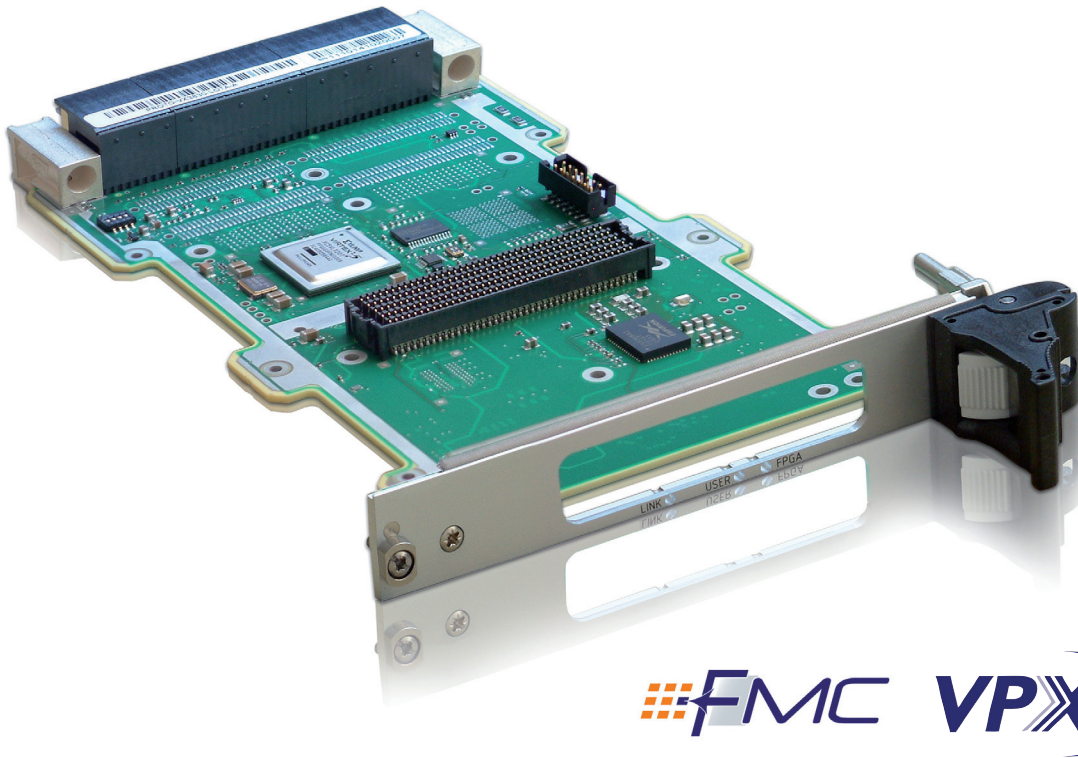# » VX3830 «

≡FMC VPX

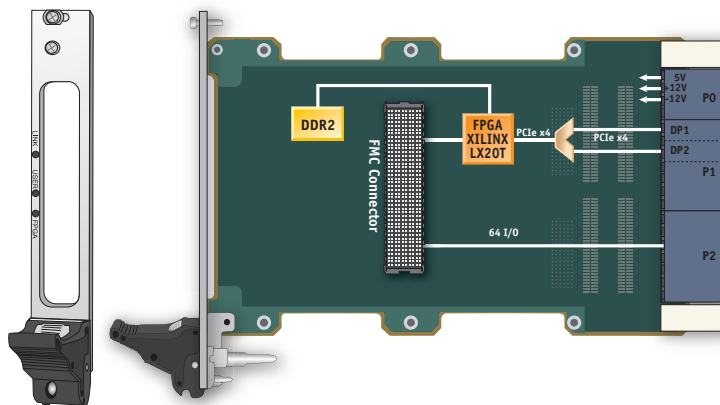## 3U VPX Xilinx® Virtex®-5 FPGA Processor Board with FMC Site

» 3U VPX Carrier Board for VITA 57 FPGA Mezzanine Cards (FMC)

» Increased I/O Flexibility and Scalable Development Solutions

» x4 or x1 PCI-Express Backplane Interface

» Standard Air- and Rugged Conduction-Cooled Versions

» 0.8" (4 HP) or 1" (5 HP) Face Plates

To implement custom interfaces using VX3830, the customer develops his IP using Xilinx® tools, and designs a specific FMC. The FPGA image is loaded from a Flash on VX3830 or on the FMC. A rescue FLASH is also present to ease developments and secure deployments.

VX3830 features a Xilinx® Virtex®-5 FPGA (XC5VLX20T) featuring a PCIe endpoint and User I/Os. VX3830 connects its FPGA endpoint to the backplane through a x4 PCIe gen 2 channel (P1 Wafers 1 to 4 is default build option). Selection between x4 or x1 PCIe width is user configurable.

VX3830 is available as a Convection Cooled or Conduction Cooled 3U VPX payload board. It requires +5V and +12V power supply rails. VX3830 is a member of Kontron's VPX Ecosystem and is qualified with VX3230 and VX3030 SBCs. Kontron also offers a VITA 57 FMC slot on VME products.

Kontron also offers a development kit containing: FMC-SER0 a sample FMC with wrapping areas, a simple FPGA IP and a Linux rpm with drivers, utilities and test programs. This kit allows non regression tests and is the base for customized derivative work.

Technical Information

VPX Interface

PCI-Express interface to VPX Data Plane 1 (P1 wafers 1 to 4).
Interface to Data Plane 2 (P1 wafers 5 to 8) is a build option*

FMC Interface

64 bits I/Os routed to VPX P2

Dimensions

99.85 mm x 162.54 mm
0.8 inch face plate (1 inch is a built option*)

for build options, please contact Kontron

Environmental Specifications

	SA - Standard Commercial	RC - Rugged Conduction-Cooled
Conformal Coating	Optional	Standard
Airflow	1.5 m/s without throttling at 55°C	NA
Temperature	**VITA 47-Class AC1**	**VITA 47-Class CC4**
Cooling Method	Convection	Conduction
Operating	0° to +55°C	-40° to +85°C
Storage	-45° to +85°C	-45° to +85°C
Vibration Sine (Operating)	20/500 Hz: 2g	22/2,000 Hz: 2g
Random	**VITA 47-Class V1**	**VITA 47-Class V3**
Shock (Operating)	20g/11 ms Half Sine	40g/11 ms Half Sine
Altitude (Operating)	-1,640 to 15,000 ft	-1,640 to 50,000 ft
Relative Humidity	90% without condensation	95% without condensation

Ordering Information

Article	Part.-No.	Description
VX3830-SA	VX3830-SA-00000*	3U Air-Cooled Commercial Build, FMC carrier, VPX DP1 Data Plane interface, FMC rear I/O routing on VPX P2, 0.8" board
VX3830-RC	VX3830-RC-0N000*	3U Rugged Conduction-Cooled Build, FMC carrier, VPX DP1 Data Plane interface, FMC rear I/O routing on VPX P2, 0.8" board
Associated Products:		
VX3830-RTM	PB-VX3-000	3U VPX Rear Transition Module (with PIM connectors)
KIT-FMC	KIT-FMC-DEV	FMC/VITA 57 Development/test kit. Contains: Linux FPGA/ FMC EEPROM drivers, FPGA Test Image, User's Guide, FMC-SER0-SA-000 FMC card, USB FLASH Drive pre-loaded with Linux Fedora + VITA 57 drivers. Compatible with VM6250 (with FMC I/O option)

* Preferred variants. For other features combinations (see User's Guide), please contact support-kom-sa@kontron.com.

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