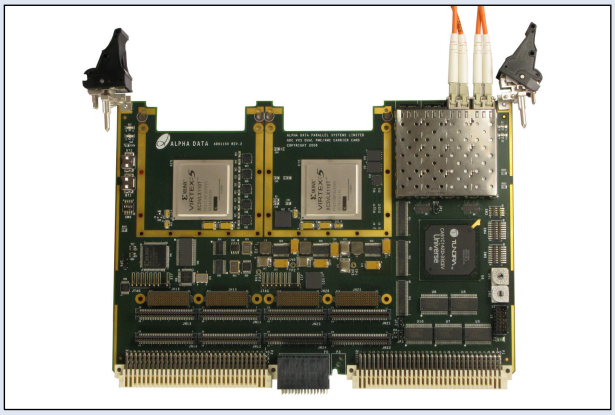
ADC-VXS

2nd April 2009 **Datasheet Revision: 1.0**



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

Applications:

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

Target Devices:

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.

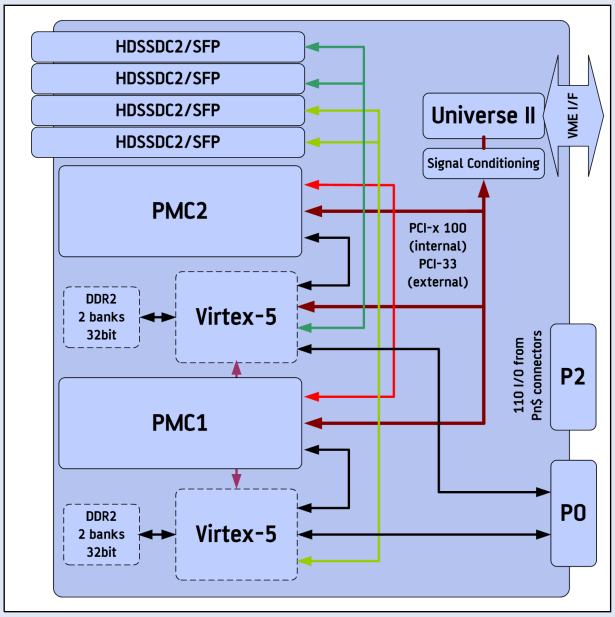
Front Connector I/O:

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.



ADC-VXS

Specification	
Product Name	ADC-VXS
Target Devices	Xilinx Virtex-5 - LX110T, LX155T, SX95T, FX70T, FX100T (FFG1136)
Host I/F	VXS, VME64
Interface	VXS (x8 PCIe or SRIO), or VME64
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.
Special Functions	Provides sites for 2 PMC boards as well as onboard FPGA sites.
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.
Device 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 (AC0)** Operating Temperature 0° to +55°C **Air cooled industrial option (AC1)** Operating Temperature -20° to +55°C **EMC:** FCC 47CFR Part 2 EN55022 Equipment Class B

Ordering Codes		
ADC-VXS/z-y(n)(m)(c)(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)
Cooling	c	blank = air cooled commercial, /AC1 = air cooled industrial
Carrier Only	#	When ordered in "carrier only" build use ~ADC-VXS/x~ (Front I/O option only)

Address: 4 West Silvermills Lane,
Edinburgh, EH3 5BD, UK
Telephone: +44 131 558 2600
Fax: +44 131 558 2700
email: sales@alpha-data.com
website: http://www.alpha-data.com

Address: 3507 Ringsby Court Suite 105,
Denver, CO 80216
Telephone: (303) 954 8768
Fax: (866) 820 9956 toll free
email: sales@alpha-data.com
website: http://www.alpha-data.com