

6-slot system with integrated Single Board Computer **3U VPX System**

Description

The VPX360 is a 3U VPX 6-slot system dedicated to high-speed signal processing and computing applications. The VPX360 system slot is populated with an SBC comprising a dual core i7 Intel processor, up to 8GB of DDR3 SDRAM, two Ethernet ports, and a DVI Display Port. All remaining five expansion slots communicate with the host via PCIe and can be used for high-end, 3U, OpenVPX-compliant cards. With a backplane optimized for fast inter-slot communication in excess of 6 GB/s between any two adjacent slots in the system, the VPX360 offers a combination of flexibility and high performance in a small footprint.

Open VPX cards from third-party vendors or 3U VPX products from 4DSP can be used in the VPX360. Specifically, the VP780 with a Virtex-7 FPGA and an FMC site offers I/O versatility and processing power that makes it suitable for any application.



1x2 differential pairs Tx to RX and RX to TX
4x2 differential pairsTX to RX and RX to TX

12x1 differential pairs LVDS

openVPX) ::::FMC VITA

www.4dsp.com/VPX360

Features

System

- 3U OpenVPX embedded system
- High-speed inter-slot communication via independent links
- 4U
- Optionally ruggedized
- Compatible with 0.8-inch, 0.85-inch, and 1.0-inch modules
- Rear Transition Module support for additional storage or I/Os
- 300W Power Supply
- Five user-defined OpenVPX (VITA 65)compliant expansion slots
- PCIe communication from each slot with Single Board Computer
- Supports multiple VP780 Virtex-7 FPGA boards

Single Board Computer-System controller

- Dual Core i7 CPU
- Supports Windows, Linux or VxWorks
- Up to 8GB DDR3-1333 SDRAM
- 2x Gigabit Ethernet ports
- 2x SATA300 ports
- 512 GB HDD
- DVI-D Display port

Backplane

- Slot 6 with 4-lane Gen 2 PCle connected to SBC
- Slot 2-5 with 1-lane Gen 2 PCle connected to SBC
- 6GB/s fast pipe between any two adjacent slots (except slot 1)

rev-1.6



Ordering information

Build your part number online on the product page http://www.4dsp.com/part_num/vpx360.html



	Air-cooled	Conduction-cooled
Operating temperature	0C to +55C	-40C to +70C
Storage temperature	-40C to +85C	-50C to +100C
Humidity	95%	95%
Operating vibration	5Hz to 100Hz PSD = 0.04g2/Hz	5Hz to 100Hz PSD = 0.04g2/Hz
	100Hz to 1000Hz PSD = 0.04 gs^2/Hz	100 Hz to 1000 Hz PSD = 0.04 gs^2/Hz
	1000Hz to 2000Hz PSD decreasing at 6 dB/ octave	1000 Hz to 2000Hz PSD decreasing at 6 dB/ octave
Operating shock	20g, 11 millisecond, half-sine or 20g, 11 millisecond, terminal sawtooth shock pulses in all three axes	20g, 11 millisecond, half-sine or 20g, 11 millisecond, terminal sawtooth shock pulses in all three axes
Operating altitude	-1500 ft to 60,000 ft (with airflow)	-1500 ft to 60,000 ft (with airflow)
Conformal coating	Optional	Optional

Talk to us about your algorithmic requirements, 4DSP is a full-service firmware and software development house. We are a specialist at high performance FFT and Video Processing. Check with us, we may have IP Cores that meet requirements for your application, right off the shelf.

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