

LATTICE SEMICONDUCTOR

The Leader in Small, Low Power FPGAs

Second Quarter, 2019



Safe Harbor

This presentation contains forward-looking statements that involve estimates, assumptions, risks and uncertainties, including all information under the heading 2Q19 Business Outlook. Lattice believes the factors identified below could cause our actual results to differ materially from the forward-looking statements.

Factors that may cause our actual results to differ materially from the forward-looking statements in this presentation include global economic uncertainty, overall semiconductor market conditions, market acceptance and demand for our new and existing products, the Company's dependencies on its silicon wafer suppliers, the impact of competitive products and pricing, and technological and product development risks. In addition, actual results are subject to other risks and uncertainties that relate more broadly to our overall business, including those risks more fully described in Lattice's filings with the SEC including its annual report on Form 10-K for the fiscal year ended December 29, 2018 and its quarterly filings on Form 10-Q. Certain information in this presentation is identified as having been prepared on a non-GAAP basis. Management uses non-GAAP measures to better assess operating performance and to establish operational goals. Non-GAAP information should not be viewed by investors as a substitute for data prepared in accordance with GAAP.

You should not unduly rely on forward-looking statements because actual results could differ materially from those expressed in any forward-looking statements. In addition, any forward-looking statement applies only as of the date on which it is made. The Company does not intend to update or revise any forward-looking statements, whether as a result of events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.

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PRODUCTS & SOLUTIONS

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APPLICATIONS

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FINANCIALS

Lattice Semiconductor Overview

APPLICATIONS & MARKETS

Lattice is the leader in low to mid-range FPGAs enabling secure Control, flexible Connectivity, and low power Compute acceleration



INDUSTRIAL &
AUTOMOTIVE

35%

amazon

BOSCH
SIEMENS



COMMUNICATIONS
& COMPUTING

29%

CISCO
DELL
NOKIA



CONSUMER &
BROADCAST

28%

Panasonic
SAMSUNG
SONY

WORLD CLASS SUPPLIER

In business and innovating for 35 years

\$399M
2018 revenue

1 BILLION+
shipped last 4 years

GLOBAL SUPPORT



Lattice Executive Leadership Team

Deep Experience in Programmable Devices and Semis



Jim Anderson
CEO



Mark Nelson
Sales



Esam Elashmawi
Marketing & Strategy



Steve Douglass
R&D



Glenn O'Rourke
Operations



Sherri Luther
CFO



Byron Milstead
General Counsel



Chad Reese
Human Resources

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FINANCIALS

Lattice Value Proposition

Compelling Features & Ease of Use

Smallest
SIZE



Lowest
POWER



Highest
SECURITY



RELIABLE
by Design



EASE
of Use



Lattice Product Leadership

Low to Mid-range FPGAs Optimized for Low Power, Small Form Factor, & Security



Control PLDs

- ✓ 50% market share
- ✓ Highest IO density



MIPI connectivity FPGAs

- ✓ First FPGA with hardened MIPI D-PHY
- ✓ Highest performance at lowest power



Ultra-low power FPGAs

- ✓ Sleep current as low as 25uA
- ✓ World's most popular ultra-low power FPGA



SERDES-enabled FPGAs

- ✓ Up to 85K LUTs in 10x10 mm csfBGA
- ✓ Highest density & lowest power SERDES in smallest package



LATTICE
RADIANT
DESIGN SOFTWARE



LATTICE
DIAMOND
DESIGN SOFTWARE

New Value Added Solutions

AI & ML

Lattice sensAI

Full-featured AI inferencing

- ✓ **Low Power:** 1mW to 1W
- ✓ **FPGA Flexibility**
- ✓ **Complete Stack:** modular hardware kits, neural network IP and compiler, reference designs, and custom solutions

Security

Platform Firmware Resiliency

Platform security across the supply chain

- ✓ **Compliant with NIST SP 800-193 standard**
- ✓ **Non-bypassable hardware Root-of-Trust FPGA**
- ✓ **Secure hardware boot, attestation, on-boarding**



Design Software

Radiant

Advanced ease-of-use

- ✓ **Simplified Customer Design Process**
- ✓ **Unified Design Flow**
- ✓ **Faster Design and Debug**

LATTICE
sensAI

HOT
100 **EDN** 2018

R LATTICE
RADIANT
DESIGN SOFTWARE

LATTICE
SEMICONDUCTOR

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FINANCIALS

Lattice Solves Communications Challenges



SCALABLE HARDWARE MANAGEMENT

MachXO3, ECP5, and ASC based power management in 5G based stations and remote radio heads



SECURE CONTROL

System firmware protection in switches, routers and wireless infrastructure with a Root-of-Trust FPGA



ASIC BRIDGING

Low power MachXO3 and ECP5 based ASIC bridging and I/O expansion in small cells and remote radio heads

PCIe BRIDGING

ECP5 based PCIe bridging in enterprise routers and switches



Lattice Solves Data Center Challenges

PLATFORM FIRMWARE RESILIENCE

NIST standard compliant PFR



SYSTEM CONTROL

I/O rich MachXO3 to control many signals, non-volatile for quick boot-up



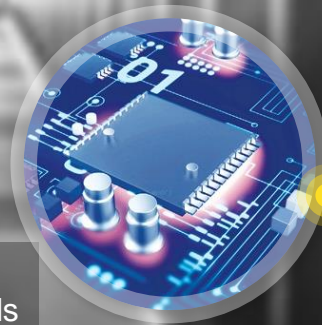
COMPUTE ACCELERATION

High DRAM bandwidth in limited thermal footprint with ECP5 based acceleration cards



POWER SEQUENCING

Platform Manager integrates multiple chips to save costs



Lattice Solves Industrial Challenges

MOTOR CONTROL

Scalable PWM control and current loop processing with ECP5, LatticeXP2, & MachXO3



SENSOR BRIDGING

Sensor bridging in Industrial IoT with MachXO3, iCE40 UltraPlus and CrossLink



SECURE PLC CONTROL

System firmware protection in PLCs with a Root-of-Trust FPGA



COLLISION AVOIDANCE

ECP5 based low power collision avoidance for autonomous robots



MACHINE VISION

Lattice sensAI based machine vision for defects detection

Lattice Solves Automotive Challenges

FUNCTIONAL SAFETY

```
...MIRROR...
...mod_use_x = False
...mod_use_y = True
...rpr_mod_use_x = False
...operation = "MIRROR_Z"
...error_mod_use_x = False
...error_mod_use_y = False
...error_mod_use_z = True

...selection at the end - add
..._ob.select= 1
..._ob.select= 1
...select_scene.objects.active
...selected = airModifire
..._air_ob.select = 0
...bpy.context.selected_objects
...data.objects[one.name].select
...print("please select exactly")

...OPERATOR CLASSES ...
..._operator):
```

ISO26262 certified Diamond development tools and IP for functional safety

INFOTAINMENT DISPLAY BRIDGING

Embedded DisplayPort and HDMI display bridging with ECP5 and HDMI ASSPs

360° SURROUND VIEW

ECP5 based low power image stitching and fish eye correction

ADAS SENSOR BRIDGING

CrossLink and ECP5 based radar, LiDAR and image sensor bridging

Lattice Solves Portable Challenges

SMART SPEAKERS

Microphone bridging and aggregation using small form factor iCE40 FPGAs



HOME SECURITY SURVEILLANCE

Low power human presence detection with sensAI stack



AV / VR DRONES

Multi-sensor bridging with iCE40 and CrossLink FPGAs



VIDEO CONFERENCING

ECP5 based human counting for smart video conferencing



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FINANCIALS

Financial Highlights

P&L (\$M)

Non-GAAP	1Q18	2Q18	3Q18	4Q18	FY18	1Q19
Revenue	\$98.6	\$102.7	\$101.5	\$96.0	\$398.8	\$98.1
GM	58%	57%	57%	57%	57%	59%
R&D	21.7	20.2	18.2	17.9	\$78.1	18.5
SG&A	23.7	19.7	20.2	19.1	\$82.7	18.4
Net Income	\$6.1	\$12.4	\$13.8	\$11.1	\$43.4	\$14.6

2Q19 Business Outlook

\$98-102

57.5-59.5%

\$37-38

Balance Sheet (\$M)

	1Q18	2Q18	3Q18	4Q18	1Q19
Cash & short-term investments	\$111.5	\$105.8	\$117.5	\$128.7	\$130.4
Total long-term debt	300.8	290.2	275.1	\$259.6	\$233.5

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