QUICKLOGIC CORPORATION
Form 424B5
March 11, 2016
Table of Contents

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Filed Pursuant to Rule 424(b)(5)
Registration No. 333-190277
</div>

The information in this preliminary prospectus supplement is not complete and may be changed. A registration statement relating to these securities has been declared effective by the Securities and Exchange Commission. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities, and we are not soliciting offers to buy these securities, in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED MARCH 10, 2016

PROSPECTUS SUPPLEMENT

(to Prospectus dated August 30, 2013)

Shares of Common Stock

We are offering   shares of our common stock pursuant to this prospectus supplement and the accompanying prospectus. Our common stock is listed on the NASDAQ Global Market under the symbol   QUIK.   On March 9, 2016, the last reported sale price of our common stock on the NASDAQ Global Market was $1.39 per share.

Investing in our common stock involves a high degree of risk. Please read _ Risk Factor_s   beginning on page S-8 of this prospectus supplement and page 4 of the accompanying prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

	PER SHARE	TOTAL
Public Offering Price	$	$
Underwriting Discounts and Commissions	$	$
Proceeds to QuickLogic, before expenses	$	$

Delivery of the common stock is expected to be made on or about March   , 2016. We have granted the underwriters an option, exercisable one or more times, at any time or from time to time, in whole or in part, for a period of 30 days from the date of this prospectus supplement to purchase up to an additional   shares of our common stock, less underwriting discounts and commissions, solely to cover overallotments, if any. If the underwriters exercise this option in full, the total underwriting discounts and commissions payable by us will be $ and the total proceeds to us, before expenses, will be $.

Sole Book-Running Manager

Roth Capital Partners

Co-Manager

The Benchmark Company

Prospectus Supplement dated March   , 2016.

Table of Contents

TABLE OF CONTENTS

You should rely only on the information contained in or incorporated by reference in this prospectus supplement, the accompanying prospectus and in any free writing prospectus that we have authorized for use in connection with this offering. We have not, and each underwriter has not, authorized anyone to provide you with different information. We are not, and each underwriter is not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus, and in any free writing prospectus that we have authorized for use in connection with this offering, is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates. You should read this prospectus supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus, and any free writing prospectus that we have authorized for use in connection with this offering, in their entirety before making an investment decision. You should also read and consider the information in the documents to which we have referred you in the sections of this prospectus supplement entitled Where You Can Find More Information and Incorporation of Certain Information by Reference.

S-i

About this Prospectus Supplement

This document is in two parts. The first part is the prospectus supplement, which describes the specific terms of the securities being offered by us, and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference. The second part, the accompanying prospectus, including the documents incorporated by reference, provides more general information, some of which may not apply to this offering of securities. Generally, when we refer to this prospectus, we are referring to both parts of this document combined. To the extent there is a conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in the accompanying prospectus or in any document incorporated by reference that was filed with the Securities and Exchange Commission, or SEC, before the date of this prospectus supplement, on the other hand, you should rely on the information in this prospectus supplement. If any statement in one of these documents is inconsistent with a statement in another document having a later date for example, a document incorporated by reference in the accompanying prospectus the statement in the document having the later date modifies or supersedes the earlier statement.

Unless the context requires otherwise, references in this prospectus supplement and the accompanying prospectus to QuickLogic, the company, we, us and our refer to QuickLogic Corporation.

This prospectus supplement and the accompanying prospectus are part of a registration statement on Form S-3 that we filed on July 31, 2013, with the SEC using a shelf registration process with respect to up to $40,000,000 in securities that may be sold thereunder. The shelf registration statement was declared effective by the SEC on August 30, 2013.

Under the shelf registration process, we may offer and sell any combination of securities described in the accompanying prospectus in one or more offerings. The accompanying prospectus provides you with a general description of the securities we may offer. Each time we use the accompanying prospectus to offer securities, we will provide a prospectus supplement that will contain specific information about the terms of the offering. The prospectus supplement may also add, update or change information contained in the prospectus. The purpose of this prospectus supplement is to provide supplemental information regarding us in connection with this offering of common stock.

This prospectus supplement, the accompanying prospectus and the information incorporated herein and thereby by reference include trademarks, servicemarks and tradenames owned by us or other companies. The name QuickLogic and our logo are our trademarks. All trademarks, servicemarks and tradenames included or incorporated by reference in this prospectus supplement or the accompanying prospectus are the property of their respective owners.

S-ii

Prospectus Supplement Summary

This summary highlights selected information contained elsewhere or incorporated by reference in this prospectus supplement and the accompanying prospectus. This summary does not contain all the information you should consider before investing in our securities. You should read and consider carefully the more detailed information in this prospectus supplement and the accompanying prospectus, including the factors described under the heading Risk Factors in this prospectus supplement and the financial and other information incorporated by reference in this prospectus supplement and the accompanying prospectus, as well as the information included in any free writing prospectus that we have authorized for use in connection with this offering, before making an investment decision.

Company Overview

We develop and market low power customizable semiconductor and software algorithm solutions that enable customers to differentiate their products by adding new features, extending battery life and improving context awareness and visual experience. Our solutions primarily target smartphones, wearable devices, tablets and the Internet-of-Things or IoT. We are a fabless semiconductor provider of comprehensive, flexible sensor processing solutions, ultra-low power display bridges, and ultra-low power Field Programmable Gate Arrays, or FPGAs. Our solutions integrate multi-core processing, programmable logic, sensor fusion and context aware algorithms, and embedded software. Our solutions are created from our new silicon platforms including our EOS, ArcticLink® III, PolarPro® 3, PolarPro II, PolarPro, and Eclipse II products (which comprise our new product category). Our mature products, which are produced on semiconductor processes larger than 180 nanometers, primarily include our pASIC® 3 and QuickRAM® as well as programming hardware and design software. Our sensor algorithm software includes our SenseMe software library.

Our customer-specific solutions include a unique combination of our silicon platforms, proven system blocks, or PSBs, custom logic, sensor software algorithms, 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 PSBs range from intellectual property, or IP, which enables always-on context aware sensor applications, such as our Flexible Fusion Engine, our Sensor Manager and Communications Manager technologies, to IP that improves multimedia content, such as our Visual Enhancement Engine, or VEE technology, and Display Power Optimizer technology, or DPO; to IP which implements commonly used mobile system interfaces, such as Low Voltage Differential Signaling, or LVDS, Mobile Industry Processor Interface, or MIPI, and Secure Digital Input Output, or SDIO. We provide complete solutions by first architecting the solution jointly with our customers or ecosystem partners engineering group, selecting the appropriate solution platform and PSBs, providing custom logic, integrating the logic, programming the device with the PSBs and/or firmware, providing software drivers or application software required for the customers application, and participating with the customer on-site during integration, verification and testing. In many cases, we may deliver sensor software algorithms that have been optimized for use in a QuickLogic silicon platform.

Our solutions are developed for specific power-sensitive applications that have differentiated features in terms of IP, intelligent sensor processing or connectivity requirements. We believe our customers value (i) our ability to deliver solutions that extend battery life; (ii) the expertise we bring to design our solutions to optimize for power and performance within our customers constraints; (iii) the flexibility of programmable logic to address specific hardware-based product requirements; (iv) the accuracies of our sensor algorithm software; and (v) the comprehensive software development environments that enable our customers to target their own IP into our silicon devices. We increase our customers ability to meet the time-to-market and time-in-market pressures associated with their markets.

The majority of our FPGA silicon platforms and our other product offerings, are based on our patented ViaLink® metal-to-metal programmable technology. ViaLink provides flexible energy-efficient devices and solutions that

S-1

Table of Contents

deliver the high performance, high reliability, IP security and instant-on features that our customers value. In October 2013, we announced a new Static Random Access Memory, or SRAM, reprogrammable logic technology. This SRAM technology offers ultra-low power consumption and is in-system reconfigurable, and is the basis for all of our sensor processing solutions today.

In 2012, we introduced our third generation silicon platform family, ArcticLink III VX, which embeds our VEE/DPO technologies as well as different combinations of LVDS and/or MIPI. ArcticLink III VX combines mixed signal physical functions and hard-wired logic on one device. We also introduced our fourth generation solution platform family, ArcticLink III BX. The BX family is identical to the VX family with the exception of the VEE/DPO technologies. The BX family was introduced to provide potential customers with the ability to adopt needed display bridge requirements while evaluating the benefits of our VEE/DPO technologies.

During 2013, we introduced two new silicon platform families, both of which are based on our new SRAM reprogrammable logic technology. The first was PolarPro 3, an ultra-low power FPGA family from which we create solutions for the mobile market. The second was the ArcticLink 3 S1 silicon platform family, which was QuickLogic s first family to implement sensor hub solutions.

In 2014, we introduced two silicon platform families. The first is PolarPro 3E, which is also based on our SRAM reprogrammable logic technology. We use this family to create solutions for the mobile market. The second is the ArcticLink 3 S2 silicon platform family, our second generation sensor hub. This silicon platform is a more highly integrated sensor hub solution that reduces power consumption by almost 50% from our first generation sensor hub, ArcticLink 3 S1.

In 2015, we introduced the third generation silicon platform for sensor processing   the EOS S3 platform. This multi-core System-On-a-Chip delivers even further integration than its predecessors. It integrates an ARM Cortex-M4 Microcontroller, the 3rd generation Flexible Fusion Engine, an optimized voice sub-system that contains a hardware implementation of Sensory Incorporated Low Power Sound Detector or LPSD, and a block of ultra-low power FPGA.

In 2015, we formally introduced our sensor software algorithms to the market as the SenseMe   Sensor Software Library. This library is designed to deliver always-on context awareness at very low power optimized for the EOS S3 and ArcticLink 3 S2 silicon platform families, as well as our roadmap of sensor processing System-On-a-Chip platforms.

We have changed our manufacturing strategies to reduce the cost of our silicon solution platforms to enable their use in high volume, mass customization products. Our PolarPro 3E, PolarPro 3, PolarPro II and PolarPro solution platforms include an innovative logic cell architecture which enables us to deliver twice the programmable logic in the same die size. Our EOS S3 and ArcticLink 3 silicon platforms combine mixed signal physical functions and hard-wired logic alongside programmable logic. Our EOS S3 and ArcticLink III solution platform is manufactured on an advanced process node where we can benefit from smaller die sizes. We typically implement sophisticated logic blocks and mixed signal functions in hard-wired logic because it is very cost effective and energy efficient. We have developed small form factor packages, which are less expensive to manufacture and include smaller pin counts. Reduced pin counts result in lower costs associated with our customers   printed circuit board space and routing. Our ability to sell programmed die as solutions greatly reduces our costs, allowing us to participate in high volume opportunities. In addition, we have dramatically reduced the time we require to program and test our devices, which has reduced our costs and lowered the capital equipment required to program and test our devices. Furthermore, our SRAM reprogrammable silicon platforms can be programmed in-system by our customers, and therefore we do not incur programming cost, lowering the overall cost of ownership to our customers. We expect to continue to invest in silicon solution platforms and manufacturing technologies which make us cost and power consumption effective for high-volume, battery-powered applications.

In addition to working directly with our customers, we partner with other companies that are experts in certain technologies to develop additional intellectual property, reference platforms and system software to provide

Table of Contents

application solutions. We also work with mobile processor manufacturers and companies that supply sensor, storage, networking or graphics components. The depth of these relationships varies depending on the partner and the dynamics of the end market being targeted, but is typically a co-marketing relationship that includes joint account calls, promotional activities and/or engineering collaboration and developments, such as reference designs. For our sensor processing solutions, we collaborate with sensor manufacturers to ensure interface compatibility as well as consistency of user experience when using our SenseMe software algorithm library.

Recent Developments

On February 10, 2016, we reported certain preliminary unaudited financial results for the fourth quarter and fiscal year 2015. These results are preliminary and may be subject to revision in connection with the completion of our 2015 fiscal year audit. Consequently, you should not place undue reliance on them.

Fourth Quarter Financial Results

Total revenue for the fourth quarter of fiscal year 2015 was $3.6 million compared to total revenue of $5.7 million for the comparable period of the prior fiscal year. Net loss for the fourth quarter of fiscal year 2015 was $4.8 million, or $(0.09) per share, compared to net loss of $4.1 million, or $(0.07) per share, for the comparable period of the prior fiscal year.

Fiscal Year 2015 Financial Results

Total revenue for the fiscal year 2015 was $19.0 million compared to total revenue of $27.8 million for prior fiscal year 2014. Net loss for the fiscal year 2015 was $17.8 million, or $(0.32) per share, compared to net loss of $13.1 million, or $(0.23) per share, for fiscal year 2014.

Cash and Cash Equivalents

We ended fiscal year 2015 with $19.1 million in total cash and cash equivalents.

Corporate Information

We were founded in 1988 and reincorporated in Delaware in 1999. Our principal executive offices are located at 1277 Orleans Drive, Sunnyvale, California 94089-1138. Our telephone number is (408) 990-4000 and our website is www.quicklogic.com. The information available on or accessible through our website does not constitute a part of this prospectus supplement or the accompanying prospectus and should not be relied upon.

S-3

The Offering

Common stock offered by us	shares
Common stock outstanding before this offering	56,904,059 shares [1]
Common stock to be outstanding after this offering	shares

(1) The number of shares of common stock to be outstanding immediately before and after this offering as shown above is based on 56,904,059 shares of common stock outstanding as of January 3, 2016 and excludes an aggregate of 6,567,669 shares of common stock subject to outstanding options and restricted stock awards, 2,928,533 shares of common stock reserved for issuance under our equity incentive plans, and 2,304,900 shares of common stock issuable upon exercise of outstanding warrants.

Overallotment Option

We have granted the underwriters an option to purchase up to   additional shares of our common stock to cover overallotments, if any. This option is exercisable one or more times at any time or from time to time, in whole or in part, for a period of 30 days from the date of this prospectus supplement.

Use of Proceeds

We expect to use the net proceeds from this offering for working capital and general corporate purposes. We 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, we currently have no commitments or agreements and are not involved in any negotiations with respect to any such transactions. See Use of Proceeds.

NASDAQ Global Market Listing

Our common stock is listed on The NASDAQ Global Market under the symbol QUIK.

Risk Factors

Investing in our securities involves a high degree of risk. See Risk Factors beginning on page S-8 of this prospectus supplement and in our Annual Report on Form 10-K for the year ended December 28, 2014, which Annual Report is incorporated herein by reference.

Outstanding Shares

The number of shares of common stock to be outstanding immediately after this offering is based on 56,904,059 shares outstanding as of January 3, 2016 and excludes as of this date:

5,131,921 shares of common stock issuable upon the exercise of stock options outstanding as of January 3, 2016 with a weighted-average exercise price of $2.64 per share;

1,435,748 unvested restricted stock units as of January 3, 2016;

2,928,533 shares of common stock reserved for future issuance under our equity incentive plans as of January 3, 2016; and

2,304,900 shares of common stock issuable upon exercise of outstanding warrants.

Except as otherwise indicated, all information in this prospectus assumes no exercise by the underwriters of their overallotment option.

S-4

Table of Contents

Certain of our executive officers and directors, including our Chairman of the Board, have plans meeting the requirements of Rule 10b5-1 under the Securities Exchange Act of 1934, as amended, which may lead to the sale of a number of shares of our common stock during the 90 days following the date of this prospectus supplement.

S-5

Table of Contents

Summary Financial Data

The table below presents summary statements of operations and balance sheet data. The summary financial data for the years ended December 30, 2012, December 29, 2013 and December 28, 2014 are derived from our audited financial statements for those periods. We derived the summary financial data as of September 27, 2015 and for the nine months ended September 28, 2014 and September 27, 2015 from our unaudited financial statements. The unaudited financial statement data includes, in our opinion, all adjustments (consisting only of normal recurring adjustments) that are necessary for a fair presentation of our financial position and results of operations for these periods. This information is only a summary. You should read this data in conjunction with our historical financial statements and related notes and Management s Discussion and Analysis of Financial Condition and Results of Operations contained in our Annual Report filed on Form 10-K, Quarterly Reports filed on Form 10-Q and other information on file with the SEC that is incorporated by reference in this prospectus supplement and the accompanying prospectus. For more details on how you can obtain our SEC reports and other information, you should read the section of this prospectus supplement entitled Where You Can Find More Information. Our results of operations are for historical periods and are not necessarily indicative of results of operations for future periods.

Consolidated Statements of Operations Data

(In thousands, except share data)

	Year Ended			(unaudited) Nine Months Ended	
	December 30, 2012	December 29, 2013	December 28, 2014	September 27, 2015	September 28, 2014
Revenue	$ 14,944	$ 26,072	$ 27,845	$ 15,326	$ 22,124
Cost of revenue	7,878	17,305	16,796	9,062	13,287
Gross profit	7,066	8,767	11,049	6,264	8,837
Operating expenses:					
Research and development	8,743	8,375	12,186	10,654	8,754
Selling, general and administrative	10,481	12,002	11,663	8,158	8,892
Restructuring costs		181		246	
Income (loss) from operations	(12,158)	(11,791)	(12,800)	(12,794)	(8,809)
Gain on sale of TowerJazz		181			
Interest expense	(61)	(54)	(85)	(64)	(67)
Interest income and other (expense), net	(77)	(157)	(126)	(98)	(79)
Income (loss) before income taxes	(12,296)	(11,821)	(13,011)	(12,956)	(8,955)
Provision for (benefit from) income taxes	18	455	68	46	(18)
Net income (loss)	$ (12,314)	$ (12,276)	$ (13,079)	$ (13,002)	$ (8,937)
Net income (loss) per share:					
Basic	$ (0.29)	$ (0.27)	$ (0.23)	$ (0.23)	$ (0.16)
Diluted	$ (0.29)	$ (0.27)	$ (0.23)	$ (0.23)	$ (0.16)
Weighted average shares:					
Basic	41,831	45,762	55,401	56,379	55,208
Diluted	41,831	45,762	55,401	56,379	55,208

S-6

Table of Contents

Consolidated Balance Sheet Data

(In thousands, except share data)

	December 28, 2014	As of September 27, 2015 (unaudited)
ASSETS		
Current assets:		
Cash and cash equivalents	$ 30,050	$ 23,441
Short-term investment in TowerJazz Semiconductor Ltd.		
Accounts receivable, net	1,552	1,633
Inventories	4,952	2,372
Other current assets	1,146	833
Total current assets	37,700	28,279
Property and equipment, net	3,217	2,563
Other assets	222	231
TOTAL ASSETS	**$ 41,139**	**$ 31,073**
LIABILITIES AND STOCKHOLDERS EQUITY		
Current liabilities:		
Trade payables	2,506	3,020
Accrued liabilities	1,574	2,029
Deferred royalty revenue		82
Current portion of debt and capital lease obligations	225	229
Total current liabilities		