



- Dual PCIe Mini Card sockets
- Full industrial temperature operation
- MIL-STD-202G shock/vibe

Highlights

PCIe Mini Card Sockets

Two Mini PCIe sockets support Wi-Fi modems, GPS receivers, MIL-STD-1553, solid-state storage, and other plug-in devices.

Industrial Temperature

-40° to +85°C operation for harsh environments.

MIL-STD-202G

Qualified for high shock/vibration environments.

PC/104-Plus Form Factor

Rugged industry-standard form factor.

Overview

The VL-EPM-P2 expansion module provides dual Mini PCIe socket expansion for any PC/104-Plus embedded system. With a small footprint and industrial temperature operation, the VL-EPM-P2 provides versatile PCI Express® Mini Card expansion for small form factor embedded systems.

As with all VersaLogic products, the VL-EPM-P2 is designed to support OEM applications where high reliability and long-term availability are required. From application design-in support, to its 5+ year production life guarantee, the VL-EPM-P2 provides a durable embedded computer solution with an excellent cost of ownership. The VL-EPM-P2 is fully RoHS compliant.

Details

Based on the PC/104-Plus standard, the VL-EPM-P2 supports PCI and ISA stackable expansion buses on an industry-standard 90 mm x 96 mm (3.55" x 3.78") expansion module. Utilizing a reverse PCI to PCI Express bridge, the VL-EPM-P2 provides off-the-shelf PC/104-Plus systems with full access to high-speed Mini PCIe devices.

The two on-board PCIe Mini Card sockets accommodate plug-in modules such as Wi-Fi modems, GPS receivers, MIL-STD-1553, solid-state storage, and other devices. The VL-EPM-P2 is compatible with full-sized Mini PCIe cards. Half-sized Mini PCIe cards can be supported by special order. Four on-board LEDs provide Activity status for each Mini PCIe socket.

Designed for full industrial temperature (-40° to +85°C) operation, the rugged VL-EPM-P2 meets MIL-STD-202G specifications for mechanical shock and vibration for use in harsh environments.

Product customization is available, even in low OEM quantities. Customization options include conformal coating, revision locks, custom labeling, customized testing and screening, etc.

Ordering Information

Model	Mini PCIe Sockets	Operating Temp.	Stackable Bus
VL-EPM-P2E	2	-40° to +85°C	PCI, ISA

Accessories

Part Number	Description
Cables	
VL-CBR-0201	Wi-Fi antenna interface cable
Mini PCIe Cards	
VL-WD10-CBN	802.11g/n Wi-Fi transceiver module
Hardware	
VL-HDW-105	0.6" standoff package (metric thread)
VL-HDW-106	0.6" standoff package (English thread)
VL-HDW-107	Mini PCIe card hardware kit (metric thread)
Miscellaneous	
VL-CBR-ANT-01	802.11n Wi-Fi antenna
VL-HDW-201	PC/104™ board extraction tool

SPECIFICATIONS

General	Board Size	PC/104 standard: 90 mm x 96 mm (3.55" x 3.78")	
	Power Requirements (+5V)*	With PCIe Wi-Fi (Idle)	With PCIe Wi-Fi (Max.)
		4.55W	4.71W
	Stackable Bus	PC/104-Plus: PCI, ISA (pass-through only)	
RoHS	RoHS (2002/95/CE) compliant		
Environmental	Operating Temperature	-40° to +85°C	
	Storage Temperature	-40° to +85°C	
	Airflow Requirements	None (free air within operating temperature range)	
	Thermal Shock	5°C/min. over operating temperature	
	Humidity	Less than 95%, noncondensing	
	Vibration, Sinusoidal Sweep	MIL-STD-202G, Method 204, Modified Condition A: 2g constant acceleration from 5 to 500 Hz, 20 minutes per axis	
	Vibration, Random	MIL-STD-202G, Method 214A, Condition A: 5.35g rms, 5 minutes per axis	
Mechanical Shock	MIL-STD-202G, Method 213B, Condition G: 20g half-sine, 11 ms duration per axis		
PCIe Mini Card Socket	General	Two Mini PCIe sockets support Wi-Fi modems, GPS receivers, MIL-STD-1553, non-volatile flash data storage, and other plug-in modules	
	Compatibility	Compatible with full- and half-sized Mini PCIe cards. Supports PCIe connectivity.	
	Status Indicators	On-board LEDs indicate card status for each socket	

* Power specifications represent typical power draw at +25°C with +5V supply running Windows XP with an Intel 5300 Wi-Fi Link card. Maximum power is measured during file transfer over Wi-Fi. Results will vary depending upon Mini PCIe card in use.

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