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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended: June 30, 2023

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	The NASDAQ Stock Market LLC

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 definition of "large accelerated filer", "accelerated filer", "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one).

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 is a shell company (as defined in Rule 12b-2 of the Exchange Act).
Yes ☐ No ☒

Indicate the number of shares outstanding of each of the issuer’s classes of common stock as of the latest practicable date: 23,633,018 of common stock, $0.001 par value, as of August 4, 2023.

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FORWARD-LOOKING STATEMENTS

FORWARD-LOOKING STATEMENTS AND INDUSTRY DATA

This Quarterly 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 having chip design expertise as part of our offerings through our Intrinsix business unit strengthens our relationships with customers, streamlines IP adoption, generates recurrent royalties and more, and that Intrinsix’s experience and customer base in the growing chip development programs with the U.S. Department of Defense and Defense Advanced Research Projects Agency (DARPA) together with its IP offerings for processor security and chiplets extends our serviceable market and revenue base;

- Our belief that our portfolio of wireless connectivity and smart sensing technologies address some of the most important megatrends, including 5G, generative AI, industrial automation and vehicle electrification, and our belief in the continued interest in our portfolio, in both traditional and new areas;

- Our belief that our PentaG2 platform for 5G handsets and 5G IoT endpoints is the most comprehensive baseband IP platform in the industry today and provides newcomers and incumbents with a comprehensive solution to address the need for 5G processing for smartphones, fixed wireless access, satellite communications and a range of connected devices such as robots, cars, smart cities and other devices for industrial applications;

- Our belief that our specialization and technological edge in signal processing platforms for 5G base station radio access network (RAN) and our PentaG RAN platform put us in a strong position to capitalize on the growing 5G RAN demand and the its disintegration toward new architecture and form factors, and that our PentaG RAN platform for 5G RAN settings is the most comprehensive baseband processor IP in the industry today and provides customers and incumbents with a comprehensive solution to address the need for 5G;

- Our belief that our Bluetooth, Wi-Fi, Ultra Wide Band (UWB) and cellular IoT IPs allow us to address the high volume IoT industrial, consumer and smart home market, and expectation that the overall addressable market will be more than 15 billion devices annually by 2027 based on research from ABI Research;

- Our belief that Wi-Fi presents a significant royalty opportunity given our dominant market position in licensing Wi-Fi 6 to more than 35 customers to date;

- Our belief that the growing market for True Wireless Stereo (TWS) earbuds, smartwatches, AR and VR headsets, and other wearable assisted devices, offers an incremental growth segment for us for our software IP;

- Our belief that our second generation SensPro2 sensor hub DSP family provides highly compelling offerings for any sensor-enabled devices and applications and 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 safety, voice-enabled devices and industrial IoT applications;

- Statements regarding third-party estimates of industry growth and future market conditions, including the expectation that camera-enabled devices incorporating computer vision and AI will exceed 1 billion units and devices incorporating voice AI will reach 600 million units by 2025 per research from Yole Group;

- Our belief that our newest generation family of 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, , and that more than 2.5 billion Edge AI devices will ship annually by 2026 based on research from Yole Group;

- Our belief that the Hillcrest Labs sensor fusion business unit 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 expectation that we are well positioned for long-term growth in revenues in the base station and IoT product categories, including from a range of different products at different royalty ASPs, spanning from high volume Bluetooth and Wi-Fi to high value sensor fusion and base station RAN;

- Our expectation 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;

- Our belief that volatility in the global economic climate and financial markets could result in a significant change in the value of our investments;

- Our anticipation 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;

- Our expectation that we will continue to experience the effect of exchange rate and currency fluctuations on an annual and quarterly basis; 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 Part II – Item 1A – “Risk Factors” of this Form 10-Q.

This report contains market data prepared by third party research firm. Actual market results may differ from their projections.

PART I. FINANCIAL INFORMATION

Item 1. FINANCIAL STATEMENTS

INTERIM CONDENSED CONSOLIDATED BALANCE SHEETS

U.S. dollars in thousands, except share and per share data

	June 30, 2023	December 31, 2022
	Unaudited	
ASSETS		
Current assets:		
Cash and cash equivalents	$ 27,511	$ 21,285
Short-term bank deposits	10,433	6,114
Marketable securities	97,703	112,080
Trade receivables (net of allowance for credit losses of $313 as of both June 30, 2023 and December 31, 2022)	31,872	31,250
Prepaid expenses and other current assets	7,753	6,896
Total current assets	175,272	177,625
Long-term assets:		
Bank deposits	-	8,205
Severance pay fund	7,916	8,475
Deferred tax assets, net	8,936	8,599
Property and equipment, net	6,868	7,099
Operating lease right-of-use assets	9,836	10,283
Goodwill	76,771	74,777
Intangible assets, net	6,907	6,680
Investments in marketable equity securities	172	408
Other long-term assets	7,595	6,291
Total long-term assets	125,001	130,817
Total assets	$ 300,273	$ 308,442
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Trade payables	$ 1,104	$ 1,995
Deferred revenues	3,788	3,168
Accrued expenses and other payables	5,563	6,660
Accrued payroll and related benefits	12,777	18,473
Operating lease liabilities	2,895	2,982
Total current liabilities	26,127	33,278
Long-term liabilities:		
Accrued severance pay	8,702	9,064
Operating lease liabilities	6,239	6,703
Other accrued liabilities	621	526
Total long-term liabilities	15,562	16,293
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; 23,595,160 shares issued at June 30, 2023 and December 31, 2022. 23,539,104 and 23,215,439 shares outstanding at June 30, 2023 and December 31, 2022, respectively	24	23
Additional paid in-capital	244,250	242,841
Treasury stock at cost (56,056 and 379,721 shares of common stock at June 30, 2023, and December 31, 2022, respectively)	(1,462)	(9,904)
Accumulated other comprehensive loss	(5,583)	(6,249)
Retained earnings	21,355	32,160
Total stockholders' equity	258,584	258,871
Total liabilities and stockholders' equity	$ 300,273	$ 308,442

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

INTERIM CONDENSED CONSOLIDATED STATEMENTS OF LOSS (UNAUDITED)

U.S. dollars in thousands, except per share data

	Six months ended June 30,		Three months ended June 30,	
	2023	**2022**	**2023**	**2022**
Revenues:				
Licensing, NRE and related revenue	$ 37,522	$ 44,516	$ 16,801	$ 22,123
Royalties	17,385	23,070	9,371	11,072
Total revenues	54,907	67,586	26,172	33,195
Cost of revenues	10,887	13,229	5,572	6,825
Gross profit	44,020	54,357	20,600	26,370
Operating expenses:				
Research and development, net	40,385	39,748	19,594	19,538
Sales and marketing	5,840	5,646	2,795	2,723
General and administrative	8,217	7,271	4,169	3,635
Amortization of intangible assets	645	1,500	316	750
Total operating expenses	55,087	54,165	26,874	26,646
Operating income (loss)	(11,067)	192	(6,274)	(276)
Financial income, net	2,576	695	1,121	413
Remeasurement of marketable equity securities	(236)	(1,816)	(119)	(685)
Loss before taxes on income	(8,727)	(929)	(5,272)	(548)
Income tax expense	1,963	1,890	546	575
Net loss	$ (10,690)	$ (2,819)	$ (5,818)	$ (1,123)
Basic and diluted net loss per share	$ (0.46)	$ (0.12)	$ (0.25)	$ (0.05)
Weighted-average shares used to compute net loss per share (in thousands):				
Basic and diluted	23,405	23,139	23,476	23,174

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

INTERIM CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS (UNAUDITED)

U.S. dollars in thousands

	Six months ended June 30,		Three months ended June 30,	
	2023	**2022**	**2023**	**2022**
Net loss:	$ (10,690)	$ (2,819)	$ (5,818)	$ (1,123)
Other comprehensive income (loss) before tax:				
Available-for-sale securities:				
Changes in unrealized losses	867	(4,632)	137	(1,793)
Reclassification adjustments for (gains) losses included in net loss	(76)	21	16	21
Net change	791	(4,611)	153	(1,772)
Cash flow hedges:				
Changes in unrealized gains (losses)	(630)	(1,400)	(205)	(1,402)
Reclassification adjustments for losses included in net loss	574	742	403	632
Net change	(56)	(658)	198	(770)
Other comprehensive income (loss) before tax	735	(5,269)	351	(2,542)
Income tax expense (benefit) related to components of other comprehensive income (loss)	69	(1,116)	24	(455)
Other comprehensive income (loss), net of taxes	666	(4,153)	327	(2,087)
Comprehensive loss	$ (10,024)	$ (6,972)	$ (5,491)	$ (3,210)

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

INTERIM CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (UNAUDITED)

U.S. dollars in thousands, except share data

	Common stock						
Six months ended June 30, 2023	**Number of shares outstanding**	**Amount**	**Additional paid-in capital**	**Treasury stock**	**Accumulated other comprehensive income (loss)**	**Retained earnings**	**Total stockholders' equity**
Balance as of January 1, 2023	23,215,439	$ 23	$ 242,841	$ (9,904)	$ (6,249)	$ 32,160	$ 258,871
Net loss	—	—	—	—	—	(10,690)	(10,690)
Other comprehensive income	—	—	—	—	666	—	666
Equity-based compensation	—	—	8,064	—	—	—	8,064
Issuance of treasury stock upon exercise of stock-based awards	323,665	1	(6,655)	8,442	—	(115)	1,673
Balance as of June 30, 2023	23,539,104	$ 24	$ 244,250	$ (1,462)	$ (5,583)	$ 21,355	$ 258,584

	Common stock						
Three months ended June 30, 2023	**Number of shares outstanding**	**Amount**	**Additional paid-in capital**	**Treasury stock**	**Accumulated other comprehensive income (loss)**	**Retained earnings**	**Total stockholders' equity**
Balance as of April 1, 2023	23,416,026	$ 23	$ 243,141	$ (4,672)	$ (5,910)	$ 27,288	$ 259,870
Net loss	—	—	—	—	—	(5,818)	(5,818)
Other comprehensive income	—	—	—	—	327	—	327
Equity-based compensation	—	—	4,205	—	—	—	4,205
Issuance of treasury stock upon exercise of stock-based awards	123,078	1	(3,096)	3,210	—	(115)	—
Balance as of June 30, 2023	23,539,104	$ 24	$ 244,250	$ (1,462)	$ (5,583)	$ 21,355	$ 258,584

INTERIM CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (UNAUDITED)

U.S. dollars in thousands, except share data

	Common stock						
Six months ended June 30, 2022	**Number of shares outstanding**	**Amount**	**Additional paid-in capital**	**Treasury stock**	**Accumulated other comprehensive income (loss)**	**Retained earnings**	**Total stockholders' equity**
Balance as of January 1, 2022	22,984,552	$ 23	$ 235,386	$ (13,790)	$ (372)	$ 55,485	$ 276,732
Net loss	—	—	—	—	—	(2,819)	(2,819)
Other comprehensive loss	—	—	—	—	(4,153)	—	(4,153)
Equity-based compensation	—	—	6,692	—	—	—	6,692
Purchase of treasury stock	(136,091)	—	—	(4,457)	—	—	(4,457)
Issuance of treasury stock upon exercise of stock-based awards	289,296	—	(4,699)	6,556	—	(137)	1,720
Balance as of June 30, 2022	23,137,757	$ 23	$ 237,379	$ (11,691)	$ (4,525)	$ 52,529	$ 273,715

	Common stock						
Three months ended June 30, 2022	**Number of shares outstanding**	**Amount**	**Additional paid-in capital**	**Treasury stock**	**Accumulated other comprehensive income (loss)**	**Retained earnings**	**Total stockholders' equity**
Balance as of April 1, 2022	23,204,274	$ 23	$ 235,563	$ (8,828)	$ (2,438)	$ 53,759	$ 278,079
Net loss	—	—	—	—	—	(1,123)	(1,123)
Other comprehensive loss	—	—	—	—	(2,087)	—	(2,087)
Equity-based compensation	—	—	3,303	—	—	—	3,303
Purchase of treasury stock	(136,091)	—	—	(4,457)	—	—	(4,457)
Issuance of treasury stock upon exercise of stock-based awards	69,574	—	(1,487)	1,594	—	(107)	—
Balance as of June 30, 2022	23,137,757	$ 23	$ 237,379	$ (11,691)	$ (4,525)	$ 52,529	$ 273,715

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

INTERIM CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (UNAUDITED)

U.S. dollars in thousands

	Six months ended June 30, 2023	Six months ended June 30, 2022
Cash flows from operating activities:		
Net loss	$ (10,690)	$ (2,819)
Adjustments required to reconcile net loss to net cash provided by (used in) operating activities:		
Depreciation	1,462	1,594
Amortization of intangible assets	1,379	2,335
Equity-based compensation	8,064	6,692
Realized loss (gain) on sale of available-for-sale marketable securities	(76)	21
Amortization of premiums on available-for-sale marketable securities	40	232
Unrealized foreign exchange loss (gain)	(352)	148
Remeasurement of marketable equity securities	236	1,816
Changes in operating assets and liabilities:		
Trade receivables	(657)	(516)
Prepaid expenses and other assets	(1,965)	(1,124)
Operating lease right-of-use assets	447	1,060
Accrued interest on bank deposits	(114)	124
Deferred tax, net	(406)	(3,663)
Trade payables	(898)	460
Deferred revenues	620	(4,115)
Accrued expenses and other payables	(1,177)	747
Accrued payroll and related benefits	(5,545)	(490)
Operating lease liability	(464)	(1,062)
Accrued severance pay, net	233	271
Net cash provided by (used in) operating activities	(9,863)	1,711
Cash flows from investing activities:		
Purchase of property and equipment	(1,231)	(2,103)
Acquisition of business	(3,600)	—
Investment in bank deposits	—	(12,000)
Proceeds from bank deposits	4,000	19,385
Investment in available-for-sale marketable securities	(2,455)	(27,260)
Proceeds from maturity of available-for-sale marketable securities	7,000	6,796
Proceeds from sale of available-for-sale marketable securities	10,659	2,926
Net cash provided by (used in) investing activities	14,373	(12,256)
Cash flows from financing activities:		
Purchase of treasury stock	—	(4,457)
Proceeds from exercise of stock-based awards	1,673	1,720
Net cash provided by (used in) financing activities	1,673	(2,737)
Effect of exchange rate changes on cash and cash equivalents	43	(582)
Increase (decrease) in cash and cash equivalents	6,226	(13,864)
Cash and cash equivalents at the beginning of the period	21,285	33,153
Cash and cash equivalents at the end of the period	$ 27,511	$ 19,289
Supplemental information of cash-flow activities:		
Cash paid during the period for:		
Income and withholding taxes	$ 3,871	$ 4,977
Non-cash transactions:		
Property and equipment purchases incurred but unpaid at period end	$ —	$ 336
Right-of-use assets obtained in the exchange for operating lease liabilities	$ 1,028	$ 444

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

NOTES TO THE INTERIM CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

(in thousands, except share data)

NOTE 1: BUSINESS

The financial information in this quarterly report includes the results of CEVA, Inc. and its subsidiaries (the “Company” or “CEVA”).

CEVA licenses a family of wireless connectivity and smart sensing technologies and is a provider of chip design services. The Company’s offerings include Digital Signal Processors (“DSPs”), AI processors, short and long range connectivity solutions, 5G wireless platforms and complementary software for sensor fusion, spatial audio, image enhancement, computer vision, voice input and artificial intelligence, all of which are key enabling technologies for a smarter, more connected world. These technologies are offered in combination with Non-Recurring Engineering (“NRE”) services from CEVA’s Intrinsix Corp. (“Intrinsix”) business, helping customers address their most complex and time-critical integrated circuit design projects. CEVA’s DSP and AI neural processing unit (“NPU”) platforms address the technology requirements of: 5G baseband processing for mobile, broadband, cellular IoT and Radio Access Network (“RAN”); generative AI workloads associated with computer vision for any camera, 4D and LIDAR-enabled device; audio/voice/sound; and ultra-low-power always-on/sensing applications for wearables, hearables and multiple IoT markets. For motion sensors and sensor fusion, CEVA’s Hillcrest Labs sensor processing technologies provide a broad range of software and Inertial Measurement Unit (“IMU”) solutions for markets including hearables, wearables, AR/VR, PC, robotics, remote controls and IoT. For wireless IoT, the Rivierawaves platforms for Bluetooth (low energy and dual mode), Wi-Fi 4/5/6/6E (802.11n/ac/ax), Ultra-WideBand (“UWB”) are the most broadly licensed connectivity platforms in the industry.

CEVA’s Intrinsix business also expands its market reach to the aerospace and defense markets and allows it to offer custom System on Chip (“SoC”) solutions that combine CEVA’s standardized, off-the-shelf IP together with Intrinsix’s NRE design capabilities and IP in RF, mixed-signal, security, high complexity digital design, chiplets and more.

CEVA’s technologies are licensed to leading semiconductor and Original Equipment Manufacturer (“OEM”) companies. These companies design, manufacture, market and sell Application-Specific Integrated Circuits (“ASICs”) and Application-Specific Standard Products (“ASSPs”) based on CEVA’s technology to mobile, consumer, automotive, robotics, industrial, aerospace & defense and IoT companies for incorporation into a wide variety of end products.

NOTE 2: BASIS OF PRESENTATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

The interim condensed consolidated financial statements have been prepared according to U.S. Generally Accepted Accounting Principles (“U.S. GAAP”).

The accompanying unaudited interim condensed consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States. In the opinion of management, all adjustments considered necessary for a fair presentation have been included. Operating results for the three and six months ended June 30, 2023, are not necessarily indicative of the results that may be expected for the year ending December 31, 2023. For further information, reference is made to the consolidated financial statements and footnotes thereto included in the Company’s Annual Report on Form 10-K for the year ended December 31, 2022.

The significant accounting policies applied in the annual consolidated financial statements of the Company as of December 31, 2022, contained in the Company’s Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 1, 2023, have been applied consistently in these unaudited interim condensed consolidated financial statements.

Accounting Standards Recently Issued, Not Yet Adopted by the Company

In June 2022, the Financial Accounting Standards Board (the "FASB") issued Accounting Standards Update ("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 adoption of this standard is not expected to result in a significant impact on the Company’s interim condensed consolidated financial statements.

NOTES TO THE INTERIM CONDENSED CONSOLIDATED FINANCIAL STATEMENTS- CONTINUED

(in thousands, except share data)

Use of Estimates

The preparation of the interim condensed 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, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

NOTE 3: ACQUISITION

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 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 $95, which were included in general and administrative expenses for the three and six months ended June 30, 2023. Acquisition-related costs included legal and accounting fees.

The results of VisiSonics's operations have been included in the interim condensed 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 FASB Accounting Standards Codification ("ASC") No. 805, "Business Combinations". 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.

The purchase price allocations have been prepared on a preliminary basis based on information that was available to the Company at the time the condensed consolidated financial statements were prepared, and revisions to the preliminary purchase price allocations may result as additional information becomes available.

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

The preliminary 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

NOTE 4: REVENUE RECOGNITION

Under ASC No. 606, "Revenue from Contracts with Customers" ("ASC 606"), an entity recognizes revenue when or as it satisfies a performance obligation by transferring intellectual property ("IP") licenses or services to the customer, either at a point in time or over time. The Company recognizes most of its revenues at a point in time upon delivery when the customer accepts control of the IP. The Company recognizes revenue over time on NRE services or on significant license customization contracts that are in the scope of ASC 606 by using cost inputs to measure progress toward completion of its performance obligations.

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. 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.

NOTES TO THE INTERIM CONDENSED CONSOLIDATED FINANCIAL STATEMENTS- CONTINUED

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:

	Remainder of 2023	2024	2025
Licensing, NRE and related revenues	$ 8,160	$ 2,194	$ 676

Disaggregation of revenue:

The following table provides information about disaggregated revenue by primary geographical market, major product line and timing of revenue recognition:

	Six months ended June 30, 2023 (unaudited)			Three months ended June 30, 2023 (unaudited)		
	Licensing, NRE and related revenues	Royalties	Total	Licensing, NRE and related revenues	Royalties	Total
Primary geographical markets						
United States	$ 5,700	$ 3,061	$ 8,761	$ 2,909	$ 1,411	$ 4,320
Europe and Middle East	4,643	1,312	5,955	2,309	453	2,762
Asia Pacific	26,677	13,012	39,689	11,556	7,507	19,063
Other	502	—	502	27	—	27
Total	$ 37,522	$ 17,385	$ 54,907	$ 16,801	$ 9,371	$ 26,172
Major product/service lines						
Connectivity products (baseband for handset and other devices, Bluetooth, Wi-Fi, NB-IoT and SATA/SAS)	$ 29,739	$ 12,445	$ 42,184	$ 13,207	$ 6,780	$ 19,987
Smart sensing products (AI, sensor fusion, audio/sound and imaging and vision)	7,783	4,940	12,723	3,594	2,591	6,185
Total	$ 37,522	$ 17,385	$ 54,907	$ 16,801	$ 9,371	$ 26,172
Timing of revenue recognition						
Products transferred at a point in time	$ 25,524	$ 17,385	$ 42,909	$ 10,903	$ 9,371	$ 20,274
Products and services transferred over time	11,998	—	11,998	5,898	—	5,898
Total	$ 37,522	$ 17,385	$ 54,907	$ 16,801	$ 9,371	$ 26,172

	Six months ended June 30, 2022 (unaudited)			Three months ended June 30, 2022 (unaudited)		
	Licensing, NRE and related revenues	Royalties	Total	Licensing, NRE and related revenues	Royalties	Total
Primary geographical markets						
United States	$ 9,637	$ 4,100	$ 13,737	$ 5,162	$ 1,829	$ 6,991
Europe and Middle East	2,534	1,340	3,874	2,097	675	2,772
Asia Pacific	32,345	17,630	49,975	14,864	8,568	23,432
Total	$ 44,516	$ 23,070	$ 67,586	$ 22,123	$ 11,072	$ 33,195
Major product/service lines						
Connectivity products (baseband for handset and other devices, Bluetooth, Wi-Fi, NB-IoT and SATA/SAS)	$ 32,810	$ 17,262	$ 50,072	$ 15,995	$ 8,200	$ 24,195
Smart sensing products (AI, sensor fusion, audio/sound and imaging and vision)	11,706	5,808	17,514	6,128	2,872	9,000
Total	$ 44,516	$ 23,070	$ 67,586	$ 22,123	$ 11,072	$ 33,195
Timing of revenue recognition						
Products transferred at a point in time	$ 30,776	$ 23,070	$ 53,846	$ 14,844	$ 11,072	$ 25,916
Products and services transferred over time	13,740	—	13,740	7,279	—	7,279
Total	$ 44,516	$ 23,070	$ 67,586	$ 22,123	$ 11,072	$ 33,195

Contract balances:

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

	June 30, 2023 (unaudited)	December 31, 2022
Trade receivables	$ 13,502	$ 12,297
Unbilled receivables (associated with licensing, NRE and related revenue)	8,570	8,695
Unbilled receivables (associated with royalties)	9,800	10,258
Deferred revenues (short-term contract liabilities)	3,788	3,168

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, NRE 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 quarter, 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.

During the three and six months ended June 30, 2023, the Company recognized $835 and $2,396, respectively, that was included in deferred revenues (short-term contract liability) balance at January 1, 2023.

NOTE 5: 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 2023 and 2034. Many 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.

NOTES TO THE INTERIM CONDENSED CONSOLIDATED FINANCIAL STATEMENTS- CONTINUED

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

	June 30, 2023 (Unaudited)
Weighted average remaining lease term (years)	4.65
Weighted average discount rates	3.50%

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

	Six months ended June 30,		Three months ended June 30,	
	2023 (unaudited)	2022 (unaudited)	2023 (unaudited)	2022 (unaudited)
Operating lease cost	$ 1,642	$ 1,643	$ 820	$ 843
Cash payments for operating leases	1,647	1,616	828	786

Maturities of lease liabilities are as follows:

The remainder of 2023	$ 1,573
2024	2,739
2025	2,129
2026	1,036
2027	963
2028 and thereafter	1,368
Total undiscounted cash flows	9,808
Less imputed interest	674
Present value of lease liabilities	$ 9,134

NOTE 6: MARKETABLE SECURITIES

The following is a summary of available-for-sale marketable securities:

	June 30, 2023 (Unaudited)			
	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value
Available-for-sale - matures within one year:				
Corporate bonds	$ 29,099	$ —	$ (1,616)	$ 27,483
Available-for-sale - matures after one year through four years:				
Corporate bonds	74,640	3	(4,423)	70,220
Total	$ 103,739	$ 3	$ (6,039)	$ 97,703

NOTES TO THE INTERIM CONDENSED CONSOLIDATED FINANCIAL STATEMENTS- CONTINUED

	December 31, 2022			
	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value
Available-for-sale - matures within one year:				
Corporate bonds	$ 17,552	$ —	$ (1,330)	$ 16,222
Available-for-sale - matures after one year through five years:				
Corporate bonds	101,355	38	(5,535)	95,858
Total	$ 118,907	$ 38	$ (6,865)	$ 112,080

The following table presents gross unrealized losses and fair values for those investments that were in an unrealized loss position as of June 30, 2023, and December 31, 2022, 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 June 30, 2023 (unaudited)	$ 18,905	$ (268)	$ 77,534	$ (5,771)
As of December 31, 2022	$ 58,706	$ (1,885)	$ 48,539	$ (4,980)

As of June 30, 2023, the allowance for credit losses was not material.

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

	Six months ended June 30,		Three months ended June 30,	
	2023 (unaudited)	2022 (unaudited)	2023 (unaudited)	2022 (unaudited)
Gross realized gains from sale of available-for-sale marketable securities	$ 92	$ —	$ —	$ —
Gross realized losses from sale of available-for-sale marketable securities	$ (16)	$ (21)	$ (16)	$ (21)

NOTE 7: 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).

NOTES TO THE INTERIM CONDENSED CONSOLIDATED FINANCIAL STATEMENTS- CONTINUED

The Company measures its marketable securities, investments in marketable equity securities and foreign currency derivative contracts at fair value. The carrying amount of cash, cash equivalents, short-term bank deposits, trade receivables, other accounts receivable, trade payables and other accounts payables approximate fair value due to the short-term maturity of these instruments. 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 and liabilities measured at fair value by level within the fair value hierarchy. Assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement.

Description	June 30, 2023 (unaudited)	Level I (unaudited)	Level II (unaudited)	Level III (unaudited)
Assets:				
Marketable securities:				
Corporate bonds	$ 97,703	—	$ 97,703	—
Foreign exchange contracts	2	—	2	—
Investments in marketable equity securities	172	172	—	—
Liabilities:				
Foreign exchange contracts	$ 164	—	$ 164	—

Description	December 31, 2022	Level I	Level II	Level III
Assets:				
Marketable securities:				
Corporate bonds	$ 112,080	—	$ 112,080	—
Foreign exchange contracts	13	—	13	—
Investments in marketable equity securities	408	408	—	—
Liabilities:				
Foreign exchange contracts	$ 119	—	$ 119	—

NOTE 8: GOODWILL AND INTANGIBLE ASSETS, NET

(a) Goodwill:

Changes in goodwill are as follows:

	June 30, 2023 (unaudited)	December 31, 2022
Balance as of January 1,	$ 74,777	$ 74,777
Acquisition	1,994	—
Balance as of June 30,	$ 76,771	$ 74,777

(b) Intangible assets:

	Weighted average amortization period (years)	June 30, 2023 (unaudited) Gross carrying amount	Accumulated amortization	Impairment (*)	Net	December 31, 2022 Gross carrying amount	Accumulated amortization	Impairment (*)	Net
Intangible assets – amortizable:									
Intangible assets related to the acquisition of VisiSonics business									
Customer relationships	4.0	$ 432	$ 18	$ —	$ 414	$ —	$ —	$ —	$ —
Technologies	5.0	1,174	39	—	1,135	—	—	—	—
Intangible assets related to the acquisition of Intrinsix business									
Customer relationships	5.5	$ 3,604	$ 1,365	$ —	$ 2,239	$ 3,604	$ 1,037	$ —	$ 2,567
Customer backlog	1.5	421	421	—	—	421	421	—	—
Patents	5.0	218	91	—	127	218	69	—	149
Core technologies	3.0	3,329	2,312	—	1,017	3,329	1,757	—	1,572
Intangible assets related to the acquisition of Hillcrest Labs business									
Customer relationships	4.4	$ 3,518	$ 3,110	$ —	$ 408	$ 3,518	$ 2,998	$ —	$ 520
Customer backlog	0.5	72	72	—	—	72	72	—	—
R&D Tools	7.5	2,475	1,305	—	1,170	2,475	1,140	—	1,335
Intangible assets related to Immervision assets acquisition									
R&D Tools	6.4	$ 7,063	$ 3,507	$ 3,556	$ —	$ 7,063	$ 3,507	$ 3,556	$ —
Intangible assets related to an investment in NB-IoT technologies									
NB-IoT technologies	7.0	$ 1,961	$ 1,564	$ —	$ 397	$ 1,961	$ 1,424	$ —	$ 537
Total intangible assets		$ 24,267	$ 13,804	$ 3,556	$ 6,907	$ 22,661	$ 12,425	$ 3,556	$ 6,680

(*) During 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 has decided to cease the development of this product line.

NOTES TO THE INTERIM CONDENSED CONSOLIDATED FINANCIAL STATEMENTS- CONTINUED

Future estimated annual amortization charges are as follows:

Reminder of 2023	$	1,460
2024		2,252
2025		1,532
2026		1,299
2027		286
2028		78
	$	6,907

NOTE 9: GEOGRAPHIC INFORMATION AND MAJOR CUSTOMER DATA

a. Summary information about geographic areas:

The Company manages its business on the basis of one reportable segment: the licensing of intellectual property and co-creation solutions 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:

	Six months ended June 30,		Three months ended June 30,	
	2023 (unaudited)	**2022 (unaudited)**	**2023 (unaudited)**	**2022 (unaudited)**
Revenues based on customer location:				
United States	$ 8,761	$ 13,737	$ 4,320	$ 6,991
Europe and Middle East	5,955	3,874	2,762	2,772
Asia Pacific (1)	39,689	49,975	19,063	23,432
Other	502	—	27	—
	$ 54,907	$ 67,586	$ 26,172	$ 33,195
(1) China	$ 30,477	$ 41,572	$ 12,714	$ 18,601

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.

	Six months ended June 30,		Three months ended June 30,	
	2023 (unaudited)	2022 (unaudited)	2023 (unaudited)	2022 (unaudited)
Customer A	*)	11%	12%	11%
Customer B	*)	—	12%	—

*) Less than 10%

NOTE 10: NET 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 period. Diluted net income (loss) per share is computed based on the weighted average number of shares of common stock outstanding during each period, plus dilutive potential shares of common stock considered outstanding during the period, in accordance with FASB ASC No. 260, "Earnings Per Share."

	Six months ended June 30,		Three months ended June 30,	
	2023 (unaudited)	2022 (unaudited)	2023 (unaudited)	2022 (unaudited)
Numerator:				
Net loss	$ (10,690)	$ (2,819)	$ (5,818)	$ (1,123)
Denominator (in thousands):				
Basic weighted-average common stock outstanding	23,405	23,139	23,476	23,174
Diluted weighted average common stock outstanding	23,405	23,139	23,476	23,174
Basic and diluted net loss per share	$ (0.46)	$ (0.12)	$ (0.25)	$ (0.05)

The total number of shares related to outstanding equity-based awards was 1,350,825 for both the three and six months ended June 30, 2023, and in each case was excluded from the calculation of diluted net loss per share. The total number of shares related to outstanding equity-based awards was 915,698 for both the three and six months ended June 30, 2022, and in each case was excluded from the calculation of diluted net loss per share.

NOTE 11: COMMON STOCK AND STOCK-BASED COMPENSATION PLANS

The Company has historically granted a mix of stock options, stock appreciation rights ("SARs") capped with a ceiling and restricted stock units ("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 June 30, 2023, and December 31, 2022, there were no outstanding or exercisable SAR units left.

NOTES TO THE INTERIM CONDENSED CONSOLIDATED FINANCIAL STATEMENTS- CONTINUED

A summary of the Company's stock option activities and related information for the six months ended June 30, 2023, are as follows:

	Number of options (1)	Weighted average exercise price	Weighted average remaining contractual term	Aggregate intrinsic value
Outstanding as of December 31, 2022	106,000	$ 20.24	2.0	$ 609
Granted	—	—		
Exercised	(26,000)	19.36		
Forfeited or expired	—	—		
Outstanding as of June 30, 2023	80,000	$ 20.53	2.0	$ 446
Exercisable as of June 30, 2023	80,000	$ 20.53	2.0	$ 446

(1) Represent options granted to non-employee directors of the Company only. As of June 30, 2023, and December 31, 2022, there were no outstanding or exercisable options granted to employees left.

As of June 30, 2023, there were no unrecognized compensation expenses related to unvested stock options.

An 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. Until the end of 2017, RSUs granted to non-employee directors would generally vest in full on the first anniversary of the grant date. Starting in 2018, RSUs granted to non-employee directors would generally vest in two equal annual installments starting on the first anniversary of the grant date.

On November 9, 2022, the Company reported that Gideon Wertheizer had announced his intention to retire from his position as the Company's Chief Executive Officer ("CEO") and an employee of the Company, effective as of January 1, 2023. In connection with his retirement, the Company's Board of Directors (the "Board") determined to accelerate in full the vesting of Mr. Wertheizer's 34,887 unvested RSUs.

On November 9, 2022, the Company publicly announced the appointment of Amir Panush as CEO of the Company to succeed Mr. Wertheizer, with his service as CEO to commence on January 1, 2023. In connection with his appointment as the Company's CEO, Mr. Panush, effective January 1, 2023, received 46,911 RSUs with fair value of approximately $1,200 under the Company's Amended and Restated 2011 Stock Incentive Plan (the "2011 Plan"). The RSUs vest in three equal annual installments starting on the first anniversary of the grant date, conditioned upon Mr. Panush's continued service with the Company.

On December 7, 2022, the Board appointed Gweltaz Toquet, who previously served as the Vice President of Sales for Europe and Asia Pacific, as Chief Commercial Officer ("CCO") of the Company effective January 1, 2023. In connection with his appointment as the Company's CCO, effective January 1, 2023, Mr. Toquet received 3,909 RSUs with fair value of approximately $100 under the Company's 2011 Plan. The RSUs vest in three equal annual installments starting on the first anniversary of the grant date, conditioned upon Mr. Toquet's continued service with the Company.

On February 14, 2023, the Compensation Committee (the "Committee") of the Board granted 14,541, 9,996, 8,179 and 5,452 RSUs, effective as of February 17, 2023, to each of the Company's CEO, Chief Financial Officer ("CFO"), Chief Operating Officer ("COO") and CCO, respectively, pursuant to the 2011 Plan, or, with respect to the RSU award to the CEO, as an inducement award in accordance with Rule 5635(c)(4) of the Nasdaq Listing Rules granted on terms substantially similar to those of the 2011 Plan (an "Inducement Award"). The RSU grants vest 33.4% on February 17, 2024, 33.3% on February 17, 2025 and 33.3% on February 17, 2026.

NOTES TO THE INTERIM CONDENSED CONSOLIDATED FINANCIAL STATEMENTS- CONTINUED

Also, on February 14, 2023, the Committee granted 21,811, 6,664, 5,452 and 3,635 performance-based stock units, effective as of February 17, 2023, to each of the Company's CEO, CFO, COO and CCO, respectively, pursuant to the 2011 Plan, or, with respect to the CEO, as an Inducement Award (collectively, the "Short-Term Executive PSUs"). The performance goals for the Short-Term Executive PSUs with specified weighting are as follows:

Weighting	Goals
50% (*)	Vesting of the full 50% of the PSUs occurs if the Company achieves the 2023 license, NRE and related revenue target approved by the Board (the "2023 License Revenue Target"). The vesting threshold is achievement of 90% of 2023 License Revenue Target. If the Company's achievement of the 2023 License Revenue Target is above 90% but less than 99% of the 2023 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 2023 License Revenue Target, every 1% increase of the 2023 License Revenue Target, up to 110%, 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 2023 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 2023 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 110%, 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 2023 is greater than the Russell 2000 index (the "Russell index"). The vesting threshold is if the return on the Company's stock for 2023 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 110%, 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.

(*) As of June 30, 2023, the Company's management estimates that it is not probable that the performance condition will be met by year end.

Accordingly, assuming maximum achievement of the performance goals set forth above, PSUs representing an additional 30%, meaning an additional 6,543, would be eligible for vesting of the Company's CEO, and an additional 20%, meaning an additional 1,332, 1,090 and 727, would be eligible for vesting for each of the Company's CFO, COO and CCO, respectively.

Subject to achievement of the thresholds the above performance goals for 2023, the Short-Term Executive PSUs vest 33.4% on February 17, 2024, 33.3% on February 17, 2025 and 33.3% on February 17, 2026.

NOTES TO THE INTERIM CONDENSED CONSOLIDATED FINANCIAL STATEMENTS- CONTINUED

Also, on February 14, 2023, the Committee granted 60,587, 30,293, 30,293 and 30,293 PSUs, effective as of February 17, 2023, to each of the Company's CEO, CFO, COO and CCO, respectively, pursuant to the 2011 Plan, or, with respect to the CEO, as an Inducement Award (collectively, the "Long-Term Executive PSUs"). The Long-Term Executive PSUs shall vest in full upon the first achievement of any of the following performance goals:

- If the Company's compound annual growth rate for non-GAAP Earnings Per Share ("EPS") for each fiscal year over the three-year period from 2022 through 2025 reaches 10% or if the Company's non-GAAP EPS for any fiscal year reaches $1.00 during the period between January 1, 2023 and December 31, 2025;

- If the Company's non-GAAP operating margin for any fiscal year reaches 20% during the period between January 1, 2023 and December 31, 2025;

- If the Company's compound annual growth rate for revenue for each fiscal year over the three year period from 2022 through 2025 reaches 10% or if the Company's revenue for any fiscal year reaches $180 million during the period between January 1, 2023 and December 31, 2025; or

- If the Company's market capitalization (defined as total outstanding shares as of a given date multiplied by the closing price for the Company's common stock as quoted by the NASDAQ Stock Market) reaches at least $1.1 billion for at least 30 days of consecutive trading.

A summary of the Company's RSU and PSU activities and related information for the six months ended June 30, 2023, are as follows:

	Number of RSUs and PSUs	Weighted Average Grant-Date Fair Value
Unvested as of December 31, 2022	879,277	$ 37.57
Granted	717,034	21.31
Vested	(257,426)	39.06
Forfeited or expired	(68,060)	35.45
Unvested as of June 30, 2023 (unaudited)	1,270,825	$ 28.21

As of June 30, 2023, there was $28,129 of unrecognized compensation expense related to unvested RSUs and PSUs. This amount is expected to be recognized over a weighted-average period of 1.6 years.

The following table shows the total equity-based compensation expense included in the interim condensed consolidated statements of loss:

	Six months ended June 30,		Three months ended June 30,	
	2023 (unaudited)	2022 (unaudited)	2023 (unaudited)	2022 (unaudited)
Cost of revenue	$ 794	$ 683	$ 390	$ 344
Research and development, net	4,593	4,001	2,420	2,006
Sales and marketing	861	673	468	340
General and administrative	1,816	1,335	927	613
Total equity-based compensation expense	$ 8,064	$ 6,692	$ 4,205	$ 3,303

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:

	Six months ended June 30	
	2023 (unaudited)	2022 (unaudited)
Expected dividend yield	0%	0%
Expected volatility	45%	38%
Risk-free interest rate	4.8%	0.5%
Contractual term of (months)	6	6

NOTE 12: DERIVATIVES 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 June 30, 2023, and December 31, 2022, the notional principal amount of the Hedging Contracts to sell U.S. dollars held by the Company was $9,250 and $12,200, respectively.

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

	June 30, 2023 (unaudited)	December 31, 2022
Derivative assets:		
Derivatives designated as cash flow hedging instruments:		
Foreign exchange forward contracts	$ 2	$ 13
Total	$ 2	$ 13
Derivative liabilities:		
Derivatives designated as cash flow hedging instruments:		
Foreign exchange option contracts	$ 109	$ 23
Foreign exchange forward contracts	55	96
Total	$ 164	$ 119

NOTES TO THE INTERIM CONDENSED CONSOLIDATED FINANCIAL STATEMENTS- CONTINUED

The increase (decrease) in unrealized gains (losses) recognized in "accumulated other comprehensive gain (loss)" on derivatives, before tax effect, is as follows:

	Six months ended June 30,		Three months ended June 30,	
	2023 (unaudited)	2022 (unaudited)	2023 (unaudited)	2022 (unaudited)
Derivatives designated as cash flow hedging instruments:				
Foreign exchange option contracts	$ (198)	$ (401)	$ (93)	$ (401)
Foreign exchange forward contracts	(432)	(999)	(112)	(1,001)
	$ (630)	$ (1,400)	$ (205)	$ (1,402)

The net (gains) losses reclassified from "accumulated other comprehensive gain (loss)" into income are as follows:

	Six months ended June 30,		Three months ended June 30,	
	2023 (unaudited)	2022 (unaudited)	2023 (unaudited)	2022 (unaudited)
Derivatives designated as cash flow hedging instruments:				
Foreign exchange option contracts	$ 112	$ 177	$ 112	$ 177
Foreign exchange forward contracts	462	565	291	455
	$ 574	$ 742	$ 403	$ 632

The Company recorded in cost of revenues and operating expenses a net loss of $403 and $574 during the three and six months ended June 30, 2023, respectively, and a net loss of $632 and $742 during the comparable periods of 2022, related to its Hedging Contracts

NOTE 13: ACCUMULATED OTHER COMPREHENSIVE LOSS

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

	Six months ended June 30, 2023 (unaudited)			Three months ended June 30, 2023 (unaudited)		
	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)	$ (5,550)	$ (360)	$ (5,910)
Other comprehensive income (loss) before reclassifications	798	(631)	167	114	(205)	(91)
Amounts reclassified from accumulated other comprehensive loss	(77)	576	499	15	403	418
Net current period other comprehensive income (loss)	721	(55)	666	129	198	327
Ending balance	$ (5,421)	$ (162)	$ (5,583)	$ (5,421)	$ (162)	$ (5,583)

NOTES TO THE INTERIM CONDENSED CONSOLIDATED FINANCIAL STATEMENTS- CONTINUED

	Six months ended June 30, 2022 (unaudited)			Three months ended June 30, 2022 (unaudited)		
	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	$ (427)	$ 55	$ (372)	$ (2,594)	$ 156	$ (2,438)
Other comprehensive loss before reclassifications	(3,597)	(1,221)	(4,818)	(1,430)	(1,225)	(2,655)
Amounts reclassified from accumulated other comprehensive income (loss)	17	648	665	17	551	568
Net current period other comprehensive loss	(3,580)	(573)	(4,153)	(1,413)	(674)	(2,087)
Ending balance	$ (4,007)	$ (518)	$ (4,525)	$ (4,007)	$ (518)	$ (4,525)

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)
	Six months ended June 30,		Three months ended June 30,		
	2023 (unaudited)	2022 (unaudited)	2023 (unaudited)	2022 (unaudited)	
Unrealized gains (losses) on cash flow hedges	$ (11)	$ (13)	$ (7)	$ (11)	Cost of revenues
	(495)	(647)	(348)	(551)	Research and development
	(13)	(18)	(9)	(15)	Sales and marketing
	(55)	(64)	(39)	(55)	General and administrative
	(574)	(742)	(403)	(632)	Total, before income taxes
	2	(94)	—	(81)	Income tax expense (benefit)
	(576)	(648)	(403)	(551)	Total, net of income taxes
Unrealized gains (losses) on available-for-sale marketable securities	76	(21)	(16)	(21)	Financial income (loss), net
	(1)	(4)	(1)	(4)	Income tax benefit
	77	(17)	(15)	(17)	Total, net of income taxes
	$ (499)	$ (665)	$ (418)	$ (568)	Total, net of income taxes

NOTE 14: SHARE REPURCHASE PROGRAM

The Company did not repurchase any shares of common stock during the three and six months ended June 30,2023. During the three and six months ended June 30, 2022, the Company repurchased 136,091 shares of common stock at an average purchase price of $32.75 per share for an aggregate purchase price of $4,457. As of June 30, 2023, 278,799 shares of common stock remained available for repurchase pursuant to the Company's share repurchase program.

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.

Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion together with the unaudited financial statements and related notes appearing elsewhere in this quarterly report. This discussion contains forward-looking statements that involve risks and uncertainties. Any or all of our forward-looking statements in this quarterly report may turn out to be wrong. These forward-looking statements can be affected by inaccurate assumptions we might make or by known or unknown risks and uncertainties. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise. Factors which could cause actual results to differ materially include those set forth under in Part II – Item 1A – "Risk Factors," as well as those discussed elsewhere in this quarterly report. See "Forward-Looking Statements."

The financial information presented in this quarterly report includes the results of CEVA, Inc. and its subsidiaries.

BUSINESS OVERVIEW

Headquartered in Rockville, Maryland, CEVA is the leading licensor of wireless connectivity and smart sensing technologies and a provider of chip design services. We offer Digital Signal Processors (DSPs), AI processors, short and long-range connectivity solutions, 5G wireless platforms and complementary software for sensor fusion, image enhancement, computer vision, spatial audio, voice input and artificial intelligence, all of which are key enabling technologies for a smarter, more connected world. Our state-of-the-art technology is included in more than 16 billion chips shipped to date for a diverse range of end markets. In 2022, more than 1.7 billion CEVA-powered devices were shipped, equivalent to more than 50 devices every second.

Our hardware IP products and solutions are licensed to customers who embed them into their System on Chip (SoC) designs to create power-efficient, intelligent, secure and connected devices. Our customers include many of the world's leading semiconductor and original equipment manufacturer (OEM) companies targeting a wide variety of cellular and IoT end markets, including mobile, PC, consumer, automotive, smart-home, surveillance, robotics, industrial, aerospace and defense and medical. Our application software IP is licensed primarily to OEMs who embed it in their SoCs to enhance the user experience.

Our ultra-low-power hardware IP offerings are deployed in devices for wireless connectivity and smart sensing workloads. Our wireless portfolio includes 5G baseband processing platforms for mobile broadband, cellular IoT and base station RAN, and UWB, Bluetooth and Wi-Fi technologies for a range of connectivity devices. Our smart sensing portfolio includes advanced DSP and AI neural processing unit (NPU) platforms for cameras, radars, microphones, and other sensors, which enable generative AI in conjunction with computer vision, audio, voice, motion sensing and other applications. We also offer processor-agnostic sensor IP for the processing of accelerometers, gyroscopes, magnetometers and optical flow, as well as spatial audio, noise cancellation and voice recognition.

Our Intrinsix chip design business unit enables us to offer our customers SoC design services, which we refer to as custom SoC solutions, that take advantage of our IP portfolio, Intrinsix's designed to deliver (D2D) and security IP and Intrinsix's design capabilities for digital, mix signal and RF. We believe that having chip design expertise as part of our offerings strengthens our relationships with customers, streamlines IP adoption, generates recurrent royalties and more. Furthermore, Intrinsix's experience and customer base in the growing chip development programs with the U.S. Department of Defense and the Defense Advanced Research Projects Agency (DARPA) together with its IP offerings for processor security and chiplets extends CEVA's serviceable market and revenue base.

CEVA is 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 connectivity and smart sensing technologies address some of the most important megatrends, including 5G, generative AI, industrial automation and vehicle electrification. Although results were lower than anticipated for the second quarter of 2023, we continue to experience continued interest across our portfolio due to these trends, in both traditional and new areas. In the second quarter of 2023, eleven of the seventeen IP licensing and NRE deals concluded were for connectivity and six were for smart sensing applications.

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

- We believe our PentaG2 platform and DSPs for 5G handsets and 5G IoT endpoints is the most comprehensive baseband IP platform in the industry today and provides newcomers and incumbents with a comprehensive solution to address the need for 5G processing for smartphones, fixed wireless access, satellite communications and a range of connected devices such as robots, cars, smart cities and other devices for industrial applications. In the second quarter of 2023, we signed an agreement with a wireless semiconductor player for a wireless communication DSP to develop a 5G RedCap modem targeting the broad markets where Broadband IoT is required.

- Our specialization and technological edge in signal processing platforms for 5G base station RAN, and our PentaG RAN platform put us in a strong position to capitalize on the growing 5G RAN demand and its disintegration toward new architecture and form factors, including V-RAN, O-RAN, Active Antennas (AAU, RRU), private networks and small cells. We believe our PentaG RAN platform for 5G RAN settings is the most comprehensive baseband processor IP in the industry today and provides newcomers and incumbents with a comprehensive solution to address the need for 5G.

- Our broad Bluetooth, Wi-Fi, Ultra Wide Band (UWB) and cellular IoT IPs 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 15 billion devices annually by 2027 based on research from ABI Research. In the second quarter of 2023, we signed three new combo customers for our Wi-Fi 6 and Bluetooth 5 IPs. We believe that Wi-Fi presents a significant royalty opportunity, given our dominant market position in licensing Wi-Fi 6 with more than 40 customers to date.

- The growing market for True Wireless Stereo (TWS) earbuds, smartwatches, AR and VR headsets, and other wearable assisted devices, offers an incremental growth segment for us for our software IP. To better address this market, our RealSpace Spatial Audio & Head Tracking Solution, WhisPro speech recognition technology and ClearVox voice input software are offered in conjunction with our audio/voice DSPs.

- Our second generation SensPro2 sensor hub DSP family provides highly compelling offerings for any sensor-enabled device and application 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. Per research from Yole Group, camera-enabled devices incorporating computer vision and AI are expected to exceed 1 billion units, and devices incorporating voice AI are expected to reach 600 million units by 2025. This latest DSP architecture 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 in order to make these devices “smarter.” Our newest generation family of 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 Yole Group, 2.5 billion Edge AI devices will ship annually by 2026, illustrating the huge potential of the market.

- Our Hillcrest Labs sensor fusion business unit allows us to address an important technology piece used in personal computers, robotics, TWS earbuds, smart TVs and many other smart sensing IP products, for smart sensing, 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. Hillcrest Labs’ innovative and proven MotionEngine™ software supports a broad range of merchant sensor chips and is licensed to OEMs and semiconductor companies that can run the software on CEVA DSPs or a variety of RISC CPUs. The MotionEngine software expands and complements CEVA’s smart sensing technology. Hillcrest Labs’ technology has already shipped in more than 300 million devices, indicative of its market traction and excellence. Along with our SensPro sensor fusion processors, our licensees can now benefit from our capabilities as a complete, one-stop-shop for processing all classes and types of sensors.

As a result of our diversification strategy beyond baseband for handsets, and our progress in addressing those new markets under the base station and IoT umbrella, we believe we are well positioned for long-term growth in shipments and royalty revenues derived from this product category. These devices are comprised of a range of different products at different royalty ASPs, spanning 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.

RESULTS OF OPERATIONS

Total Revenues

Total revenues were $26.2 million and $54.9 million for the second quarter and first half of 2023, representing a decrease of 21% and 19% as compared to the corresponding periods in 2022. The decrease in total revenues for the second quarter and first half of 2023 was mainly due to challenging macroeconomic conditions that have led to slower than expected licensing activities related to new chip design starts and generally weaker demand and sales for handsets and PCs that affected our royalty revenues. Licensing revenues came in below our expectations, primarily related to semiconductor startups, a customer base that is an important contributor to any IP licensing business. Semiconductor startups rely on venture capital funding to underpin their businesses, but due to the macroeconomic environment, funding from venture capital investors for these companies slowed down towards the end of 2022, with additional instability during the first half of 2023 resulting from the Silicon Valley Bank failure. Consequentially, some of the deals with startups we expected would close in the second quarter of 2023 did not come through as planned, resulting in our unexpected shortfall in licensing revenues. The decrease in total revenues for the first half of 2023 was also mainly due to the decrease in royalties from smartphone and PC that was primarily driven by a pull-in of handset baseband shipments in the fourth quarter of 2022, combined with traditional seasonality and inventory buildup.

Our five largest customers accounted for 43% and 30% of our total revenues for the second quarter and first half of 2023, respectively, as compared to 36% and 32% for the comparable periods in 2022. Two customers accounted both for 12% of our total revenues for the second quarter of 2023, as compared to one customer that accounted for 11% of our total revenues for the second quarter of 2022. There were no customers that accounted for more than 10% of our total revenues for the first half of 2023, as compared to one customer that accounted for 11% of our total revenues for the first half of 2022. Generally, the identity of our customers representing 10% or more of our total revenues varies from period to period, especially with respect to our IP 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 represented 10% or more of our total royalty revenues for both the second quarter and first half of 2023, and collectively represented 47% and 38% of our total royalty revenues for the second quarter and first half of 2023, respectively. Two royalty paying customers represented 10% or more of our total royalty revenues for both the second quarter and first half of 2022, and collectively represented 43% and 45% of our total royalty revenues for the second quarter and first half of 2022, respectively. 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 following table sets forth the products and services as percentages of our total revenues for each of the periods set forth below:

	First Half 2023	First Half 2022	Second Quarter 2023	Second Quarter 2022
Connectivity products	77%	74%	76%	73%
Smart sensing products	23%	26%	24%	27%

Licensing, NRE and Related Revenues

Licensing, NRE and related revenues were $16.8 million and $37.5 million for the second quarter and first half of 2023, respectively, representing a decrease of 24% and 16%, as compared to the corresponding periods in 2022. The decrease in licensing, NRE and related revenues for the second quarter and first half of 2023 was mainly due to a slowdown in funding of semiconductor startups that limited our ability to conclude some customer licensing agreements. Our licensing, NRE and related revenues business continues to generate customer traction across our diversified portfolio.

Seventeen IP license and NRE agreements were concluded during the second quarter of 2023, targeting a wide variety of end markets and applications, including Wi-Fi 6 and Bluetooth 5 for combo connectivity chips targeting consumer, smart home and industrial IoT, 5G Redcap and cellular IoT wireless communications for industrial, UWB for digital car keys and in-cabin radar in automotive, AI for automotive ADAS and sensor fusion for digital pens. Five of the seventeen deals were with first-time customers.

Licensing and related revenues accounted for 64% and 68% of our total revenues for the second quarter and first half of 2023, respectively, as compared to 67% and 66% for the comparable periods of 2022.

Royalty Revenues

Royalty revenues were $9.4 million and $17.4 million for the second quarter and first half of 2023, respectively, representing a decrease of 15% and 25%, as compared to the corresponding periods in 2022. Royalty revenues accounted for 36% and 32% of our total revenues for the second quarter and first half of 2023, respectively, as compared to 33% and 34% for the comparable periods of 2022. The decrease in royalty revenues for the second quarter and first half of 2023 was mainly due to customer inventory adjustments and prolonged weak demand for smartphones and PCs. After a weak first quarter, we saw a good recovery in the second quarter of 2023, driven by smartphones targeting emerging markets and restocking for consumer and industrial IoT products following the inventory correction.

Our customers reported sales of 370 million and 667 million chipsets incorporating our technologies for the second quarter and first half of 2023, respectively, a decrease of 14% and 31% from the corresponding periods in 2022 for actual shipments reported.

The five largest royalty-paying customers accounted for 64% and 53% of our total royalty revenues for the second quarter and first half of 2023, respectively, as compared to 63% for both the comparable periods of 2022.

Geographic Revenue Analysis

	First Half 2023			First Half 2022			Second Quarter 2023			Second Quarter 2022		
	(in millions, except percentages)											
United States	$	8.7	16%	$	13.7	20%	$	4.3	16%	$	7.0	21%
Europe and Middle East	$	6.0	11%	$	3.9	6%	$	2.8	11%	$	2.8	8%
Asia Pacific (1)	$	39.7	72%	$	50.0	74%	$	19.1	73%	$	23.4	71%
Other	$	0.5	1%		—	—	$	0.0	0%		—	—
(1) China	$	30.5	56%	$	41.6	62%	$	12.7	49%	$	18.6	56%

Due to the nature of our license agreements and the associated potential large individual contract amounts, the geographic split of revenues both in absolute dollars and percentage terms generally varies from quarter to quarter.

Cost of Revenues

Cost of revenues was $5.6 million and $10.9 million for the second quarter and first half of 2023, respectively, as compared to $6.8 million and $13.2 million for the comparable periods of 2022. Cost of revenues accounted for 21% and 20% of our total revenues for the second quarter and first half of 2023, respectively, as compared to 21% and 20% for the comparable periods of 2022. The decrease for both the second quarter and first half of 2023 principally reflected lower electronic design automation (EDA) tools associated with the Intrinsix business as well as its engineering resources. Included in cost of revenues for the second quarter and first half of 2023 was a non-cash equity-based compensation expense of $390,000 and $794,000, respectively, as compared to $344,000 and $683,000 for the comparable periods of 2022.

Gross Margin

Gross margin for the second quarter and first half of 2023 was 79% and 80%, respectively, as compared to 79% and 80% for the comparable periods of 2022.

Operating Expenses

Total operating expenses were $26.9 million and $55.1 million for the second quarter and first half of 2023, respectively, as compared to $26.6 million and $54.2 million for the comparable periods of 2022. The net increase for both the second quarter and first half of 2023 principally reflected lower research grants received, mainly from the Israeli Innovation Authority of the Ministry of Economy and Industry in Israel (IIA), and higher non-cash equity-based compensation expenses, partially offset by lower salaries and related costs, mainly associated with lower employee-related performance costs.

Research and Development Expenses, Net

Our research and development expenses, net, were $19.6 million and $40.4 million for the second quarter and first half of 2023, respectively, as compared to $19.5 million and $39.7 million for the comparable periods of 2022. The increase for both the second quarter and first half of 2023 principally reflected lower research grants received, mainly from the IIA, and higher non-cash equity-based compensation expenses, partially offset by lower salaries and related costs, mainly associated with lower employee-related performance costs. Included in research and development expenses for the second quarter and first half of 2023 were non-cash equity-based compensation expenses of $2,420,000 and $4,593,000, respectively, as compared to $2,006,000 and $4,001,000 for the comparable periods of 2022. Research and development expenses as a percentage of our total revenues were 75% and 74% for the second quarter and first half of 2023, respectively, as compared to 59% for both the comparable periods of 2022. The percentage increase for both the second quarter and first half of 2023, as compared to the comparable periods of 2022, was due to lower revenues.

The number of research and development personnel was 339 at June 30, 2023, as compared to 333 at June 30, 2022.

Sales and Marketing Expenses

Our sales and marketing expenses were $2.8 million and $5.8 million for the second quarter and first half of 2023, respectively, as compared to $2.7 million and $5.6 million for the comparable periods of 2022. Included in sales and marketing expenses for the second quarter and first half of 2023 were non-cash equity-based compensation expenses of $468,000 and $861,000, respectively, as compared to $340,000 and $673,000 for the comparable periods of 2022. Sales and marketing expenses as a percentage of our total revenues were 11% for both the second quarter and first half of 2023, as compared to 8% for both the comparable periods of 2022.

The total number of sales and marketing personnel was 36 at June 30, 2023, as compared to 34 at June 30, 2022.

General and Administrative Expenses

Our general and administrative expenses were $4.2 million and $8.2 million for the second quarter and first half of 2023, respectively, as compared to $3.6 million and $7.3 million for the comparable periods of 2022. The increase for both the second quarter and first half of 2023 primarily reflected higher professional services cost and higher non-cash equity-based compensation expenses. Included in general and administrative expenses for the second quarter and first half of 2023 were non-cash equity-based compensation expenses of $927,000 and $1,816,000, respectively, as compared to $613,000 and $1,335,000 for the comparable periods of 2022. General and administrative expenses as a percentage of our total revenues were 16% and 15% for the second quarter and first half of 2023, respectively, as compared to 11% for both the comparable periods of 2022.

The number of general and administrative personnel was 51 at June 30, 2023, as compared to 51 at June 30, 2022.

Amortization of Intangible Assets

Our amortization charges were $0.3 million and $0.6 million for the second quarter and first half of 2023, respectively, as compared to $0.8 million and $1.5 million for the comparable periods of 2022. The amortization charges for both the second quarter and first half of 2023 and 2022 were incurred mainly in connection with the amortization of intangible assets associated with the acquisition of Intrinsix and the acquisition of the Hillcrest Labs business. The amortization charges for the second quarter and first half of 2022 were also incurred in connection with the amortization of intangible assets associated with the strategic investment in Immervision. In the third quarter of 2022, we recorded an impairment charge in operating expenses with respect to all Immervision technology, as we decided to cease the development of this product line. For more information about our intangible assets, see Note 8 to the interim condensed consolidated financial statements for the three and six months ended June 30, 2023.

Financial Income, Net (in millions)

	First Half 2023	First Half 2022	Second Quarter 2023	Second Quarter 2022
Financial income, net	$ 2.58	$ 0.69	$ 1.12	$ 0.41
of which:				
Interest income and gains and losses from marketable securities, net	$ 2.22	$ 0.95	$ 1.03	$ 0.58
Foreign exchange gain (loss)	$ 0.36	$ (0.26)	$ 0.09	$ (0.17)

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

The increase in interest income and gains and losses from marketable securities, net, during the second quarter and first half of 2023 principally reflected higher yields, offset by lower combined 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 applicable French research tax credits, which are generally refunded every three years. This has resulted in a foreign exchange gain of $0.09 million and $0.36 million for the second quarter and first half of 2023, respectively, as compared to foreign exchange loss of $0.17 million and $0.26 million for the comparable periods of 2022.

Remeasurement of Marketable Equity Securities

We recorded a loss of $0.1 million and $0.2 million for the second quarter and first half of 2023, respectively, as compared to a loss of $0.7 million and $1.8 million for the comparable periods of 2022, related to remeasurement of marketable equity securities, which we hold at cost. 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

Our income tax expenses was $0.5 million and $2.0 million for the second quarter and first half of 2023, respectively, as compared to $0.6 million and $1.9 million for the comparable periods of 2022. Our income tax expenses comprise of withholding tax expenses in our Israeli subsidiary for which we will not be able to obtain a refund from the tax authorities, as well as tax expenses on income generated in our French subsidiary (under the French IP Box regime) and taxes in the U.S., mainly because of the effect of IRC Section 174, as further described below.

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 these or 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 in the U.S. due to global intangible low-taxed income (GILTI) and the requirement to capitalize R&D expenditures under IRC Section 174 over five years if sourced from the U.S. and over 15 years if sourced internationally. Although our Israeli and Irish subsidiaries, and, from 2022 onward, our French subsidiary, 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 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).

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 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 new 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 intellectual property. 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%. We are applying the Technological Preferred Enterprise tax track for our Israeli subsidiary from tax year 2020 and onwards.

Critical Accounting Policies and Estimates

Our consolidated financial statements are prepared in accordance with generally accepted accounting principles in the United States. The preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, expenses and related disclosures. We evaluate our estimates and assumptions on an ongoing basis. Our estimates are based on historical experience and various other assumptions that we believe to be reasonable under the circumstances. Our actual results could differ from these estimates.

We believe that the assumptions and estimates associated with revenue recognition, fair value of financial instruments, equity-based compensation and income taxes have the greatest potential impact on our consolidated financial statements. Therefore, we consider these to be our critical accounting policies and estimates.

See our Annual Report on Form 10-K for the year ended December 31, 2022, filed with the SEC on March 1, 2023, for a discussion of additional critical accounting policies and estimates. There have been no changes in our critical accounting policies as compared to what was previously disclosed in the Annual Report on Form 10-K for the year ended December 31, 2022.

LIQUIDITY AND CAPITAL RESOURCES

As of June 30, 2023, we had approximately $27.5 million in cash and cash equivalents, $10.4 million in short-term bank deposits, and $97.7 million in marketable securities, totaling $135.6 million, as compared to $147.7 million at December 31, 2022. The decrease for the first six months of 2023 principally reflected cash used in operating activities, as well as $3.6 million cash used for the acquisition of the VisiSonics business.

Out of total cash, cash equivalents, bank deposits and marketable securities of $135.6 million, $131.6 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.

During the first six months of 2023, we invested $2.5 million of cash in marketable securities with maturities up to 39 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 $21.7 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 interim condensed consolidated statements of income (loss). The amount of credit losses recorded for the first six months of 2023 was immaterial. For more information about our marketable securities, see Note 6 to the interim condensed consolidated financial statements for the three and six months ended June 30, 2023.

Bank deposits are classified as short-term bank deposits and long-term bank deposits. Short-term bank deposits are deposits with maturities of more than three months but no longer than one year from the balance sheet date, whereas long-term bank deposits are deposits with maturities of more than one year as of 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 used in operating activities for the first six months of 2023 was $9.9 million and consisted of net loss of $10.7 million, adjustments for non-cash items of $10.7 million, and changes in operating assets and liabilities of $9.9 million. Adjustments for non-cash items primarily consisted of $2.8 million of depreciation and amortization of intangible assets, and $8.1 million of equity-based compensation expenses. The decrease in operating assets and liabilities primarily consisted of an increase in trade receivables of $0.7 million, an increase in prepaid expenses and other assets of $2.0 million (mainly as a result of payment of a yearly design tool subscription in the first quarter of 2023, and an increase in applicable French research tax credits), an increase in deferred taxes, net of $0.4 million, a decrease in trade payables of $0.9 million, a decrease in accrued expenses and other payables of $1.2 million, and a decrease in accrued payroll and related benefits of $5.5 million (mainly as a result of a yearly bonus payments), partially offset by an increase in deferred revenues of $0.6 million.

Cash provided by operating activities for the first half of 2022 was $1.7 million and consisted of net loss of $2.8 million, adjustments for non-cash items of $12.8 million, and changes in operating assets and liabilities of $8.3 million. Adjustments for non-cash items primarily consisted of $3.9 million of depreciation and amortization of intangible assets, $6.7 million of equity-based compensation expenses and $1.8 million of remeasurement of marketable equity securities. The decrease in operating assets and liabilities primarily consisted of a decrease in deferred revenues of $4.1 million, an increase in prepaid expenses and other assets of $1.1 million, and an increase in deferred taxes, net of $3.7 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, funding from research and development government grants and French research tax credits, and 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 provided by investing activities for the first six months of 2023 was $14.4 million, compared to $12.3 million of net cash used in investing activities for the comparable period of 2022. We had a cash outflow of $2.5 million and a cash inflow of $17.7 million with respect to investments in marketable securities during the first half of 2023, as compared to a cash outflow of $27.3 million and a cash inflow of $9.7 million with respect to investments in marketable securities during the first half of 2022. For the first half of 2023, we had proceeds of $4.0 million from bank deposits, as compared to net proceeds of $7.4 million from bank deposits for the comparable period of 2022. We had a cash outflow of $1.2 million and $2.1 million during the first six months of 2023 and 2022, respectively, from purchase of property and equipment. For the first six months of 2023, we had a cash outflow of $3.6 million for the acquisition of the VisiSonics business.

Financing Activities

Net cash provided by financing activities for the first six months of 2023 was $1.7 million, as compared to $2.7 million of net cash used in financing activities for the comparable period of 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 6,400,000 shares in 2010, 2013, 2014, 2018 and 2020. We did not repurchase any shares of common stock during the first six months of 2023. During the first six months of 2022, we repurchased 136,091 shares of common stock pursuant to our share repurchase program at an average purchase price of $32.75 per share, for an aggregate purchase price of $4.5 million. As of June 30, 2023, we had 278,799 shares available for repurchase.

During the first six months of 2023, we received $1.7 million from the exercise of stock-based awards, as compared to $1.7 million received for the comparable period of 2022.

We believe 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. We cannot provide assurances, 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 assurances that additional financing will be available to us in any required time frame and on commercially reasonable terms, if at all.

Item 3. 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 gain of $93,000 and $356,000 for the second quarter and first half of 2023, respectively, and a foreign exchange loss of $171,000 and $260,000 for the comparable periods of 2022.

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 the second quarter and first half of 2023, we recorded accumulated other comprehensive gain of $198,000 and accumulated other comprehensive loss of $55,000, respectively, from our forward and option contracts, net of taxes, with respect to anticipated payroll expenses for our non-U.S. employees. During the second quarter and first half of 2022, we recorded accumulated other comprehensive loss of $674,000 and $573,000, respectively, from our forward and option contracts, net of taxes, with respect to anticipated payroll expenses for our non-U.S. employees. As of June 30, 2023, the amount of other comprehensive loss from our forward and option contracts, net of taxes, was $162,000, which will be recorded in the consolidated statements of income (loss) during the following four months. We recognized a net loss of $403,000 and $574,000 for the second quarter and first half of 2023, respectively, and a net loss of $632,000 and $742,000 for the comparable periods of 2022, 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 June 30, 2023, the unrealized losses associated with our investments were approximately $6.0 million due to the dramatic changes in the interest rate environment that took place in 2022. As we tend to hold such bonds with unrealized losses to recovery, the allowance for credit losses was not material during the second quarter and first half of 2023. However, we can provide no assurance that we will recover present declines in the market value of our investments. See “Risk Factors— We have broad discretion with respect to the application of our cash, cash equivalents and financial investments, which may not yield returns for a variety of reasons, many of which may be outside of our control.” for more detailed information.

Interest income and gains and losses from marketable securities, net, were $1.03 million and $2.22 million for the second quarter and first half of 2023, respectively, as compared to $0.58 million and $0.95 million for the comparable periods of 2022. The increase in interest income, and gains and losses from marketable securities, net, during both the second quarter and first half of 2023, principally reflected higher yields, offset by lower combined 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 4. 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 June 30, 2023.

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.

PART II OTHER INFORMATION

Item 1 LEGAL PROCEEDINGS

We are not a party to any litigation or other legal proceedings that we believe could reasonably be expected to have a material effect on our business, results of operations and financial condition.

Item 1A RISK FACTORS

Other than as described below, we have not identified any material changes to the Risk Factors previously disclosed in Part I—Item IA—“Risk Factors” in our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, any one or more of which could, directly or indirectly, cause our actual financial condition and operating results to vary materially from past, or from anticipated future, financial condition and operating results. Any of those factors, in whole or in part, could materially and adversely affect our business, financial condition, operating results and stock price. You should carefully consider the risks and uncertainties described in our Annual Report filed on Form 10-K for the fiscal year ended December 31, 2022, together with all of the other information in this Quarterly Report on Form 10-Q, including in “Part I—Item 2—”Management’s Discussion and Analysis of Financial Condition and Results of Operations” and the condensed consolidated financial statements and related notes.

We have broad discretion with respect to the application of our cash, cash equivalents and financial investments, which may not yield returns for a variety of reasons, many of which may be outside of our control.

We have broad discretion in the application of our cash, cash equivalents and financial investments, and we may spend or invest these funds without the approval of stockholders in ways that do not improve our results of operations or enhance the value of our common stock. We have established a corporate investment policy governing the investment and management of our cash balances in excess of operational needs. Pursuant to this investment policy, we hold an investment portfolio of marketable securities consisting principally of corporate bonds in the amount of $112.1 million as of December 31, 2022 and $97.7 million as of June 30, 2023, out of total cash and cash equivalents, short-term bank deposits and marketable securities of $139.5 million and $135.6 million as of December 31, 2022 and June 30, 2023, respectively. These positions are reviewed by the audit committee of our board of directors on a quarterly basis.

Given the concentration of our investments in corporate bonds, we are significantly exposed 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. As of June 30, 2023, the unrealized losses associated with our investments in available-for-sale marketable securities were approximately $6.0 million due to the dramatic changes in the U.S. interest rate environment. As we tend to hold such bonds with unrealized losses to recovery, the allowance for credit losses was not material during either 2022 or the second quarter and first half of 2023, however, we can provide no assurance that we will recover present declines in the market value of our investments.

Furthermore, we are also exposed to risks related to the solvency of the banks in which we make our financial investments. While the majority of our cash and cash equivalents are invested in high grade certificates of deposits with major U.S., European and Israeli banks, 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. We monitor on a systematic basis the cash and cash equivalent balances in our operating accounts and adjust the balances as appropriate, but these balances, as well as the value of our corporate bonds, could be impacted if one or more of the financial institutions with which we deposit our funds or with respect to which we hold bonds fails or is subject to other adverse conditions in the financial or credit markets. While our risk related to certain of our corporate bonds has increased recently due to the recent liquidity crisis at Credit Suisse, we have not experienced any material adverse impact to our liquidity or to our current and projected business operations, financial condition or results of operations from matters relating to the banking failures and other adverse developments affecting certain financial institutions in recent months. However, we can provide no assurance that access to our invested cash and cash equivalents or the value of our corporate bonds will not be affected if the relevant financial institutions fail.

Our cash position and investment returns may also be impacted by other factors outside of our control, including but not limited to rising levels of inflation globally, volatility in the financial markets, and market and economic conditions in general. A loss on our investments may also negatively impact our liquidity, which in turn may hurt our ability to invest in our business.

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

We operate within the semiconductor industry, which experiences significant fluctuations in sales, profitability and financing. Downturns in the semiconductor industry are characterized by diminished product demand, excess customer inventories, accelerated erosion of prices and excess production capacity. Various market data suggests that the semiconductor industry may be facing such a negative cycle presently, especially in the global handset market. The semiconductor industry has also faced significant global supply chain issues as a result of the impact of the COVID-19 pandemic (both on demand for devices to enable wireless connectivity and remote environments and on supply from the related imposition of government restrictions on staffing and facility operations) as well as other trends such as the increasing demand for semiconductors in automobiles, which together have resulted in the inability of fabrication plants to produce sufficient quantities of chips to meet demand, supply chain shortages and other disruptions. In addition, semiconductor startups, a customer base that is an important contributor to any IP licensing business, rely on venture capital funding to underpin their businesses, but due to recent factors affecting the macroeconomic environment, funding from venture capital investors for these companies slowed down towards the end of 2022, with additional instability during the first half of 2023 resulting from the Silicon Valley Bank failure. The high interest rate environment and macroeconomic concerns related to an industry slowdown, inventory buildout and decline in semiconductor startup funding we experienced in the second half of 2022 has continued throughout the first half of 2023, and adversely affect our revenues, and may continue to impact our business. Other factors, such as further trade tensions between the U.S. and China, may prolong or deepen these challenges faced by the industry. Volatility or declines in the semiconductor industry could cause substantial fluctuations or declines in our revenues and results of operations.

Item 2 UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

On February 18, 2020, the Company announced that its Board of Directors approved the expansion of its share repurchase program, such that 700,000 shares of common stock were available for repurchase under the plan as of such time. No shares were repurchased during the three-months ended June 30, 2023. As of June 30, 2023, 278,799 shares of common stock remained available for repurchase under this share repurchase program.

Item 3 DEFAULTS UPON SENIOR SECURITIES

Not applicable.

Item 4 MINE SAFETY DISCLOSURES

Not applicable.

Item 5 OTHER INFORMATION

During the three months ended June 30, 2023, no director or officer (as defined in Rule 16a-1(f) under the Exchange Act) of the Company adopted or terminated a "Rule 10b5-1 trading arrangement" or "non-Rule 10b5-1 trading arrangement," as each term is defined in Item 408 of Regulation S-K.

Item 6 EXHIBITS

Exhibit No.	Description
10.1†	CEVA, Inc. 2011 Stock Incentive Plan (incorporated by reference to an annex to the registrant's Proxy Statement for the May 23, 2023 Annual Meeting of Stockholders, filed April 12, 2023)*
31.1	Rule 13a14(a)/15d14(a) Certification of Chief Executive Officer
31.2	Rule 13a14(a)/15d14(a) Certification of Chief Financial Officer
32	Section 1350 Certification of Chief Executive Officer and Chief Financial Officer
101	The following materials from CEVA, Inc.'s Quarterly report on Form 10-Q for the quarter ended June 30, 2023, formatted in iXBRL (Inline eXtensible Business Reporting Language): (i) the Condensed Consolidated Statements of Loss, (ii) the Condensed Consolidated Balance Sheet, (iii) the Condensed Consolidated Statements of Cash Flows, (iv) the Condensed Consolidated Statements of Comprehensive Loss, (v) Condensed Consolidated Statements of Changes in Stockholders' Equity, and (vi) Notes to Condensed Consolidated Financial Statements.
104	Cover Page Interactive Data File (embedded within the Inline XBRL document and included in Exhibit 101).

† Indicates management compensatory plan or arrangement.
* Portions of this exhibit are redacted.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

CEVA, INC.

Date: August 9, 2023

By: /s/ AMIR PANUSH
Amir Panush
Chief Executive Officer
(principal executive officer)

Date: August 9, 2023

By: /s/ YANIV ARIELI
Yaniv Arieli
Chief Financial Officer
(principal financial officer and principal accounting officer)

EXHIBIT 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER PURSUANT TO

SECTION 302(a) OF THE SARBANES-OXLEY ACT OF 2002

I, Amir Panush, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of CEVA, Inc. (the “Company”);

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a15(e) and 15d15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a15(f) and 15d15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and

5. The registrant’s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

Date: August 9, 2023

/s/ AMIR PANUSH
Amir Panush
Chief Executive Officer

EXHIBIT 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER PURSUANT TO

SECTION 302(a) OF THE SARBANES-OXLEY ACT OF 2002

I, Yaniv Arieli, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of CEVA, Inc. (the “Company”);

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a15(e) and 15d15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a15(f) and 15d15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and

5. The registrant’s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

Date: August 9, 2023

/s/ YANIV ARIELI
Yaniv Arieli
Chief Financial Officer

Exhibit 32

CERTIFICATION

PURSUANT TO 18 U.S.C. SECTION 1350,

AS ADOPTED PURSUANT TO

SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the quarterly report on Form 10-Q of CEVA, Inc. (the “Company”) for the quarter ended June 30, 2023, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), the undersigned, Amir Panush, Chief Executive Officer of the Company, and Yaniv Arieli, Chief Financial Officer of the Company, each hereby certifies, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

This certification will not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that section. This certification will not be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934, except to the extent that the Company specifically incorporates it by reference.

Date: August 9, 2023

/s/ AMIR PANUSH
Amir Panush
Chief Executive Officer

/s/ YANIV ARIELI
Yaniv Arieli
Chief Financial Officer