ADM-VPX3-9Z5/DEV

Datasheet Revision: 0.5
15th March 2024

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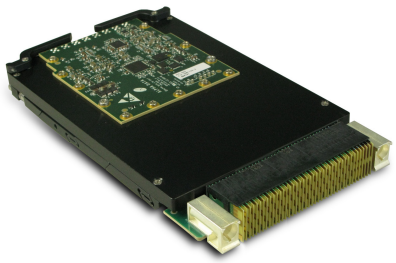


Applications

- Development Platform for AMD Q Grade MPSoCs
- High Altitude Sensor Processing
- Harsh SWaP limited Environments

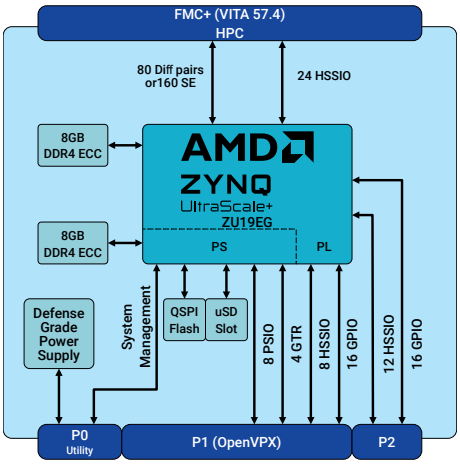
Board Features

- FMC+ HPC Interface
- Compliant with AMD LVAUX mode for XQ UltraScale+
- Military-Grade Power Supplies from Texas Instruments

Summary

The **ADM-VPX3-9Z5/DEV** is an OpenVPX MPSoC FPGA System on Module (SoM) utilizing the AMD Zynq UltraScale+ XQZU19EG M-temp device. The ADM-VPX3-9Z5/DEV has been developed in partnership with AMD and Texas Instruments and features Mil-temp range (-55C to +125C) board components throughout for reliability. The ADM-VPX3-9Z5/DEV is suitable for high-altitude applications and is compliant with LVAUX mode for Single Event Effects (SEE). The Open Group Sensor Open Systems Architecture™ influenced the development of this board and the **ADM-VPX3-9Z5** is aligned with the SOSA™ Technical Standard.

The ADM-VPX3-9Z5/DEV provides flexible IO via an FMC+ Site and via the VPX backplane, dual 8GB DDR4-2400 SDRAM (PL and PS), 1Gb QSPI configuration Flash, System Monitoring and Mil-temp enhanced products for Power and Temperature Sensing solutions from Texas Instruments. The ADM-VPX3-9Z5/DEV is compatible with a development Rear Transition Module (p/n ADM-VPX3-9Z5-RTM).



Target Device

AMD Zynq UltraScale+ MPSoC
XQZU19EG-1 (FFRC1760M)

LUTs = 523k FFs = 1045k
DSPs = 1968
BRAM = 34.6Mb URAM = 36Mb

4x Arm® Cortex™-A53 MPCore™
2x Arm Cortex-R5 MPCore
1x Arm Mali™-400 MP2
5x PCI Express Gen3 x16 cores
4x 100G Ethernet MAC/PCS with RS-FEC

Application Data Memory

1x PS - 1G x 72 (8GiB) DDR4-2400
1x PL - 1G x 72 (8GiB) DDR4-2400

Configuration Memory

QSPI 2x 512Mb Flash Memory

Configuration Modes

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

Deliverables

ADM-VPX3-9Z5/DEV Board
One Year Warranty
One Year Technical Support

Host Interface

Host System Controller Capable
PCI Express (PS or PL)
10Gigabit Ethernet

Board Format

3U VPX (OpenVPX Compliant)

Input/Output Interfaces

FMC+ HPC Interface
HSSIO
Single-Ended/Differential Pair I/O

OpenVPX Interface
HSSIO (P1)
HSSIO (P2)

Environmental Specification

Cooling Option	Operating Temperatures		Storage Temperatures	
	Min	Max	Min	Max
MIL	-55°C	+105°C	-60°C	+150°C

Operating Humidity

Up to 95% (non-condensing)

EMC Standards

Ordering Information	
Order Code: ADM-VPX3-9Z5/DEV/PB	
note	Fitted with AMD Zynq UltraScale+ XQZU19EG-1M, Q Grade FPGA MIL temp range. Tin/Lead Solder.

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