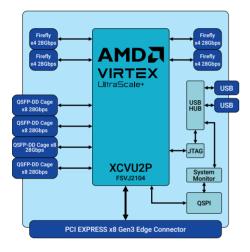
ALPHA DATA

AD01467





Applications

- Low Latency Trading
- In-Network Compute
- High-Frequency Trading
- High-speed Communications Hub

Summary

ADM-PCIE-9V8 Datasheet Revision: 1.0

27th September 2023

Board Features

- Highly optimised signal tracking for ultra low-latency QSFP-DD Communications
- 4x QSFP-DD Cages
- 4x Firefly Interface
- x8 Gen4 PCIE

The ADM-PCIE-9V8 is a Single-slot three quarter length, full height, PCI Express Add-In Card featuring the powerful and efficient AMD Virtex UltraScale Plus VU2P-3 FPGA.

Front IO with 4x QSFP-DD sockets, each supporting two 100GbE or eight 10/25GbE interfaces with highly optimized signal traces from the FPGA providing ultra low-latency communications.

8 lane PCIe Gen4 capable Interface.

System monitoring of temperature, voltage, and current giving users useful system status information and accurate feedback of power utilization for their designs.

Target Device

XCVU2P-3 (FSVJ2104)

LUTs = 787 FFs = 1722 DSPs = 1680

1x PCI Express x8 Gen4 core

Configuration Memory

QSPI 2GBit Flash Memory

Onboard Flash USB board management (built-in JTAG) Partial Reconfig (via MCAP) Over PCIE

Deliverables

ADM-PCIE-9V8 Board One Year Warranty One Year Technical Support

Host Interface

PCI Express Gen4 x8

Communications Interfaces

4x QSFP-DD 8x28Gbps - User Configurable, supports 10/25/40/100G Ethernet

4x Firefly 4x28Gbps - User Configurable, supports 10/25/40/100G Ethernet

Input/Output Interfaces

Other Interfaces

USB (front and rear sockets) board management (built-in JTAG)

Isolated PPS Timing Input

Board Management

The ADM-PCIE-9V8 houses a system monitoring chip which is able to provide real-time temperature, voltage and current readings of the system, as well as reconfigure programmable clocks and much more. The system monitor can be accessed directly through the USB interface via the front panel (or rear of board), the UART connection to the target FPGA or through the SMBus interface on the card's PCI Express edge connector. When enabled**, IPMI can also be used to communicate with the system monitor, allowing for remote communication and management with the ADM-PCIE-9V8.

** IPMI is disabled by default and should only be enabled when the board is installed in an IPMI compliant system. Please contact the factory for details on enabling IPMI on the ADM-PCIE-9V8.



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AMD Virtex UltraScale Plus

BRAM = 76Mb URAM = 180Mb

48x Ultra-Low Latency GTF transceivers

Configuration Modes



Support TBC

Board Format

Single Slot 3/4 Length, Full Height, x8 PCIe form Factor

Environmental Specification

Temperature Ranges

Operating Temperature Range : 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 Class A

Ordering Information

Order Code: ADM-PCIE-9V8

Note

Other options are available, please contact sales for details.



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