



SAS-to-SATA RAID Subsystem

Technical Specifications

Model Number	SB-3163-S3A3
Form Factor	3U Rackmount x 16 Disks
Raid Engine	Intel IOP 80321 XOR processor, 400MHz
Cache Memory	256MB, Up to 1GB DDR/ECC Memory; Optional 72 Hours Battery Backup
Raid Levels	RAID-0, 1, 3, 5, 6, 10, JBOD; HotSpare, HotSwap, Auto-Rebuild
Raid Features	<ul style="list-style-type: none"> • Multiple RAID Selection & Array Roaming • Online RAID Level/Stripe size Migration & Capacity Expansion & Volume Set Growth • Volume Instant availability and background initialization • Greater than 2TB per Volume Supported • Disk Scrubbing / Array Verify scheduling for automatic repair of all raid sets • Login record in the event log with IP address and service • Support MAID - spin down drives when not in use to extend service life • Support NTP protocol to syn chronize RAID controller clock over the on-board Ethernet port
Host Interface	<ul style="list-style-type: none"> • Two 4x mini SAS Connectors (2 x SFF8088) • Support Two Servers/Applications Failover Clustering
Disks	16 x HotSwap 3.5" SATA II HDDs
Backplane	Cableless Backplane
LCD & Indicator	<ul style="list-style-type: none"> • LCD Display with Input Buttons for setup, and error message display • System Status indication through LCD, LED and Alarm Buzzer; SES2 Ready
Raid Management	<ul style="list-style-type: none"> • Configure and Monitor by HyperTerminal via RS232, and/or Web Browser via LAN/RJ45 • Embedded SMTP manager monitors all system events, and user can select to setup email alert notification to single or multiple recipients
Power Supply	<ul style="list-style-type: none"> • 3 x 300Watts, 2+1 Redundant & HotSwap, • AC 90V ~ 254V Full Range; 12A / 6A at 110V / 220V, 50Hz/60Hz
Dimension & Weight	133mm(H) x 482mm(W) x 609mm(D) / 5.24" (H) x 18.98" (W) x 23.98" (D) 20.5kgs / 45.1Lbs (without drives)
Scalability	By 1-to-4 Octopus SAS Cable, (optional purchase)
Compatibility	
OS	OS Independent & Transparent
Host Bus Adapter	<ul style="list-style-type: none"> • LSI SAS HBA: LSISAS3801X & LSISAS3801E • Areca ARC-1300

SAS Host -to- SATA RAID SUBSYSTEM

FT-1603-SSA is intended to be an alternative choice to the SCSI-to-SATA RAID system. It is to address the challenges of : Stable Bus Connectivity, Low-Cost, Good Enough Performance, Large and Scalable capacity.

Typical Applications

Archiving applications and Security DVR applications. Because this type of applications requires a very stable data stream flow, a lots of capacity at a very affordable price point, but do not need super fast performance.

SAS Connectivity Advantages over SCSI

- Better Cabling resulting better signal integrity and longer cable allowed
- Native support Greater than 2TB per volume even for Linux/BSD/Unix/MAC, besides Windows. On the other hand, SCSI model is having problem doing that for non-Windows OS.
- Allow capacity expansion by using the 1-to-4 Octopus SAS cable to aggregate multiple RAID boxes. On the other hand, daisy-chaining multiple SCSI boxes will become extremely unstable.
- Allow performance aggregation by using the 1-to-4 Octopus SAS cable to aggregate multiple RAID boxes and Stripe them in the OS

**Features & Benefits**

- OS Independent & . Transparent
- Support Two Servers/Applications Failover Clustering by providing dual SAS ports to hosts
- Single-Piece & Cableless Backplane Design
- Unique 1-to-4 Octopus SAS cable allows a single 8088 SAS connector to connect up to 4 RAID units.

