PROMISE VTrak Ex30f

8Gbps Fibre Channel to 6Gb SAS/SATA High Availability Storage

PROMISE® TECHNOLOGY, INC.

VTrak x30

VTrak Ex30f Advantages

- Active-Active dual controller support with ALUA support

- Quad 8Gbps FC ports per controller provides maximum system throughput

- Supports 6Gbps and 3Gbps SAS & SATA drives simultaneously

- Up to 90% power efficiency

- PerfectFlash eliminates downtime for software updates

- Automatic parity rebuild and data integrity checking

- Minimizes maintenance time using Predictive Data Migration (PDM)

- Seamless online capacity expansion

- Embedded I/O performance and power usage monitoring

Why Promise

The Promise VTrak Ex30f subsystem has been designed to provide industry leading performance and reliability for mission critical environments at an affordable price. The fully redundant design provides data protection and availability even if a component should fail. This provides VTrak users uninterrupted productivity for the life of the product.

With today's increasing demands on storage infrastructure complexity, IT administrators are constantly looking to gain an edge on performance, capacity and overall cost. The PROMISE VTrak Ex30f is coupled with high speed 8Gbps Fibre Channel host connectivity, support for 6Gbps SAS and SATA disks and a next generation embedded storage I/O processing platform out to set a new performance standard while providing a reliable, flexible and easy to manage RAID storage system.

Tomorrow's Performance. Today.

As performance needs grow, the PROMISE VTrak Ex30f is built using the Intel's next generation storage platform, the Intel Xeon processor C5500/C3500 series to keep pace with those demands. With quad 8 Gbps FC ports per controller and support of the 6Gbps SAS and SATA hard disk drives and SSDs, the VTrak Ex30f performance flys. Delivered in a Storage Bridge Bay (SBB) 2.0 compliant package, the Ex30f offers the full redundancy that is expected of an enterprise solution. Dual active-active controller modules with cache mirroring over a PCIe Gen 2 link allow for redundant data paths to ensure data availability while dual power supplies/cooling units are in place to minimize downtime and any disruption to business continuity.

GreenRAID

PROMISE cares about the environment. VTrak products utilize environmentally friendly production methods and materials and are designed with high-efficiency in mind. Powered by 80Plus certified power supplies that offer up to 90% power efficiency, all VTrak Ex30 products improve total cost of ownership by conserving power, reducing heat output and improving cooling costs. Additionally, the PROMISE GreenRAID story includes advanced power management support for hard disk drives providing up to 65% energy savings.

Service and Support

Every VTrak Ex30 subsystem is backed by the PROMISE 3-Year limited warranty with 24/7 telephone and e-mail support. In addition to our industry leading warranty, PROMISE offers extended warranty and onsite parts replacement options with service levels with response times as low 4 hours.

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Controller Module Features	2U/12 Bay	3U/16 Bay	4U/24 Bay
Model # - Single Controller	VTE330fS	VTE630fS	VTE830fS
Model # - Dual Controller	VTE330fD	VTE630fD	VTE830fD
Drive Support	Up to twelve 3.5"/2.5" HDDs or SSDs	Up to sixteen 3.5"/2.5" HDDs or SSDs	Up to twenty-four 3.5"/2.5" HDDs or SSDs
	• SAS: 6 Gbps, 3Gbps • NL-SAS: 6 Gbps, 3Gbps • SATA: 6Gbps, 3Gbps and 1.5Gbps • Supports any mix of SAS and SATA drives simultaneously in the same enclosure		
External I/O Ports (per controller)	• Four 8Gbps Fibre Channel ports, backwards compatible with 4Gbps and 2 Gbps Fibre Channel • One external SAS port using industry standard Mini SAS 4x wide-port-SAS connectors (SFF-8088) to connect up to 7 cascading expansion JBODs		
Data Cache	2GB data cache per controller protected with hot-swappable battery backup unit (BBU)		

Operational Features			
RAID Levels	0, 1, 1E, 5, 6, 10, 50, 60		
RAID Stripe Size Support	64K, 128K, 256K, 512K and 1MB		
Hot Spares	Global or dedicated with revertible option		
Max LUNs per Subsystem	1024		
Max LUNs per array	32		
Advanced Storage Features	• Advanced Cache Mirroring over PCIe Gen2 • Simple, drag-and-drop LUN Masking and Mapping • Asymmetric LUN Unit Access (ALUA) • Volume Copy	• PerfectFlash - Non-Disruptive Software Update • I/O performance & power monitoring tools • USB Service Log • LDAP Support for central user management	
Background Activities	• Media Patrol • Background Synchronization • Foreground Initialization • Rebuild • Redundancy Check	• Disk SMART Polling • Online Capacity Expansion (OCE) • RAID Level Migration (RLM) • UPS Monitoring • Feature rich task scheduler for background activities	
PerfectRAID Features	• Predictive Data Migration (PDM) • Intelligent Bad Sector Remapping • SMART Error Handling • NVRAM Error Logging	• Disk Slot Power Control • Read/Write Check Table • Write Hole Table	
GreenRAID Features	• Four levels of advanced power management disk drive (MAID) support • Efficient 80Plus Certified power supplies		

System Management			
Management Interfaces	• Web Based management using WebPAM PROe (Ethernet) • Command Line Interface (CLI) or Command Line Utility (Serial Port or Ethernet via Telnet, SSH) • Third Party Management Support via SNMP, CIM		
Supported Operating Systems	Windows 2008, Oracle Linux Red Hat Linux, SuSE Linux, VMware 4.x		

Mechanical Specification			
Voltage	100-240 Vac Auto-Ranging		
Current (Maximum)	10 A @ 100 VAC; 5 A @ 200 VAC		
Power Conversion Efficiency	>80% @ 110V (>20% load), >80% @ 240V (>20% load)		
Temperature Range	Operational: 5° to 35°C Non-Operational: -40° to 60°C		
Humidity	Operational: 10% to 90% (Non-Condensing) Non-Operational: 5% to 95% (Non-Condensing)		
Acoustic Noise Levels	55 dB (Typical) 65 dB (Maximum)		
Shock	Operational: 5G, 11 ms duration Non-Operational: 10G, 11ms duration		
Vibration	Operational: 0.3G, 5 to 500 Hz Non-Operational:: 1G, 5 to 500 Hz		
Safety	CE, FCC Class A, UL/cUL, TUV, BSMI Class A, VCCI Class A, CB, KCC, NOM, GOST-R, IRAM, C-Tick, S-Mark		
Environmental Standards	RoHS, GreenPC, WEEE		

	2U/12 Bay	3U/16 Bay	4U/24 Bay
Power Supply	Dual 550W, 100-240 VAC auto-ranging, 50-60Hz, dual hot swap and redundant with PFC, N+1 design	Dual 580W, 100-240 Vac auto-ranging, 50-60 Hz, dual hot swap and redundant with PFC, N+1 design	Dual 750W, 100-240 Vac auto-ranging, 50-60 Hz, dual hot swap and redundant with PFC, N+1 design
Dimensions (H x W x D)	13.1 x 44.7 x 50.7 cm 5.2 x 17.6 x 19.96 in	13.1 x 44.7 x 50.7 cm 5.2 x 17.6 x 19.96 in	17.4 x 44.7 x 50.7 cm 6.9 x 17.6 x 19.96 in
Weight	18 kg / 40 lbs (w/o drives)	25 kg / 56 lbs (w/o drives)	27 kg / 60 lbs (w/o drives)

Warranty and Support	
Warranty	Three year complete system limited warranty with advanced parts replacement; optional extended warranty; onsite parts replacement program - PROMISE Service Plus (optional in some regions)
Support	24/7 e-mail and phone support (English only); 24/7 access to Promise support site-drivers, firmware and compatibility lists