

Product Brief



Key Features

- High-performance 12 Gb/s data transfer rates
- 16 internal 12 Gb/s SATA+SAS ports
- Four mini-SAS SFF8643 internal connectors (horizontal mount)
- SAS3316 RAID-on-Chip
- Dual-core 1.2 GHz PowerPC 476
- 16 Native 12 Gb/s SAS/SATA ports
- PCI Express 3.0 host interface
- 2 GB DDR3 cache memory
- RAID levels 0, 1, 5, 6, 10, 50, and 60
- Support for CacheVault flash cache protection

Key Advantages

- 12 Gb/s solutions accelerate performance for next-generation data centers, web and cloud
- Delivers enterprise-class data protection and security
- Preserves investment in 6 Gb/s and 3 Gb/s drives
- Support for Advanced Software options
- Connect up to 240 3 Gb/s, 6 Gb/s, or 12 Gb/s SATA and SAS devices

9361-16i

High Port Count 12 Gb/s PCI Express SATA + SAS RAID Controller

Unlock Storage Performance with Broadcom 12 Gb/s SAS Solutions

The explosive growth of data in cloud and enterprise data centers is driving the need for a higher performance storage interface to speed the ability of critical applications to access data. Broadcom 12 Gb/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 6 Gb/s SAS solutions, 12 Gb/s SAS allows the SAS infrastructure to deliver bandwidth that can fully utilize that of PCI Express 3.0 with a single controller card.

Next-Generation High Port Count SAS RAID

The Broadcom MegaRAID® SAS 9361-16i, with sixteen internal ports in a low-profile form factor, delivers two 1.2 GHz PowerPC processor cores and a 72-bit DDR3 interface that drives 2 GB cache memory. Powered by the SAS3316 dual-core ROC, with 16 native SAS/SATA ports, the 9361-16i controller can take full advantage of the latest PCI Express 3.0 interface to provide higher performance and increased throughput. The 12 Gb/s MegaRAID SAS 9361-16i is designed for configuring high-density storage servers with up to 16 drives via direct connection inside the box or up to 240 drives by leveraging SAS expander technology.

Enterprise Data Protection

The Broadcom MegaRAID SAS 9361-16i RAID controller supports data retention by using NAND flash memory down on the controller, backed up by a CacheVault[™] Power Module 02 (CVPM02). The CVPM02 module is a super-capacitor pack that provides power for data backup in the event of host power loss or server failure. The CVPM02 module is remotely connected to the controller 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 9361-16i. A new enterprise feature employed by the 12 Gb/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.

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Operating Voltage+3.3V, +12VMTBF (Calculated)>2,500,000 hours at 40°CHardware Warranty3 years; with advanced replacement optionMegaRAID Management: LSA (LSI Storage Authority) · MegaRAID Storage Manager · StorCLI (command-line interface) · CTRL-R (BIOS configuration utility) · HII (UEFI Human Interface Infrastructure)SSD OptimizationMegaRAID CacheCade* Pro 2.0 Software leverages SSDs in front of HDD volumes to create high-capacity, high-perfor- mance controller cache pools (Optional Ugrade)Regulatory CertificationsUSA (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 (ENS5022/ENS5024); Safety: EN/IEC/UL 60950; RoHS; WEEEOS SupportMicrosoft 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.MegaRAID SAS 9361-16i05-25708-00 (Single Pack)	5	 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 1 MB 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
MTBF (Calculated)>2,500,000 hours at 40°CHardware Warranty3 years; with advanced replacement optionMegaRAID Management: LSA (LSI Storage Authority) ·MegaRAID Storage Manager ·StorCLI (command-line interface) ·CTRL-R (BIOS configuration utility) ·HII (UEFI Human Interface Infrastructure)SSD OptimizationMegaRAID CacheCade* Pro 2.0 Software leverages SSDs in front of HDD volumes to create high-capacity, high-perfor- mance controller cache pools (Optional Upgrade)Regulatory CertificationsUSA (FCC 47 CFR part 15 Subpart B, class B); Canada (ICES -003, Class B); Taiwan (CNS 13438); Japan (VCCI V-3); Safety: EN/IEC/UL 60950; RoHS; WEEEOrdering InformationMicrosoft 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 Sedora, Debian See www.broadcom.com/support/download-search for details on versions. Contact Oracle support for Solare Altiver or software support.MegaRAID SAS 9361-16i05-25708-00 (Single Pack)	Operating Temperature	Maximum ambient: Controller Card: 55°C, with optional CacheVault accessory (CVPM02): 55°C
Hardware Warranty3 years, with advanced replacement optionMegaRAID Management SuiteSigers, with advanced replacement optionMegaRAID Management Suite	Operating Voltage	+3.3V, +12V
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SSD Optimizationmance controller cache pools (Optional Upgrade)Regulatory CertificationsUSA (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; WEEEOS SupportMicrosoft 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 Information05-25708-00 (Single Pack)		 MegaRAID Storage Manager StorCLI (command-line interface) CTRL-R (BIOS configuration utility)
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MegaRAID SAS 9361-16i 05-25708-00 (Single Pack)	OS Support	Fedora, Debian See www.broadcom.com/support/download-search for details on versions. Contact Oracle support for
	Ordering Information	
CVPM02 05-50038-00 (Kit)	MegaRAID SAS 9361-16i	05-25708-00 (Single Pack)
	CVPM02	05-50038-00 (Kit)



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