

Applications

- Radar/Sonar Beamforming
- ELINT
- Image/Video Processing
- Data Encryption

Summary

The ADM-XRC-6T1A is a high performance reconfigurable XMC (VITA 42.3 Mezzanine Card) based on the Xilinx Virtex-6 LXT and SXT ranges of Platform FPGAs. ADM-XRC-6T1A is a comparable alternative to ADM-XRC-6T1.

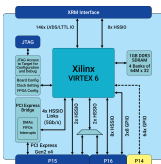
Features include PCI Express Gen2 interface, external memory, high density I/O, temperature monitoring, battery backed encryption and flash boot facilities.

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

The optional fitting of the Pn-4 connector provides an additional 64 General Purpose IO (GPIO) links to the carrier card.

Board Features

- XRM Interface



Target Devices

Xilinx Virtex 6
 LX240T, LX365T, LX550T, SX315T, SX475T
 (FFG1759)

LUTs = 150k FFs = 301k DSPs = 768
 BRAM = 14.9Mb (14.9Mb)

2x PCI Express Gen2 x8 cores
 4x 10/100/1000Mb Ethernet MACs

Application Data Memory

4x 1GB

Configuration Memory

BPI 1GBit Flash Memory
 Configured as 2x Bridge

Configuration Modes

PCI Express direct to SelectMAP port
 From Flash direct on power up
 External JTAG connector

Deliverables

ADM-XRC-6T1A Board
 One Year Warranty
 One Year Technical Support

Host Interface

PCI Express Gen2 x1, x2 or x4 link to separate
 bridge device with 2GB/s local link to user FPGA
 4 DMA Controllers
 Interrupt Controller

Input/Output Interfaces

Discrete

LVCNOS/LVDS I/O (programmable to 1.2

High-Speed/Serial Links

High-Speed Serial Links to XRM2
 High-Speed Serial Links to P15
 High-Speed Serial Links to P15

LVTTL

GPIO connections via P16

2.5V

I/O connections via optional PMC P14

Board Format

XMC (Switched Mezzanine, VITA 42)	ERROR	ERROR	ERROR	ERROR
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Environmental Specification

Cooling Option	Operating Temperatures		Storage Temperatures	
	Min	Max	Min	Max
AC0	0°C	55°C	-40°C	85°C
ACE	0°C	70°C	-55°C	100°C
AC1	-40°C	70°C	-55°C	100°C
CC0	0°C	55°C	-40°C	85°C
CCE	0°C	70°C	-55°C	100°C
CC1	-40°C	70°C	-55°C	100°C

Operating Humidity : Up to 95% (non-condensing)

EMC Standards

FCC 47CFR Part 2
EN55022:2010 Equipment ClassB

Conformal Coating Options

Acrylic or Polyurethane
Contact sales for specification of coatings.

Ordering Information

Order Code: ADM-XRC-6T1A/z-y(m)(c)(a)(p)(t)

Option	Code	Description of Options
Virtex-6 device	z	LX240T,LX365T,LX550T, SX315T, SX475T
Virtex-6 speed	y	1,2,3
Memory Size Fitted	m	blank = 256MBytes per bank - 1GBytes for the board, /2 = 512MBytes per bank - 2GBytes for the board, /4 = 1024MBytes per bank - 4GBytes for the board
Cooling	c	blank = air cooled commercial, /ACE = air cooled Extended, /AC1 = air cooled industrial, /CC0 = conduction cooled Commercial, /CCE = conduction cooled Extended, /CC1 = conduction cooled industrial
Conformal Coating	a	blank = No coating, A = Acrylic (Humiseal 1B31), P = Polyurethane (Aralthane 5750)
Pn4 Fitted	p	blank = not fitted, /Pn4 = Pn4 Connector fitted
XMC Connector Type	t	blank = XMC (VITA 42) Connectors, /X2 = XMC2 (VITA 61) Connectors
Note		not all FPGA speed grades available in all configurations

UK Office

Address: Suite L4A, 160 Dundee Street,
Edinburgh, EH11 1DQ, UK
Telephone: +44 131 558 2600
Fax: +44 131 558 2700
email: sales@alpha-data.com

USA Office

611 Corporate Circle, Suite H
Golden, CO 80401
(303) 954 8768
(866) 820 9956 - toll free
sales@alpha-data.com