High Reliability

- Optional Battery Backup module preserves cache contents from power failure.
- Support S.M.A.R.T. & NCQ & OOB Staggered Spin-Up capable drives
- Auto-Latch Lock:Two simple steps to remove the hard drive tray. This creative concept is designed to avoid accidental removal.

- Hith quality dual 460 watts power supply modules support PFC (power fact correction), and temperature controlled via FAN speed

- Cable-less design, utilizes solid PCB and connector instead of cables
- Modulized design: disk drive carrier, cooling fan, LCD, power supply, power switch, and RAID controller are modular that allow easy swap out of faulty parts to shorten the down time of RAID service

Advanced and wide range airflow design : Redundant fans are in a single module

Cost Effective Solution — Yotta A Series

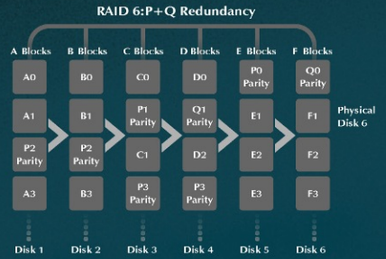
Yotta A series is specially designed for various needs of fast-growing environments. Target usage ranges are set from small business to department and corporate server needs.

We provide a cost effective and outstanding performance RAID solution. It combines high performance 4 Gbps FC/Ultra-320 SCSI host connector with the cost-effective SATA II drives; simplifying the storage setup process to make a smart choice for many kinds of purpose.

Uninterrupted Availability

What is RAID 6?

A RAID 6 is essentially an extension of a RAID 5 by providing two parity codes for each stripe of data. Meaning two concurrent drive failures can be sustained with no loss of data, providing enhanced data protection as compared with single-parity RAID subsystems.



Why need RAID 6?

1. Need tolerate two simultaneous drive failures without downtime or data loss.
2. Higher fault tolerance than RAID 1, 3 or 5.
3. Ideal for applications requiring large logical drives
4. Lower implementation cost than Mirroring.

- 'Online Array roaming' allows the administrators to move a completely raid set to another system without losing RAID configuration and data on that raid set. If a RAID fails to work, the raid set disk drives can be moved to another RAID and inserted in any order.
- Online RAID level/stripe size migration.
- Online capacity expansion and RAID level migration simultaneously.

Easy RAID Management

Configuration & Health Monitoring:

Manual configuration and monitoring can be done through the LCD control panel, RS-232 or Ethernet

Web Browser-based RAID manager allows local and remote administrators to access it from standard Internet browser via 10/100 Ethernet port with no software or patches required. It does bring you the most convenient way to configure and monitor your RAID subsystem.

Event Notification:

- The firmware contains SMTP manager to monitor all system events and user can select either single or multiple user notification to be sent via 'Plain English' e-mails.
- Warning message will show in the LCD.
- Firmware-embedded SNMP agent allows administrator to monitor events through LAN remotely.

Automatically sends the event report by E-mails.

Tower Solution — Yotta Mini Series

The portability Tower-type enclosure provides end-user the flexible connection to various desktops and tower-type servers. Under the stylish Yotta Mini outlook, it features the storage flexibility and simplicity while ensuring optimum data protection.

- RAID controller high-performance architecture comes from Intel 80219 I/O processor along with 256MB DDR SDRAM onboard cache memory with ECC protection.
- Proprietary PCI-X 2.0 ASIC to implement highest performance RAID 6 function.
- Advanced 64-bit PCI-X 133Mhz bus architecture.
- Optional Single ATX 420 watts power supply or 2 x 250 watts Redundant Power Modules with PFC features

SAS Solution YOTTA B SERIES

SAS Capacity Scalability

SAS builds on parallel SCSI by providing higher performance, improving data availbility , and simplifying system design. The SAS inerface supports both SAS disk drives for data-intensive applications, and serial ATA(SATA) drives for low-cost bulk storage of reference data. The Yotta B series can support up to 16 SAS ports to solid backplane and via one external miniSAS 4 x connector for easy expansion. When used with YB16S3JS3 (Optional SAS Expander), the controller can provide up to 122 devices through one or more YB16S3JS3, Making it an ideal solution for enterprise-class storage applications that call for maximum configuration flexibility.

▪ miniSAS Connector

Coupled with YB16S3JS3 (Optional SAS Expander) supporting up to 122 SAS/SATAII devices connected. Yotta B series provides the burgeoning applictions like NAS, Sever, medical imaging MOD with the most high-end data security without sacrificing performance concurrenty.

Superior Performance

New Intel Xscale 64-bit IOP
Advanced PCI-E and 133Mhz/64-bit PCI-X Bus architecture
Up to 2GB DDR-2 533 SDRAM on DIMM socket with ECC protection
Intel RAID 6 engine to support extreme performance RAID 6 function

Why SAS

The logical evolution of parallel SCSI to serial I/O
- 3Gbs links leveraging same PHY technology as serial ATA II

Highly scalable performance
- Fully duplex 3Gbs links
- PHYs can be aggregated to wide ports (e.g. 4x links for 12Gbs links)
- Up to 16K capable devices total with SAS expands
- Cable up to 8 meters

High reliability
- Dual porting of drives for redundancy
- Multi-initiator
- Higher MTBF drives

Flexibility
- SAS host controller can also access SATAI/ II drive
- Wide range of cost per GB/reliability/manageability tradeoffs in drive selection

Yotta A/B/Mini Series RAID Subsystems

	Yotta A Series	Yotta B Series		Yotta Mini Series
Model	YA-08/12/16SAEU4 YA-08/12/16SAEF4	YB-12/16/24S3ES3 YB-12/16/24S3EF4	YB-16S3JS3	YI-06SApEU4N/YI-06SApEU4P YI-06SApEF4N/YI-06SApEF4P
RAID Engine	Intel Xscale i80321@400Mhz	Intel Xscale i81341 @800Mhz	SAS Expander	Intel Xscale i80219@400Mhz
Controller#	1		1 or 2 Expander board	1
RAID Level	0,1,0+1,3,5,6, and JBOD	0,1,1E, 0+1,3,5,6,30,50,60 and JBOD	N/A	0,1,0+1,3,5,6 and JBOD
Cache Support(Write Back)	Up to 1GB of DDR 266 SDRAM	Up to 2GB of DDRII 533 SDRAM	N/A	256MB DDR SDRAM
System Type	Rack mountable 2U/3U		Rack Mountable 3U	Tower Type
Host Interface	Dual Ultra 320 SCSI / 4Gb Fibre Channels	Dual MiniSAS / 4Gb Fibre Channels	Upstream mini SAS	Single Ultra 320 SCSI / Dual 4Gb Fibre Channels
Disk Interface	SATA II	SAS /SATA II		SATA II
Disk Channels	8/12/16 of SATA II	12/16/24 of SAS/SATA II	16 of SATA II	6 of SATA II
LCD Display	2 Lines by 16 characters		N/A	2 Lines by 16 characters
Hot Swap and redundant	Yes (Power Supply, Hard Disk Drive & Fan)			
Hot Spare	Yes (Disk Down)			
Battery Back-up Module	Optional, Supporting 72 hours battery back-up time		N/A	N/A
Array Management Support	Yes		N/A	Yes
Automatic Bad-Sector & Error Recovery	Yes		N/A	Yes
Automatic Drive Rebuild	Yes. Automatic Data Rebuild		N/A	Yes, Automatic Data Rebuild
Alarm buzzer and E-mail Notificatio	Yes		N/A	Yes
Online Array Roaming	Yes		N/A	Yes
Online RAID level Migration	Yes		N/A	Yes
Online Capacity Expansion and RAID Level Migration simultaneously	Yes		N/A	Yes
Remote Terminal Configuration	Yes. Through RS-232 or 10/100 Ethernet port		N/A	Yes. Through RS-232 or 10/100 Ethernet port
Operating System	OS independent and transparent			
Power Supply	Redundant by Dual 460W/375W Power modules with PFC feature, Loading Sharing type and cable-less design.	Redundant by Dual 460W/375W (16/12 bays) or 3 x 460W (24 bays) Power modules with PFC feature, Loading Sharing type and cable-less design.		Redundant by Dual 250W Power Modules with PFC feature, Loading Sharing type and cable-less design, or Single ATX 420W Power Supply with PFC feature
Electorical	AC Voltage 100-240 VAC/AC Frequency 50-60Hz			
Temperature	Operating Temperature : 10 to 35 degree C.			
Relative Humidity	20% to 80% non-condensing			
Dimension (mm)	446.4(W) x 465(D) x 3U(H) 446.4 (W) x 478(D) x 2U(H)	446.4(W) x 550(D) x 3U(H) 446.4 (W) x 525(D) x 2U(H)		166 (W) x 278 (D) x 346 (H)

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Yotta A/B/Mini Series