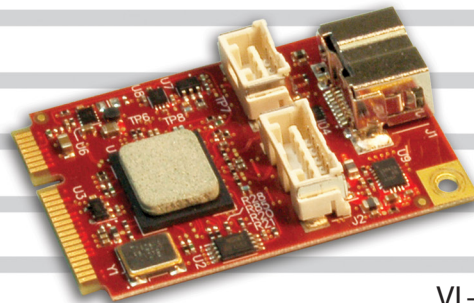


FireWire Expansion

Mini PCIe Module



VL-MPEe-FW1

Actual Size!

Overview

The VL-MPEe-FW1 is an extremely small and rugged FireWire module based on the industry-standard Mini PCIe module format. This Mini PCIe module provides an easy and economical way to add FireWire 1394b to an embedded computing solution. This module supports one FireWire 800 (1394b) and one FireWire 400 (1394a) channel operating at extended temperature.

This I/O board is compatible with a variety of popular x86 operating systems including Windows, Windows Embedded, and Linux.

As with all VersaLogic products, the VL-MPEe-FW1 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-MPEe-FW1 provides a durable I/O expansion with an excellent cost of ownership.

Highlights

- **2-channels of 1394 FireWire**
6-pin connector FireWire 400 latching.
9-pin connector FireWire 800 right angle.
- **Mini PCIe Module Format**
Small and flexible.
- **Standard Operating Systems Drivers (Windows, Linux)**
Typically no additional software drivers needed.
- **Industrial Temperature**
-40° to +85°C operation for harsh environments.
- **PCIe Signaling**
Compatible with Mini PCIe sockets.
- **MIL-STD-202G**
Qualified for high shock / vibration environments.
- **5+ Year production life guarantee**

Specifications

General	
Board Size	Mini PCIe module (full size): 30 mm x 50.95 mm x 6.39 mm
Power Requirements	3.3V ±5% @ 0.8W Typical (supplied by the Mini PCIe socket)
Manufacturing Standards	IPC-A-610 Class 2
Regulatory Compliance	RoHS
Mini PCIe Signal Type	PCI Express Base Specification, Rev 1.1

Environmental	
Operating Temperature	-40° to +85°C Derate -1.1°C per 305m (1,000 ft.) above 2,300m (7,500 ft.).* The ambient air surrounding the MPEe-FW1 must be at or below +85°C.
Storage Temperature	-40° to +85°C
Altitude	Operating * To 4,570m (15,000 ft.) Storage To 12,000m (40,000 ft.)
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 min. per axis.
Vibration, Random †	MIL-STD-202G, Method 214A, Condition A: 5.35g rms, 5 min. per axis.
Mechanical Shock †	MIL-STD-202G, Method 213B, Condition G: 20g half-sine, 11 msec. duration per axis.

Device I/O	
Firewire Interface	1-channel of FireWire 400 (1394a) 1-channel of FireWire 800 (1394b)
Firewire Connectors #	One standard 9-pin right angle Firewire 800 connector One 6-pin positive latching 1.5mm pitch connector
Aux Power 12V	One 4-pin positive latching 1.5mm pitch connector

Software	
Drivers ‡	Compatible with most x86 operating systems including Windows, Windows Embedded, and Linux.

‡ Win 7 driver needed to run both ports concurrently - available on VersaLogic.com.
 # ESD Clamp and Live-Insertion Detect on both ports, turns cable power off during a hot-plug error condition.
 * For extended altitude information contact VersaLogic Sales Dept.
 † MIL-STD-202G shock and vibrate levels are used to illustrate the ruggedness of this product in general. Testing to higher levels and/or different types of shock or vibration methods can be accommodated per the specific requirements of the application. Contact a VersaLogic Sales Engineer for further information.
 Specifications are subject to change without notification. PCI Express is a registered trademark of the PCI-SIG. All other trademarks are the property of their respective owners.

Ordering Information

Model	Function	Operating Temp.
VL-MPEe-FW1E	1394 FireWire Module	-40° to +85°C

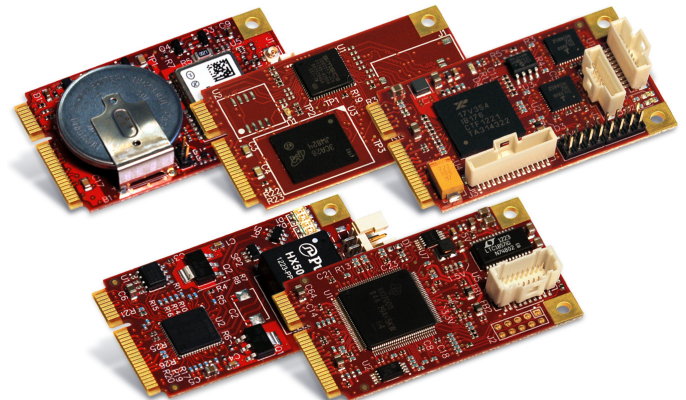
Accessories

Part Number	Description
PC/104 Mini PCIe Carrier Adapters	
VL-EPM-P2E	PC/104-Plus to Dual mini PCIe socket adapter
VL-EPMp-P2E	PCI-104 to Dual mini PCIe socket adapter
Cables	
VL-CBR-0602	6-pin Latching to 6-pin Firewire 400 Cable, 1.5 m
VL-CBR-0403	4-pin 12V Power Cable, 12"
Hardware	
VL-HDW-108	Mini PCIe module hold-down screws (10) for use with 2.5 mm standoffs
VL-HDW-110	Mini PCIe module hold-down screws (10) for use with 2.0 mm standoffs

Other VersaLogic Mini PCIe Modules

Model	Function	Signaling
VL-MPEe-A1E	Analog input (12-bit resolution)	PCIe
VL-MPEe-A2E	Analog input (16-bit resolution)	PCIe
VL-MPEe-E3E	Gigabit Ethernet adapter	PCIe
VL-MPEe-U2E	Four Serial ports. Twelve GPIO lines	PCIe
VL-MPEe-V5E	Video Display Adapter. VGA and LVDS Interfaces.	PCIe
VL-MPEs-F1Exx	mSATA drive (4/16/32 GB)	SATA
VL-MPEs-S3E	SATA adapter	SATA
VL-MPEu-G2E	GPS receiver	USB

Call VersaLogic Sales at (503) 747-2261 for more information!



Mini PCIe Modules

Tailor a Module to Your Exact Requirements

Product customization is available, even in low quantities. Options include conformal coating, application-specific testing, BOM revision locks, special labeling, and more.