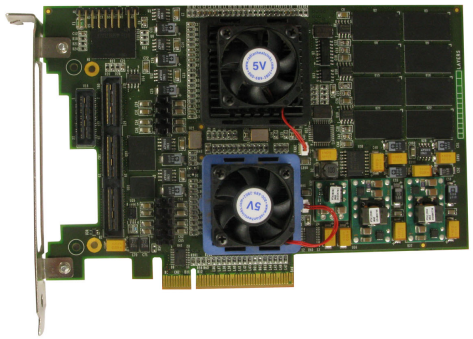
ADPe-XRC-4

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



Summary

The **ADPe-XRC-4** is a high performance reconfigurable PCI Express® card based on the Xilinx™ Virtex-4 FX range of Platform FPGAs. Features include high speed PCI Express® interface, external memory, high density I/O, programmable clocks, temperature monitoring, battery backed encryption (by using an appropriate XRM) 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

Target Devices:

Xilinx Virtex-4 - FX100, FX140 (FF1517)

Memory:

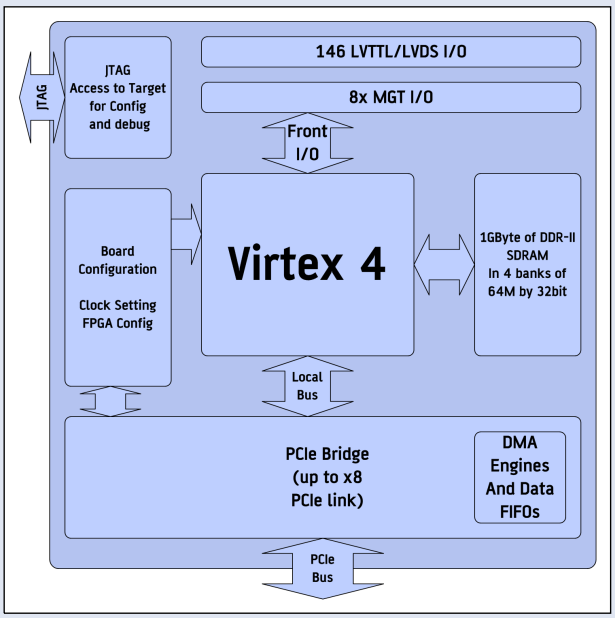
SDRAM - 1GByte in 4 independent banks

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

Front Connector I/O:

Up to 146 LVTTL/LVDS I/O
Programmable signaling levels of 1.8V, 2.5V or 3.3V

8 High-Speed Serial Links
8 x 3.125GHz MGTs
Programmable signaling levels of 1.8V, 2.5V or 3.3V



Compatible Products					
XRM-ADC-D2-125	Dual 14-bit ADC Interface (125Msps)	XRM-ADC-D3-1G5	Dual 8-bit ADC Interface (1.5Gsps)	XRM-ADC-D6-250	Dual Channel ADC 250Msps
XRM-ADC-S4-3G	Single 8-bit ADC I/F (3Gsps)	XRM-CAMERALINK	Single Cameralink Interface	XRM-CLINK-MINI	Single/Dual Cameralink Interface
XRM-CLINK-ADV	Cameralink and JPEG2000	XRM-DAC-D3-275	Dual Channel 14-bit DAC	XRM-DAC-D4-1G	Dual Channel 16-bit DAC
XRM-DVI-D-RX	DVI Video Capture	XRM-HD-SDI	Dual HDTV I/O Interface	XRM-IO146	High Density Digital I/O
XRM-IO34	Digital I/O				

ADPe-XRC-4

Specification	
Product Name	ADPe-XRC-4
Target Devices	Xilinx Virtex-4 - FX100, FX140 (FF1517)
Host I/F	PCI Express® x8
Interface	PCI Express® x1, x4, x8 link Twin DMA Controllers
Memory	**SDRAM** - 1GByte in 4 independent banks **FLASH** - Configuration Flash providing an initialisation design for automatic loading into the target FPGA.
Front I/O	Up to 146 LVTTL/LVDS I/O Programmable signaling levels of 1.8V, 2.5V or 3.3V8 High-Speed Serial Links 8 x 3.125GHz MGTs Programmable signaling levels of 1.8V, 2.5V or 3.3V
Clocks	Local bus clock programmable up to 100MHz High performance low-jitter LVPECL user clock, programmable up to 500MHz Additional 200MHz reference clock for IOB delay circuits.
Device Configuration	PCI Express® Bus direct to SelectMAP port 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
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		
ADPe-XRC-4/z-y(c)		
Virtex-4 device	z	FX100, FX140
Virtex-4 speed	y	10, 11, 12
Air cooled (comm/ind)	c	blank = air cooled commercial, /AC1 = air cooled industrial

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