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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.

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- Supports two SATA drives
- Standard and RAID modes
- Full industrial temperature operation
- MIL-STD-202G shock/vibe

Highlights

SUMIT-micro Form Factor

Small footprint board expands any SUMIT™-based system.

SATA Interface

Supports two SATA drives and includes RAID 0 (Fast) and RAID 1 (Safe) operation.

Industrial Temperature

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

MIL-STD-202G

Qualified for high shock/vibration environments.

Overview

The VL-EPHs-S1 expansion module provides SATA interface capabilities for any SUMIT-based embedded system. With a small footprint, simplified interface, and extensive ruggedization, the VL-EPHs-S1 is an ideal solution for all SUMIT systems that require SATA capabilities.

The VL-EPHs-S1 is designed to support OEM applications where high reliability and long-term availability are required. From application design-in support, to the 5+ year production life guarantee, the VL-EPHs-S1 provides a rugged embedded computer solution with an excellent cost of ownership. The VL-EPHs-S1 is manufactured and tested to the highest quality standards and is fully RoHS compliant. Customization is available, even in low OEM quantities.

Details

The VL-EPHs-S1 expansion module is a 90 mm x 32 mm (3.54" x 1.26") mezzanine "SUMIT-micro" card that provides SATA signals via the PCIe lane of the SUMIT-A connector. It mounts to the top of the SUMIT stack using two hardware standoffs. The on-board SATA controller supports two SATA drives in normal, RAID 0 (Fast), or RAID 1 (Safe) configuration. The two standard latching SATA connectors are compatible with traditional rotating drives, as well as solid-state SATA drives. An EEPROM BIOS extension enables booting from a SATA device.

Designed for full industrial (-40° to +85°C) temperature operation; the VL-EPHs-S1 meets MIL-STD-202G specifications for mechanical shock and vibration for use in harsh environments.

The VL-EPHs-S1 is compatible with a variety of popular operating systems including Windows, Windows Embedded, Linux, VxWorks, and QNX.

Ordering Information

| Model | SATA Ports | Operating Temp. | Stackable Bus |
|-------------|------------|-----------------|---------------|
| VL-EPHs-S1E | 2 | -40° to +85°C | SUMIT |

Accessories

| Part Number | Description |
|-------------------|--|
| Cables | |
| VL-CBR-0701 | 19.75" SATA cable |
| VL-CBR-0702 | 19.75" SATA cable, latching |
| Drives | |
| VL-HDS35-xxx | 3.5" hard drive (SATA) |
| Mounting Hardware | |
| VL-HDW-105 | 0.6" standoff package (metric thread) |
| VL-HDW-106 | 0.6" standoff package (English thread) |
| Miscellaneous | |
| VL-HDW-201 | Board extraction tool |

SPECIFICATIONS

| General | Board Size | SUMIT-micro: 32 mm x 90 mm (1.26" x 3.54") |
|---------------|-----------------------------|--|
| | Power Requirements * | +5V@0.21A (1W) typ. (via SUMIT connector) |
| | Stackable Bus | SUMIT (top of stack only) |
| | Manufacturing Standards | IPC-A-610 Class 2 compliant |
| | RoHS | RoHS (2002/95/CE) compliant |
| Environmental | Operating Temperature | -40° to +85°C |
| | Storage Temperature | -40° to +85°C |
| | Airflow Requirements | Free air from -40° to +85°C |
| | 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 minutes per axis |
| | Vibration, Random | MIL-STD-202G, Method 214A, Condition A: 5.35g rms, 5 minutes per axis |
| | Mechanical Shock | MIL-STD-202G, Method 213B, Condition G: 20g half-sine, 11 ms duration per axis |
| Mass Storage | SATA Interface | Two SATA (Revision 2.0) ports. Bootable via BIOS extension. Latching right angle SATA connectors. Support for RAID 0 (Fast) and RAID 1 (Safe). |
| Software | BIOS | EEPROM BIOS extension to enable booting from a SATA device |
| | Operating Systems | Compatible with most x86 operating systems including Windows, Windows Embedded, Linux, VxWorks, and QNX |

* Power specifications represent typical power draw at +25°C with +5V supply running Windows XP

Specifications are subject to change without notification. SUMIT is a trademark of the SFF-SIG. SUMIT-micro is a trademark of VersaLogic Corp. All other trademarks are the property of their respective owners.

SUMIT Resources

| Form Factor: SUMIT-micro | | |
|--------------------------|---------|---------|
| | SUMIT-A | SUMIT-B |
| PCIe x1 | 1 | |
| PCIe x4 | | |
| USB | - | |
| ExpressCard | - | |
| LPC | - | |
| SPI/µWire | - | |
| SMBus/I ² C | - | |
| +12V | - | |
| +5V | ✓ | |
| +5V _{sb} | - | |
| +3.3V | - | |