso Tech. In addition, the Monitor, in its capacity as foreign representative, filed a voluntary petition in the United States under Chapter 15 of the U.S. Bankruptcy Code, seeking recognition of the CCAA proceeding.

On October 14, 2020, the Court approved a settlement agreement (the Settlement Agreement) as between Ubiquiti Inc. and Peraso Tech. On October 22, 2020, following the satisfaction of certain conditions precedent, the Settlement Agreement (including all agreements incorporated as schedules thereto) became fully effective. The terms of the settlement agreement are subject to confidentiality.

On October 28, 2020, the Court granted an order authorizing the termination of Peraso Tech's CCAA proceedings upon the completion of certain defined steps. On November 2, 2020, Peraso Tech provided written notice to the Monitor that these steps had been completed and, as contemplated in the CCAA Termination Order dated October 28, 2020 (the CCAA Termination Order), the Monitor served a Monitor's Certificate on the service list that had the effect of, inter alia: terminating the CCAA proceedings and the Stay Period referred to in the Initial Order; discharging Ernst & Young Inc. from its duties as the Monitor; releasing certain claims in favor of the Monitor and its counsel, with certain exceptions; and terminating the Administration Charge, the Directors' Charge, the DIP Lenders' Charge, the Second DIP Lenders' Charge, and the Third DIP Lenders' Charge (as such terms are defined in the CCAA Termination Order).

Notwithstanding the discharge of Ernst & Young Inc. as Monitor:

- Ernst & Young Inc. will remain Monitor and have the authority to carry out, complete, or address any matters in its role as Monitor that are ancillary or incidental to these CCAA proceedings, including any matter in respect of the Chapter 15 Proceedings (as defined in the CCAA Termination Order);
- Ernst & Young Inc. and its counsel will continue to have the benefit of any of the rights, approvals, releases and protections in favor of the Monitor at law or pursuant to the CCAA, the Initial Order, and all other Orders made in these CCAA proceedings;

On December 1, 2020 the United States Bankruptcy Court for the Southern District of New York issued an Order that: (i) recognized and gave full force and effect in the United States to the Court's order approving the Settlement Agreement; and (ii) terminated the Chapter 15 Proceedings.

Note 11: Debt

Loan facilities

During 2020, the Company entered into a debtor in possession credit agreement (the DIP Loan) to provide it with financing to fund certain cash requirements during the CCAA proceedings. Proceeds from the DIP Loan totaled \$6,150,000.

As of December 31, 2020, the full balance of the DIP Loan was fully paid/settled as follows:

- \$1 million settled against accounts receivable related to an engineering agreement;
- \$2.55 million converted into convertible debentures (see below);
- \$100 thousand repaid in cash; and
- \$2.5 million settled against accounts receivable related to a licensing manufacturing agreement.

On November 30, 2020, the Company entered into a loan agreement (the SRED Financing) to raise funds against the Company's present and after acquired personal property. The proceeds from the first draw totaled \$0.6 million (CDN\$750,000), which was outstanding at December 31, 2020.

On February 5, 2021, March 5, 2021 and September 17, 2021 the Company raised additional funds from the second, third and fourth draws under the SRED financing of \$274,715 (CDN\$350,000), \$274,715 (CDN\$350,000) and \$745,655 (CDN\$950,000) respectively, totaling year to date gross proceeds of \$1,295,085 (CDN\$1,650,000) net of financing fees of \$32,770 (CDN\$41,750). The loan agreement for all tranches carried an interest rate of 1.6% per month, compounded monthly (20.98%). The loan was sanctioned against the Company's tax credit refund.

The first, second and third draws, including interest of \$136,900 (CDN\$174,417), were repaid through proceeds from the Company's tax credit refund of \$1,093,230 (CDN\$ 1,392,831) and the balance of \$184,558 (CDN\$ 235,132) was paid from the fourth draw. The remaining loan balance, including interest, of \$816,964 (CDN\$1,044,177) was repaid on December 16, 2021.

Interest expense on the SRED Financing amounted to \$209,856 and \$6,193 for the years ended December 31, 2021 and 2020, respectively.

Convertible debentures

At December 31, 2020, convertible debentures consisted of the following:

<i>(amounts in thousands)</i>	2021	
6% Convertible debentures due December 31, 2023	\$	8,183
Accrued interest		322
Total obligation		8,505
Debt discount		(4,183)
Net	\$	<u>4,322</u>

In December 2019, the Company entered into convertible debenture agreements with a total principal amount of \$1.7 million due on June 30, 2025. In March 2020, the maturity date was amended to December 31, 2023. The convertible debentures had an interest rate of 6% per annum and were secured by the Company's assets. Finance fees incurred for the issuance of the convertible debentures amounting to \$73,608 were recorded as a debt discount. The Company also granted to a note holder warrants to purchase 53,312 common shares of the Company. The fair value of these warrants of \$45,971 was initially recorded as liability and debt discount.

During March 2020, the Company entered into additional convertible debenture agreements with a total principal amount of \$3.9 million due on December 31, 2023. The convertible debentures had an interest rate of 6% per annum and were secured by the Company's assets. Finance fees amounting to \$0.4 million incurred for the issuance of the convertible debentures were recorded as debt discount. The Company also granted to the note holders warrants to purchase 2,160,215 common shares of the Company. The fair value of these warrants of \$1,707,943 was initially recorded as liability and debt discount.

During October 2020, the Company settled a portion of its DIP Loan amounting to \$2.6 million through the issuance of convertible debentures with a maturity date of December 31, 2023. The convertible debentures had an interest rate of 6% per annum and were secured by the Company's assets. The Company also granted to the noteholders warrants to purchase 4,468,280 common shares of the Company. The fair value of these warrants of \$3.6 million was initially recorded as liability and debt discount up to the face value of the convertible debt, and a finance expense of \$1.0 million was recorded in the statement of operations for the year ended December 31, 2020 for the remaining portion.

During April 2021, the Company entered into convertible debenture agreements with a total principal amount of \$5.9 million due on December 31, 2023. The convertible debentures carried an interest rate of 6% per annum and were secured by the Company's assets. Finance fees incurred for the issuance of the convertible debentures amounting to \$0.4 million were recorded as a debt discount, resulting in net cash proceeds to the Company of \$5.5 million.

Per terms of the convertible debenture agreements, upon the closing of an equity financing, all of the outstanding principal and accrued interest shall convert at a price equal to the lower of CDN\$0.15 (USD\$0.12) and 80% of the per share price paid by the investors in such financing.

The Company also granted to the note holders warrants to purchase 2,947,058 common shares of the Company. The fair value of these warrants of \$2.6 million was initially recorded as a liability and debt discount. The debt discount on the convertible debentures was amortized over the term of the related convertible debentures. For the years ended December 31, 2021 and 2020, the amortization of the debt discount amounted to \$2.1 million and \$0.6 million, respectively.

On December 16, 2021, per the Arrangement Agreement the principal balance and accrued interest thereon on all the outstanding convertible debentures were converted into Peraso Shares at a price equal CDN\$0.15, or USD\$0.12.

The recorded debt discount was amortized to interest expense using the effective interest rate method over the terms of the related convertible debentures. During the years ended December 31, 2021 and 2020, the amortization of the debt discount amounted to \$2.1 million and \$0.6 million, respectively.

For the years ended December 31, 2021 and 2020, interest expense on the convertible debentures amounted to \$0.7 million and \$0.3 million, respectively.

DESCRIPTION OF THE REGISTRANT'S SECURITIES**REGISTERED PURSUANT TO SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934**

The following description of the common stock and preferred stock of Peraso Inc. ("Peraso") does not purport to be complete and is subject to, and qualified in its entirety by, its amended and restated certificate of incorporation ("charter") and its amended and restated bylaws ("bylaws"), each of which are incorporated by reference as an exhibit to the Annual Report on Form 10-K of which this exhibit is a part.

Peraso's authorized capital stock consists of 140,000,000 shares, consisting of: (i) 120,000,000 shares of common stock, \$0.001 par value per share; and (ii) 20,000,000 shares of preferred stock, \$0.01 par value per share.

DESCRIPTION OF PERASO COMMON STOCK*Common Stock*

Each share of common stock entitles its holder to one vote on all matters to be voted on by its stockholders. A majority of the votes cast is required for stockholders to elect directors and to take action on all other matters, except as otherwise required by law. Subject to any preferences that may apply to any preferred stock that may at the time be outstanding, holders of Peraso common stock will receive ratably any dividends the board of directors declares out of funds legally available for that purpose. In the event of a liquidation, dissolution or winding up, holders of common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities and the satisfaction of any liquidation preference granted to the holders of any then-outstanding shares of preferred stock.

Preferred Stock

Peraso's board of directors has the authority, without further action by the stockholders, to issue up to 20,000,000 shares of preferred stock in one or more series. The board of directors may designate the rights, preferences, privileges and restrictions of the preferred stock, including dividend rights, conversion rights, voting rights, terms of redemption, liquidation preference, sinking fund terms, and number of shares constituting any series or the designation of any series. The issuance of preferred stock could have the effect of restricting dividends on the common stock, diluting the voting power of the common stock, impairing the liquidation rights of the common stock, or delaying or preventing a change in control. The ability to issue preferred stock could delay or impede a change in control.

Some provisions of Delaware law, Peraso's amended and restated certificate of incorporation and its bylaws may have the effect of delaying, deferring or discouraging another party from acquiring control of it.

Delaware Law

Peraso is subject to Section 203 of the Delaware General Corporation Law, which regulates, subject to some exceptions, acquisitions of publicly-held Delaware corporations. In general, Section 203 prohibits Peraso from engaging in a "business combination" with an "interested stockholder" for a period of three years following the date the person becomes an interested stockholder, unless:

- the board of directors approved the business combination or the transaction in which the person became an interested stockholder prior to the date the person attained this status;
- upon consummation of the transaction that resulted in the person becoming an interested stockholder, the person owned at least 85 percent of the voting stock outstanding at the time the transaction commenced, excluding shares owned by persons who are directors and also officers and issued under employee stock plans under which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or subsequent to the date the person became an interested stockholder, the board of directors approved the business combination and the stockholders other than the interested stockholder authorized the transaction at an annual or special meeting of stockholders by the affirmative vote of at least 66 2/3 percent of the outstanding stock not owned by the interested stockholder.

Section 203 defines a "business combination" to include:

- any merger or consolidation involving Peraso and the interested stockholder;
- any sale, transfer, pledge or other disposition involving the interested stockholder of 10 percent or more of Peraso's assets;
- in general, any transaction that results in the issuance or transfer by Peraso of any of its stock to the interested stockholder;
- any transaction involving Peraso that has the effect of increasing the proportionate share of its stock owned by the interested stockholders; and
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges, or other financial benefits provided by or through Peraso.

In general, Section 203 defines an "interested stockholder" as any person who, together with the person's affiliates and associates, owns, or within three years prior to the time of determination of interested-stockholder status did own, 15 percent or more of a corporation's voting stock.

The charter and bylaws provide that:

- no action can be taken by stockholders except at an annual or special meeting of the stockholders called in accordance with the bylaws, and stockholders may not act by written consent;
- any provision may be adopted, amended or repealed by a vote of a majority of the members of the board of directors or by an affirmative vote of the holders of a majority of the outstanding shares of stock having voting rights, voting as a single class;
- special meetings of the stockholders may be called only by the board of directors pursuant to a resolution adopted by a majority of the total number of authorized directors, the chairman of the board of directors, the chief executive officer or any individual holder of 25 percent of the outstanding shares of common stock of the Peraso;
- the board of directors is authorized to issue preferred stock without stockholder approval;
- stockholders must satisfy advance notice procedures to submit proposals or nominate directors for consideration at a stockholders' meeting;
- stockholders may not cumulate votes in the election of directors; and
- Peraso will indemnify its officers and directors against losses that they may incur as a result of investigations and legal proceedings resulting from their services to Peraso, which may include services in connection with takeover defense measures.

Transfer Agent and Registrar

The transfer agent and registrar for Peraso's common stock is Equiniti Trust Company.

Nasdaq Stock Market Listing

Peraso's common stock is currently traded on the Nasdaq Stock Market under the symbol "PRSO."

SUBSIDIARIES OF REGISTRANT

NAME	JURISDICTION OF INCORPORATION
2864552 Ontario Inc.	Ontario, Canada
2864555 Ontario Inc.	Ontario, Canada
Peraso Technologies Inc.	Ontario, Canada

Consent of Independent Registered Public Accounting Firm

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 333-168358, 333-172828, 333-180119, 333-187187, 333-194563, 333-197989, 333-202735, 333-206209, 333-211273, 333-222739, 333-229728, 333-234675 and 333-262062), Form S-3 (No. 333-250936 and 333-262061), and Form S-1 (Nos. 333-222417 and 333-225193) of Peraso Inc. of our report dated March 31, 2022 relating to the consolidated financial statements, which appears in this Annual Report on Form 10-K.

/s/ Weinberg & Company

Los Angeles, California
March 31, 2022

**CERTIFICATION PURSUANT TO
RULE 13a-14 THE SECURITIES EXCHANGE ACT OF 1934**

I, Ronald Glibbery, certify that:

1. I have reviewed this annual report on Form 10-K of Peraso Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 31, 2022

/s/ Ronald Glibbery

Ronal Glibbery

Chief Executive Officer

(principal executive officer)

**CERTIFICATION PURSUANT TO
RULE 13a-14 THE SECURITIES EXCHANGE ACT OF 1934**

I, James W. Sullivan, certify that:

1. I have reviewed this annual report on Form 10-K of Peraso Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 31, 2022

/s/ James W. Sullivan

James W. Sullivan

Chief Financial Officer

(principal financial officer)

**CERTIFICATION OF CEO AND CFO FURNISHED PURSUANT TO
18 U.S.C. § 1350,
AS ADOPTED PURSUANT TO
§ 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report on Form 10-K of Peraso Inc. (the “Company”) for the year ended December 31, 2021, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), each of Ronald Glibbery, Chief Executive Officer of the Company, and James W. Sullivan, Chief Financial Officer of the Company, hereby certifies, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, to the best of his knowledge, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Ronald Glibbery

Ronald Glibbery
Chief Executive Officer
(principal executive officer)
March 31, 2022

/s/ JAMES W. SULLIVAN

James W. Sullivan
Chief Financial Officer
(principal financial officer)
March 31, 2022

This certification accompanies this Report pursuant to § 906 of the Sarbanes-Oxley Act of 2002 and shall not, except to the extent required by the Sarbanes-Oxley Act of 2002, or otherwise required, be deemed filed by the Company for purposes of § 18 of the Securities Exchange Act of 1934, as amended.