



Applications

- High Performance Computing
- Data Center
- Network Accelerator
- High Performance Computing (HPC)
- Data Processing
- System Modeling
- Market Analysis

Summary

The ADM-PCIE-7V3 is a high performance reconfigurable Half-Length, low profile x8 PCIe form factor board based on the Xilinx Virtex-7 range of Platform FPGAs.

The ADM-PCIE-7V3 features two independent channels of DDR3 memory capable of 1333MT/s (fitted with two 8GB SODIMMs), high speed I/O, SATA connections, dual SFP+ ports supporting 10G Ethernet, voltage/temperature/current control and monitoring, air-cooled heat sink with removable fan. Please contact Alpha Data Sales for no-fan ordering option.

Target Device

Xilinx Virtex-7: XC7VX690T-2 (FFG1157C)

FPGA Specification

LUTs = 693k
FFs = 886k
DSPs = 3600
BRAM = 52.9Mb

3x Gen3 PCI Express cores

Application Data Memory

2x ECC-SODIMMs 1G x 72 (8GB) DDR3-1333

FPGA Configuration Memory

BPI 1GBit Flash Memory
Configured as 4 x 256Mbit zones

FPGA Configuration Modes

From onboard Flash
Over JTAG

Deliverables

ADM-PCIE-7V3 Board
One Year Warranty
One Year Technical Support
Xilinx SDAccel DSA

Board Features

- 2x SFP+ Cages
- 2x SATA Interfaces

FPGA Features

- 3x Gen3 PCI Express cores

Host Interface

PCI Express Gen3 x8

Board Format

1/2 Length Low profile x8 PCIe form factor
WxHxD = 174.5mm x 68.9mm x 32.5mm
Weight = 120g

Communications Interfaces

2x SFP+ 1x14Gbps - User Configurable, includes 10G Ethernet

Other Interfaces

Dual SATA Interfaces (6Gbps)

Board Management

All power rails are sequenced and monitored by a TI Fusion IC. The TI Fusion controller monitors certain voltage readings, current readings, and Power OK signals to determine the state of the system. A PC can directly interact with the TI Fusion IC via the onboard PMBUS interface.

Design Frameworks Supported

CAPI 1.0 compliant - For Power8 systems

OpenPOWER Ready Criteria V1.0

CAPI Snap support package available

Xilinx SDAccel support package available - Device Support Archive (DSA)
v3.0 developed for Xilinx Vivado 2017.4**Environmental Specification****Temperature Ranges**

Operating Temperature Range : Operating Temperature 0°C to +55°C

Storage Temperature Range : -40°C to +85°C

Operating Humidity : Up to 95% (non-condensing)

EMC Standards

FCC 47CFR Part 2

EN55022 Equipment ClassB

Ordering Information**Order Code: ADM-PCIE-7V3(F)**

| Option | Code | Description of Options |
|------------|------|--|
| Fan Fitted | F | Blank = Fan Fitted, /NF = No Fan Fitted |

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