

# QuickLogic Investor Presentation September 2017

Brian Faith, CEO Sue Cheung, Ph.D., CFO

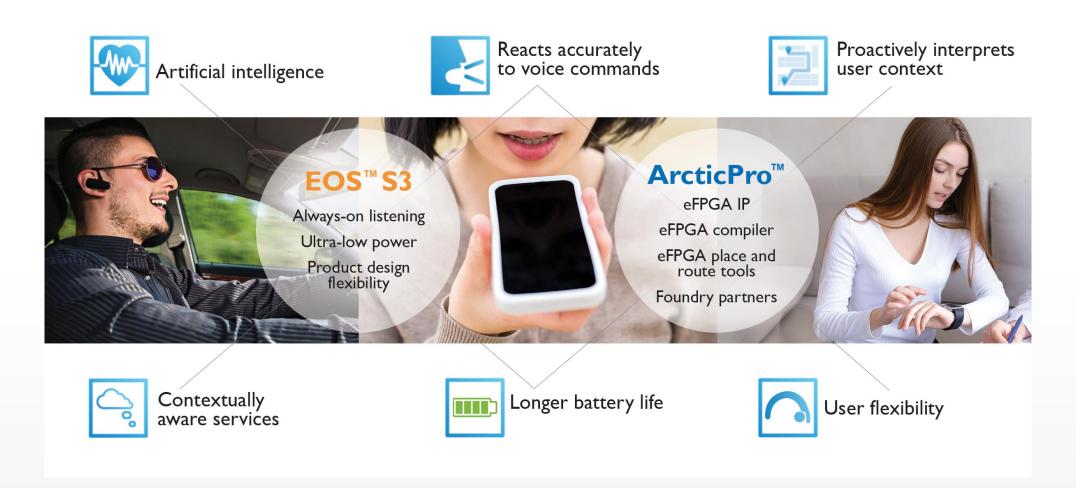
NASDAQ: QUIK

### Safe Harbor Statement

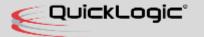
This presentation contains statements that are forward-looking including statements relating to the size of the total addressable market for our products and services, the compound annual growth rate for mobile market sectors, expectations relating to our new products, the time to market for various of our product innovations, expectations relating to our product innovations, our anticipated platform silicon roadmap and the expected timeline related to such roadmap, opportunities for our pipeline and our positioning for long-term, sustainable revenue growth, the benefits of our mobile-specific programmable logic to customers, the benefits of our solutions platforms, our plans with respect to new product revenue growth, our long-term target operating model, our projections related to our revenue, gross margin, expenses, operating income, net income and earnings per share. These forward-looking statements involve risks and uncertainties including but not limited to expectations relating to production targets for our New Products, revenue growth from our new products, our design activity and our ability to convert new design opportunities into customer activity, market acceptance of our customers' products and our expected results. In addition to U.S. GAAP financials, this presentation includes certain non-GAAP financial measures. These historical and forward-looking non-GAAP measures are in addition to, not a substitute for or superior to, measures of financial performance prepared in accordance with U.S. GAAP. QuickLogic's future results could differ materially from the results described in these forward-looking statements. These and other risk factors are detailed in QuickLogic's periodic reports and registration statements filed with the Securities and Exchange Commission. QuickLogic expressly disclaims any obligation to update or revise any forward-looking statements found herein to reflect any changes in Company expectations or results or any change in events.



# Maximizing Battery Life for Immersive User Experiences in Smartphone, Wearable, Hearable & IoT devices



HQ in Silicon Valley | R&D: Sunnyvale, Bangalore | Field Sales and Support: Japan, South Korea, China, Taiwan and UK | Technical Staff – 68%



### **Investment Rationale**

| Addressing Critical<br>Needs          |   | gnificantly longer bat<br>r Smartphones, Wea   | -                       |                 | ser experience & B | OM integration |  |  |
|---------------------------------------|---|--|-------------------------|-----------------|--------------------|----------------|--|--|
| Tier 1 Customers & Ecosystem Partners | SMIZ MEDIA  | ALCOMM SAMSUNG  TEK NORDIC SEM   | TEXAS INSTRUMENTS       | (mobeam)).      | r alliance Devices | amun<br>Bosch  |  |  |
| Creating Competitive Advantages       | <ul><li>Delivers flex</li><li>Enabling ne</li></ul>   | <ul> <li>50+ patents in core IP</li> <li>Delivers flexibility and reduced R&amp;D costs for System on a Chip (SoC) vendors</li> <li>Enabling new form factors, new use cases</li> <li>Mobile-specific programmable logic enables hardware differentiation</li> </ul> |                         |                 |                    |                |  |  |
| Validating<br>Technology              | SAMSUNG<br>KS KYDEERA   | 4404   | <b>conn</b><br>untartic | Lenovo<br>ZTE中兴 | NOKIA              | SK telecom     |  |  |
| Driving to Profitable Growth          | <ul> <li>Working with Tier 1 Smartphone OEM Wearable manufacturing engineering group to prepare for the production launch</li> <li>Entering new markets with eFPGA IP licensing opportunities</li> <li>Executing new initiatives for Wearable, Hearable, and IoT markets</li> </ul> |  |                         |                 |                    |                |  |  |



### **Product Lines**

### Sensor Processing

 Multi-core SoC for sensor processing, immersive user experience of sensor fusion and always-on deeply embedded voice recognition

# Ultra-Low Power Programmable Logic (FPGAs)

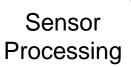
 Available as discrete devices, integrated into our multi-core SoCs, or available for IP licensing

# Display Bridges and Connectivity

- Solves interface mismatches between Application Processors and Displays
- MIPI DSI, RGB, and LVDS display support



## Multiple Products & Markets



































































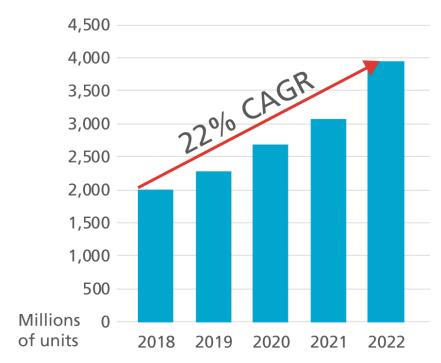
# Sensor Processing



# Serving High Growth, High Volume Markets

### 1.5B Units in 2022

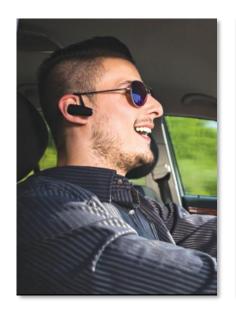
#### Discrete sensor hub market



Source: Daniel Associates, 2017

### **Market Drivers...**

- More intelligence
- Contextually aware services
- Longer battery life
- More computing at the edge





## Immersive User Experience Requires More Sensors

#### **Motion Sensors**









**Gyro** 





**Biological Sensors** 



**Heart Rate** Temp Blood Press









#### **Environmental Sensors**













#### **Gesture Sensors**











Always-On Devices Connecting Sensors to the Intelligent Cloud

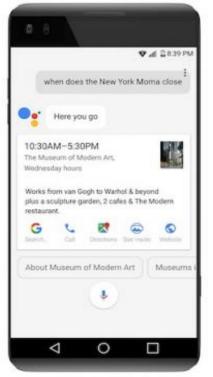
Driven by Voice-Enabled Experience



# Voice Accuracy Reaching Human Levels Voice Interfaces are Replacing Touch Interfaces

#### 20% of Mobile Queries Made via Voice, 5/16

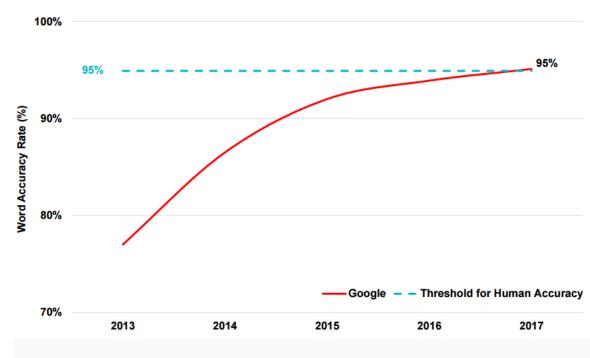






#### **Google Machine Learning**

Achieving Higher Word Accuracy, 2013-2017



Source: Mary Meeker / Kleiner Perkins Annual Internet Trends Report, June 2017



# Voice-Enabled Artificial Intelligence

Focus of Both Large, and Emerging Technology Companies











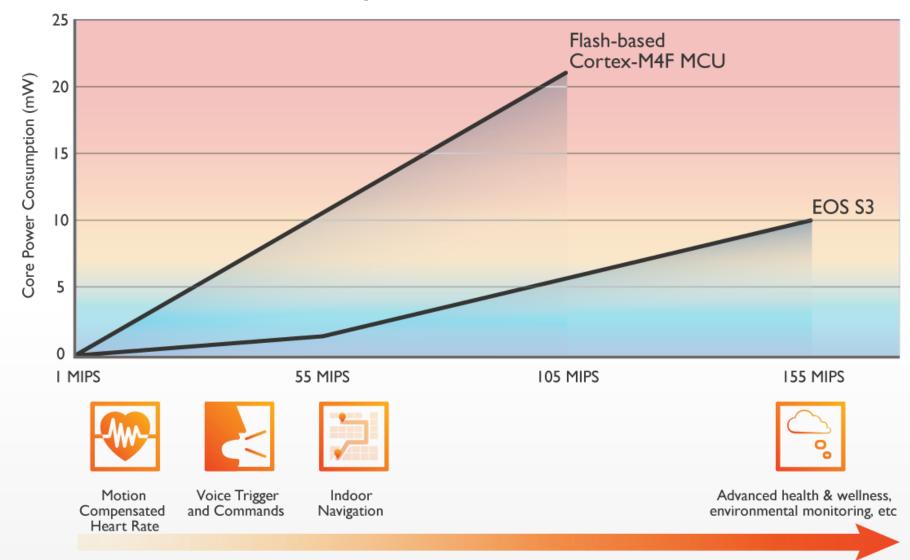




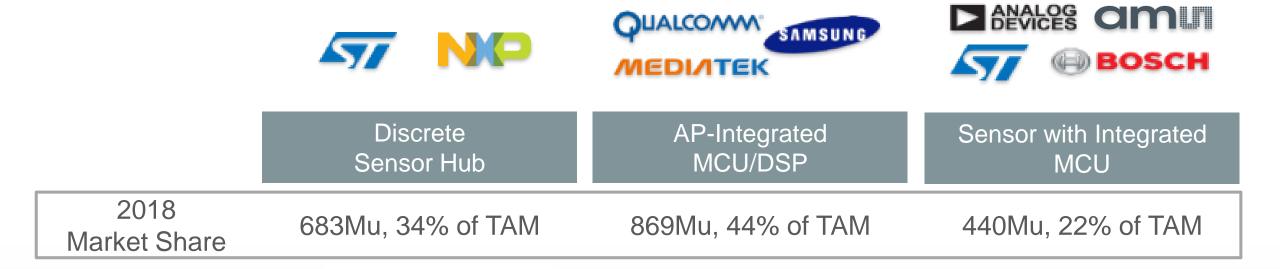
CTO of a large hearable company called EOS S3 a "masterpiece in system engineering"



# The More Immersive the Experience, the Greater Our Advantage



### Our EOS™ S3 is Lower Power than All Other Architectures



QuickLogic is ½ the power of other discrete sensor hubs

Source: Daniel Associates, 2017



# SW Ecosystem Partnerships Optimizing Immersive User Experience

Ecosystem partnerships with industry leaders to

enable immersive consumer experience



Leading supplier of Androidcompliant sensor fusion algorithms for Chinese OEMs



AlSpeech is a rapidly growing leading enterprise provider of Artificial Intelligence (AI) speech technology.



Leading supplier of deeply embedded voice recognition technology



## Sensor Processing Momentum Emerging Markets & Opportunities



### Wearables

Only 1/20th of the power budget of smartphones

- Expect app company product using EOS S3 will go into production in Q4 2017
- Janyun will use EOS S3 for voice-enabled GPS Smartwatch, targeted for Q4 production

### Hearables

Only ½ of the power budget of Wearables

- Expect app company product using EOS S3 will go into production in Q4 2017
- Engaged with one of China's largest ODMs for a new hearable design
- Qiwo Smartlink will use EOS S3 for Bluetooth® headset, targeted for Q4 production

Dual Wearables & Hearables Product Customer - Working with Tier 1 Smartphone OEM manufacturing engineering group to prepare for wearable production launch: in Q2 started working on 2 new high-volume consumer wearable and hearable opportunities targeted for mass production during mid-2018



# Embedded FPGA (eFPGA) IP Licensing



## Entering New Markets eFPGA IP Licensing Positioning



- Targets significant financial potential
  - \$10M+ potential annual licensing revenue with upside on royalty revenue in 2+ years
- Creates new, very high gross margin manufacturing licenses revenue streams
- Delivers flexibility and reduced R&D costs for SoC vendors

The embedded semiconductor intellectual property (IP) market is expected to grow from \$3.09B to over \$7B by 2022, according to Markets&Markets.



### eFPGA Benefits

### Adding Post-Fabrication Flexibility to SoCs

Adds Flexibility – Enables complex functionality

Ultra-Low Power Consumption – Power optimized

Increased Performance – Eliminates chip-to-chip delays

Higher Revenues – Enables multiple product variants

Greater Profits – Closer match to market needs

Lower R&D Costs – Reduces development time & cost

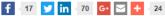
Faster Time to Market – Supports post-fabrication changes

#### **SEMICONDUCTOR** ENGINEERING

Home > System-Level Design > Embedded FPGAs Come Of Age

SYSTEM-LEVEL DESIGN

### **Embedded FPGAs Come Of Age**



These devices are gaining in popularity for more critical functions as chip and system designs become more heterogeneous.

FEBRUARY 27TH, 2017 - BY: ANN STEFFORA MUTSCHLER



**F**PGAs increasingly are being viewed as a critical component in heterogeneous designs, ratcheting up their stature and the amount of attention being given to programmable devices.

Once relegated to test chips that ultimately would be replaced by lower-power and higher-performance ASICs if volumes were sufficient, FPGAs have come a long way. Over the last 20 years programmable devices have moved steadily up the food chain from glue logic to co-processors, and they have been utilized in a variety of high-performance, mission-critical applications from data centers to supercomputers.

# Secured Two Top-tier eFPGA Foundries

ArcticPro<sup>™</sup>, first eFPGA announced for new GLOBALFOUNDRIES'
 22FDX® (FDSOI) process



- Supports 65nm and 40nm leveraging existing technology and foundry relationship with GLOBALFOUNDRIES
- Gained early access to GLOBALFOUNDRIES' 22nm FD-SOI Process by joining its FDXcelerator™ Partner Program



- Signed a semiconductor foundry manufacturing license agreement with SMIC for its 40nm process node
- Accelerates QuickLogic's access to leading edge process technology for our own silicon development



### eFPGA Market Momentum

Established eFPGA IP Support Center in Taiwan to provide fast, local support for licensees, foundries and ecosystem partners

Taped out SMIC's test chip on schedule in Q2 and are targeting completion of the test chip qualification with SMIC later in Q3

Appointed Bernie Rosenthal, co-founder of Tensilica, Inc. and a well-known tech entrepreneur, to QuickLogic's advisory board

Released new Aurora eFPGA software tools, supporting eFPGA design implementation from RTL through place and route

Increased number of significant ArcticPro eFPGA engagements

# Display Bridge & Connectivity Products – Maintaining Momentum

- Continue to ship into consumer tablet market
- Won new educational tablet design in Q2 expect production in Q4
- Working with new IoT module using a QuickLogic connectivity solution – expect production 1H 2018
- Expect to continue display bridge revenue well into 2018 and beyond with large OEMs





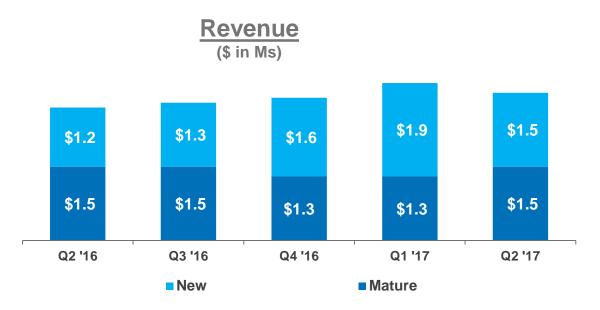




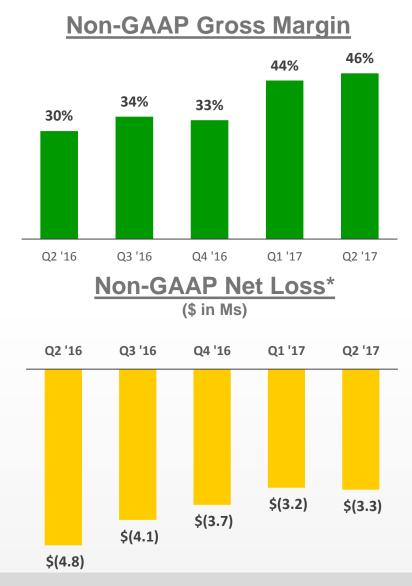




# Historical Quarterly Financial Highlights



| Balance Sheet Data (\$ in millions) | as of 7/2/2017 |
|-------------------------------------|----------------|
| Total Cash                          | \$22.2         |
| Bank Debt - 3.75% Int.              | \$6.0          |



### Q3 2017 Financial Forecast

| Non-GAAP                       | Q1'1 | 7     | Q2'17  |       | Q3'17       | ,             |
|--------------------------------|------|-------|--------|-------|-------------|---------------|
| (\$ in millions, except noted) | Actu | al    | Actual |       | Forecas     | st            |
| New Product Revenue            | \$   | 1.9   | \$     | 1.5   | ~\$         | 1.7           |
| Mature Product Revenue         | \$   | 1.3   | \$     | 1.5   | ~\$         | 1.3           |
| Total Revenue                  | \$   | 3.2   | \$     | 3.0   | \$3.0 +/-   | 10%           |
|                                |      |       |        |       |             |               |
| Non-GAAP Gross Margin          |      | 44%   |        | 46%   | 45% +       | <b>/- 3</b> % |
|                                |      |       |        |       |             |               |
| R&D                            | \$   | 2.3   | \$     | 2.2   | ~\$         | 2.3           |
| SG&A                           | \$   | 2.3   | \$     | 2.4   | ~\$         | 2.3           |
| Total Expense                  | \$   | 4.6   | \$     | 4.6   | \$4.6 +/-\$ | 300k          |
|                                |      |       |        |       |             |               |
| Other Income                   |      | \$61k | \$(    | 54)k  | ~\$         | (60)k         |
|                                |      |       |        |       |             |               |
| Net Loss                       | \$   | (3.2) | \$     | (3.3) | ~\$         | (3.2)         |
|                                |      |       |        |       |             |               |
| Net Loss Per Share             | \$   | 0.05  | \$     | 0.04  | ~\$         | 0.04          |

 Q3 2017 Cash usage expected to be between \$3.0M and \$3.5M, primarily driven by working capital needs and capital expenditure associated with our eFPGA development effort.

Actual results may vary significantly due to things that are beyond the company's control, such as schedule variations from customers, schedule changes and projected production start dates could push or pull shipments. Forecast as of August 9, 2017, Q2 2017 results conference call.



# **Target Operating Model**

| Targets                   | Mid Term (2 year) | Long Term (>2 year) |
|---------------------------|-------------------|---------------------|
| Revenue Growth            | >50%              | >50%                |
|                           |                   |                     |
| Non-GAAP Gross Margin     | 45 - 50%          | >50%                |
|                           |                   |                     |
| Non-GAAP Operating Margin | 0 - 10 %          | 10 - 15%+           |

Non-GAAP break-even revenue rate to between \$8.0M and \$10.0M/qtr. with a 45% - 50% gross margin

Actual results may vary significantly due to things that are beyond the company's control, such as schedule variations from customers, schedule changes and projected production start dates could push or pull shipments. Forecast as of August 9, 2017, Q2 2017 results conference call.



## QuickLogic Leadership

#### **Brian Faith**

Chief Executive Officer, Director

- Joined in 1996
- CEO in 2016
- VP of Worldwide Marketing/ VP of Worldwide Sales & Marketing 2008-2016
- Rising managerial & executive positions, including engineering, product line management, marketing and sales

### Sue Cheung, Ph.D.

Chief Financial Officer

- Joined in 2007
- CFO in 2017, VP of Finance in 2016
- · Principal Accounting Officer, Corp. Controller & Asst. Controller 2007-2016
- Sr. Accounting management positions at Dell SonicWALL. VeriFone and other publicly traded and privately held companies
- · CPA and PH.D. in Business Administration

### Timothy Saxe, Ph.D.

Chief Technology Officer & SVP Engineering

- Joined in 2001
- CTO in 2008, SVP of Eng. in 2016
- Rising executive positions including VP of Eng. and VP of Software Eng.
- VP of FLASH Engineering at Actel Corp. and founder/CEO of semiconductor mfg. division at GateField Corp. (Zycad)
- Doctorate in Electrical Engineering

### Rajiv Jain

VP Worldwide Operations

- Joined in 1992
- VP Worldwide Ops in 2014
- Sr. Dir. of Operations & Development Eng., Sr. Dir. of System Solutions & Process Technology, Dir. of Process Technology, and Sr. Process Technologist 1992-2014
- Sr. Engineering positions at National Semiconductor and Monolithic Memories

#### E. Thomas Hart Michael R. Farese

#### Chairman

- QuickLogic CEO 1994-2009
- VP & GM of Advanced **Networking Division** at National Semiconductor Corp.
- Senior Manager. Motorola, Inc.

#### Director

• 35 years in executive rolés in telecomm & semiconductor industry including Antenna29; Entropic Comm. Inc.: BitWave Semicon. Palm: WJ Comm: Tropian Inc.; Motorola Corp.; Ericsson Inc.; Nokia Corp.; ITT Corp.; AT&T Corp.: and Bell Labs

#### **Arturo Krueger**

#### Director

- Over 40 years leadership in systems architecture. semiconductor design & development. operations and marketing
- Executive roles at Motorola, Inc. semiconductor products: Director. Marvell Technology Group Ltd

#### Andrew J. Pease

#### Director

- QuickLogic CEO/President 2009-2016, VP Worldwide Sales 2006-2009
- Executive roles at Broadcom Corp.: Syntricity, Inc.
- Various sales positions at Advanced Micro Devices: Integrated Systems Inc.; and Vantis Corp.

### Daniel A. Rabinovitsi Christine Russell

#### Director

- · COO. Ruckus Wireless. Inc.
- Executive roles at Qualcomm Atheros. Inc.: Atheros Communications: NXP Semiconductors: ST Ericsson; and Silicon Labs

#### Director

- CFO. UniPixel. Inc... Vendavo, Inc.,
- CFO positions at Evans Analytical Group; Virage Logic Corp.:OuterBay: Ceva, Inc.; and Persistence Software, Inc.

#### **Gary H. Tauss**

#### Director

- Exec. Director & CEO, BizTech
- Executive roles at Mobidia Technology. Inc.: InfiniRoute Networks, Inc.: LongBoard, Inc.; and TollBridge Technologies



### **Investment Rationale**

| Addressing Critical<br>Needs          | 0 0   | ntly longer battery life, mo<br>tphones, Wearables, Hea |                 | ser experience & B | OM integration |  |  |
|---------------------------------------|---|---|-----------------|--------------------|----------------|--|--|
| Tier 1 Customers & Ecosystem Partners | SMIC MEDIATEK   | NORDIC SENSORY  | mip ((mobeam))  | i alliance Dévices | amu<br>Bosch   |  |  |
| Creating Competitive Advantages       | <ul> <li>50+ patents in core IP</li> <li>Delivers flexibility and reduced R&amp;D costs for System on a Chip (SoC) vendors</li> <li>Enabling new form factors, new use cases</li> <li>Mobile-specific programmable logic enables hardware differentiation</li> </ul>                |   |                 |                    |                |  |  |
| Validating<br>Technology              | SAMSUNG (D)  KE KUDCERA   | Foxconn   | Lenovo<br>ZTE中兴 | NOKIA              | SK telecom     |  |  |
| Driving to Profitable Growth          | <ul> <li>Working with Tier 1 Smartphone OEM Wearable manufacturing engineering group to prepare for the production launch</li> <li>Entering new markets with eFPGA IP licensing opportunities</li> <li>Executing new initiatives for Wearable, Hearable, and IoT markets</li> </ul> |   |                 |                    |                |  |  |





### Non-GAAP Measures

QuickLogic reports financial information in accordance with GAAP, but believes that non-GAAP financial measures are helpful in evaluating its operating results and comparing its performance to comparable companies. Accordingly, the Company excludes charges related to stock-based compensation, restructuring, the effect of the write-off of long-lived assets and the tax effect on other comprehensive income in calculating non-GAAP (i) income (loss) from operations, (ii) net income (loss), (iii) net income (loss) per share, and (iv) gross margin percentage. The Company provides this non-GAAP information to enable investors to evaluate its operating results in a manner similar to how the Company analyzes its operating results and to provide consistency and comparability with similar companies in the Company's industry. Management uses the non-GAAP measures, which exclude gains, losses and other charges that are considered by management to be outside of the Company's core operating results, internally to evaluate its operating performance against results in prior periods and its operating plans and forecasts. In addition, the non-GAAP measures are used to plan for the Company's future periods, and serve as a basis for the allocation of the Company's resources, management of operations and the measurement of profit-dependent cash and equity compensation paid to employees and executive officers. Investors should note, however, that the non-GAAP financial measures used by QuickLogic may not be the same non-GAAP financial measures, and may not be calculated in the same manner, as that of other companies. QuickLogic does not itself, nor does it suggest that investors should, consider such non-GAAP financial measures alone or as a substitute for financial information prepared in accordance with GAAP. A reconciliation of GAAP financial measures to non-GAAP financial measures is included in the financial statements portion of this press release. Investors are encouraged to review the related GAAP financial measures and the reconciliation of non-GAAP financial measures with their most directly comparable GAAP financial measures.

# P&L - Non-GAAP

| Non-GAAP Results          | Q2'16    | Q3'16    | Q4'16    | FY 2016  | Q1'17    | Q2'17    |
|---------------------------|----------|----------|----------|----------|----------|----------|
| Millions (except for EPS) | Actual   | Actual   | Actual   | Actual   | Actual   | Actual   |
|                           |          |          |          |          |          |          |
| New Product Revenue       | \$1.2    | \$1.3    | \$1.6    | \$5.6    | \$1.9    | \$1.5    |
| Mature Revenue            | \$1.5    | \$1.5    | \$1.4    | \$5.8    | \$1.3    | \$1.5    |
| Total Revenue             | \$2.7    | \$2.8    | \$3.0    | \$11.4   | \$3.2    | \$3.0    |
|                           |          |          |          |          |          |          |
| Gross Margin %            | 30%      | 34%      | 33%      | 35%      | 44%      | 46%      |
|                           |          |          |          |          |          |          |
| Research & Development    | \$3.2    | \$2.6    | \$2.3    | \$11.3   | \$2.3    | \$2.2    |
| SG&A                      | \$2.4    | \$2.4    | \$2.3    | \$9.5    | \$2.3    | \$2.4    |
| Total Operating Expense   | \$5.6    | \$5.0    | \$4.6    | \$20.8   | \$4.6    | \$4.6    |
|                           |          |          |          |          |          |          |
| Operating Income (Loss)   | (\$4.8)  | (\$4.1)  | (\$3.6)  | (\$16.9) | (\$3.2)  | (\$3.2)  |
| Net Income (Loss)         | (\$4.8)  | (\$4.1)  | (\$3.7)  | (\$17.2) | (\$3.3)  | (\$3.3)  |
| EPS                       | (\$0.07) | (\$0.06) | (\$0.05) | (\$0.26) | (\$0.05) | (\$0.04) |

## GAAP to Non-GAAP Reconciliation

|                                | Q2'16      | Q3'16      | Q4'16      | FY 2016     | Q1'17      | Q2'17      |
|--------------------------------|------------|------------|------------|-------------|------------|------------|
| (In \$ '000)                   | Actual     | Actual     | Actual     | Actual      | Actual     | Actual     |
| Non-GAAP Operating Loss        | \$ (4,747) | \$ (4,072) | \$ (3,610) | \$ (16,851) | \$ (3,150) | \$ (3,206) |
| Stock-based Compensation       | (439)      | (457)      | (125)      | (1,583)     | (318)      | (347)      |
| Restructuring Costs            | -          | -          | -          | -           | -          | -          |
| FA impairment and/or write-off | (312)      | (39)       | (17)       | (368)       | -          | -          |
|                                |            |            |            |             |            |            |
| GAAP Operating Loss            | \$ (5,498) | \$ (4,568) | \$ (3,752) | \$ (18,802) | \$ (3,468) | \$ (3,553) |
| Non-GAAP Net Loss              | \$ (4,823) | \$ (4,127) | \$ (3,716) | \$ (17,197) | \$ (3,247) | \$ (3,260) |
| Adjustments:                   |            |            |            |             |            |            |
| Stock-based Compensation       | (439)      | (457)      | (125)      | (1,583)     | (318)      | (347)      |
| FA impairment and/or write-off | (312)      | (39)       | (17)       | (368)       | -          | -          |

\$ (4,623)

\$ (5,574)

GAAP Net Loss

\$ (3,565)

\$ (3,607)

\$ (19,148)

(3,858)

# Qiwo Smartlink Technology Chooses EOS S3 Multi-Core SoC for Voice-Enabled Bluetooth Headset Designs



"The *QuickLogic EOS S3 SoC* provided us the *lowest possible power consumption* for new voice enabled headsets," said Fengko Gao, CEO of Qiwo. "With its multi-core design, *integrated voice technology* and inherent *flexibility to address multiple use cases*, we look forward to incorporating the EOS S3 solution in future wearable and IoT designs. We believe this strategy will help us accelerate new product development, address multiple use cases from a single platform and leverage the broad market penetration that Qihoo 360 has established in China."

# Janyun Chooses EOS S3 Sensor Processing Platform for Voice-Enabled GPS Smartwatch

 New design complements Janyun's successful line of wearable IoT products & cloud applications

 EOS S3 platform provides host processor, sensor processor, voice interface, GPS interface and display driver in the new design



"The QuickLogic EOS S3 SoC is an *ideal solution for our wearable and IoT ODM designs*," said Saicheng Tang, CEO of Janyun. "The EOS S3 platform provides us with a single chip, multi-core solution that optimizes our designs for cost, ultra-low power consumption, and design flexibility that enables us to support multiple end customer use cases with a single platform. We view these capabilities as **essential to our success in the development of our ODM business model**."