



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

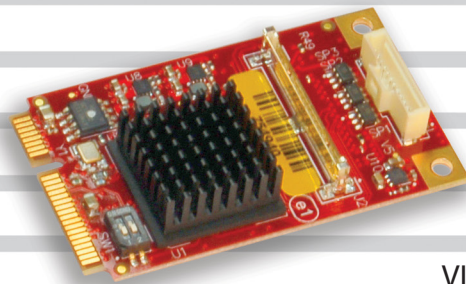
Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



V5 / Video

Mini PCIe Module



VL-MPEe-V5E

Actual Size!

Overview

The VL-MPEe-V5 is an extremely small and rugged video module based on the industry-standard Mini PCIe module format. This Mini PCIe module provides an easy and economical way to add VGA and LVDS display outputs to an embedded computing solution.

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-V5 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-V5 provides a durable video expansion with an excellent cost of ownership.

Highlights

- **Mini PCIe Module Format**
Small and flexible.
- **Industrial Temperature**
-40° to +85°C operation for harsh environments.
- **Video Outputs**
Analog VGA and/or LVDS (simultaneous / independent).
- **Standard Operating System Drivers (Windows, Linux)**
No additional drivers needed.
- **PCIe Signaling**
Compatible with Mini PCIe sockets.
- **MIL-STD-202G**
Qualified for high shock / vibration environments.
- **Latching Connector**
Prevents detachment failures.
- **Class 3 Manufacturing (optional)**
IPC-A-610 Class 3 for extreme rugged applications.
- **5+ Year production life guarantee**
Worry-free availability.

Specifications

General	
Board Size	Mini PCIe module (full size): 30 mm x 50.95 mm x 6.39 mm
Power Requirements	3.3V ±5% @ 1.67W Typical W (supplied by the Mini PCIe socket)
Manufacturing Standards	Standard IPC-A-610 Class 2
	Optional IPC-A-610 Class 3
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.).*
Storage Temperature	-40° to +85°C
Altitude	Operating * To 15,000 ft. (4,570m)
	Storage To 40,000 ft. (12,000m)
Cooling	None (fanless)
Airflow Requirements	None (free air)
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.

Video	
Controller	Silicon Motion SM750. 2D Graphic Accelerator Video core with 128-bit 2D graphic engine. Supports a single display, two cloned displays, or two simultaneous independent displays.
VRAM	16MB DDR SDRAM (32-bit) embedded in SM750 controller
Desktop Display Interface	Analog output (VGA). Up to 1920 x 1080 16-bit.
OEM Flat Panel Interface	Single-channel LVDS interface. Up to 1280 x 1024 18/24-bit

Software	
BIOS	On-board SPI-based video BIOS supports VESA standard graphics modes.
Drivers	Compatible with most x86 operating systems including Windows, Windows Embedded, and Linux using standard software drivers.

* 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-V5E	Video Display Adapter. VGA and LVDS Interfaces.	-40° to +85°C
VL-MPEe-V5EC §	Video Display Adapter. VGA and LVDS Interfaces. Manufactured to IPC-A-610 Class 3.	-40° to +85°C

§ Special Order Product – Contact VersaLogic Sales for minimum order quantities and lead time.

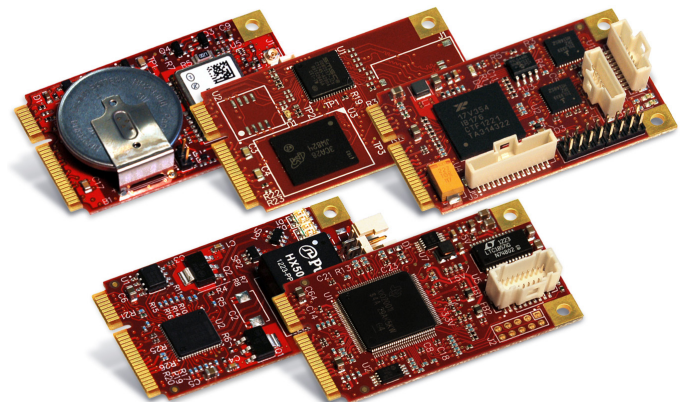
Accessories

Part Number	Description
PC/104-Plus Carrier	
VL-EPM-P2E	PC/104-Plus to Dual miniPCIe Adapter
Cables	
VL-CBR-1204	VGA Interface Cable, 12-pin PicoClasp Cable to 15-pin VGA, RoHS
VL-CBR-2014	LVDS to VGA Adaptor Board, RoHS
VL-CBR-2015	20" 24-bit LVDS Hirose Cable, RoHS
VL-CBR-2016	20" 18-bit LVDS FPD Cable with JAE Connector, 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-FW1	1394 Firewire Module, Industrial Temp.	PCIe
VL-MPEe-U2E	Four Serial ports. Twelve GPIO lines	PCIe
VL-MPEe-W2E	Wi-Fi 802.11 a/b/g/n	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.