



Applications

- Radar/Sonar Beamforming
- ELINT/ISR
- Image/Video Processing
- Machine Vision
- Digital Signal Processing
- Data Encryption

Board Features

- XRM2 I/O Interface
- 512MB DDR3 (PS)
- 512MB DDR3 (PL)
- microSD Socket
- Tri-Mode Ethernet IFS
- USB 2.0 IFS
- Air-Cooled/Conduction-Cooled Options

FPGA Features

- 2x ARM® Cortex™-A9 MPCore™ up to 1GHz
- 1x PCIe® Gen2 x8
- 2x Tri-mode Gigabit Ethernet
- 2x USB 2.0

Summary

The **ADM-XRC-7Z1** is a high performance reconfigurable XMC (compliant to VITA 42.0) based on the Xilinx Zynq range of Programmable System-on-Chips.

Features include Ethernet, PCI Express and USB interfaces, external memory, high density I/O, system monitoring and flash boot facilities.

Software and Drivers for **Linux** and **VxWorks**.

Target Devices

Xilinx Series 7 Zynq: XC7Z045 (FFG900)

LUTs = 218k(277k)

FFs = 437k(554k)

DSPs = 900(2020)

BRAM = 19.2Mb(26.5Mb)

2x ARM® Cortex™-A9 MPCore™ up to 1GHz

1x PCIe® Gen2 x8

2x Tri-mode Gigabit Ethernet

2x USB 2.0

Application Data Memory

1x SDRAM 512MB DDR3

FPGA Configuration Memory

QSPI 512Mbit Flash Memory

FPGA Configuration Modes

Flexible boot options from on-board SPI Flash or uSD Flash

Deliverables

ADM-XRC-7Z1 Board
One Year Warranty
One Year Technical Support

Host Interface

Ethernet, PCI Express or USB

Board Format

XMC (Switched Mezzanine Card, VITA 42)

Input/Output Interfaces

146x LVCMOS/LVDS I/O

8x High-Speed Serial Links

1x microUSB Interface

1x JTAG Interface

2x Gigabit Ethernet Interfaces

2x USB Ports

2x RS-232 and RS-485 Ports

38x LVCMOS 3.3V GPIO connections (VITA

46.9 X8d+X12d+X38s compatible pinout)

8x High-Speed Serial Links

Support

Software and Drivers - contact Alpha Data for further details

Environmental Specification
Temperature Ranges

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-7Z1/z-2(c)(a)(t)

Option	Code	Description of Options
Zynq device	z	Z045=Z-7045, Z100=Z-7100
Cooling	c	blank = air cooled commercial, /AC1 = air cooled industrial, /CC1 = conduction cooled industrial
Conformal Coating	a	blank = no conformal coating, A = Acrylic, P = Polyurethane
XMC Connector Type	t	blank = XMC (VITA 42) Connectors , /X2 = XMC2 (VITA 61) Connectors
Notes:		Conformal coating not available with air cooled commercial option Contact Sales for other ordering options

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