VX1800-V2 Series Unified Network Storage

Overview

VX1800-V2 series storage products are a new generation of storage products with extremely high cost performance tailored by Uniview Technology for video surveillance solutions. The VX1800-V2 series of storage products integrate video data management, data permanent protection, block virtualization RAID technology, and the industry's top disk management technology. They feature high performance, high reliability, strong expansion, easy management, easy maintenance, and support NFS、CIFS、FTP file storage protocol, to provide users with file storage solutions.

Features

high performance

- The storage array write cache refresh algorithm is intelligently analyzed and sorted through LBA. Whether it is random write or sequential write, it can efficiently and intelligently integrate the data in the cache to maximize the write performance of the array.
- The intelligent prefetch algorithm of the storage array read cache can automatically adjust the prefetch depth according to the current storage model, and can also automatically set the prefetch model according to the write characteristics of the storage activity to maximize the read performance.

RAID Features

- **RAID Rebuild**

  Automatically adjust the reconstruction speed of the array group according to the current system busyness

  Second-level reconstruction, only the changed part of the data is reconstructed, which can shorten the reconstruction time to second-level

  Fast reconstruction, rebuild data by copying, and migrate endangered data to hot spare disk in a short time

- **Disk precopy**

  Supports disk health management, and pre-copy data on risky disks in advance

- **Inspection, repair and fault tolerance**

  Automatic array inspection, disk failure repair, and disk bad block remapping functions effectively reduce disk failures

  Disk fault-tolerant processing can be performed. When multiple disks in the array have errors, the storage activity can still be guaranteed

- **Disk migration**

  Support online hot swap of disks and disk migration of arrays between devices

Data Protection

- **Data safe box**

  Online embedded UPS protection and data safe box are provided to ensure secure writing of cache data into data safe box at unexpected power-off without data loss.

- **Disk pre-copying**

  Pre-detection of failure is implemented to transfer data from risky disk to the hot spare disk.

- **Disk protection**

  Once a disk error is detected, the disk repair process would automatically start. Data in the failed disk is recalculated from other disk in the array to remap the bad blocks of disk.

- **Link protection**

  Link aggregation and dynamic failover ensure the read/write bandwidth without affecting the availability of data channels.

High-Quality Hardware Design

- Modular redundancy of components

  Cable-free design, all modules are interconnected by carrier-grade connectors, and key components such as power supply modules, battery modules, and fan modules are designed with redundant architecture, supporting hot plugging and online replacement, ensuring business continuity and data availability Reliability, system availability reaches 99.999%

- **Advanced hardware**

  intel 64-bit server platform architecture, 64-bit multi-core processor, ECC DDR4 memory，and advanced PCI-E3.0, SAS3.0 technology.

- **Dual BIOS**

  When the active BIOS fails to start, the system automatically detects the failure and switches to the standby BIOS. This ensures reliable system startup and BIOS update.

- **Software and hardware two-level watchdog**

  The system would be forced into the security mode in case of a failure. High-speed cache data is stored in the data safe box. Storage media in the data safe box can roam to the new system together with the array disk. The system can be recovered

securely and conveniently.

- **Intelligent temperature control**

  The adaptive temperature adjustment system automatically senses temperature changes and adjusts the fan's multi-speed linear speed. The intelligent speed adjustment of the fan can not only reduce the power consumption of the fan itself, but also derate the use of the fan to extend the service life of the fan

- **Dust-proof, shock-absorbing and anti-corrosion**

  Unique disk dust-proof design, effectively blocking dust

  Patented disk shock absorption technology, reducing disk resonance transmission and external impact on the disk

  Adopt original anti-corrosion early warning technology and patented disk anti-corrosion technology to minimize external corrosion to the disk and prolong the service life of the disk

Simple maintenance and management

- **Graphical unified management**

  Graphical unified management of multiple devices, one-key operation of monitoring and storage configuration, comprehensive real-time environmental control monitoring, user behavior audit (recording operator, behavior, time and other information)

- **Comprehensive warning mechanism**

  Support indicator alarm, email alarm, buzzer alarm, SMS alarm, digital tube alarm, SNMP alarm, etc.

Green Technology and Energy Conservation

- **Disk hibernation**

  The disk without IO is hibernated to reduce the power consumption of the disk and prolong the service life of the disk

- **CPU intelligent frequency modulation technology**

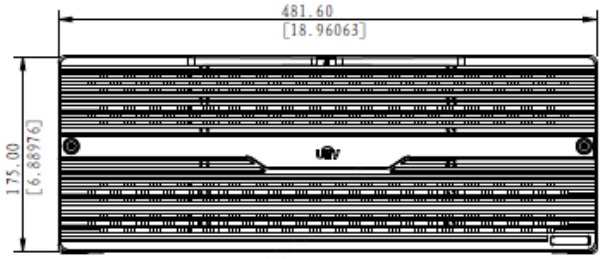
  Automatically adjust the CPU frequency according to the busyness of the business, effectively saving energy consumption

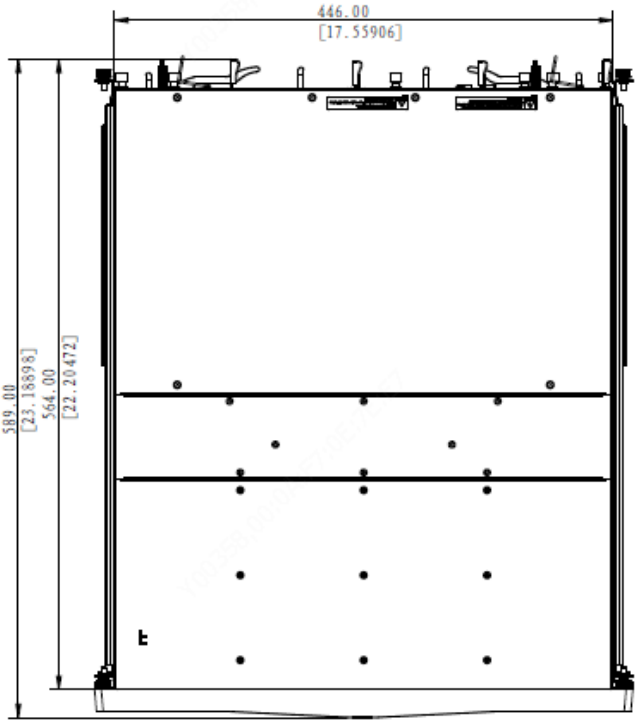
Specifications

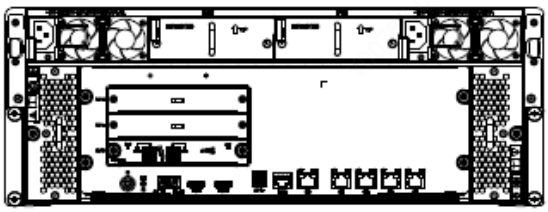
Item	VX1824-V2	VX1848-V2
Controller /Memory	Intel 64-bit multi-core processor/8 GB(up to 64 GB)	
Front-end Service Interface	5-port 10/100/1000 Mbps Ethernet interface	
	4-port 10/100/1000 Mbps Ethernet interface module（optional） 2-port 10 GE SFP＋ interface module（optional） 4-port 10 GE SFP＋ interface module（optional）	
PCIe slot	3	3
Back-end Expansion Interface	2 个 4x12Gbps Mini SAS HD 接口	
Disk channel number	24	48
Maximum number of disks	240	480
Disk type	SATA/SSD/SAS/NL-SAS	
RAID	JBOD and RAID 0,1,10, 5, 50,6 Dedicated hot-spare disk and global hot-spare disk	
Maximum Number of Logic Resources	1024	
NAS Mangement	Support soft quota and hard quota management on NAS resources	
	Windows client: user mode and domain mode (the domain server completes user authority verification) NFS client: host mode and user mode (Kerberos)	
Protocol Supported	NFS(V2、V3、V4)、CIFS/SMB、FTP	
Software features	Snapshot rollback, snapshot view, snapshot copy, consistent snapshot group, NAS backup	
Alarm Feature	Indicator light alarm, buzzer alarm, email alarm, SNMP Trap alarm, SMS alarm, digital tube alarm	
Alarm Feature	Windows、Linux、AIX、HP-UNIX、Solaris、VMware	
Power Supply	1 default, 1 optional	
Battery	1 default, 1 optional	
Fan	1 default, 1 optional	
Dimension(H ×W×D)	175mm X 481.6mm X589mm	175mm X 481.6mm X801mm
Power Consumption	Controller enclosure :< 400 W (fully configured)	Controller enclosure :< 650 W (fully configured)
Power Consumption	100 V – 127 V/ 200 V – 240 V AC, 60 Hz/50 Hz	
Weight	Controller enclosure :Fully configured：< 42kg	Controller enclosure : Fully configured：< 60 kg
Authentication certificate	CE、FCC、UL、CCC、CQC	
Operating temperature	5 °C~40°C / 41 °F ~ 104 °F,(10°C~ 35°C / 50 °F ~ 95°F Recommended)	

Dimension Figure

VX1824-V2







VX1848-V2