ALPHA DATA

ADM-XRC-5T2-ADV

Features

Applications:

    Military, Aerospace, High Performance Computing, **Broadcast**, **Medical/Bioinformatics**, Security

Target Devices:

    Xilinx Virtex-5 - LX110T, LX155T, LX220T, LX330T, SX240T, FX100T, FX130T, FX200T (FFG1738)

Memory:

    SDRAM - 512MByte in 2 independent banks (1G in 4 banks for LX330T, SX240T and FX200T) of DDR-II SDRAM 2 x 64M x 32-bits @ 333MHz

    SSRAM - 8MByte in 2 independent banks of DDR-II SSRAM 2M x 18-bits @ 200MHz

    FLASH - 4MByte serial Flash

    FLASH - Configuration Flash providing an initialisation design for automatic loading into the target FPGA.
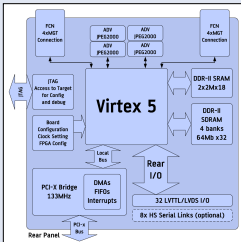
Front Connector I/O:

    8 High-Speed Serial Links via 2 FCN Connectors (x4 Infiniband type)

Rear Connector I/O:

    32 I/O connections via PMC Pn4 connector

    8 High-Speed Serial Links via P15 connector - Only if the 'extra connector fitted' option is chosen

Summary

The **ADM-XRC-5T2-ADV** is a high performance reconfigurable PMC (PCI Mezzanine Card) based on the Xilinx™ Virtex-5 range of Platform FPGAs. Features include high speed PCI-X interface, external memory, **JPEG2000 codecs**, Gigabit serial I/O, programmable clocks, temperature monitoring 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.

Specification

Product Name	ADM-XRC-5T2-ADV
Target Devices	Xilinx Virtex-5 - LX110T, LX155T, LX220T, LX330T, SX240T, FX100T, FX130T, FX200T (FFG1738)
Host I/F	PCI/PCI-X
Interface	64-bit 66MHz PCI or 64-bit 133MHz PCI-X interface in separate bridge device with 64-bit 80MHz local bus 4 DMA controllers FIFO and interrupt controller.
Memory	**SDRAM** - 512MByte in 2 independent banks (1G in 4 banks for LX330T, SX240T and FX200T) of DDR-II SDRAM 2 x 64M x 32-bits @ 333MHz **SSRAM** - 8MByte in 2 independent banks of DDR-II SSRAM 2M x 18-bits @ 200MHz **FLASH** - 4MByte serial Flash **FLASH** - Configuration Flash providing an initialisation design for automatic loading into the target FPGA.
Front I/O	8 High-Speed Serial Links via 2 FCN Connectors (x4 Infiniband type)
Rear I/O	32 I/O connections via PMC Pn4 connector 8 High-Speed Serial Links via P15 connector - Only if the "extra connector fitted" option is chosen
Special Functions	**JPEG2000 Codecs** - 4 ADV212 devices **Dual FCN** Connections Option of P15 connector (Pseudo-XMC) providing High Speed Serial link to the carrier
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	PCI 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 **Conduction cooled option (CC1)** Operating Temperature -40° to 71°C **EMC:** FCC 47CFR Part 2 EN55022 Equipment Class B

Ordering Codes

ADM-XRC-5T2-ADV-z-y(m)(c)(x)

Virtex-5 device	z	LX110T, LX155T, LX220T, LX330T, SX240T, FX100T, FX130T, FX200T
Virtex-5 Speed	y	1, 2, 3
Cooling	c	blank = air cooled commercial, /AC1 = air cooled industrial, /CC1 = conduction cooled industrial
Memory Size Fitted	m	blank = 512MBytes (2 bank boards) or 1GByte (4 bank boards), /1 = 1Gbyte of Memory, /2 = 2GBytes of Memory
HS Serial Connector Fitted	x	blank = not fitted, /X = Connector fitted
Note	#	The number of memory banks is dependent on the FPGA device selected. LX330T, SX240T and FX200Ts- have 4 banks of memory. LX110T, LX155T,sLX220T, FX100T and FX130T - have 2 banks of memory