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- Extremely small Mini PCIe module format
- SATA adapter
- Industrial temp. (-40º to +85ºC) operation
- MIL-STD-202G shock/vibe
- Latching connector

Highlights

Mini PCIe Module Format
Small and flexible.

SATA Adapter
Provides one SATA channel from host system.

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

MIL-STD-202G
Qualified for high shock/vibration environments.

Latching Connector
Prevents detachment failures.

Class 3 Manufacturing (optional)
IPC-A-610 Class 3 for applications requiring extreme reliability.

Overview

The VL-MPEs-S3 is an extremely small and rugged SATA adapter module based on the industry-standard Mini PCIe module format. Unlike typical I/O expansion boards, Mini PCIe allows additional I/O functions to be added to a system with almost no increase in overall system / package size. Mini PCIe modules provide a simple, economical, and standardized way to add I/O functions to embedded computer products.

Details

In a very small package, this SATA adapter board provides access to one SATA port from the host system.

This SATA adapter supports high-capacity storage (rotating media or solid-state drives) at up to 3 Gbit/s.

This rugged product is designed and tested for full industrial temperature operation (-40º to +85ºC). It also meets MIL-STD-202G specifications for shock and vibration.

This SATA adapter is compatible with a variety of popular x86 operating systems including Windows, Windows Embedded, Linux, VxWorks, and QNX.

The module utilizes SATA signaling and can be used in any system that supports SATA signaling at the Mini PCIe socket.

It is manufactured to IPC-A-610 Class 2 standards. Class 3 versions are available for extremely-high-reliability applications.

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

RoHS

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Ordering Information

Model	Function	Operating Temp.
VL-MPEs-S3E	SATA adapter	-40° to +85°C

Accessories

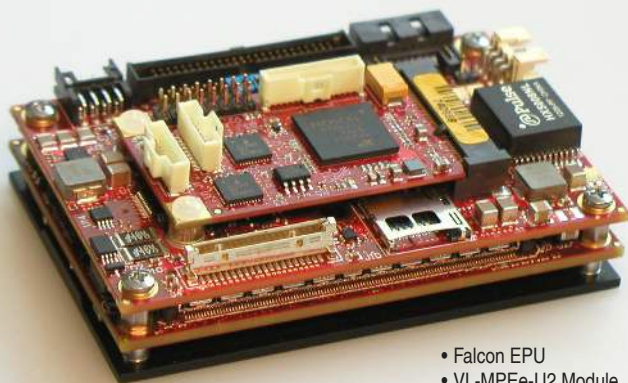| Part Number	Description
Cables	
VL-CBR-0702	20" SATA cable. Latching.
Hardware	
VL-HDW-108	Mini PCIe module hold-down screws (10) for use with 2.5 mm standoffs
VL-HDW-110	Mini PCIe module hold-down screws (10) for use with 2.0 mm standoffs

Specifications

General	Board Size	Mini PCIe module (full size): 30 mm x 50.95 mm x 6.87 mm	
	Power Requirements	None. Does not provide power to SATA drive.	
	Manufacturing Standards	Standard	IPC-A-610 Class 2 modified
		Optional	IPC-A-610 Class 3 modified
	Regulatory Compliance	RoHS	
	Mini PCIe Signal Type	SATA Rev 2.6 – 3 Gbit/s	
Environmental	Operating Temperature	-40° to +85°C	
	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	
Device I/O	Rotating Drives / Flash / Solid-State Drives	One SATA port from host. Up to 3 Gbit/s performance. Latching SATA connector.	

* Extended altitude specifications available upon request

† 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 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.

• Falcon EPU
• VL-MPEe-U2 Module

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-FW1	1394 Firewire Module, Industrial Temp.	PCIe
VL-MPEe-E3E	Gigabit Ethernet adapter	PCIe
VL-MPEe-U2E	Quad serial plus twelve GPIOs	PCIe
VL-MPEe-W2E	Wi-Fi 802.11 a/b/g/n	PCIe
VL-MPEs-F1E	mSATA drive (4/16/32 GB)	SATA
VL-MPEu-G2E	GPS receiver	USB

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