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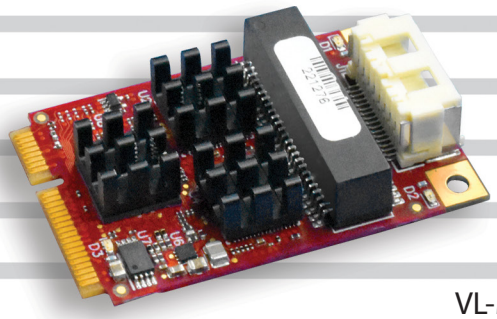
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Find the *Versalogic VL-MPEe-E5E* at our website: ***Click HERE***

Dual Gigabit Ethernet Expansion

Mini PCIe Module



VL-MPEe-E5E

Actual Size!

Overview

The 'E5' expansion module is extremely small and rugged. It provides an easy way to add Dual Gigabit Ethernet ports to most embedded computer systems.

The E5 module is completely self-contained with on-board magnetic isolation. There is no need for off-board magnetics or special cabling. The placement of the on-board magnetics isolators has been designed to be compliant with the Intel Ethernet Controller design guidelines to assure proper operation and full data throughput.

For environments with high temperature challenges, the E5 is designed and tested for full speed operation from -40° to +85°C. The miniature on-board heat sinks provide the needed thermal dissipation for uncompromised throughput even at the top of the operating range.

The E5 board uses a 16 pin Clik Mate™ latching connector to provide a mechanically secure connection. The module and cabling is tested for shock and vibration to MIL-STD-202G to ensure performance in demanding environments.

The E5 board is compatible with a variety of popular operating systems including Windows and Linux. Additionally it supports network boot capability.

Like other VersaLogic products, the VL-MPEe-E5E is validated for operation in unforgiving environments. Each component has been carefully sourced to ensure reliable operation in the field.

Highlights

- **Dual Gigabit Ethernet**
  Two 10BaseT/100BaseTX/1000BaseT ports.
- **Uses Standard Ethernet OS Drivers**
  Supported by industry-standard operating systems including Windows 10 and Linux Ubuntu.
- **On-board magnetically coupled isolation**
  No need for off-board magnetics with custom cables.
- **PCIe Signaling**
  Compatible with most Mini PCIe sockets.
- **Network Boot Capability**
  Can eliminate local data drives.
- **Industrial Temperature**
  -40° to +85°C operation for harsh environments.
- **MIL-STD-202G**
  Qualified for high shock and vibration environments.
- **Latching Connector**
  Prevents detachment failures.
- **Class 3 Manufacturing** (optional)
  IPC-A-610 Class 3 for applications requiring extreme reliability.
- **10+ Year Production Lifecycle**

VERSALOGIC CORPORATION

Dual Gigabit Ethernet Expansion

Product Data Sheet | Mini PCIe Module

Specifications

General		
Board Size	Mini PCIe module (full size): 30 x 50.17 x 10.48 mm (1.18 x 2.01 x 0.67").	
Weight	11 grams (0.41 oz.).	
Power Requirements	3.3V ±5% @ 2.2 W Typical (supplied by the Mini PCIe socket).	
Manufacturing Standards	IPC-A-610 Class 2 and optional IPC-A-610 Class 3.	
Regulatory Compliance	RoHS (2011/65/EU).	
Mini PCIe Signal Type	PCI Express. Gen 1 and Gen 2.	

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-E4 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 85%, 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	
Ethernet Interface	Two autodetect 10BaseT/100BaseTX/1000BaseT
Connectors	16-pin Clik-Mate, latching.
Network Boot Option	Via on-board BIOS extension.

Software	
Drivers	Compatible with most operating systems including Windows and Linux.

* For extended altitude information contact VersaLogic Sales.

† MIL-STD-202G shock and vibe 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 VersaLogic Sales 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-E5E	Gigabit Ethernet. Dual Channel.	-40° to +85°C

Accessories

Part Number	Description
Cables	
CBR-1604	12" 16-pin Clik-Mate to 2 RJ-45, RoHS.
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.

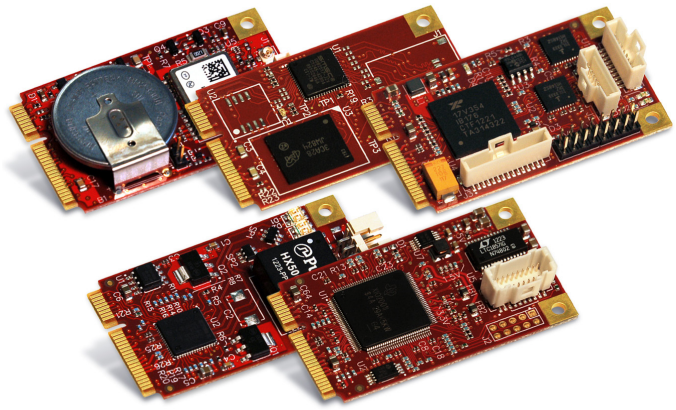
Other VersaLogic Mini PCIe Modules

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-E4	Gigabit Ethernet Over Fiber Module	PCIe
VL-MPEe-U2E	Four Serial ports. Twelve GPIO lines.	PCIe
VL-MPEe-V5E	Video Display Adapter. VGA and LVDS interfaces.	PCIe
VL-MPEe-FW1	1394 Firewire Module, industrial temperature.	PCIe
VL-MPEs-F1Exx	mSATA drive (4/16/32 GB).	SATA
VL-MPEs-S3E	SATA adapter.	SATA
VL-MPEu-G2E	GPS receiver.	USB
VL-MPEu-G3E	Advanced GPS receiver.	USB

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

Modify a Module to Your Exact Requirements

COT's modifications are available in quantities as low as 100 pieces. Options include conformal coating, application-specific testing, BOM revision locks, special labeling, and more.



Mini PCIe Modules

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