VTrak x30 Series RAID Subsystem

High Performance 8G Fibre Channel SAN Storage

VTrak x30 Advantages

- Quad 8Gbps FC ports per controller

- Delivers up to four times more performance than previous generation

- High-availability design

- Out-of-the-box support with zero software install required

- Scale up to 9 expansion chassis for a total of 240 drives

- PerfectFlash enables software updates without requiring downtime

- Administer access control through Open Directory & LDAP

- Energy efficient power supplies offering up to 85% power efficiency

- Qualified solution for OS X, XSAN, Final Cut Pro and Adobe Premiere

- Certified for Windows, Linux, and StorNext

- VTrak A-Class storage node support ready

Tomorrow's Performance. Today.

The PROMISE VTrak x30 Series RAID subsystem is a high performance, massively scalable 8G Fibre Channel storage subsystem designed to provide 24/7, 365 enterprise-class availability. Optimized to work within an OS X environment, the VTrak x30 Series offers up to four times more performance than the previous generation delivering up to 5.5 GB/s for reads and 2.4 GB/s for writes.

The VTrak x30 Series RAID solution was developed to meet the mission critical needs of today's demanding video workflows. At the heart of the PROMISE VTrak x30 Series RAID subsystem is an advanced, high-performance RAID engine developed over the course of two decades. Powered by next-generation processing power from Intel, the Xeon C3500 Series processors, the VTrak x30 unleashes tomorrow's performance, today.

Edit & Playback Video Faster than Ever Before

Faster processor, more memory, faster FC ports is just the beginning. Enhanced cached mirroring design, auto-regeneration of data to mitigate frame drops and optimized disk access all add up to more performance for broadcast and editing environments.

Redesigned WebPAM PROe Management Suite

Designed with simplicity in mind, the all-new WebPAM PROe takes VTrak storage management to a new level. Included are automatic configurations tuned for common applications, non-disruptive software updates, power savings scheduler, performance and power monitoring statistics, drag-and-drop LUN mapping/masking and more. Every thing you need is built in, just login through Safari.

Heterogeneous Environments. Always.

PROMISE has a long history of supporting multiple platforms. The VTrak x30 Series supports OS X, Windows and Linux. Extensively tested and qualified across diverse OS and SAN environments such as XSAN and StorNext, the VTrak x30 is built for your enterprise workload.

VTrak x30 Configurations

	Form Factor	Storage	Drives (Populated)	Controller Specs	Expansion Support	Apple P/N	Channel P/N
3U	3U Rack Mount - 16 Drive Bays	32TB	8x 2TB 7200-RPM SATA	Single, Four 8Gbps FC ports 4GB Cache	Up to 9 Exp. Chassis	H4945LL/A	H4945LL/A
	3U Rack Mount - 16 Drive Bays	32TB	16x 2TB 7200-RPM SATA	Dual, Eight 8Gbps FC ports 4GB Cache	Up to 9 Exp. Chassis	N/A	H4946LL/A
	3U Rack Mount - 16 Drive Bays	32TB	16x 2TB 7200-RPM NL-SAS	Dual, Eight 8Gbps FC ports 4GB Cache	Up to 9 Exp. Chassis	H4946LL/B	E630FDQS2
	3U Rack Mount - 16 Drive Bays	48TB	16x 3TB 7200-RPM NL-SAS	Dual, Eight 8Gbps FC ports 4GB Cache	Up to 9 Exp. Chassis	HA260LL/A	E630FDQS3
	3U Rack Mount - 16 Drive Bays	64TB	16x 4TB 7200-RPM NL-SAS	Dual, Eight 8Gbps FC ports 4GB Cache	Up to 9 Exp. Chassis	HC854LL/A	E630FDQS4
4U	4U Rack Mount - 24 Drive Bays	48TB	24x 2TB 7200-RPM SATA	Dual, Eight 8Gbps FC ports 4GB Cache	Up to 9 Exp. Chassis	H4947LL/A	H4947LL/A
	4U Rack Mount - 24 Drive Bays	72TB	24x 3TB 7200-RPM NL-SAS	Dual, Eight 8Gbps FC ports 4GB Cache	Up to 9 Exp. Chassis	HA261LL/A	E830FDQS3
	4U Rack Mount - 24 Drive Bays	96TB	24x 4TB 7200-RPM NL-SAS	Dual, Eight 8Gbps FC ports 4GB Cache	Up to 9 Exp. Chassis	HC855LL/A	E830FDQS4
JBOD	3U Rack Mount - 16 Drive Bays	32TB	16x 2TB 7200-RPM SATA	Dual, 6G SATA		N/A	H4948LL/A
	3U Rack Mount - 16 Drive Bays	32TB	16x 2TB 7200-RPM NL-SAS	Dual, 6G SAS		H4948LL/B	J630SDQS2
	3U Rack Mount - 16 Drive Bays	48TB	16x 3TB 7200-RPM NL-SAS	Dual, 6G SAS		HA262LL/A	J630SDQS3
	3U Rack Mount - 16 Drive Bays	64TB	16x 4TB 7200-RPM NL-SAS	Dual, 6G SAS		HC857LL/A	J630SDQS4
	4U Rack Mount - 24 Drive Bays	72TB	24x 3TB 7200-RPM NL-SAS	Dual, 6G SAS		HA263LL/A	J830SDQS3
	4U Rack Mount - 24 Drive Bays	96TB	24x 4TB 7200-RPM NL-SAS	Dual, 6G SAS		HC856LL/A	J830SDQS4
	4U Rack Mount - 60 Drive Bays	180TB	60x 3TB 7200-RPM NL-SAS	Dual, 6G SAS		HA796LL/A	J930SDQS
	4U Rack Mount - 60 Drive Bays	240TB	60x 4TB 7200-RPM NL-SAS	Dual, 6G SAS		HC858LL/A	J930SDQS4

Controller Module Features

Drive Support	• 3U form factor supports up to 16 total drives, 4U form factor supports up to 24 total drives, all equipped with enterprise-class SAS drives
Controller Features	• Four 8Gbps Fibre Channel ports (supports 8Gbps/4Gbps/2Gbps operation), One external x4 wide 6Gbps SAS port (SFF-8088) • 4GB data cache per controller protected with hot-swappable battery backup unit (BBU)

RAID 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
Background Activities	• Background Synchronization • Foreground Initialization • Rebuild	• Disk SMART Polling • Online Capacity Expansion (OCE) • Task scheduler for background activities	• Redundancy Check • Media Patrol • RAID Level Migration (RLM)
PerfectRAID Features	• Predictive Data Migration (PDM) • SMART Error Handling • NVRAM Error Logging	• Disk Slot Power Control • Read/Write Check Table	• Write-hole Table Protection • Intelligent Bad Sector Remapping
GreenRAID Features	• Four levels of advanced power management disk drive (MAID 2.0) support • Efficient 80Plus Certified power supplies offering up to 85% power efficiency		

Management & Monitoring

Management Interfaces	• Bonjour discovery • Offline Volume Copy • USB Service Log • PerfectFlash	• Advanced, drag-and-drop LUN Masking and Mapping • LDAP Support for central user management • Secure 128-bit SSL web based management using WebPAM PROe (Ethernet) • Command Line Interface or Command Line Utility (Serial Port or Ethernet via Telnet, SSH)
Monitoring Features	• Intelligent UPS Monitoring • Power and cache usage monitor	• E-Mail monitoring with customizable event notification list • SNMP, CIM for third-party monitoring software • Statistical charts for bandwidth, latency and IOPs for each port, logical drive and physical disk
Supported Operating Systems	OS X / OS X Server (10.8), Microsoft Windows Server 2008 w/SP2, Microsoft Windows Server 2008 R2, RedHat Enterprise Linux 6.0, RedHat Enterprise Linux 6.1, SuSE Linux Enterprise Server 11.1, VMware ESX Server 4.1, VMware ESX Server 5.0	

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		

	3U/16 Bay	4U/24 Bay
Power Supply	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	17.4 x 44.7 x 50.7 cm, 6.9 x 17.6 x 19.96 in
Weight	34.5 kg/76 lbs (H4945LL/A), 44.5 kg/98lbs (H4946LL/A), 41.3 kg/91lbs (H4948LL/A)	54.9 kg/121 lbs (H4947LL/A)

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