

Positioned in Growing Markets

COMMUNICATIONS



5G Wireless
Switches/Routers

COMPUTING



Servers
Client

INDUSTRIAL



Industrial IoT
Factory Automation

AUTOMOTIVE



ADAS
Infotainment

CONSUMER



Smart Home
On-the-Go

Leading the Industry in Low Power Programmability

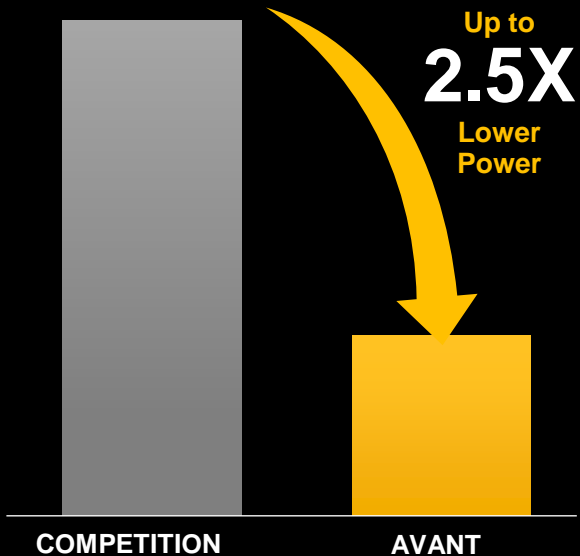
MID-RANGE FPGA PLATFORM LEADERSHIP

Architected for applications requiring
up to 25G high-speed connectivity
and to over 600k SLCs



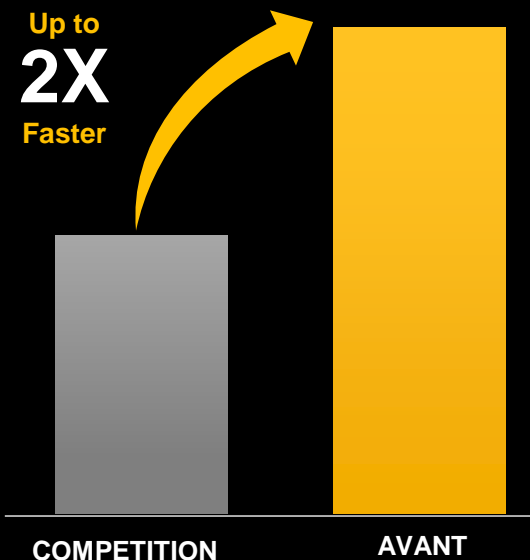
LOWER POWER

Operating Power Consumption



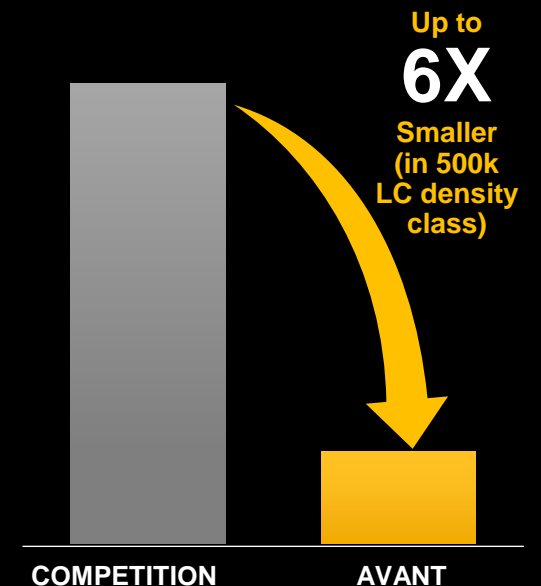
FASTER PERFORMANCE

Serial Bandwidth



SMALLER SIZE

Package Size



Avant Product Portfolio

LATTICE
SEMICONDUCTOR

AVANT™ - E

Edge Applications

- Fast external memory interface - DDR4, LPDDR4
- Fast and flexible IO: 1.8 Gbps MIPI D-PHY, 1.6 Gbps LVDS, 3.3 V support
- Bitstream security encryption, SRAM CRC Error Detection

LATTICE
SEMICONDUCTOR

AVANT™ - G

General Purpose

- Avant E Plus
- High-speed connectivity - 12.5 Gbps SERDES (PCIe 3.0 & 10GE)

LATTICE
SEMICONDUCTOR

AVANT™ - X

Advanced
Connectivity

- Avant-G Plus
- Fast external memory interface - DDR5
- High-speed connectivity 25 Gbps SERDES (PCIe 4.0 & 25GE)
- Advanced security (bitstream + user security)

Lattice Software Solutions



LATTICE
RADIANT™
DESIGN SOFTWARE

LATTICE
PROPEL™

LATTICE SOFTWARE SOLUTIONS
REDUCES TIME-TO-MARKET

Avant Opportunities



- Industrial Thermal Camera
 - Lower power / small form factor



- Small Satellite Payment System
 - Lower power / small form factor



- SW Defined Defense Radio
 - Lower power / small form factor



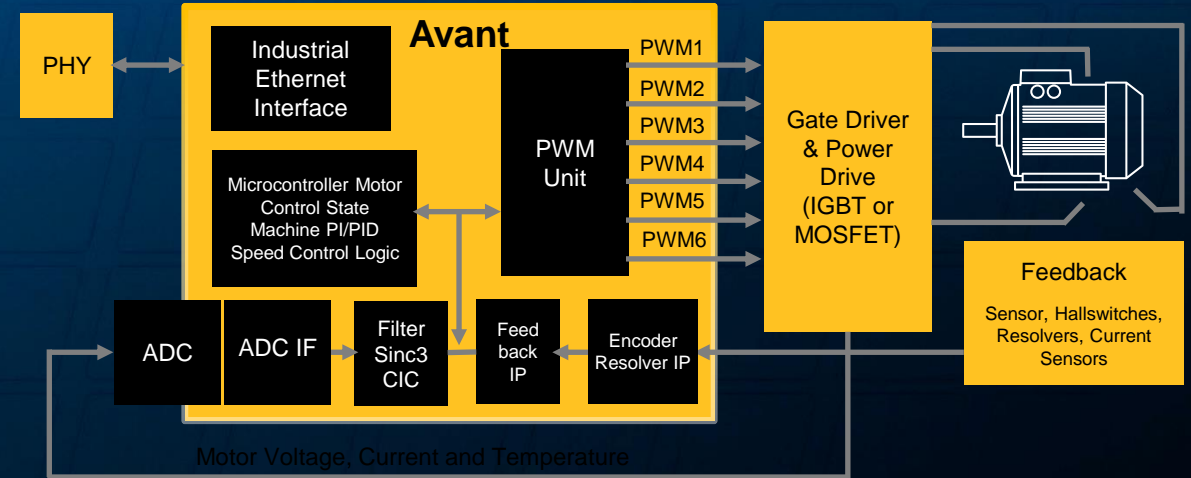
- Currency ID / Counter
 - Low Power



- Flight Controls
 - Lower power

Avant Opportunities

SCALABLE MULTI-AXIS MOTOR CONTROL

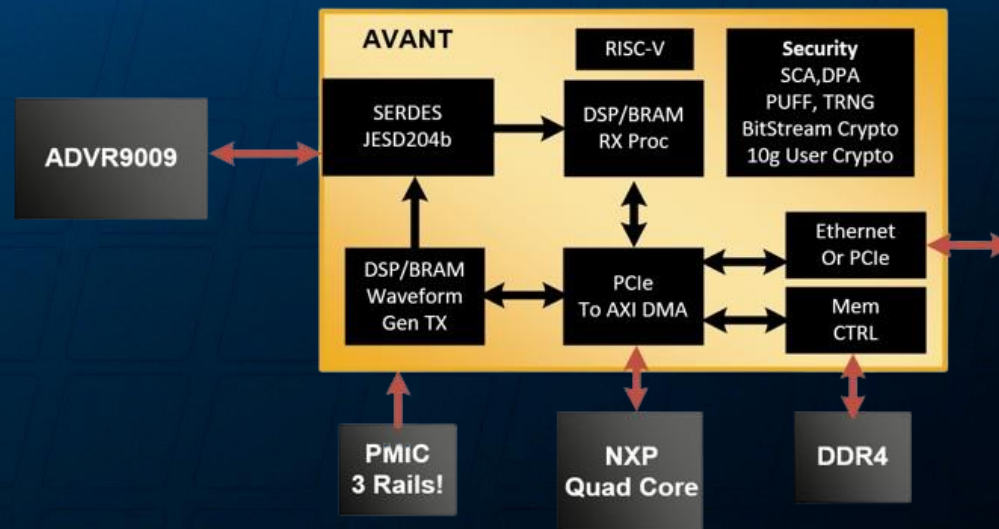


LATTICE AVANT BENEFITS AND FEATURES

- Scalable to support different motors
- Efficient feedback control with accurate positioning, precision, efficiency & deterministic control
- Ability to sense speed, position, and movement
- Available reference design:
 - Multi-channel Brushless DC (BLDC) motor control
 - GUI-based control/monitoring
 - Propel-based SW/HW subsystem

Avant Opportunities

SOFTWARE DEFINED RADIO (SDR)



LATTICE AVANT BENEFITS AND FEATURES

- Low power & ultra small form factor architecture eliminates thermal challenges
- Highly programmable & reconfigurable to optimized system design
- High number of DSP and memory blocks for high performance signal processing
- Support high speed interfaces with direct memory access for low latency data transfer

Avant-G/X Opportunities



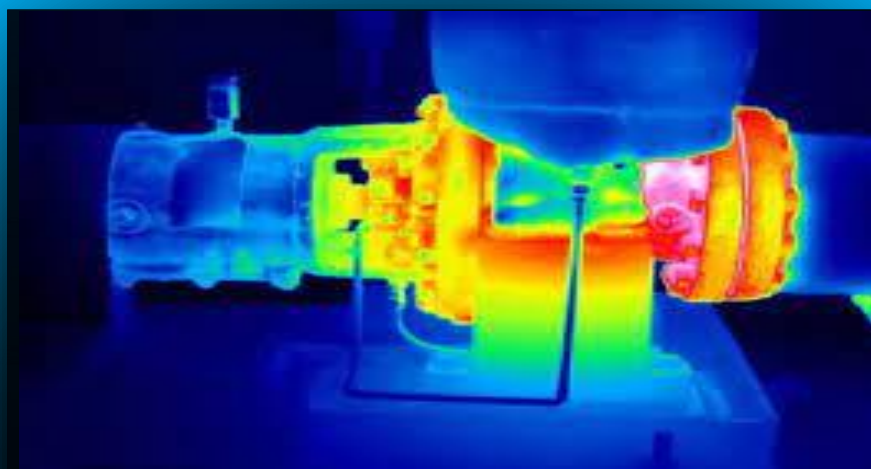
Jet Engine Controller

Requirements

- Design Assurance Level A (DAL A) Safety certified avionics
- High altitude operations
- Product longevity

Lattice Proposition

- Fast boot & advanced security
- Functional Safety DO254 DAL certified
- Low power
- Long-term product longevity



Industrial Thermal Camera

Requirements

- Small footprint
- Low power
- Processor security
- MIPI connectivity

Lattice Proposition

- Small package size
- Lowest power
- RISC-V & MIPI IPs
- Advanced security

More Resources Available

[Sales Resources](#)

- Sales Toolbox – Presentations by marketing team for customers
- Channel Partners – Resources for Distribution Channel

[Lattice Insights On-demand Trainings](#)

- Lattice Avant Platform Overview (19 Min)
- Avant Introduction (52 Min)
- Developing with Radiant: Fundamentals (2Hrs 41 Min)
- Developing with Propel: Fundamentals (1Hr 12 Mins)



[Lattice Avant-E](#)

- Reference Design
- Example Use Cases
- Documentation

[Lattice Avant-G](#)

- Reference Design
- Example Use Cases
- Documentation

[Lattice Avant-X](#)

- Reference Design
- Example Use Cases
- Documentation

A close-up, high-angle shot of a Lattice Avant semiconductor chip. The chip is a dark, square component with a textured surface, resting on a complex, dark-colored printed circuit board (PCB). The PCB is covered in intricate, glowing golden-brown circuit traces and pads. The chip itself has the 'LATTICE SEMICONDUCTOR' logo in white and the word 'AVANT' in large, bold, yellow letters. The lighting is dramatic, highlighting the edges of the chip and the glowing traces on the board.

LATTICE
SEMICONDUCTOR
AVANT™



Lower Power



Smaller Size



Faster Performance

MID-RANGE FPGA PLATFORM LEADERSHIP