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Product Brief

MegaRAID SAS 9365-28i

28-Port, Full-Height 12Gb/s PCI Express SATA+SAS RAID Controller

Broadcom 12Gb/s SAS Solutions; Connectivity Innovation

The explosive growth of data in cloud and enterprise data centers is driving the need for a higher performance storage interface to increase the speed of critical applications to access data. Broadcom 12Gb/s SAS solutions are designed to deliver the performance and data protection capabilities required for the most demanding next-generation server and storage platforms. Offering up to double the data transfer rate of 6Gb/s SAS solutions, 12Gb/s SAS allows the SAS infrastructure to deliver bandwidth that can fully utilize that of PCI Express 3.0 with a single controller card.

Industry's Highest Port Count RAID Controller

The MegaRAID® SAS 9365-28i, with twenty-eight internal ports in a full-height form factor, delivers two 1.2GHz PowerPC processor cores and a 72-bit DDR4 interface that drives 4GB cache memory. Powered by the Broadcom SAS3508 dual-core ARM A15 Tri-Mode ROC, the 9365-28i controller can take full advantage of the latest PCI Express 3.0 interface to provide higher performance and increased throughput. The MegaRAID SAS 9365-28i is designed for configuring high-density storage servers with up to 28 drives via direct connection inside the box.

Enterprise Data Protection

The MegaRAID SAS 9365-28i RAID controller supports data retention by using NAND flash memory down on the controller, backed up by a CacheVault Power Module 05 (CVPM05). The CVPM05 module is a supercapacitor pack that provides power for the backup of your data in case of host power loss or server failure. The CVPM05 module is connected to the controller remotely by cable. The data is backed up to the NAND flash memory on the MegaRAID controller board. Standard support for the most popular RAID levels, including RAID 5 and RAID 6, further strengthens the data protection capabilities of the MegaRAID SAS 9365-28i. A new enterprise feature employed by the 12Gb/s MegaRAID SAS controllers is advanced drive diagnostic technology. In the event of a physical drive failure, the drive is placed in shield state and the MegaRAID controller starts drive diagnostics to determine if the drive is indeed failed or can be restored. This saves customers time, money and lost compute time associated with transient drive failures and unnecessary drive returns.

Key Features

- High-performance 12Gb/s data transfer rates
- 28 internal 12Gb/s SATA+SAS ports
- Six Mini SAS HD SFF-8643 connectors
- One SlimLine SFF-8654 connector
- SAS3508 RAID-On-Chip (ROC)
- x8 PCI Express 3.0 host interface
- 4GB DDR4 cache memory
- RAID levels 0, 1, 5, 6, 10, 50, and 60
- Support for CacheVault flash cache protection

Key Advantages

- 12Gb/s solutions accelerate performance for next-generation data centers, web and cloud
- Delivers enterprise-class data protection and security
- Preserves investment in 6Gb/s and 3Gb/s drives
- Support for Broadcom SafeStore software, which manages self-encrypting drives (SEDs) attached to MegaRAID controllers for higher levels of security
- CacheVault Power Module CVPM05 option for remote connection via cable
- Direct connect up to 28, 3Gb/s, 6Gb/s or 12Gb/s SATA and SAS devices

MegaRAID SAS 9365-28i SATA+SAS RAID Controller

MegaRAID SAS 9365-28i Controller Card

Solution Provided	Twenty-eight-port internal SAS/SATA RAID solution for high-density and mainstream servers and storage systems requiring high drive count support inside the box.
Physical Dimensions	155.65 mm x 111.15 mm
Connectors	6 x4 SFF-8643 1 x4 SFF-8654
Device Support	Up to 240 SAS and/or SATA devices
Host Bus Type	x8 lane PCI Express 3.0 compliant
Data Transfer Rates	Up to 12Gb/s per port
I/O Processor / SAS Controller	SAS3508 dual-core Tri-Mode RAID on Chip (ROC)

Key RAID Data Protection Features	• RAID levels 0, 1, 5, and 6
	• RAID spans 10, 50, and 60
	• Online Capacity Expansion (OCE)
	• Online RAID Level Migration (RLM)
	• Auto resume after loss of system power during array rebuild or reconstruction (RLM)
	• Single controller Multipathing
	• Load Balancing
	• Configurable stripe size up to 1MB
	• Fast initialization for quick array setup
	• Check Consistency for background data integrity
	• SSD Support with SSD Guard technology
	• Patrol read for media scanning and repairing
	• 64 logical drive support
	• DDF compliant Configuration on Disk (COD)
	• S.M.A.R.T support
	• Global and dedicated Hot Spare with Revertible Hot Spare support
	  - Automatic rebuild
	  - Enclosure affinity
	  - Emergency SATA hot spare for SAS arrays
	• Enclosure management
	  – SES (inband)
	  – SGPIO (sideband)
	• DataBolt bandwidth optimizer technology support for compatible expander-based enclosures
	• Shielded state drive diagnostic technology

Operating Temperature	Maximum ambient: Controller Card: 55°C, with optional CacheVault accessory (CVPM05): 55°C
Operating Voltage	+3.3V, +12V
MTBF (Calculated)	>2,000,0000 hours at 40°C
Hardware Warranty	3 years; with advanced replacement option
MegaRAID Management Suite	• LSA (LSI Storage Authority) • StorCLI (command-line interface) • HII (UEFI Human Interface Infrastructure)
Regulatory Certifications	USA (FCC 47 CFR part 15 Subpart B, class B); Canada (ICES -003, Class B); Taiwan (CNS 13438) ; Japan (VCCI V-3); Australia/New Zealand (AS/NZS CISPR 22);Korea (RRA no 2013-24 & 25); Europe (EN55022/EN55024); Safety: EN/IEC/UL 60950; RoHS; WEEE
OS Support	Microsoft Windows, Linux (Oracle, SuSE , Red Hat), Solaris, VMware, FreeBSD, CentOS, Canonical, Citrix, FreeBSD, Fedora, Debian. See www.broadcom.com/support/download-search for details on versions. Contact Oracle support for Oracle driver or software support.

Ordering Information

MegaRAID SAS 9365-28i	05-50028-00
CVPM05	05-50039-00