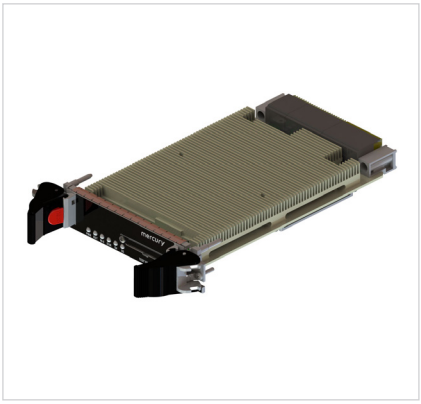
LDS3507

3U OpenVPX CMOSS/SOSA-aligned single board computer

Reliable processing for tight SWaP, high bandwidth applications

- Aligned to the CMOSS, SOSA, VICTORY, MORA standards and initiatives
- Combines Intel Xeon D CPU and Xilinx UltraScale+ ZU19 FPGA capabilities
- Ideal for SWaP constrained applications
- Key building block in radar, EW, mission processing systems



Increase multi-domain operation capabilities, while maintaining tight SWaP budgets. The dense combination of high performance CPU and FPGA processing technologies provides a highly versatile multifunction processing building block for radar, electronic warfare, and mission applications with tight SWaP requirements.

Aligned to the CMOSS/SOSA standard, the 3U OpenVPX LDS3507 allows rapid hardware and software modification of tactical vehicle systems to support mission objectives and meet emerging threats. Encase with MOTS+ extreme environmental protection, the LDS3507 provides reliable processing in the most inhospitable environments.

System Management Plane

Each EnsembleSeries LDS3507 implements the advanced system management functionality architected in the OpenVPX standard to enable remote monitoring, alarm management, and hardware revision and health status. Using the standard I2C bus and IPMI protocol, the on-board system management block implements the Intelligent Platform Management Controller (IPMC), in accordance with the VITA 46.11 standard. This allows the EnsembleSeries LDS3507 blade to:

- Read sensor values
- Read and write sensor thresholds, allowing an application to react to thermal, voltage, or current variations that exceed those thresholds
- Reset the entire blade
- Power up/down the entire blade
- Retrieve Field Replaceable Unit (FRU) information
- Be managed remotely by a chassis management controller at the system level

CONTACT US

TECHNICAL SPECIFICATIONS

Processor

Intel® Xeon® D CPU 12-core @ 1.5 GHz, 45W TDP

Xilinx® Zynq® Ultrascale+™ ZU19 quad core SoC FPGA

Memory

2x 8 GB DDR4 stacked (16 GB total), ECC

Fabric Interfaces

40 GbE Data Plane

2x 1/10 GbE Control Plane

Up to x8 PCIe3 Expansion Plane

I/O

1x SATA Gen2 port

1x USB2 port

1x RS232 UART

System Management

SmartFusion2; VITA 46.11 IMPC on P0/P1 with redundant IPMB backplane

Mechanical

3U OpenVPX 1.0" slot pitch

ANSI/VITA 65/48/46 compliant

Slot Profile: SLT3x-PAY-1F1U1S1S1U1U2F1H-14.6.11-4

Module Profile: MOD3p-PAY-1F1U1S1S1U1U2F1H-16.6.11-9

Cooling

Air Flow-Through (48.8 REDI)
For other cooling technologies, see our Environmental Protections for Operation at the Tactical Edge technology brief

Software/Firmware

LSP RedHat 7.7

VICTORY/MORA Diagnostics

Firmware Development Kit

Standards/Initiatives

CMOSS/SOSA

VICTORY/MORA

EDGE APPLICATIONS

C4ISR

Electronic Warfare

EO/IR

Image Processing

Radar Processing

Sensor Fusion

Signals Intelligence

Partnering with

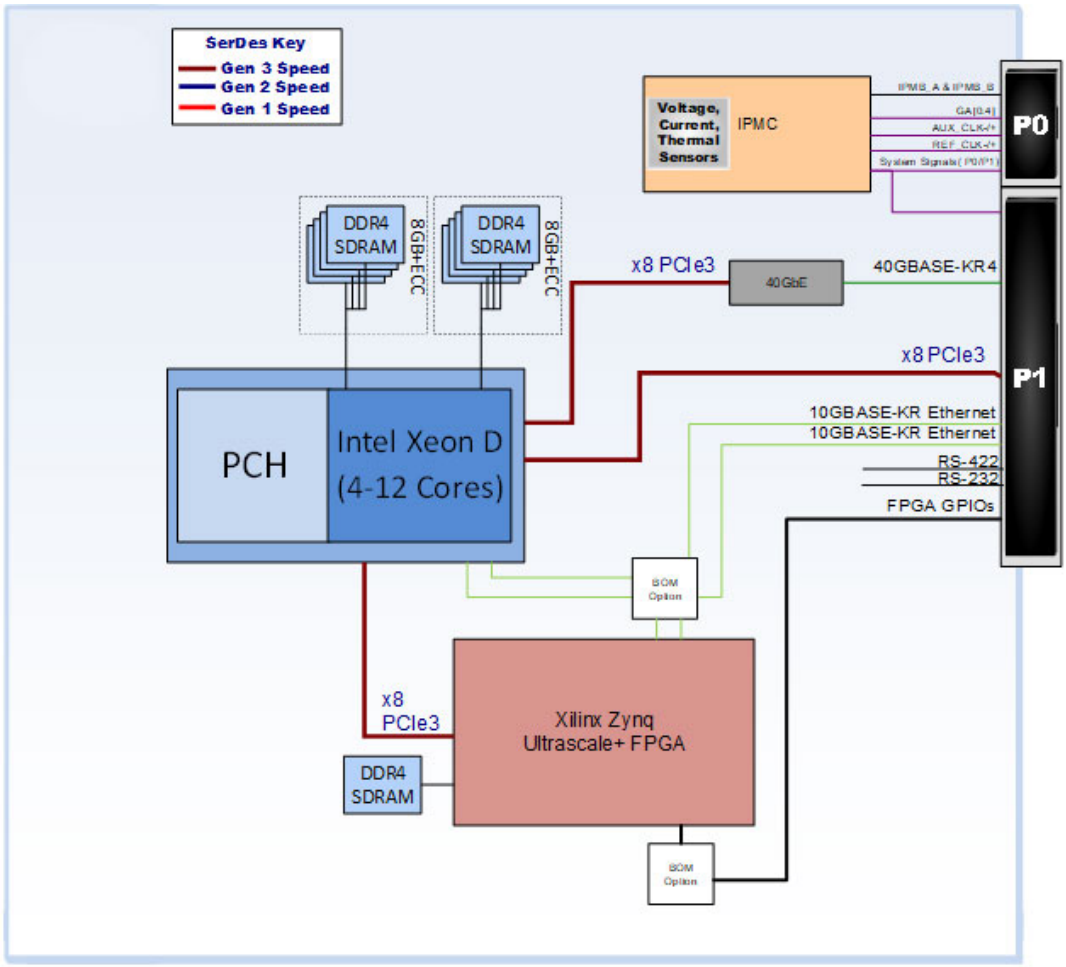
intel partner Titanium IoT Solutions

What are CMOSS and SOSA?

The C4ISR/Electronic Warfare Modular Open Suite of Standards (CMOSS) is a modular open systems architecture (MOSA). It defines open interfaces that allow sensors, processors and displays to be shared among systems, reducing the size, weight, power and cost (SWaP-C) challenges associated with vehicle-based mission command and radio technologies. The Open Group® Sensor Open Systems Architecture (SOSA™) is a standard that transitions sensor systems to an open architecture to facilitate interoperability, reuse and rapid technology insertion for faster response to emerging threats.

SOSA™
Sensor Open Systems Architecture

Functional block diagram



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