March 2025

To our Shareholders,

In 2024, Ceva returned to growth, driven by our mission to enable smart edge devices to connect, sense and infer data reliably and efficiently. The Ceva team executed to the strategy laid out on our investor day in late 2023, and demonstrated impressive progress in licensing, royalties and innovation. Driven by 10% growth in revenue, our non-GAAP EPS doubled year-over-year, indicative of the leverage of our pure IP licensing and royalty business model when combined with well-managed operations. I am highly impressed with how the company continues to innovate and deliver new leading-edge products and enhanced offerings that are set to drive the next cycle of growth. This is at the heart of Ceva's success – the ability to meet the most critical needs of our customers as they align their portfolios to succeed in the smart edge era.

Licensing

In licensing, it was a year of outstanding achievements, spanning the breadth of our product portfolio. Most significantly, we signed long-term licensing agreements with our four largest cellular customers – two for their next-generation base station ASICs and two for their smartphone cellular modem product lines, one of which is a leading U.S. OEM who recently debuted their in-house 5G modem. In addition, we expanded into the burgeoning satellite market, winning a major licensing deal with a satellite OEM, an area we see plenty of future potential for cellular IP as the world moves towards ubiquitous, global connectivity.

We continued to expand our customer base and market leadership in the high-volume Bluetooth, Wi-Fi and cellular IoT markets, where we are the only IP company with the ability to deliver a multitude of wireless connectivity standards to meet any use case and industry. In this regard, we recently added an RF team to help our customers get to market faster, and announced our first Bluetooth RF product at TSMC12nm, which addresses the next-generation Bluetooth 7 standard.

In sensing, we made excellent progress with our Spatial Audio embedded application software, culminating in the production of headsets and earbuds in collaboration with boAt, India's #1 hearable and wearable OEM, and we secured new business with a global smartphone OEM for multiple headset and earbud SKUs set to launch in 2025.

In inference, as AI inference processing rapidly moves from the cloud to the edge, we introduced a new AI NPU family to address this evolution, targeted at battery-powered and other power-constrained devices. Edge AI is highly synergistic with our connectivity and sensing offerings and customer base, which we believe will lead to significantly increased interest and demand for our edge AI. We signed lead customers for this new NPU family and are engaged with many more. The synergies between our three product categories and their need in every smart edge device is the keystone in our strategy to drive larger deals with better economics for both licensing and royalties.

Royalties

In royalties, it was a record year for the deployment of Ceva IP as our customers shipped a record 2 billion devices powered by Ceva over the course of the year. This led to royalty revenues growing 18% year-over-year, with significant acceleration in the second half of the year. Our dominant presence in wireless connectivity IP, particularly in Bluetooth, Wi-Fi and cellular IoT, drove significant year-over-year growth in shipments from these technologies as our large and diverse customer base is gaining market share in growing markets. Smartphone volumes enabled by our customers also grew, as did AI and sensing customers addressing new opportunities in many end markets. We believe we are in the early innings of a new royalty growth cycle driven by our Wi-Fi 6 and cellular modem IPs, and we are proud of the diversified product portfolio and customer base we have built over the years.

Responsible Business

We remain steadfast in our commitment to being a responsible and respected global corporate citizen and to operating sustainably in the countries where we have operations and employees. Importantly, our innovative wireless connectivity and edge AI technologies inherently provide customers with low-power solutions that through reduced energy use have a positive impact on our planet. In addition, we have reduced our environmental footprint by using cloud-based infrastructure and adopting other more efficient business practices to minimize our own energy consumption and waste generation, and our remote hybrid work policies further contribute to decreased carbon emissions by reducing the need for daily commutes. We have also expanded our community volunteering programs and enhanced our employee mental health assistance program, reinforcing our dedication to creating a positive work environment.

Summary

In summary, with the company’s return to growth in 2024, and the portfolio, strategy and team in place to drive Ceva forward, we believe we are well set for the next growth phase. Our leadership in wireless connectivity and our edge AI focus opens up huge opportunities for us to build deeper relationships with our customers and achieve even greater success together in the smart edge era.

To our employees around the world, on behalf of the Board of Directors and myself, we thank you for your incredible work and relentless drive that fuels our growth. We are also grateful for the continued support and trust of our customers, partners, and shareholders. Your shared vision and confidence in us makes this journey possible.

Sincerely,

Peter McManamon,
Chairman of the Board

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

FORM 10-K

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

For the fiscal year ended **December 31, 2024**

OR

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

For the transition period from ____________ to ____________

Commission file number: **000-49842**

CEVA, INC.
(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)	**77-0556376** (I.R.S. Employer Identification No.)
15245 Shady Grove Road, Suite 400, Rockville, MD 20850 (Address of principal executive offices)	**20850** (Zip Code)

(240) 308-8328
(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, $.001 per share	CEVA	Nasdaq Global Market

Securities registered pursuant to Section 12(g) of the Act: None

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

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange 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 an emerging growth company. See 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 ☐ Accelerated filer ☒

Non-accelerated filer ☐ Smaller reporting company ☐

Emerging growth company ☐

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

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

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

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

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

As of June 30, 2024, the aggregate market value of the registrant's common stock held by non-affiliates of the registrant was $287,663,109 based on the closing sale price as reported on the National Association of Securities Dealers Automated Quotation System National Market System on June 30, 2024. Shares of common stock held by each officer, director, and holder of 5% or more of the outstanding common stock of the Registrant have been excluded from this calculation in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

Class	Outstanding at February 24, 2025
Common Stock, $0.001 par value per share	23,806,655 shares

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive Proxy Statement for its Annual Meeting of Stockholders to be held on May 5, 2025 (the "2025 Proxy Statement") are incorporated by reference into Item 5 of Part II and Items 10, 11, 12, 13, and 14 of Part III.

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FORWARD-LOOKING STATEMENTS AND INDUSTRY DATA

This Annual Report contains forward-looking statements that involve risks and uncertainties, as well as assumptions that if they materialize or prove incorrect, could cause the results of Ceva to differ materially from those expressed or implied by such forward-looking statements and assumptions. All statements other than statements of historical fact are statements that could be deemed forward-looking statements. Forward-looking statements are generally written in the future tense and/or are preceded by words such as "will," "may," "should," "could," "expect," "suggest," "believe," "anticipate," "intend," "plan," or other similar words. Forward-looking statements include the following:

- Our belief that the consumer Internet-of-Things (IoT), automotive, industrial and infrastructure markets represent significant opportunity for growth, that they, together with the mobile and personal computing (PC) markets will represent a $5 billion total addressable market by 2027;

- Our belief that our portfolio of wireless communications and sensing and edge AI technologies address some of the most important megatrends, including 5G, generative AI, embedded AI, industrial automation and vehicle electrification, and our belief in the continued interest in our IP portfolio due to these trends, in both traditional and new areas;

- Our belief that our Bluetooth, Wi-Fi, Ultra Wide Band (UWB) and cellular IoT IP allow us to address the high volume IoT industrial, consumer and smart home markets, and our expectation that the overall addressable market size for this IP will be more than 16.5 billion devices annually by 2029 based on research from ABI Research;

- Our belief that Wi-Fi represents a significant royalty revenue opportunity in connection with our leading market position in licensing Wi-Fi 6 and our leadership position in Wi-Fi 7 IP;

- Our belief that our PentaG2 platform, including the recently announced Ceva-XC22 multi-thread DSP, ensures we offer one of the most comprehensive baseband processor IP platforms in the industry today, and that our 5G IP provides newcomers and incumbents with a customizable solution to address the need for 5G, 5G Advanced and other communications in data centers and infrastructure;

- Our belief that the high volume consumer audio markets, including True Wireless Stereo (TWS) earbuds, smartwatches, AR and VR headsets, and other wearable assisted devices, offers an incremental growth segment for our Bluetooth, Audio AI DSPs and software IP, and our belief in the capabilities of our RealSpace Spatial Audio & Head Tracking Solution and ClearVox voice input software to enhance the user experience and offer premium features;

- Our belief that our SensPro2 sensor hub AI DSP family can address the growing demand for efficient, high-performance signal processing in sensor-based applications across various industries for applications such as smartphones, automotive safety (ADAS), autonomous driving, drones, robotics, security and surveillance, augmented reality (AR) and virtual reality (VR), natural language processing and voice recognition, which enables us to address the transformation in devices enabled by these applications and expand our footprint and content in smartphones, drones, consumer cameras, surveillance, ADAS, voice-enabled devices and industrial IoT applications;

- Statements regarding third-party estimates of industry growth and future market conditions, including research from Bloomberg Intelligence which forecasts that hardware revenue associated with computer vision AI products and conversational AI devices will reach $58 billion and $110 billion, respectively, by 2032, indicating the size of the market opportunity;

- Our belief that our newest generation family of AI neural processing units (NPUs) present a highly efficient and high-performance architecture to enable generative and classic AI on any device including communication gateways, optically connected networks, cars, notebooks and tablets, AR/VR headsets, smartphones, and any other cloud or edge use case from the edge all the way to the cloud, and that more than 6 billion Edge AI hardware units will ship annually by 2030 based on research from Research and Markets;

- Our belief that our recently announced NeuPro-Nano family of AI NPUs present a compelling position to add a cost- and power-efficient processor to microcontrollorer units and SoC designs to handle the complete AI workloads on-device, and that based on research from ABI Research, by 2030, over 50% of TinyML shipments will be powered by dedicated TinyML hardware, representing billions of devices annually;

- Our belief that our sensor fusion and spatial audio application software allows us to address an important technology piece used in personal computers, robotics, TWS earbuds, smart TVs and many other smart sensing IP products, in addition to our existing portfolio for camera-based computer vision and AI processing, and microphone-based sound processing;

- Our belief that our customers can benefit from our capabilities as a one-stop-shop for processing many types of sensors;

- Our belief that we are well positioned for long-term growth in shipments and royalty revenues derived from smart edge products as a result of our focus on silicon and software IP solutions that enable products to connect, sense and infer data;

- Our belief that our ubiquitous technology and collaborative business model present a significant and secular growth prospect as digital transformation continues to drives industries to become connected and intelligent;

- Our intention to continue to capitalize on the semiconductor momentum with our portfolio of technologies to enable three main use cases associated with smart edge devices – connect, sense and infer, and to focus on four main markets which include consumer, automotive, industrial and infrastructure, and our belief that such markets are large, diversified and represent the greatest opportunities for long-term growth;

- Any statements regarding sales trends and financial results for 2025 and other future periods, including our expectations with respect to future customers, contracts, revenues and expenses, regarding our customer pipeline, that we expect our licensing and related revenues business will continue to expand into new markets and use cases for industrial IoT (IIoT) and consumer IoT devices, that we expect our connectivity products to continue to show strength in royalties in 2025, that a significant portion of our future revenues will continue to be generated by a limited number of customers in part due to consolidation in the semiconductor industry, that international customers will continue to account for a significant portion of our revenues for the foreseeable future, that an increasing portion of our new customers and revenues will be derived from international customers generally and sales to Asia Pacific in particular, and that we can expand our customer base and revenues in Europe and the U.S.;

- Our belief that our cash and cash equivalents, short-term bank deposits and marketable securities, along with cash from operations, will provide sufficient capital to fund our operations for at least the next 12 months; and

- Our belief that fluctuations in high interest rates within our investment portfolio will not have a material effect on our financial position on an annual or quarterly basis.

Forward-looking statements are not guarantees of future performance and involve risks and uncertainties. The forward-looking statements contained in this report are based on information that is currently available to us and expectations and assumptions that we deem reasonable at the time the statements were made. We do not undertake any obligation to update any forward-looking statements in this report or in any of our other communications, except as required by law. All such forward-looking statements should be read as of the time the statements were made and with the recognition that these forward-looking statements may not be complete or accurate at a later date.

Many factors may cause actual results to differ materially from those expressed or implied by the forward-looking statements contained in this report. These factors include, but are not limited to, those risks set forth in Item 1A: Risk Factors.

This report contains market data prepared by third party research firms. Actual market results may differ from their projections. This report includes trademarks and registered trademarks of Ceva. Products or service names of other companies mentioned in this Annual Report on Form 10-K may be trademarks or registered trademarks of their respective owners.

PART I

ITEM 1. BUSINESS

Company Overview

We are the leader in innovative silicon and software intellectual property (IP) solutions that enable smart edge products to connect, sense, and infer data more reliably and efficiently. Commanding 67% of the wireless connectivity market share based on IP design revenues in 2023, according to IPnest, we believe we have the industry's broadest portfolio of comprehensive wireless communications and processor IP platforms and embedded software solutions for the deployment of artificial intelligence (AI) algorithms and models directly onto local edge devices (Edge AI). We power the connectivity, sensing, and inference capabilities in today's most advanced smart edge products across four large, diversified markets with significant opportunity for long-term growth, consumer Internet-of-Things (IoT), automotive, industrial and infrastructure, as well as in the mobile and personal computing (PC) markets where we have well-established customers and presence, which based on our research we believe will represent a $5 billion total addressable market by 2027. Since 2003, more than 19 billion of the world's most innovative smart edge products from AI-infused smartwatches, IoT devices and wearables to autonomous vehicles, 5G mobile networks and more have been shipped with Ceva IP, with approximately 2 billion shipped in 2024 alone.

For more than three decades, we have been a trusted partner to hundreds of leading semiconductor and original equipment manufacturer (OEM) companies servicing not just our largest target growth and incumbent markets, but also a wide variety of other end markets and applications, including smart-home, surveillance, robotics and medical. Our transformative semiconductor IP and embedded software offerings are incorporated by customers into application-specific integrated circuits (ASICs) and application-specific standard products (ASSPs) to enable power-efficient, intelligent, secure and connected devices that connect, sense, and infer - the three critical pillars of the rapidly evolving era of AI-enabled smart edge.

We have established leadership positions in key technology areas, including reliable and secure wireless connectivity for use in both infrastructure and end points across multiple end markets, low-power and highly efficient audio and video/vision sensing and interface solutions and scalable neural-network-based AI processing.

We are a sustainability and environmentally conscious company. We have adopted both a Code of Business Conduct and Ethics and a Sustainability Policy, in which we emphasize and focus on environmental preservation, recycling, the welfare of our employees and privacy – which we promote on a corporate level. At Ceva, we are committed to social responsibility, values of preservation and consciousness towards these purposes.

Our revenue mix primarily comprises IP licensing fees and related revenues and royalties generated from our customers' shipments of smart edge products deploying our IP. Related revenues include revenues from post contract support, training and sale of development systems and chips.

We were initially incorporated in Delaware on November 22, 1999 under the name DSP Cores, Inc. Our current company was created through the combination of the DSP IP licensing division of DSP Group, Inc. and Parthus Technologies plc (Parthus) in November 2002.

With a global team of more than 400 development, support and sales professionals, we are headquartered in Rockville, Maryland, with research and development facilities in France, Greece, Ireland, Israel, Serbia, the United Kingdom and the United States and sales and support offices throughout Asia Pacific (APAC), Sweden, France, Israel, United Kingdom and the United States. We are committed to our customers' success and intend to continue to drive innovation in smart connected systems in the AI era.

Industry Background

Short Range Wireless IP

Wi-Fi, Bluetooth and ultra-wideband (UWB) are key enabling technologies for any company looking to address the consumer IoT, automotive, industrial, mobile, and PC end markets with Edge AI and IoT use cases. Moreover, many companies wish to integrate these connectivity technologies into System-on-Chip (SoC) designs rather than provide connectivity through an additional chip in the system. Yet, Wi-Fi and Bluetooth standards are constantly evolving, and the many new end applications are looking to benefit from these enhancements, which put further time-to-market pressure on systems and chip companies. In many cases, companies need to support multiple wireless standards in a device, which further increases the complexity. The advent of Artificial Intelligence of Things (AIoT) and the push to add embedded AI capabilities to almost every device has resulted in significant demand for connectivity IP that address this growing market, which includes smart True Wireless Stereo (TWS) earbuds, wearables, health monitoring, smart speakers, smart home appliances, white goods, and many other consumer and IoT devices. By licensing from us rather than developing these technologies in-house, our customers aim to access the latest standards, profiles and state-of-the-art radio frequences (RF) and to improve their time-to-market without undertaking the expensive research and development costs required to develop these technologies internally.

Cellular IoT IP

Cellular IoT, and specifically Narrowband IoT (NB-IoT), LTE Cat-1 and 5G RedCap standards, have become key technologies for companies wishing to connect low power IoT devices over long distances using cellular networks. By its nature, cellular is a very complex technology, with most of the industry knowledge held by a few large companies. By providing low power cellular digital signal processing (DSP) cores and platforms, we help our customers overcome the entry barriers to the cellular IoT market without undertaking the complex and expensive research and development process to develop these technologies internally.

5G/5G Advanced User Equipment and Infrastructure IP

As 5G and the upcoming 5G-Advanced standards continue to be deployed globally, new use cases and applications that leverage the standard's enormous bandwidth and ultra-low latency are emerging, including fixed wireless access, private networks, Low Earth Orbit (LEO) satellite networks and vehicle-to-everything (V2X) communications. Our latest generation Ceva-XC20 family of DSPs and PentaG2 platform IP effectively lower the high entry barriers for network equipment manufacturers, IoT companies, satellite OEMs and newcomers who wish to address these market opportunities by providing comprehensive IP on which to build their 5G/5G Advanced SoC and ASICs, while helping reduce the time-to-market, risk, effort and associated cost.

Sensor Fusion

Inertial and environmental sensors based on micro-electromechanical systems (MEMS) are used in an increasing number of devices, including smartphones, laptops, robots, TWS earbuds, spatial audio headsets, smart TVs, remote controls, AR and VR headsets, drones and many other consumer and industrial devices. The software required to process the sensor data and fuse the data from multiple sensors is complex and requires unique specialization. By licensing our IP rather than developing this sensor processing software in-house, our customers can focus their efforts developing the applications that utilize the processed sensor data to create differentiated, contextually aware devices. In addition, the processors required to combine the data from these sensors and run the applications are performance intensive and increasingly require specialized architectures that can handle a combination of traditional DSP processing and AI processing. Our SensPro sensor fusion AI DSPs offer a combination of high performance single and half precision floating-point math for powertrain and Radar applications along with a large amount of 8- and 16-bit parallel processing capacity required for deep neural network (DNN) inference processing.

NPUs

Neural processing units (NPUs) are specialized processors designed to accelerate neural network computations, such as machine learning (ML) and AI. NPUs are optimized for performing complex mathematical operations required by neural networks, such as matrix multiplications and convolutions, much more efficiently than traditional processors like central processing units (CPUs) or graphics processing units (GPUs). Our family of NeuPro NPUs are tailored to meet the full scale of AI applications, from tinyML and embedded AI through to Small Language Models, Large Language Models and Time Test Compute. These NPUs are specifically architected to provide the AI performance combined with optimal DSP for filtering data from sensor inputs, all running in real-time, on device with minimal power consumption. This makes the NeuPro NPU family ideal for a wide range of smart edge devices, including smartphones, automotive advanced driver-assistance systems ("ADAS"), next generation AI PC, intelligent microcontroller units (MCUs) for consumer and industrial markets, wireless audio SoCs, smart cameras and other AIoT devices.

Design Gap

The demand for smart edge devices in the consumer IoT, automotive, industrial, infrastructure, mobile and PC markets continues to grow. These devices require faster and lower power connectivity, with richer user experience that is aware and predictive. Semiconductor manufacturers face ever growing pressures to make smaller, feature-rich integrated circuits that are more reliable, less expensive and have greater performance. These two trends are occurring concurrently in the face of decreasing product lifecycles and constrained battery power. The advent of wireless connectivity technologies like 5G-Advanced, Wi-Fi 7 and Bluetooth 6/7 and the diverse sensor related workloads required to make a device smart, such as advanced image enhancement, computer vision, AI inferencing, voice and audio pre- and post- processing, spatial audio and motion sensor fusion have further increased these pressures. While semiconductor manufacturing processes have advanced significantly to allow a substantial increase in the number of circuits placed on a single chip, resources for design capabilities have not kept pace with the advances in manufacturing processes and the increasingly rapid design cycle expectations, resulting in a growing “design gap” between the increasing manufacturing potential and the constrained design capabilities.

Our Business

We address the requirements of the consumer, industrial, infrastructure, automotive, mobile and PC markets by designing and licensing a broad range of robust processors, platforms, software and solutions which streamline the design of products for developing a wide variety of application specific solutions that address the connect, sense and infer use cases of smart edge devices.

Given the “design gap,” as well as the increasing complexity and the unique skill set required to develop a smart edge SoC, many semiconductor design and manufacturing companies increasingly choose to license proven IP, such as processor cores (e.g., DSP, CPU, GPU and NPU), connectivity platforms (e.g., Bluetooth, Wi-Fi, UWB, 5G) and embedded software algorithms (e.g., sensor fusion, sound, spatial audio) and memory and physical IP from silicon IP companies like Ceva to complement their in-house development or to replace their internal development efforts for these technologies. With increasingly complex designs and shorter time-to-market demands, it is becoming progressively more challenging and less cost-efficient for most semiconductor companies to develop the full range of wireless standards in-house alongside maintaining DSP and NPU platforms for their sensing and AI needs. As a result, companies increasingly seek to license this IP from a third-party developer, such as Ceva.

Our Business Model

Our mission is to be the partner of choice for transformative IP solutions for the smart edge. Our platforms for connect, sense and infer use cases in smart edge devices enables us to address the high-volume markets of consumer IoT, automotive, industrial, infrastructure, mobile and PC. We license our technologies on a worldwide basis to semiconductor and OEM companies that design and manufacture products that combine Ceva-based solutions with their own proprietary technology.

We believe our business model offers us some key advantages. By not focusing on manufacturing or selling silicon products, we are free to widely license our technology and focus most of our resources on research and development. By choosing to license our IP, manufacturers have the advantage of being able to solely focus on creating their own differentiated solutions and developing their own unique product roadmaps. Through our licensing efforts, we have established a worldwide community developing Ceva-based solutions, and therefore we can leverage their strengths, customer relationships, proprietary technology advantages, and existing sales and marketing infrastructure. In addition, as our IP is widely licensed and deployed, system OEM companies can obtain Ceva-based chipsets from a wide range of suppliers, thus reducing dependence on any one supplier and fostering price competition, both of which help contain the cost of Ceva-based products.

We operate a licensing and royalty business model. We typically charge a license fee for access to our hardware technology and a royalty fee for each unit of silicon which incorporates our hardware or software technology.

License and related fees are invoiced in accordance with agreed-upon contractual terms. Royalties are reported and invoiced quarterly and generally based on a fixed unit rate or a percentage of the sale price for the Ceva-based silicon product.

Strategy

We believe there is a growing demand for IP that enables smart edge devices to connect, sense and infer data more reliably and efficiently. These devices are becoming more complex, integrating multiple technologies and standards into a single SoC. We also recognize chip design skills and expertise are scarce nowadays and more systems companies and OEMs are deciding to develop chips in-house, creating an even greater demand for IP.

We have strategically aligned our IP portfolio to allow us to exploit the most lucrative "design gaps" in the demand for smart edge devices, which, based on our research, we expect will grow at an 8% compound annual growth rate from 2022 to 2027. We offer expertise developing complete solutions in a number of key growth end markets, including consumer IoT, automotive, industrial, infrastructure, mobile and PC. For these markets, we offer IP solutions that include various types of specialized platforms for 5G-Advanced, satellite communications, multi-standard wireless connectivity (incorporating Wi-Fi, Bluetooth, UWB, 802.15.4), wireless RF, cellular IoT, sensor fusion and spatial audio. To capitalize on this industry shift, we intend to:

- develop and enhance our NPU product lines for Edge AI to meet our customers' evolving requirements
- develop and enhance our DSP platforms with additional features, performance and capabilities;
- develop and expand our short-range wireless IP and customer base, providing the newest standards, new IP blocks like RF and multi-protocol solutions to streamline our customers' deployments;
- continue to develop new generations of high-performance platforms incorporating processors NPUs, wireless connectivity standards and embedded application software to pursue opportunities and grow our footprint in the smart edge markets.
- go up the "value chain" by adding and charging for software for our wireless, AI, voice, spatial audio and Inertial Measurement Unit (IMU) products;
- continue to prudentially invest in strategic technologies that enable us to strengthen our presence in existing market or enter new addressable markets;
- capitalize on our relationships and leadership position within our worldwide community of semiconductor and OEM licensees who are developing Ceva-based solutions;
- capitalize on our technology leadership in the development of advanced processor technologies, connectivity IP and sensor fusion software to create and develop new, strategic relationships with OEMs and semiconductor companies to replace their internal solutions with Ceva-based solutions; and
- capitalize on our IP licensing and royalty business model which we believe is the best vehicle for a pervasive adoption of our technology and allows us to focus our resources on research and development of new licensable technologies and applications.

Products

We are the leading licensor of wireless interface silicon and software IP that enables smart edge devices to connect, sense and infer data more reliably and efficiently. Our wireless communications, sensing and Edge AI technologies are at the heart of some of today's most advanced smart edge products. From Bluetooth connectivity, Wi-Fi, UWB and 5G platform IP for ubiquitous, robust communications, to scalable Edge AI NPU IP, sensor fusion processors and embedded application software that make devices smarter, we believe we have the broadest portfolio of IP to connect, sense and infer data more reliably and efficiently.

Our categories of products include the following:

1) Connect

- 5G/5G-A Baseband Platform – PentaG2 – a complete IP platform for implementing a wide range of user-equipment and IoT cellular modems;
- OpenRAN Platform – PentaG-RAN – a modular, optimized hardware and software IP for implementing L1 PHY baseband processing in 5G and 5G-A base station and other cellular infrastructure SoCs;
- Communication Vector DSPs – Ceva-XC20 vector DSPs for 5G-A handsets, 5G-A RAN, and general purpose baseband processing;
- Baseband Processor – the Ceva-BX2 baseband processor IP handles both signal-processing and control workloads with up to 16 GMACs per second performance and high-level-language programming;
- Bluetooth Platform – Ceva-Waves Bluetooth – a comprehensive set of hardware IP, software modules, and radios addressing a broad choice of processes and nodes, to implement highly efficient Bluetooth and 802.15.4 connectivity in SoCs based on the latest standards;
- Wi-Fi Platform – Ceva-Waves Wi-Fi – a comprehensive selection of hardware IP and CPU-agnostic host software for energy-efficient SoC implementation of any of a wide range of Wi-Fi subsystems, from Wi-Fi 4 to Wi-Fi 7, for both client devices and access points;
- Ultra-Wideband Platform – Ceva-Waves UWB – optimized MAC and PHY hardware IPs and supporting software for secure and accurate ranging, and Doppler Radar presence detection applications;
- Multi-protocol Solutions – Ceva-Waves Links – provides preconfigured, optimized solutions for SoCs requiring multiple connectivity standards. All Ceva-Waves Links configurations are based on field-proven Ceva-Waves hardware IP and software stacks. Unique Ceva coexistence algorithms ensure efficient and interference-free operation of multiple connections while sharing one radio;
- Cellular IoT – Ceva-Waves DragonFly – turnkey platform with optimized, low-power hardware IP and protocol software for implementing NB-IoT cellular modem SoCs. Extensions provide support for GNSS such as GPS and BeiDou and for sensor-fusion applications;

2) Sense

- Vision / AI DSP – Ceva-SensPro is a family of DSP cores architected to combine vision, Radar, and AI processing in a single architecture;
- Audio and Control DSP – the Ceva-BX1 audio digital signal controller IP handles both modest signal-processing and control workloads with up to 8 GMACs per second performance and high-level-language programming;
- Neural-network-based noise cancellation – Ceva-ClearVox ENC software features a neural-network-based ENC algorithm with small memory and processing requirements to embed ENC into even tiny systems;

- Spatial Audio & Head Tracking – Ceva-RealSpace is a complete Spatial Audio software solution combining precise 3D rendering and accurate, low-latency head tracking;

- High-accuracy Sensor Fusion – Ceva-MotionEngine software combines high-accuracy 6 and 9 axis IMU sensor fusion algorithms, dynamic sensor calibration and many applications specific features such as cursor control, gesture recognition, activity tracking, context awareness, and AR/VR stabilization;

3) Infer

- NPU IP for Generative AI – Ceva-NeuPro-M – a scalable NPU architecture, ideal for transformers, Vision Transformers (ViT), and generative AI applications, with an exceptional power efficiency;

- NPU IP for Embedded AI – Ceva-NeuPro-Nano is a highly efficient and self-sufficient edge NPU designed for Embedded ML applications, delivering the optimal balance of ultra-low power and high performance in a small area to efficiently execute Embedded ML workloads across AIoT product categories, including Hearables, Wearables, Home Audio, Smart Home, Smart Factory, and more; and

- AI SDK – Ceva-NeuPro Studio – a comprehensive software development environment designed to streamline the development and deployment of AI models on the Ceva-NeuPro NPUs. It offers a suite of tools optimized for the Ceva NPU architectures, providing network optimization, graph compilation, simulation, and emulation, ensuring that developers can train, import, optimize, and deploy AI models with highest efficiency and precision.

We deliver our platforms, AI and sensor fusion DSPs and NPUs in the form of a hardware description language definition (known as a soft core or a synthesizable core). All our hardware IP can be manufactured on any process using any physical library and comes with a complete set of tools and an integrated development environment. An extensive third-party network supports Ceva platforms, AI DSPs and NPUs with a wide range of complementing software and platforms. In addition, we provide development platforms, software development kits and software debug tools, which facilitate system design, debug and software development.

To reduce the cost, complexity, and risk in bringing products to market, we have developed a suite of system platforms and solutions. These platforms and solutions combine the hardware and software elements that are essential for designers deploying Ceva’s state-of-the-art platforms, AI DSP cores and NPUs. Our family of platforms are targeted for baseband processing within mobile, cellular IoT devices and base station RAN, satellite communications, advanced imaging, computer vision, radar application and deep neural networks, and audio, voice and sensing and Internet-of-Things related applications.

Customers

We have licensed our platforms, AI DSPs, NPUs and wireless connectivity IP to leading semiconductor and OEM companies throughout the world, including seven of the world’s top 10 MCU players. These customers incorporate our IP into application-specific chipsets or custom-designed chipsets that they manufacture, market and sell to consumer electronics companies. We also license our technologies to OEMs directly. Included among our licensees are the following customers: Actions, Ambiq, AIC Semi, Alif, ASPEED, ASR Micro, Atmosic, Autotalks, Beken, Bestechnic, boAt, Broadcom, Ceragon, Cirrus Logic, Espressif, ESWIN, FujiFilm, Goodix, iCatch, ICOM, InPlay, Intel, iRobot, Itron, LG Electronics, LifeSignals, Mediatek, Microchip, MorningCore, Nations, Nextchip, Nokia, Nordic Semi, Novatek, NXP, onsemi, Synaptics, Oticon, Panasonic, Renesas, Rockchip, Rohm, Samsung, SatixFy, Sharp, SiFlower, SigmaStar, Socionext, Sony, Sonova, STMicroelectronics, THX, Toshiba, Unisoc, Vatics, Winner Micro and Yamaha.

International Sales and Operations

Customers based in Europe and Middle East (EME) and Asia Pacific (APAC) accounted for 81% of our total revenues for 2024, 90% of our total revenues for 2023 and 88% of our total revenues for 2022, with customers in China accounting for 49%, 59% and 63% of total revenues for 2024, 2023 and 2022, respectively. Additional information on the geographic breakdown of our revenues and location of our long-lived assets is contained in Note 12 to our consolidated financial statements, which appear elsewhere in this annual report.

Sales and Marketing

We license our technology through a direct sales force. As of December 31, 2024, we had 34 employees in sales and marketing. We have sales offices and representation in APAC region, Sweden, France, Israel, United Kingdom and the United States.

Maintaining close relationships with our customers and strengthening these relationships are central to our strategy. From time to time, we develop new signal processors, platforms, software solutions or connectivity products in close alignment with several tier-one industry players, which signifies to the market that we are focused on viable applications that meet broad industry needs or try to get similar inputs and insight for our new developments from our marketing team. Generally, these industry leaders become licensees for these products which allows us to create a roadmap for the future development of existing cores and application platforms and connectivity products and helps us to anticipate the next potential applications for the market. We seek to use our customer relationships to deliver new products in a faster time to market.

We use a variety of marketing initiatives to stimulate demand and brand awareness in our target markets. These marketing efforts include contacts with industry analysts, presenting at key industry trade shows and conferences, and a comprehensive digital marketing program aimed at developing and nurturing relationships with potential customers. Our marketing group runs competitive benchmark analyses to help us maintain our competitive position.

Technical Support

We offer technical support services through our offices in Israel, APAC region, France and the United States. As of December 31, 2024, we had 26 employees in technical support. Our technical support services include:

- assistance with implementation, responding to customer-specific inquiries, training and, when and if they become available, distributing updates and upgrades of our products;

- application support, consisting of providing general hardware and software design examples, ready-to-use software modules and guidelines to our licensees to assist them in using our technology; and

- design services, consisting of creating customer-specific implementations of our signal processing IP and application platforms.

We believe that our technical support services are a means to assist our licensees to embed our cores and platforms in their designs and products. Our technology is highly complex, combining sophisticated signal processing IP core architectures, integrated circuit designs and development tools. Effective customer support in helping our customers to implement our solutions enables them to shorten the time to market for their applications. Our support organization is made up of experienced engineers and professional support personnel. We conduct technical training for our licensees and their customers and meet with them from time to time to track the implementation of our technology.

Research and Development

Our research and development team focuses on improving and enhancing our existing products, as well as developing new products to broaden our offerings and market opportunities. These efforts are largely driven by current and anticipated customer and market needs.

Our research and development team consists of 323 engineers as of December 31, 2024, working in seven development centers located in France, Greece, Ireland, Israel, Serbia, the United Kingdom and the United States. Our engineers possess significant experience in developing AI and sensor fusion DSP cores, NPUs and tools for 5G, computer vision, AI, connectivity products (Wi-Fi, UWB and Bluetooth), NB-IoT, and sensor processing and sensor fusion software. In addition, we engage third party contractors with specialized skills as required to support our research and development efforts.

We encourage our research and development personnel to maintain active roles in various international organizations that develop and maintain standards in electronics and related industries. This involvement allows us to influence the development of new standards, keeps us informed as to important new developments regarding standards and allows us to demonstrate our expertise to existing and potential customers who also participate in these standards-setting bodies.

Competition

The markets in which we operate are intensely competitive. They are subject to rapid change and are significantly affected by new product introductions. We compete with other suppliers of licensed signal processing IP. We believe that the principal competitive elements in our field are signal processing IP and NPU performance, overall chip cost, power consumption, flexibility, reliability, communication and multimedia software and algorithms availability, design cycle time, tool chain, customer support, financial strength, name recognition and reputation. We believe that we compete effectively in each of these areas but can offer no assurance that we will have the financial resources, technical expertise, and marketing or support capabilities to compete successfully in the future.

The markets in which we compete are dominated by large, highly competent semiconductor companies that have significant brand recognition, a large installed base and a large network of support and field application engineers. The following industry players and factors may have a significant impact on our competitiveness:

- we compete directly in the signal processing cores space with Verisilicon, Cadence and Synopsys;
- we compete with CPU IP or configurable CPU IP (offering DSP configured CPU and/or DSP acceleration and/or connectivity capabilities to their IP) providers, such as Arm, Synopsys and Cadence and the RISC-V open source;
- we compete with custom ASIC providers and internal engineering teams at companies such as Marvell, Broadcom, ST and NXP that may design programmable DSP core products and signal processing cores in-house and therefore not license our technologies;
- we compete in the short-range wireless markets with Mindtree and internal engineering teams at companies such as Infineon, Silicon Labs and NXP;
- we compete in embedded imaging and vision market with Cadence, Synopsys, Videantis, Arm and Verisilicon;
- we compete in AI processor market with AI processor and accelerator providers, including Arm, Cadence, Synopsys, Cambricon, Digital Media Professionals (DMP), Expedera, Imagination Technologies, Nvidia open source NVDLA and Verisilicon;
- we compete in the audio and voice applications market with Arm, Cadence, Synopsys and Verisilicon; and
- we compete in the embedded 3D spatial audio and Motion Sensing software market with Waves, Dolby and CyweeMotion.

In addition, we may face increased competition from smaller, niche semiconductor design companies in the future. Some of our customers also may decide to satisfy their needs through in-house design. We compete based on signal processing IP performance, first-to-market availability for latest generation wireless standards, overall chip cost, power consumption, flexibility, reliability, communication and multimedia software availability, design cycle time, tool chain, customer support, name recognition, reputation and financial strength. Our inability to compete effectively on these bases could have a material adverse effect on our business, results of operations and financial condition.

With respect to certain large potential customers, we also compete with internal engineering teams, which may design wireless connectivity or programmable signal processing IP core products in-house. Companies such as NXP, Renesas and STMicroelectronics license our designs for some applications and use their own proprietary cores for other applications. These companies also may choose to license their wireless connectivity or proprietary signal processing IP cores to third parties and, as a result, become direct competitors.

Proprietary Rights

Our success and ability to compete are dependent on our ability to develop and maintain the proprietary aspects of our technology and to operate without infringing the proprietary rights of others. We rely on a combination of patent, trademark, trade secret and copyright laws and contractual restrictions to protect the proprietary aspects of our technology. These legal protections afford only limited protection of our technology. We also seek to limit disclosure of our IP and trade secrets by requiring employees and consultants with access to our proprietary information to execute confidentiality agreements with us and by restricting access to our source code and other IP. Due to rapid technological change, we believe that factors such as the technological and creative skills of our personnel, new product developments and enhancements to existing products are more important than obtaining statutory protections for our technology in establishing and maintaining a technology leadership position.

We have an active program to protect our proprietary technology through the filing of patents. Our patents relate to our signal processing IP cores and application-specific platform technologies. As of December 31, 2024, we held 50 patents in the United States, eight patents in Canada, 90 patents in the Europe and Middle East (EME) region and 10 patents in the Asia Pacific (APAC) region, totaling 158 patents, with expiration dates between 2025 and 2041. In addition, as of December 31, 2024, we had six patent applications pending in the United States, nine pending patent applications in the EME region, three pending global Patent Corporation Treaty (PCT) patent applications and eight pending patent applications in the APAC region, totaling 26 pending patent applications.

We actively pursue foreign patent protection in countries where we feel it is prudent to do so. Our policy is to apply for patents or for other appropriate statutory protection when we develop valuable new or improved technology that is eligible for protection. The patent prosecution process involves complex legal and factual questions, and the breadth of claims allowed is uncertain. Accordingly, there are no assurances that any patent application filed by us will result in a patent being issued, or that our issued patents, and any patents that may be issued in the future, will afford us adequate protection against competitors with similar technology; nor can we be assured that patents issued to us will not be infringed or invalidated, or that others will not design around our technology. In addition, the laws of certain countries in which our products are or may be developed, manufactured or sold may not protect our products and IP rights to the same extent as the laws of the United States. We can provide no assurance that our pending patent applications or any future applications will be approved or will not be challenged by third parties, that any issued patents will effectively protect our technology, or that patents held by third parties will not have an adverse effect on our ability to do business.

The semiconductor industry is characterized by frequent litigation regarding patent and other IP rights. Questions of infringement in the semiconductor field involve highly technical and subjective analyses. In addition, patent infringement claims are increasingly being asserted by patent holding companies (so-called patent "trolls"), which do not use technology and whose sole business is to enforce patents against companies, such as us, for monetary gain. Because such patent holding companies do not provide services or use technology, the assertion of our own patents by way of counterclaim may be ineffective. Litigation may in the future be necessary to enforce our patents and other IP rights, to protect our trade secrets, to determine the validity and scope of the proprietary rights of others, or to defend against claims of infringement or invalidity. We cannot assure you that we would be able to prevail in any such litigation or be able to devote the financial resources required to bring such litigation to a successful conclusion.

In any potential dispute involving our patents or other IP, our licensees also could become the targets of litigation. We are generally obligated to indemnify our licensees under the terms of our license agreements. Although our indemnification obligations are typically subject to a maximum amount, these obligations could nevertheless result in substantial expenses. In addition to the time and expense required for us to indemnify our licensees, a licensee's development, marketing and sale of products embodying our solutions could be severely disrupted or shut down as a result of litigation, and we could be liable to such licensees for additional amounts.

We also rely on trademark, copyright and trade secret laws to protect our IP. We have registered trademarks in the United States for our name Ceva and the related Ceva logo, and currently market our signal processing cores and other technology offerings under this trademark.

Human Capital Resources

The table below presents the numbers of our employees as of December 31, 2024 by function and geographic location.

	Number
Total employees	**428**
Function	
Research and development	323
Sales and marketing	34
Administration	45
Technical support	26
Location	
Israel	236
France	59
Ireland	11
China	17
United States	33
Serbia	34
Greece	20
Elsewhere	18

We believe we are a respected employer in the countries where we have operations, and, with the help of our employees, we strive to be a responsible global corporate citizen and a more sustainable company. Our Code of Business Conduct and Ethics sets the standards of conduct of our directors, officers and employees. In addition, in 2020, we adopted a Sustainability Policy that addresses matters related to our employees as well as data privacy and security, resource conservation and recycling, and other environmental matters. Our Sustainability Policy reflects our commitment to diversity and equal opportunity, a harassment-free workplace, training, development and employee engagement, and human rights, health and safety, and other matters relevant to employee well-being and the Ceva culture. The code is reviewed and updated periodically by our Board or Directors, and both the code and our Sustainability Policy are available on our website at www.ceva-ip.com.

Our employees are not represented by any collective bargaining agreements, however, certain provisions of Israeli law and the collective bargaining agreements between the Histadrut (General Federation of Labor in Israel) and the Coordination Bureau of Economic Organizations (the Israeli federation of employers' organizations) apply to our Israeli employees. We have never experienced a work stoppage. We believe our employee relations are good, as is their general well-being, which is one of management's top priorities.

Available Information

Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to reports pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, are available, free of charge, on our website at www.ceva-ip.com, as soon as reasonably practicable after such reports are electronically filed with the Securities and Exchange Commission and are also available on the SEC's website at www.sec.gov.

Our website and the information contained therein or connected thereto are not intended to be incorporated into this Annual Report on Form 10-K.

ITEM 1A. RISK FACTORS

We caution you that the following important factors, among others, could cause our actual future results to differ materially from those expressed in forward-looking statements made by or on behalf of us in filings with the Securities and Exchange Commission, press releases, communications with investors and oral statements. Any or all of our forward-looking statements in this annual report, and in any other public statements we make, may turn out to be wrong. They can be affected by inaccurate assumptions we might make or by known or unknown risks and uncertainties. Many factors mentioned in the discussion below will be important in determining future results. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise. You are advised, however, to consult any further disclosures we make in our reports filed with the Securities and Exchange Commission.

Summary Risk Factors

Risks Related to Our Industry and Markets

- The markets in which we operate are highly competitive, and as a result we could experience a loss of sales, lower prices and lower revenues.

- Because our IP solutions are components of end products, if semiconductor companies and electronic equipment manufacturers do not incorporate our solutions into their end products or if the end products of our customers do not achieve market acceptance, we may not be able to generate adequate sales of our products.

- We depend on market acceptance of third-party semiconductor intellectual property.

- If we are unable to meet the changing needs of our end-users or address evolving market demands, we may not be able to expand our current market positions and penetrate new markets, and our new products may not achieve widespread market acceptance, which may limit our additional revenue opportunities and harm our business may be harmed.

- Our operating results are affected by the highly cyclical nature of and general economic conditions in the semiconductor industry, including as a result of significant supply chain disruptions.

Risks Related to Our Global Operating Business

- Our quarterly operating results fluctuate from quarter to quarter due to a variety of factors, including our lengthy sales cycle, and may not be a meaningful indicator of future performance.

- We rely significantly on revenues derived from a limited number of customers who contribute to our royalty and license revenues.

- Our business is dependent on IP licensing and related revenues, which may vary from period to period.

- Royalty and other payment rates could decrease for existing and future license agreements and other customer agreements, which could materially adversely affect our operating results.

- Because we have significant international operations, with a significant concentration of revenues in China, we may be susceptible to political, economic and other conditions relating to our international operations that could increase our operating expenses and disrupt our revenues and business. In addition, new tariffs, trade measures and other geopolitical risks and instability could adversely affect our consolidated results of operations, financial position and cash flows.

- Our success will depend on our ability to successfully manage our geographically dispersed operations.

- Our operations in Israel may be adversely affected by instability in the Middle East region, including with respect to the war between Israel and Hamas that began on October 7, 2023 or the subsequent war in the north with Hezbollah in Lebanon. In addition, terrorist attacks, acts of war or military actions and/or other civil unrest may adversely affect the territories in which we operate, and our business, financial condition and operating results.

- Our research and development expenses will increase relative to past periods due to our receiving fewer grants from the Israeli government and the EU.

- We face a highly competitive employment market and depend on a limited number of key personnel who would be difficult to replace, and changes in our management and sales teams may adversely affect our operations.

- The sales cycle for our IP and related solutions is lengthy, and even approved projects may have structured payment terms, which makes forecasting of our customer orders and revenues difficult.

- We may seek to expand our business in ways that could result in diversion of resources and extra expenses, and our product development efforts may not generate an acceptable return, if any.

- Because our IP and related solutions are complex, the detection of errors in our products may be delayed, and if we deliver products with defects, our credibility will be harmed, the sales and market acceptance of our products may decrease and product liability claims may be made against us.

- We may not be able to adequately protect our IP, and our business will suffer if we are sued for infringement of the IP rights of third parties or if we cannot obtain licenses to these rights on commercially acceptable terms.

- Cybersecurity threats or other security breaches could compromise sensitive information belonging to us or our customers and could harm our business and our reputation.

Risks Related to Finance, Accounting and Taxation

- The nature of our business requires the application of complex revenue recognition rules. Significant changes in U.S. generally accepted accounting principles, or GAAP, including the adoption of the new revenue recognition rules, could materially affect our financial position and results of operations.

- Changes in our tax rates or exposure to additional income tax liabilities or assessments could adversely impact our cash flow, financial condition and results of operations.

- The Israeli and French and Greece tax benefits that we currently receive and the government programs in which we participate require us to meet certain conditions and may be terminated or reduced in the future, which could increase our tax expenses.

- We are exposed to fluctuations in currency exchange rates.

- Royalty reporting by our licensees may be inaccurate or understated.

- We are exposed to the credit and liquidity risk of our customers, and to credit exposure in weakened markets, which could result in material losses.

- If we determine that our goodwill and intangible assets have become impaired, we may incur impairment charges, which would negatively impact our operating results.

Risks Related to Ownership of Our Common Stock

- The anti-takeover provisions in our certificate of incorporation and bylaws could prevent or discourage a third party from acquiring us.

- Our stock price may be volatile so you may not be able to resell shares of our common stock at or above the price you paid for them.

Risks Related to Our Industry and Markets

The markets in which we operate are highly competitive, and as a result we could experience a loss of sales, lower prices and lower revenues.

The markets for semiconductors in general, and for the products in which our technology is incorporated in particular, are highly competitive. Aggressive competition could result in substantial declines in the prices that we are able to charge for our IP or the loss of design wins to competitors. Many of our competitors are striving to increase their share of the NPU, signal processing IP and wireless connectivity markets and are reducing their licensing and royalty fees to attract customers. The rapid pace of technological change, including as a result of the proliferation of AI and high demand for AI-related products and services, can create opportunities for our competitors and harm our competitiveness in the market if our products do not evolve or we are unable to effectively keep up with such changes. The following industry players and factors may have a significant impact on our competitiveness:

- we compete directly in the signal processing cores space with Verisilicon, Cadence and Synopsys;

- we compete with CPU IP or configurable CPU IP providers (offering DSP configured CPU and/or DSP acceleration and/or connectivity capabilities to their IP), such as Arm, Synopsys and Cadence and the RISC-V open source;
- we compete with custom ASIC providers and internal engineering teams at companies such as Marvell, Broadcom, ST, and NXP that may design programmable DSP core products and signal processing cores in-house and therefore not license our technologies;
- we compete in the short-range wireless markets with Mindtree, IMEC and internal engineering teams at companies such as Infineon, Silicon Labs and NXP;
- we compete in embedded imaging and vision market with Cadence, Synopsys, Videantis, Arm and Verisilicon;
- we compete in the edge AI (NPU) processor market with AI processor and accelerator providers, including Arm, Cadence, Synopsys, Cambricon, Digital Media Professionals (DMP), Expedera, Imagination Technologies, Nvidia open source NVDLA and Verisilicon, and with internal engineering teams at companies such as Infineon, Silicon Labs and NXP;
- we compete in the audio and voice applications market with Arm, Cadence, Synopsys and Verisilicon; and
- we compete in the Spatial Audio and Motion Sensing software market with Waves, Dolby, and CyweeMotion and internal engineering teams at companies such as Apple.

In addition, we may face increased competition from smaller, niche semiconductor design companies in the future. Some of our customers also may decide to satisfy their needs through in-house design. We compete on the basis of signal processing IP performance, NPU efficiency, first-to-market availability for latest generation wireless standards, overall chip cost, power consumption, flexibility, reliability, communication and multimedia software availability, design cycle time, tool chain, customer support, name recognition, reputation and financial strength. Our inability to compete effectively on these bases could have a material adverse effect on our business, results of operations and financial condition.

Because our IP solutions are components of end products, if semiconductor companies and electronic equipment manufacturers do not incorporate our solutions into their end products, or if the end products of our customers do not achieve market acceptance, we may not be able to generate adequate sales of our products.

We do not sell our IP solutions directly to end-users; we license our technology primarily to semiconductor companies and original equipment manufacturers, who then incorporate our technology into the products they sell. As a result, we rely on our customers to incorporate our technology into their end products at the design stage. Once a company incorporates a competitor's technology into its end product, it becomes significantly more difficult for us to sell our technology to that company because changing suppliers involves significant cost, time, effort and risk for the company. As a result, we may incur significant expenditures on the development of a new technology without any assurance that our existing or potential customers will select our technology for incorporation into their own product and without this "design win," it becomes significantly more difficult to sell our IP solutions. Moreover, even after a customer agrees to incorporate our technology into its end products, the design cycle is long and may be delayed due to factors beyond our control, which may result in the end product incorporating our technology not reaching the market until long after the initial "design win" with such customer. From initial product design-in to volume production, many factors could impact the timing and/or amount of sales actually realized from the design-in. These factors include, but are not limited to, changes in the competitive position of our technology, our customers' financial stability, and our customers' ability to ship products according to our customers' schedule. Moreover, adverse changes in global or regional economic conditions and geopolitical uncertainty may further prolong a customer's decision-making process and design cycle.

Further, because we do not control the business practices of our customers, we do not influence the degree to which they promote our technology or set the prices at which they sell products incorporating our technology. We cannot assure you that our customers will devote satisfactory efforts to promote their end products which incorporate our IP solutions.

In addition, our royalties from licenses and therefore the growth of our business, are dependent upon the success of our customers in introducing products incorporating our technology and the success of those products in the marketplace. The primary customers for our products are semiconductor design and manufacturing companies, system OEMs and electronic equipment manufacturers. All of the industries we license into are highly competitive, cyclical and have been subject to significant economic downturns at various times. These downturns are characterized by production overcapacity and reduced revenues, which at times may encourage semiconductor companies or electronic product manufacturers to reduce their expenditure on our technology. If we do not retain our current customers and continue to attract new customers, our business may be harmed.

We depend on market acceptance of third-party semiconductor intellectual property.

The semiconductor intellectual property (SIP) industry is a relatively small and emerging industry. Our future growth will depend on the level of market acceptance of our third-party licensable IP model, the variety of IP offerings available on the market, and a shift in customer preference away from in-house development of proprietary signal processing IP towards licensing open signal processing IP cores and platforms. Furthermore, the third-party licensable IP model is highly dependent on the market adoption of new services and products with standards that continue to advance, such as ubiquitous connectivity, and the increased use of advanced audio, voice, vision and motion sensing in conjunction with AI in the consumer, industrial, infrastructure, automotive, mobile and PC markets in which we participate. Such market adoption is important because the increased cost associated with ownership and maintenance of the more complex architectures needed for the advanced services and products may motivate companies to license third-party IP rather than design them in-house.

The trends that would enable our growth are largely beyond our control. Semiconductor customers also may choose to adopt a multi-chip, off-the-shelf chip solution versus IP licensing or using highly-integrated chipsets that embed our technologies. If the above referenced market shifts do not materialize or third-party SIP does not achieve market acceptance, our business, results of operations and financial condition could be materially harmed.

If we are unable to meet the changing needs of our end-users or address evolving market demands, our business may be harmed.

The markets for our IP solutions are characterized by rapidly changing technology, emerging markets and new and developing end-user needs, requiring significant expenditures for research and development. We expect that the market for our products will continually evolve and will be subject to rapid technological change. For example, new products and disruptive technologies are being developed, and companies with which we compete have implemented AI strategies for products and service offerings. We cannot assure you that we will be able to introduce systems and solutions that reflect prevailing industry standards on a timely basis, meet the specific technical requirements of our end-users, or avoid significant losses due to rapid decreases in market prices of our products, the failure of which could seriously harm our business. Further, we cannot assure you that the markets we chose to invest in will continue to be significant sources of revenue in the future. For example, while in May 2023, we acquired VisiSonics' spatial audio business to bolster our position in wearables, we may not realize the benefits from this acquisition. In January 2024, we acquired an RF design group in Greece, as part of our Ceva-Waves Links new product offering for BT & WiFi radio technologies. The first product we launched out of this group was announced in January 2025 at the CES trade show, but we are yet unsure of its commercial success.

Our operating results are affected by the highly cyclical nature of and general economic conditions in the semiconductor industry, including in connection with significant supply chain disruptions.

We operate within the semiconductor industry, which experiences significant fluctuations in sales and profitability. Downturns in the semiconductor industry are characterized by diminished product demand, excess customer inventories, accelerated erosion of prices and excess production capacity. The semiconductor industry may be negatively impacted by factors such as decreased consumer spending, macroeconomic uncertainty and slow or negative economic growth. Each of these factors could decrease consumer spending and business investment in technologies and products that contain semiconductors. We have previously experienced a reduction in revenue and operating losses during downturns in the semiconductor industry, and current macroeconomic factors affecting customer demand have been aggravated by certain factors such as high interest rates and geopolitical instability. During such downturns, we typically experience new design start push outs, greater pricing pressure and shifts in product and customer mix, which can adversely affect our gross margin and net income. Furthermore, any future upturn in the semiconductor industry could result in increased competition for market share in the growing signal processing IP and wireless connectivity markets. The semiconductor industry is also affected by seasonal shifts in demand, and as a result, we may experience short-term fluctuation in our results of operations from one period to the next. We are unable to predict the timing, duration or severity of any current or future downturns in the semiconductor industry.

We have also been subject to industry-wide supply constraints and inflationary price pressures, which have resulted in long lead times for new designs and supply chain disruptions for selling integrated circuits containing our technologies. For example, the semiconductor industry faced significant global supply chain disruptions as a result of the COVID-19 pandemic, both as a consequence of increased demand for devices enabling wireless connectivity and remote environments and supply constraints arising from the imposition of government restrictions on staffing and facility operations, and has more recently experienced disruptions and uncertainty due to cross-border tariffs. Further, the high interest rate environment, macroeconomic trends and geopolitical concerns, including ongoing conflict between Russia and Ukraine, unrest in the Middle East, and economic slowdown in China, among other things, can negatively impact general consumer and IoT demand, chill the market for new technology investments and adversely affect our revenues. To the extent the impact of such disruptive events and adverse economic trends continue or worsen, we anticipate having greater difficulty obtaining, or waiting longer to obtain, certain equipment, supplies and other materials necessary for performance of the services we provide to our customers, leading to volatility or declines in the semiconductor industry which could cause substantial fluctuations or declines in our revenues and results of operations.

Risks Related to Our Global Operating Business

Our quarterly operating results fluctuate from quarter to quarter due to a variety of factors, including our lengthy sales cycle, and may not be a meaningful indicator of future performance.

In some quarters our operating results could be below the expectations of securities analysts and investors, which could cause our stock price to fall. Factors that may affect our quarterly results of operations in the future include, among other things:

- the gain or loss of significant licensees, partly due to our dependence on a limited number of customers generating a significant amount of quarterly revenues;

- any delay in execution of any anticipated IP licensing arrangement during a particular quarter;

- delays in revenue recognition for some license agreements based on percentage of completion of customized work or other accounting reasons;
- the timing and volume of orders and production by our customers, as well as fluctuations in royalty revenues resulting from fluctuations in unit shipments by our licensees;
- royalty pricing pressures and reduction in royalty rates due to an increase in volume shipments by customers, end-product price erosion and competitive pressures;
- earnings or other financial announcements by our major customers that include shipment data or other information that implicates expectations for our future royalty revenues;
- the mix of revenues among IP licensing and related revenues, and royalty revenues;
- the timing of the introduction of new or enhanced technologies by us and our competitors, as well as the market acceptance of such technologies;
- the discontinuation, or public announcement thereof, of product lines or market sectors that incorporate our technology by our significant customers;
- our lengthy sales cycle and specifically in the third quarter of any fiscal year during which summer vacations slow down decision-making processes of our customers in executing contracts;
- delays in the commercialization of end products that incorporate our technology;
- currency fluctuations, mainly the Euro and the New Israeli Shekel versus the U.S. dollar;
- fluctuations in operating expenses and gross margins associated with the introduction of, and research and development investments in, new or enhanced technologies and adjustments to operating expenses resulting from restructurings;
- the approvals, amounts and timing of Israeli research and development government grants from the Israeli Innovation Authority of the Ministry of Economy and Industry in Israel (IIA), EU grants and French research tax credits;
- the impact of new accounting pronouncements, including the new revenue recognition rules;
- the timing of our payment of royalties to the IIA, which is impacted by the timing and magnitude of license agreements and royalty revenues derived from technologies that were funded by grant programs of the IIA;
- statutory changes associated with research tax benefits applicable to French technology companies;

- our ability to scale our operations in response to changes in demand for our technologies;
- entry into new end markets that utilize our signal processing IP, software and platforms;
- changes in our pricing policies and those of our competitors;
- restructuring, asset and goodwill impairment and related charges, as well as other tax write-offs and tax and accounting changes or adjustments, such as the fourth quarter 2023 tax charges related to Internal Revenue Code ("IRC") Section 174;
- geopolitical conditions, including global trade competition and regulatory enhancements resulting from tariffs and business restrictions imposed by government entities[, such as the restricted party lists promulgated, expanded and updated by the U.S. government during the last several years], and further tightening of restrictions on the transfer to China of certain advanced AI chips, semiconductors and supercomputing items, as well as other regulatory actions and changes that may adversely affect the business environment;
- general economic conditions, including the current economic conditions, and its effect on the semiconductor industry and sales of consumer products into which our technologies are incorporated;
- delays in final product delivery due to unexpected issues introduced by our service or EDA tool providers;
- delays in ratification of standards for Bluetooth, Wi-Fi, UWB or cellular standards that can affect the introduction of new products;
- constraints on chip manufacturing capacity due to high demand or shutdowns of semiconductor fabrication plants and other manufacturing facilities; and
- reductions in demand for consumer and digital devices due to lockdowns or overall financial difficulties caused by future pandemic outbreaks or public health threats.

Each of the above factors is difficult to forecast and could harm our business, financial condition and results of operations. Also, we license our technology to OEMs and semiconductor companies for incorporation into their end products for consumer, mobile and industrial products. The royalties we generate are reported by our customers.

Our royalty revenues are affected by seasonal buying patterns of consumer products sold by OEMs, partially by our direct customers and partially by semiconductor customers that incorporate our technology into their end products and the market acceptance of such end products. The first quarter in any given year is usually a sequentially down quarter for us in relation to royalty revenues as this period represents lower post-holiday fourth quarter consumer and mobile product shipments. However, the magnitude of this first quarter decrease varies annually and has been impacted by global economic conditions, market share changes, exiting or refocusing of market sectors by our customers and the timing of introduction of new and existing mobile devices powered by Ceva technology sold in any given quarter compared to the prior quarter. While the high interest rate environment and macroeconomic concerns related to slowdowns experienced in 2023 and 2024 have largely abated, these conditions continue in certain areas, and distort more traditional seasonality trends.

Moreover, the semiconductor and consumer electronics industries remain volatile, which makes it extremely difficult for our customers and us to accurately forecast financial results and plan for future business activities. As a result, our past operating results should not be relied upon as an indication of future performance.

We rely significantly on revenues derived from a limited number of customers who contribute to our royalty and license revenues.

We derive a significant amount of revenues from a limited number of customers. Sales to UNISOC (formerly Spreadtrum Communications, Inc.), accounted for 15%, 13% and 16% of our total revenues for 2024, 2023 and 2022, respectively. With respect to our royalty revenues in particular, a small number of customers ship substantial volumes of products and thus pay outsized royalty revenues, with two royalty paying customers each representing 10% or more of our total royalty revenues for 2024, and collectively representing 46% of our total royalty revenues for 2024. Two royalty paying customers each represented 10% or more of our total royalty revenues for 2023, and collectively represented 45% of our total royalty revenues for 2023. Two royalty paying customers each represented 10% or more of our total royalty revenues for 2022, and collectively represented 46% of our total royalty revenues for 2022. We expect that a significant portion of our future revenues will continue to be generated by a limited number of customers. The loss of any significant royalty paying customer could adversely affect our near-term future operating results. Furthermore, consolidation among our customers may negatively affect our revenue source, increase our existing customers' negotiation leverage and make us further dependent on a limited number of customers. Moreover, the discontinuation of product lines or market sectors that incorporate our technology by our significant customers or a change in direction of their business and our inability to adapt our technology to their new business needs could have material negative implications for our future royalty revenues.

Our business is dependent on IP licensing and related revenues, which may vary period to period.

License agreements for our IP products and platforms have not historically provided for substantial ongoing license payments, so past IP licensing revenues may not be indicative of the amount of such revenues in any future period. Significant portions of our anticipated future revenues, therefore, will likely depend upon our success in attracting new customers or expanding our relationships with existing customers. However, revenues recognized from licensing arrangements vary significantly from period to period, depending on the number and size of deals closed during a quarter, and are difficult to predict. Our ability to succeed in our licensing efforts will depend on a variety of factors, including the performance, quality, breadth and depth of our current and future product portfolio as well as our sales and marketing skills. In addition, some of our licensees may in the future decide to satisfy their needs through in-house design and production. Our failure to obtain licensing customers could impede our future revenue growth and materially harm our business.

Royalty and other payment rates could decrease for existing and future license agreements and other customer agreements, which could materially adversely affect our operating results.

Royalty payments to us under existing and future license agreements could be lower than currently anticipated for a variety of reasons. Average selling prices for semiconductor products generally decrease over time during the lifespan of a product. In addition, there is increasing downward pricing pressures in the semiconductor industry on end products incorporating our technology. As a result, notwithstanding the existence of a license agreement, our customers may demand that royalty rates for our products be lower than our historic royalty rates. We have in the past and may be pressured in the future to renegotiate existing license agreements with our customers. In addition, certain of our license agreements provide that royalty rates may decrease in connection with the sale of larger quantities of products incorporating our technology. Furthermore, our competitors may lower the royalty rates for their comparable products to win market share which may force us to lower our royalty rates as well. As a consequence of the above referenced factors, as well as unforeseen factors in the future, the royalty rates we receive for use of our technology could decrease, thereby decreasing future anticipated revenues and cash flow. Royalty revenues were approximately 44%, 41% and 38% of our total revenues for 2024, 2023 and 2022, respectively. Therefore, a significant decrease in our royalty revenues could materially adversely affect our operating results.

Furthermore, royalty rates may be negatively affected by macroeconomic trends or changes in products mix, and consolidation among our customers may increase the negotiation leverage of our existing customers. Moreover, changes in products mix such as an increase in lower royalty bearing products shipped in high volumes, like Bluetooth-based and cellular IoT products, in lieu of higher royalty bearing products like embedded application software could lower our royalty revenues.

Because we have significant international operations, with a significant concentration of revenues in China, we may be susceptible to political, economic and other conditions relating to our international operations that could increase our operating expenses and disrupt our revenues and business.

Approximately 81% of our total revenues for 2024, 90% for 2023 and 88% for 2022 were derived from customers located outside of the United States. Revenues from customers located in the Asia Pacific (APAC) region account for a substantial portion of these revenues, with significant concentration of revenues in China, which accounted for 49%, 59% and 63% of total revenues for 2024, 2023 and 2022 respectively. We expect that international customers generally, and sales to the APAC region and China in particular, will continue to account for a significant portion of our revenues for the foreseeable future. While we anticipate that we can expand our customer base and revenues in Europe and the U.S., the present concentration of revenues from a single country significantly increases our risk profile, and the occurrence of any negative international political, economic or geographic events, including any financial crisis, trade restrictions or disputes or other major event causing business disruption in China, such as the heightening of tensions between China and Taiwan, the broader APAC region and other international jurisdictions, or increased pressure within China on using domestic over foreign technology, could result in significant revenue shortfalls. These shortfalls could cause our business, financial condition and results of operations to be harmed. Some of the risks of doing business internationally include:

- unexpected changes in regulatory requirements;
- fluctuations in the exchange rate for the U.S. dollar;
- imposition of tariffs and other barriers and restrictions, including trade tensions such as U.S.-China trade tensions;
- burdens of complying with a variety of foreign laws, treaties and technical standards;
- uncertainty of laws and enforcement in certain countries relating to the protection of IP;
- multiple and possibly overlapping tax structures and potentially adverse tax consequences;
- political and economic instability, including military activities, terrorist attacks and protectionist policies; and
- changes in diplomatic and trade relationships.

For example, in October 2023, December 2024 and January 2025, the U.S. Department of Commerce Bureau of Industry and Security tightened export controls, restrictions and compliance burdens on the transfer to China of certain advanced computing chips, semiconductors and supercomputing items, software and technology subject to U.S. export controls, including certain non-U.S. origin items, in addition to restricting transactions with certain semiconductor fab facilities in China. Moreover, restrictions were implemented on U.S. persons' activities in support of the transfer of certain items not subject to U.S. export controls. We continue to assess the potential impact of these restrictions on our operations, and these restrictions are in addition to existing license requirements and company-specific designations affecting trade in the APAC region. Actions of any nature, including future new trade controls, could affect specific customers, industries and technologies produced inside and outside the United States, and may reduce our revenues and adversely affect our business and financial results.

New tariffs, trade measures and other geopolitical risks and instability could adversely affect our consolidated results of operations, financial position and cash flows.

Tensions between the U.S. and China have been escalating since 2018, and a number of factors may exacerbate these tensions in the future, including the change in the U.S. administration this year. In addition, Russian military activities in Ukraine have resulted in increased sanctions and export controls against Russia and Belarus, and could also increase China/Taiwan political tensions and a worsening of U.S./China trade and other relations. Trade tensions between the U.S. and China and other geopolitical instabilities have resulted, and could in the future result, in significant tariff increases, sanctions against specified entities, and the broadening of restrictions and license requirements for specified transfers and uses of products. For example, the ongoing geopolitical and economic uncertainty between the U.S. and China, the unknown impact of current and future U.S. and Chinese trade regulations and other geopolitical risks with respect to China and Taiwan, may cause further disruptions in the semiconductor industry and its supply chain, decreased demand from customers for the ultimate products using our IP solutions, or other disruptions which may, directly or indirectly, materially harm our business, financial condition and results of operations.

In addition, critical metals and materials used in semiconductors, such as Palladium, are sourced in Russia, and sanctions against Russia could impact the semiconductor supply chain. While tariffs and other retaliatory trade measures imposed by other countries on U.S. goods have not yet had a significant impact on our business or results of operations, our revenues are increasingly concentrated in China and the broader APAC region, and we cannot predict further developments. Thus, existing or future tariffs could have a material adverse effect on our consolidated results of operations, financial position and cash flow. Further changes in U.S. trade policy could trigger retaliatory actions by affected countries, which could impose restrictions on our ability to do business in or with affected countries or prohibit, reduce or discourage purchases of our products by foreign customers, and higher prices for our products in foreign markets. For example, there are risks that the Chinese government may, among other things, require the use of local suppliers, compel companies that do business in China to partner with local companies to conduct business and provide incentives to government-backed local customers to buy from local suppliers. Changes in, and responses to, U.S. trade policy could reduce the competitiveness of our products and cause our sales and revenues to drop, which could materially and adversely impact our business and results of operations.

Our success will depend on our ability to successfully manage our geographically dispersed operations.

Most of our research and development staff is located in Israel. We also have research and development teams in Greece, France, Ireland, Serbia, the United Kingdom and the United States. Accordingly, our ability to compete successfully will depend in part on the ability of a limited number of key executives located in geographically dispersed offices to manage our research and development staff and integrate them into our operations to effectively address the needs of our customers and respond to changes in our markets. If we are unable to effectively manage and integrate our geographically dispersed operations, our business may be materially harmed.

Our operations in Israel may be adversely affected by instability in the Middle East region.

One of our principal research and development facilities is located in Israel, and most of our executive officers and some of our directors are residents of Israel. Although substantially all of our sales currently are made to customers outside of Israel, we are nonetheless directly influenced by the political, economic and military conditions affecting Israel, including Israel's war with Hamas that began on October 7, 2023 or the subsequent war in the north with Hezbollah in Lebanon and the attacks from Iran and Yeman. For example, certain of our employees are currently obligated to perform annual reserve duty in the Israel Defense Forces and are subject to being called to active military duty at any time. It is possible that our operations could be disrupted if this situation continues for a significant period of time or further deteriorates, including if hostilities expand from other fronts, which could harm our business.

Our insurance does not cover losses that may occur as a result of an event associated with the security situation in the Middle East or for any resulting disruption in our operations. Although the Israeli government has in the past covered the reinstatement value of direct damages that were caused by terrorist attacks or acts of war, we cannot be assured that this government coverage will be maintained or, if maintained, will be sufficient to compensate us fully for damages incurred and the government may cease providing such coverage or the coverage might not suffice to cover potential damages. Any losses or damages incurred by us could have a material adverse effect on our business.

Terrorist attacks, acts of war or military actions and/or other civil unrest may adversely affect the territories in which we operate, and our business, financial condition and operating results.

Terrorist attacks and attempted terrorist attacks, military responses to terrorist attacks, other military actions, including illegal invasion of sovereign countries, or governmental action in response to or in anticipation of a terrorist attack or civil unrest or foreign invasion, may adversely affect prevailing economic conditions, resulting in work stoppages, reduced consumer spending or reduced demand for end products that incorporate our technologies. These developments subject our worldwide operations to increased risks and, depending on their magnitude, could reduce net sales and therefore could have a material adverse effect on our business, financial condition and operating results.

Our research and development expenses will increase relative to past periods due to our receiving fewer grants from the Israeli government and the EU.

We currently receive research grants mainly from programs of the IIA and to some extent from the EU. In 2023 and 2024, such grants decreased significantly as compared to 2022 and previous years due to changes in the criteria adopted by the IIA regarding larger and better funded corporations, in light of the high interest rate environment and difficulties for smaller companies to raise money, and we expect to receive fewer grants from the IIA in the future relative to past periods as well. We recorded aggregate research grants of $1,407,000, $1,668,000 and $4,850,000 in 2024, 2023 and 2022, respectively. To remain eligible for the grants we have received, we must meet certain development conditions and comply with periodic reporting obligations. Although we have met such conditions in the past, should we fail to meet such conditions in the future our research grants may be repayable, reduced or withheld. The repayment or reduction of such research grants may increase our research and development expenses which in turn may reduce our operating income. Also, the timing of such payments from the IIA may vary from year to year and quarter to quarter, and we have no control on the timing of such payments.

We face a highly competitive employment market and depend on a limited number of key personnel who would be difficult to replace, and changes in our management and sales teams may adversely affect our operations.

We face a highly competitive employment market and are dependent upon our ability to identify, attract, motivate and retain qualified engineers with the requisite educational background and industry experience. In addition, as we continue to expand our global presence, our success will increasingly depend to a significant extent upon certain of our key employees, senior management and core sales and marketing personnel, the loss of whom could materially harm our business. In the current environment where many employees have become accustomed to remote work environments and frequent job changes, integration of employees into our company culture and retention of employees is becoming increasingly difficult. The loss of any of our senior management team or a significant number of our engineers could significantly disrupt our development efforts or business relationships and our ability to continue to innovate and to meet customers’ needs.

The sales cycle for our IP and related solutions is lengthy, and even approved projects may have structured payment terms, which makes forecasting of our customer orders and revenues difficult.

The sales cycle for our IP and related solutions is lengthy, often lasting three to nine months. Our customers generally conduct significant technical evaluations, including customer trials, of our technology as well as competing technologies prior to making a purchasing decision. Purchasing decisions also may be delayed because of a customer's internal budget approval process. In addition, given the current market conditions, we have less ability to predict the timing of our customers' purchasing cycle and potential unexpected delays in such a cycle. Because of the lengthy sales cycle and potential delays, our dependence on a limited number of customers to generate a significant amount of revenues for a particular period and the size of customer orders, if orders forecasted for a specific customer for a particular period do not occur in that period, our revenues and operating results for that particular quarter could suffer. Furthermore, even approved projects may be subject to tranche or milestone-based payment structures, rather than upfront payments, which may cause delays in our performance of the relevant work and revenue recognition. Moreover, a portion of our expenses related to an anticipated order is fixed and difficult to reduce or change, which may further impact our operating results for a particular period.

We may seek to expand our business in ways that could result in diversion of resources and extra expenses.

We may in the future pursue acquisitions of businesses, products and technologies, establish joint venture arrangements or make minority equity investments to expand our business. We are unable to predict whether or when any prospective acquisition, equity investment or joint venture will be completed. The process of negotiating potential acquisitions, joint ventures or equity investments, as well as the integration of acquired or jointly developed businesses, technologies or products may be prolonged due to unforeseen difficulties and may require a disproportionate amount of our resources and management's attention. We cannot assure you that we will be able to successfully identify suitable acquisition or investment candidates, complete acquisitions or investments, or integrate acquired businesses or joint ventures with our operations. If we were to make any acquisition or investment or enter into a joint venture, we may not receive the intended benefits of the acquisition, investment or joint venture or such an acquisition, investment or joint venture may not achieve comparable levels of revenues, profitability or productivity as our existing business or otherwise perform as expected. The occurrence of any of these events could harm our business, financial condition or results of operations. Future acquisitions, investments or joint ventures may require substantial capital resources, which may require us to seek additional debt or equity financing.

Future acquisitions, joint ventures or minority equity investments by us could result in the following, any of which could seriously harm our results of operations or the price of our stock:

- issuance of equity securities that would dilute our current stockholders' percentages of ownership;
- large one-time write-offs or equity investment impairment write-offs;
- incurrence of debt and contingent liabilities;
- difficulties in the assimilation and integration of operations, personnel, technologies, products and information systems of the acquired companies;
- inability to realize cost efficiencies or synergies, thereby incurring higher operating expenditures as a result of the acquisition;
- diversion of management's attention from other business concerns;
- contractual disputes;
- risks of entering geographic and business markets in which we have no or only limited prior experience; and

- potential loss of key employees of acquired organizations.

Because our IP and related solutions are complex, the detection of errors in our products may be delayed, and if we deliver products with defects, our credibility will be harmed, the sales and market acceptance of our products may decrease and product liability claims may be made against us.

Our IP and related solutions are complex and may contain errors, defects and bugs when introduced. If we deliver products with errors, defects or bugs, our credibility and the market acceptance and sales of our products could be significantly harmed. Furthermore, the nature of our products may also delay the detection of any such error or defect. If our products contain errors, defects and bugs, then we may be required to expend significant capital and resources to alleviate these problems. This could result in the diversion of technical and other resources from our other development efforts. Any actual or perceived problems or delays may also adversely affect our ability to attract or retain customers. Furthermore, the existence of any defects, errors or failure in our products could lead to product liability claims or lawsuits against us or against our customers. A successful product liability claim could result in substantial cost and divert management's attention and resources, which would have a negative impact on our financial condition and results of operations.

Our product development efforts are time-consuming and expensive and may not generate an acceptable return, if any.

Our product development efforts require us to incur substantial research and development expenses. Our research and development expenses were approximately $71.6 million, $72.7 million and $70.3 million for 2024, 2023 and 2022, respectively. We may not be able to achieve an acceptable return, if any, on our research and development efforts.

The development of our products is highly complex. We occasionally have experienced delays in completing the development and introduction of new products and product enhancements, and we could experience delays in the future. Unanticipated problems in developing products could also divert substantial engineering resources, which may impair our ability to develop new products and enhancements and could substantially increase our costs. Furthermore, we may expend significant amounts on research and development programs that may not ultimately result in commercially successful products. Our research and development expense levels have increased steadily in the past few years. As a result of these and other factors, we may be unable to develop and introduce new products successfully and in a cost-effective and timely manner, and any new products we develop and offer may never achieve market acceptance. Any failure to successfully develop future products would have a material adverse effect on our business, financial condition and results of operations.

We may not be able to adequately protect our IP.

Our success and ability to compete depend in large part upon the protection of our proprietary technologies. We rely on a combination of patent, copyright, trademark, trade secret, mask work and other IP rights, confidentiality procedures and IP licensing arrangements to establish and protect our proprietary rights. These agreements and measures may not be sufficient to protect our technology from third-party infringement or protect us from the claims of others. As a result, we face risks associated with our patent position, including the potential need to engage in significant legal proceedings to enforce our patents, the possibility that the validity or enforceability of our patents may be denied, the possibility that third parties will be able to compete against us without infringing our patents and the possibility that our products may infringe patent rights of third parties.

Our trade names or trademarks may be registered or utilized by third parties in countries other than those in which we have registered them, impairing our ability to enter and compete in those markets. If we were forced to change any of our brand names, we could lose a significant amount of our brand identity.

Our business will suffer if we are sued for infringement of the IP rights of third parties or if we cannot obtain licenses to these rights on commercially acceptable terms.

We are subject to the risk of adverse claims and litigation alleging infringement of the IP rights of others. There are a large number of patents held by others, including our competitors, pertaining to the broad areas in which we are active. We have not, and cannot reasonably, investigate all such patents. From time to time, we have become aware of patents in our technology areas and have sought legal counsel regarding the validity of such patents and their impact on how we operate our business, and we will continue to seek such counsel when appropriate in the future. In addition, patent infringement claims are increasingly being asserted by patent holding companies (so-called patent "trolls"), which do not use technology and whose sole business is to enforce patents against companies, such as us, for monetary gain. Because such patent holding companies do not provide services or use technology, the assertion of our own patents by way of counter-claim may be ineffective. Infringement claims may require us to enter into license arrangements or result in protracted and costly litigation, regardless of the merits of these claims. Any necessary licenses may not be available or, if available, may not be obtainable on commercially reasonable terms. If we cannot obtain necessary licenses on commercially reasonable terms, we may be forced to stop licensing our technology, and our business would be seriously harmed.

Cybersecurity threats or other security breaches could compromise sensitive information belonging to us or our customers and could harm our business and our reputation.

We rely on computer systems, hardware, software, technology infrastructure and online sites and networks for both internal and external operations that are critical to our business (collectively, "IT Systems"). We own and manage some of these IT Systems but also rely on third parties for a range of IT Systems and related products and services. We and certain of our third-party vendors store and process sensitive data, including IP, proprietary business information and information about individuals such as our customer and employees (collectively, "Confidential Information"). Despite our security measures, our IT Systems may be vulnerable to attacks by hackers and hacktivists, as well as through diverse attack vectors, such as social engineering/phishing, malware (including ransomware), or breached due to employee error, malfeasance or other disruptions that could result in unauthorized access to, disclosure or loss of sensitive data. Because the techniques used to obtain unauthorized access to networks, or to sabotage systems, change frequently and generally are not recognized until launched against a target, we may be unable to anticipate these techniques or to implement adequate preventative measures.

Cyberattacks are expected to accelerate on a global basis in frequency and magnitude as threat actors are becoming increasingly sophisticated in using techniques and tools—including artificial intelligence—that circumvent security controls, evade detection and remove forensic evidence. As a result, we may be unable to detect, investigate, remediate or recover from future attacks or incidents, or to avoid a material adverse impact to our IT Systems, Confidential Information or business. There can also be no assurance that our cybersecurity risk management program and processes, including our policies, controls or procedures, will be fully implemented, complied with or effective in protecting our IT Systems and Confidential Information.

Any adverse impact to the availability, integrity or confidentiality of our IT Systems or Confidential Information can result in legal claims or proceedings (such as class actions), regulatory investigations and enforcement actions, fines and penalties, negative reputational impacts that cause us to lose existing or future customers, and/or significant incident response, system restoration or remediation and future compliance costs. Any or all of the foregoing could materially adversely affect our business, results of operations, and financial condition. Finally, we cannot guarantee that any costs and liabilities incurred in relation to an attack or incident will be covered by our existing insurance policies or that applicable insurance will be available to us in the future on economically reasonable terms or at all.

Any actual or perceived failure to comply with new or existing laws, regulations and other requirements relating to the privacy, security and processing of Personal Information could adversely affect our business, results of operations, or financial condition.

In connection with running our business, we receive, store, use and otherwise process information that relates to individuals and/or constitutes "personal data," "personal information," "personally identifiable information," or similar terms under applicable data privacy laws (collectively, "Personal Information"), including from and about actual and prospective customers, as well as our employees and business contacts. We are therefore subject to a variety of federal, state and foreign laws, regulations and other requirements relating to the privacy, security and handling of Personal Information.

The application and interpretation of such requirements are constantly evolving and are subject to change, creating a complex compliance environment. In some cases, these requirements may be either unclear in their interpretation and application or they may have inconsistent or conflicting requirements with each other. Further, there has been a substantial increase in legislative activity and regulatory focus on data privacy and security in the United States and elsewhere, including in relation to cybersecurity incidents. In addition, some such requirements place restrictions on our ability to process Personal Information across our business or across country borders.

It is possible that new laws, regulations and other requirements, or amendments to or changes in interpretations of existing laws, regulations and other requirements, may require us to incur significant costs, implement new processes, or change our handling of information and business operations, which could ultimately hinder our ability to grow our business by extracting value from our data assets. In addition, any failure or perceived failure by us to comply with laws, regulations and other requirements relating to the privacy, security and handling of information could result in legal claims or proceedings (including class actions), regulatory investigations or enforcement actions. We could incur significant costs in investigating and defending such claims and, if found liable, pay significant damages or fines or be required to make changes to our business. These proceedings and any subsequent adverse outcomes may subject us to significant negative publicity and an erosion of trust. If any of these events were to occur, our business, results of operations, and financial condition could be materially adversely affected.

Risks Related to Finance, Accounting and Taxation

The nature of our business requires the application of complex revenue recognition rules. Significant changes in U.S. generally accepted accounting principles, or GAAP, including the adoption of the new revenue recognition rules, could materially affect our financial position and results of operations.

We prepare our financial statements in accordance with GAAP, which is subject to interpretation or changes by the Financial Accounting Standards Board, or FASB, the SEC, and other various bodies formed to promulgate and interpret appropriate accounting principles. New accounting pronouncements and changes in accounting principles have occurred in the past and are expected to occur in the future, which may have a significant effect on our financial results. Recognizing royalty revenue on a lag time basis is not permitted. As a result, the royalties we generate from customers is based on royalty of units shipped during the quarter as estimated by our customers, not a quarter in arrears that we previously report. Adoption of this standard and any difficulties in implementation of changes in accounting principles, including uncertainty associated with royalty revenues for the quarter based on estimates provided by our customer, could cause us to fail to meet our financial reporting obligations, which could result in regulatory discipline and harm investors' confidence in us.

Changes in our tax rates or exposure to additional income tax liabilities or assessments could adversely impact our cash flow, financial condition and results of operations.

We are subject to income taxes in the United States and various foreign jurisdictions. In addition to our significant operations in Israel, we have operations in Ireland, France, the United Kingdom, Serbia, China, Japan and starting from January 2024, in Greece. Significant judgment is required in determining our worldwide provision for income taxes and other tax liabilities. In the ordinary course of a global business, there are many intercompany transactions and calculations where the ultimate tax determination is uncertain. Due to the potential for changes to tax laws and regulations or changes to the interpretation thereof, the ambiguity of tax laws and regulations, the subjectivity of factual interpretations, the complexity of our intercompany arrangements, uncertainties regarding the geographic mix of earnings in any particular period, the potential decision or need to transfer cash or other assets from one jurisdiction to another, potential for tax authorities to challenge the manner in which our subsidiaries' profits are currently recognized, and other factors, our estimates of effective tax rate and income tax assets and liabilities can be incorrect, we could lose the ability to use certain deferred tax assets, we could incur significant additional taxes in connection with a specific transaction, our overall tax expenses could increase, and our business, cash flow, financial condition and results of operations could be materially adversely affected. The impact of the factors referenced in this paragraph may also be substantially different from period-to-period.

For example, a substantial portion of our taxable income historically has been generated in Israel, as well as France starting in 2020. Although our Israeli and Irish subsidiaries historically, and starting in 2022 our French subsidiary, are taxed at rates lower than the U.S. tax rates, the tax rates in these jurisdictions could nevertheless result in a substantial increase as a result of withholding tax expenses with respect to which we are unable to obtain a refund from the relevant tax authorities. If our Israeli, French and Irish subsidiaries were to no longer qualify for these lower tax rates or if the applicable tax laws were rescinded or changed, our operating results could be materially adversely affected. A mix of our revenues in each of these locations may change the mix of our taxable income, and as a result, our overall tax rate may increase, as we encountered in 2021, specifically due to higher taxes in France, or in the third quarter of 2022, due to our recording a $15.6 million expense as a result of a valuation allowance for certain deferred tax assets in Israel.

U.S. tax regulations are also implicated by our international operations. For example, certain of our taxes may be "double taxed" in both foreign jurisdictions and the U.S., including with respect to our taxes on our Irish and Israeli interest income. While we have elected to account for global intangible low-taxed income (GILTI) as a current-period expense when incurred, legislation and clarifying guidance are expected to continue to be issued by the U.S. Treasury Department and various states in future periods, which could have a material adverse impact on the value of our U.S. deferred tax assets, result in significant changes to currently computed income tax liabilities for past and current tax periods, and increase our future U.S. tax expense. We could also incur significant additional tax expenses as a result of moving off-shore cash to our U.S. entity. Out of total cash, cash equivalents, bank deposits and marketable securities of $163.6 million at year end 2024, $135.1 million was held by our foreign subsidiaries, with only $28.5 million held in the U.S., which could make capital expenditures to expand operations in the U.S., or our conducting strategic transactions in the U.S., more expensive. In addition, beginning in our fiscal year 2022, the Tax Cuts and Jobs Act of 2017 eliminates the option to deduct research and development expenditures in the year incurred, requiring amortization in accordance with Internal Revenue Code (IRC) Section 174. If this requirement is not repealed or otherwise modified, it will potentially materially increase our effective tax rate and reduce our operating cash flows in future years.

Furthermore, several countries, including the U.S. and Ireland, as well as the Organization for Economic Cooperation and Development have reached agreement on a global minimum tax initiative. Many countries are also actively considering changes to existing tax laws or have proposed or enacted new laws that could increase our tax obligations in countries where we do business or cause us to change the way we operate our business.

Finally, our determination of our tax liability in the U.S. and other jurisdictions, including our intercompany transfer pricing, is subject to review by applicable domestic and foreign tax authorities. Although we believe that our tax estimates are reasonable, due to the complexity of our corporate structure, the multiple intercompany transactions and the various tax regimes, we cannot assure you that a tax audit or tax dispute to which we may be subject will result in a favorable outcome for us. If taxing authorities do not accept our tax positions and impose higher tax rates on our foreign operations, our overall tax expenses could increase.

The Israeli and French tax benefits that we currently receive and the government programs in which we participate require us to meet certain conditions and may be terminated or reduced in the future, which could increase our tax expenses.

We enjoy certain tax benefits in Israel, particularly as a result of the "Approved Enterprise" and the "Benefited Enterprise" status of our facilities and programs through 2019, and the "Technological Preferred Enterprise" status of our facilities and programs since 2020. To maintain our eligibility for these tax benefits, we must continue to meet certain conditions, relating principally to adherence to the investment program filed with the Investment Center of the Israeli Ministry of Industry and Trade and to periodic reporting obligations. Should we fail to meet such conditions, these benefits would be cancelled and we would be subject to corporate tax in Israel at the standard corporate rate (23% in 2024) and could be required to refund tax benefits already received. Additionally, if we increase our activities outside of Israel, for example, by acquisitions, our increased activities may not be eligible for inclusion in Israeli tax benefit programs. The termination or reduction of certain programs and tax benefits or a requirement to refund tax benefits already received may seriously harm our business, operating results and financial condition.

Our French subsidiary is entitled to a tax benefit of 10% applied to specific revenues under the French IP Box regime. The French IP Box regime applies to net income derived from the licensing, sublicensing or sale of several IP rights such as patents and copyrighted software, including royalty revenues. This elective regime requires a direct link between the income benefiting from the preferential treatment and the research and development expenditures incurred and contributing to that income. Qualifying income may be taxed at a favorable 10% CIT rate (plus social surtax, hence 10.3% in total). This French IP Box regime was enacted into the French tax law as of January 1, 2019, and the final version of the Official guidance of the French tax authorities (FTA) was published on April 22, 2020. Since the French IP Box regime was enacted recently, there is little to no French case law on this subject at this time and French companies do not yet have any feedback on the ongoing tax audits and on the FTA's tendency in this matter. Different interpretations of the French law by the French tax authorities regarding the French IP Box regime may impose higher tax rates on our French operations and our overall tax expenses could increase.

We are exposed to fluctuations in currency exchange rates.

A significant portion of our business is conducted outside the United States. Although most of our revenues are transacted in U.S. dollars, we may be exposed to currency exchange fluctuations in the future as business practices evolve and we are forced to transact business in local currencies. Moreover, the majority of our expenses are denominated in foreign currencies, mainly New Israeli Shekel ("NIS") and the Euro, which subjects us to the risks of foreign currency fluctuations. Our primary expenses paid in currencies other than the U.S. dollar are employee salaries. Increases in the volatility of the exchange rates of currencies other than the U.S. dollar versus the U.S. dollar could have an adverse effect on the expenses and liabilities that we incur in currencies other than the U.S. dollar when remeasured into U.S. dollars for financial reporting purposes. We have instituted a foreign cash flow hedging program to minimize the effects of currency fluctuations. However, hedging transactions may not successfully mitigate losses caused by currency fluctuations, and our hedging positions may be partial or may not exist at all in the future. We also review our monthly expected non-U.S. dollar denominated expenditure and look to hold equivalent non-U.S. dollar cash balances to mitigate currency fluctuations. However, in some cases, we expect to continue to experience the effect of exchange rate currency fluctuations on an annual and quarterly basis. For example, our EURO cash balances increase significantly on a quarterly basis beyond our EURO liabilities from the Crédit Impôt Recherche (CIR), which is generally refunded every three years. This has resulted in a foreign exchange loss of $1.01 million (due to the devaluation of our Euro cash balances as the U.S. dollar strengthened significantly during this period as compared to the Euro), a foreign exchange gain of $0.69 million and a foreign exchange gain of $0.07 million for 2024, 2023 and 2022, respectively.

Royalty reporting by our licensees may be inaccurate or understated.

We generate licensing revenue primarily from original equipment manufacturers and semiconductor companies who license our technologies and incorporate those technologies into their products. Our license agreements generally obligate our licensees to pay us a specified royalty for every product they ship that incorporates our technologies, and we rely on our licensees to report their shipments accurately. However, it is inherently difficult to independently determine whether our licensees are reporting shipments accurately, particularly with respect to software incorporating our technologies because unauthorized copies of such software can be made relatively easily. A third party may disagree with our interpretation of the terms of a license agreement or, as a result of an audit, a third party could challenge the accuracy of our calculation. We are regularly involved in discussions with third party technology licensees regarding license terms. Most of our license agreements permit us to audit our licensees' records, and we routinely exercise these rights, typically by using an independent third party auditor. For example, in 2024, an OEM customer paid a catch-up royalty amount after being audited and determined to have underreported with respect to a product line which the customer failed to note incorporated our software technology. Such audits are generally expensive, time-consuming, and potentially detrimental to our ongoing business relationships with our licensees. In the past, some licensees have understated or failed to report the number of products incorporating our technologies that they shipped, and we have not been able to collect and recognize revenue to which we were entitled. We expect that we will continue to experience understatement and non-reporting of royalties by our licensees. We have been able to obtain certain recovery payments from licensees (either in the form of back payments or settlements), and such recoveries have become a recurring element of our business; however, we are unable to predict with certainty the revenue that we may recover in the future or our ability to continue to obtain such recoveries at all.

We are exposed to the credit and liquidity risk of our customers, and to credit exposure in weakened markets, which could result in material losses.

As we diversify and expand our addressable market in geographically dispersed regions, we will enter into IP licensing arrangements with first-time customers where we do not have full visibility of their creditworthiness. Furthermore, the instability of market conditions in certain areas in which we have expanded our business, including parts of the Asia Pacific region, drives an elevated risk of uncollectable accounts receivable and inability to recognize revenue from deals involving customers that may be in financial distress. Further, to the extent one or more of our customers commences bankruptcy or insolvency proceedings, contracts with these customers may be subject to renegotiation or rejection under applicable court proceeding. Although we monitor and attempt to mitigate credit risks, there can be no assurance that our efforts will be effective. While losses to date relating to the credit exposure of our customers have not been material, future losses, if incurred, could harm our business and have a material adverse effect on our operating results and financial condition.

If we determine that our goodwill and intangible assets have become impaired, we may incur impairment charges, which would negatively impact our operating results.

We hold significant goodwill on our balance sheet related to a number of strategic transactions over the years, including, for example, with respect to Parthus Technologies plc, our RivieraWaves business, Hillcrest and Spatial Audio assets, and, most recently, a design team in Greece. Goodwill represents the excess of cost over the fair value of net assets acquired in business combinations. Under accounting principles generally accepted in the United States of America, we assess potential impairment of our goodwill and intangible assets at least annually, as well as on an interim basis to the extent that factors or indicators become apparent that could reduce the fair value of any of our businesses below book value. Impairment may result from significant changes in the manner of use of the acquired asset, negative industry or economic trends and significant underperformance relative to historic or projected operating results. For example, in the third quarter of 2022, we recorded $3.6 million of impairment of intangible assets with respect to Immervision technology acquired in August 2019, as we decided to cease the development of this product line. If we determine that our goodwill and intangible assets have become impaired, we may incur impairment charges, which could negatively impact our operating results.

Risks Related to Ownership of Our Common Stock

The anti-takeover provisions in our certificate of incorporation and bylaws could prevent or discourage a third party from acquiring us.

Our certificate of incorporation and bylaws contain provisions that may prevent or discourage a third party from acquiring us, even if the acquisition would be beneficial to our stockholders. Our board of directors also has the authority to fix the rights and preferences of shares of our preferred stock and to issue such shares without a stockholder vote. Our bylaws also place limitations on the authority to call a special meeting of stockholders. We have advance notice procedures for stockholders desiring to nominate candidates for election as directors or to bring matters before an annual meeting of stockholders. In addition, these factors may also adversely affect the market price of our common stock, and the voting and other rights of the holders of our common stock.

Our stock price may be volatile so you may not be able to resell your shares of our common stock at or above the price you paid for them.

Announcements of developments related to our business, announcements by competitors, quarterly fluctuations in our financial results, changes in the general conditions of the highly dynamic industry in which we compete or the national economies in which we do business, and other factors could cause the price of our common stock to fluctuate, perhaps substantially. For example, if we fail to achieve our near-term financial guidance, or fail to show overall business growth and expansion, our stock price may significantly decline. In addition, in recent years, the stock market has experienced extreme price fluctuations, which have often been unrelated to the operating performance of affected companies. These factors and fluctuations could have a material adverse effect on the market price of our common stock.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 1C. Cybersecurity

Cybersecurity represents an important component of our overall approach to enterprise risk management ("ERM") and is one of the key risks identified for oversight by the Board through our annual ERM assessment. Our ERM approach generally, and our cybersecurity practices in particular, are based upon industry standards and implemented using managed security applications. We generally approach cybersecurity threats through a cross-functional approach which endeavors to: (i) prevent and mitigate cybersecurity threats to the Company; (ii) maintain the confidence of our customers, clients and business partners; (iii) preserve the confidentiality of our employee's information; and (iv) protect our IP.

Risk Management and Strategy

Our cybersecurity program focuses on the following areas:

- **Vigilance**: We maintain 24/7 cybersecurity threat operations designed to rapidly detect, contain and respond to cybersecurity threats and incidents.
- **Systems Safeguards**: We deploy technical safeguards that are designed to protect our information systems from cybersecurity threats. These safeguards include firewalls, intrusion prevention and detection systems, anti-malware functionality, access controls and ongoing vulnerability assessments.
- **Third-Party Management**: We screen vendors, service providers and other third parties that may gain access to our systems based on their expertise, reliability, reputation and industry credentials, and have implemented measures to further enable us to identify and oversee cybersecurity risks presented users of our systems.
- **Education**: All of our employees are trained at least annually on cybersecurity threats and our information security procedures, which reinforces our information security policies, standards and practices.
- **Incident Response Planning**: We have established and continue to maintain an incident response plan that addresses our response to a cybersecurity incident.
- **Communication and Coordination**: We utilize a cross-functional approach to address the risk from cybersecurity threats, involving management personnel from the technology, operations, legal, risk management, internal audit and other key business functions, as well as including our board of directors in an ongoing dialogue regarding cybersecurity threats and incidents.
- **Governance**: Our board of directors' oversight of cybersecurity risk management is supported by our Chief Financial Officer and Compliance Officer, who interacts directly with, and is provided relevant information by, our cybersecurity team. While our board of directors has the ultimate oversight responsibility over the management of cybersecurity risk, our audit committee reviews the risk management process relating to cybersecurity on a regular basis.

We evaluate the effectiveness of our cybersecurity threat risk management through the assessment and testing of our processes and practices. We periodically engage consultants, auditors and other third parties to perform assessments on our cybersecurity measures. The assessments include information security maturity evaluations, independent environmental security control reviews, operating effectiveness and penetration testing. We make adjustments to our cybersecurity processes and practices as necessary based on the information provided by the third-party assessments and reviews.

Governance

Our board of directors as a whole is responsible for overseeing the management of risks pertaining to cybersecurity threats. Our board periodically receives presentations and reports from the management team on information regarding the policies, processes and practices that we implement to address risks from cybersecurity threats including, for example, discussion of recent developments, evolving standards, third-party and independent reviews, the threat environment and technological trends. Additionally, to the extent we identify any cybersecurity incident that could pose a significant risk to the Company, the board will receive prompt and timely information regarding the incident and ongoing updates until such incidents have been addressed.

Our cybersecurity team is composed of the global head of Information Technology & Management Information Systems, the Chief Information Security Officer ("CISO") and deputy CISO. This cybersecurity team, along with internal security stakeholders, are the team members principally responsible for overseeing and implementing our cybersecurity risk management program. Our cybersecurity team members each possess 15-35 years of cybersecurity experience, with strong educational qualifications including post-secondary education, industry certifications and other relevant developmental training.

The cybersecurity team works collaboratively across the Company to implement customized programs designed to protect and respond to cybersecurity threats and to promptly respond to any cybersecurity incidents. To facilitate the success of this program, multi-disciplinary teams throughout the Company are deployed to address cybersecurity threats and to respond to cybersecurity incidents in accordance with our incident response plan. Chief concerns are reported to our broader management team when appropriate.

We have not previously experienced any material cybersecurity incidents. In addition, cybersecurity threats have not materially affected, and we do not believe they are reasonably likely to affect, the Company, including our business strategy, results of operations, or financial condition.

ITEM 2. PROPERTIES

Our headquarters are located in Rockville, Maryland, where we conduct research and development and administration activities in a 9,913 square foot facility under a lease expiring in 2028. We also have principal offices where we conduct research and development, sales and marketing and administration activities in Herzliya, Israel, where have a 57,425 square foot facility lease expiring 2025; and Sophia Antipolis, France, where we have a 10,823 square foot facility lease expiring in 2031.

We also lease 10 other buildings for our main additional engineering, sales, marketing, administrative, support and operations, including two other facilities located in China, three other facilities located in Greece and one other facility located in each of the U.S., U.K., Ireland, Serbia and Japan. Together with our principal offices, these 13 facilities cover an aggregate of approximately 103,600 square feet, ranging from 1,079 square feet to 57,425 square feet, with lease terms expiring from 2025 to 2034.

ITEM 3. LEGAL PROCEEDINGS

We are subject to legal proceedings and claims that have not been fully resolved and that have arisen in the ordinary course of business. As of December 31, 2024, these matters have resulted in provision of approximately $300,000 on the consolidated balance sheet. We are not a party to any other legal proceedings, the adverse outcome of which, in management's opinion, would have a material adverse effect on our results of operations or financial position.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

EXECUTIVE OFFICERS OF THE REGISTRANT

Below are the names, ages and principal recent business experience of our current executive officers. All such persons have been appointed by our board of directors to serve until their successors are elected and qualified or until their earlier resignation or removal.

Amir Panush, age 51, joined our board of directors on February 13, 2024 and has served as our Chief Executive Officer since January 2023. He joined us from InvenSense, Inc., a TDK group company, where he served as Chief Executive Officer and General Manager of TDK Corporation's MEMS Sensors Business Group. Mr. Panush previously held various leadership positions at TDK following TDK's successful acquisition of InvenSense in 2017. Mr Panush joined InvenSense in 2015, serving as head of the company's Strategy & Corporate Development, where he drove strategic expansion and diversification efforts. Prior to joining InvenSense, from May 2011 to March 2015, Mr. Panush served in various capacities at Qualcomm, most recently as the Senior Director of Product Management and Business Development for the IoE/IoT client business. Prior to joining Qualcomm, Mr. Panush led strategic marketing and partnerships at Atheros Communications, which was later acquired by Qualcomm. His earlier industry roles spanned software engineering and project management leadership at Texas Instruments and Comsys Mobile, which was acquired by Intel. Mr. Panush holds a Master of Business Administration from Haas Business School, University of California at Berkeley and a bachelor's degree, Cum Laude, in Computer Science from Technion Institute of Technology in Israel.

Yaniv Arieli, age 56, has served as our Chief Financial Officer since May 2005. Prior to his current position, Mr. Arieli served as President of U.S. Operations and Director of Investor Relations of DSP Group beginning in August 2002 and Vice President of Finance, Chief Financial Officer and Secretary of DSP Group's DSP Cores Licensing Division prior to that time. Before joining DSP Group in 1997, Mr. Arieli served as an account manager and certified public accountant at Kesselman & Kesselman, a member of PricewaterhouseCoopers, a leading accounting firm. Mr. Arieli is a CPA and holds a B.A. in Accounting and Economics from Haifa University in Israel and an M.B.A. from Newport University and is also a member of the National Investor Relation Institute.

Michael Boukaya, age 50, has served as our Chief Operating Officer since April 2019. Prior to this position, Mr. Boukaya served as our Vice President and General Manager of the wireless business unit since 2014. Previously, Mr. Boukaya served as VP and Chief Architect with overall responsibility for the research and development of next generation DSP cores, wireless platform architectures and multimedia processors. Before joining Ceva, he was with DSP Group, Inc., holding different engineering and research and development management positions. Mr. Boukaya holds a B.Sc. in Electronic Engineering from the Technion Technology Institute, graduated from Executive Program of Stanford Graduate School of Business, and holds several patents on DSP technology.

Gweltaz Toquet, age 52, has served as our Chief Commercial Officer since January 2023. Mr. Toquet has more than 20 years of sales and management experience with the Company, most recently serving as our Vice President of Sales for Asia Pacific, India and Europe. In particular, Mr. Toquet has spent over 15 years as our Vice President of Sales for Asia Pacific based in Hong Kong, where he led the build-out and management of the sales and support functions in the region spanning China, Japan, Taiwan and Korea. Prior to joining the Company in 2002, Mr. Toquet held several roles in sales, business development, product marketing and business line management at Freehand DSP and Texas Instruments. Mr. Toquet holds a Master of Science in Engineering degree from Institut Supérieur d'Electronique de Paris (ISEP).

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our common stock began trading on the Nasdaq Global Market on November 1, 2002. Our common stock currently trades under the ticker symbol "CEVA" on Nasdaq. As of February 18, 2025, there were approximately 274 holders of record, which we believe represents approximately 38,744 beneficial holders.

Equity Compensation Plan Information

Information as of December 31, 2024 regarding options, stock appreciation rights, restricted stock units (RSUs) and performance-based RSUs granted under our stock plans and remaining available for issuance under those plans will be contained in the definitive 2025 Proxy Statement for the 2025 annual meeting of stockholders to be held on May 5, 2025 and incorporated herein by reference.

Issuer Purchases of Equity Securities

The table below sets forth the information with respect to repurchases of our common stock during the three months ended December 31, 2024.

Period	(a) Total Number of Shares Purchased	(b) Average Price Paid per Share	(c) Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	(d) Maximum Number of Shares that May Yet Be Purchased Under the Plans or Programs (1)
Month #1 (October 1, 2024 to October 31, 2024)	__	__	__	356, 396
Month #2 (November 1, 2024 to November 30, 2024)	__	__	__	1,056, 396
Month #3 (December 1, 2024 to December 31, 2024)	31,615	$ 31.63	31,615	1,024, 781
TOTAL	31,615	$ 31.63	31,615	1,024, 781(2)

(1) In August 2008, we announced that our board of directors approved a share repurchase program for up to one million shares of common stock which was further extended collectively by an additional 7,100,000 shares in 2010, 2013, 2014, 2018, 2020 and 2023. On November 7, 2024, our Board of Directors authorized the repurchase of an additional 700,000 shares of our common stock pursuant to Rule 10b-18 of the Exchange Act.

(2) The number represents the number of shares of our common stock that remain available for repurchase pursuant to our share repurchase program.

2025 Annual Meeting of Stockholders

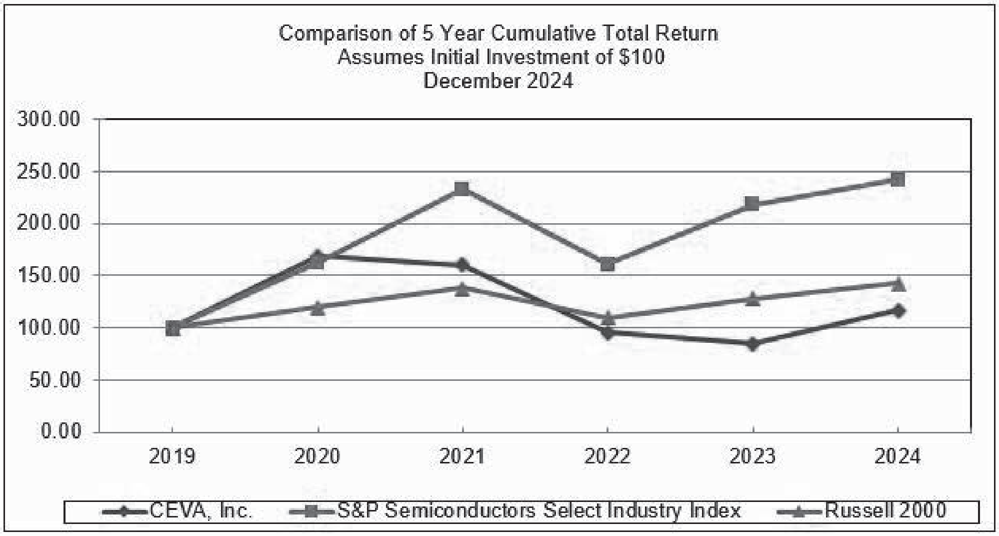
We anticipate that the 2025 annual meeting of our stockholders will be held virtually on May 5, 2025.

Dividends

We have historically not paid dividends and have no foreseeable plans to pay dividends.

Stock Performance Graph

Notwithstanding anything to the contrary set forth in any of the Company's previous or future filings under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, that might incorporate this proxy statement or future filings made by the Company under those statutes, the below Stock Performance Graph shall not be deemed filed with the United States Securities and Exchange Commission and shall not be deemed incorporated by reference into any of those prior filings or into any future filings made by the Company under those statutes.



	12/31/19	12/31/20	12/31/21	12/31/22	12/31/23	12/31/24
Ceva, Inc.	**100.00**	**168.77**	**160.39**	**94.87**	**84.21**	**116.98**
S&P Semiconductors	**100.00**	**162.36**	**232.31**	**160.97**	**217.85**	**242.18**
Russell 2000	**100.00**	**119.96**	**137.74**	**109.59**	**128.14**	**142.93**

The stock performance graph above compares the percentage change in cumulative stockholder return on the common stock of our company for the period from December 31, 2019, through December 31, 2024, with the cumulative total return on the S&P Semiconductors Select Industry Index (S&P SSII) and the Russell 2000 Index.

This graph assumes the investment of $100 in our common stock (at the closing price of our common stock on December 31, 2019), the S&P SSII and the Russell 2000 Index on December 31, 2019, and assumes dividends, if any, are reinvested.

Comparisons in the graph above are based upon historical data and are not indicative of, nor intended to forecast, future performance of our common stock.

ITEM 6. RESERVED

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion together with the consolidated financial statements and related notes appearing elsewhere in this annual report. This discussion contains forward-looking statements that involve risks and uncertainties. Actual results may differ materially from those included in such forward-looking statements. Factors that could cause actual results to differ materially include those set forth under "*Risk Factors,*" *as well as those otherwise discussed in this section and elsewhere in this annual report. See* "*Forward-Looking Statements and Industry Data.*"

BUSINESS OVERVIEW

The following discussion and analysis is intended to provide an investor with a narrative of our financial results and an evaluation of our financial condition and results of operations. The discussion should be read in conjunction with our consolidated financial statements and notes thereto for the year ended December 31, 2024, both appearing elsewhere in this annual report.

We are the leader in innovative silicon and software IP solutions that enable smart edge products to connect, sense, and infer data more reliably and efficiently. Commanding 67% of the wireless connectivity market share based on IP design revenues in 2023, according to IPnest, we believe we have the industry's broadest portfolio of comprehensive wireless communications and Edge AI IP platforms and embedded software solutions. We power the connectivity, sensing, and inference capabilities in today's most advanced smart edge products across four large, diversified markets with significant opportunity for long-term growth, consumer IoT, automotive, industrial and infrastructure, as well as the mobile and PC markets where we have well established customers and presence, which based on our research we believe will represent a $5 billion total addressable market by 2027. Since 2003, more than 19 billion of the world's most innovative smart edge products from AI-infused smartwatches, IoT devices and wearables to autonomous vehicles, 5G mobile networks and more have been shipped with Ceva IP, with approximately 2 billion shipped in 2024 alone.

For more than three decades, we have been a trusted partner to hundreds of leading semiconductor and original equipment manufacturer (OEM) companies servicing not just our largest target growth and incumbent markets, but also a wide variety of other end markets and applications, including smart-home, surveillance, robotics and medical. Our transformative semiconductor IP and embedded software offerings are incorporated by customers into application-specific integrated circuits (ASICs) and application-specific standard products (ASSPs) to enable power-efficient, intelligent, secure and connected devices that connect, sense, and infer - the three critical pillars of the rapidly evolving era of AI-enabled smart edge.

Our wireless communications, sensing and edge AI technologies are at the heart of some of today's most advanced smart edge products. Our comprehensive portfolio includes:

- Advanced wireless connectivity solutions: Bluetooth, Wi-Fi, Ultra-Wideband (UWB), and 5G-Advanced platform IP for ubiquitous and robust communication;
- Scalable Edge AI capabilities: neural processing unit (NPU) IP to enable AI, on-device; and
- Sensor fusion processors and embedded application software that make devices smarter and more responsive.

We license our portfolio of wireless communications and scalable Edge AI IP to our customers, breaking down barriers to entry and enabling them to bring new cutting-edge products to market faster, more reliably, efficiently and economically.

We are a sustainability and environmentally conscious company. We have adopted both a Code of Business Conduct and Ethics and a Sustainability Policy, in which we emphasize and focus on environmental preservation, recycling, the welfare of our employees and privacy – which we promote on a corporate level. At Ceva, we are committed to social responsibility, values of preservation and consciousness towards these purposes.

We believe our portfolio of wireless communications, sensing and Edge AI technologies address some of the most important megatrends, including 5G expansion, generative AI, embedded AI, industrial automation and vehicle electrification. We continue to experience strong interest across our IP portfolio due to these trends, in both traditional and new areas. In the fourth quarter of 2024, we concluded twelve IP licensing deals for a range of wireless and smart sensing use cases, including two notable strategic licensing deals. The first was with a top-tier global MCU company, which has signed a long-term architecture licensing agreement for our Wi-Fi platform to be used across their product portfolio. The second major strategic deal relates to the mobile market, where we executed a long-term licensing agreement with a leading U.S. OEM to use our technology in their in-house 5G modem. In relation to the second deal, we anticipate that this agreement will lead to significant market share expansion of our wireless communication IP, and we expect this agreement to drive a meaningful, long-term royalty stream in the years to come.

We believe the following key elements represent significant growth drivers for the company:

- Our broad Bluetooth, Wi-Fi, UWB and cellular IoT IP allow us to address the high volume IoT industrial, consumer and smart home markets. Our addressable market size for Bluetooth, Wi-Fi, UWB and cellular IoT is expected to be more than 16.5 billion devices annually by 2029 based on research from ABI Research. In the fourth quarter of 2024, we signed multiple licensing deals for our range of wireless connectivity IP, including a Wi-Fi architecture licensing agreement with one of the world's leading MCU companies. We also signed deals for our latest generation Wi-Fi 7 and Bluetooth 6 and next generation 7 IP, underscoring the leadership we command in this space. We also reached multiple shipment milestones in the quarter, reporting a record 343 million Bluetooth units and a record 66 million Wi-Fi units. These record volumes reflect our market leadership in IP in these markets, where we already command more than 30% of the Bluetooth market share worldwide, excluding mobile. In addition, we believe that Wi-Fi continues to present a significant royalty revenue opportunity, given our leading market position in licensing Wi-Fi 6 with more than 40 customers to date and leadership position in Wi-Fi 7 IP.

- We believe our PentaG2 platform and digital signal processors (DSPs) for 5G mobile broadband and 5G RedCap is one of the most comprehensive baseband IP platforms in the industry today and provides newcomers and incumbents with a comprehensive solution to address the need for 5G processing for fixed wireless access, satellite communications and a range of connected devices such as robots, cars, smart cities and other devices for industrial applications. Indicative of the demand for our 5G IP, in the fourth quarter of 2024, we signed another deal for 5G and 5G-Advanced new use cases with a new licensee targeting the fast-growing cellular market.

- Our PentaG RAN platform for 5G RAN, including the recently announced Ceva-XC22 multi-thread DSP, ensures we offer one of the most comprehensive baseband processor IP platforms in the industry today. Our 5G IP provides newcomers and incumbents with a customizable solution to address the need for 5G, 5G Advanced and other communications in data centers and infrastructure.

- The high-volume consumer audio markets, including True Wireless Stereo (TWS) earbuds, smartwatches, AR and VR headsets, and other wearable assisted devices, offers an incremental growth segment for us for our Bluetooth, Audio AI DSPs and software IP. For OEMs to better address this market, our RealSpace Spatial Audio & Head Tracking Solution and ClearVox voice input software are available to enhance the user experience and offer premium features. In the fourth quarter, we signed a licensing deal with a mobile device OEM to incorporate our MotionEngine solution in their upcoming tablet peripheral device.

- Our SensPro2 sensor hub AI DSP family is designed to address the growing demand for efficient, high-performance signal processing in sensor-based applications across various industries and applications such as smartphones, automotive safety (ADAS), autonomous driving (AD), drones, robotics, security and surveillance, augmented reality (AR) and virtual reality (VR), natural language processing (NLP) and voice recognition. Research from Bloomberg Intelligence forecasts that hardware revenue associated with computer vision AI products and conversational AI devices will reach $58 billion and $110 billion, respectively by 2032, indicating the size of the market opportunity. This sensor hub AI DSP enables us to address the transformation in devices enabled by these applications, and expand our footprint and content in smartphones, drones, consumer cameras, surveillance, automotive ADAS, voice-enabled devices and industrial IoT applications.

- Transformer and classic neural networks are increasingly being deployed in a wide range of devices to make these devices "smarter." Our newest generation family of NeuPro-M AI NPUs present a highly efficient and high-performance architecture to enable generative and classic AI on any device including communication gateways, optically connected networks, cars, notebooks and tablets, AR/VR headsets, smartphones, and any other cloud or edge use case from the edge all the way to the cloud. Per research from Research and Markets, more than 6 billion Edge AI hardware units will ship annually by 2030, illustrating the huge potential of the market.

- AI is rapidly making its way into IoT devices, thanks in part to the emergence of embedded AI, including tiny machine learning (TinyML) models, which enable small AI networks to be embedded in AIoT devices for sensing use cases including sound, vision, vibration and health monitoring. Our recently announced NeuPro-Nano family of AI NPUs present a compelling proposition to add a cost- and power-efficient processor to microcontroller units and SoC designs to handle the complete AI workloads, on-device. Per ABI Research, by 2030, over 50% of TinyML shipments will be powered by dedicated embedded AI hardware such as NeuPro-Nano, representing billions of devices annually. In the fourth quarter, we added another design win for our NeuPro-Nano NPU with a first-time customer, engaged in developing Edge AI processors targeting consumer electronics.

- Our sensor fusion and spatial audio application software allows us to address an important technology piece used in personal computers, robotics, TWS earbuds, smart TVs and many other smart sensing IP products, in addition to our existing portfolio for camera-based computer vision and AI processing, and microphone-based sound processing. MEMS-based inertial and environmental sensors are used in an increasing number of devices, including robotics, smartphones, laptops, tablets, TWS earbuds, spatial audio headsets, remote controls and many other consumer and industrial devices. Our innovative and proven MotionEngine software supports a broad range of merchant sensor chips and is processor-agnostic to address the requirements of any OEM or semiconductor company that wishes to enhance their customer user experience. The MotionEngine software has already shipped in more than 400 million devices, indicative of its market traction and excellence. Along with our SensPro sensor hub AI DSPs, our licensees now benefit from our capabilities as a one-stop-shop for processing many types of sensors.

As a result of our focus on silicon and software IP solutions that enable products to connect, sense, and infer data, we believe we are well positioned for long-term growth in shipments and royalty revenues derived from smart edge products. Royalty rates from these products comprise a range of ASPs, from high volume Bluetooth and Wi-Fi to high value sensor fusion and base station RAN. The royalty ASP of our other products will be in between the two ranges.

CURRENT TRENDS

We believe that with digital transformation being a long-term trend that continues to drive industries to become connected and intelligent, our ubiquitous technology and collaborative business model present a significant and secular growth prospect. We intend to continue to capitalize on the semiconductor momentum with our portfolio of technologies to enable three main use cases associated with smart edge devices: connect, sense and infer. We focus on four main markets, which are consumer IoT, automotive, industrial and infrastructure, which we believe are large, diversified and represent the greatest opportunities for long-term growth. We will also continue to serve the mobile and PC markets where we have established customers and market presence. We believe our key customers are keenly receptive to our products roadmap around connect, sense and infer, and that they are willing to expand the scope of engagements with us as our roadmap aligns with their technology needs. Furthermore, we anticipate that we complement our strong presence in the APAC region by further expanding our customer base and revenues in Europe and the U.S., as evidenced by our increasingly diversified revenue split by geography from 2022 through 2024.

Our strategy has returned us to year-over-year revenue growth 2024, with overall revenue growing 10% over 2023, versus the 4% to 8% we expected at the beginning of the year. We believe that our growth will continue in 2025, with overall revenue expected to grow 7%-11% for 2025. In 2025, we expect our licensing and related revenues business will continue to expand into new markets and use cases for industrial IoT (IIoT) and consumer IoT devices, offering connectivity platforms, sensing platforms and software, AI solutions (including AI engines, NPUs and software) and more. On royalties, we expect our connectivity products to continue to show strength in 2025, particularly related to our Bluetooth, Wi-Fi and cellular IoT business lines which enjoyed record shipments in 2024 and with the initial ramp of an in-house 5G modem powered by our cellular DSP from a leading U.S. mobile OEM expected to launch its first smartphone based on the modem in the first quarter.

Instability in the Middle East

Our operations in Israel remain largely unaffected by the war between Israel and Hamas that began on October 7, 2023 and escalated to conflicts with Lebanon and Hezbollah, and we continue to drive our business and support our customers globally. However, a portion of our employees in Israel have been or are called to active reserve duty and additional employees may be called in the future, if needed. The Company has executed its business continuity plan with respect to those employees. It is possible that some of our operations in the region may be disrupted if this continues for a significant period of time or if the situation further deteriorates.

CRITICAL ACCOUNTING POLICIES, ESTIMATES AND ASSUMPTIONS

Our consolidated financial statements are prepared in accordance with generally accepted accounting principles in the United States (U.S. GAAP). These accounting principles require us to make certain estimates, judgments and assumptions. We believe that the estimates, judgments and assumptions upon which we rely are reasonable based upon information available to us at the time that these estimates, judgments and assumptions are made. These estimates, judgments and assumptions can affect the reported amounts of assets and liabilities as of the date of the financial statements, as well as the reported amounts of revenues and expenses during the periods presented. To the extent there are material differences between these estimates, judgments or assumptions and actual results, our financial statements will be affected. The significant accounting policies that we believe are the most critical to aid in fully understanding and evaluating our reported financial results include the following:

- revenue recognition;
- equity-based compensation; and
- credit losses.

In many cases, the accounting treatment of a particular transaction is specifically dictated by U.S. GAAP and does not require management's judgment in its application. There are also areas in which management's judgment in selecting among available alternatives would not produce a materially different result.

Revenue Recognition

Significant management judgments and estimates must be made and used in connection with the recognition of revenue in any accounting period. Material differences in the amount of revenue in any given period may result if these judgments or estimates prove to be incorrect or if management's estimates change on the basis of development of business or market conditions. Management's judgments and estimates have been applied consistently and have been reliable historically.

The following is a description of principal activities from which we generate revenue. Revenues are recognized when control of the promised goods or services are transferred to the customers in an amount that reflects the consideration that we expect to receive in exchange for those goods or services.

We determine revenue recognition through the following steps:

- Identification of the contract with a customer;
- Identification of the performance obligations in the contract;
- Determination of the transaction price;

- Allocation of the transaction price to the performance obligations in the contract; and
- Recognition of revenue when, or as, we satisfy a performance obligation.

We enter into contracts that can include various combinations of products and services, as detailed below, which are generally capable of being distinct and accounted for as separate performance obligations.

We generate our revenues from (1) licensing intellectual properties, which in certain circumstances are modified for customer-specific requirements, (2) royalty revenues and (3) other revenues, which include revenues from support, training and sale of development systems and chips. We license our IP to semiconductor companies throughout the world. These semiconductor companies then manufacture, market and sell custom-designed chipsets to OEMs of a variety of consumer electronics products. We also license our technology directly to OEMs, which are considered end users.

We account for our IP license revenues and related services, which provide our customers with rights to use our IP, in accordance with ASC 606, "Revenue from Contracts with Customers" (ASC 606"). A license may be perpetual or time limited in its application. In accordance with ASC 606, we recognize revenue from IP license at the time of delivery when the customer obtains control of the IP, as the IP is functional without professional services, updates and technical support. We have concluded that our IP licenses are distinct as the customer can benefit from the licenses on their own.

Most of our contracts with customers contain multiple performance obligations. For these contracts, we account for individual performance obligations separately, if they are distinct. The transaction price is allocated to the separate performance obligations on a relative standalone selling price basis. Stand-alone selling prices of IP licenses are typically estimated using the residual approach, since the selling price is uncertain. Stand-alone selling prices of services are typically estimated based on observable transactions when these services are sold on a standalone basis. Standalone selling prices of significant customization of our IP to customer-specific specifications are typically estimated based on expected cost plus normal profit margin approach.

Revenues from contracts that involve significant customization of our IP to customer-specific specifications are considered as one performance obligation satisfied over-time. Revenue related to these projects is recognized over time, usually based on a percentage that incurred labor effort to date bears to total projected labor effort. Incurred effort represents work performed, which corresponds with, and thereby best depicts, the transfer of control to the customer. When total cost estimates for these types of arrangements exceed revenues in a fixed-price arrangement, the estimated losses are recognized immediately. Significant judgment is required when estimating total labor effort and progress to completion on these arrangements.

Revenues that are derived from the sale of a licensee’s products that incorporate our IP are classified as royalty revenues. Royalty revenues are recognized during the quarter in which the sale of the product incorporating our IP occurs. Royalties are calculated either as a percentage of the revenues received by our licensees on sales of products incorporating our IP or on a per unit basis, as specified in the agreements with the licensees. Royalty revenues are recognized during the quarter in which we receive the actual sales data from our customers after the quarter ends and accounts for it as unbilled receivables. When we do not receive actual sales data from the customer prior to the finalization of our financial statements, royalty revenues are recognized based on our estimation of the customer’s sales during the quarter. This estimation process for the royalty revenue accrual is based on inputs and estimations received from our customers, as well as sales trends and various market factors. Adjustments to royalty revenues are made in subsequent periods to reflect updated estimates as soon as the final royalty reports are sent to us. We may engage a third party to perform royalty audits of our licensees, and if these audits indicate any over- or under-reported royalties, we account for the results when the audits are resolved.

Contracts with customers generally contain an agreement to provide for training and post contract support, which consists of telephone or e-mail support, correction of errors (bug fixing) and unspecified updates and upgrades. Fees for post contract support, which takes place after delivery to the customer, are specified in the contract and are generally mandatory for the first year. After the mandatory period, the customer may extend the support agreement on similar terms, usually on an annual basis. We consider the post contract support performance obligation as a distinct performance obligation that is satisfied over time, and as such, we recognize revenue for post contract support on a straight-line basis over the period for which technical support is contractually agreed to be provided to the licensee (typically 12 months, since the services have a consistent continuous pattern of transfer to the customers). Revenues from the sale of development systems and chips are recognized when control of the promised goods or services are transferred to the customers.

When contracts involve a significant financing component, we adjust the promised amount of consideration for the effects of the time value of money if the timing of payments agreed to by the parties to the contract (either explicitly or implicitly) provide the customer with a significant benefit of financing, unless the financing period is under one year and only after the products or services were provided, as we elected to use the practical expedient under ASC 606.

Deferred revenues, which represent a contract liability, include unearned amounts received under license agreements, unearned technical support and amounts paid by customers not yet recognized as revenues.

We capitalize sales commission as costs of obtaining a contract when they are incremental and, if they are expected to be recovered, amortized in a manner consistent with the pattern of transfer of the good or service to which the asset relates. If the expected amortization period is one year or less, the commission fee is expensed when incurred.

Equity-Based Compensation

We account for equity-based compensation in accordance with FASB ASC No. 718, "Stock Compensation" which requires the recognition of compensation expenses based on estimated fair values for all equity-based awards made to employees and non-employee directors. Equity-based compensation primarily includes restricted stock unit (RSUs), as well as options, stock appreciation right (SAR), performance-based stock units (PSUs) and employee stock purchase plan awards.

We use the straight-line recognition method for awards subject to graded vesting based only on a service condition and the accelerated method for awards that are subject to performance or market conditions. The fair value of each RSU and PSU (excluding PSUs based on market condition awards) is the market value as determined by the closing price of the common stock on the grant date. We estimate the fair value of PSU based on market condition awards on the date of grant using the Monte Carlo simulation model. We estimate the fair value of stock option awards on the date of grant using the Black & Scholes model.

Credit Losses

Marketable securities consist mainly of corporate bonds. We determine the appropriate classification of marketable securities at the time of purchase and re-evaluate such designation at each balance sheet date. In accordance with FASB ASC No. 320, "Investments Debt Securities," we classify marketable debt securities as available-for-sale. Available-for-sale securities are stated at fair value, with unrealized gains and losses reported in accumulated other comprehensive income (loss), a separate component of stockholders' equity, net of taxes. Realized gains and losses on sales of marketable securities, as determined on a specific identification basis, are included in financial income, net. The amortized cost of marketable securities is adjusted for amortization of premium and accretion of discount, both of which, together with interest, are included in financial income, net. We have classified all marketable securities as short-term, even though the stated maturity date may be one year or more beyond the current balance sheet date, because these securities are available to support current operations, and we may sell these debt securities prior to their stated maturities.

We determine realized gains or losses on sale of marketable securities on a specific identification method and record such gains or losses as financial income, net.

For each reporting period, we evaluate whether declines in fair value below the amortized cost are due to expected credit losses, as well as our ability and intention to hold the investment until a forecasted recovery occurs, in accordance with ASC 326. Allowance for credit losses on available for sale debt securities are recognized as a charge in financial income on the consolidated statements of income, and any remaining unrealized losses, net of taxes, are included in accumulated other comprehensive income (loss). For the years ended December 31, 2024, 2023 and 2022, credit losses were immaterial.

Our trade receivables are geographically diverse, mainly in the Asia Pacific region, and also in the United States and Europe. Concentration of credit risk with respect to trade receivables is limited by credit limits, ongoing credit evaluation and account monitoring procedures. We perform ongoing credit evaluations of our customers. We make estimates of expected credit losses based upon our assessment of various factors, including historical experience, the age of the trade receivable balances, credit quality of our customers, current economic conditions, reasonable and supportable forecasts of future economic conditions, and other factors that may affect our ability to collect from customers.

For the years ended December 31, 2024 and 2023, allowance for credit losses amounted to $2,626 and $288, respectively. The increase in the credit loss allowance as of December 31, 2024 is due to a specific credit loss provision recorded during the year ended December 31, 2024 for a customer that has experienced financial difficulties.

Accounting Standards

In June 2022, the FASB issued ASU No. 2022-03, Fair Value Measurement (Topic 820): Fair Value Measurement of Equity Securities Subject to Contractual Sale Restrictions, which clarifies the guidance when measuring the fair value of an equity security subject to contractual restrictions that prohibit the sale of an equity security and introduces new disclosure requirements for equity securities subject to contractual sale restrictions that are measured at fair value in accordance with Topic 820. The guidance is effective for annual periods beginning after December 15, 2023, with early adoption permitted. We adopted ASU 2022-03 as of January 1, 2024. The adoption did not result in a material impact on our financial statements.

In November 2023, the FASB issued ASU 2023-07, Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures, which requires public entities to disclose information about their reportable segments' significant expenses and other segment items on an interim and annual basis. Public entities with a single reportable segment are required to apply the disclosure requirements in ASU 2023-07, as well as all existing segment disclosures and reconciliation requirements in ASC 280 on an interim and annual basis. ASU 2023-07 is effective for fiscal years beginning after December 15, 2023, and for interim periods within fiscal years beginning after December 15, 2024, with early adoption permitted. We adopted ASU 2023-07 as of December 15, 2024.

In December 2023, the FASB issued ASU 2023-09, Income Taxes (Topic 740): Improvements to Income Tax Disclosures, which requires public entities, on an annual basis, to provide disclosure of specific categories in the rate reconciliation, as well as disclosure of income taxes paid disaggregated by jurisdiction. ASU 2023-09 is effective for fiscal years beginning after December 15, 2024, with early adoption permitted. We are currently evaluating the impact of adopting ASU 2023-09.

In November 2024, the FASB issued ASU 2024-03, Income Statement - Reporting Comprehensive Income - Expense Disaggregation Disclosure (Subtopic 220-40), Disaggregation of Income Statement Expenses, which expands annual and interim disclosure requirements for reportable segments, primarily through enhanced disclosures about significant segment expenses. In addition, it provides new segment disclosure requirements for entities with a single reportable segment. We adopted this guidance for the annual period beginning January 1, 2024.

RESULTS OF OPERATIONS

The following table presents line items from our consolidated statements of loss as percentages of our total revenues for the periods indicated:

	2022	2023	2024
Consolidated Statements of Loss Data:			
Revenues:			
Licensing and related revenue	62.4%	59.1%	56.1%
Royalties	37.6%	40.9%	43.9%
Total revenues	100.0%	100.0%	100.0%
Cost of revenues	12.5%	12.0%	11.9%
Gross profit	87.5%	88.0%	88.1%
Operating expenses:			
Research and development, net	58.3%	74.6%	67.0%
Sales and marketing	9.5%	11.3%	11.8%
General and administrative	11.8%	15.3%	15.8%
Amortization of intangible assets	1.7%	0.6%	0.6%
Impairment of assets	2.9%	—	—
Total operating expenses	84.2%	101.8%	95.2%
Operating income (loss)	3.3%	(13.8)%	(7.1)%
Financial income, net	2.3%	5.4%	4.6%
Remeasurement of marketable equity securities	(2.1)%	(0.0)%	(0.1)%
Income (loss) before taxes on income	3.5%	(8.4)%	(2.6)%
Taxes on income	15.0%	10.5%	5.6%
Net loss from continuing operations	(11.5)%	(18.9)%	(8.2)%
Net income (loss) from discontinued operations	(7.7)%	6.7%	—
Net loss	(19.2)%	(12.2)%	(8.2)%

Discussion and Analysis

Below we provide information on the significant line items in our consolidated statements of loss for each of the past three fiscal years, including the percentage changes year-on-year, as well as an analysis of the principal drivers of change in these line items from year-to-year.

Revenues

Total Revenues

	2022	2023	2024
Total revenues (in millions)	$ 120.6	$ 97.4	$ 106.9
Change year-on-year	—	*(19.2)%*	*9.8%*

For 2024, we reported total revenue of $106.9 million, 10% higher than 2023. In 2024, we strengthened our leadership and influence around our key technology pillars, reinforcing our dominant position in wireless connectivity while expanding our sense and inference product offerings and global customer base. We also launched multiple innovative products like the NeuPro-Nano Edge AI NPUs. Highlights for 2024 included several key and large design wins in the cellular communication markets for satellite, base station and handset advanced technology use cases, which drove overall revenues higher than 2023.

In royalties, we delivered strong year-over-year 18% revenue growth and shipped a record 2 billion Ceva-powered units, marking the first time in our history to reach this milestone number. Shipment strength was across the board, with numerous records achieved.

We derive a significant amount of revenues from a limited number of customers. Sales to UNISOC represented 15%, 13% and 16% of our total revenues for 2024, 2023 and 2022, respectively. Generally, the identity of our other customers representing 10% or more of our total revenues varies from period to period, especially with respect to our licensing customers as we generate licensing revenues generally from new customers on a quarterly basis. With respect to our royalty revenues, two royalty paying customers each represented 10% or more of our total royalty revenues for 2024, and collectively represented 46% of our total royalty revenues for 2024. Two royalty paying customers each represented 10% or more of our total royalty revenues for 2023, and collectively represented 45% of our total royalty revenues for 2023. Two royalty paying customers each represented 10% or more of our total royalty revenues for 2022, and collectively represented 46% of our total royalty revenues for 2022. We expect that a significant portion of our future revenues will continue to be generated by a limited number of customers. The concentration of our customers is explainable in part by consolidation in the semiconductor industry. The loss of any significant customer could adversely affect our near-term future operating results.

The following table sets forth use cases for Ceva technology portfolio as percentages of our total revenues in each of the periods set forth below:

	Year ended December 31,		
	2022	2023	2024
Connect (baseband for handset and other devices, Bluetooth, Wi-Fi and NB-IoT)	78%	82%	84%
Sense & Infer (sensor fusion, audio, sound, imaging, vision and AI)	22%	18%	16%

We expect to continue to generate a significant portion of our revenues for 2025 from the above technologies.

Licensing and related revenue

	2022	2023	2024
Licensing and related revenue (in millions)	$ 75.2	$ 57.6	$ 60.0
Change year-on-year	—	*(23.5)%*	*4.2%*

Licensing and related revenue was $60.0 million, representing a 4% increase in 2024 as compared to 2023. We signed 43 licensing agreements across our extensive IP portfolio, down from 53 last year; 11 of those deals were with OEMs who are integrating our IP into their end products. In terms of end markets, 21 of the deals target consumer, 19for IIoT, with the remainder targeting mobile, including two with our anchor mobile customers that signed long-term agreements in the fourth quarter. Twelve of the customers licensed multiple technologies from our portfolio, demonstrating the synergistic strengths of our strategy to offer a broad portfolio of IP around connect, sense and infer.

This deal breakdown also indicates the benefits of our focus on the end markets with the largest licensing base and the greatest projected growth potential. In 2024, we experienced increased licensing revenue in the U.S., due to a few significant design wins in the second half of the year. We also witnessed good design activity for advanced 5G cellular technologies for multiple end markets. Moreover, we concluded multiple deals or upgrades and new deals for our Wi-Fi and Bluetooth 6 and 7 platforms with customers in consumer and industrials end markets. In 2023, we experienced a decrease in licensing revenue attributed to a slowdown in new design activity due to various reasons, including lack of funding of semiconductor companies, in part due to the higher interest rate environment, as well as the end of a period of exceptional consumer end market demand related to COVID spending following the substantial completion of most companies' shift to hybrid work environments.

Licensing and related revenue accounted for 56.1% of our total revenues for 2024, compared with 59.1% and 62.4% of our total revenues for 2023 and 2022, respectively.

Royalty Revenues

	2022	2023	2024
Royalty revenues (in millions)	$ 45.4	$ 39.9	$ 46.9
Change year-on-year	—	*(12.2)%*	*17.8%*

We generate royalty revenues from our customers who ship units of chips incorporating our technologies. Our royalty revenues represent what our customers shipped during any quarter, or our best estimates for such shipments. The royalty rate is based either on a certain percent of the chipset price or a fixed amount per unit basis.

Royalty revenue increased in 2024 compared to 2023, as we delivered strong year-over-year 18% revenue growth and shipped a record 2 billion Ceva-powered units, marking the first time in our history to reach this milestone number. Shipment strength was across the board, with numerous records achieved. To highlight a few of these: we powered a record 1.1 billion Bluetooth devices, a record 179 million Wi-Fi devices, a record 170 million cellular IoT devices, 340 million smartphones, and 170 million other smart edge devices powered by our DSPs, AI Accelerators and sensor fusion software. In terms of end markets, consumer IoT was 53% of annual royalties, followed by mobile at 32% and IIoT at 16%. Looking ahead into 2025, we anticipate that our Wi-Fi royalties and shipments will continue to grow, with several high-volume Wi-Fi 6 customers getting into production and ramping now. Similarly, we expect continued growth of our Bluetooth and cellular IoT shipments with additional customers coming to market and strengthening our dominant position in these markets. Also, on the back of signing new long-term licensing deals with our 2 main mobile customers, we expect the royalty contribution from mobile to grow year-over-year.

Royalty revenue was down in 2023 as compared to 2022 reflecting broad macroeconomic and consumer demand weakness and elevated inventory levels, especially in the first half of 2023. The decline is mainly attributable to mobile and 5G RAN related royalties, which combined to be down 22% year-over-year. On the positive side and in line with the strength of our connectivity products, royalty revenues related to our Bluetooth, Wi-Fi and cellular IoT business lines combined to grow 5% year-over-year, mainly due to higher royalty rate contribution from our new Wi-Fi 6 customers. In terms of end markets, consumer IoT was 41% of royalties, followed by mobile at 36% and the growing IIoT end markets at 23%. Total shipments in 2023 decreased 4% year-over-year to 1.62 billion units, down from 1.70 billion in 2022.

The five largest royalty-paying customers accounted for 61% of our total royalty revenues for 2024, compared to 58% of our total royalty revenues for 2023 and 64% of our total royalty revenues for 2022.

Geographic Revenue Analysis

	2022			2023			2024		
				(in millions, except percentages)					
United States	$	14.2	*11.8%*	$	9.6	*9.8%*	$	20.3	*19.0%*
Europe, Middle East (EME)	$	9.9	*8.2%*	$	12.2	*12.5%*	$	12.8	*12.0%*
Asia Pacific (APAC) (1)	$	96.5	*80.0%*	$	75.7	*77.7%*	$	73.8	*69.0%*
(1) China	$	75.7	*62.8%*	$	57.5	*59.0%*	$	52.7	*49.3%*

A majority of our revenues during the past three years have originated in the APAC region, with China representing the largest revenue share of countries in the APAC region. The decrease in revenues in absolute dollars in APAC from 2022 to 2023 was partially attributed to the slowdown in the start of new design activity. The decrease in revenues in absolute dollars in APAC from 2023 to 2024 was partially attributed to China, were we witnessed slower design starts, continued geopolitical tensions and the continued impact of the prior year's slowdown in the local macroeconomic environment.

The increase in revenues in absolute dollars in the United States from 2023 to 2024 was primarily driven by few key agreements signed with U.S.-based customers. One of them a long-term licensing agreement with a leading U.S. OEM to incorporate our technology into their in-house 5G modem. The decrease in revenues in absolute dollars in the United States from 2022 to 2023 was mainly attributed to a large, non-recurring licensing deal in our BlueBud platform, as well as the continued decrease in Intel based royalties post their divestment from the modem business. Moreover, we witnessed lower royalties from our sensor fusion empowered chips.

Revenues in the EME region remained constant from 2023 to 2024. The increase in revenues in absolute dollars and percentage in the EME region from 2022 to 2023 is primarily due to a significant new Wi-Fi / Bluetooth combo deal with a leading platform OEM in the electronics maker community whose devices are widely used in education and prototyping.

Cost of Revenues

	2022		2023		2024	
Cost of revenues (in millions)	$	15.1	$	11.6	$	12.8
Change year-on-year		—		*(23.0)%*		*9.6%*

Cost of revenues equaled 11.9% of our total revenues for 2024, compared to 12.0% of our total revenues for 2023 and 12.5% of our total revenues for 2022. The absolute dollar increases in cost of revenues for 2024 as compared to 2023 principally reflected higher strategically beneficial customization work associated with the strategic 5G-Advanced deals we signed in the second half of 2024. The absolute dollar decreases in cost of revenues for 2023 as compared to 2022 principally reflected impairment charges, incurred in 2022, of prepaid assets with respect to (1) Immervision-related assets and services, and (2) certain non-performing assets related to NB-IoT technology, as well as lower customization work for our licensees.

Cost of revenues includes labor-related costs and, where applicable, costs related to overhead, subcontractors, materials, travel, royalty expenses payments to the Israeli Innovation Authority of the Ministry of Economy and Industry in Israel (IIA), amortization of acquired assets and non-cash equity-based compensation expenses. Non-cash equity-based compensation expenses included in cost of revenues for the years 2024, 2023 and 2022 were $713,000, $826,000 and $687,000, respectively. Royalty expenses relate to royalties payable to the IIA that amount to 3%-3.5% of the actual sales of certain of our products, the development of which previously included grants from the IIA. The obligation to pay these royalties is contingent on actual sales of these products. Amortization of acquired assets related to the purchase of a license of NB-IoT technologies in the first quarter of 2018 and to certain intangible assets associated with the VisiSonics acquisition in the second quarter of 2023. Our amortization charges were $0.5 million, $0.4 million and $0.6 million for 2024, 2023 and 2022, respectively. In 2022 we recorded impairment charges of $2.0 relating to discontinued Immervision technology and non-performing assets of certain NB-IoT technology.

Operating Expenses

	2022	2023	2024
		(in millions)	
Research and development, net	$ 70.3	$ 72.7	$ 71.6
Sales and marketing	$ 11.5	$ 11.0	$ 12.6
General and administration	$ 14.2	$ 14.9	$ 16.9
Amortization of intangible assets	$ 2.0	$ 0.6	$ 0.6
Impairment of assets	$ 3.6	$ —	$ —
Total operating expenses	$ 101.6	$ 99.2	$ 101.7
Change year-on-year	—	*(2.3)%*	*2.5%*

The increase in total operating expenses for 2024 as compared to 2023 principally reflected higher allowance for credit losses. The decrease in total operating expenses for 2023 as compared to 2022 principally reflected: (1) an impairment charge of $3.6 million recorded in the third quarter of 2022 with respect to Immervision technology acquired in August 2019, as we decided to cease the development of this product line; (2) lower amortization of intangible assets, mainly related to Immervision; and (3) lower salary and employee-related costs, mainly associated with lower employee-related performance costs, partially offset with lower research grants received, mainly from the IIA, and higher non-cash equity-based compensation expenses.

Research and Development Expenses, Net

	2022	2023	2024
Research and development expenses, net (in millions)	$ 70.3	$ 72.7	$ 71.6
Change year-on-year	—	*3.4%*	*(1.5)%*

The net decrease in research and development expenses for 2024 as compared to 2023 principally reflected higher allocation of customization work for our licensees to cost of revenues and lower salaries and employee-related costs. The net increase in research and development expenses for 2023 as compared to 2022 principally reflected lower research grants received, mainly from the IIA, lower customization work for our licensees and higher non-cash equity-based compensation expenses, partially offset by lower salaries and employee-related costs mainly associated with lower employee-related performance costs. The average number of research and development personnel in 2024 was 327, compared to 330 in 2023 and 325 in 2022. The number of research and development personnel was 323 at December 31, 2024 as compared to 322 in 2023 and 328 in 2022.

We anticipate that our overall expense (cost of revenues and operating expenses) will continue to increase in 2025 but at a significantly lower growth rate than our topline growth, at a range of 2%-6%.

Research and development expenses, net of related government grants and French research tax benefits applicable to CIR, were 67.0% of our total revenues for 2024, as compared with 74.6% for 2023 and 58.3% for 2022. We recorded research grants under funding programs of $1,407,000 in 2024, compared with $1,668,000 in 2023 and $4,850,000 in 2022. We recorded UK tax credits and CIR benefits of $2,954,000, $2,641,000 and $2,316,000 for 2024, 2023 and 2022, respectively.

Research and development expenses consist primarily of salaries and associated costs, facilities expenses associated with research and development activities, project-related expenses connected with the development of our IP which are expensed as incurred, and non-cash equity-based compensation expenses. Non-cash equity-based compensation expenses included in research and development expenses, net for the years 2024, 2023 and 2022 were $9,298,000, $9,133,000 and $8,259,000, respectively. Research and development expenses are net of related government research grants, UK tax credits and research tax benefits applicable to CIR. We view research and development as a principal strategic investment and have continued our commitment to invest heavily in this area, which represents the largest of our ongoing operating expenses. We will need to continue to invest in research and development and such expenses may increase in the future to keep pace with new trends in our industry.

Sales and Marketing Expenses

	2022	2023	2024
Sales and marketing expenses (in millions)	$ 11.5	$ 11.0	$ 12.6
Change year-on-year	—	*(3.8)%*	*14.3%*

The increase in sales and marketing expenses for 2024 as compared to 2023 principally reflected higher commission expenses and higher salaries and employee-related costs. The decrease in sales and marketing expenses for 2023 as compared to 2022 principally reflected lower salary and employee related costs, mainly associated with a one-time separation charge recorded in 2022 as a result of the departure of our former executive vice president of worldwide sales.

Sales and marketing expenses as a percentage of our total revenues were 11.8% for 2024, as compared with 11.3% for 2023 and 9.5% for 2022. The total number of sales and marketing personnel was 34 in 2024, as compared with 29 in 2023 and 36 in 2022. Sales and marketing expenses consist primarily of salaries, commissions, travel and other costs associated with sales and marketing activities, as well as advertising, trade show participation, public relations and other marketing costs and non-cash equity-based compensation expenses. Non-cash equity-based compensation expenses included in sales and marketing expenses for the years 2024, 2023 and 2022 were $1,801,000, $1,776,000 and $1,503,000, respectively.

General and Administrative Expenses

	2022	2023	2024
General and administrative expenses (in millions)	$ 14.2	$ 14.9	$ 16.9
Change year-on-year	—	*5.1%*	*13.2%*

The increase in general and administrative expenses for 2024 as compared to 2023 principally reflected higher allowance for credit losses. The increase in general and administrative expenses for 2023 as compared to 2022 principally reflected higher professional services cost and higher non-cash equity-based compensation expenses, partially offset with lower salaries and related costs.

General and administrative expenses as a percentage of our total revenues were 15.8% for 2024, as compared with 15.3% for 2023 and 11.8% for 2022. The total number of general and administrative personnel was 45 in 2024, as compared with 45 in 2023 and 46 in 2022. General and administrative expenses consist primarily of fees for directors, salaries for management and administrative employees, accounting and legal fees, expenses related to investor relations and facilities expenses associated with general and administrative activities, allowance for credit losses and non-cash equity-based compensation expenses. Non-cash equity-based compensation expenses included in general and administrative expenses for the years 2024, 2023 and 2022 were $3,763,000, $3,795,000 and $2,888,000, respectively.

Amortization of Intangible Assets

Our amortization charges were $0.6 million, $0.6 million and $2.0 million for 2024, 2023 and 2022 respectively. The amortization charges in both 2024 and 2023 were incurred in connection with the amortization of intangible assets associated with the acquisition of the Hillcrest Labs and VisiSonics business. The amortization charges in 2022 were incurred in connection with the amortization of intangible assets associated with the acquisition of the Hillcrest Labs and the strategic investment in Immervision. As of December 31, 2024, the net amount of intangible assets associated with the acquisitions was $1.1 million.

Impairment of Assets

In 2022, we recorded an impairment charge of $3.6 million with respect to Immervision technology acquired in August 2019, as we decided to cease the development of this product line.

Financial Income, net

	2022	2023	2024
		(in millions)	
Financial income, net	$ 2.81	$ 5.26	$ 4.88
of which:			
Interest income and gains and losses from marketable securities, net	$ 2.74	$ 4.57	$ 5.89
Foreign exchange gain (loss)	$ 0.07	$ 0.69	$ (1.01)

Financial income, net, consists of interest earned on investments, gains and losses from sale of marketable securities, accretion (amortization) of discount (premium) on marketable securities and foreign exchange movements.

The increase in interest income and gains and losses from marketable securities, net, for 2024 as compared to 2023 principally reflected higher combined cash, bank deposits and marketable securities balances held (mainly because of cash received from the sale of Intrinsix in October 2023) and higher yields. The increase in interest income and gains and losses from marketable securities, net, for 2023 as compared to 2022 reflected higher yields, offset with lower combined cash, bank deposits and marketable securities balances held.

We review our monthly expected major non-U.S. dollar denominated expenditures and look to hold equivalent non-U.S. dollar cash balances to mitigate currency fluctuations. However, our Euro cash balances increase significantly on a quarterly basis beyond our Euro liabilities, mainly from the French research tax benefits applicable to CIR, which is generally refunded every three years. This has resulted in a foreign exchange loss of $1.01 million (due to the devaluation of our Euro cash balances as the U.S. dollar strengthened significantly during this period as compared to the Euro), a foreign exchange gain of $0.69 million and a foreign exchange gain of $0.07 million for 2024, 2023 and 2022, respectively.

Remeasurement of Marketable Equity Securities

We recorded a loss of $0.1 million, a loss of $0.0 million, and a loss of $2.5 million in 2024, 2023 and 2022, respectively, related to remeasurement of marketable equity securities. Over time, other income (expense), net, may be affected by market dynamics and other factors. Equity values generally change daily for marketable equity securities and upon the occurrence of observable price changes or upon impairment of marketable equity securities. In addition, volatility in the global economic climate and financial markets could result in a significant change in the value of our investments.

Provision for Income Taxes

During the years 2024, 2023 and 2022, we recorded tax expenses of $6.0 million, $10.2 million and $18.1 million, respectively.

The decrease in provision for income taxes in 2024 as compared to 2023 principally reflected (1) a charge in 2023 to our deferred tax assets in the US, primarily related to a reduction of estimated forecasted GILTI inclusions, and (2) lower tax expenses on income generated in our French subsidiary (under the French IP Box regime). The decrease in provision for income taxes in 2023 as compared to 2022 principally reflected the impact of a charge to record a valuation allowance in 2022 due to a change in the estimation for taxable income for future years of our Israeli operations (as further described below), offset with a charge to our deferred tax assets in the U.S. primarily related to a reduction of estimated forecasted GILTI inclusions, and additional tax charges as a result of the completion of a tax audit in a certain foreign tax jurisdiction.

In 2022, based on the weight of available positive and negative evidence, we recorded a valuation allowance for certain deferred tax assets (including withholding tax assets) of our Israeli subsidiary due to uncertainty regarding its future taxable income. In assessing the realizability of deferred tax assets, the key assumptions used to determine positive and negative evidence included the Company's cumulative taxable loss for the past three years, current trends related to actual taxable earnings or losses, and expected future reversals of existing taxable temporary differences, as well as projections for future annual results. Accordingly, we recorded a charge of $15.6 million in 2022 as a reserve against our deferred tax assets.

We are subject to income and other taxes in the United States and in numerous foreign jurisdictions. Our domestic and foreign tax liabilities are dependent on the jurisdictions in which profits are determined to be earned and taxed. Additionally, the amount of taxes paid is subject to our interpretation of applicable tax laws in the jurisdictions in which we operate. A number of factors influence our effective tax rate, including changes in tax laws and treaties as well as the interpretation of existing laws and rules. Federal, state, and local governments and administrative bodies within the United States, and other foreign jurisdictions have implemented, or are considering, a variety of broad tax, trade, and other regulatory reforms that may impact us. For example, the Tax Cuts and Jobs Act (the "U.S. Tax Reform") enacted on December 22, 2017 resulted in changes in our corporate tax rate, our deferred income taxes, and the taxation of foreign earnings. It is not currently possible to accurately determine the potential comprehensive impact of future changes, but these changes could have a material impact on our business and financial condition.

We have significant operations in Israel and operations in France and the Republic of Ireland. A substantial portion of our taxable income is generated in Israel and France, as well as potentially in the U.S. due to GILTI and the requirement to capitalize research and development expenditures under IRC Section 174 over 5 years if sourced from the U.S. and over 15 years if sourced internationally. Although our Israeli, French and Irish subsidiaries are taxed at rates substantially lower than U.S. tax rates, the tax rates in these jurisdictions could nevertheless result in a substantial increase as a result of withholding tax expenses with respect to which we are unable to obtain a refund from the relevant tax authorities.

Our Irish subsidiary qualified for a 12.5% tax rate on its trade. Interest income generated by our Irish subsidiary is taxed at a rate of 25%.

Our French subsidiary is entitled to a tax benefit of 10% applied to specific revenues under the French IP Box regime. The French IP Box regime applies to net income derived from the licensing, sublicensing or sale of several IP rights such as patents and copyrighted software, including royalty revenues. This elective regime requires a direct link between the income benefiting from the preferential treatment and the research and development expenditures incurred and contributing to that income. Qualifying income may be taxed at a favorable 10% CIT rate (plus social surtax, hence 10.3% in total). Income not eligible for a tax benefit under the French IP Box regime is taxed at a regular rate of 25%.

Our Israeli subsidiary is entitled to various tax benefits as a technological enterprise. In December 2016, the Economic Efficiency Law (Legislative Amendments for Applying the Economic Policy for the 2017 and 2018 Budget Years), 2016, which includes the Amendment to the Law for the Encouragement of Capital Investments, 1959 (Amendment 73) (the "Amendment"), was published. The Amendment, among other things, prescribes special tax tracks for technological enterprises, which are subject to rules that were issued by the Minister of Finance in April 2017.

The tax track under the Amendment, which is applicable to our Israeli subsidiary, is the "Technological Preferred Enterprise". Technological Preferred Enterprise is an enterprise for which total consolidated revenues of its parent company and all subsidiaries are less than 10 billion New Israeli Shekel (NIS). A Technological Preferred Enterprise, as defined in the Amendment, that is located in the center of Israel (where our Israeli subsidiary is currently located), is taxed at a rate of 12% on profits deriving from IP. Any dividends distributed to "foreign companies", as defined in the Amendment, deriving from income from technological enterprises will be taxed at a rate of 4%.

To maintain our Israeli subsidiary's eligibility for the above tax benefits, it must continue to meet certain conditions under the Investment Law. Should our Israeli subsidiary fail to meet such conditions in the future, these benefits would be cancelled and it would be subject to corporate tax in Israel at the standard corporate rate and could be required to refund tax benefits already received, with interest and adjustments for inflation based on the Israeli consumer price index.

For more information about our provision for income taxes, see Note 14 to the attached Notes to Consolidated Financial Statement for the year ended December 31, 2024.

LIQUIDITY AND CAPITAL RESOURCES

As of December 31, 2024, we had approximately $18.5 million in cash and cash equivalents, $2.0 million in short term bank deposits and $143.1 million in marketable securities, totaling $163.6 million, as compared to $166.5 million at December 31, 2023. The decrease in 2024 as compared to 2023 principally reflected funds used to repurchase 375,219 shares of common stock for an aggregate consideration of approximately $8.5 million, partially offset by cash used in operating activities and unrealized investment gain on marketable securities of approximately $2.2 million.

Out of total cash, cash equivalents, bank deposits and marketable securities of $163.6 million at year end 2024, $135.1 million was held by our foreign subsidiaries. Our intent is to permanently reinvest earnings of our foreign subsidiaries and our current operating plans do not demonstrate a need to repatriate foreign earnings to fund our U.S. operations. However, if these funds were needed for our operations in the United States, we would be required to accrue and pay taxes to repatriate these funds. The determination of the amount of additional taxes related to the repatriation of these earnings is not practicable, as it may vary based on various factors such as the location of the cash and the effect of regulation in the various jurisdictions from which the cash would be repatriated. Moving off-shore cash to our U.S. entity would result in significant additional tax expenses.

During 2024, we invested $48.9 million of cash in bank deposits and marketable securities with maturities up to 34 months from the balance sheet date. In addition, during the same period, bank deposits and marketable securities were sold or redeemed for cash amounting to $49.6 million. During 2023, we invested $42.0 million of cash in bank deposits and marketable securities with maturities up to 36 months from the balance sheet date. In addition, during the same period, bank deposits and marketable securities were sold or redeemed for cash amounting to $28.8 million. During 2022, we invested $63.9 million of cash in bank deposits and marketable securities with maturities up to 45 months from the balance sheet date. In addition, during the same period, bank deposits and marketable securities were sold or redeemed for cash amounting to $52.3 million. All of our marketable securities are classified as available-for-sale. The purchase and sale or redemption of available-for-sale marketable securities are considered part of investing cash flow. Available-for-sale marketable securities are stated at fair value, with unrealized gains and losses reported in accumulated other comprehensive income (loss), a separate component of stockholders' equity, net of taxes. Realized gains and losses on sales of investments, as determined on a specific identification basis, are included in the consolidated statements of income (loss). The amount of credit losses recorded for the twelve months ended December 31, 2024, 2023, and 2022, was immaterial. For more information about our marketable securities, see Notes 1 and 3 to the attached Notes to Consolidated Financial Statement for the year ended December 31, 2024.

Short-term bank deposits are deposits with maturities of more than three months but no longer than one year from the balance sheet date. Bank deposits are presented at their cost, including accrued interest, and purchases and sales are considered part of cash flows from investing activities.

Operating Activities

Cash provided by operating activities in 2024 was $3.5 million and consisted of a net loss of $8.8 million, adjustments for non-cash items of $20.0 million, and changes in operating assets and liabilities of $7.7 million. Adjustments for non-cash items primarily consisted of $4.1 million of depreciation and amortization of intangible assets, and $15.6 million of equity-based compensation expenses. The decrease in cash from changes in operating assets and liabilities primarily consisted of an increase in trade receivables, net of $6.8 million, and an increase in prepaid expenses and other current assets of $4.8 million (mainly related to unbilled receivables of $2.6 million classified as "other long-term assets" in our consolidated balance sheets), partially offset by an increase in accrued payroll and related benefits of $2.7 million.

Cash used in operating activities in 2023 was $6.3 million and consisted of a net loss of $11.9 million, adjustments for non-cash items of $8.8 million, and changes in operating assets and liabilities of $3.2 million. Adjustments for non-cash items primarily consisted of $4.9 million of depreciation and amortization of intangible assets (including $1.1 million from discontinued operations), $16.2 million of equity-based compensation expenses (including $0.7 million from discontinued operations), and $11.6 million of gain on sale of Intrinsix. The decrease in cash from changes in operating assets and liabilities primarily consisted of an increase in prepaid expenses and other current assets of $4.9 million, a decrease in accrued payroll and related benefits of $3.7 million, and a decrease in trade payables of $0.8 million, partially offset by a decrease in deferred taxes, net of $6.7 million.

Cash provided by operating activities in 2022 was $6.9 million and consisted of a net loss of $23.2 million, adjustments for non-cash items of $28.2 million, and changes in operating assets and liabilities of $1.9 million. Adjustments for non-cash items primarily consisted of $7.6 million of depreciation and amortization of intangible assets (including $2.2 million from discontinued operations), $14.5 million of equity-based compensation expenses (including $1.2 million from discontinued operations), $2.5 million of remeasurement of marketable equity securities, and $3.6 million of impairment of intangible assets with respect to Immervision technology acquired in August 2019, as we decided to cease the development of this product line. The increase in cash from changes in operating assets and liabilities primarily consisted of a decrease in deferred taxes, net of $7.8 million (primarily reflect the impact of a charge to record a valuation allowance in 2022), an increase in trade payable of $0.5 million, an increase in accrued payroll and related benefits of $1.0 million, and an increase in accrued expenses and other payables, including income taxes payable, of $2.5 million, partially offset by an increase of trade receivables of $3.8 million, an increase of prepaid expenses and other assets of $1.1 million, and a decrease in deferred revenues of $5.5 million.

Cash flows from operating activities may vary significantly from quarter to quarter depending on the timing of our receipts and payments. Our ongoing cash outflows from operating activities principally relate to payroll-related costs and obligations under our property leases and design tool licenses. Our primary sources of cash inflows are receipts from our accounts receivable, to some extent interest earned from our cash, deposits and marketable securities. The timing of receipts of accounts receivable from customers is based upon the completion of agreed milestones or agreed dates as set out in the contracts.

Investing Activities

Net cash used in investing activities in 2024 was $2.4 million, as compared to net cash provided by investing activities of $10.8 million in 2023 and net cash used in investing activities of $15.1 million in 2022. We had a cash outflow of $46.9 million with respect to investments in marketable securities and a cash inflow of $39.6 million with respect to maturity, and sale, of marketable securities during 2024. Included in the cash inflow during 2024 was net proceeds of $8.0 million from bank deposits. We had a cash outflow of $40.0 million with respect to investments in marketable securities and a cash inflow of $22.8 million with respect to maturity, and sale, of marketable securities during 2023. Included in the cash inflow during 2023 was net proceeds of $4.0 million from bank deposits. We had a cash outflow of $49.9 million with respect to investments in marketable securities and a cash inflow of $21.4 million with respect to maturity, and sale, of marketable securities during 2022. Included in the cash inflow during 2022 was net proceeds of $16.9 million from bank deposits. Capital equipment purchases of computer hardware and software used in engineering development, furniture and fixtures amounted to approximately $3.0 million in 2024, $2.9 million in 2023 and $3.5 million in 2022. In 2024 and 2023, we had a cash inflow of $0.5 million and $30.6 million, respectively, following the sale of Intrinsix. We had a cash outflow of $0.8 million in 2024 for the acquisition of a Greek-based company and a cash outflow of $3.6 million in 2023 for the acquisition of VisiSonics.

Financing Activities

Net cash used in financing activities in 2024 was $5.6 million, as compared to net cash used in financing activities of $2.8 million in 2023 and net cash used in financing activities of $3.3 million in 2022.

In August 2008, we announced that our board of directors approved a share repurchase program for up to one million shares of common stock which was further extended collectively by an additional 7,100,000 shares in 2010, 2013, 2014, 2018, 2020 and 2023. In November 2024, our board of directors authorized the repurchase by us of an additional 700,000 shares of common stock pursuant to Rule 10b-18 of the Exchange Act. In 2024, we repurchased 375,219 shares of common stock pursuant to our share repurchase program at an average purchase price of $22.54 per share, for an aggregate purchase price of $8.5 million. In 2023, we repurchased 278,799 shares of common stock pursuant to our share repurchase program at an average purchase price of $22.11 per share, for an aggregate purchase price of $6.2 million. In 2022, we repurchased 218,809 shares of common stock pursuant to our share repurchase program at an average purchase price of $31.01 per share, for an aggregate purchase price of $6.8 million.

In 2024, 2023 and 2022, we received $2.9 million, $3.4 million and $3.5 million, respectively, from the exercise of stock-based awards.

We believe that our cash and cash equivalent, short-term bank deposits and marketable securities, along with cash from operations, will provide sufficient capital to fund our operations for at least the next 12 months. We cannot provide assurance, however, that the underlying assumed levels of revenues and expenses will prove to be accurate.

In addition, as part of our business strategy, we occasionally evaluate potential acquisitions of businesses, products and technologies and minority equity investments. Accordingly, a portion of our available cash may be used at any time for the acquisition of complementary products or businesses or minority equity investments. Such potential transactions may require substantial capital resources, which may require us to seek additional debt or equity financing. We cannot assure you that we will be able to successfully identify suitable acquisition or investment candidates, complete acquisitions or investments, integrate acquired businesses into our current operations, or expand into new markets. Furthermore, we cannot provide assurance that additional financing will be available to us in any required time frame and on commercially reasonable terms, if at all. See "Risk Factors—We may seek to expand our business in ways that could result in diversion of resources and extra expenses." for more detailed information.

Contractual Obligations

The table below presents the principal categories of our contractual obligations as of December 31, 2024:

	Payments Due by Period ($ in thousands)		
	Total	**Less than 1 year**	**1-3 years**
Operating Lease Obligations – Leasehold properties	818	551	267
Purchase Obligations – design tools	4,693	4,144	549
Other purchase Obligations	1,317	1,317	—
Total	6,828	6,012	816

Operating leasehold obligations principally relate to our offices in Israel, Ireland, United Kingdom, France, China, Japan, Serbia, Sweden and the United States. Purchase obligations relate to license agreements entered into for maintenance of design tools. Other purchase obligations consist of capital and operating purchase order commitments. Other than set forth in the table above, we have no long-term debt or capital lease obligations.

At December 31, 2024, our income tax payable, net of withholding tax credits, included $462,000 related to uncertain tax positions. Due to uncertainties in the timing of the completion of tax audits, the timing of the resolution of these positions is uncertain and we are unable to make a reasonably reliable estimate of the timing of payments. As a result, this amount is not included in the above table.

In addition, at December 31, 2024, the amount of accrued severance pay was $7,365,000. Severance pay relates to accrued severance obligations to our Israeli employees as required under Israeli labor laws. These obligations are payable only upon termination, retirement or death of the respective employee. Of this amount, $204,000 is unfunded.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

A majority of our revenues and a portion of our expenses are transacted in U.S. dollars and our assets and liabilities together with our cash holdings are predominately denominated in U.S. dollars. However, the majority of our expenses are denominated in currencies other than the U.S. dollar, principally the NIS and the EURO. Increases in volatility of the exchange rates of currencies other than the U.S. dollar versus the U.S. dollar could have an adverse effect on the expenses and liabilities that we incur when remeasured into U.S. dollars. We review our monthly expected non-U.S. dollar denominated expenditures and look to hold equivalent non-U.S. dollar cash balances to mitigate currency fluctuations. However, our Euro cash balances increase significantly on a quarterly basis beyond our Euro liabilities, mainly from French research tax benefits applicable to the CIR, which is generally refunded every three years. This has resulted in a foreign exchange loss of $1.01 million (due to the devaluation of our Euro cash balances as the U.S. dollar strengthened significantly during this period as compared to the Euro), a foreign exchange gain of $0.69 million and a foreign exchange gain of $0.07 million for 2024, 2023 and 2022, respectively.

As a result of currency fluctuations and the remeasurement of non-U.S. dollar denominated expenditures to U.S. dollars for financial reporting purposes; we may experience fluctuations in our operating results on an annual and quarterly basis. To protect against the increase in value of forecasted foreign currency cash flow resulting from salaries paid in currencies other than the U.S. dollar during the year, we follow a foreign currency cash flow hedging program. We hedge portions of the anticipated payroll for our non-U.S. employees denominated in currencies other than the U.S. dollar for a period of one to twelve months with forward and option contracts. During 2024, 2023 and 2022, we recorded accumulated other comprehensive loss of $988,000, accumulated other comprehensive gain of $1,095,000 and accumulated other comprehensive loss of $162,000, respectively, from our forward and option contracts, net of taxes, with respect to anticipated payroll expenses for our non-U.S. employees. As of December 31, 2024, the amount of other comprehensive gain (loss) from our forward and option contracts, net of taxes, was $0. We recognized a net gain of $0.91 million, a net loss of $1.08 million and a net loss of $1.29 million for 2024, 2023 and 2022, respectively, related to forward and options contracts. We note that hedging transactions may not successfully mitigate losses caused by currency fluctuations. We expect to continue to experience the effect of exchange rate and currency fluctuations on an annual and quarterly basis.

The majority of our cash and cash equivalents are invested in high grade certificates of deposits with major U.S., European and Israeli banks. Generally, cash and cash equivalents and bank deposits may be redeemed and therefore minimal credit risk exists with respect to them. Nonetheless, deposits with these banks exceed the Federal Deposit Insurance Corporation (FDIC) insurance limits or similar limits in foreign jurisdictions, to the extent such deposits are even insured in such foreign jurisdictions. While we monitor on a systematic basis the cash and cash equivalent balances in the operating accounts and adjust the balances as appropriate, these balances could be impacted if one or more of the financial institutions with which we deposit our funds fails or is subject to other adverse conditions in the financial or credit markets. To date, we have experienced no loss of principal or lack of access to our invested cash or cash equivalents; however, we can provide no assurance that access to our invested cash and cash equivalents will not be affected if the financial institutions that we hold our cash and cash equivalents fail.

We hold an investment portfolio consisting principally of corporate bonds. We have the ability to hold such investments until recovery of temporary declines in market value or maturity. As of December 31, 2024, the unrealized losses associated with our investments were approximately $1.5 million due to the dramatic changes in the interest rate environment that took place in 2022. As we hold such bonds with unrealized losses to recovery, no credit loss was recognized during 2024. However, we can provide no assurance that we will recover present declines in the market value of our investments.

Interest income and gains and losses from marketable securities, net, were $5.89 million in 2024, $4.57 million in 2023 and $2.74 million in 2022. The increase in interest income and gains and losses from marketable securities, net, for 2024 as compared to 2023 principally reflected higher combined cash, bank deposits and marketable securities balances held (mainly because of cash received from the sale of Intrinsix in October 2023) and higher yields. The increase in interest income and gains and losses from marketable securities, net, for 2023 as compared to 2022 reflected higher yields, offset with lower combined cash, bank deposits and marketable securities balances held.

We are exposed primarily to fluctuations in the level of U.S. interest rates. To the extent that interest rates rise, fixed interest investments may be adversely impacted, whereas a decline in interest rates may decrease the anticipated interest income for variable rate investments. We typically do not attempt to reduce or eliminate our market exposures on our investment securities because the majority of our investments are short-term. We currently do not have any derivative instruments but may put them in place in the future. Fluctuations in interest rates within our investment portfolio have not had, and we do not currently anticipate such fluctuations will have, a material effect on our financial position on an annual or quarterly basis.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

See the Index to Financial Statements and Supplementary Data on page F-1.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

Not Applicable.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures.

As of the end of the period covered by this report, we carried out an evaluation, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of December 31, 2024.

There has been no change in our internal control over financial reporting that occurred during our most recent fiscal quarter that has materially affected or is reasonably likely to materially affect our internal control over financial reporting.

Management's Annual Report on Internal Control Over Financial Reporting.

Our management is responsible for establishing and maintaining adequate internal control over the company's financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934. Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. There are inherent limitations in the effectiveness of any internal control, including the possibility of human error and the circumvention or overriding of controls. Accordingly, even effective internal controls can provide only reasonable assurances with respect to financial statement preparation. Further because of changes in conditions, the effectiveness of internal controls may vary over time such that the degree of compliance with the policies or procedures may deteriorate.

Management assessed the effectiveness of our internal control over financial reporting as of December 31, 2024. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (2013 Framework) (COSO) in Internal Control-Integrated Framework. Based on its assessment using those criteria, management believes that our internal control over financial reporting was effective as of December 31, 2024.

Our independent registered public accountants audited the financial statements included in this Annual Report on Form 10-K and have issued a report concurring with management's assessment of the company's effective internal control over financial reporting, which appears in Item 8 of this Annual Report.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information regarding our executive officers required by this item is contained in Part I of this annual report. All other information required by this item, including required information our directors, committee membership, the identification of the Audit Committee Financial Expert, our code of business conduct and ethics, our insider trading policy, stockholder nominations of directors and compliance with Section 16(a) of the Securities Exchange Act of 1934 is also incorporated herein by reference to the 2025 Proxy Statement.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this item is incorporated herein by reference to the 2025 Proxy Statement.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCK HOLDER MATTERS

The information required by this item is incorporated herein by reference to the 2025 Proxy Statement.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this item is incorporated herein by reference to the 2025 Proxy Statement.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by this item is incorporated herein by reference to the 2025 Proxy Statement.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) *The following documents are filed as part of or are included in this Annual Report on Form 10-K:*

1. Financial Statements:

- Consolidated Balance Sheets as of December 31, 2024 and 2023
- Consolidated Statements of Loss for the Years Ended December 31, 2024, 2023 and 2022.
- Consolidated Statements of Comprehensive Income (Loss) for the Years Ended December 31, 2024, 2023 and 2022.
- Statements of Changes in Stockholders' Equity for the Years Ended December 31, 2024, 2023 and 2022.
- Consolidated Statements of Cash Flows for the Years Ended December 31, 2024, 2023 and 2022.
- Notes to the Consolidated Financial Statements.

2. Financial Statement Schedules:

Other financial statement schedules have been omitted since they are either not required or the information is otherwise included.

3. Exhibits:

The exhibits filed as part of this Annual Report on Form 10-K are listed on the exhibit index immediately preceding such exhibits, which exhibit index is incorporated herein by reference. Some of these documents have previously been filed as exhibits with the Securities and Exchange Commission and are being incorporated herein by reference to such earlier filings. Our file number under the Securities Exchange Act of 1934 is 000-49842.

INDEX TO EXHIBITS

EXHIBIT NUMBER	EXHIBIT DESCRIPTION	FORM	FILE NO.	EXHIBIT NUMBER	FILING DATE	FILED HEREWITH
2.1	Agreement and Plan of Merger, dated May 9, 2021, by and among the Registrant, Northstar Merger Sub, Inc. Intrinsix Corp., and Shareholder Representative Services LLC	8-K	000-49842	2.1	May 9, 2021	
2.2	Share Purchase Agreement, dated September 14, 2023, between Ceva, Inc., Intrinsix Corp. and Cadence Design Systems, Inc.	8-K	000-49842	2.1	September 20, 2023	
3.1	Amended and Restated Certificate of Incorporation of the Registrant	10	000-49842	3.1	June 3, 2002	
3.2	Certificate of Ownership and Merger (merging Ceva, Inc. into ParthusCeva, Inc.)	8-K	000-49842	3.1	December 8, 2003	

3.3	Amended and Restated Bylaws of the Registrant	8-K	000-49842	3.1	October 31, 2019
3.4	Amendment to the Amended and Restated Certificate of Incorporation of the Registrant	8-K	000-49842	3.1	July 22, 2005
3.5	Amendment to the Amended and Restated Certificate of Incorporation of the Registrant	10-K	000-49842	3.5	February 28, 2020
3.6	Amended and Restated Bylaws of the Registrant	8-K	000-49842	3.1	November 7, 2023
4.1	Specimen of Common Stock Certificate	S-1	333-97353	4.1	July 30, 2002
4.2	Description of Securities	10-K	000-49842	4.2	February 28, 2020
10.1†	Ceva, Inc. 2003 Director Stock Option Plan	10-K	000-49842	10.8	March 15, 2012
10.2†	Ceva, Inc. Amended and Restated 2002 Employee Stock Purchase Plan	10-Q	000-49842	4.6	August 10, 2020
10.3†	First Amendment to Ceva, Inc. Amended and Restated 2002 Employee Stock Purchase Plan	8-K	000-49842	10.1	November 7, 2023
10.4	Form of Indemnification Agreement	10	000-49842	10.13	June 3, 2002
10.5†	Employment Agreement between the Registrant and Amir Panush dated as of November 7, 2022	8-K	000-49842	10.3	November 9, 2022
10.6†	Personal and Special Employment Agreement between the Registrant and Yaniv Arieli dated as of August 18, 2005	10-Q	000-49842	10.1	November 9, 2005
10.7†	Amendment, dated November 6, 2013, to the Employment Agreement between the Registrant and Yaniv Arieli dated as of August 18, 2005	8-K	000-49842	10.1	November 8, 2013
10.8†	Second Amendment, dated February 18, 2021, to the Employment Agreement between the Registrant and Yaniv Arieli dated as of August 18, 2005	8-K	000-49842	10.3	February 18, 2021

10.9†	Third Amendment, dated November 7, 2022, to the Employment Agreement between the Registrant and Yaniv Arieli dated as of August 18, 2005	8-K	000-49842	10.5	November 9, 2022
10.10†	Fourth Amendment, dated April 1, 2024, to the Employment Agreement between the Registrant and Yaniv Arieli dated as of August 18, 2005	8-K	000-49842	10.1	April 5, 2024
10.11†	Employment Agreement between the Registrant and Michael Boukaya dated as of April 4, 2019.	8-K	000-49842	10.1	April 9, 2019
10.12†	Amendment, dated February 18, 2021, to the Employment Agreement between the Registrant and Michael Boukaya dated as of April 4, 2019.	8-K	000-49842	10.4	February 18, 2021
10.13†	Second Amendment, dated November 7, 2022, to the Employment Agreement between the Registrant and Michael Boukaya dated as of April 4, 2019	8-K	000-49842	10.4	November 9, 2022
10.13†	Form of Nonstatutory Stock Option Agreement under the Ceva, Inc. 2003 Director Stock Option Plan	10-Q	000-49842	10.26	August 9, 2006
10.14†	Employment Agreement between the Registrant and Gweltaz Toquet dated as of May 11, 2021	8-K	000-49842	10.3	December 12, 2022
10.16†	Addendum, dated December 7, 2022, to the Employment Agreement between the Registrant and Gweltaz Toquet dated as of May 11, 2021	8-K	000-49842	10.2	December 12, 2022
10.17†	Ceva, Inc. Amended and Restated 2011 Stock Incentive Plan	10-Q	000-49842	10.1	August 9, 2022
10.18†	First Amendment to Ceva, Inc. Amended and Restated 2011 Stock Incentive Plan	10-K	000-49842	10.17	March 7, 2024
10.19†	Form of Stock Appreciation Right Agreement under the Ceva, Inc. 2011 Stock Incentive Plan	10-K	000-49842	10.26	March 11, 2016
10.20†	Form of Israeli Stock Appreciation Right Agreement under the Ceva, Inc. 2011 Stock Incentive Plan	10-K	000-49842	10.27	March 11, 2016
10.21†	Form of Israeli Restricted Stock Unit Agreement for employees under the Ceva, Inc. 2011 Stock Incentive Plan	10-K	000-49842	10.28	March 11, 2016
10.22†	Form of Restricted Stock Unit Agreement for employees under the Ceva, Inc. 2011 Stock Incentive Plan	10-K	000-49842	10.29	March 11, 2016
10.23†	Form of Restricted Stock Unit Agreement for non-employee directors under the Ceva, Inc. 2011 Stock Incentive Plan	10-K	000-49842	10.30	March 11, 2016

10.24†	Form of Restricted Stock Unit Agreement for Israeli non-employee directors under the Ceva, Inc. 2011 Stock Incentive Plan	10-K	000-49842	10.31	March 11, 2016	
10.25†	Israeli Sub-plan under the Ceva, Inc. 2011 Stock Incentive Plan	10-K	000-49842	10.32	March 11, 2016	
10.26#†	2024 Incentive Plan for Gweltaz Toquet, Chief Commercial Officer, effective as of January 1, 2024	8-K	000-49842	10.1	February 16, 2024	
10.27#†	2025 Incentive Plan for Gweltaz Toquet, Chief Commercial Officer, effective as of January 1, 2025	8-K	000-49842	10.1	February 14, 2025	
10.28#†	2023 Executive Bonus Plan for Amir Panush, Yaniv Arieli and Michael Boukaya, effective as of January 1, 2023	8-K	000-49842	N/A	February 21, 2023	
10.29#†	2024 Executive Bonus Plan for Amir Panush, Yaniv Arieli and Michael Boukaya, effective as of January 1, 2024	8-K	000-49842	N/A	February 16, 2024	
10.30#†	Form of Short-Term Executive PSUs for Israeli Executive Officers	8-K	000-49842	10.2	February 24, 2020	
10.31#†	Form of Short-Term Executive PSUs for U.S.-based Executive Officers	8-K	000-49842	10.3	February 24, 2020	
10.32†	Form of Long-Term Executive PSUs for Israeli Executive Officers.	8-K	000-49842	10.4	February 24, 2020	
10.33†	Form of Long-Term Executive PSUs for U.S.-based Executive Officers.	8-K	000-49842	10.5	February 24, 2020	
10.34†	2023 Inducement Award for Amir Panush	10-K	000-49842	10.40	March 1, 2023	
19	Insider Trading Policy					X
21.1	List of Subsidiaries					X
23.1	Consent of Kost Forer Gabbay & Kasierer, a member of EY Global					X
24.1	Power of Attorney (See signature page of this Annual Report on Form 10-K)					X
31.1	Rule 13a-14(a)/15d-14(a) Certification of Chief Executive Officer					X
31.2	Rule 13a-14(a)/15d-14(a) Certification of Chief Financial Officer					X
32	Section 1350 Certification of Chief Executive Officer and Chief Financial Officer					X
97	Ceva, Inc. Compensation Recoupment Policy	10-K	000-49842	97	March 7, 2024	
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 (formatted as Inline XBRL and contained in Exhibit 101)					

\# Confidential portions of this document have been redacted as permitted by applicable regulations.

† Management contract or compensatory plan or arrangement required to be filed as an exhibit pursuant to Item 15(b) of Form 10-K

ITEM 16. FORM 10-K SUMMARY

The Company has elected not to include summary information.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

CONSOLIDATED FINANCIAL STATEMENTS
AS OF DECEMBER 31, 2024

Kost Forer Gabbay & Kasierer
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Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of Ceva, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Ceva, Inc. (the "Company") as of December 31, 2024 and 2023, the related consolidated statements of loss, comprehensive income (loss), changes in stockholders' equity and cash flows for each of the three years in the period ended December 31, 2024, 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 at December 31, 2024 and 2023, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2024, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2024, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 27, 2025 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the 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 audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the 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 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 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 was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

	Revenue Recognition
Description of the Matter	As described in Note 1 to the consolidated financial statements, the Company generates a significant portion of its revenues from licensing intellectual property and related services. Most of the Company's contracts with customers contain multiple goods or services which are accounted for as separate performance obligations, if they are distinct. The transaction price is allocated to the separate performance obligations on a relative standalone selling price basis. Standalone selling prices of intellectual property licenses are typically estimated using the residual approach. Standalone selling prices of related services are typically estimated based on observable transactions when those services are sold on a standalone basis. Auditing the identification of performance obligations in the Company's contracts require certain judgments in determining whether products and services are considered distinct performance obligations. Auditing the allocation of the transaction price to performance obligations requires significant judgment particularly in determining whether the use of the residual approach to estimate the standalone selling prices of intellectual property licensing is appropriate.
How We Addressed the Matter in Our Audit	We obtained an understanding, evaluated the design and tested the operating effectiveness of internal controls related to the identification of distinct performance obligations, the determination of the standalone selling prices, including the Company’s assessment of the appropriateness of the residual approach method. Our audit procedures also included, among others, selecting a sample of customer contracts and reading contract source documents for each selection, including the executed contract and purchase order and evaluating the appropriateness of management’s identification and determination of distinct performance obligations. To test management’s determination of standalone selling price for each performance obligation, we performed procedures to evaluate the methodology applied, tested the accuracy of the underlying data and the calculations and the application of that methodology to a sample of contracts. Our testing of the residual approach application to estimate standalone selling prices of distinct intellectual property licenses included inquiries with management and the evaluation of whether the use of the residual approach is appropriate. Finally, we assessed the appropriateness of the related disclosures in the consolidated financial statements.

/s/ KOST FORER GABBAY & KASIERER
A Member of EY Global

We have served as the Company's auditor since 1999.

Haifa, Israel
February 27, 2025

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Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of Ceva, Inc.

Opinion on Internal Control Over Financial Reporting

We have audited Ceva, Inc.'s internal control over financial reporting as of December 31, 2024, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Ceva, Inc. (the "Company") maintained, in all material respects, effective internal control over financial reporting as of December 31, 2024, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2024 and 2023, the related consolidated statements of loss, comprehensive income (loss), changes in stockholders' equity and cash flows for each of the three years in the period ended December 31, 2024, and the related notes and our report dated February 27, 2025 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the 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 audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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

/s/ KOST FORER GABBAY & KASIERER
A Member of EY Global

Haifa, Israel
February 27, 2025

CEVA, INC.

CONSOLIDATED BALANCE SHEETS
(U.S. dollars in thousands, except share and per share data)

	December 31, 2023	December 31, 2024
ASSETS		
Current assets:		
Cash and cash equivalents	$ 23,287	$ 18,498
Short-term bank deposits	10,556	2,029
Marketable securities	132,695	143,117
Trade receivables (net of allowance for credit losses of $288 and $2,626 at December 31, 2023 and December 31, 2024, respectively)	30,307	37,209
Prepaid expenses and other current assets	12,526	15,488
Total current assets	209,371	216,341
Long-term assets:		
Severance pay fund	7,070	7,161
Deferred tax assets, net	1,609	1,456
Property and equipment, net	6,732	6,877
Operating lease right-of-use assets	6,978	5,811
Goodwill	58,308	58,308
Intangible assets, net	2,967	1,877
Investments in marketable equity securities	406	312
Other long-term assets	10,644	10,805
Total long-term assets	94,714	92,607
Total assets	$ 304,085	$ 308,948
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Trade payables	$ 1,154	$ 1,125
Deferred revenues	3,018	3,599
Accrued expenses and other payables	5,800	6,243
Accrued payroll and related benefits	14,402	16,964
Operating lease liabilities	2,513	2,598
Total current liabilities	26,887	30,529
Long-term liabilities:		
Accrued severance pay	7,524	7,365
Operating lease liabilities	3,943	2,963
Other accrued liabilities	1,390	1,535
Total long-term liabilities	12,857	11,863
Stockholders' equity:		
Preferred stock:		
$0.001 par value: 5,000,000 shares authorized; none issued and outstanding	—	—
Common stock:		
$0.001 par value: 45,000,000 shares authorized; 23,695,190 and 23,756,255 shares issued at December 31, 2023 and December 31, 2024, respectively; 23,440,848 and 23,626,865 shares outstanding at December 31, 2023 and 2024, respectively	23	24
Additional paid in-capital	252,100	259,891
Treasury stock at cost (254,342 and 129,390 shares of common stock at December 31, 2023 and 2024, respectively)	(5,620)	(3,222)
Accumulated other comprehensive loss	(2,329)	(1,330)
Retained earnings	20,167	11,193
Total stockholders' equity	264,341	266,556
Total liabilities and stockholders' equity	$ 304,085	$ 308,948

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

CEVA, INC.

CONSOLIDATED STATEMENTS OF LOSS
(U.S. dollars in thousands, except per share data)

	Year Ended December 31, 2022	2023	2024
Revenues:			
Licensing and related revenues	$ 75,194	$ 57,555	$ 59,999
Royalties	45,389	39,864	46,940
Total revenues	120,583	97,419	106,939
Cost of revenues	15,131	11,648	12,768
Gross profit	105,452	85,771	94,171
Operating expenses:			
Research and development, net	70,317	72,689	71,616
Sales and marketing	11,475	11,042	12,624
General and administrative	14,183	14,913	16,877
Amortization of intangible assets	2,025	594	599
Impairment of long-lived assets	3,556	—	—
Total operating expenses	101,556	99,238	101,716
Operating income (loss)	3,896	(13,467)	(7,545)
Financial income, net	2,812	5,264	4,884
Remeasurement of marketable equity securities	(2,511)	(2)	(94)
Income (loss) before taxes on income	4,197	(8,205)	(2,755)
Taxes on income	18,075	10,232	6,031
Net loss from continuing operations	(13,878)	(18,437)	(8,786)
Net Income (loss) from discontinued operations	(9,305)	6,559	—
Net loss	$ (23,183)	$ (11,878)	$ (8,786)
Basic net income (loss) per share:			
From continuing operations	$ (0.60)	$ (0.79)	$ (0.37)
From discontinued operations	$ (0.40)	$ 0.28	$ —
Basic net loss per share	$ (1.00)	$ (0.51)	$ (0.37)
Diluted net income (loss) per share:			
From continuing operations	$ (0.60)	$ (0.79)	$ (0.37)
From discontinued operations	$ (0.40)	$ 0.28	$ —
Diluted net loss per share	$ (1.00)	$ (0.51)	$ (0.37)
Weighted average shares used to compute net income (loss) per share (in thousands):			
Basic	23,172	23,484	23,613
Diluted	23,172	23,484	23,613

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

CEVA, INC.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(U.S. dollars in thousands)

	Year Ended December 31,		
	2022	2023	2024
Net loss:	$ (23,183)	$ (11,878)	$ (8,786)
Other comprehensive income (loss) before tax:			
Available-for-sale securities:			
Changes in unrealized gains (losses)	(6,323)	3,222	2,222
Reclassification adjustments included in net loss	55	(90)	(14)
Net change	(6,268)	3,132	2,208
Cash flow hedges:			
Changes in unrealized gains (losses)	(1,461)	16	(74)
Reclassification adjustments included in net loss	1,292	1,078	(914)
Net change	(169)	1,094	(988)
Other comprehensive income (loss) before tax	(6,437)	4,226	1,220
Income tax expense (benefit) related to components of other comprehensive income (loss)	(560)	306	221
Other comprehensive income (loss), net of taxes	(5,877)	3,920	999
Comprehensive loss	$ (29,060)	$ (7,958)	$ (7,787)

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

CEVA, INC.

STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY
(U.S. dollars in thousands, except share data)

	Common Stock		Additional paid-in capital	Treasury stock	Accumulated other comprehensive income (loss)	Retained earnings	Total stockholders' equity
	Number of shares outstanding	Amount					
Balance as of January 1, 2022	22,984,552	$ 23	$ 235,386	$ (13,790)	$ (372)	$ 55,485	$ 276,732
Net loss	—	—	—	—	—	(23,183)	(23,183)
Other comprehensive loss	—	—	—	—	(5,877)	—	(5,877)
Equity-based compensation	—	—	14,505	—	—	—	14,505
Purchase of treasury stock	(218,809)	—	—	(6,785)	—	—	(6,785)
Issuance of treasury stock upon exercise of stock-based awards	449,696	—	(7,050)	10,671	—	(142)	3,479
Balance as of December 31, 2022	23,215,439	$ 23	$ 242,841	$ (9,904)	$ (6,249)	$ 32,160	$ 258,871
Net loss	—	—	—	—	—	(11,878)	(11,878)
Other comprehensive gain	—	—	—	—	3,920	—	3,920
Equity-based compensation	—	—	16,198	—	—	—	16,198
Purchase of treasury stock	(278,799)	—	—	(6,163)	—	—	(6,163)
Issuance of common stock upon exercise of stock-based awards	100,030	—	874	—	—	—	874
Issuance of treasury stock upon exercise of stock-based awards	404,178	—	(7,813)	10,447	—	(115)	2,519
Balance as of December 31, 2023	23,440,848	$ 23	$ 252,100	$ (5,620)	$ (2,329)	$ 20,167	$ 264,341
Net loss	—	—	—	—	—	(8,786)	(8,786)
Other comprehensive gain	—	—	—	—	999	—	999
Equity-based compensation	—	—	15,575	—	—	—	15,575
Purchase of treasury stock	(375,219)	—	—	(8,456)	—	—	(8,456)
Issuance of common stock upon exercise of stock-based awards	61,065	—	—	—	—	—	—
Issuance of treasury stock upon exercise of stock-based awards	500,171	1	(7,784)	10,854	—	(188)	2,883
Balance as of December 31, 2024	23,626,865	$ 24	$ 259,891	$ (3,222)	$ (1,330) (*)	$ 11,193	$ 266,556

(*) Accumulated unrealized loss from available-for-sale securities, net of taxes of $157

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

CEVA, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS
(U.S. dollars in thousands)

	Year ended December 31, 2022	2023	2024
Cash flows from operating activities:			
Net loss	$ (23,183)	$ (11,878)	$ (8,786)
Adjustments required to reconcile net loss to net cash provided by (used in) operating activities:			
Depreciation	3,190	2,887	3,046
Amortization of intangible assets	4,371	1,996	1,090
Impairment of intangible assets	3,556	—	—
Equity-based compensation	14,505	16,198	15,575
Realized loss (gain), net on sale of available-for-sale marketable securities	55	(90)	(14)
Amortization of premiums (discounts) on available-for-sale marketable securities	397	(124)	(922)
Unrealized foreign exchange (gain) loss, net	(351)	(560)	1,108
Gain on sale of Intrinsix	—	(11,557)	—
Remeasurement of marketable equity securities	2,511	2	94
Changes in operating assets and liabilities:			
Trade receivables, net	(3,749)	(25)	(6,777)
Prepaid expenses and other assets	(1,126)	(4,850)	(4,751)
Operating lease right-of-use assets	(1,456)	3,305	1,167
Accrued interest on bank deposits	144	(237)	527
Deferred taxes, net	7,811	6,684	(68)
Trade payables	511	(818)	(261)
Deferred revenues	(5,493)	(27)	581
Accrued expenses and other payables	333	(182)	477
Accrued payroll and related benefits	984	(3,737)	2,664
Operating lease liability	1,504	(3,273)	(810)
Income taxes payable	2,127	67	(221)
Accrued severance pay, net	283	(112)	(248)
Net cash provided by (used in) operating activities	6,924	(6,331)	3,471
Cash flows from investing activities:			
Business combination	—	(3,600)	—
Asset acquisition	—	—	(753)
Purchase of property and equipment	(3,499)	(2,884)	(2,955)
Proceeds from the sale of Intrinsix, net	—	30,589	540
Investment in bank deposits	(14,000)	(2,000)	(2,000)
Proceeds from bank deposits	30,885	6,000	10,000
Investment in available-for-sale marketable securities	(49,873)	(40,026)	(46,864)
Proceeds from maturity of available-for-sale marketable securities	18,196	10,340	29,780
Proceeds from sale of available-for-sale marketable securities	3,175	12,417	9,806
Net cash provided by (used in) investing activities	(15,116)	10,836	(2,446)
Cash flows from financing activities:			
Purchase of treasury stock	(6,785)	(6,163)	(8,456)
Proceeds from exercise of stock-based awards	3,479	3,393	2,883
Net cash used in financing activities	(3,306)	(2,770)	(5,573)
Effect of exchange rate changes on cash and cash equivalents	(370)	267	(241)
Increase (decrease) in cash and cash equivalents	(11,868)	2,002	(4,789)
Cash and cash equivalents at the beginning of the year	33,153	21,285	23,287
Cash and cash equivalents at the end of the year	$ 21,285	$ 23,287	$ 18,498

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

CONSOLIDATED STATEMENTS OF CASH FLOWS—(Continued)

(U.S. dollars in thousands)

	Year ended December 31, 2022	2023	2024
Supplemental information of cash-flows activities:			
Cash paid during the year for:			
Income and withholding taxes	$ 10,193	$ 7,398	$ 6,261
Non-cash transactions:			
Transaction costs related to the Intrinsix but unpaid at the end of the year	$ —	$ 25	$ —
Property and equipment purchases incurred but unpaid at the end of the year	$ 25	$ —	$ 215
Right-of-use assets obtained in the exchange for operating lease liabilities	$ 5,009	$ 1,100	$ 1,324
Reconciliation of cash and cash equivalents as shown in the condensed consolidated statements of cash flow:			
Cash and cash equivalents in the Consolidated Balance Sheets	$ 20,116	$ 23,287	$ 18,498
Cash and cash equivalents included in assets of discontinued operation	1,169	—	—
Total cash and cash equivalents in the Consolidated Statements of Cash Flows	$ 21,285	$ 23,287	$ 18,498

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

NOTE 1: ORGANIZATION AND SIGNIFICANT ACCOUNTING POLICIES

Organization:

Ceva, Inc. ("Ceva" or the "Company") was incorporated in Delaware on November 22, 1999. The Company was formed through the combination of Parthus Technologies plc ("Parthus") and the digital signal processor (DSP) cores licensing business and operations of DSP Group, Inc. in November 2002. The Company had no business or operations prior to the combination.

Ceva is the leader in innovative silicon and software intellectual property ("IP") solutions that enable smart edge products to connect, sense, and infer data more reliably and efficiently. With a broad portfolio of comprehensive wireless communications and processor IP platforms and embedded software solutions for the deployment of artificial intelligence ("AI") algorithms and models directly onto local edge devices ("Edge AI"), Ceva powers the connectivity, sensing, and inference capabilities in today's most advanced smart edge products across consumer internet of things ("IoT"), automotive, industrial, infrastructure, mobile and personal computing ("PC") markets. Since 2003, more than 19 billion of the world's most innovative smart edge products from AI-infused smartwatches, IoT devices and wearables to autonomous vehicles, 5G mobile networks and more have been shipped with Ceva IP, with approximately 2 billion shipped in 2024 alone.

Ceva is a trusted partner to many of the leading semiconductor and original equipment manufacturer ("OEM") companies servicing not just Ceva's largest target growth and incumbent markets, but also a wide variety of other end markets and applications, including smart-home, surveillance, robotics and medical. Ceva's customers incorporate Ceva's IP into application-specific integrated circuits and application-specific standard products that they manufacture, market and sell.

Ceva's wireless communications, sensing and edge AI technologies are at the heart of some of today's most advanced smart edge products. Our comprehensive portfolio includes:

- Advanced wireless connectivity solutions: Bluetooth, Wi-Fi, Ultra-Wideband, and 5G-Advanced platform IP for ubiquitous and robust communication;
- Scalable edge AI capabilities: neural processing unit IP to enable AI, on-device; and
- Sensor fusion processors, and embedded application software that make devices smarter and more responsive.

Ceva licenses its portfolio of wireless communications and scalable edge AI IP to its customers, breaking down barriers to entry and enabling them to bring new cutting-edge products to market faster, more reliably, efficiently and economically.

Segments:

The Company operates as one operating segment. See Note 12 for additional information.

Discontinued Operation:

Intrinsix Corp. ("Intrinsix")

On September 14, 2023, the Company and Intrinsix, then its wholly owned subsidiary, entered into a Share Purchase Agreement (the "Agreement") with Cadence Design Systems, Inc. ("Cadence"), pursuant to which Cadence agreed to purchase all of the issued and outstanding capital shares of Intrinsix from the Company for $35,000 in cash, subject to other certain purchase price adjustments as provided for in the Agreement (the "Transaction"). The closing of the Transaction occurred on October 2, 2023. At the closing, an amount of $300 from the consideration was deposited with a third-party escrow agent for the purposes of satisfying any additional post-closing purchase price adjustments owed by the Company to Cadence (which was fully paid to the Company during the first quarter of 2024), a further amount of $3,500 of the consideration was deposited with the same escrow agent for a period of 18 months as security for the Company's indemnification obligations to Cadence in accordance with the terms and conditions set forth in the Agreement, and after giving effect to post-closing adjustments resulting in a $240 repayment to the Company during the first quarter of 2024. The Agreement includes certain representations, warranties and covenants of the parties, and the Company also agreed to certain non-competition and non-solicitation terms, which are subject to certain exceptions.

(in thousands, except share data)

Under ASC 205-20, "*Discontinued Operation*" when a component of an entity, as defined in ASC 205-20, has been disposed of or is classified as held for sale, the results of its operations, including the gain or loss on its component are classified as discontinued operations and the assets and liabilities of such component are classified as assets and liabilities attributed to discontinued operations; that is, provided that the operations, assets and liabilities and cash flows of the component have been eliminated from the Company's consolidated operations and the Company will have no significant continuing involvement in the operations of the component.

As a result of the Transaction, Intrinsix's results of operations are disclosed as a discontinued operation, including the resulting income from the sale. All prior periods comparable results of operation have been retroactively included in discontinued operations.

The following table shows the Company's results of discontinued operation for years ended December 31, 2022 and 2023:

	Year Ended December 31,	
	2022	2023
Revenues	$ 14,065	$ 7,909
Cost of revenues	11,921	4,976
Gross profit	2,144	2,933
Operating expenses:		
Research and development, net	8,184	5,489
Sales and marketing	1,427	662
General and administrative	1,139	757
Amortization of intangible assets	699	373
Total operating expenses	11,449	7,281
Operating loss	(9,305)	(4,348)
Financial income, net	—	3
Gain on sale	—	10,892
Total gain (loss) from discontinued operations before taxes on income	(9,305)	6,547
Income tax benefit	—	(12)
Net income (loss) from discontinued operations	$ (9,305)	$ 6,559

The following table presents the gain associated with the sale, presented in the results of discontinued operations for the year ended December 31, 2023:

Gross purchase price	$ 35,154
Transaction costs	(690)
Net assets sold	(23,572)
Total gain on sale	$ 10,892

(in thousands, except share data)

The carrying value of the net assets sold are as follows:

Cash and cash equivalents	$	525
Trade receivables		931
Prepaid expenses and other current assets		354
Operating lease right-of-use assets		1,590
Property and equipment, net		364
Goodwill		18,463
Intangible assets, net		3,323
Trade payables		(44)
Deferred revenues		(123)
Accrued payroll and related benefits		(221)
Operating lease liabilities		(1,590)
Total net assets sold	$	23,572

The following table presents cash flows from discontinued operations:

	Year Ended December 31,			
	2022		2023	
Net cash flows used in operating activities (*)	$	(3,116)	$	(2,235)
Net cash flows (used in) provided by investing activities	$	(436)	$	29,919

(*) Amortization and depreciation allocated to discontinued operation for the years ended December 31, 2022 and 2023 amounted to $2,205 and $1,081, respectively.

Acquisitions

a. VisiSonics

In May 2023, the Company entered into an agreement to acquire the VisiSonics 3D spatial audio business (“VisiSonics”). Under the terms of the agreement, the Company agreed to pay an aggregate of $3,600 at closing, and each of VisiSonics’ two founders will be entitled to an additional payment of $100 payable in equal monthly installments over the 12-month period following the closing in connection with their provision of consulting services. The main strategic driver for the acquisition is that VisiSonics’ spatial audio research and development (“R&D”) team and software, which has close ties to the Company’s sensor fusion R&D development center, extend the Company’s application software portfolio for embedded systems, bolstering the Company’s strong market position in hearables where spatial audio is quickly becoming a must-have feature.

In addition, the Company incurred acquisition-related expenses associated with the VisiSonics transaction in a total amount of $117, which were included in general and administrative expenses for the year ended December 31, 2023. Acquisition-related costs included legal and accounting fees.

The results of VisiSonics's operations have been included in the consolidated financial statements since May 5, 2023. Pro forma results of operations related to this acquisition have not been prepared because they are not material to the Company's consolidated statement of income.

The acquisition of the VisiSonics business has been accounted in accordance with ASC 805. Under the acquisition method of accounting, the total purchase price is allocated to the intangible assets based on their fair values on the closing date. The excess of the purchase price over the identifiable intangible assets was recorded as goodwill.

Goodwill generated from this business combination is attributed to synergies between the Company's and VisiSonics's respective products and services.

The purchase price allocation for the acquisition has been determined as follows:

Intangible assets:		
Technologies	$	1,174
Customer relationships		432
Goodwill		1,994
Total assets	$	3,600

b. Greek Design Company

In January 2024, the Company acquired a privately held, Greece-based radio frequency design company (now operating under the name "*Ceva Technologies Single Member Private Company*"*)*. Under the terms of the purchase agreement, the Company agreed to pay an aggregate of approximately $753 paid at closing and approximately $2,100 subject to continued employment and certain performance milestones. The Company has accounted for the acquisition as an asset acquisition. As such, the total purchase consideration was allocated to the assets acquired.

Basis of presentation:

The consolidated financial statements have been prepared according to U.S. Generally Accepted Accounting Principles ("U.S. GAAP").

Use of estimates:

The preparation of the consolidated financial statements in conformity with U.S. GAAP requires management to make estimates, judgments and assumptions. The Company's management believes that the estimates, judgments and assumptions used are reasonable based upon information available at the time they are made. These estimates, judgments and assumptions can affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the dates of the financial statements, the reported amounts of revenues and expenses during the reporting period, and amounts classified as a discontinued operation. Actual results could differ from those estimates.

Financial statements in U.S. dollars:

A majority of the revenues of the Company and its subsidiaries is generated in U.S. dollars ("dollars"). In addition, a portion of the Company and its subsidiaries' costs are incurred in dollars. The Company's management has determined that the dollar is the primary currency of the economic environment in which the Company and its subsidiaries principally operate. Thus, the functional and reporting currency of the Company and its subsidiaries is the dollar.

Accordingly, monetary accounts maintained in currencies other than the dollar are remeasured into dollars in accordance with FASB ASC No. 830, "Foreign Currency Matters." All transaction gains and losses from remeasurement of monetary balance sheet items are reflected in the consolidated statements of loss as financial income or expenses, as appropriate, which is included in "financial income, net." The foreign exchange gains and losses arose principally on the EURO and the NIS monetary balance sheet items as a result of the currency fluctuations of the EURO and the NIS against the dollar.

***Principles of consolidation**:*

The consolidated financial statements incorporate the financial statements of the Company and all of its subsidiaries. All inter-company balances and transactions have been eliminated on consolidation.

***Cash equivalents**:*

Cash equivalents are short-term highly liquid investments that are readily convertible to cash with original maturities of three months or less from the date acquired.

***Short-term bank deposits**:*

Short-term bank deposits are deposits with maturities of more than three months but less than one year from the balance sheet date. The deposits are presented at their cost, including accrued interest. The deposits bear interest annually at an average rate of 1.54%, 3.95% and 4.53% during 2022, 2023 and 2024, respectively.

***Marketable securities**:*

Marketable securities consist mainly of corporate bonds. The Company determines the appropriate classification of marketable securities at the time of purchase and re-evaluates such designation at each balance sheet date. In accordance with FASB ASC No. 320 "Investments- Debt Securities," the Company classifies marketable debt securities as available-for-sale. Available-for-sale securities are stated at fair value, with unrealized gains and losses reported in accumulated other comprehensive income (loss), a separate component of stockholders' equity, net of taxes. Realized gains and losses on sales of marketable securities, as determined on a specific identification basis, are included in financial income, net. The amortized cost of marketable securities is adjusted for amortization of premium and accretion of discount, both of which, together with interest, are included in financial income, net. The Company has classified all marketable securities as short-term, even though the stated maturity date may be one year or more beyond the current balance sheet date, because these securities are available to support current operations and the company may sell these debt securities prior to their stated maturities.

The Company determines realized gains or losses on sale of marketable securities on a specific identification method and records such gains or losses as financial income, net.

For each reporting period, the Company evaluates whether declines in fair value below the amortized cost are due to expected credit losses, as well as the Company's ability and intention to hold the investment until a forecasted recovery occurs, in accordance with ASC 326. Allowance for credit losses on available for sale debt securities are recognized as a charge in financial income on the consolidated statements of income (loss), and any remaining unrealized losses, net of taxes, are included in accumulated other comprehensive income (loss). For the years ended December 31, 2022, 2023 and 2024, credit losses were immaterial.

Trade receivables and allowances:

Trade receivables are recorded and carried at the original invoiced amount less an allowance for any potential uncollectible amounts. The Company makes estimates of expected credit losses for the allowance for doubtful accounts and allowance for unbilled receivables based upon its assessment of various factors, including historical experience, the age of the trade receivable balances, credit quality of its customers, current economic conditions, reasonable and supportable forecasts of future economic conditions, and other factors that may affect its ability to collect from customers. The estimated credit loss allowance is recorded as general and administrative expenses on the Company's consolidated statements of income (loss).

Property and equipment, net:

Property and equipment are stated at cost, net of accumulated depreciation. Depreciation is calculated using the straight-line method over the estimated useful lives of the assets, at the following annual rates:

	%
Computers, software and equipment	15 - 33
Office furniture and equipment	7 - 33
Leasehold improvements	10 - 33 (the shorter of the expected lease term or useful economic life)

Leases:

The Company determines if an arrangement is a lease at inception. The Company's assessment is based on: (1) whether the contract includes an identified asset, (2) whether the Company obtains substantially all of the economic benefits from the use of the asset throughout the period of use, and (3) whether the Company has the right to direct how and for what purpose the identified asset is used throughout the period of use.

Leases are classified as either finance leases or operating leases. A lease is classified as a finance lease if any one of the following criteria are met: the lease transfers ownership of the asset by the end of the lease term, the lease contains an option to purchase the asset that is reasonably certain to be exercised, the lease term is for a major part of the remaining useful life of the asset, the present value of the lease payments equals or exceeds substantially all of the fair value of the asset, or the underlying asset is of such a specialized nature that it is expected to have no alternative use to the lessor at the end of lease term. A lease is classified as an operating lease if it does not meet any one of these criteria. Since all of the Company's lease contracts do not meet any of the criteria above, the Company concluded that all of its lease contracts should be classified as operation leases.

Operating lease right-of-use ("ROU") assets and liabilities are recognized on the commencement date based on the present value of remaining lease payments over the lease term. The lease term may include options to extend or terminate the lease when it is reasonably certain that the Company will exercise such options. For this purpose, the Company considers only payments that are fixed and determinable at the time of commencement. As the Company's leases do not provide an implicit rate, the Company uses its incremental borrowing rate based on information available on the commencement date in determining the present value of lease payments. The ROU asset also includes any lease payments made prior to commencement and is recorded net of any lease incentives received. All ROU assets are reviewed for impairment. In 2022, the Company abandoned one of its offices, and as a result $439 was written off. In 2023, the Company abandoned another office before the end of the lease period, and as a result $144 was written off.

The Company elected to not recognize a lease liability and a ROU asset for lease with a term of twelve months or less.

***Goodwill**:*

Goodwill is carried at cost and is not amortized but rather is tested for impairment at least annually or between annual tests in certain circumstances. The Company conducts its annual test of impairment for goodwill on October 1st of each year.

The Company operates in one operating segment and this segment comprises only one reporting unit.

ASC 350, "Intangibles – Goodwill and Other" ("ASC 350") allows an entity to first assess qualitative factors to determine whether it is necessary to perform the quantitative goodwill impairment test. If the qualitative assessment does not result in a more likely than not indication of impairment, no further impairment testing is required. If the Company elects not to use this option, or if the Company determines that it is more likely than not that the fair value of a reporting unit is less than its carrying value, then the Company prepares a quantitative analysis to determine whether the carrying value of a reporting unit exceeds its estimated fair value. If the carrying value of a reporting unit exceeds its estimated fair value, the Company recognizes an impairment of goodwill for the amount of this excess. For each of the three years in the period ended December 31, 2024, no impairment of goodwill has been recorded.

***Intangible assets, net**:*

Acquired intangible assets with finite lives are amortized over their estimated useful lives. The Company amortizes intangible assets with finite lives over periods ranging from half a year to seven and a half years, using the straight-line method, unless another method is more appropriate.

Impairment of long-lived assets and intangible assets

Long-lived assets, including property and equipment and finite-lived intangible assets, are reviewed for impairment whenever facts or circumstances either internally or externally may indicate that the carrying value of an asset may not be recoverable. If there are indications of an impairment, the Company tests for recoverability by comparing the estimated undiscounted future cash flows expected to result from the use of the asset to the carrying amount of the asset or asset group. If the asset or asset group is determined to be impaired, any excess of the carrying value of the asset or asset group over its estimated fair value is recognized as an impairment loss.

The Company did not record any impairments during the years ended December 31, 2023 and 2024. In 2022, the Company recorded an impairment charge of $3,556 in operating expenses with respect to Immervision technology acquired in August 2019, as the Company decided to cease the development of this product line. In 2022, the Company also recorded in cost of revenues an impairment charge of prepaid expenses as follows: (1) an impairment charge of $479 relating to an agreement to acquire certain NB-IoT technologies, and (2) an impairment charge of $1,479 relating to an agreement to purchase certain assets and services from Immervision.

Investments in marketable equity securities:

The Company holds an equity interest in Cipia Vision Ltd (CPIA.TA) ("Cipia"), a publicly traded company listed on the Tel-Aviv Stock Exchange. As such, the Company measures its Cipia investment at fair value with changes in fair value recognized in remeasurement of marketable equity securities in the consolidated statements of income (loss). As of December 31, 2024, the investment fair value amounted to $312. The Company recorded a loss of $2,511, a loss of $2, and a loss of $94 for the years ended December 31, 2022, 2023 and 2024, respectively from the remeasurement of the investment.

Revenue recognition:

The following is a description of principal activities from which the Company generates revenue. Revenues are recognized when control of the promised goods or services are transferred to the customers in an amount that reflects the consideration that the Company expects to receive in exchange for those goods or services.

The Company determines revenue recognition through the following steps:

- Identification of the contract with a customer;
- Identification of the performance obligations in the contract;
- Determination of the transaction price;
- Allocation of the transaction price to the performance obligations in the contract; and
- Recognition of revenue when, or as, the Company satisfies a performance obligation.

The Company enters into contracts that can include various combinations of products and services, as detailed below, which are generally capable of being distinct and accounted for as separate performance obligations.

The Company generates its revenues from (1) licensing intellectual properties, which in certain circumstances are modified for customer-specific requirements, (2) royalty revenues, and (3) other revenues, which include revenues from support, training and sale of development systems and chips, which are included in licensing and related revenue in the accompanying consolidated statements of income (loss).

The Company accounts for its IP license revenues and related services, which provide the Company's customers with rights to use the Company's IP, in accordance with ASC 606, "*Revenue from Contracts with Customers*" (ASC 606"). A license may be perpetual or time limited in its application. In accordance with ASC 606, the Company recognizes revenue from IP license at the time of delivery when the customer obtains control of the IP, as the IP is functional without professional services, updates and technical support. The Company has concluded that its IP licenses are distinct as the customer can benefit from the licenses on their own.

Revenues from contracts that involve significant customization of the Company's IP to customer-specific specifications are considered as one performance obligation satisfied over-time. Revenue related to these projects is recognized over time, usually based on a percentage that incurred labor effort to date bears to total projected labor effort. Incurred effort represents work performed, which corresponds with, and thereby best depicts, the transfer of control to the customer. When total cost estimates for these types of arrangements exceed revenues in a fixed-price arrangement, the estimated losses are recognized immediately. Significant judgment is required when estimating total labor effort and progress to completion on these arrangements.

Most of the Company's contracts with customers contain multiple performance obligations. For these contracts, the Company accounts for individual performance obligations separately, if they are distinct. The transaction price is allocated to the separate performance obligations on a relative standalone selling price basis. Standalone selling prices of IP license are typically estimated using the residual approach since the selling price is uncertain. Standalone selling prices of services are typically estimated based on observable transactions when these services are sold on a standalone basis. Standalone selling prices of significant customization of the Company's IP to customer-specific specifications are typically estimated based on expected cost plus normal profit margin approach.

Revenues that are derived from the sale of a licensee's products that incorporate the Company's IP are classified as royalty revenues. Royalty revenues are recognized during the quarter in which the sale of the product incorporating the Company's IP occurs. Royalties are calculated either as a percentage of the revenues received by the Company's licensees on sales of products incorporating the Company's IP or on a per unit basis, as specified in the agreements with the licensees. Royalty revenues are recognized during the quarter in which the Company receives the actual sales data from its customers after the quarter ends and accounts for it as unbilled receivables. When the Company does not receive actual sales data from the customer prior to the finalization of its financial statements, royalty revenues are recognized based on the Company's estimation of the customer's sales during the quarter. This estimation process for the royalty revenue accrual is based on inputs and estimations received from the Company's customers, as well as sales trends and various market factors. Adjustments to royalty revenues are made in subsequent periods to reflect updated estimates as soon as the final royalty reports are sent to the Company.

Contracts with customers generally contain an agreement to provide for training and post contract support, which consists of telephone or e-mail support, correction of errors (bug fixing) and unspecified updates and upgrades. Fees for post contract support, which takes place after delivery to the customer, are specified in the contract and are generally mandatory for the first year. After the mandatory period, the customer may extend the support agreement on similar terms, usually on an annual basis. The Company considers the post contract support performance obligation as a distinct performance obligation that is satisfied over time, and as such, it recognizes revenue for post contract support on a straight-line basis over the period for which technical support is contractually agreed to be provided to the licensee, typically twelve months, since the services have a consistent continuous pattern of transfer to the customers. Revenues from the sale of development systems and chips are recognized at point in time when control of the promised goods or services are transferred to the customers.

When contracts involve a significant financing component, the Company adjusts the promised amount of consideration for the effects of the time value of money if the timing of payments agreed to by the parties to the contract (either explicitly or implicitly) provide the customer with a significant benefit of financing, unless the financing period is under one year and only after the products or services were provided as the Company elected to use the practical expedient under ASC 606.

Deferred revenues, which represent a contract liability, include unearned amounts received under license agreements, unearned technical support and amounts paid by customers not yet recognized as revenues.

The Company capitalizes sales commission as costs of obtaining a contract when they are incremental and, if they are expected to be recovered, amortized in a manner consistent with the pattern of transfer of the good or service to which the asset relates. If the expected amortization period is one year or less, the commission fee is expensed when incurred.

Cost of revenue:

Cost of revenues include materials, subcontractors, amortization of acquired assets, the portion of development costs associated with product development arrangements, salary and related costs for personnel engaged in services, training and customer support, travel, office expenses and other support costs. Cost of revenues also include royalty expense payments to the Israeli Innovation Authority of the Ministry of Economy and Industry in Israel (the "IIA") (refer to Note 16c for further details).

Income taxes:

The Company recognizes income taxes under the liability method. It recognizes deferred income tax assets and liabilities for the expected future consequences of temporary differences between the financial reporting and tax bases of assets and liabilities. These differences are measured using the enacted statutory tax rates that are expected to apply to taxable income for the years in which differences are expected to reverse. The effect of a change in tax rates on deferred income taxes is recognized in the statements of income (loss) during the period that includes the enactment date.

Valuation allowance is recorded to reduce the deferred tax assets to the net amount that the Company believes is more likely than not to be realized. The Company considers all available evidence, both positive and negative, including historical levels of income, expectations and risks associated with estimates of future taxable income and ongoing tax planning strategies, in assessing the need for a valuation allowance.

The Company accounts for uncertain tax positions in accordance with ASC 740, "Income Taxes" ("ASC 740"). ASC 740-10 contains a two-step approach to recognizing and measuring uncertain tax positions. The first step is to evaluate the tax position taken or expected to be taken in a tax return by determining if the weight of available evidence indicates that it is more likely than not that, on an evaluation of the technical merits, the tax position will be sustained on audit, including resolution of any related appeals or litigation processes. The second step is to measure the tax benefit as the largest amount that is more than 50% (cumulative probability) likely to be realized upon ultimate settlement. The Company accrues interest and penalties related to unrecognized tax benefits under taxes on income.

Research and development, net:

Research and development costs are charged to the consolidated statements of income (loss) as incurred and are presented net of government grants (see note Government grants and tax credits).

Government grants and tax credits:

Government grants received by the Company relating to categories of operating expenditures are credited to the consolidated statements of income (loss) during the period in which the expenditure to which they relate is charged. Royalty and non-royalty-bearing grants from the IIA for funding certain approved research and development projects are recognized at the time when the Company is entitled to such grants, on the basis of the related costs incurred, and included as a deduction from research and development expenses in the consolidated statements of income (loss).

The Company recorded grants in the amounts of $4,850, $1,668 and $1,407 for the years ended December 31, 2022, 2023 and 2024, respectively. The Company's Israeli subsidiary is obligated to pay royalties amounting to 3%-3.5% of the sales of certain products the development of which received grants from the IIA in previous years. The obligation to pay these royalties is contingent on actual sales of the products. Grants received from the IIA may become repayable if certain criteria under the grants are not met.

The French Research Tax Credit, Crédit d'Impôt Recherche ("CIR"), is a French tax incentive to stimulate R&D, which is relevant for the Company's French subsidiaries (RivieraWaves SAS and Ceva France). Generally, the CIR offsets the income tax to be paid, but in the absence of income taxes to be paid, the CIR can be refunded. The CIR is calculated based on the claimed volume of eligible R&D expenditures by the Company. As a result, the CIR is presented as a deduction from "research and development expenses" in the consolidated statements of income (loss). During the years ended December 31, 2022, 2023 and 2024, the Company recorded CIR benefits in the amount of $2,152, $2,509 and $2,805, respectively.

The research & development (R&D) tax credit in the UK is designed to encourage innovation and increase spending on R&D activities for companies operating in the UK. This is relevant to the Company's subsidiary R&D centers in the UK. Generally, the UK R&D tax credit offsets the income tax to be paid, but in the absence of income taxes to be paid, the amounts can be refunded. The R&D tax credit is calculated based on the claimed volume of eligible R&D expenditures by the Company. As a result, the R&D tax credit is presented as a deduction from "research and development expenses" in the consolidated statements of income (loss). During the years ended December 31, 2022, 2023 and 2024, the Company recorded R&D tax credit benefits in the amount of $164, $107 and $149, respectively.

Employee benefit plan:

Certain of the Company's employees are eligible to participate in a defined contribution pension plan (the "Plan"). Participants in the Plan may elect to defer a portion of their pre-tax earnings into the Plan, which is run by an independent party. The Company makes pension contributions at rates varying up to 10% of the participant's pensionable salary. Contributions to the Plan are recorded as an expense in the consolidated statements of income (loss).

The Company's U.S. operations maintain a retirement plan (the "U.S. Plan") that qualifies as a deferred salary arrangement under Section 401(k) of the Internal Revenue Code. Participants in the U.S. Plan may elect to defer a portion of their pre-tax earnings, up to the Internal Revenue Service annual contribution limit. The Company matches 50% of each participant's contributions up to a maximum of 6% of the participant's base pay. Each participant may contribute up to 15% of base remuneration. Contributions to the U.S. Plan are recorded during the year contributed as an expense in the consolidated statements of income (loss).

Total contributions for the years ended December 31, 2022, 2023 and 2024 were $1,034, $1,371 and $1,090, respectively.

Accrued severance pay:

Effective July 1, 2021, the Israeli subsidiary's agreements with employees hired prior to August 1, 2016, are under Section 14 of the Severance Pay Law, 1963. Up to July 1, 2021, the liability of Ceva's Israeli subsidiary for severance pay for employees hired prior to August 1, 2016, was calculated pursuant to Israeli severance pay law based on the most recent salary of each employee multiplied by the number of years of employment for these employee as of June 30, 2021. The Israeli subsidiary's liability for the period until June 30, 2021, is fully provided for by monthly deposits with severance pay funds, insurance policies and an accrual. The deposited funds include profits and losses accumulated up to December 31, 2024. The deposited funds may be withdrawn only upon the fulfillment of the obligation pursuant to Israeli severance pay law or labor agreements. The value of these policies is recorded as an asset on the Company's consolidated balance sheets.

Effective August 1, 2016, the Israeli subsidiary's agreements with new employees in Israel are under Section 14 of the Severance Pay Law, 1963, and effective July 1, 2021, also with employees hired prior to August 1, 2016. The Israeli subsidiary's contributions for severance pay have extinguished its severance obligation. Upon contribution of the full amount based on the employee's monthly salary for each year of service, no additional obligation exists regarding the matter of severance pay, and no additional payments is made by the Israeli subsidiary to the employee. Furthermore, the related obligation and amounts deposited on behalf of the employee for such obligation are not stated on the balance sheet, as the Israeli subsidiary is legally released from any obligation to employees once the required deposit amounts have been paid.

Severance pay expenses, net of related income, for the years ended December 31, 2022, 2023 and 2024, were $2,706, $2,117 and $1,835, respectively.

Equity-based compensation:

The Company accounts for equity-based compensation in accordance with FASB ASC No. 718, "Stock Compensation" which requires the recognition of compensation expenses based on estimated fair values for all equity-based awards made to employees and non-employee directors. Equity-based compensation primarily includes restricted stock units ("RSUs"), as well as options, stock appreciation right ("SAR"), performance-based stock units ("PSUs") and employee stock purchase plan awards.

(in thousands, except share data)

The Company use the straight-line recognition method for awards subject to graded vesting based only on a service condition and the accelerated method for awards that are subject to performance or market conditions. The fair value of each RSU and PSU (excluding PSUs based on market condition awards) is the market value as determined by the closing price of the common stock on the day of grant. The Company estimates the fair value of PSU based on market condition awards on the date of grant using the Monte-Carlo simulation model. The Company estimates the fair value of stock option awards on the date of grant using the Black & Scholes model.

The fair value for rights to purchase shares of common stock under the Company's employee stock purchase plan was estimated on the date of grant using the following assumptions:

	2022	2023	2024
Expected dividend yield	0%	0%	0%
Expected volatility	38% - 50%	45% - 47%	46% - 50%
Risk-free interest rate	0.5% - 3.0%	4.8% - 5.5%	4.9% - 5.3%
Expected forfeiture	0%	0%	0%
Contractual term of up to (in months)	6	6	6

During the years ended December 31, 2022, 2023 and 2024, the Company recognized equity-based compensation expense related to stock options, RSUs, PSUs and employee stock purchase plan as follows:

	Year ended December 31,		
	2022	2023	2024
Cost of revenue	$ 687	$ 826	$ 713
Research and development, net	8,259	9,133	9,298
Sales and marketing	1,503	1,776	1,801
General and administrative	2,888	3,795	3,763
Total equity-based compensation expense from continuing operations	13,337	15,530	15,575
Equity-based compensation expense included in discontinued operations	1,168	668	—
Total equity-based compensation expense	$ 14,505	$ 16,198	$ 15,575

As of December 31, 2024, there was $20,938 of unrecognized compensation expense related to unvested RSUs and PSUs. This amount is expected to be recognized over a weighted-average period of 1.5 years. As of December 31, 2024, there was $398 of unrecognized compensation expense related to unvested stock option and employee stock purchase plan. This amount is expected to be recognized over a weighted-average period of 1.6 years. There was no unrecognized compensation expense related to unvested SARs.

***Fair value of financial instruments**:*

The carrying amount of cash and cash equivalents, short-term bank deposits, trade receivables, prepaid expenses and other accounts receivable, trade payables, accrued expenses and other accounts payable and accrued payroll and related benefits approximates fair value due to the short-term maturities of these instruments. Marketable securities, marketable equity securities and derivative instruments are carried at fair value. See Note 5 for more information.

(in thousands, except share data)

Comprehensive income (loss):

The Company accounts for comprehensive income (loss) in accordance with FASB ASC No. 220, "Comprehensive Income." This statement establishes standards for the reporting and display of comprehensive income (loss) and its components in a full set of general purpose financial statements. Comprehensive income (loss) generally represents all changes in stockholders' equity during the period except those resulting from investments by, or distributions to, stockholders. The Company's items of other comprehensive income (loss) relate to unrealized gains and losses, net of tax, on hedging derivative instruments and marketable securities.

Concentration of credit risk:

Financial instruments that potentially subject the Company to concentrations of credit risk consist principally of cash, cash equivalents, bank deposits, marketable securities, foreign exchange contracts and trade receivables. The Company invests its surplus cash in cash deposits and marketable securities in financial institutions and has established guidelines relating to diversification and maturities to maintain safety and liquidity of the investments.

The majority of the Company's cash and cash equivalents are invested in high grade certificates of deposits with major U.S., European and Israeli banks. Generally, cash and cash equivalents and bank deposits may be redeemed on demand and therefore minimal credit risk exists with respect to them. Nonetheless, deposits with these banks exceed the Federal Deposit Insurance Corporation ("FDIC") insurance limits or similar limits in foreign jurisdictions, to the extent such deposits are even insured in such foreign jurisdictions. Generally, these cash equivalents may be redeemed upon demand and therefore management believes that they bear a lower risk. The short-term bank deposits are held in financial institutions that management believes are institutions with high credit standing, and accordingly, minimal credit risk from geographic or credit concentration. Furthermore, the Company holds an investment portfolio consisting principally of corporate bonds. The Company has the ability to hold such investments until recovery of temporary declines in market value or maturity.

The Company's trade receivables are geographically diverse, mainly in the Asia Pacific region, and also in the United States and Europe. Concentration of credit risk with respect to trade receivables is limited by credit limits, ongoing credit evaluation and account monitoring procedures. The Company performs ongoing credit evaluations of its customers. The Company makes estimates of expected credit losses based upon its assessment of various factors, including historical experience, the age of the trade receivable balances, credit quality of its customers, current economic conditions, reasonable and supportable forecasts of future economic conditions, and other factors that may affect its ability to collect from customers.

	Balance at beginning of period	Additions	Deduction	Balance at end of period
Year ended December 31, 2024				
Allowance for credit losses	$ 288	$ 2,338	$ —	$ 2,626
Year ended December 31, 2023				
Allowance for credit losses	$ 313	$ —	$ (25)	$ 288
Year ended December 31, 2022				
Allowance for credit losses	$ 288	$ 25	$ —	$ 313

The increase in the credit loss allowance as of December 31, 2024, is due to a specific credit loss recorded during the year ended December 31, 2024, for a customer that has experienced financial difficulties.

The Company has no off-balance-sheet concentration of credit risk.

Derivative and hedging activities:

The Company follows the requirements of FASB ASC No. 815, "Derivatives and Hedging" which requires companies to recognize all of their derivative instruments as either assets or liabilities in the statement of financial position at fair value. The accounting for changes in fair value (i.e., gains or losses) of a derivative instrument depends on whether it has been designated and qualifies as part of a hedging transaction and further, on the type of hedging transaction. For those derivative instruments that are designated and qualify as hedging instruments, a company must designate the hedging instrument, based upon the exposure being hedged, as a fair value hedge, cash flow hedge, or a hedge of a net investment in a foreign operation. Due to the Company's global operations, it is exposed to foreign currency exchange rate fluctuations in the normal course of its business. The Company's treasury policy allows it to offset the risks associated with the effects of certain foreign currency exposures through the purchase of foreign exchange forward or option contracts ("Hedging Contracts"). The policy, however, prohibits the Company from speculating on such Hedging Contracts for profit. To protect against the increase in value of forecasted foreign currency cash flow resulting from salaries paid in currencies other than the U.S. dollar during the year, the Company instituted a foreign currency cash flow hedging program. The Company hedges portions of the anticipated payroll of its non-U.S. employees denominated in the currencies other than the U.S. dollar for a period of one to twelve months with Hedging Contracts. Accordingly, when the dollar strengthens against the foreign currencies, the decline in present value of future foreign currency expenses is offset by losses in the fair value of the Hedging Contracts. Conversely, when the dollar weakens, the increase in the present value of future foreign currency expenses is offset by gains in the fair value of the Hedging Contracts. These Hedging Contracts are designated as cash flow hedges.

For derivative instruments that are designated and qualify as a cash flow hedge (i.e., hedging the exposure to variability in expected future cash flows that is attributable to a particular risk), the gain or loss on the derivative instrument is reported as a component of other comprehensive income (loss) and reclassified into earnings in the same period or periods during which the hedged transaction affects earnings.

As of December 31, 2023, the notional principal amount of the Hedging Contracts to sell U.S. dollars held by the Company was $16,500. There were no open Hedging Contracts as of December 31, 2024.

Advertising expenses:

Advertising expenses are charged to consolidated statements of income (loss) as incurred. Advertising expenses for the years ended December 31, 2022, 2023 and 2024 were $734, $780 and $795, respectively.

Treasury stock:

The Company repurchases its common stock from time to time pursuant to a board-authorized share repurchase program through open market purchases and repurchase plans.

The repurchases of common stock are accounted for as treasury stock, and result in a reduction of stockholders' equity. When treasury shares are reissued, the Company accounts for the reissuance in accordance with FASB ASC No. 505-30, "Treasury Stock" and charges the excess of the repurchase cost over issuance price using the weighted average method to retained earnings. The purchase cost is calculated based on the specific identified method. In the case where the repurchase cost over issuance price using the weighted average method is lower than the issuance price, the Company credits the difference to additional paid-in capital.

***Net income (loss) per share of common stock*:**

Basic net income (loss) per share is computed based on the weighted average number of shares of common stock outstanding during each year. Diluted net income (loss) per share is computed based on the weighted average number of shares of common stock outstanding during each year, plus dilutive potential shares of common stock considered outstanding during the year, in accordance with FASB ASC No. 260, "Earnings Per Share."

	Year ended December 31,		
	2022	2023	2024
Numerator:			
Net loss from continuing operations	$ (13,878)	$ (18,437)	$ (8,786)
Net income (loss) from discontinued operations	(9,305)	6,559	—
Net loss	$ (23,183)	$ (11,878)	$ (8,786)
Denominator (in thousands):			
Basic weighted-average common stock outstanding	23,172	23,484	23,613
Effect of stock-based awards	—	—	—
Diluted weighted-average common stock outstanding	23,172	23,484	23,613
Basic net loss per share from continuing operations	$ (0.60)	$ (0.79)	$ (0.37)
Basic net income (loss) per share from discontinued operations	$ (0.40)	$ 0.28	$ —
Basic net loss per share	$ (1.00)	$ (0.51)	$ (0.37)
Diluted net loss per share from continuing operations	$ (0.60)	$ (0.79)	$ (0.37)
Diluted net income (loss) per share from discontinued operations	$ (0.40)	$ 0.28	$ —
Diluted net loss per share	$ (1.00)	$ (0.51)	$ (0.37)

The total number of shares related to outstanding equity-based awards excluded from the calculation of diluted net loss per share, since their effect was anti-dilutive, was 985,277 for the year ended December 31, 2022. The total number of shares related to outstanding equity-based awards excluded from the calculation of diluted net loss per share, since their effect was anti-dilutive, was 1,381,176 for the year ended December 31, 2023. The total number of shares related to outstanding equity-based awards excluded from the calculation of diluted net loss per share, since their effect was anti-dilutive, was 1,687,533 for the year ended December 31, 2024.

Accounting Standards Recently Adopted by the Company:

In June 2022, the FASB issued ASU No. 2022-03, Fair Value Measurement (Topic 820): Fair Value Measurement of Equity Securities Subject to Contractual Sale Restrictions, which clarifies the guidance when measuring the fair value of an equity security subject to contractual restrictions that prohibit the sale of an equity security and introduces new disclosure requirements for equity securities subject to contractual sale restrictions that are measured at fair value in accordance with Topic 820. The guidance is effective for annual periods beginning after December 15, 2023, with early adoption permitted. The Company adopted ASU 2022-03 as of January 1, 2024. The adoption did not result in a material impact on the Company's financial statements.

In November 2023, the FASB issued ASU 2023-07, Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures, which requires public entities to disclose information about their reportable segments' significant expenses and other segment items on an interim and annual basis. Public entities with a single reportable segment are required to apply the disclosure requirements in ASU 2023-07, as well as all existing segment disclosures and reconciliation requirements in ASC 280 on an interim and annual basis. ASU 2023-07 is effective for fiscal years beginning after December 15, 2023, and for interim periods within fiscal years beginning after December 15, 2024, with early adoption permitted. The Company adopted ASU 2023-07 as of December 15, 2024.

(in thousands, except share data)

Accounting Standards Recently Issued, Not Yet Adopted by the Company:

In December 2023, the FASB issued ASU 2023-09, Income Taxes (Topic 740): Improvements to Income Tax Disclosures, which requires public entities, on an annual basis, to provide disclosure of specific categories in the rate reconciliation, as well as disclosure of income taxes paid disaggregated by jurisdiction. ASU 2023-09 is effective for fiscal years beginning after December 15, 2024, with early adoption permitted. The Company is currently evaluating the impact of adopting ASU 2023-09.

In November 2024, the FASB issued ASU 2024-03, Income Statement - Reporting Comprehensive Income - Expense Disaggregation Disclosure (Subtopic 220-40), Disaggregation of Income Statement Expenses, which expands annual and interim disclosure requirements for reportable segments, primarily through enhanced disclosures about significant segment expenses. In addition, it provides new segment disclosure requirements for entities with a single reportable segment. The Company adopted this guidance for its annual period beginning January 1, 2024 (See Note 12 for more information).

NOTE 2: REVENUE RECOGNITION

The following table includes estimated revenue expected to be recognized in future periods related to performance obligations that are unsatisfied or partially unsatisfied at the end of the reporting period. The estimated revenues do not include amounts of royalties or unexercised contract renewals:

	2025	2026	2027 and thereafter
License and related revenues	$ 16,265	$ 2,380	$ 369

Disaggregation of revenue:

The following table provides information about disaggregated revenue by primary geography, use cases for the Company's technology portfolio, and timing of revenue recognition:

	Year ended December 31, 2023			Year ended December 31, 2024		
	Licensing and related revenues	Royalties	Total	Licensing and related revenues	Royalties	Total
Geography						
United States	$ 3,845	$ 5,706	$ 9,551	$ 14,988	$ 5,316	$ 20,304
Europe and Middle East	9,197	2,987	12,184	8,486	4,310	12,796
Asia Pacific	44,513	31,171	75,684	36,512	37,314	73,826
Other	—	—	—	13	—	13
Total	$ 57,555	$ 39,864	$ 97,419	$ 59,999	$ 46,940	$ 106,939
Use cases for the Company's technology portfolio						
Connect (baseband for handset and other devices, Bluetooth, Wi-Fi and NB-IoT)	$ 49,910	$ 29,787	$ 79,697	$ 53,607	$ 36,426	$ 90,033
Sense & Infer (sensor fusion, audio, sound, imaging, vision and AI)	7,645	10,077	17,722	6,392	10,514	16,906
Total	$ 57,555	$ 39,864	$ 97,419	$ 59,999	$ 46,940	$ 106,939
Timing of revenue recognition						
Products transferred at a point in time	$ 46,542	$ 39,864	$ 86,406	$ 50,655	$ 46,940	$ 97,595
Products and services transferred over time	11,013	—	11,013	9,344	—	9,344
Total	$ 57,555	$ 39,864	$ 97,419	$ 59,999	$ 46,940	$ 106,939

	Year ended December 31, 2022		
	Licensing and related revenues	Royalties	Total
Geography			
United States	$ 7,055	$ 7,100	$ 14,155
Europe and Middle East	6,739	3,205	9,944
Asia Pacific and other	61,400	35,084	96,484
Total	$ 75,194	$ 45,389	$ 120,583
Use cases for the Company’s technology portfolio			
Connect (baseband for handset and other devices, Bluetooth, Wi-Fi and NB-IoT)	$ 60,312	$ 33,890	$ 94,202
Sense & Infer (sensor fusion, audio, sound, imaging, vision and AI)	14,882	11,499	26,381
Total	$ 75,194	$ 45,389	$ 120,583
Timing of revenue recognition			
Products transferred at a point in time	$ 62,053	$ 45,389	$ 107,442
Products and services transferred over time	13,141	—	13,141
Total	$ 75,194	$ 45,389	$ 120,583

(in thousands, except share data)

Contract balances:

The following table provides information about trade receivables, unbilled receivables and contract liabilities from contracts with customers:

	December 31, 2023	December 31, 2024
Currents assets (classified under "Trade receivables"):		
Trade receivables	$ 8,433	$ 15,969
Unbilled receivables (associated with licensing and related revenue)	9,735	8,266
Unbilled receivables (associated with royalties)	12,139	12,974
Total current assets	30,307	37,209
Long-term assets (classified under "Other long-term assets"):		
Unbilled receivables (associated with licensing and related revenue)	—	2,583
Deferred revenues (short-term contract liabilities)	3,018	3,599

The Company receives payments from customers based upon contractual payment schedules; trade receivables are recorded when the right to consideration becomes unconditional, and an invoice is issued to the customer. Unbilled receivables associated with licensing and other include amounts related to the Company's contractual right to consideration for completed performance objectives not yet invoiced. Unbilled receivables associated with royalties are recorded as the Company recognizes revenues from royalties earned during the year, but not yet invoiced, either by actual sales data received from customers, or, when applicable, by the Company's estimation. Contract liabilities (deferred revenue) include payments received in advance of performance under the contract and are realized with the associated revenue recognized under the contract.

Payment terms and conditions vary by contract type, although terms generally include a requirement of payment within 30 to 60 days.

During the year ended December 31, 2024, the Company recognized $2,225 that was included in deferred revenues (short-term contract liability) balance at January 1, 2024.

Costs to obtain a contract:

As of December 31, 2024, the Company had a remaining $467 contract cost asset related to the incremental costs of obtaining the contract arising from sales commissions. During the year ended December 31, 2024, the Company recognized amortization of contract costs of $257. Contract cost asset and amortization were immaterial for the years ended December 31, 2023 and 2022. The Company records these costs within sales and marketing expenses on the Company's consolidated statements of income (loss).

Discontinued operation:

The Company's revenues streams from Intrinsix chip design business comprises primarily of non-recurring engineering ("NRE") revenues. Revenues that are derived from NRE chip design services are performance obligations that are recognized over time as the services are rendered. For time-and-materials contracts, the performance obligation is satisfied, and revenue is recognized over time as the services are performed. Generally, contracts call for billings on a time-and-materials basis; however, in instances when a fixed-fee contract is signed, revenue is recognized over time, based on an input method of labor costs expended, relative to total expected labor costs to complete the contract.

The Intrinsix business relies heavily on contracts with U.S. government prime contractors.

(in thousands, except share data)

NOTE 3: MARKETABLE SECURITIES

The following is a summary of available-for-sale marketable securities at December 31, 2023 and 2024:

	As at December 31, 2024			
	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value
Available-for-sale - matures within one year:				
Corporate bonds	$ 61,113	$ 41	$ (146)	$ 61,008
Available-for-sale - matures after one year through three years:				
Corporate bonds	83,491	221	(1,603)	82,109
Total	$ 144,604	$ 262	$ (1,749)	$ 143,117

	As at December 31, 2023			
	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value
Available-for-sale - matures within one year:				
Corporate bonds	$ 27,690	$ 4	$ (243)	$ 27,451
Available-for-sale - matures after one year through three years:				
Corporate bonds	108,700	278	(3,734)	105,244
Total	$ 136,390	$ 282	$ (3,977)	$ 132,695

The following table presents gross unrealized losses and fair values for those investments that were in an unrealized loss position as of December 31, 2023 and 2024, and the length of time that those investments have been in a continuous loss position:

	Less than 12 months		12 months or greater	
	Fair value	Gross unrealized loss	Fair value	Gross unrealized loss
As of December 31, 2024	$ 28,762	$ (160)	$ 61,996	$ (1,589)
As of December 31, 2023	$ 18,193	$ (49)	$ 86,643	$ (3,928)

During the years ended December 31, 2022, 2023 and 2024 the amount of credit losses recorded was not material.

(in thousands, except share data)

The following table presents gross realized gains and losses from sale of available-for-sale marketable securities:

	Year ended December 31,		
	2022	2023	2024
Gross realized gains from sale of available-for-sale marketable securities	$ —	$ 114	$ 19
Gross realized losses from sale of available-for-sale marketable securities	$ (55)	$ (24)	$ (5)

NOTE 4: LEASES

The Company leases substantially all of its office space and vehicles under operating leases. The Company's leases have original lease periods expiring between 2025 and 2034. Some leases include one or more options to renew. The Company does not assume renewals in its determination of the lease term unless the renewals are deemed to be reasonably certain. Lease payments included in the measurement of the lease liability comprise the following: the fixed non-cancelable lease payments, payments for optional renewal periods where it is reasonably certain the renewal period will be exercised, and payments for early termination options unless it is reasonably certain the lease will not be terminated early.

The following is a summary of weighted average remaining lease terms and discount rate for all of the Company's operating leases:

	December 31, 2024
Weighted average remaining lease term (years)	4.24
Weighted average discount rate	3.97%

Total operating lease cost and cash payments for operating leases were as follows:

	Year ended December 31,		
	2022	2023	2024
Operating lease cost	$ 3,117	$ 2,967	$ 2,763
Cash payments for operating leases	$ 3,051	$ 2,947	$ 2,440

Maturities of lease liabilities are as follows:

2025	2,643
2026	1,033
2027	760
2028	426
2029 and thereafter	1,124
Total undiscounted cash flows	5,986
Less imputed interest	425
Present value of lease liabilities	$ 5,561

(in thousands, except share data)

NOTE 5: FAIR VALUE MEASUREMENT

FASB ASC No. 820, "Fair Value Measurements and Disclosures" defines fair value, establishes a framework for measuring fair value. Fair value is an exit price, representing the amount that would be received for selling an asset or paid for the transfer of a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or a liability. A three-tier fair value hierarchy is established as a basis for considering such assumptions and for inputs used in the valuation methodologies in measuring fair value:

Level I	Unadjusted quoted prices in active markets that are accessible on the measurement date for identical, unrestricted assets or liabilities;
Level II	Quoted prices in markets that are not active, or inputs that are observable, either directly or indirectly, for substantially the full term of the asset or liability; and
Level III	Prices or valuation techniques that require inputs that are both significant to the fair value measurement and unobservable (supported by little or no market activity).

The Company measures its marketable securities, investments in marketable equity securities and foreign currency derivative contracts at fair value. Investments in marketable equity securities are classified within Level I as the securities are traded in an active market. Marketable securities and foreign currency derivative contracts are classified within Level II as the valuation inputs are based on quoted prices and market observable data of similar instruments.

The table below sets forth the Company's assets measured at fair value by level within the fair value hierarchy. Assets are classified in their entirety based on the lowest level of input that is significant to the fair value measurement.

Description	December 31, 2024	Level I	Level II	Level III
Assets:				
Marketable securities:				
Corporate bonds	$ 143,117	—	$ 143,117	—
Investments in marketable equity securities	312	312	—	—

Description	December 31, 2023	Level I	Level II	Level III
Assets:				
Marketable securities:				
Corporate bonds	$ 132,695	—	$ 132,695	—
Foreign exchange contract	988	—	988	—
Investments in marketable equity securities	406	406	—	—

(in thousands, except share data)

NOTE 6: PROPERTY AND EQUIPMENT, NET

Composition of assets, grouped by major classifications, is as follows:	As at December 31,	
	2023	2024
Cost:		
Computers, software and equipment	$ 26,833	$ 25,693
Office furniture and equipment	1,058	921
Leasehold improvements	4,358	4,381
	32,249	30,995
Less – Accumulated depreciation	(25,517)	(24,118)
Property and equipment, net	$ 6,732	$ 6,877

The Company recorded in continuing operations depreciation expenses in the amount of $2,730 and $3,046 for the years ended December 31, 2023 and 2024, respectively. In addition, in 2023 and 2024, assets no longer in use by the Company of $1,491 and $4,506, respectively, have been written down.

NOTE 7: GOODWILL AND INTANGIBLE ASSETS, NET

(a) Goodwill:

Changes in goodwill are as follows:

	Year ended December 31,	
	2023	2024
Balance as of January 1,	$ 74,777	$ 58,308
Acquisition	1,994	—
Sale of Intrinsix (see note 1)	(18,463)	—
Balance as of December 31,	$ 58,308	$ 58,308

(in thousands, except share data)

(b) Intangible assets:

	Weighted average amortization period (years)	Gross carrying amount	Accumulated amortization	Net	Gross carrying amount	Accumulated amortization	Net
Intangible assets –amortizable:							
Intangible assets related to the acquisition of VisiSonics business							
Customer relationships	4.0	$ 432	$ 72	$ 360	$ 432	$ 180	$ 252
Technologies	5.0	1,174	157	1,017	1,174	391	783
Intangible assets related to the acquisition of Hillcrest Labs business							
Customer relationships	4.4	3,518	3,190	328	3,518	3,351	167
Customer backlog	0.5	72	72	—	72	72	—
R&D Tools	7.5	2,475	1,470	1,005	2,475	1,800	675
Intangible assets related to an investment in NB-IoT technologies							
NB-IoT technologies	7.0	1,961	1,704	257	1,961	1,961	—
Total intangible assets		$ 9,632	$ 6,665	$ 2,967	$ 9,632	$ 7,755	$ 1,877

Future estimated annual amortization charges are as follows:

2025	833
2026	680
2027	286
2028	78
	$ 1,877

The Company recorded in continuing operations amortization expense in the amount of $1,031 and $1,090 for the years ended December 31, 2023 and 2024, respectively. In addition, amortization expense related to Intrinsix in the amount $965 for the year ended December 31, 2023, was recorded in discontinued operation.

(in thousands, except share data)

NOTE 8: ACCRUED EXPENSES AND OTHER PAYABLES

	As at December 31,	
	2023	2024
Engineering accruals	$ 619	$ 649
Professional fees	1,273	922
Government grants	895	1,014
Income taxes payable, net	1,922	1,711
Accrued expenses related to assets acquisition	—	637
Other	1,091	1,310
Total	$ 5,800	$ 6,243

NOTE 9: STOCKHOLDERS' EQUITY

a. Common stock:

Holders of common stock are entitled to one vote per share on all matters to be voted upon by the Company's stockholders. In the event of a liquidation, dissolution or winding up of the Company, holders of common stock are entitled to share ratably in all of the Company's assets. The Board of Directors may declare a dividend out of funds legally available therefore and the holders of common stock are entitled to receive ratably any such dividends. Holders of common stock have no preemptive rights or other subscription rights to convert their shares into any other securities.

b. Preferred stock:

The Company is authorized to issue up to 5,000,000 shares of "blank check" preferred stock, par value $0.001 per share. Such preferred stock may be issued by the Board of Directors from time to time in one or more series. These series may have designations, preferences and relative, participating, optional or other special rights and any qualifications, limitations or restrictions thereof, including dividend rights, conversion rights, exchange rights, voting rights, redemption rights (including sinking and purchase fund provisions), and dissolution preferences as may be determined by the Company's Board of Directors.

c. Share repurchase program:

In August 2008, the Company announced that its Board of Directors approved a share repurchase program for up to one million shares of common stock which was further extended by an additional 7,800,000 shares in 2010, 2013, 2014, 2018, 2020, 2023 and November 2024.

As of December 31, 2024, 1,024,781 shares of common stock remained authorized for repurchase under the Company's share repurchase program.

d. Employee and non-employee stock plans:

The Company has historically granted a mix of stock options, SARs capped with a ceiling and RSUs to employees and non-employee directors of the Company and its subsidiaries under the Company's equity plans and provides the right to purchase common stock pursuant to the Company's 2002 employee stock purchase plan to employees of the Company and its subsidiaries. As of December 31, 2023, and December 31, 2024, there were no outstanding or exercisable SARs left. The options granted under the Company's stock incentive plans have been granted at the fair market value of the Company's common stock on the grant date. Options granted to employees under stock incentive plans vest at a rate of 25% of the shares underlying the option after one year and the remaining shares vest in equal portions over the following 36 months, such that all shares are vested after four years. Options granted to non-employee directors vest 25% of the shares underlying the option on each anniversary of the option grant.

(in thousands, except share data)

A summary of the Company's stock option activities and related information for the year ended December 31, 2024, is as follows:

	Number of options	Weighted average exercise price	Weighted average remaining contractual term	Aggregate intrinsic-value
Outstanding at the beginning of the year	99,425	$ 20.74	2.5	$ 316
Granted	10,600	19.61		
Exercised	(26,000)	14.77		
Forfeited or expired	—	—		
Outstanding at the end of the year	84,025	$ 22.45	2.7	$ 765
Exercisable at the end of the year	60,475	$ 23.12	1.5	$ 510

During the year ended December 31, 2022, the Company did not grant stock options. The weighted average fair value at grant date of stock options granted for the year ended December 31, 2023, and 2024 amounted to $11.30 and $10.46, respectively.

The total intrinsic value of options and SARs exercised during the years ended December 31, 2022, 2023 and 2024 was $273, $173, and $187 respectively.

A RSU award is an agreement to issue shares of the Company's common stock at the time the award or a portion thereof vests. RSUs granted to employees generally vest in three equal annual installments starting on the first anniversary of the grant date. RSUs granted to non-employee directors would generally vest in two equal annual installments starting on the first anniversary of the grant date.

On February 12, 2024, the Compensation Committee of the Board (the "Committee") granted 33,318, 20,043, 16,399 and 13,535 RSUs, effective as of February 16, 2024, to each of the Company's Chief Executive Officer ("CEO"), Chief Financial Officer ("CFO"), Chief Operating Officer ("COO") and Chief Commercial Officer ("CCO"), respectively, pursuant to the Company's 2011 Stock Incentive Plan (the "2011 Plan"). The RSU grants vest 33.4% on February 16, 2025, 33.3% on February 16, 2026 and 33.3% on February 16, 2027.

(in thousands, except share data)

Also, on February 12, 2024, the Committee granted 49,978, 13,362, 10,932 and 9,023 performance-based restricted stock units ("PSUs"), effective as of February 16, 2024, to each of the Company's CEO, CFO, COO and CCO, respectively, pursuant to the 2011 Plan. The performance goals for the PSUs with specified weighting are as follows:

Weighting	Goals
50%	Vesting of the full 50% of the PSUs occurs if the Company achieves the 2024 license and related revenue target approved by the Board (the "2024 License Revenue Target"). The vesting threshold is achievement of 90% of the 2024 License Revenue Target. If the Company's achievement of the 2024 License Revenue Target is above 90% but less than 99% of the 2024 License Revenue Target, 91% to 99% of the eligible PSUs would be subject to vesting. If the Company's actual result exceeds 100% of the 2024 License Revenue Target, every 1% increase of the 2024 License Revenue Target, up to 120%, would result in an increase of 2% of the eligible PSUs for the Company's CFO, COO and CCO and an increase of 3% of the eligible PSUs for the Company's CEO.
25%	Vesting of the full 25% of the PSUs occurs if the Company achieves positive total shareholder return whereby the return on the Company's stock for 2024 is greater than the S&P Semiconductors Select Industry index (the "S&P index"). The vesting threshold is if the return on the Company's stock for 2024 is at least 90% of the S&P index. If the return on the Company's stock, in comparison to the S&P index, is above 90% but less than 99% of the S&P index, 91% to 99% of the eligible PSUs would be subject to vesting. If the return on the Company's stock exceeds 100% of the S&P index, every 1% increase in comparison to the S&P index, up to 120%, would result in an increase of 2% of the eligible PSUs for the Company's CFO, COO and CCO and an increase of 3% of the eligible PSUs for the Company's CEO.
25%	Vesting of the full 25% of the PSUs occurs if the Company achieves positive total shareholder return whereby the return on the Company's stock for 2024 is greater than the Russell 2000 index (the "Russell index"). The vesting threshold is if the return on the Company's stock for 2024 is at least 90% of the Russell index. If the return on the Company's stock, in comparison to the Russell index, is above 90% but less than 99% of the Russell index, 91% to 99% of the eligible PSUs would be subject to vesting. If the return on the Company's stock exceeds 100% of the Russell index, every 1% increase in comparison to the Russell index, up to 120%, would result in an increase of 2% of the eligible PSUs for the Company's CFO, COO and CCO and an increase of 3% of the eligible PSUs for the Company's CEO.

Accordingly, assuming maximum achievement of the performance goals set forth above, PSUs representing an additional 60%, meaning an additional 29,986, would be eligible for vesting of the Company's CEO, and an additional 40%, meaning an additional 5,344, 4,372 and 3,609, would be eligible for vesting for each of the Company's CFO, COO and CCO, respectively.

In 2024, the Company achieved 96% of the 2024 License Revenue Target, a positive total shareholder return whereby the return on the Company's stock for 2024 was higher by 118% than the S&P index, and a positive total shareholder return whereby the return on the Company's stock for 2024 was higher by 117% than the Russell index, so based on the PSU award conditions, the Company's CEO, CFO, COO and CCO received 62,170, 15,446, 12,637 and 10,430 PSUs, respectively.

(in thousands, except share data)

The PSUs vest 33.4% on February 16, 2025, 33.3% on February 16, 2026 and 33.3% on February 16, 2027, and only to the extent that the applicable service-based vesting requirements are satisfied.

A summary of the Company's RSU and PSU activities and related information for the year ended December 31, 2024, is as follows:

	Number of RSUs and PSUs	Weighted average grant-date fair value
Unvested as at the beginning of the year	1,281,751	$ 24.97
Granted	917,455	20.14
Vested	(405,205)	31.27
Forfeited	(190,493)	21.55
Unvested at the end of the year	1,603,508	$ 21.01

Stock Plans

As of December 31, 2024, the Company maintains the Company's 2011 Stock Incentive Plan (the "2011 Plan").

As of December 31, 2024, options, SARs, RSUs and PSUs to purchase 232,033 shares of common stock were available for grant under the 2011 Plan.

2011 Stock Incentive Plan

The 2011 Plan was adopted by the Company's Board of Directors in February 2011 and stockholders on May 17, 2011.

The 2011 Plan provides for the grant of incentive stock options intended to qualify under Section 422 of the Internal Revenue Code, nonqualified stock options, restricted stock, RSUs, dividend equivalent rights and stock appreciation rights. Officers, employees, directors, external consultants and advisors of the Company and those of the Company's present and future parent and subsidiary corporations are eligible to receive awards under the 2011 Plan. Under current U.S. tax laws, incentive stock options may only be granted to employees. The 2011 Plan permits the Company's Board of Directors or a committee thereof to determine how grantees may pay the exercise or purchase price of their awards.

Unless sooner terminated, the 2011 Plan is effective until April 2030.

The Company's Board of Directors or a committee thereof has authority to administer the 2011 Plan. The Company's Board of Directors has the authority to adopt, amend and repeal the administrative rules, guidelines and practices relating to the 2011 Plan and to interpret its provisions.

2002 Employee Stock Purchase Plan ("ESPP")

The ESPP was adopted by the Company's Board of Directors and stockholder in July 2002. The ESPP is intended to qualify as an "Employee Stock Purchase Plan" under Section 423 of the U.S. Internal Revenue Code and is intended to provide the Company's employees with an opportunity to purchase shares of common stock through payroll deductions. An aggregate of 3,450,000 shares of common stock (subject to adjustment in the event of future stock splits, future stock dividends or other similar changes in the common stock or the Company's capital structure) are reserved for issuance. As of December 31, 2024, 207,933 shares of common stock were available for future issuance under the ESPP.

(in thousands, except share data)

All of the Company's employees who are regularly employed for more than five months in any calendar year and work 20 hours or more per week are eligible to participate in the ESPP. Non-employee directors, consultants, and employees subject to the rules or laws of a foreign jurisdiction that prohibit or make impractical their participation in an employee stock purchase plan are not eligible to participate in the ESPP.

The ESPP designates offer periods, purchase periods and exercise dates. Offer periods generally will be overlapping periods of 24 months. Purchase periods generally will be six-month periods. Exercise dates are the last day of each purchase period. In the event the Company merges with or into another corporation, sells all or substantially all of the Company's assets, or enters into other transactions in which all of the Company's stockholders before the transaction own less than 50% of the total combined voting power of the Company's outstanding securities following the transaction, the Company's Board of Directors or a committee designated by the Board may elect to shorten the offer period then in progress.

The price per share at which shares of common stock may be purchased under the ESPP during any purchase period is the lesser of:

- 85% of the fair market value of common stock on the date of grant of the purchase right, which is the commencement of an offer period; or
- 85% of the fair market value of common stock on the exercise date, which is the last day of a purchase period.

The participant's purchase right is exercised in the above noted manner on each exercise date arising during the offer period unless, on the first day of any purchase period, the fair market value of common stock is lower than the fair market value of common stock on the first day of the offer period. If so, the participant's participation in the original offer period will be terminated, and the participant will automatically be enrolled in the new offer period effective the same date.

The ESPP is administered by the Board of Directors or a committee designated by the Board, which will have the authority to terminate or amend the plan, subject to specified restrictions, and otherwise to administer and resolve all questions relating to the administration of the plan.

e. Dividend policy:

The Company has never declared or paid any cash dividends on its capital stock and does not anticipate paying any cash dividends in the foreseeable future.

NOTE 10: DERIVATIVES AND HEDGING ACTIVITIES

The fair value of the Company's outstanding derivative instruments is as follows:

	As of December 31,	
	2023	**2024**
Derivative assets:		
Derivatives designated as cash flow hedging instruments:		
Foreign exchange forward contracts	$ 988	$ —
Total	$ 988	$ —

(in thousands, except share data)

The Company recorded the fair value of derivative assets in “prepaid expenses and other current assets” on the Company’s consolidated balance sheets.

The changes in unrealized gains (losses) recognized in “accumulated other comprehensive income (loss)” on derivatives, before tax effect, is as follows:

	Year ended December 31, 2022	Year ended December 31, 2023	Year ended December 31, 2024
Derivatives designated as cash flow hedging instruments:			
Foreign exchange option contracts	$ (361)	$ (265)	$ 41
Foreign exchange forward contracts	(1,100)	281	(115)
	$ (1,461)	$ 16	$ (74)

The net (gains) losses reclassified from “accumulated other comprehensive income (loss)” into income, are as follows:

	Year ended December 31, 2022	Year ended December 31, 2023	Year ended December 31, 2024
Derivatives designated as cash flow hedging instruments:			
Foreign exchange option contracts	$ 338	$ 288	$ (41)
Foreign exchange forward contracts	954	790	(873)
	$ 1,292	$ 1,078	$ (914)

The Company recorded in cost of revenues and operating expenses, a net loss of $1,292, a net loss of $1,078 and a net gain of 914 during the years ended December 31, 2022, 2023 and 2024, respectively, related to its Hedging Contracts.

NOTE 11: ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)

The following table summarizes the changes in accumulated balances of other comprehensive income (loss), net of taxes:

	Year ended December 31, 2023			Year ended December 31, 2024		
	Unrealized gains (losses) on available-for-sale marketable securities	Unrealized gains (losses) on cash flow hedges	Total	Unrealized gains (losses) on available-for-sale marketable securities	Unrealized gains (losses) on cash flow hedges	Total
Beginning balance	$ (6,142)	$ (107)	$ (6,249)	$ (3,317)	$ 988	$ (2,329)
Other comprehensive income (loss) before reclassifications	2,915	16	2,931	2,001	(73)	1,928
Amounts reclassified from accumulated other comprehensive income (loss)	(90)	1,079	989	(14)	(915)	(929)
Net current period other comprehensive income (loss)	2,825	1,095	3,920	1,987	(988)	999
Ending balance	$ (3,317)	$ 988	$ (2,329)	$ (1,330)	$ —	$ (1,330)

(in thousands, except share data)

The following table provides details about reclassifications out of accumulated other comprehensive income (loss):

Details about Accumulated Other Comprehensive Income (Loss) Components	Amount reclassified from accumulated other comprehensive income (loss)			Affected Line Item in the Statements of Income (Loss)
	Year ended December 31,			
	2022	2023	2024	
Unrealized gains (losses) on cash flow hedges	$ (20)	$ (21)	$ 20	Cost of revenues
	(1,135)	(933)	774	Research and development
	(32)	(23)	26	Sales and marketing
	(105)	(101)	94	General and administrative
	(1,292)	(1,078)	914	Total, before income taxes
	(138)	1	(1)	Income tax expense (benefit)
	(1,154)	(1,079)	915	Total, net of income taxes
Unrealized gains (losses) on available-for-sale marketable securities	(55)	90	14	Financial income, net
	(4)	—	—	Income tax benefit
	(51)	90	14	Total, net of income taxes
	$ (1,205)	$ (989)	$ 929	Total, net of income taxes

(in thousands, except share data)

NOTE 12: GEOGRAPHIC INFORMATION AND MAJOR CUSTOMER AND MARKET DATA

The Company operates as one operating segment. Operating segments are defined as components of an enterprise for which separate financial information is regularly evaluated by the Company's chief operating decision maker ("CODM"), which is the Company's chief executive officer, in deciding how to allocate resources and assess performance. The Company's CODM evaluates the Company's financial information and resources and assesses the performance of these resources on a consolidated basis. There is no expense or asset information, that are supplemental to those disclosed in these consolidated financial statements, that are regularly provided to the CODM. The allocation of resources and assessment of performance of the operating segment is based on consolidated net income as shown in our consolidated statements of loss. The CODM considers net income in the annual forecasting process and reviews actual results when making decisions about allocating resources. Since the Company operates as one operating segment, financial segment information, including profit or loss and asset information, can be found in these consolidated financial statements.

a. Summary information about geographic areas:

The Company manages its business on a basis of one reportable segment: the licensing of IP to semiconductor companies and electronic equipment manufacturers (see Note 1 for a brief description of the Company's business). The following is a summary of revenues within geographic areas:

	Year ended December 31,		
	2022	2023	2024
Revenues based on customer location:			
United States	$ 14,155	$ 9,551	$ 20,304
Europe, Middle East	9,944	12,184	12,796
Asia Pacific (1)	96,484	75,684	73,826
Other	—	—	13
	$ 120,583	$ 97,419	$ 106,939
(1) China	$ 75,682	$ 57,507	$ 52,684

	As of December 31,	
	2023	2024
Long-lived assets by geographic region:		
Israel	$ 8,119	$ 6,788
France	2,064	1,916
United States	1,866	1,716
Greece	—	984
Other	1,661	1,284
	$ 13,710	$ 12,688

(in thousands, except share data)

b. Major customer data as a percentage of total revenues:

The following table sets forth the customers that represented 10% or more of the Company's total revenues in each of the periods set forth below:

	Year ended December 31,		
	2022	**2023**	**2024**
Customer A	16%	13%	15%

c. Major customer data as a percentage of total trade receivable:

The following table sets forth the customers that represented 10% or more of the Company's total trade receivable in each of the periods set forth below:

	As of December 31,	
	2023	**2024**
Customer A	28%	24%
Customer B	-*)	12%

*) Less than 5%

d. Information about use cases for Ceva Technology Portfolio:

The following table sets forth use cases for Ceva technology portfolio as percentages of the Company's total revenues in each of the periods set forth below:

	Year ended December 31,		
	2022	**2023**	**2024**
Connect (baseband for handset and other devices, Bluetooth, Wi-Fi and NB-IoT)	78%	82%	84%
Sense & Infer (sensor fusion, audio, sound, imaging, vision and AI)	22%	18%	16%

(in thousands, except share data)

NOTE 13: FINANCIAL INCOME, NET

	Year ended December 31,		
	2022	2023	2024
Interest income	$ 3,190	$ 4,362	$ 4,954
Gain (loss) on available-for-sale marketable securities, net	(55)	90	14
Amortization of discount (premium) on available-for-sale marketable securities, net	(397)	124	922
Foreign exchange gain (loss), net	74	688	(1,006)
Total	$ 2,812	$ 5,264	$ 4,884

NOTE 14: TAXES ON INCOME

a. U.S. *tax reform*

On December 22, 2017, the U.S. government enacted the Tax Cuts and Jobs Act (the "Tax Act"). The Tax Act includes significant changes to the U.S. corporate income tax system including but not limited to: a federal corporate rate reduction from 35% to 21%; creation of the base erosion anti-abuse tax ("BEAT"), introduction of the Global Intangible Low Taxed Income ("GILTI") provisions; the transition of U.S. international taxation from a worldwide tax system to a modified territorial tax system; modifications to the allowance of net business interest expense deductions; modification of net operating loss provisions; changes to 162(m) limitation rules and bonus depreciation provisions. The change to a modified territorial tax system resulted in a one-time U.S. tax liability on those earnings which have not previously been repatriated to the U.S. (the "Transition Tax"), with future dividend distributions not subject to U.S. federal income tax when repatriated. A majority of the provisions in the Tax Act became effective January 1, 2018.

In connection with its analysis of the impact of the Tax Act, the Company had $16,053 of Transition Tax inclusion reported on the tax return filed for the year ended December 31, 2017. After the utilization of existing tax net operating loss carryforwards, the Company did not pay additional U.S. federal cash taxes.

The Tax Act added a new code section 951A, which requires a U.S. shareholder of a Controlled Foreign Corporation ("CFC") to include in current taxable income, its GILTI in a manner similar to Subpart F income. The statutory language also allows a deduction for corporate shareholders equal to 50% of the GILTI inclusion, which would be reduced to 37.5% starting in 2026. In general, GILTI imposes a tax on the net income of foreign corporate subsidiaries in excess of a deemed return on their tangible assets. The Company is subject to GILTI for 2018 and future periods. The Company is electing to account for the income tax effects of GILTI as a "period cost," an income tax expenses in the year the tax is incurred.

For the fiscal year ended 2023 the Company operated at net losses before the GILTI inclusion and a taxable income position after and utilized net operating losses, deductions under Section 250 of the U.S. Internal Revenue Code, and foreign tax credits to offset the tax liability, and did not pay additional U.S. federal cash taxes. For the fiscal year ended 2024, GILTI is not expected to cause the company to be in a tax paying position for the current and future years.

Furthermore, the Tax Act limits the carryover of net operating losses generated after tax years 2017 to 80% of taxable income and eliminates the ability to carryback. Losses incurred before January 1, 2018, have not changed and are not limited to the 80% of taxable income and will continue to be carried forward 20 years. The Company has fully utilized all pre-2018 net operating losses. Any future net operating losses generated will be carried forward indefinitely and subject to an 80% taxable income limitation.

b. A number of the Company's operating subsidiaries are taxed at rates lower than U.S. rates.

1. Irish Subsidiaries

The Irish operating subsidiaries qualified for a 12.5% tax rate on its trade. Interest income earned by the Irish subsidiaries is taxed at a rate of 25%. As of December 31, 2024, the open tax years, subject to review by the applicable taxing authorities for the Irish subsidiaries, are 2019 and subsequent years.

2. Israeli Subsidiary

The Israeli subsidiary enjoys certain tax benefits in Israel, particularly as a result of the "Approved Enterprise" and the "Benefited Enterprise" status of its facilities and programs through 2019, and the "Technological Preferred Enterprise" status of its facilities and programs since 2020.

The Israeli subsidiary has been granted "Approved Enterprise" and "Benefited Enterprise" status under the Israeli Law for the Encouragement of Capital Investments. For such Approved Enterprises and Benefited Enterprises, the Israeli subsidiary elected to apply for alternative tax benefits—the waiver of government grants in return for tax exemptions on undistributed income. Upon distribution of such exempt income, the Israeli subsidiary will be subject to corporate tax at the rate ordinarily applicable to the Approved Enterprise's or Benefited Enterprise's income. Such tax exemption on undistributed income applies for a limited period of between two to ten years, depending upon the location of the enterprise. During the remainder of the benefits period (generally until the expiration of ten years), a reduced corporate tax rate not exceeding 23% will apply.

The Israeli subsidiary is a foreign investor company, or FIC, as defined by the Investment Law. FICs are entitled to further reductions in the tax rate normally applicable to Approved Enterprises and Benefited Enterprises. Depending on the foreign ownership in each tax year, the tax rate can range between 10% (when foreign ownership exceeds 90%) to 20% (when foreign ownership exceeds 49%). There can be no assurance that the subsidiary will continue to qualify as an FIC in the future or that the benefits described herein will be granted in the future.

The Company's Israeli subsidiary's tax-exempt profit from Approved Enterprises and Benefited Enterprises is permanently reinvested as the Company's management has determined that the Company does not currently intend to distribute dividends. Therefore, deferred taxes have not been provided for such tax-exempt income. The Company intends to continue to reinvest these profits and does not currently foresee a need to distribute dividends out of such tax-exempt income.

In December 2016, the Economic Efficiency Law (Legislative Amendments for Applying the Economic Policy for the 2017 and 2018 Budget Years), 2016, which includes the Amendment to the Law for the Encouragement of Capital Investments, 1959 (Amendment 73) (the "Amendment"), was published. The Amendment, among other things, prescribes special tax tracks for technological enterprises, which are subject to rules that were issued by the Minister of Finance during April 2017.

The new tax track under the Amendment, which is applicable to the Israeli subsidiary, is the “Technological Preferred Enterprise”. A Technological Preferred Enterprise is an enterprise for which total consolidated revenues of its parent company and all subsidiaries are less than 10 billion New Israeli Shekel (“NIS”). A Technological Preferred Enterprise, as defined in the law, which is located in the center of Israel (where our Israeli subsidiary is currently located) is subject to tax at a rate of 12% on profits deriving from IP (in development area A, the tax rate is 7.5%), subject to satisfaction of a number of conditions, including compliance with a minimal amount or ratio of annual Research and development expenditure and Research and development employees, as well as having at least 25% of annual income derived from exports. Any dividends distributed to "foreign companies", as defined in the law, deriving from income from the technological enterprises will be subject to tax at a rate of 4% if foreign entities hold at least 90% of the Company’s common stock.

In light of the Company's decision not to distribute a dividend in the coming year, no tax expenses were recognized in the tax year.

The balance of accumulated income that has not yet been thawed as of December 31, 2024 is 118,512 NIS (approximately $32,496)

In addition, due to a lack of intention to distribute a dividend in a subsidiary that has imprisoned profits, the Company did not recognize as of December 31, 2024 a deferred tax liability against recognition of deferred tax expenses.

Income not eligible for Technological Preferred Enterprise is taxed at a regular rate, which was 23% in 2022, 2023 and 2024.

The Israeli subsidiary elected to compute taxable income in accordance with Income Tax Regulations (Rules for Accounting for Foreign Investors Companies and Certain Partnerships and Setting their Taxable Income), 1986. Accordingly, the taxable income or loss is calculated in U.S. dollars. Applying these regulations reduces the effect of the foreign exchange rate (of NIS against the U.S. dollar) on the Company’s Israeli taxable income.

As of December 31, 2024, the open tax years, subject to review by the applicable taxing authorities for the Israeli subsidiary, are 2020 and subsequent years.

3. French Subsidiary

Since 2021, the Company’s French subsidiary is entitled to a tax benefit of 10% applied to specific revenues under the French IP Box regime. The French IP Box regime applies to net income derived from the licensing, sublicensing or sale of several IP rights such as patents and copyrighted software, including royalty revenues. This elective regime requires a direct link between the income benefiting from the preferential treatment and the R&D expenditures incurred and contributing to that income. Qualifying income may be taxed at a favorable 10% CIT rate (plus social surtax, hence 10.3% in total).

Income not eligible for a tax benefit under the French IP Box regime is taxed at a regular rate, which was 25% in 2022, 2023 and 2024.

As of December 31, 2024, the open tax years subject to review by the applicable taxing authorities for the French subsidiary are 2022 and subsequent years.

(in thousands, except share data)

c. Taxes on income comprised of:

	Year ended December 31,		
	2022	2023	2024
Domestic taxes:			
Current	$ 949	$ (1,229)	$ 43
Deferred	(4,425)	4,429	—
Foreign taxes:			
Current	6,647	7,668	6,057
Deferred	14,904	(636)	(69)
	$ 18,075	$ 10,232	$ 6,031
Income (loss) before taxes on income:			
Domestic	$ (12,741)	$ (14,136)	$ (11,081)
Foreign	16,938	5,931	8,326
	$ 4,197	$ (8,205)	$ (2,755)

d. Reconciliation between the Company's effective tax rate and the U.S. statutory rate:

	Year ended December 31,		
	2022	2023	2024
Income (loss) before taxes on income	$ 4,197	$ (8,205)	$ (2,755)
Theoretical tax at U.S. statutory rate	881	(1,723)	(579)
Foreign income taxes at rates other than U.S. rate	(4,644)	(3,313)	(1,152)
Subpart F	301	795	853
Non-deductible items	121	195	392
Non-taxable items	(452)	(527)	(280)
Taxes for prior years	(2,257)	(371)	132
Stock-based compensation expense	267	1,131	609
Impacts of GILTI	6,736	1,877	1,877
Tax adjustment in respect of difference tax rate of foreign subsidiary	(8,147)	—	—
Foreign withholding taxes	1,390	—	3,567
Changes in valuation allowance	22,631	13,034	(65)
Other, net	1,248	(866)	677
Taxes on income	$ 18,075	$ 10,232	$ 6,031

(in thousands, except share data)

e. Deferred taxes on income:

Significant components of the Company's deferred tax assets are as follows:

	As of December 31,	
	2023	2024
Deferred tax assets		
Operating loss carryforward	$ 18,446	$ 18,933
Accrued expenses and deferred revenues	2,239	2,285
Temporary differences related to R&D expenses	11,562	10,542
Equity-based compensation	7,022	7,609
Operating leases	1,326	1,163
Intangible assets	253	262
Tax credit carry forward	18,609	18,663
Other	1,298	882
Total gross deferred tax assets	60,755	60,339
Valuation allowance	(57,806)	(57,741)
Net deferred tax assets	$ 2,949	$ 2,598
Deferred tax liabilities		
Operating leases	$ (1,340)	$ (1,142)
Total deferred tax liabilities	$ (1,340)	$ (1,142)
Net deferred tax assets (*)	$ 1,609	$ 1,456

(*) Net deferred taxes for the years ended December 31, 2023 and 2024 are all from foreign jurisdictions.

Changes in valuation allowances on deferred tax assets result from management's assessment of the Company's ability to utilize certain future tax deductions, operating losses and tax credit carryforwards prior to expiration. Valuation allowances were recorded to reduce deferred tax assets to an amount that will, more likely than not, be realized in the future.

During the year ended December 31, 2023, the Company concluded that, based on its evaluation of available evidence, it was no longer more likely than not that certain deferred tax assets were recoverable. As a result, the Company recorded a valuation allowance of $4,429 for the year ended December 31 2023 against its deferred tax assets.

As of December 31, 2024, the Company's undistributed earnings from non-U.S. subsidiaries are intended to be indefinitely reinvested in non-U.S. operations, and therefore no U.S. deferred taxes liabilities have been recorded.

f. Uncertain tax positions:

A reconciliation of the beginning and ending amount of gross unrecognized tax benefits based on the provisions of FASB ASC No. 740 is as follows:

	Year ended December 31,	
	2023	2024
Beginning of year	$ 1,633	$ 462
Settlement due to a tax audit for prior years	(1,171)	—
Balance at December 31	$ 462	$ 462

As of both December 31, 2023 and 2024, there were $462 of unrecognized tax benefits that if recognized would affect the annual effective tax rate. The Company accrued interest in the amount of $85 relating to unrecognized tax benefits in its provision for income taxes during the year ended December 31, 2024. The Company did not accrue penalties relating to unrecognized tax benefits in its provision for income taxes during the years ended December 31, 2023 and 2024 because such penalties did not have a material impact on the Company's financial statements.

The Company believes that an adequate provision has been made for any adjustments that may result from tax examinations. However, the outcome of tax audits cannot be predicted with certainty. If any issues addressed in the Company's tax audits are resolved in a manner not consistent with management's expectations, the Company could be required to adjust its provision for income taxes in the period such resolution occurs. The Company does not expect uncertain tax positions to change significantly over the next 12 months, except in the case of settlements with tax authorities, the likelihood and timing of which are difficult to estimate.

g. Tax loss carryforwards:

As of December 31, 2024, Ceva and its subsidiaries had no remaining net operating loss carryforwards for federal income tax purposes. As of December 31, 2024, Ceva and its subsidiaries had net operating loss carryforwards for various state income tax purposes of approximately $2,963 which are available to offset taxable income. Such loss carryforwards have an indefinite life.

As of December 31, 2024, Ceva's Irish subsidiary had foreign operating losses of approximately $48,601, which are available to offset future taxable income indefinitely.

As of December 31, 2024, Ceva's Israeli subsidiary had foreign operating losses of approximately $39,318, which are available to offset future taxable income indefinitely.

h. Tax returns:

Ceva files income tax returns in the U.S. federal jurisdiction and various state and local jurisdictions. With few exceptions, Ceva is no longer subject to U.S. federal income tax examinations by tax authorities, and state and local income tax examinations, for the years prior to 2020.

NOTE 15: RELATED PARTY TRANSACTIONS

On February 16, 2021, the Board unanimously approved the appointment of Jaclyn Liu as an independent member of the Board with the appointment effective as of February 16, 2021. Ms. Liu is a partner of Morrison & Foerster LLP, outside legal counsel to the Company. Fees attributed to Morrison & Foerster LLP during the year ended December 31, 2024, were $390. The accounts payable balance with Morrison & Foerster LLP at December 31, 2024 was $0.

NOTE 16: COMMITMENTS AND CONTINGENCIES

a. The Company is involved in several legal proceedings and claims that have arisen in the ordinary course of business and remain unresolved. As of December 31, 2024, the outcome of these matters was anticipated to be more likely than not. Consequently, the Company has recorded a provision amounting to approximately $300 on the consolidated balance sheet.

(in thousands, except share data)

b. As of December 31, 2024, the Company and its subsidiaries had several non-cancelable operating leases, primarily for facilities and equipment. These leases generally contain renewal options and require the Company and its subsidiaries to pay all executory costs such as maintenance and insurance. In addition, the Company has several fixed service agreements with sub-contractors.

As of December 31, 2024, future purchase obligations and minimum rental commitments for leasehold properties and operating leases with non-cancelable terms are as follows:

	Minimum rental commitments for leasehold properties	Commitments for other lease obligations	Other purchase obligations	Total
2025	$ 551	$ 4,144	$ 1,317	$ 6,012
2026	151	366	—	517
2027	82	183	—	265
2028	34	—	—	34
Total	$ 818	$ 4,693	$ 1,317	$ 6,828

c. Royalties:

The Company participated in programs sponsored by the Israeli government for the support of research and development activities. Through December 31, 2024, the Company had obtained grants from the IIA for certain of the Company's research and development projects. The Company is obligated to pay royalties to the IIA, amounting to 3%-3.5% of the sales of the products and other related revenues (based on the dollar) generated from such projects, up to 100% of the grants received. Royalty payment obligations also bear interest at the LIBOR rate. The obligation to pay these royalties is contingent on actual sales of the products and in the absence of such sales, no payment is required.

Royalty expenses relating to the IIA grants included in cost of revenues for the years ended December 31, 2022, 2023 and 2024 amounted to $1,221, $1,010 and $1,580, respectively. As of December 31, 2024, the aggregate contingent liability to the IIA (including interest) amounted to $28,468.

SIGNATURES

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

Ceva, Inc.

By: /S/ Amir Panush

Amir Panush
Chief Executive Officer

February 27, 2025

POWER OF ATTORNEY

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

Pursuant to the requirements of the Securities Exchange Act of 1934, this report on Form 10-K has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/S/ AMIR PANUSH Amir Panush	Chief Executive Officer and Director (Principal Executive Officer)	February 27, 2025
/S/ YANIV ARIELI Yaniv Arieli	Chief Financial Officer and Treasurer (Principal Financial Officer and Principal Accounting Officer)	February 27, 2025
/S/ PETER MCMANAMON Peter McManamon	Director and Chairman	February 27, 2025
/S/ BERNADETTE ANDRIETTI Bernadette Andrietti	Director	February 27, 2025
/S/ JACLYN LIU Jaclyn Liu	Director	February 27, 2025
/S/ MARIA MARCED Maria Marced	Director	February 27, 2025
/S/ SVEN-CHRISTER-NILSSON Sven-Christer Nilsson	Director	February 27, 2025
/S/ LOUIS SILVER Louis Silver	Director	February 27, 2025
/S/ AMIR FAINTUCH Amir Faintuch	Director	February 27, 2025