



## 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)

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

3x Gen3 PCI Express cores

## Application Data Memory

2x ECC-SODIMMs 1G x 72 (8GiB) 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

## Input/Output Interfaces

### 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.

**Support**

Reference Design Package available separately

**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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