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 October 2, 2022

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: 000-22671

QUICKLOGIC CORPORATION
(Exact name of registrant as specified in its charter)

Delaware **(State or other jurisdiction of incorporation or organization)**	**77-0188504** **(I.R.S. Employer Identification No.)**

2220 Lundy Avenue, San Jose, CA 95131-1816
(Address of principal executive offices including zip code))

(408) 990-4000
(Registrant's telephone number, including area code)

Securities registered pursuant Section 12(b) of the act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $.001 per share	QUIK	The Nasdaq Capital Market

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.

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 Securities Exchange Act). Yes ☐ No ☒

As of November 11, 2022, there were 13,112,540 shares of registrant’s common stock, par value $0.001 per share, outstanding.

QUICKLOGIC CORPORATION
FORM 10-Q
October 2, 2022

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PART I. Financial Information

Item 1. Financial Statements

QUICKLOGIC CORPORATION
UNAUDITED CONDENSED CONSOLIDATED BALANCE SHEETS
(in thousands, except par value amount)

	October 2, 2022	January 2, 2022
ASSETS		
Current assets:		
Cash, cash equivalents and restricted cash	$ 20,036	$ 19,605
Accounts receivable, net of allowance for doubtful accounts of $60 and $62, respectively(1)	3,905	1,294
Inventories	2,201	2,078
Other current assets	1,357	1,181
Total current assets	27,499	24,158
Property and equipment, net	514	499
Capitalized internal-use software, net	1,451	1,241
Right of use assets	944	1,529
Intangible assets	672	752
Goodwill	185	185
Investment in privately-held non-affiliate	300	300
Other assets	191	309
TOTAL ASSETS	$ 31,756	$ 28,973
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Revolving line of credit	$ 15,000	$ 15,000
Trade payables	1,602	934
Accrued liabilities	1,513	1,665
Deferred revenue	216	455
Lease liabilities, current	646	819
Total current liabilities	18,977	18,873
Long-term liabilities:		
Lease liabilities, non-current	346	744
Other liabilities, non-current	125	147
Total liabilities	19,448	19,764
Commitments and contingencies (see Note 11)	—	—
Stockholders' equity:		
Preferred stock, $0.001 par value; 10,000 shares authorized; no shares issued and outstanding	—	—
Common stock, $0.001 par value; 200,000 authorized; 13,110 and 11,863 shares issued and outstanding as of October 2, 2022 and January 2, 2022, respectively	13	12
Additional paid-in capital	316,355	310,222
Accumulated deficit	(304,060)	(301,025)
Total stockholders' equity	12,308	9,209
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$ 31,756	$ 28,973

(1)Accounts receivables includes contract assets of $1,459 and $243, respectively

See accompanying notes to unaudited condensed consolidated financial statements.

QUICKLOGIC CORPORATION
UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except per share amounts)

	Three Months Ended		Nine Months Ended	
	October 2, 2022	**October 3, 2021**	**October 2, 2022**	**October 3, 2021**
Revenue	$ 3,459	$ 3,858	$ 12,096	$ 8,980
Cost of revenue	1,781	1,126	5,413	3,638
Gross profit	1,678	2,732	6,683	5,342
Operating expenses:				
Research and development	1,018	1,807	3,541	5,346
Selling, general and administrative	1,900	2,186	6,018	5,927
Total operating expenses	2,918	3,993	9,559	11,273
Loss from operations	(1,240)	(1,261)	(2,876)	(5,931)
Interest expense	(44)	(35)	(98)	(99)
Gain on forgiveness of debt	—	—	—	1,192
Interest income and other expense, net	(60)	(7)	(42)	(59)
Loss before income taxes	(1,344)	(1,303)	(3,016)	(4,897)
Provision for (benefit from) income taxes	3	(21)	19	136
Net loss	$ (1,347)	$ (1,282)	$ (3,035)	$ (5,033)
Net loss per share:				
Basic and diluted	$ (0.11)	$ (0.11)	$ (0.24)	$ (0.44)
Weighted average shares outstanding:				
Basic and diluted	12,664	11,573	12,401	11,441

Note: Net loss equals comprehensive loss for all periods presented.

See accompanying notes to unaudited condensed consolidated financial statements.

QUICKLOGIC CORPORATION
UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Nine Months Ended	
	October 2, 2022	October 3, 2021
Cash flows from operating activities:		
Net loss	$ (3,035)	$ (5,033)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	516	471
Stock-based compensation	1,347	1,455
Write-down of inventories and reclassifications	72	225
Gain on disposal of equipment	(27)	(5)
Gain on forgiveness of debt	—	(1,192)
Bad debt expense	—	62
Changes in operating assets and liabilities:		
Accounts receivable	(2,611)	(386)
Inventories	(195)	281
Other assets	(158)	(90)
Trade payables	981	699
Accrued liabilities	(52)	251
Deferred revenue	(239)	42
Other long-term liabilities	(22)	167
Net cash used in operating activities	(3,423)	(3,053)
Cash flows from investing activities:		
Capital expenditures for property and equipment	(139)	(178)
Capitalized internal-use software	(495)	(402)
Net cash used in investing activities	(634)	(580)
Cash flows from financing activities:		
Payment of finance lease obligations	(299)	(231)
Proceeds from line of credit	45,000	45,000
Repayment of line of credit	(45,000)	(45,000)
Proceeds from issuance of common stock, net	4,787	1,182
Taxes paid related to settlement of equity awards	—	(485)
Net cash provided by financing activities	4,488	466
Net increase (decrease) in cash, cash equivalents and restricted cash	431	(3,167)
Cash, cash equivalents and restricted cash at beginning of period	19,605	22,748
Cash, cash equivalents and restricted cash at end of period	$ 20,036	$ 19,581

See accompanying notes to unaudited condensed consolidated financial statements.

QUICKLOGIC CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY
(In thousands)

	Common Stock		Additional Paid-In Capital	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount			
Balance at January 2, 2022	11,863	$ 12	$ 310,222	$ (301,025)	$ 9,209
Issuance of common stock under public stock offering, net of stock issuance cost	310	—	1,482	—	1,482
Common stock issued under stock plans and employee stock purchase plans	189	—	—	—	—
Stock-based compensation	—	—	383	—	383
Net loss	—	—	—	(1,164)	(1,164)
Balance at April 3, 2022	12,362	12	312,087	(302,189)	9,910
Common stock issued under stock plans and employee stock purchase plan	66	—	122	—	122
Stock-based compensation	—	—	477	—	477
Net loss	—	—	—	(524)	(524)
Balance at July 3, 2022	12,428	12	312,686	(302,713)	9,985
Common stock issued under stock plans and employee stock purchase plan	195	—	—	—	—
Common stock offering, net of issuance costs	487	1	3,182	—	3,183
Stock-based compensation	—	—	487	—	487
Net loss	—	—	—	(1,347)	(1,347)
Balance at October 2, 2022	13,110	$ 13	$ 316,355	$ (304,060)	$ 12,308

	Common Stock		Additional Paid-In Capital	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount			
Balance at January 3, 2021	11,094	$ 11	$ 306,885	$ (294,409)	$ 12,487
Common stock issued under stock plans and employee stock purchase plans	354	—	(484)	—	(484)
Stock-based compensation	—	—	368	—	368
Net loss	—	—	—	(1,689)	(1,689)
Balance at April 4, 2021	11,448	11	306,769	(296,098)	10,682
Common stock issued under stock plans and employee stock purchase plan	64	1	146	—	147
Stock-based compensation	—	—	202	—	202
Net loss	—	—	—	(2,062)	(2,062)
Balance at July 4, 2021	11,512	12	307,117	(298,160)	8,969
Common stock issued under stock plans and employee stock purchase plan	79	—	—	—	—
Common stock offering, net of issuance costs of $45	199	—	1,034	—	1,034
Stock-based compensation	—	—	885	—	885
Net loss	—	—	—	(1,282)	(1,282)
Balance at October 3, 2021	11,790	$ 12	$ 309,036	$ (299,442)	$ 9,606

See accompanying notes to unaudited condensed consolidated financial statements

Notes to unaudited condensed consolidated financial statements

Note 1 — The Company and Basis of Presentation

QuickLogic Corporation ("QuickLogic" or "Company") was founded in 1988 and reincorporated in Delaware in 1999. The Company enables Original Equipment Manufacturers ("OEMs") to maximize battery life for highly differentiated, immersive user experiences with smartphone, wearable, hearable, tablet, and internet-of-Things ("IoT devices"), military, aerospace and defense products. QuickLogic delivers these benefits through industry leading ultra-low power customer programmable System on Chip ("SoC") semiconductor solutions, embedded software, and algorithm solutions for always-on voice and sensor processing. The Company is a fabless semiconductor provider of comprehensive, flexible sensor processing solutions, ultra-low power display bridges, and ultra-low power Field Programmable Gate Arrays ("FPGAs"). The Company's wholly owned subsidiary, SensiML Corporation ("SensiML") provides Analytics Toolkit, which is used in many of the applications where the Company's ArcticPro™, eFPGA intellectual property ("IP") plays a critical role. SensiML Analytics toolkit is an end-to-end software suite that provides OEMs a straightforward process for developing pattern matching sensor algorithms using machine learning technology that are optimized for ultra-low power consumption.

The accompanying interim condensed consolidated financial statements are unaudited. In the opinion of the Company's management, these statements have been prepared in accordance with the United States generally accepted accounting principles ("U.S. GAAP"), and include all adjustments, consisting only of normal recurring adjustments, necessary to provide a fair statement of results for the interim periods presented. The Company recommends that these interim unaudited condensed consolidated financial statements be read in conjunction with the Company's Form 10-K for the year ended January 2, 2022, which was filed with the Securities and Exchange Commission ("SEC") on March 22, 2022. Operating results for the three and nine months ended October 2, 2022 are not necessarily indicative of the results that may be expected for the full fiscal year.

QuickLogic's fiscal year ends on the Sunday closest to December 31 and each fiscal quarter ends on the Sunday closest to the end of each calendar quarter. QuickLogic's third fiscal quarter for 2022 and 2021 ended on October 2, 2022 and October 3, 2021, respectively.

COVID-19 - Impact on Business

There have been no material changes due to the impact of the Covid-19 pandemic on our business from that disclosed in our most recently filed Annual Report. Our most recent Annual Report on Form 10-K for the year ended January 2, 2022 as filed with the SEC on March 22, 2022 provides additional information about our business and operations.

Liquidity

The Company has financed its operations and capital investments through public and private offerings of our common stock, finance and operating leases, and borrowing under a revolving line of credit with Heritage Bank (the "Revolving Facility"), partially offset by cash used in operations. In addition to the Company's $20.0 million of cash, cash equivalents and restricted cash, as of October 2, 2022 other sources of liquidity included $45 million drawn down from the Revolving Facility and $4.8 million in net proceeds from the Company's sale of common stock in nine months ended October 2, 2022.

The Company was in compliance with all the Heritage Bank Revolving Facility loan covenants as of October 2, 2022. As of October 2, 2022, the Company had $15.0 million outstanding on the Revolving Facility with an interest rate of 6.75%.

On September 14, 2022 and February 9, 2022, the Company entered into common stock purchase agreements with certain investors for the sale of an aggregate of 487,279 and 310,000 shares of common stock, respectively, par value $0.001, in registered direct offerings, resulting in net cash proceeds of approximately $3.2 million and $1.5 million, respectively. Issuance costs related to September 14, 2022 and the February 9, 2022 offering were immaterial. The purchase price for each share of common stock in the September 14, 2022 and in the February 9, 2022 placements were $6.57 and $4.78, respectively. The Company currently intends to use the net proceeds from financings for working capital, the development of next generation eFPGA-based products, including AI and open source hardware or software, and general corporate purposes, and may also use a portion of the net proceeds to acquire and/or license technologies and acquire and/or invest in businesses when the opportunity arises; however, the Company currently has no commitments or agreements and is not involved in any negotiations with respect to any such transactions.

The Company currently uses its cash to fund its working capital to accelerate the development of next generation products and for general corporate purposes. Based on past performance and current expectations, the Company believes that its existing cash and cash equivalents, together with available financial resources from the Revolving Facility, will be sufficient to fund its operations and capital expenditures and provide adequate working capital for the next twelve months. We continue to monitor our financial performance to ensure sufficient liquidity to fund operations and execute on our business plan.

Various factors can affect the Company's liquidity, including, among others: the level of revenue and gross profit as a result of the cyclicality of the semiconductor industry, the conversion of design opportunities into revenue, market acceptance of existing and new products including solutions based on its eFPGA IP, ArcticLink®, and PolarPro® platforms, eFPGA, EOS S3 SoC, Quick AI solution, and SensiML software fluctuations in revenue as a result of product end-of-life, fluctuations in revenue as a result of the stage in the product life cycle of its customers' products, costs of securing access to and availability of adequate manufacturing capacity; levels of inventories; wafer purchase commitments; customer credit terms; the amount and timing of research development expenditures; the timing of new product introductions; production volumes; product quality; sales and marketing efforts; the value and liquidity of its investment portfolio; changes in operating assets and liabilities; the ability to obtain or renew debt financing and to remain in compliance with the terms of existing credit facilities; the ability to raise funds from the sale of equity in the Company; the issuance and exercise of stock options and participation in the Company's employee stock purchase plan and other factors related to the uncertainties of the industry and global economics.

Over the longer term, the Company anticipates that sales generated from its new product offerings and existing cash and cash equivalents, together with financial resources from its Revolving Facility, assuming renewal of the Revolving Facility or the Company entering into a new debt agreement with an alternative lender prior to the expiration of the Revolving Facility in December 2023, and its ability to raise additional capital in the public capital markets, will be sufficient to satisfy its operations and capital expenditures. However, the Company cannot provide any assurance that it will be able to raise additional capital, if required, or that such capital will be available on terms acceptable to the Company. The inability of the Company to generate sufficient sales from its new product offerings and/or raise additional capital if needed could have a material adverse effect on the Company's operations and financial condition, including its ability to maintain compliance with its lender's financial covenants.

Principles of Consolidation

The unaudited condensed consolidated financial statements include the accounts of QuickLogic and its wholly owned subsidiaries. All intercompany accounts and transactions have been eliminated.

Foreign Currency

The functional currency of the Company's non-U.S. operations is the U.S. dollar. Accordingly, all monetary assets and liabilities of these foreign operations are translated into U.S. dollars at current period-end exchange rates and non-monetary assets and related elements of expense are translated using historical exchange rates. Income and expense elements are translated to U.S. dollars using the average exchange rates in effect during the period. Gains and losses from the foreign currency transactions of these subsidiaries are recorded as interest income and other expense, net in the unaudited condensed consolidated statements of operations.

Uses of Estimates

The preparation of these unaudited condensed consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosures of contingent assets and liabilities and the reported amounts of revenue and expenses during the period. Actual results could differ materially from those estimates, particularly in relation to revenue recognition, the allowance for doubtful accounts, sales returns, valuation of long-lived assets including mask sets, valuation of goodwill, capitalized internal-use software and related amortizable lives, fair value measurements, and intangibles related to the acquisition of SensiML, including the estimated useful lives of acquired intangible assets, valuation of inventories including identification of excess quantities, market value and obsolescence, measurement of stock-based compensation awards, accounting for income taxes and estimating accrued liabilities. For additional information, please refer to the Company's most recent annual report which was filed with the SEC on March 22, 2022.

Concentration of Risk

The Company's accounts receivable is denominated in U.S. dollars and are derived primarily from sales to customers located in North America, Asia Pacific, and Europe. The Company performs ongoing credit evaluations of its customers and generally does not require collateral. See Note 9, Information Concerning Product Lines, Geographic Information and Revenue Concentration, for information regarding concentrations associated with accounts receivable.

Note 2 — Significant Accounting Policies

During the three and nine months ended October 2, 2022 there were no changes in the Company's significant accounting policies from its disclosures in the Annual Report on Form 10-K for the year ended January 2, 2022. For a discussion of the significant accounting policies, please see the Annual Report on Form 10-K for the fiscal year ended January 2, 2022, filed with the SEC on March 22, 2022.

Recent Accounting Standards Adopted

In May 2021, the Financial Accounting Standards Board ("FASB") issued ASU No. 2021-04, *Issuer's Accounting for Certain Modifications of Exchanges of Freestanding Equity-Classified Written Call Options* to clarify the accounting for modifications or exchanges of freestanding equity-classified written call options, such as warrants, that remain equity classified after modification or exchange. This ASU became effective for the Company on January 3, 2022 and did not have a material impact on the Company's consolidated financial statements.

New Accounting Standards Not Yet Adopted

In June 2022, the FASB issued ASU No. 2022-03, *Fair Value Measurement (Topic 820) Fair Value Measurement of Equity Securities Subject to Contractual Sale Restrictions* to clarify the measurement of the fair value of an equity security subject to contractual restrictions that prohibit the sale of an equity security and requires disclosures related to these types of equity securities. ASU No. 2022-03 becomes effective for the Company on January 2, 2023 and is not expected to have an impact on the Company's consolidated financial statements or disclosures.

In August 2020, the FASB issued ASU No. 2020-06, *Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging—Contracts in Entity's Own Equity (Subtopic 815-40)*: Accounting for Convertible Instruments and Contracts in an Entity's Own Equity, which address issues identified as a result of the complexity associated with applying generally accepted accounting principles for certain financial instruments with characteristics of liabilities and equity. ASU No. 2020-06 becomes effective for the Company on January 1, 2024. Early adoption is permitted, but no earlier than fiscal years beginning after December 15, 2020, including interim periods within those fiscal years. The Board specified that an entity should adopt the guidance as of the beginning of its annual fiscal year. The ASU is not expected to have an impact on the Company's financial statements.

Note 3 — Net Loss Per Share

Basic loss per share is computed by dividing net loss by the weighted average number of common shares outstanding during the period. Diluted net loss per share was computed using the weighted average number of common shares outstanding during the period plus potentially dilutive common shares outstanding during the period under the treasury stock method. In computing diluted net loss per share, the weighted average stock price for the period is used in determining the number of shares assumed to be purchased from the exercise of stock options and warrants.

For the three and nine months ended October 2, 2022 and October 3, 2021, 398 thousand and 691 thousand shares of common stock, respectively, associated with equity awards and the estimated number of shares to be purchased under the current offering period of the 2009 Employee Stock Purchase Plan were outstanding. These shares were not included in the computation of diluted net loss per share, as they were considered anti-dilutive due to the net losses the Company experienced during these periods. Warrants to purchase up to 386 thousand shares were issued in connection with May 29, 2018, stock offering were not included in the diluted loss per share calculation of the periods presented as they were also considered anti-dilutive due to the net loss the Company experienced during these periods. The warrants are exercisable through May 29, 2023 at a price of $19.32 per share.

Note 4 — Balance Sheet Components

The following table provides details relating to certain balance sheet line items as of October 2, 2022, and January 2, 2022 (in thousands):

	October 2, 2022	January 2, 2022
Accounts receivable:		
Trade account receivables	$ 2,506	$ 1,113
Less: Allowance for doubtful accounts	(60)	(62)
Trade account receivables, net	2,446	1,051
Contract assets	1,459	243
	$ 3,905	$ 1,294
Inventories:		
Work-in-process	$ 1,455	$ 1,397
Finished goods	746	681
	$ 2,201	$ 2,078
Other current assets:		
Prepaid taxes, royalties, and other prepaid expenses	$ 936	$ 921
Other	421	260
	$ 1,357	$ 1,181
Property and equipment, net:		
Equipment	$ 10,173	$ 10,341
Software	1,803	1,878
Furniture and fixtures	21	32
Leasehold improvements	466	466
	12,463	12,717
Less: Accumulated depreciation and amortization	(11,949)	(12,218)
	$ 514	$ 499
Capitalized internal-use software, net:		
Capitalized internal-use software	$ 2,194	$ 1,699
Less: Accumulated amortization	(743)	(458)
	$ 1,451	$ 1,241
Accrued liabilities:		
Accrued compensation	$ 679	$ 740
Accrued employee benefits	121	111
Accrued payroll tax	157	102
Other	556	712
	$ 1,513	$ 1,665

Note 5 — Debt Obligations

Revolving Line of Credit

As of October 2, 2022 and January 2, 2022, the Company had $15.0 million of revolving debt outstanding with an interest rate of 6.75% and 3.75% per annum, respectively. Heritage Bank has a first priority security interest in substantially all of the Company's tangible and intangible assets to secure any outstanding amounts under the agreement. The Company was in compliance with all loan covenants under the agreement as of the end of the current reporting period. Interest expense recognized were $11 thousand and $50 thousand for the three and nine months ended October 2, 2022, respectively, and $22 thousand and $68 thousand for the three and nine months ended October 3, 2021, respectively.

On April 4, 2022, the Company entered into a Fifth Amendment (the "Amendment") to the December 21, 2018 Amended and Restated Loan and Security Agreement (as amended, the "Agreement") with Heritage Bank. The purpose of the Fifth Amendment was primarily to clarify certain terms of the Agreement as follows: (i) added a definition of "Remaining Months Liquidity" to be defined as the Borrower's unrestricted cash maintained at Bank (including cash in the Pledged Account) minus the outstanding principal amount of the Advances, divided by the absolute value of the average trailing three (3) month EBITDA; and (ii) revised the minimum cash and remaining months liquidity financial covenants. The minimum cash covenant was revised such that the balance of unrestricted cash in the pledged account shall at all times exceed the principal amount of all advances owed that are outstanding at any time. The remaining months liquidity covenant specified that it should not be less than nine months. The Company does not believe that the clarifications of the terms in the Amendment will have a material impact on the Company's liquidity or utilization of the revolving loan under the Agreement.

Note 6 — Leases

The Company entered into operating leases for office space for its headquarters. The Company has elected the practical expedient to apply to recognition requirements to short-term leases for its domestic and foreign subsidiaries and for its sales offices and recognized rent payments on short-term leases on a straight-line basis over the lease term. Finance leases are primarily for engineering design software. Operating leases generally have lease terms of one to five years. Finance leases are generally two to three years. As of October 2, 2022 and January 2, 2022, the balance of right-of-use assets was approximately $0.9 million and $1.5 million, respectively, and the lease liability was approximately $1 million and $1.6 million, respectively, for operating and finance leases for the headquarters in San Jose and for the operating subsidiaries of SensiML in Oregon and the Company's subsidiary in India. Total rent expense was $0.1 million and $0.3 million for the three and nine months ended October 2, 2022 and October 3, 2021, respectively.

The following table provides the expenses related to operating and finance leases (in thousands):

	Three Months Ended		Nine Months Ended	
	October 2, 2022	October 3, 2021	October 2, 2022	October 3, 2021
Operating lease costs:				
Fixed	$ 100	$ 101	$ 300	$ 306
Short term	4	4	16	13
Total	$ 104	$ 105	$ 316	$ 319
Finance lease costs:				
Amortization of ROU asset	$ 109	$ 87	$ 328	$ 591
Interest	5	6	18	57
Total	$ 114	$ 93	$ 346	$ 648

The following table provides the details of supplemental cash flow information. Right-of-use assets obtained in exchange for new finance and operating lease liabilities represent the new operating and finance leases entered into during the nine months ended October 2, 2022 and the nine months ended October 3, 2021 were $0 and $0.4 million, respectively (in thousands):

	Nine Months Ended	
	October 2, 2022	October 3, 2021
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows used for operating leases	$ 306	$ 100
Operating cash flows used for finance leases	18	9
Financing cash flows used for finance leases	299	231
Total	$ 623	$ 340
Right-of-use assets obtained in exchange for finance lease obligations	$ —	$ 397

The following table provides the details of right-of-use assets and lease liabilities as of October 2, 2022 and January 2, 2022 (in thousands):

	October 2, 2022	January 2, 2022
Right-of-use assets:		
Operating leases	$ 552	$ 809
Finance leases	392	720
Total right-of-use assets	$ 944	$ 1,529
Lease liabilities:		
Operating leases	$ 601	$ 873
Finance leases	391	690
Total lease liabilities	$ 992	$ 1,563

The following table provided the details of future lease payments for operating and finance leases as of October 2, 2022 (in thousands):

	Operating Leases	Finance Leases
2022 (remaining period)	$ 103	$ 159
2023	421	141
2024	106	105
Total lease payments	630	405
Less: Interest	(29)	(14)
Present value of lease liabilities	$ 601	$ 391

The following table provides the details of lease terms and discount rates as of October 2, 2022 and January 2, 2022:

	October 2, 2022	January 2, 2022
Right-of-use assets:		
Weighted-average remaining lease term (years)		
Operating leases	1.50	2.25
Finance leases	1.77	2.15
Weighted-average discount rates:		
Operating leases	6.00%	6.00%
Finance leases	4.29%	4.57%

Note *7* — Capital Stock

Employee Stock Plan

On May 10, 2022 at the Company's Annual Meeting, Company stockholders approved increasing the reservation of the additional shares under the 2019 Stock Plan, as amended on May 10, 2022. The approval of an additional 900 thousand shares of common stock increased the total number of available shares to 1.4 million under the 2019 Stock Plan, as amended. The number of shares available for future awards as of the date of the Annual Meeting are the sum of (1) 900 thousand, (2) the number of shares available for future awards under the plan immediately before such approval which were 522 thousand shares and (3) any shares subject to outstanding awards under the 2019 Plan or the 2009 Plan, that are terminated, canceled, surrendered, or forfeited as of May 10, 2022. On May 19, 2022, the Company filed a Registration Statement on Form S-8 with the SEC to register an additional 900 thousand shares of its common stock that may be issued under the Company's 2019 Stock Plan, as amended.

Registration Statement

On August 17, 2022, the Company filed a Registration Statement on Form S-3 with the SEC, under which we may sell, from time-to-time common stock, preferred stock, depositary shares, warrants, debt securities, and units, individually or as units comprised of one or more of the other securities or a combination thereof. The Company's registration statement became effective on August 26, 2022.

Note 8 — Stock-Based Compensation

Stock-based compensation expense included in the Company's consolidated financial statements for the three and nine months ended October 2, 2022 and October 3, 2021 was as follows (in thousands):

	Three Months Ended		Nine Months Ended	
	October 2, 2022	October 3, 2021	October 2, 2022	October 3, 2021
Cost of revenue	$ 44	$ 78	$ 217	$ 132
Research and development	149	282	325	521
Selling, general and administrative	294	525	805	802
Total	$ 487	$ 885	$ 1,347	$ 1,455

There was no stock-based compensation expense reversal related to the cancellation of certain unvested performance-based RSUs for the three and nine months ended October 2, 2022 and October 3, 2021.

No stock-based compensation was capitalized during any period presented above.

No stock options were granted during the three and nine months ended October 2, 2022 and October 3, 2021.

Stock-Based Compensation Award Activity

The following table summarizes the activity in the shares available for grant under the 2019 Plan during the nine months ended October 2, 2022 (in thousands):

	Shares Available for Grants
Balance at January 2, 2022	594
Authorized	912
RSUs granted	(159)
RSUs forfeited or expired	22
Balance at October 2, 2022	1,369

Stock Options

The following table summarizes stock options outstanding and stock option activity under the 2009 Plan and the 2019 Plan, and the related weighted average exercise price for the nine months ended October 2, 2022:

	Number of Shares (in thousands)	Weighted Average Exercise Price	Weighted Average Remaining Term (in years)	Aggregate Intrinsic Value (in thousands)
Balance outstanding at January 2, 2022	93	$ 27.49		
Expired	(13)	$ 42.90		
Balance outstanding at October 2, 2022 *	80	$ 24.95	2.85	$ —

*Exercisable and fully vested.

No stock options were granted, exercised, forfeited, or expired during the nine months ended October 2, 2022 and October 3, 2021.

Total stock-based compensation related to stock options was $0 during the nine months ended October 2, 2022 and October 3, 2021.

As of October 2, 2022, the fair value of unvested stock options, net of forfeitures, was $0.

Restricted Stock Units

The Company grants restricted stock units (“RSUs”) and performance restricted stock units ("PRSUs") to employees and directors with various vesting terms. RSUs entitle the holder to receive, at no cost, one common share for each RSU as it vests. In general, the Company's policy is to withhold shares in settlement of employee tax withholding obligations upon the vesting of RSUs. The stock-based compensation expense related to RSUs and PRSUs was approximately $0.5 million and $1.3 million for the three and nine months ended October 2, 2022, respectively, and approximately $0.9 million and $1.4 million for the three and nine months ended October 3, 2021, respectively.

As of October 2, 2022 and October 3, 2021, there was approximately $1.1 million and $2.1 million, respectively, in unrecognized compensation expense related to RSUs. The remaining unrecognized stock-based compensation expense as of October 2, 2022 is expected to be recorded over a weighted average period of 1.51 years.

A summary of activity for the Company's RSUs and PRSUs for the nine months ended October 2, 2022 is as follows:

	RSUs & PRSUs Outstanding	
	Number of Shares (in thousands)	Weighted Average Grant Date Fair Value
Nonvested at January 2, 2022	568	$ 5.86
Granted	159	6.11
Vested	(423)	5.98
Forfeited	(22)	5.09
Nonvested at October 2, 2022	282	$ 5.92

Employee Stock Purchase Plan

Total stock-based compensation related to the Company's Employee Stock Purchase Plan was approximately $20 thousand and $54 thousand for the three and nine months ended October 2, 2022, respectively, and $31 thousand and $97 thousand for the three and nine months ended October 3, 2021, respectively.

Note 9 — Income Taxes

The Company recorded a net income tax expense of $3 thousand and $19 thousand for the three and nine months ended October 2, 2022, respectively, and a net income tax benefit of $21 thousand and a net income tax expense of $0.1 million for the three and nine months ended October 3, 2021, respectively. A majority of the income tax expense for the three months ended October 2, 2022 was related to the Company's foreign subsidiaries, which are cost-plus entities, and state minimum income taxes. A majority of the income tax expense for the nine months ended October 2, 2022 was related to income tax expense of the Company's foreign subsidiaries and state minimum income taxes, partially offset by tax benefits from foreign income tax returns related to the Company's foreign subsidiaries. The difference between the estimated annual effective income tax benefit rate of 1.2% and the 21% U.S. federal statutory expense rate reflects state income taxes, foreign income taxes, the effect of certain permanent differences, and a full valuation allowance against net deferred tax assets.

The valuation allowance primarily resulted from not having sufficient income from deferred tax liability reversals in the appropriate future periods to support the realization of certain deferred tax assets. Based on the estimated reversal patterns of the Company’s deferred tax assets and liabilities, it is more likely than not that the Company will not realize the federal, state, and certain foreign deferred tax assets generated as there is insufficient projected income from reversals of deferred tax liabilities. Accordingly, the Company continues to maintain a full valuation allowance against all of U.S. and certain foreign net deferred tax assets as of October 2, 2022.

The Company had no unrecognized tax benefits as of October 2, 2022 and January 2, 2022 which would affect the Company's effective tax rate. The Company does not anticipate any material changes to its unrecognized tax benefits during the next 12 months.

Accrued interest and penalties related to unrecognized tax benefits are recognized as part of the income tax provision in the condensed consolidated statements of operations.

The Company is subject to U.S. federal income tax as well as income taxes in many U.S. states and foreign jurisdictions in which the Company operates. The U.S. tax years from 1999 forward remain effectively open to examination due to the carryover of unused net operating losses and tax credits.

Note 10 — Information Concerning Product Lines, Geographic Information and Revenue Concentration

The Company identifies its business segment based on business activities, management responsibility and geographic location. For all periods presented, the Company operated in a single reportable business segment. We derive revenue from sales to customers located in North America, Europe and Asia Pacific.

The following is a breakdown of revenue by product family (in thousands):

	Three Months Ended		Nine Months Ended	
	October 2, 2022	**October 3, 2021**	**October 2, 2022**	**October 3, 2021**
New products	$ 2,252	$ 2,758	$ 8,833	$ 5,095
Mature products	1,207	1,100	3,263	3,885
Total revenue	$ 3,459	$ 3,858	$ 12,096	$ 8,980

New products revenue consists of revenues from the sale of hardware products manufactured on 180 nanometer or smaller semiconductor processes, eFPGA intellectual property licenses, professional services, and QuickAI and SensiML AI software as a service (“SaaS”) revenue. Mature products include all products produced on semiconductor processes larger than 180 nanometer.

The following is a breakdown of new product revenue (in thousands):

	Three Months Ended		Nine Months Ended	
	October 2, 2022	**October 3, 2021**	**October 2, 2022**	**October 3, 2021**
Hardware products	$ 308	$ 1,720	$ 3,607	$ 3,794
eFPGA IP	1,700	1,000	4,911	1,150
SaaS & Other	244	38	315	151
New products revenue	$ 2,252	$ 2,758	$ 8,833	$ 5,095

eFPGA IP revenue is comprised primarily of eFGPA intellectual property license revenue and eFGPA-related professional services revenue, eFPGA IP revenue was $1.7 million and $4.9 million for the three and nine months ended October 2, 2022, respectively, and $1 million and $1.2 million for the three and nine months ended October 3, 2021, respectively. SaaS & Other revenue is comprised primarily of software as a service revenue and software-related professional services revenue. SaaS & Other revenue was $0.2 million and $0.3 million for the three and nine months ended October 2, 2022, respectively, and $38 thousand and $0.2 million for the three and nine months ended October 3, 2021, respectively. Contract liabilities related to professional services revenue of $0 and $0.3 million and were included in deferred revenue on the consolidated balance sheets as of October 2, 2022 and January 2, 2022, respectively.

The tables below present disaggregated revenues by geographical location. Revenue attributed to geographic location is based on the destination of the product or service. Substantially all revenues in North America were in the United States. Revenue in the United States was $2.3 million, or 67% of total revenue, and $7.8 million, or 64% of total revenue for the three and nine months ended October 2, 2022, respectively, and $2.6 million, or 67% of total revenue, and $4.4 million, or 49% of total revenue for the three and nine months ended October 3, 2021, respectively.

The following is a breakdown of revenue by destination (in thousands):

	Three Months Ended		Nine Months Ended	
	October 2, 2022	**October 3, 2021**	**October 2, 2022**	**October 3, 2021**
Asia Pacific	$ 783	$ 763	$ 3,114	$ 2,440
North America	2,389	2,605	7,904	4,429
Europe	287	490	1,078	2,111
Total revenue	$ 3,459	$ 3,858	$ 12,096	$ 8,980

The following distributors and customers accounted for 10% or more of the Company's revenue for the periods presented:

	Three Months Ended		Nine Months Ended	
	October 2, 2022	October 3, 2021	October 2, 2022	October 3, 2021
Distributor "A"	20%	12%	15%	13%
Distributor "B"	*	17%	16%	24%
Distributor "C"	10%	*	*	12%
Customer "A"	30%	*	*	*
Customer "B"	13%	*	*	*
Customer "C"	12%	25%	20%	15%
Customer "D"	*	17%	*	24%
Customer "F"	*	25%	16%	11%
Customer "H"	*	*	*	14%

* Represents less than 10% of revenue as of the dates presented.

The following distributors and customers accounted for 10% or more of the Company's accounts receivable as of the dates presented:

	October 2, 2022	January 2, 2022
Distributor "A"	*	42%
Distributor "B"	*	22%
Distributor "C"	*	17%
Customer "A"	28%	*
Customer "C"	18%	*
Customer "F"	30%	10%

* Represents less than 10% of accounts receivable as of the dates presented.

Note 11 — Commitments and Contingencies

Commitments

The Company's manufacturing suppliers require the forecast of wafer starts several months in advance. The Company is required to take delivery of and pay for a portion of this forecasted wafer volume. As of October 2, 2022, the Company had $0.5 million of outstanding commitments for the purchase of wafer inventory.

The Company has purchase obligations with certain suppliers for the purchase of other goods and services entered into in the ordinary course of business. As of October 2, 2022, total outstanding purchase obligations for other goods and services were $0.8 million due within the next twelve months.

Litigation

From time to time, the Company may become involved in legal actions arising in the ordinary course of business including, but not limited to, intellectual property infringement and collection matters. Absolute assurance cannot be given that any such third-party assertions will be resolved without costly litigation; in a manner that is not adverse to the Company’s financial position, results of operations or cash flows; or without requiring royalty or other payments which may adversely impact gross profit.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

Forward-Looking Statements

The following Management's Discussion and Analysis of Financial Condition and Results of Operations, as well as information contained in "*Risk Factors*" *in Part II, Item 1A and elsewhere in this Quarterly Report on Form 10-Q, contain* "*forward-looking statements*" *within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. We intend that these forward-looking statements be subject to the safe harbor created by those provisions. Forward-looking statements are generally written in the future tense and/or are preceded by words such as* "*will,*" "*may,*" "*should,*" "*forecast,*" "*could,*" "*expect,*" "*suggest,*" "*believe,*" "*anticipate,*" "*intend,*" "*plan,*" *"future," "potential," "target," "seek," "continue," "if" or other similar words.*

The forward-looking statements contained in the Quarterly Report include statements regarding our strategies as well as (1) our revenue levels, including the commercial success of our solutions and new products, (2) the conversion of our design opportunities into revenue, (3) our liquidity, (4) our gross profit and breakeven revenue level and factors that affect gross profit and the break-even revenue level, (5) our level of operating expenses, (6) our research and development efforts, (7) our partners and suppliers, (8) industry and market trends, (9) our manufacturing and product development strategies and (10) our competitive position.

The following discussion should be read in conjunction with the attached unaudited condensed consolidated financial statements and notes thereto, and with our audited consolidated financial statements and notes thereto for the fiscal year ended January 2, 2022, found in our Annual Report on Form 10-K filed with the Securities and Exchange Commission ("*SEC*"*) on March 22, 2022. Although we believe that the assumptions underlying the forward-looking statements contained in this Quarterly Report are reasonable, any of the assumptions could be inaccurate, and therefore there can be no assurance that such statements will be accurate. The risks, uncertainties and assumptions referred to above that could cause our results to differ materially from the results expressed or implied by such forward-looking statements include, but are not limited to, those discussed under the heading* "*Risk Factors*" *in Part II, Item 1A hereto and the risks, uncertainties and assumptions discussed from time to time in our other public filings and public announcements. All forward-looking statements included in this document are based on information available to us as of the date hereof. In light of the significant uncertainties inherent in the forward-looking statements included herein, the inclusion of such information should not be regarded as a representation by us or any other person that the results or conditions described in such statements, or our objectives and plans will be achieved. Furthermore, past performance in operations and share price is not necessarily indicative of future performance. We disclaim any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise that may arise after the date of this Quarterly Report on Form 10-Q.*

Overview

We develop low power, multi-core semiconductor platforms and IP for AI, voice and sensor processing. The solutions include an eFPGA for hardware acceleration and pre-processing, and heterogeneous multi-core SoCs that integrate eFPGA with other processors and peripherals. The SensiML Analytics Toolkit from our wholly owned subsidiary, SensiML completes the "full stack" end-to-end solution with accurate sensor algorithms using AI technology. The full range of platforms, software tools and eFPGA IP enables the practical and efficient adoption of AI, voice, and sensor processing across Consumer/Industrial IoT, Consumer electronics, Military, Aerospace and Defense applications.

Our new products include our EOS™, QuickAI™, SensiML Analytics Studio, ArcticLink® III, PolarPro®3, PolarPro II, PolarPro, and Eclipse II products (which together comprise our new product category). Our mature products include primarily FPGA families named pASIC®3 and QuickRAM® as well as programming hardware and design software. In addition to delivering our own semiconductor solutions, we have an IP business that licenses our eFPGA technology for use in other semiconductor companies SoCs. We began delivering our eFPGA IP product ArcticPro™ in 2017, which is included in the new product revenue category. Through the acquisition of SensiML, we now have an IoT AI software platform that includes SaaS subscriptions for development, per unit license fees when deployed in production, and proof-of-concept services – all of which are also included in the new product revenue category. Inclusive of one pending, patent application disclosed in our fiscal 2021 annual report, at the end of the second quarter of fiscal 2022 we had a total of five patent applications pending.

Our semiconductor solutions typically fall into one of three categories: Sensor Processing, Display and Smart Connectivity. Our solutions include a unique combination of our silicon platforms, IP cores, software drivers, and in some cases, firmware, and application software. All of our silicon platforms are standard devices and must be programmed to be effective in a system. Our IP that enables always-on context-aware sensor applications includes our Flexible Fusion Engine, our Sensor Manager and Communications Manager technologies as well as IP that (i) improves multimedia content, such as our Visual Enhancement Engine, ("VEE"), technology, and Display Power Optimizer, ("DPO"), technology; and (ii) implements commonly used mobile system interfaces, such as Low Voltage Differential Signaling, ("LVDS"), Mobile Industry Processor Interface, ("MIPI"), and Secure Digital Input Output, ("SDIO").

Through the acquisition of SensiML, our core IP also includes the SensiML AI Toolkit that enables OEMs to develop AI software for a broad array of resource-constrained time-series sensor endpoint applications. These include a wide range of consumer and industrial sensing applications.

We also work with processor manufacturers, sensor manufacturers, and voice recognition, sensor fusion and context awareness algorithm developers in the development of reference designs. Through reference designs that incorporate our solutions, we believe mobile processor manufacturers, sensor manufacturers, and sensor and voice algorithm companies can expand the available market for their respective products. Furthermore, should a solution developed for a processor manufacturer or sensor and/or sensor algorithm company be applicable to a set of common OEMs or Original Design Manufacturers, ("ODMs"), we can amortize our Research and Development, ("R&D"), investment over that set of OEMs or ODMs. There may also be cases when platform providers that intend to use always-on voice recognition will dictate certain performance requirements for the combined software/hardware solution before the platform provider certifies and/or qualifies our product for use by end customers.

In addition to working directly with our customers, we partner with other companies that are experts in certain technologies to develop additional IP, reference platforms and system software to provide application solutions, particularly in the area of hardware acceleration for AI-type applications. We also work with mobile processor and communications semiconductor device manufacturers and companies that supply sensor, algorithms, and applications. For our sensor processing solutions, we collaborate with sensor manufacturers to ensure interface compatibility. We also collaborate with sensor and voice/audio software companies, helping them optimize their software technology on our silicon platforms in terms of performance, power consumption and user experience.

Our ArcticPro eFPGA IP are currently developed on 65nm, 40nm and 22nm process nodes. The licensable IP is generated by a compiler tool that enables licensees to create an eFPGA block that they can integrate into their SoC without significant involvement by QuickLogic. We believe this flow enables a scalable support model for QuickLogic. For our eFPGA strategy, we work with semiconductor manufacturing partners to ensure our eFPGA IP is proven for a given foundry and process node before it is licensed to a SoC company.

In order to grow our revenue from its current level, we depend upon increased revenue from our new products including existing new product platforms, eFPGA IP and platforms currently in development. We expect our business growth to be driven mainly by our silicon solutions, eFPGA IP and SensiML AI Software. Therefore, our revenue growth needs to be strong enough to enable us to sustain profitability while we continue to invest in the development, sales and marketing of our new solution platforms, IP, and software. We are expecting revenue growth from EOS S3, SensiML AI SaaS, and eFPGA IP licensing in fiscal year 2022.

We continue to seek to expand our revenue, including pursuing high-volume sales opportunities in our target market segments, by providing solutions incorporating IP, or industry standard interfaces. Our industry is characterized by intense price competition and by lower margins as order volumes increase. While winning large volume sales opportunities will increase our revenue, we believe these opportunities may decrease our gross profit as a percentage of revenue.

During the third quarter of 2022, we generated total revenue of $3.5 million, a decrease of 24% compared to the prior quarter, and a decrease of 10% compared to the same quarter last year. Our new product revenue in the third quarter was $2.3 million, a decrease of 28% from the prior quarter and a decrease of 18% from the third quarter of 2021. The decrease in new product revenue was primarily driven by a $1.4 million reduction in hardware product revenue, partially offset by increases of $0.7 million in eFPGA IP revenue and $0.2 million in SaaS & Other revenue in the current quarter. Our mature product revenue was $1.2 million in the third quarter of 2022, a decrease of 14% compared to the prior quarter, and an increase of 10% compared to the third quarter of 2021. We expect our mature product revenue to continue to fluctuate over time.

We devote substantially all of our development, sales and marketing efforts to our new FPGA IP licensing and SensiML initiatives. Overall, we reported a net loss of $1.3 million for the third quarter of 2022, an increase of 157% compared with the prior quarter, and an increase of 5% compared with the third quarter of 2021.

We have experienced net losses in the recent years and expect losses to continue through at least fiscal year 2022 as we continue to develop new products, applications, and technologies. Whether we can achieve cash flow levels sufficient to support our operations cannot be accurately predicted. Unless such cash flow levels are achieved in addition to the proceeds we received from our recent sale of our equity securities, we may need to borrow additional funds or sell debt or equity securities, or some combination thereof, to provide funding for our operations, and such additional funding may not be available on commercially reasonable terms, or at all.

There have been no material changes due to the impact of the Covid-19 pandemic on our business from that disclosed in our most recently filed Annual Report. Our most recent Annual Report on Form 10-K for the year ended January 2, 2022 as filed with the SEC on March 22, 2022 provides additional information about our business and operations.

Critical Accounting Policies and Estimates

The methodologies, estimates and judgments we use in applying our most critical accounting policies have a significant impact on the results we report in our unaudited condensed consolidated financial statements. The SEC has defined critical accounting policies as those that are most important to the portrayal of our financial condition and results of operations and require us to make difficult and subjective judgments, often as a result of the need to make estimates of matters that are inherently uncertain. Based on this definition, our critical policies include revenue recognition, and determination of the Stand-Alone Selling Price ("SSP") for certain distinct performance obligations (such as for IP licensing and professional services contracts), goodwill and intangible assets, valuation of inventories including identification of excess quantities and product obsolescence, allowance for doubtful accounts, valuation of long-lived assets, leases, measurement of stock-based compensation, and accounting for income taxes. We believe that we apply judgments and estimates in a consistent manner and that this consistent application results in our consolidated financial statements and accompanying notes that fairly represent all periods presented. However, any factual errors or errors in these judgments and estimates may have a material impact on our financial statements. During the three and nine months ended October 2, 2022, there were no changes in our critical accounting policies from our disclosure in our Annual Report on Form 10-K for the fiscal year ended January 2, 2022, filed with the SEC on March 22, 2022.

Results of Operations

The following table sets forth the percentage of revenue for certain items in our unaudited condensed consolidated statements of operations for the periods indicated:

	Three Months Ended		Nine Months Ended	
	October 2, 2022	October 3, 2021	October 2, 2022	October 3, 2021
Revenue	100%	100%	100%	100%
Cost of revenue	51%	29%	45%	41%
Gross profit	49%	71%	55%	59%
Operating expenses:				
Research and development	29%	47%	29%	60%
Selling, general and administrative	56%	57%	50%	66%
Loss from operations	(36)%	(33)%	(24)%	(66)%
Interest expense	(1)%	(1)%	—%	(1)%
Gain on forgiveness of debt	—%	—%	—%	13%
Interest income and other income (expense), net	(2)%	—%	(1)%	(1)%
Loss before income taxes	(39)%	(34)%	(25)%	(55)%
Provision for (benefit from) income taxes	—%	(1)%	—%	1%
Net loss	(39)%	(33)%	(25)%	(56)%

Three Months Ended October 2, 2022 Compared to Three Months Ended October 3, 2021

Revenue

The table below sets forth the changes in revenue in the three months ended October 2, 2022 compared to the three months ended October 3, 2021 (in thousands, except percentage data):

	Three Months Ended				Change	
	October 2, 2022		October 3, 2021			
	Amount	% of Total Revenues	Amount	% of Total Revenues	Amount	Percentage
New products	$ 2,252	65%	$ 2,758	71%	$ (506)	(18)%
Mature products	1,207	35%	1,100	29%	107	10%
Total revenue	$ 3,459	100%	$ 3,858	100%	$ (399)	(10)%

Note: For all periods presented, New products include hardware products and related revenues manufactured on 180 nanometer or smaller semiconductor processes, intellectual property license, professional services, QuickAI and SensiML AI software as a service (SaaS) revenues. Mature products include all products produced on semiconductor processes larger than 180 nanometer.

Product revenue for the third quarter of 2022 compared to the third quarter of 2021 decreased $0.4 million. The decrease was comprised of a $0.5 million decrease in new products revenue, partially offset by a $0.1 million increase in mature product revenue.

New Product Revenue

The table below sets forth the changes in new product revenue in the three months ended October 2, 2022 compared to the three months ended October 3, 2021 (in thousands, except percentage data):

	Three Months Ended				Change	
	October 2, 2022		October 3, 2021			
	Amount	% of Total Revenues	Amount	% of Total Revenues	Amount	Percentage
Hardware products	$ 308	9%	$ 1,720	45%	$ (1,412)	(82)%
eFPGA IP	1,700	49%	1,000	26%	700	70%
SaaS & Other	244	7%	38	--%	206	542%
Total new product revenue	$ 2,252	65%	$ 2,758	71%	$ (506)	(18)%

The $1.4 million decrease in new hardware product revenue was primarily comprised of a $0.9 million from smart connectivity products revenue and $0.5 million from sensor revenue. eFPGA IP revenue increased $0.7 million, or 70%, as compared to the same quarter in the prior year. The increase in eFPGA IP revenue was primarily driven by an increase in eFPGA-related professional services revenue of $1.7 million partially offset by $1.0 million decrease in eFPGA IP revenue. The increase in SaaS & Other was primarily driven by an increase in software-related professional services revenue.

Gross Profit

The table below sets forth the changes in gross profit for the three months ended October 2, 2022 compared to the three months ended October 3, 2021 (in thousands, except percentage data):

	Three Months Ended				Change	
	October 2, 2022		October 3, 2021			
	Amount	% of Total Revenues	Amount	% of Total Revenues	Amount	Percentage
Revenue	$ 3,459	100%	$ 3,858	100%	$ (399)	(10)%
Cost of revenue	1,781	51%	1,126	29%	655	58%
Gross profit	$ 1,678	49%	$ 2,732	71%	$ (1,054)	(39)%

In the third quarter of 2022, gross profit decreased $1.1 million, or 39%, as compared to the same quarter in the prior year. The decrease in gross profit reflects a 10% decrease in revenue, primarily composed of a decrease of $1.4 million in new product hardware revenue partially offset by increases of $0.7 million and $0.2 million in eFPGA IP and SaaS and other revenues, respectively and $0.1 million in mature product revenue. The $0.7 million increase in cost of revenues was primarily comprised of $0.9 million increase in costs related to eFPGA IP, and partially offset by a $0.3 million decrease in hardware product costs. The increase in eFPGA IP costs are primarily attributable to R&D costs allocable to cost of revenue related to eFPGA IP revenue and higher tooling costs on revenue projects, and the decrease in hardware product costs reflected the reduction in volume of products sold, partially offset by higher outside cost and material price variances. In addition, revenue in the third quarter of 2021 was partially comprised of $1.0 million in eFPGA IP license revenue with minimal associated costs.

Our semiconductor products have historically had long product life cycles and obsolescence has not been a significant factor in the valuation of inventories. However, as we continue to pursue opportunities in the mobile market and develop new solutions and products, our product life cycle will be shorter, and the risk of obsolescence will increase. In general, our standard manufacturing lead times are longer than the binding forecasts we receive from customers.

Operating Expenses

The table below sets forth the changes in operating expenses for the three months ended October 2, 2022, compared to the three months ended October 3, 2021 (in thousands, except percentage data):

	Three Months Ended				Change	
	October 2, 2022		October 3, 2021			
	Amount	% of Total Revenues	Amount	% of Total Revenues	Amount	Percentage
R&D expense	$ 1,018	29%	$ 1,807	47%	$ (789)	(44)%
SG&A expense	1,900	56%	2,186	57%	(286)	(13)%
Total operating expenses	$ 2,918	85%	$ 3,993	103%	$ (1,075)	(27)%

Research and Development

Our R&D expenses consist primarily of personnel, overhead and other costs associated with System on Chip (SoC) and software development, programmable logic design, AI and eFPGA development. The $0.8 million decrease in R&D expenses in the third quarter of 2022, as compared to the third quarter of 2021, was primarily attributable to R&D costs allocable to cost of revenue related to eFPGA IP revenue, a reduction in stock-based compensation expense, and in salary and related expenses, partially offset by an increase in tooling costs. R&D costs allocable to cost of revenues in support of eFGPA IP included costs related to eFPGA intellectual property development and eFPGA professional services revenue.

Selling, General and Administrative

Our selling, general and administrative (SG&A) expenses consist primarily of personnel and related overhead costs for sales, marketing, finance, administration, human resources, and general management. The $0.3 milliondecrease in SG&A expenses in the third quarter of 2022, as compared to the third quarter of 2021 was primarily attributable to decreases in consulting costs and stock-based compensation expenses. These were partially offset by increases in salary and related expenses, legal expenses and insurance costs, utilities, accounting and audit expenses.

Interest Expense, Interest Income and Other Income (Expense), Net

The table below sets forth the changes in interest expense and interest income and other income (expense), net, for the three months ended October 2, 2022, compared to the three months ended October 3, 2021 (in thousands, except percentage data):

	Three Months Ended		Change	
	October 2, 2022	October 3, 2021	Amount	Percentage
Interest expense	$ (44)	$ (35)	$ (9)	26%
Interest income and other expense, net	(60)	(7)	(53)	757%
Total interest expense, interest income and other income (expense), net	$ (104)	$ (42)	$ (62)	148%

Interest expense relates primarily to our revolving line of credit facility and finance leases liabilities. Interest income and other income (expense), net, relates to net foreign exchange losses recorded, partially offset by interest earned on our money market accounts. Changes in interest expense related to our revolving loan's interest rate variability and the timing of our outstanding loan balance. Interest expense for the third quarter of this year as compared to the same period in the prior year increased approximately $9 thousand which was comprised of a $29 thousand increase in interest expense in finance lease liabilities partially offset by a $20 thousand decrease in interest rates on our revolving line of credit loan. The change in interest income and other income (expense), net reflected increased foreign exchange losses over the prior period. Total interest income and other income (expense), net, was a net expense of approximately $0.1 million and $42 thousand for the three months ended October 2, 2022 and October 3, 2021, respectively.

Provision for (Benefit From) Income Taxes

The table below sets forth the changes in the provisions for income taxes in the three months ended October 2, 2022, compared to the three months ended October 3, 2021 (in thousands, except percentage data):

	Three Months Ended		Change	
	October 2, 2022	October 3, 2021	Amount	Percentage
Provision for (benefit from) income taxes	$ 3	$ (21)	$ 24	(114)%

The majority of the income tax expense for the three months ended October 2, 2022 and October 3, 2021 related to our foreign subsidiaries, which are cost-plus entities.

Nine Months Ended October 2, 2022 Compared to Nine Months Ended October 3, 2021

Revenue

The table below sets forth the changes in revenue for the nine months ended October 2, 2022, compared to the nine months ended October 3, 2021 (in thousands, except percentage data):

	Nine Months Ended				Change	
	October 2, 2022		October 3, 2021			
	Amount	% of Total Revenues	Amount	% of Total Revenues	Amount	Percentage
New products	$ 8,833	73%	$ 5,095	57%	$ 3,738	73%
Mature products	3,263	27%	3,885	43%	(622)	(16)%
Total revenue	$ 12,096	100%	$ 8,980	100%	$ 3,116	35%

Note: For all periods presented, New products include all products and related revenues manufactured on 180 nanometer or smaller semiconductor processes, eFPGA IP license, professional services, QuickAI and SensiML AI software as a service (SaaS) revenues. Mature products include all products produced on semiconductor processes larger than 180 nanometer.

Product revenue for the nine months ended October 2, 2022, as compared to the nine months ended October 3, 2021 increased $3.1 million. The increase in product revenue was comprised of a $3.7 million increase in new product revenue partially offset by a $0.6 million decrease in mature product revenue.

New Product Revenue

The table below sets forth the changes in new product revenue in the nine months ended October 2, 2022 compared to the nine months ended October 3, 2021 (in thousands, except percentage data):

	Nine Months Ended				Change	
	October 2, 2022		October 3, 2021			
	Amount	% of Total Revenues	Amount	% of Total Revenues	Amount	Percentage
Hardware products	$ 3,607	30%	$ 3,794	42%	$ (187)	(5)%
eFPGA IP	4,911	41%	1,150	13%	3,761	327%
SaaS & Other	315	2%	151	2%	164	109%
Total new product revenue	$ 8,833	73%	$ 5,095	57%	$ 3,738	73%

The $0.2 million decrease in new hardware product revenue was primarily comprised of a reduction of $1.2 million in sensor product revenue, partially offset by increases of $1.0 million in higher display product revenue and $0.2 million in connectivity product revenue. eFPGA IP revenue was primarily comprised of eFPGA intellectual property license revenue and eFPGA-related professional services revenue. eFPGA IP revenue increased $3.8 million, or 327%, as compared to the same period in the prior year, primarily driven by a $4.7 million increase in professional services revenue, partially offset by a $1.0 million decrease in IP product revenue. SaaS & Other revenue increased $0.2 million primarily driven by increased software-related professional services revenue.

Gross Profit

The table below sets forth the changes in gross profit for the nine months ended October 2, 2022, compared to the nine months ended October 3, 2021 (in thousands, except percentage data):

	Nine Months Ended				Change	
	October 2, 2022		October 3, 2021			
	Amount	% of Total Revenues	Amount	% of Total Revenues	Amount	Percentage
Revenue	$ 12,096	100%	$ 8,980	100%	$ 3,116	35%
Cost of revenue	5,413	45%	3,638	41%	1,775	49%
Gross profit	$ 6,683	55%	$ 5,342	59%	$ 1,341	25%

Gross profit for the nine months ended October 2, 2022, as compared to the nine months ended October 3, 2021, increased $1.3 million, or 25%. The increase was primarily due to an increase in revenue of $3.1 million or 35%, partially offset by an increase in cost of revenue of $1.8 million, or 49%. The increase in revenue was primarily comprised of an increase of $3.8 million in eFPGA IP revenue, a $0.2 million increase in SaaS & Other revenue, partially offset decreases of $0.2 million in new hardware product revenue and $0.6 million in mature product revenue. The increase in revenue was partially offset by an increase of $1.8 million increase in cost of revenue comprised primarily of $1.7 million in engineering labor and tooling costs on eFPGA revenue projects costs, partially offset by a reduction in hardware product costs due to lower volume and the mix of products sold.The increase in eFPGA IP engineering labor costs are primarily attributable to R&D costs allocable to cost of revenue related to eFPGA IP revenue and higher tooling costs on revenue projects. In addition, revenue in the nine months ended October 3, 2021 was partially comprised of $1.1 million in eFPGA IP license revenue with minimal associated costs. eFPGA IP revenue and costs related to eFPGA IP revenue were comprised eFPGA intellectual property license revenue and costs, respectively, and eFPGA professional services revenue and costs, respectively.

Our semiconductor products have historically had long product life cycles and obsolescence has not been a significant factor in the valuation of inventories. However, as we continue to pursue opportunities in the mobile market and develop new solutions and products, our product life cycle will be shorter, and the risk of obsolescence will increase. In general, our standard manufacturing lead times are longer than the binding forecasts we receive from customers.

Operating Expenses

The table below sets forth the changes in operating expenses for the nine months ended October 2, 2022, compared to the nine months ended October 3, 2021 (in thousands, except percentage data):

	Nine Months Ended				Change	
	October 2, 2022		October 3, 2021			
	Amount	% of Total Revenues	Amount	% of Total Revenues	Amount	Percentage
R&D expense	$ 3,541	29%	$ 5,346	60%	$ (1,805)	(34)%
SG&A expense	6,018	50%	5,927	66%	91	2%
Total operating expenses	$ 9,559	79%	$ 11,273	126%	$ (1,714)	(15)%

Research and Development

Our research and development (R&D) expenses consist primarily of personnel, overhead and other costs associated with System on Chip (SoC) and software development, programmable logic design, AI and eFPGA development. R&D expenses in the nine months ended October 2, 2022, as compared to the nine months ended October 3, 2021, decreased $1.8 million. The decrease in R&D expense was primarily attributable to R&D costs allocable to cost of revenue in support of eFPGA IP and decreases in stock-based compensation costs and consulting services, partially offset increases in salary and related expenses, tooling and outside services. R&D costs allocable to cost of revenues in support of eFGPA IP included costs related to eFPGA intellectual property license revenue and eFPGA professional services revenue.

Selling, General and Administrative

Our selling, general and administrative (SG&A) expenses consist primarily of personnel and related overhead costs for sales, marketing, finance, administration, human resources, and general management. SG&A expenses in the nine months ended October 2, 2022, as compared to the nine months ended October 3, 2021, increased $0.1 million. The increase was primarily attributable to higher stock-based compensation expenses, legal fees and accounting and audit expenses, outside services expenses, insurance costs, dues and subscriptions and director service fees, partially offset by reductions in consulting expenses.

Interest Expense, Interest Income and Other Income (Expense), Net

The table below sets forth the changes in interest expense and interest income and other income (expense), net, for the nine months ended October 2, 2022, compared to the nine months ended October 3, 2021 (in thousands, except percentage data):

	Nine Months Ended		Change	
	October 2, 2022	October 3, 2021	Amount	Percentage
Interest expense	$ (98)	$ (99)	$ 1	(1)%
Gain on forgiveness of debt	—	1,192	(1,192)	(100)%
Interest income and other expense, net	(42)	(59)	17	(29)%
Total interest expense, interest income and other income (expense), net	$ (140)	$ 1,034	$ (1,174)	(114)%

Interest expense relates primarily to our line of credit facility and finance lease liabilities. Interest income and other income (expense), net, relates to net foreign exchange losses recorded, partially offset by interest earned on our money market accounts. Changes in interest expense related to our revolving loan's interest rate variability and timing of our outstanding loan balance. Interest expense for the nine months ended October 2, 2022 compared to the same period in the previous year decreased $1 thousand, which reflected a $27 thousand decrease in interest expense on our revolving line of credit loan, partially offset by increased interest expense from finance lease liabilities. Interest income and other expense, net, for the nine months ended October 2, 2022 compared to the same period in the previous year, decreased $17 thousand, primarily due to a reduction in foreign exchange losses over the previous year. Total interest expense and interest income and other income (expense), net, for the nine months ended October 3, 2021 was $1 million which included a gain on forgiveness of debt relates to the gain related to the forgiveness of the PPP loan of $1.2 million.

Provision for Income Taxes

The table below sets forth the changes in provision for income taxes for the nine months ended October 2, 2022, compared to the nine months ended October 3, 2021 (in thousands, except percentage data):

	Nine Months Ended		Change	
	October 2, 2022	October 3, 2021	Amount	Percentage
Provision for income taxes	$ 19	$ 136	$ 117	86%

The majority of the income tax expense for the nine months ended October 2, 2022 and October 3, 2021 relates to our foreign subsidiaries, which are cost-plus entities. Included in the provision for the nine months ended October 3, 2021 was a $125,000 deferred tax provision related to a one-time repatriation of funds from our India entity.

Liquidity and Capital Resources

We have financed our operations and capital investments through public and private offerings of our common stock, finance and operating leases, and borrowings under a revolving line of credit and cash flows used in operations, partially offset by cash used in operations. In addition to the Company's cash, cash equivalents and restricted cash of $20.0 million, as of October 2, 2022, other sources of liquidity included a $45.0 million drawn down from our revolving line of credit ("Revolving Facility") with Heritage Bank of Commerce (“Heritage Bank”), and $4.8 million in net proceeds from the Company's sale of common stock, of which $4.7 million represented the net proceeds from registered direct offerings.

On September 14, 2022 and February 9, 2022, the Company entered into common stock purchase agreements with certain investors for the sale of an aggregate of 487,279 and 310,000 shares of common stock, respectively, par value $0.001, in registered direct offerings, resulting in net cash proceeds of approximately $3.2 million and $1.5 million, respectively. Issuance costs related to September 14, 2022 and the February 9, 2022 offering were immaterial. The purchase price for each share of common stock in the September 14, 2022 and in the February 9, 2022 placements were $6.57 and $4.78, respectively. The Company currently intends to use the net proceeds from financings for working capital, the development of next generation eFPGA-based products, including AI and open source hardware or software, and general corporate purposes, and may also use a portion of the net proceeds to acquire and/or license technologies and acquire and/or invest in businesses when the opportunity arises; however, the Company currently has no commitments or agreements and is not involved in any negotiations with respect to any such transactions.

We were in compliance with all the Heritage Bank Revolving Facility loan covenants as of October 2, 2022. As of October 2, 2022, we had $15.0 million of outstanding on the Revolving Facility with an interest rate of 6.75%.

We currently use our cash to fund our working capital to accelerate the development of next generation products and for general corporate purposes. Based on past performance and current expectations, we believe that its existing cash and cash equivalents, together with available financial resources from the Revolving Facility with Heritage Bank, will be sufficient to fund its operations and capital expenditures and provide adequate working capital for the next twelve months.

Various factors affect the Company’s liquidity, including, among others: the level of revenue and gross profit as a result of the cyclicality of the semiconductor industry; the conversion of design opportunities into revenue; market acceptance of existing and new products including solutions based on its eFPGA IP, ArcticLink® and PolarPro® platforms, eFPGA, EOS S3 SoC, Quick AI solution, and SensiML software; fluctuations in revenue as a result of product end-of-life; fluctuations in revenue as a result of the stage in the product life cycle of its customers’ products; costs of securing access to and availability of adequate manufacturing capacity; levels of inventories; wafer purchase commitments; customer credit terms; the amount and timing of research and development expenditures; the timing of new product introductions; production volumes; product quality; sales and marketing efforts; the value and liquidity of its investment portfolio; changes in operating assets and liabilities; the ability to obtain or renew debt financing and to remain in compliance with the terms of existing credit facilities; the ability to raise funds from the sale of equity in the Company; the issuance and exercise of stock options and participation in the Company’s employee stock purchase plan; and other factors related to the uncertainties of the industry and global economics.

Over the longer term, the Company anticipates that sales generated from its new product offerings, existing cash and cash equivalents, together with financial resources from its Revolving Facility with Heritage Bank, assuming renewal of the Revolving Facility or the Company entering into a new debt agreement with an alternative lender prior to the expiration of the revolving line of credit in December 2023, and its ability to raise additional capital in the public capital markets will be sufficient to satisfy its operations and capital expenditures. However, the Company cannot provide any assurance that it will be able to raise additional capital, if required, or that such capital will be available on terms acceptable to the Company. The inability of the Company to generate sufficient sales from its new product offerings and/or raise additional capital if needed could have a material adverse effect on the Company’s operations and financial condition, including its ability to maintain compliance with its lender’s financial covenants.

As of October 2, 2022, most of our cash, cash equivalents and restricted cash were invested in a money market account at Heritage Bank. As of October 2, 2022, our interest-bearing debt consisted of $0.4 million outstanding under finance leases and $15.0 million outstanding under our Revolving Facility. See Note 5, Debt Obligations, to the unaudited condensed consolidated financial statements for more details.

Cash balances held at our foreign subsidiaries was approximately $0.2 million and$0.4 million as of October 2, 2022 and January 2, 2022, respectively. Earnings from our foreign subsidiaries are currently deemed to be indefinitely reinvested. We do not expect such reinvestment to affect our liquidity and capital resources, and we continually evaluate our liquidity needs and ability to meet global cash requirements as a part of our overall capital deployment strategy. Factors that affect our global capital deployment strategy include anticipated cash flows, the ability to repatriate cash in a tax-efficient manner, funding requirements for operations and investment activities, acquisitions and divestitures and capital market conditions.

In summary, our cash flows were as follows (in thousands):

	Nine Months Ended	
	October 2, 2022	October 3, 2021
Net cash used in operating activities	$ (3,423)	$ (3,053)
Net cash used in investing activities	(634)	(580)
Net cash provided by financing activities	4,488	466

Net cash used in operating activities

For the nine months ended October 2, 2022, net cash used in operating activities was $3.4 million, which was primarily due to the net loss of $3 million and a $27 thousand loss on the disposal of equipment, adjusted for net non-cash charges of $1.9 million, which included $1.3 million of stock-based compensation, depreciation and amortization expenses of $0.5 million, and an inventory write-downs of $72 thousand. Cash outflows from changes in operating assets and liabilities were approximately $2.3 million and were primarily due to an increase in accounts receivable, reflecting an increase in revenues during the period, increases in inventory and other assets and a decrease in deferred revenue, partially offset by an increase in trade payables, which are subject to variability of the timing of payments.

For the nine months ended October 3, 2021, net cash used in operating activities was $3.1 million, which was primarily due to the net loss of $5.0 million, adjusted for net non-cash charges of $1.0 million including $1.5 million of stock-based compensation, depreciation and amortization expenses of $471,000, and inventory write-downs of $225,000 partially offset by the gain recognized from the forgiveness of debt of $1.2 million related to the PPP loan which was forgiven in the first quarter of fiscal 2021. Cash inflows from changes in operating assets and liabilities were approximately $1.0 million, primarily due to a decrease in inventory, and increases in trade payables and accrued liabilities subject to the variability of the timing of payments, partially offset by an increase in trade receivables due to the increase in revenue during the third quarter.

Net cash used in investing activities

For the nine months ended October 2, 2022, and October 3, 2021 cash used in investing activities was $0.6 million, which was primarily attributable to the capitalized internal-use software and capital expenditures relating to licensed software and computer equipment.

Net cash provided by financing activities

Cash flows from financing activities includes the draw-downs and repayments of our line of credit. For the quarter ended of 2021 and 2020, these draw-downs and repayments netted to zero.

For the nine months ended October 2, 2022, cash provided by financing activities was $4.5 million, which was primarily derived from the net proceeds of $4.8 million from the stock issuances, partially offset by finance lease obligation payments. We continue to use and repay our revolving line of credit as our cash needs require.

For the nine months ended October 3, 2021, cash provided by financing activities was $0.5 million and was primarily derived from the net proceeds of $1.0 million from the stock issuances, partially offset by taxes paid relating to stock-based compensation equity awards.

Part I. Financial Information (continued)

Off-Balance Sheet Arrangements

We do not maintain any off-balance sheet partnerships, arrangements or other relationships with unconsolidated entities or others, often referred to as structured finance or special purpose entities, which are established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

Not Applicable.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Based on management's evaluation as of October 2, 2022, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended) were effective at the reasonable assurance level to ensure that the information required to be disclosed by us in this Quarterly Report on Form 10-Q was (i) recorded, processed, summarized and reported within the time periods specified in the SEC's rules and regulations and (ii) accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, to allow timely decisions regarding required disclosure.

Our management, including our Chief Executive Officer and Chief Financial Officer, does not expect that our disclosure controls and procedures or our internal controls over financial reporting will prevent all errors and frauds. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the Company have been detected.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during the period covered by this Quarterly Report on Form 10-Q that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Part II. Other Information

Item 1. Legal Proceedings

None.

Item 1A. Risk Factors

There have been no material changes to the risk factors set forth in our 2021 Annual Report on Form 10-K for the year ended January 2, 2022, filed with the SEC on March 22, 2022, which includes a detailed discussion of our risk factors at Part I, Item 1A, Risk Factors, which discussion is hereby incorporated by reference into this Part II, Item 1A.

Item 3. Defaults Upon Senior Securities

None.

Item 6. Exhibits

a. Exhibits The following Exhibits are filed or incorporated by reference into this report:

Exhibit Number	Description
10.1	QuickLogic Corporation 2019 Stock Plan, as amended May 10, 2022, (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed on May 5, 2022).
31.1	Certification of Brian C. Faith, Chief Executive Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Elias Nadar, Chief Financial Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Brian C. Faith, Chief Executive Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Elias Nadar, Chief Financial Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	Inline XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	The cover page from the Company’s quarterly report on Form 10-Q for the quarter ended October 2, 2022, has been formatted in Inline XBRL and contained in exhibit 101.

Signatures

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

	QUICKLOGIC CORPORATION
	/s/ Elias Nader
Date: November 16, 2022	Elias Nader
	Chief Financial Officer and Senior Vice-President, Finance
	(as Principal Financial Officer and on behalf of the Registrant)

Exhibit 31.1

CERTIFICATIONS

I, Brian C. Faith, certify that:

1. I have reviewed this quarterly report on Form 10-Q of QuickLogic Corporation;

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

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

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

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

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

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

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter 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: November 16, 2022

/s/ Brian C. Faith
Brian C. Faith
President and Chief Executive Officer

Exhibit 31.2

CERTIFICATIONS

I, Elias Nader, certify that:

1. I have reviewed this quarterly report on Form 10-Q of QuickLogic Corporation;

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

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

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

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

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

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

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter 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: November 16, 2022

/s/ Elias Nader
Elias Nader
Chief Financial Officer and Senior Vice-President, Finance

Exhibit 32.1

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

I, Brian C. Faith, the President and Chief Executive Officer of QuickLogic Corporation (the "Company"), do hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- the Quarterly Report on Form 10-Q of the Company for the quarter ended October 2, 2022 (the "Report"), fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

- the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company for the periods presented therein.

Date: November 16, 2022	By:	/s/ Brian C. Faith
	Name:	Brian C. Faith
	Title:	*President and Chief Executive Officer*

Exhibit 32.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Elias Nader, Chief Financial Officer and Senior Vice-President, Finance of QuickLogic Corporation (the "Company") do hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- the Quarterly Report on Form 10-Q of the Company for the quarter ended October 2, 2022(the "Report"), fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

- the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company for the periods presented therein.

Date: November 16, 2022	By:	/s/ Elias Nader
	Name:	Elias Nader
	Title:	*Chief Financial Officer and Senior Vice-President, Finance*