XPedite2300

End of Life

AMD (formerly Xilinx) Virtex-6 FPGA-Based Conduction- or Air-Cooled XMC Module

Please see XPedite2400

- AMD (formerly Xilinx) Virtex-6 FPGA LX130T, LX195T, LX240T, LX365T, SX315T, or SX475T
- Conduction- or air-cooled XMC module
- Up to 1 GB of DDR3 SDRAM in two channels
- Volatile and non-volatile FPGA configuration flash
- 80 MB of user NOR flash
- 180-pin, high-density daughter card header for expandable I/O
- 40-pin daughter card header for high speed serial
- Front and rear panel I/O support
- x8 PCI Express XMC interface
- Super cap backup for configuration bit stream encryption key (optional)
- I²C RTC with super cap backup
- Configuration via PCIe, flash, and JTAG with multi-boot support
- Linux BSP
- Wind River VxWorks BSP

XPedite2300

The XPedite2300 is a high-performance reconfigurable conduction- or air-cooled XMC module based on the AMD (formerly Xilinx) Virtex-6 family of FPGAs. With a x8 PCI Express interface, external memory, and high-density I/O, the XPedite2300 is ideal for customizable, high-bandwidth, data-processing applications.

The XPedite2300's DDR3 SDRAM and flexible I/O routing makes it perfect for high-speed, bandwidth-intensive applications. The card provides numerous I/O capabilities through its 180- and 40-pin daughter card headers which provide access to single-ended and differential I/O and configurable GTX transceivers. X-ES offers daughter card modules for high-performance A/D, D/A, high-density I/O, and custom I/O solutions.

X-ES
Extreme Engineering Solutions

"Fast, Flexible, Customer-Focused Embedded Solutions"

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FPGA

- AMD (formerly Xilinx) LXT or SXT Virtex-6 for high performance logic and DSP applications

Memory

- Up to 1 GB of DDR3 SDRAM in two channels
- 80 MB user NOR flash
- 384 MB FPGA configuration flash
- 128 MB volatile configuration PSRAM

XMC Interface

- x8 PCI Express port
- Program FPGA and configuration flash via PCIe
- Four GPIO via I²C expander

P14 User I/O

- 44 FPGA LVTTL/LVDS user I/O

P16 I/O

- Four GPIO via I²C expander
- x4 GTX transceivers

Front I/O

- Up to 150 LVTTL/LVDS and x8 GTX transceivers

Software

- Linux BSP
- Wind River VxWorks BSP
- Reference designs in VHDL

Physical Characteristics

- XMC conduction- or air-cooled form factor
- Dimensions: 149 mm x 74 mm, 10 mm stacking height
- 12 mm stacking height option

Environmental Requirements

Contact factory for appropriate board configuration based on environmental requirements.

- Supported ruggedization levels (see chart below): 1, 3, 5
- Conformal coating available as an ordering option

Power Requirements

- Power will vary based on configuration and usage. Please consult factory.

Ruggedization Level	Level 1	Level 3	Level 5
Cooling Method	Standard Air-Cooled	Rugged Air-Cooled	Conduction-Cooled
Operating Temperature	0 to +55°C ambient †	-40 to +70°C ambient †	-40 to +85°C (board rail surface)
Storage Temperature	-40 to +85°C ambient	-55 to +105°C ambient	-55 to +105°C (maximum)
Vibration	0.002 g²/Hz (maximum), 5 to 2000 Hz	0.04 g²/Hz (maximum), 5 to 2000 Hz	0.1 g²/Hz (maximum), 5 to 2000 Hz
Shock	20 g, 11 ms sawtooth	30 g, 11 ms sawtooth	40 g, 11 ms sawtooth
Humidity	Up to 95% non-condensing	Up to 95% non-condensing	Up to 95% non-condensing

† Contact factory for airflow rate details.