



VPX3-1256

VPX Intel® Core™ i7 Quad-core Single Board Computer

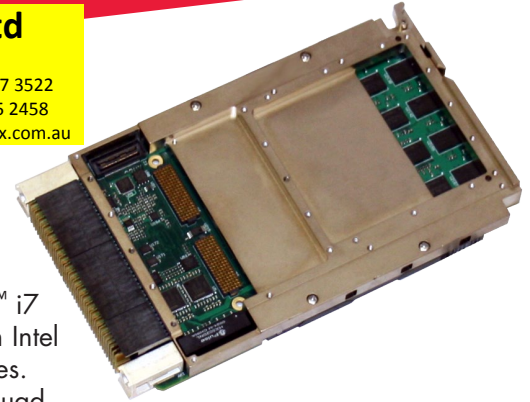
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- ◆ 3U VPX form factor
- ◆ Intel® Core™ i7 Processor
 - 2.1 GHz
 - Quad-core CPU
 - 6 MB L3 Cache
 - Intel Advanced Vector Extensions (AVX) floating-point
- ◆ Up to 16 GB DDR3 SDRAM
- ◆ 16 GB NAND flash drive
- ◆ TPM support
- ◆ Intel VT-d & TXT support
- ◆ XMC site
- ◆ Intel Graphics: (2) DVI
- ◆ Additional I/O:
 - (2) Gigabit Ethernet
 - (1) AC97 Stereo Audio port
 - (2) RS-232
 - (2) RS-422
 - (4) GPIO
 - (4) USB
 - (4) SATA
- ◆ Backplane fabric:
 - (2) 4x Serial RapidIO® (sRIO)
 - (2) 4x PCI Express® (PCIe) Gen2
- ◆ Ruggedized air-cooled and conduction-cooled
 - Windows® XPe, Linux®, VxWork®

The VPX3-1256 from Curtiss-Wright Controls Embedded Computing supports the Intel® Core™ i7 quad-core processor with Intel AVX floating-point libraries.

Utilizing this advanced quad-core CPU and Curtiss-Wright's proven ruggedization technology, the VPX3-1256 is designed for high-performance operation in harsh environments. With a 21 GB/s (peak) DDR3 memory subsystem connected directly to the processor, the Intel Core i7 is able to maximize the throughput of the Intel AVX floating-point units. The Intel Core i7 is also equipped with more cache than any previous CPU allowing it to process larger vectors at peak rates than previous processor technologies. Supplying 16 GB of flash and up to 16 GB of SDRAM, the VPX3-1256 is ideal for handling applications with demanding storage, data logging and sensor processing needs.

The VPX3-1256 features high-bandwidth fabric to the backplane including sRIO or PCIe Gen2 to the P1 connector. This provides high-bandwidth connectivity between the VPX3-1256 and additional boards in a computing environment. The VPX3-1256 is supported with an extensive suite of industry-preferred software such as VxWorks, Linux, and Windows XPe.

The VPX3-1256 SBC complies with the new open-architecture VITA 46 standard. VITA 46, also known as "VPX" was collaboratively developed by COTS industry leaders which included prime military integrators to provide hardware that supports high-speed interconnects such as PCIe.



Learn More

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Features

- ◆ 3U VPX form factor
- ◆ Intel Core i7 Quad-core processor
 - 2.1 GHz
 - 6 MB L3 cache
 - Intel Advanced Vector Extensions (AVX) floating-point
- ◆ Up to 16 GB DDR3 SDRAM
- ◆ 16 GB NAND flash drive
- ◆ TPM support
- ◆ Curtiss-Wright Trusted COTS enabled
- ◆ High-performance XMC site

I/O Interfaces

- ◆ (2) Gigabit Ethernet (SerDes option available)
- ◆ (1) AC97 stereo audio port
- ◆ (2) EIA-232
- ◆ (2) EIA-422
- ◆ (4) GPIO
- ◆ (4) USB
- ◆ (4) SATA
- ◆ (2) 4x sRIO
- ◆ (2) 4x PCIe Gen2

Figure 1: VPX3-1256 Block Diagram

