Simbolo Series

SB-3163S-S3S3
3Gb SAS-SAS/SATA RAID Subsystem

SB-3163J-S3S3
3Gb SAS JBOD

SAS for Felxibility, Scalability and Performance

◎ SAS interface supports both SAS disk drives, with advanced enterprise level reliability and functionality, for data-intensive application and SATA disk drives for low-cost bulk storage of reference data
◎ Features the external minSAS 4x connector for external JBOD expansion
◎ Using Intel newest IOP for optimum RAID performance

Unsurpassed Data Availability

◎ Advanced Data Guarding technology (RAID ADG) provides the highest level of data protection
◎ RAIDADG can tolerate two simultaneous drive failures without downtime or data loss

Exceptional Manageability

◎ The firmware-embedded Web Browser-based RAID manager allows local or remote management and configuration
◎ The firmware-embedded SMTP manager monitors all system events and user notification automatically
◎ The firmware-embedded SNMP agent allows remote to monitor events via LAN with no SNMP agent required
◎ Menu-driven front panel display
◎ Innovative Modular architecture

Features

◎ Supports RAID levels 0, 1, 3, 5, 6, 30, 50, 60 and JBOD
◎ Supports online Array roaming
◎ Online RAID level/stripe size migration
◎ Online capacity expansion and RAID level migration simultaneously
◎ Online Volume Set Expansion
◎ Supports multiple array enclosures per host connection
◎ Supports greater than 2TB per volume set (64-bit LBA support)
◎ Supports 4K bytes/sector for Windows up to 16TB per volume set
◎ Support spin down drives when not in use to extend service (MAID)
◎ Supports upto 122 physical drives and 32 LUNs per RAID set
◎ Transparent data protection for all popular operating systems
◎ RAID ADG provides the highest level of data protection
◎ Instant availability and background initialization
◎ Supports S.M.A.R.T, NCQ and OOB Staggered Spin-up capable drives
◎ Supports hot spare and automatic hot rebuild
◎ Local audible event notification alarm.
◎ Supports password protection and UPS connection
◎ Built-in serial port interface for remote event notification
◎ Redundant flash image for high availability

Model	SB-3163S-S3S3	SB-3163J-S3S3
Form-factor	3U 19-inch rackmount chassis	3U 19-inch rackmount chassis
RAID processor	Intel IOP341 64-bit	-
RAID Level	0, 1, 3, 5, 6, 30, 50, 60 and JBOD	-
Cache memory	256MB ~ 2GB DDR2 SDRAM	-
No. of channels (host+drive)	8 + 16	-
Host bus interface	Two 4x mini SAS (3Gb/s)	One 4x mini SAS (SFF-8088)
Drive bus interface	SAS or 3Gb/s SATA II	SAS or 3Gb/s SATA II
Data transfer rate	Up to 300MB/sec per channel	Up to 300MB/sec per channel
Expansion	One 4x mini SAS (SFF-8088)	Two 4x mini SAS (SFF-8088)
Controller Redundancy	Option	-
Hot-swap drive trays	Sixteen (16) 1-inch trays	Sixteen (16) 1-inch trays
Online capacity expansion, RAID level/stripe size migration	Yes	-
Online Volume sets expansion	Yes	-
Online Array roaming	Yes	-
Online consistency check	Yes	-
SMTP manager and SNMP agent	Yes	-
E-mail Notification	Yes	-
Redundant Flash image	Yes	-
R-Link support	Yes	-
Support over 2TB per volume	Yes	-
Instant availability and background initialization	Yes	-
S.M.A.R.T. support	Yes	Yes
New disk insertion / removal detection	Yes	Yes
Failed drive auto rebuild	Yes	-
Continuous rebuild	Yes	-
Multiple RAID selection	Yes	-
Bad block auto-remapping	Yes	-
Audial alarm	Yes	Yes
Password protection	Yes	Yes
UPS connection	Yes	-
SES2 enclosure management	Yes	-
Hot-swap power supplies	Two (2) 460W power supplies w/PFC	Two (2) 460W power supplies w/PFC
Cooling fans	4	4
Battery backup	Option	Option
Power requirements	AC 90V ~ 264V full range 8A ~ 4A, 47Hz ~ 63Hz	AC 90V ~ 264V full range 8A ~ 4A, 47Hz ~ 63Hz
Environmental Relative Humidity: Operating Temp:	10% ~ 85% Non-condensing 10°C ~ 40°C (50°F ~ 104°F)	10% ~ 85% Non-condensing 10°C ~ 40°C (50°F ~ 104°F)
Physical Dimensions:	133 (H) x 482 (W) x 600 (D)mm 5.24 (H) x 18.98 (W) x 23.62 (D)inches	133 (H) x 482 (W) x 600 (D)mm 5.24 (H) x 18.98 (W) x 23.62 (D)inches
Weight	24.7kgs / 54.34Lbs (without drives)	24.7kgs / 54.34Lbs (without drives)

Specification are subject to change without notice.
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Serial Attached SCSI Advantages

Four-wire Replacement for Parallel SCSI	
Software compatible "drop in" replacement	Low voltage (1600 mV max) differential signaling (8b10b encoding)

"Star" Topology (Point-to-Point)	
Each device gets full bandwidth	Minimum arbitration overhead

SAS Attributes Extend Capabilities beyond Parallel SCSI	
Dual-porting	Native support for either SATA or SAS drives
16K devices (per domain)	Wide ports and rate matching