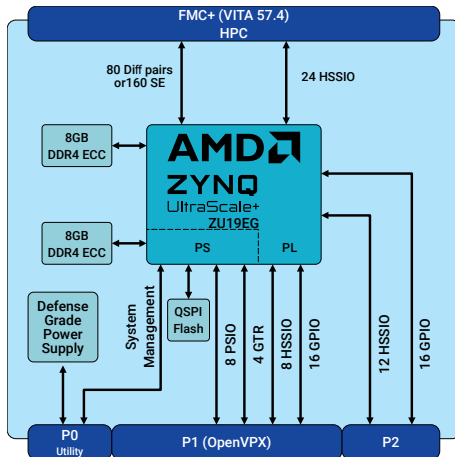


AD01391



### Applications

- Embedded Systems requiring Mil-Temp AMD XQ Zynq UltraScale+ MPSOC
- High Altitude Sensor Processing
- Harsh SWaP limited Environments

### Board Features

- Compliant with AMD LVAUX mode for XQ UltraScale+
- Complete Mil-temp enhanced products for power management & signal conditioning
- FMC+ HPC Interface

### Summary

The **ADM-VPX3-9Z5** is an OpenVPX MPSoC FPGA System on Module (SoM) utilizing the AMD Zynq UltraScale+ XQZU19EG M-temp device. The **ADM-VPX3-9Z5** 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** is suitable for high-altitude applications and is compliant with LVAUX mode for Single Event Effects (SEE) mitigation. The **ADM-VPX3-9Z5** is SOSA Compliant.

The **ADM-VPX3-9Z5** 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.

### 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

### Deliverables

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

### Host Interface

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

### Input/Output Interfaces

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

### OpenVPX Interface

HSSIO (P1)  
HSSIO (P2)

**Board Format**

OpenVPX / SOSA Compliant VPX3

**Environmental Specification**

Cooling Option	Operating Temperatures		Storage Temperatures	
	Min	Max	Min	Max
MIL	-55°C	+105°C	-60°C	+150°C
IND	-40°C	+85°C	-55°C	+125°C

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

**EMC Standards**

 FCC 47CFR Part 2  
 EN55022:2010 Equipment ClassB

**Ordering Information**
**Order Code: ADM-VPX3-9Z5(T)**

Option	Code	Description of Options
Configuration Type	T	/CC4/PB = Fitted with XQZU19EG-1M, Q Grade FPGA, Conduction Cooled MIL temp, Tin/Lead Solder, /Z19-2/CC3/PB = Fitted with XQZU19EG-2I, Q Grade FPGA, Conduction Cooled IND temp, Tin/Lead Solder