

It's All About Your Data

VessRAID™ 1000s Series RAID 6 Storage System

VessRAID™ 1000s Series



Dual Ports SAS-to-SAS/SATA RAID 6 Storage System
Enterprise Level Features at an Entry Level Price



**HIGH
PERFORMANCE**

Getting Enterprise Features on VessRAID

Born with the field-proven enterprise RAID engine from the previous generation of Promise VTrak products, VessRAID is a robust storage system equipped with a full selection of RAID and management tools. The Intel dual-core IOP348 design inside enables SAS series to outperform existing storage arrays from competitors in an improved 15%~20% sequential read and write performance readings which is practical for mission-critical applications running on the host.



**ENERGY
SAVING**

Totally Green Power

VessRAID features advance hardware design by using 80PLUS power supply¹ and allows users to power down the system through power scheduler operation to optimize system power effectiveness and energy efficiency. Power scheduling enables the VessRAID system to do a disk-to-disk backup or restore operation on a user-scheduled basis then returns to standby mode when backup is finished, resulting in a considerable 70% cost savings annually.



**SMART
MANAGEMENT**

One-Plug-Auto-Service (OPAS)

OPAS was designed to reduce maintenance complexity as much as possible. With a simple USB stick plug-in to the system's USB port, it helps to shorten the turnaround time of conventional system diagnostic flow, and will come with more advanced applications like firmware upgrade, event log history, system setup restore, and array configuration scripts installation as a full service release.



**COMPETITIVE
PRICING**

Designed for Cost-Sensitive Business

Current economic conditions worldwide have caused enterprises to either cut their IT budgets or slow down their planned deployment of storage facilities. There is a tremendous need of cost-effective yet feature-rich storage solutions, and the Vess family is the right marketing fit at the right time.

Your Comprehensive Storage Partner

PROMISE storage solutions comprise various combinations of host bus adapter, Vess system and enclosure series connection. A VessRAID storage system can be direct attached with the FastTrak TX8668 adapter as host channel, and downlinks secondary VessJBOD expansion enclosures up to 80 drives. A VessJBOD enclosure supports IOP based RAID adapter like SuperTrak EX8654, SuperTrak EX8658, and SuperTrak TX8658 as a massive disk storage pool.



System Highlights and Benefits

- ⋮ 16/12 hot-swappable SAS/SATA drive bays in a robust 3U/2U chassis
- ⋮ 3Gb/s Serial Attached SCSI and Serial ATA drives support
- ⋮ 512MB ECC shared cache (up to 2GB), with optional battery backup units
- ⋮ Single or Dual hot-swap redundant power supply unit with 80PLUS Certified
- ⋮ Up to 880MB/s disk sequential throughput
- ⋮ OPAS and UPS Monitor via USB service
- ⋮ Comprehensive embedded web-based management via Ethernet – WebPAM PROe
- ⋮ Power Scheduler Operation
- ⋮ Multiple global or dedicated hot-spare drives
- ⋮ PerfectRAID™ and Predictive Data Migration™ technology for robust error handling and recovery
- ⋮ LCD Panel support (optional)
- ⋮ Wake-on-LAN support

Quick Selection Guide		
	Host Option	Subsystem/Enclosure
A	FastTrak TX8668	VessRAID SAS series
B	SuperTrak EX8654	VessJBOD series
	SuperTrak EX8658	
	SuperTrak TX8658	
C	VessRAID iSCSI series	VessJBOD series



¹Single PSU is 80 PLUS Bronze Certified, Redundant PSUs have 80 PLUS power efficiency

VessRAID™ 1000s Series Specifications

VessRAID System	VessRAID 1730s	VessRAID 1740s	VessRAID 1830s	VessRAID 1840s
System and Controller Features				
Form Factor	2U	3U	2U	3U
Drive Support	12 Drives (3.5")	16 Drives (3.5")	12 Drives (3.5")	16 Drives (3.5")
Controller	SAS(3Gb/s), SATAII(3Gb/s), NCQ, TCQ			
Controller	Single (Intel® IOP348 800MHz)			
Host Channel	Dual Ports SAS-wide (x4) over SFF-8088			
Promise Expansion Enclosure	One Port SAS-wide (x4) for Vess BOD series			
Data Cache	512MB~2GB ECC cache memory with Optional BBU (Battery Backup Unit)			
Command Queue Depth	512			
Operational Features				
RAID Levels	RAID 0, 1, IE, 3, 5, 6, 10(0+1), 30, 50, 60			
Hot spares	Global or Dedicated w/ revertible option			
Max LUNs per subsystem	256			
Max LUNs per array	32			
Variable Block and Sector Size	64KB ~ 1MB stripe block sizes 512B, 1KB, 2KB, 4KB sector size			
Disk Data Formats	Supports Disk Data Format (DDF) for drive roaming between Vtrak and VessRAID series systems			
Background Activities	Media Patrol Background Synchronizing; Initialization Rebuild; Redundancy Check SMART Condition Pooling, OCE (Online Capacity Expansion)/RLM (RAID Level Migration) Priority Control; Throttle Rate Control and watermarking per BGA (background activities) in Disk and NVRAM			
RAID Robustness	PDM (Predictive Data Migration) PerfectRAID™ advanced error handling Array Error Recovery Read/Write Check Table, Write Hole Table, Bad Sector Re-map Table, NVRAM event logging			
System Management				
Supported OS	Windows 2000, XP, 2003, Vista, 2008 ¹ RedHat Linux, SuSE Linux FreeBSD 7.0			
Management Tools	WebPAM PROe/SNMP via Ethernet CLI/CLU via RJ-II or Ethernet LCD Control Panel (Optional) OPAS/UPS Monitor via USB service Power Scheduler Control			
Management Interfaces/ Protocols	Ethernet, RJ-II Serial Port, USB SNMP, SSL, Telnet, SLP			
Event Notification	Email, SNMP, NETSEND, Buzzer, LEDs, LCD Control Panel			
System Information				
AC Input	90 ~ 264 VAC, 47 ~ 63Hz			
Current (Maximum)	6A (100V); 3A (240V)	7A (100V); 3.5A (240V)	6A (100V); 3A (240V)	8A (100V); 4A (240V)
Power Supply	Single 350W 90-264V full-ranging w/PFC 80PLUS Bronze Certified	Single 450W 90-264V full-ranging w/PFC 80PLUS Bronze Certified	Dual 350W 90-264V full-ranging w/PFC 80PLUS Power Efficiency Hot swappable and redundant	Dual 450W 90-264V full-ranging w/PFC 80PLUS Power Efficiency Hot swappable and redundant
FAN	N+1 design			
Temperature	5° ~ 40°C ² (-40° ~ 60°C non operational)			
Relative Humidity	10% to 80% non-condensing			
Dimensions (H x W x D)	88.2 x 446.2 x 461 mm 3.5 x 17.6 x 18.1 in	130.1 x 446.2 x 461 mm 5.1 x 17.6 x 18.1 in	88.2 x 446.2 x 461 mm 3.5 x 17.6 x 18.1 in	130.1 x 446.2 x 461 mm 5.1 x 17.6 x 18.1 in
Weight	11.2 kg (24.69 lbs) w/o drives 19 kg (41.89 lbs) w/ drives	14 kg (30.86 lbs) w/o drives 23.6 kg (52.03 lbs) w/ drives	13 kg (28.66 lbs) w/o drives 20.8 kg (45.86 lbs) w/ drives	16 kg (35.27 lbs) w/o drives 25.6 kg (56.44 lbs) w/ drives
Safety/EMI	CE, FCC Class B, VCCI, BSMI, CB, KCC, C-Tick, UL/cUL, TUV			
Base Configuration	VessRAID 2U/3U Unit w/ Drive Carrier RJ11-to-DB9 Serial Data Cable, Power Cord (Single PSU: 1; Dual PSU: 2) Quick Start Guide, Set of Screws, CD (Product Manual, SNMP files, QSG)			
Warranty and Support				
Warranty	3 years limited warranty ³			
Supported Hardware Options	LCD Panel, Front Bezel, Sliding Rail, Battery Backup Unit, SAS Cable			

¹Microsoft® WHQL for Windows Server 2003 and 2008²Operational Temperature between 5° ~ 35°C if BBU installed³BBU is covered by one year limited warranty

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