mercury

Rugged Multifunction Processing

SWaP-optimized OpenVPX, high performance processing with BuiltSECURE

Secure, actionable information when you need it, where you need it

Mercury's environmentally protected OpenVPX boards provide smart, autonomous applications the on-platform multifunction processing capability and security needed to solve the most complex data problems in the most inhospitable environments.

Our 6U OpenVPX modules feature the same Intel® Xeon® Scalable processors that power modern data centers and the proven BuiltSECURE™ security framework – built-in not bolted on – to deliver secure, high performance processing anywhere. These rugged multifunction processing modules are the key building blocks for developing software-agnostic embedded AI-capable processing systems that function at the tactical edge. Based on an interoperable, flexible open architecture design approach, the modules enable rapid modernization for competitive advantage and long, program life sustainment.

Highlights

- Manages big data workloads in physical and environmentally challenged platforms

- Provides on-platform data confidentiality/integrity hardware protections even if the platform is compromised

- Delivers SWaP-optimization and advanced ruggedization the highest possible performance with the highest MTBF for consistent and efficient operation – anywhere

Compared to Xeon D-based 6U OpenVPX boards, Xeon-SP based boards deliver:

150%	22%	11	3×	4×
more memory bandwidth	improved power efficiency	additional years of lifecycle support	more memory	DMIPS

Featured Product HDS6705

HDS6705 highly optimized, rugged, 6U OpenVPX board brings secure, data center processing capability to the tactical edge
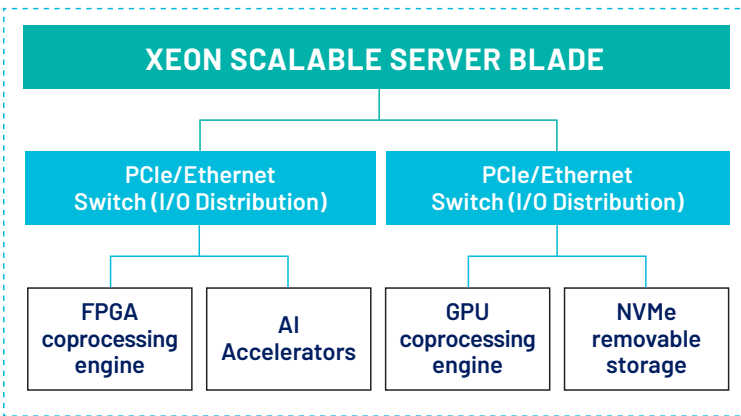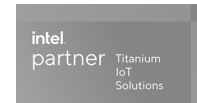

Innovation That Matters®

EDGE APPLICATIONS

Artificial intelligence

Big data analytics

C4ISR

EO/IR

Image processing

Radar processing

Sensor fusion

Signals intelligence

FEATURES

Intel® Xeon® SP (Scalable Processor) Architecture

BuiltSECURE® system security engineering (SSE) with FPGA complex to support secure boot and application load options. Also available without built-in security features

6U OpenVPX form factor

Up to 192 GB DDR4 SDRAM per module

Up to 100 Gb/s Ethernet high speed switch fabrics

Optional MOTS+ rugged packaging for extreme environmental protection

Optional SOSA-aligned profile

Open software environment

System management (out-of-band) for remote monitoring, alarm management, and hardware revision and health status

Designed, manufactured, coded and tested in trusted DMEA-accredited facilities

Partnering with

intel partner Titanium IoT Solutions

XEON SCALABLE SERVER BLADE

PCIe/Ethernet Switch (I/O Distribution)

PCIe/Ethernet Switch (I/O Distribution)

FPGA coprocessing engine

AI Accelerators

GPU coprocessing engine

NVMe removable storage

MERCURY'S PROCESSING ECOSYSTEM

From an extensive portfolio of processor, coprocessor, network switches, I/O, storage, and ruggedized chassis, we build the most powerful open system architecture-based subsystems available for embedded processing applications operating at the tactical edge.

Learn more about our edge-ready subsystems, visit: mrcy.com/embedded-subsystems

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Learn more
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