

# LDS6708

## 6U OpenVPX Intel-based single board computer with BuiltSECURE technologies

Secure processing for mission critical applications at the edge

- Balanced processing capability with minimal power consumption
- Robust data confidentiality/integrity hardware protections
- Optimized for size, weight, power and cooling for versatility
- Key building block for developing C4ISR processing systems



**Secure processing turns the unintelligible into uncompromised insight** Mercury’s SWaP-optimized OpenVPX single board computer provides C4I edge applications the on-platform security and processing capability needed to transform multifaceted data into actionable intel, while protecting key algorithms from bad actors.

The LDS6708 delivers best-in-class physical security protections and the reliability of Intel® Xeon E or Core i3/i5/i7 processing performance. Protected by proven Gen 4 BuiltSECURE™ system security engineering (SSE) IP that is **built-in, not bolted on**, it delivers secure processing performance that protects sensitive algorithms and data – even if the platform is compromised.

Maintain system-wide integrity with BuiltSECURE technologies deployed on over four generations of Intel microarchitectures. OpenVPX modules with BuiltSECURE can be configured with a variety of nation-state-level security features that mitigate reverse engineering. A hardware-based Root of Trust and cyber-resilient BIOS mitigate reduce security threats by reducing attack surfaces and minimizing boot devices. Built-in interfaces allow OpenVPX modules to participate in platform-wide security architectures. System security features enable customer Foreign Military Sales (FMS) or Direct Commercial Sales (DCS) program success. Detailed security capability offerings can be requested.

### EDGE APPLICATIONS

- C4ISR
- Electronic Warfare
- EO/IR
- Image Processing
- Radar Processing
- Sensor Fusion
- Signals Intelligence

[CONTACT US](#)

**BuiltSECURE™**

**TECHNICAL SPECIFICATIONS**

**Processor (default)**

Intel® Xeon® E-2276ME 6-core 2.8 GHz processor (Coffee Lake) with AVX2 and on-die Intel UHD GPU (other options available)

**BuiltSECURE Embedded Framework**

FPGA complex to support secure boot and application load options

**Memory**

32 GB DDR4 SDRAM with ECC

**Fabric Interfaces**

x8 Gen3 PCIe routed to P2 expansion plane

10GbE on P1 data plane (optional)

**System Management**

Via IPMC mgmt and data planes links on P0/P1

**I/O**

- 2x 10GBASE-KR or 1000BASE-BX
- 1x 1000BASE-BX to FPGA complex
- 2x 1000BASE-T
- 2x TIA-232/422/485 serial ports\*
- 2x TIA-232 serial ports\*
- 6x USB 3.0 and 4x USB 2.0 ports\*
- 5x SATA ports\*
- 1x DisplayPort
- Multiple LVTTTL GPIO

**Mechanical**

- 6U OpenVPX, 1.0" slot pitch
- VITA 65/48/46 compliant
- SOSA aligned

**Options**

[MOTS/MOTS+ rugged packaging](#)

VITA 48 cooling options: AC (48.1), CC (48.2), AFB (48.7), LFT (48.4)

**Mercury's Processing Ecosystem**

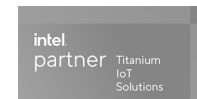
To build a secure, C4ISR processing subsystem, combine:

- 1x LDS6708 (single board computer)
- 1x SFM6126 (network switch) configured with 2x IOM-400 (I/O interface)
- 1x SMA-301 (system management)
- 2x SCM6010 (storage)
- 1x ruggedized chassis

Or, choose from our broad portfolio of interoperable hardware and software building blocks to design your own edge-ready [processing subsystem](#)

\*depends on mechanical configuration

**Partnering with**

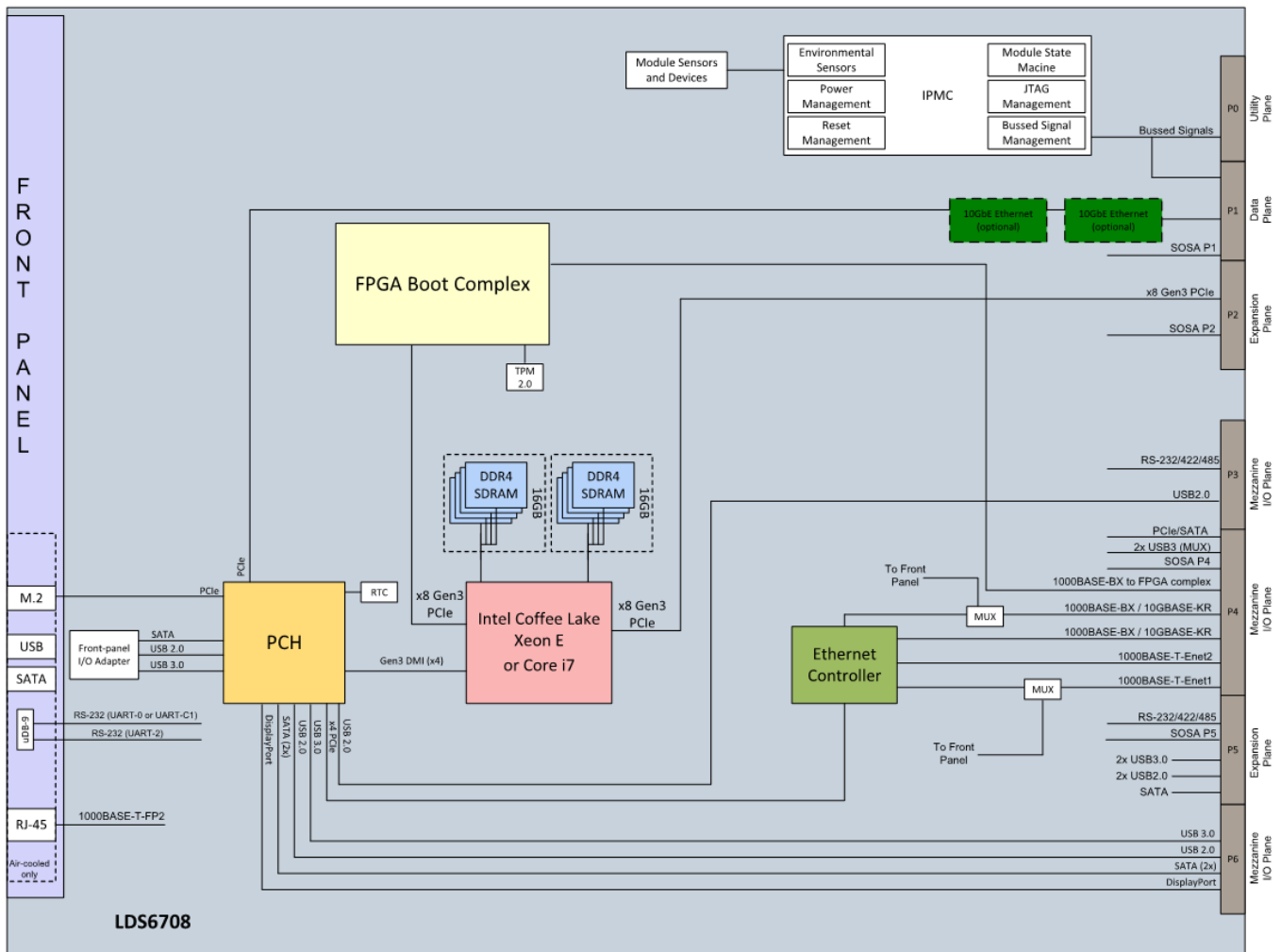


## What is Secure Processing?

Mission-critical systems at the core of aerospace and defense applications are subject to the same security vulnerabilities found in other industries. However, the consequences of a security breach can be far worse. FPGA-based cryptography, root of security, secure boot, sensors, fingerprinting and physical protections against system infiltration are just a few ways we protect mission-critical systems.



LDS6708 functional block diagram



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