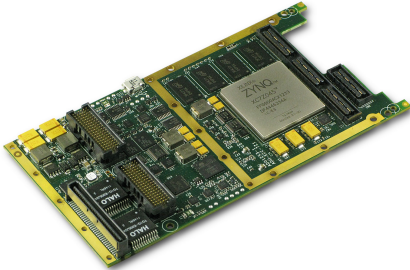


AD01253



### Applications

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

### Board Features

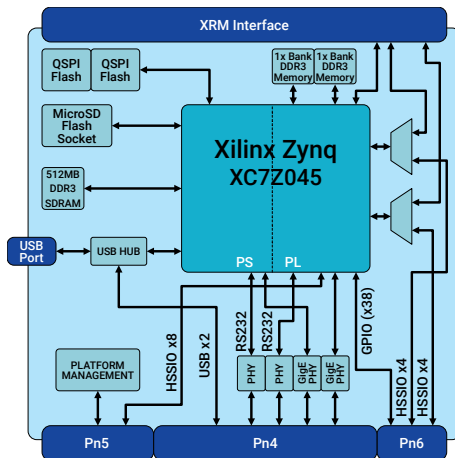
- XRM2 I/O Interface
- 512MB DDR3 (PS)
- 512MB DDR3 (PL)
- microSD Socket
- Tri-Mode Ethernet IFs
- USB 2.0 IFs
- Air-Cooled/Conduction-Cooled Options

### 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, XC7Z100 (FFG900)

LUTs = 218k FFs = 437k DSPs = 900  
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 512MB DDR3 - (Connected to PS - Option for 1GB)
- 2x 256MB DDR3 - (Connected to PL)
- 1x microSD

### Configuration Memory

QSPI 512MBit Flash Memory

### 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
- RD-9Z1 Reference Designs

### Host Interface

Ethernet, PCI Express or USB

### Input/Output Interfaces

**Discrete Digital**  
LVCMOS/LVDS I/O

**HSSIF**  
High-Speed Serial Links

**Comms**  
microUSB Interface

**Configuration**  
JTAG Interface

**HSSIF**  
Gigabit Ethernet Interfaces

**Comms**  
USB Ports  
RS-232 and RS-485 Ports

**Discrete Digital**  
LVCMOS 3.3V GPIO connections (VITA 46.9 X8d+X12d+X38s compatible pinout)

**HSSIO**  
High-SPEED Serial Links

**Support**

Software and Drivers - contact Alpha Data for further details

**Board Format**

XMC (Switched Mezzanine Card, VITA 42)

**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-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	