
Summary:

The ADC-VXS is a high performance reconfigurable VXS Carrier Card based on the Xilinx® Virtex-5 range of Platform FPGAs. Features include high speed VXS interface, 2 PMC/XMC sites, 2 Virtex5 FPGAs, external memory, SFP or HSSDC2 Gigabit I/O, programmable clocks, temperature monitoring, battery backed encryption and flash boot facilities.

A comprehensive cross platform API with support for Microsoft Windows™, Linux and VxWorks™ provides access to the full functionality of these hardware features.

Features:
Special Functions:

Provides sites for 2 PMC boards as well as onboard FPGA sites.

Applications:

Military, Aerospace, High Performance Computing, Scientific/Instrumentation, Broadcast, Medical/Bioinformatics, Telecoms, Security

Target Device(s) :

Xilinx Virtex-5 - LX110T, LX155T, SX95T, FX70T, FX100T {FFG1136}

Memory:

SDRAM - 1GByte in 4 independent banks of DDR-II SDRAM (64M x 32-bits each) @ 333MHz

FLASH - 2 x 4MByte serial Flash

FLASH - Configuration Flash providing an initialisation design for automatic loading into the target FPGA.

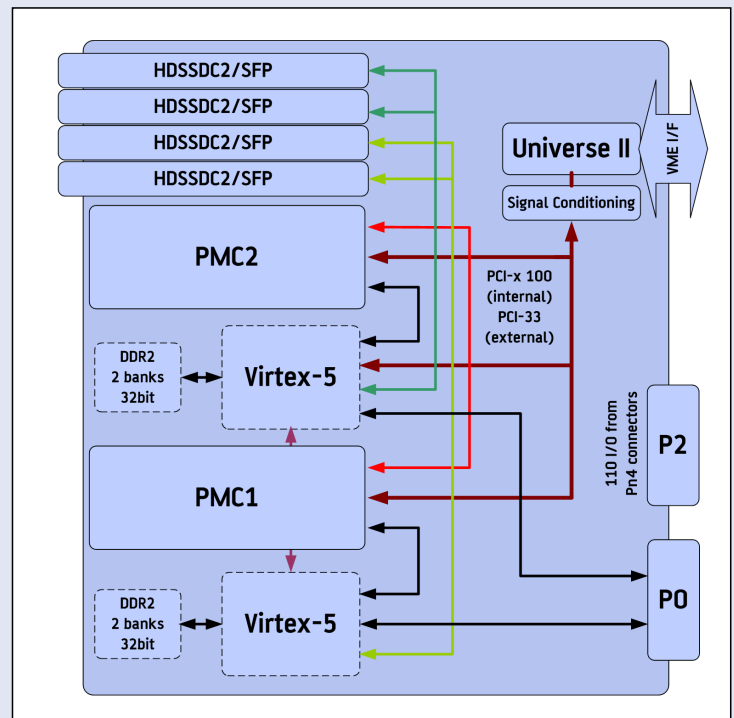
Front Connector I/O:

4 - x4 SFP modules or x4 HSSDC2 connectors

Rear Connector I/O:

110 I/O connections from Pn4 to VME P2 (VITA 35 compliant)

x8 Links to P0 connector. High speed switching to XMC sites or on board Virtex-5 devices.


Compatible FPGA Products

ADM-XRC-5T2-ADV
 ADM-XRC-5T-DA1
 ADM-XRC-5T2
 ADM-XRC-5T1

ADM-XRC-5LX
 ADM-XRC-4
 ADM-XRC-4FX

Specification

Product Name	ADC-VXS
Target Device	Xilinx Virtex-5 LX110T, LX155T, SX95T, FX70T, FX100T {FFG1136}
Host I/F	VXS, VME64
Interface	VXS (x8 PCIe® or SRIO), or VME64
Special Functions	Provides sites for 2 PMC boards as well as onboard FPGA sites.
Memory	SDRAM - 1GByte in 4 independent banks of DDR-II SDRAM (64M x 32-bits each) @ 333MHz FLASH - 2 x 4MByte serial Flash FLASH - Configuration Flash providing an initialisation design for automatic loading into the target FPGA.
Front I/O	4 - x4 SFP modules or x4 HSSDC2 connectors
Rear I/O	110 I/O connections from Pn4 to VME P2 (VITA 35 compliant) x8 Links to P0 connector. High speed switching to XMC sites or on board Virtex-5 devices.
Clocks	Local bus clock programmable up to 80MHz Low-jitter user clock, programmable up to 637.5MHz Additional 200MHz reference clock for IOB delay circuits.
Configuration	From Flash direct on power up External JTAG connector
Software	Drivers for Microsoft Windows™, Linux and VxWorks™ API with template designs in VHDL and Verilog
Battery	Dual battery back-up for IP encryption keys onboard
Environmental	Temperature: Air cooled option (ACO) Operating Temperature 0° to +55°C Non-Operating(Storage) Temperature -40° to +85°C Operating Humidity 5% to 95% at 40°C non-condensing Non-Operating(Storage) Humidity 5% to 95% at 40°C non-condensing EMC: FCC 47CFR Part 2 EN55022 Equipment Class B

Ordering Codes

ADC-VXS/z-y(n)(m)(x)

Virtex-5 device	z	LX110T, LX155T, SX95T, FX70T, FX100T
Virtex-5 Speed	y	1, 2, 3
Number of FPGAs	n	blank=None Fitted, /1=1 FPGA Fitted, /2=Both FPGAs Fitted
Memory Upgrade	m	blank=1GByte, /2=2GByte
Front I/O	x	blank=No I/O Fitted, /O=SFP(Optical), /C=HSSDC2(Copper)
Carrier Only	#	When ordered in "carrier only" build use ADC-VXS/x (Front I/O option only)