



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!



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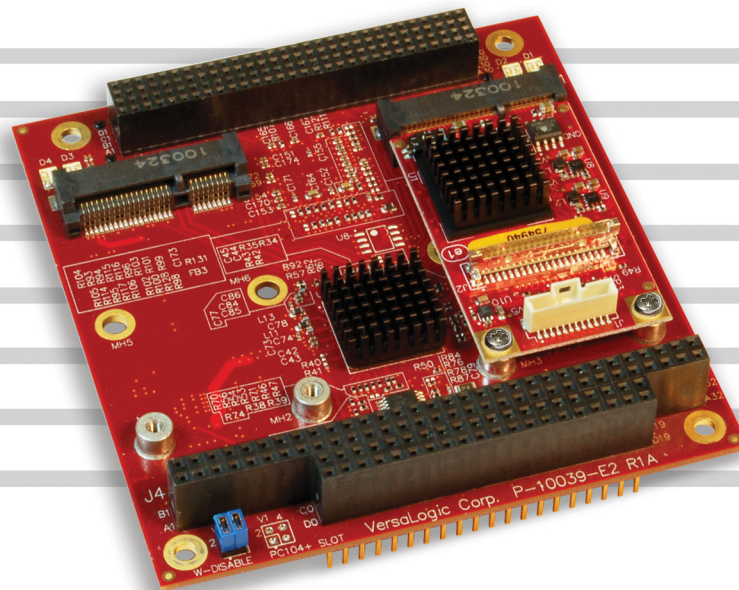
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VL-EPM-V7

PC/104-Plus™ Video and I/O Expansion Module



Overview

The VL-EPM-V7 module provides video and I/O expansion capabilities for PC/104-Plus embedded systems. It provides VGA and LVDS display outputs to PC/104-Plus embedded systems. An on-board Mini PCIe socket accommodates plug-in modules such as A/D converters, Ethernet, Wi-Fi modems, MIL-STD-1553, and other devices.

With a full industrial temperature rating and rugged construction, the VL-EPM-V7 is an ideal solution for embedded video applications in harsh, mobile, and/or remote environments.

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-EPM-V7 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-V7 provides a durable video expansion with an excellent cost of ownership.

Highlights

- **Industrial Temperature**
-40° to +85°C operation for harsh environments.
- **Latching Connector**
Prevents detachment failures.
- **PC/104-Plus**
Rugged industry-standard form factor.
- **Mini PCIe I/O expansion**
Mini PCIe socket supports A/D converters, Ethernet, Wi-Fi modems, MIL-STD-1553, and other plug-in devices.
- **Video Outputs**
Analog VGA and/or LVDS (simultaneous/independent).
- **Standard Operating System Drivers (Windows, Linux)**
No additional drivers needed.
- **MIL-STD-202G**
Qualified for high shock/vibration environments.
- **5+ Year Production Life Guarantee**

Specifications

General			
Board Size	PC/104 standard: 90 mm x 96 mm (3.55" x 3.78")		
Power Requirements (+5V) *	<i>Idle</i>	<i>Typical</i>	<i>Max.</i>
	3.28W	3.33W	3.38W
Stackable Bus	PC/104-Plus: PCI, ISA (pass-through only)		
Manufacturing Standards	IPC-A-610 Class 2 compliant		
RoHS	Compliant		

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.
Operating Systems	Compatible with most x86 operating systems including Windows, Windows Embedded, and Linux.

* 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. PC/104 and PC/104-Plus are trademarks of the PC/104 Consortium. VESA is a trademark of the Video Electronics Standards Association. All other trademarks are the property of their respective owners.

Ordering Information

Model	VGA	LVDS	Stackable Bus	Mini PCIe Socket Support	Operating Temp.
VL-EPM-V7E	Y	Y	PC/104-Plus	1 (PCIe Signaling)	-40° to +85°C
VL-EPMp-V7E	Y	Y	PCI-104	1 (PCIe Signaling)	-40° to +85°C

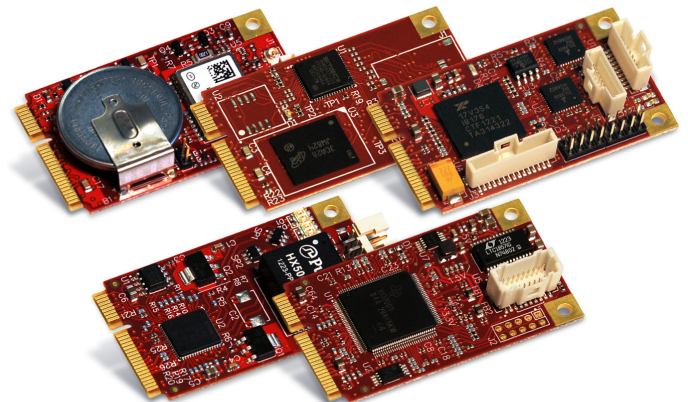
Accessories

Part Number	Description
Cables	
VL-CBR-1204	VGA Interface Cable, 12-pin PicoClasp Cable to 15-pin VGA, ET, RoHS
VL-CBR-2014	LVDS to VGA Adaptor Board, ET, 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-105	0.6" standoff package (metric thread)
VL-HDW-106	0.6" standoff package (English thread)
VL-HDW-108	Mini PCIe module hold-down screws (10) for use with 2.5 mm standoffs
Miscellaneous	
VL-HDW-203	PC/104 extractor tool (metal)

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-W2E	Wi-Fi 802.11 a/b/g/n	PCIe

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.