

# VPX7664

## 3U VPX Fourth Generation Intel Core i7 Single Board Computer

### Powerful, Flexible

### Fourth Generation Core i7

The Orion VPX7664 Single Board Computer (SBC) is the industry's most flexible, rugged, high-performance Multi-Core SBC in today's embedded marketplace, our anti-tamper options make it ideal for military applications.

By incorporating the power of the Intel® Fourth Generation Core™ i7 and the unparalleled complement of I/O via the customer configurable "Personality Modules", it can be adapted to practically any Military, Industrial or Commercial application.

Available in 5 levels of ruggedization, from commercial temperature air-cooled (0.8" pitch) to extended temperature REDI (Vita 48.2, 1" pitch).

With three Open VPX 4-lane PCI express v3.0 fabric ports and an 8-lane PCI express v3.0 XMC/PMC slot, the VPX7664 design has streamlined high-speed board-to-board communication.

The VPX7664's two 10GbE Base-T ports, 2 serial ports, two USB 3.0 and three USB 2.0, 8 general purpose I/O and XMC P16 I/O are all accessible through VPX connectors P1 and P2.

### Features

- Multi-Core 4th Generation Intel® Core™ i7
- QM87PCH Chipset
- 32KB L1 data and instruction caches per Core
- 256KB internal L2 Cache per Core
- Up to 8MB shared data and instruction L3 Cache
- Extended temperature & rugged REDI (Vita 48.2)
- On-board temperature monitoring
- Up to 16GB of soldered DDR3 SDRAM with ECC
- Up to 16GB of on-board NAND Flash
- Trusted Platform Module
- One 8-lane PCIe 3.0 XMC slot (Vita 42.3)
- Three 4-lane PCIe v3.0 ports on VPX P1 (Vita 46.4)
- Two 10GbE Base-T ports (auto negotiate 10G/1G/100M)
- Four Serial ports, configurable
- Eight General purpose I/O, configurable
- Two USB 3.0 and Three USB 2.0
- Two SATA 6.0 Gb/s ports
- PCIe Switch to Open VPX Backplane
- XMC front panel & P16 Rear I/O
- Various Operating System Software Support
- Digital Video & Audio ports available
- Anti-Tamper circuitry available

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