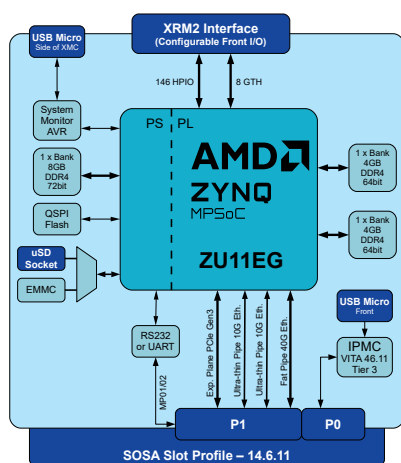


AD01518



Applications

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

Board Features

- AMD MPSoC XCZU11EG
- Quad ARM® Cortex™-A53 MPCore™
- Dual ARM® Cortex™-R5 MPCore™
- SOSA IPMC adheres to Vita 46.11 Tier 3
- On-board microcontroller provides clock programming with power rail and temperature monitoring

Summary

This SOSA-Aligned 3U VPX module hosting a high-performance System-on-Module (SOM) based on the AMD Zynq Ultrascale+ MPSoC, combines FPGA Fabric and ARM CPU cores in a single low-power device.

The module is provided in rugged SOSA-Aligned 3U VPX format and is available in industrial temperature grades with conduction cooling.

Target Device

AMD Zynq Ultrascale+
XCZU11EG-2 (FFVF1517)

Host Interface

Default: Ethernet (40G)
Alternate: PCI Express Gen3 x8

FPGA Specification

Cells = 653k
DSPs = 2928
BRAM = 21.1Mb
URAM = 22.5Mb

Input/Output Interfaces

XRM IO (XRM I/O)

8x HSSIO Links
146x LVCMOS/LVDS IO

Expansion Plane (PCI Express) (P1)

1x Gen2 x4 or Gen3 x8 (G2x4 from PS or G3x4/
x8 from PL)

Ethernet (P1)

1x 40G Fat Pipe Ethernet
2x 1G/10G Ultra Thin Pipe Ethernet

Serial Low-Speed Comms (P1)

2x RS232 or UART from PS
2x IPMC compliant redundant I2C
1x JTAG programming interface

4x ARM® Cortex™-A53 MPCore™ - 1.5GHz
2x ARM® Cortex™-R5 MPCore™ - 600MHz
1x PCIe Gen3x8 in PL
1x PCIe Gen2x4 to ARM PS

Application Data Memory

1x 32Gb DDR4 SDRAM - 8GB @ 72-bit wide
(Connected to PS)
2x 8Gb DDR4 SDRAM - 4GB @ 32-bit wide
(Connected to PL)
1x SD Card specific SDC microSD - 4GB @
32-bit wide (Connected to PL)

Configuration Memory

QSPI 2048Mb

Configuration Modes

PS - Configured via QSPI, uSD or EMMC

Support

Software compatible with the ADM-XRC-9R1 utilizing its ARM-centric Targeted Reference Design and Board Support Package. Includes a Gen3 x8 PCIe reference design (via P6) compatible with the ADXDMA driver and API for both Windows and Linux.

Deliverables

ADA-V9201 Board
One Year Warranty
One Year Technical Support
RD-9Z1 Reference Designs

Board Format

3U VPX (SOSA Aligned - VITA 46 and 65)
WxHxD = 100mm x 19.55mm x 160mm
Weight = TBDg

Environmental Specification

Cooling Option	Operating Temperatures		Storage Temperatures	
	Min	Max	Min	Max
AC1	-40°C	+70°C	-55°C	+100°C
CC1	-40°C	+85°C	-55°C	+100°C

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

Conformal Coating Options

Acrylic or Polyurethane
Contact sales for specification of coatings.

Order Code: ADA-V9201/11EG(c)(a)

Cooling	c	/AC1 = air cooled industrial, /CC1 = conduction cooled industrial
Conformal Coating	a	blank = no conformal coating, A = Acrylic, P = Polyurethane
Note	Contact Sales for other ordering Options	