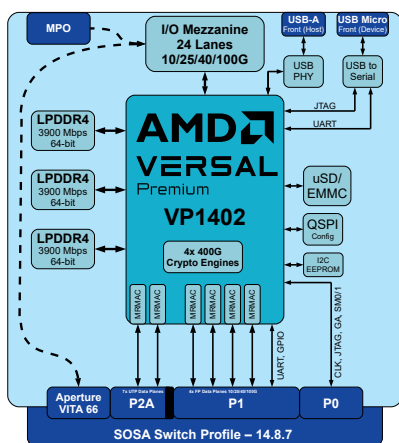
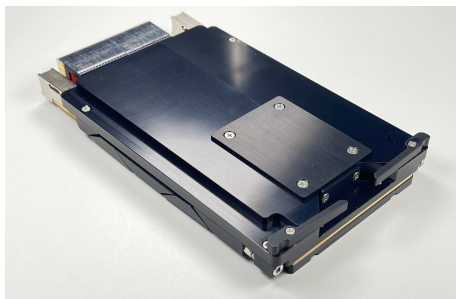


AD-01545



Applications

- Embedded Ethernet Smart Switch
- Data Encryption
- Digital Signal Processing
- ELINT/ISR
- Image/Video Processing/Machine Vision

Board Features

- SOSA Aligned I/O and System Monitor
- AMD Versal Premium VP1402
- 24GB in 3 Banks of LPDDR4
- I/O mezzanine slot for optical engines
- 6x MRMAC Ethernet Cores (4x10/4x25/40/100G each)
- 4x 400G high-speed crypto engines

Summary

The **ADM-VA740** is a SOSA-aligned 3U VPX platform featuring the AMD Versal Premium XCVP1402. This FPGA processor card adheres to the Open VPX 14.8.7-n switch profile and can be paired with an I/O mezzanine card to support various rear aperture and front I/O options.

Versal Premium offers reconfigurable and customizable processing performance for the development and deployment of compute-intensive applications such as encryption, compression, radar, signal processing, and machine learning.

Target Device

AMD Versal™ Premium Adaptive SoC
VP1402 (A3340)

FPGA Specification

LUTs = 1.02M
DSPs = 2.7K
BRAM = 70Mb
URAM = 181Mb

2x ARM Cortex-A72 MPCores™
2x ARM Cortex-R5 MPCores
2x PCI Express Gen5 cores
6x 100G Multirate Ethernet MAC (MRMAC)

Application Data Memory

3x 1Gb x 64 bit (24 GB total) LPDDR4-3900
LPDDR4-SDRAM

Configuration Memory

OSPI 2Gb

Configuration Modes

Via OSPI, uSD and via JTAG

Board Format

SOSA-Aligned 3U VPX
WxHxD = 100mm x 19.55mm x 160mm
Weight = TBDg

Input/Output Interfaces

VPX P1 HSSIO (VPX Backplane)

4x Fat Pipe Data Planes for 10/25/40/100G Ethernet; 8/16/32G Aurora; etc.

VPX P2A HSSIO (VPX Backplane)

7x Ultra Thin Pipe Data Planes for 10/25G Ethernet; 8/16/32G Aurora; etc.

VPX P1+P2A Low Speed (VPX Backplane)

UART; Clock; and GPIO as per SOSA

VPX P2B Aperture (VPX Backplane)

1x VITA 66 aperture with 24 optical lanes up to 32Gbps NRZ or 56Gbps PAM4

VPX P0 I2C (VPX Backplane)

2x I2C for System Monitor VITA 46.11 tier 3

Environmental Specification

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

Operating Humidity

Up to 95% (non-condensing)

Order Code: ADM-VA740/VP1402-2MSI(i)(c)(a)

I/O configuration	i	/VNNN = Contact sales for details and full I/O options
Cooling	c	/AC1 = air cooled industrial /CC1 = conduction cooled industrial
Conformal Coating	a	blank = no conformal coating /A = Acrylic /P = Polyurethane