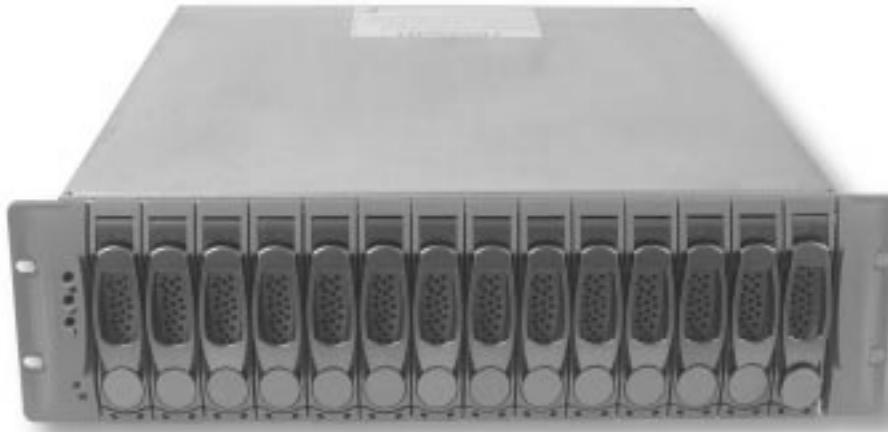# KXRA Raid Storage

DISK-BASED STORAGE SOLUTION

KXRA Series Raid Storage

Ultrak's disk-based storage solutions deliver enterprise class features and functionality in a low profile, expandable package.

The KXRA was designed for maximum flexibility and scalability for use with the KXR7000 series digital recorders. All of the critical components, including the RAID controllers and host connections, are user-pluggable. This design enables customers to maximize the return of their storage hardware investment by extending the capabilities of the system with future upgrades.

The KXRA's advanced proprietary RAID design allows single or multiple drives to be designated as hot spares. The KXRA ensures dependable hot swapping of drives by combining a connector specially designed for drive-plugging operations and an electronic soft-start capability for enhanced reliability when hot swapping. The current proprietary RAID architecture has the ability to support drives in excess of 128 GB with the flexibility to support even higher capacities with our proprietary engine with soft-reconfigurable field updates. Remote firmware updates are supported using FTP.

Unsurpassed fault tolerance results from eliminating all potential single points of failure. The advanced hardware design of the KXRA is supported by proprietary software which provides sophisticated centralized management and monitoring of all subsystems and the vehicle to notify single or multiple system operators of any user defined, system triggered event. In addition to supporting on-line hot swap of ALL active components, the KXRA's unique run-time diagnostics and error handling software monitors automatic failover initiation for all active components. The KXRA systems provide the maximum uptime operation and data protected environment available today.

- **Raid levels: 1, 4, 5, 6, 0 + 1, 1 + 0, 0 + 5 (5 std.)**

- **Continual event monitoring with active user notification**

- **On-line capacity expansion. No power cycling**

- **All active components hot-swap supported**

- **Phone home notification**

- **Active array status monitoring; adjustable stripe width; automatic sector remapping**

- **Write-back data cache memory bus, 800 Mbytes/sec bandwidth**

- **Centrally or remotely managed dynamic storage pooling and virtual volume allocations**

- **Volume Replication, Remote Mirror, Snapshot, Compression/Encryption, Virtual Tape, write-once partions**

- **System security password protected**

- **All system settings are stored in non-volatile flash memory in case of accidental power loss**

ULTRAK®

KXRA Raid Storage

TECHNICAL SPECIFICATIONS

GENERAL

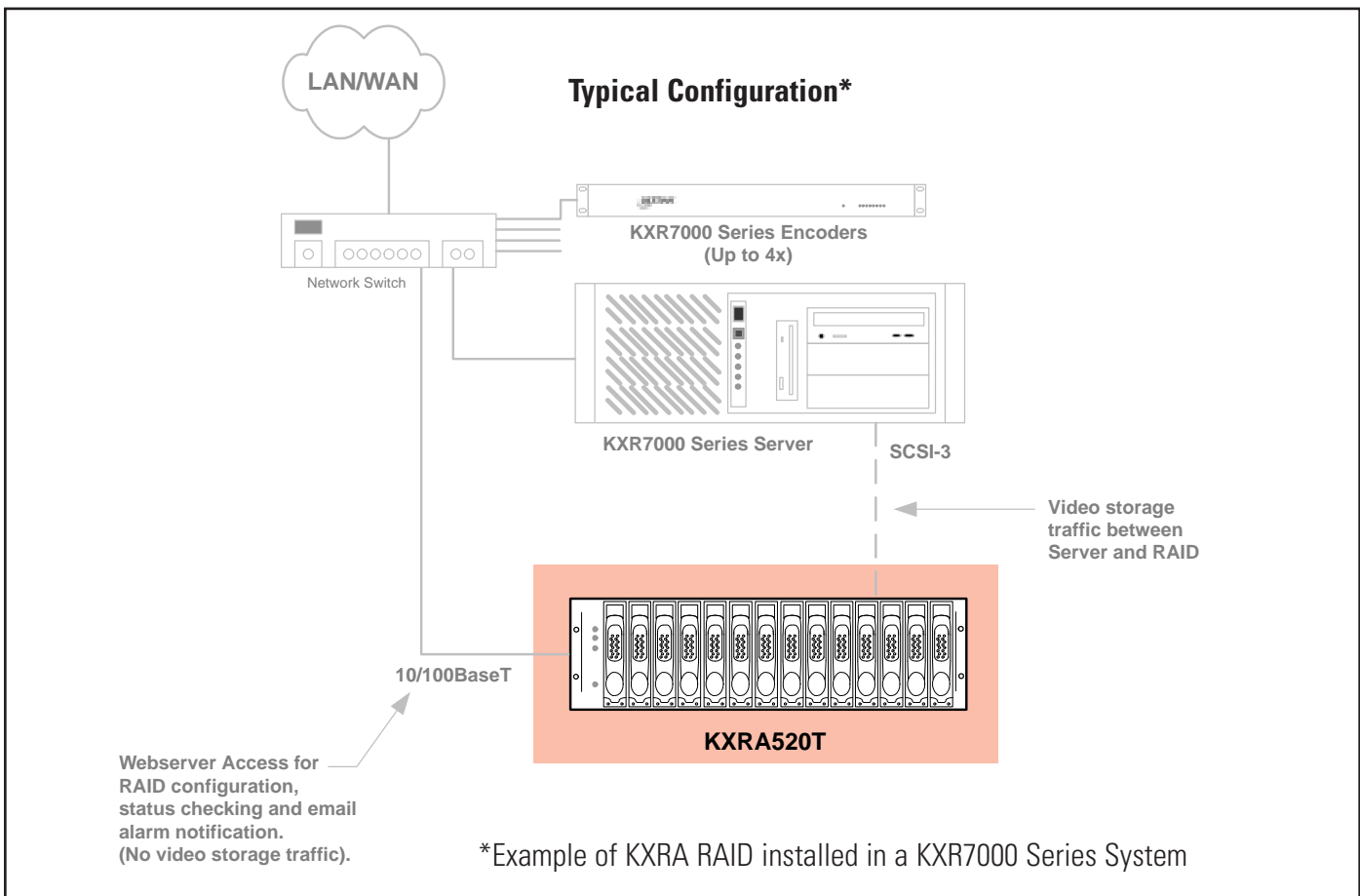|	
• KXRA Series	8 and 14 Bay Hot-Swap HDD Chassis
• Host Interface / Connectivity	Options for U160/U320 SCSI, iSCSI, Fibre, (U160 SCSI-3 std.)
• Drive Bay Size	8 Bay/4U or 14 Bay/3U
• Cache	128(256) MB
• Battery Back-up	Yes
• RAID Levels	8 Bay - 0,4,5 (RAID 5 std.) 14 Bay - 0,1,4,5,6,0+1,1+0,0+5 (RAID 5 std.)
• Sustained Data Rates	8 Bay - 80 MB/sec 14 Bay - 130 MB/sec
• Luns Supported	8 Bay – One 14 Bay – Multiple
• Inrush Current Voltage	77°F (0°C) cold start 60A @ 115 or 30A
• Frequency	47 – 63 Hz
• Operating Temperature	32°F - 104°F (0°C - 40°C)
• Cooling	2 PSU/4 Blowers – 2 Fans
• Dimensions	14 Bay Rack - 7"(H) x 19"(W) x 19"(D) (18(H) x 48.5(W) x 48.5(D) mm)
• Weight	14 Bay Rack – 46 lbs. (20.91 kgs.) Rack with harddrives – 96 lbs. (43.55kgs)

MODELS

KXRA510T	1.20TB (Terabyte) Useable Storage with RAID5 fault tolerance. Uses 8 IDE 180GB HDD internally
KXRA520T	*2.00TB (Terabyte) Useable Storage with RAID5 fault tolerance. Uses 14 IDE 160GB HDD internally*

External RAID Storage. KXRA RAID units can be daisy-chained for larger storage capacities.

ACCESSORIES

SCSI3H3H	Daisychain cable between RAID units
SCSI3H3M	SCSI data cable between server and first RAID unit. (One comes with server)

LAN/WAN

Typical Configuration*

Network Switch

KXR7000 Series Encoders (Up to 4x)

KXR7000 Series Server

SCSI-3

Video storage traffic between Server and RAID

KXRA520T

10/100BaseT

Webserver Access for RAID configuration, status checking and email alarm notification. (No video storage traffic).

*Example of KXRA RAID installed in a KXR7000 Series System

Design and specifications subject to change without notice.

Conversion: 1" = 25.4mm
Measurement conversions are approximate

www.ultrak.com