

# Q-Series Video Servers



Wavestore Q-Series Video Servers deliver a mid-level to enterprise recording, management and control solution for projects that demand mission-critical reliability.

Typically up to 64 network cameras can be connected to each video server, which are supplied with pre-installed Wavestore's Video Management Software (VMS). Throughput of 1200Mbits/sec is provided with multiple network interfaces to segregate incoming and outgoing network traffic. Ports can be bonded to provide fault-tolerance and maintain high-performance at all times.

Housed in a rack mountable 1U case, **Q-Series** Video Servers can accommodate up to 4 x 3.5" hot swappable hard drives to provide up to 40TB of storage. This can typically deliver more than 31 days continuous real-time recording from 64 Full HD cameras.\*\*

## Choose your Wavestore VMS channel license level

**Q-Series** Video Servers are compatible with all four levels of Wavestore's VMS: Base, Premium, Enterprise and Ultimate, which offer a broad range of capabilities and features to ensure the right solution for any given application.

## Server Groups

Multiple **Q-Series** Video Servers, as well as other Wavestore video servers, NVRs and HVRs, can be configured into a server group of up to 255 units\* to satisfy large and distributed installations via a single Graphical User Interface (GUI).

## Failover

**Q-Series** Video Servers are failover ready and can be used to protect your live viewing, recorded data and configuration in the event of hardware failure on a primary server. Should this occur, the failover server will automatically take the place of the primary server by applying the same configuration and continuing to display and record video, all without any operator intervention. Failover is available at Wavestore VMS Enterprise channel license level and above.

## HyperRAID™ redundancy and EcoStore™ energy saving

**Q-Series** Video Servers are compatible with Wavestore's HyperRAID™ technology as standard, providing options of RAID5/RAID6 (N+1/N+2) at Wavestore VMS Premium or Enterprise channel license levels. EcoStore™ is also provided at Enterprise channel license level and above, which can save over 80% of HDD energy by spinning down drives not in a read or write state.

## Warranty

**Q-Series** Video Servers are supplied with a full three-year return to base hardware warranty.

## Pre-installed with Wavestore Video Management Software (VMS)

Whether you are looking for a video only application using a mix of camera technologies, including 360° fisheye and 4K, or a fully integrated solution with third-party providers for Access Control, Video Analytics, Intruder Detection and more, it is possible to create best-in-breed total security solutions that meet exacting specifications for the end-customer with Wavestore's ONVIF conformant truly open-platform VMS.

Coupled with a flexible and cost-effective license model, additional cameras or functionality can easily be added at a later date without disruption to the existing system.

What's more, there's no recurring support contracts to sign up to and technical support is free of charge.

## Wavestore's WaveView and WaveView Mobile clients

WaveView is Wavestore's free of cost client software which delivers an intuitive interface designed to offer full, yet simple, control of total security solutions. Authorised WaveView client devices can simply access individual or grouped Wavestore video servers and NVRs to give users full control of their security system.

The WaveView Mobile application adds mobile viewing capability enabling operators to view and control their system from iOS or Android devices.

WaveView's leading search and playback capabilities allow operators to quickly review recorded images via an intuitive play bar, providing instantaneous access to exactly the right image from any point in time from the recorded data, even over large amounts of stored data.

## Export of video evidence

In just three mouse clicks, operators can export clips from multiple cameras simultaneously to a variety of file formats or create a storyboard of events with a sequence of cameras, including virtual PTZ control of 360° fisheye cameras. Authentication and encryption of video and audio content are also supported.

## At a glance

### Camera channels

Typically 64 IP

### Hard drives

Up to 4 x 3.5"

### Storage capacity

Up to 40TB

### IP throughput

Up to 1200Mbits/s

### PSU

Single (standard), Dual (option)

### Failover ready\*

### HyperRAID™ ready (RAID5/6)\*

### EcoStore™ HDD spin-down ready\*

## Key Features

- Highly secure VMS embedded into the Linux Operating System (OS)
- Up to 4096bit encryption with comprehensive cyber-security package provided as standard
- Fully ONVIF conformant and truly open-platform
- Compatible with the world's leading camera brands and video formats
- Compatible with a wide range of camera technology including UHD, 4K, HD, 360° fisheye, panoramic, thermal, HD over analogue and analogue
- Comprehensive third-party integration capability across Intelligent Video
- Analytics, Access Control, Intruder
- Detection and other technologies\*

\* These features are available from the video servers, NVR or HVR but are dependent on the Wavestore VMS channel license level to operate. Please check specifications prior to ordering.

\*\* Typical expected figures; please make sure the calculations for your specific camera and site requirements are completed before ordering.

| TECHNICAL SPECIFICATION                            | Q-Series  |
|--|---|
| <b>Channels &amp; throughput</b>                   |   |
| Typical no. IP channels                            | 64  |
| Max. built-in analogue channels                    | -   |
| Typical no. audio channels                         | 64  |
| Max. IP throughput                                 | 1200Mbps/sec                                    |
| Compression formats                                | H.265, H.264, MJPEG, MPEG-4, MxPEG and JPEG2000 |
| Typical video storage rate                         | 600 FPS   |
| <b>Operation</b>                                   |   |
| Operating system                                   | Linux (VMS embedded)                            |
| Operating system drive                             | 64GB SATA DOM                                   |
| CPU  | Intel Xeon E3-1220v6                            |
| RAM  | 8GB DDR4 ECC                                    |
| Graphics card                                      | On-board  |
| <b>Connectivity</b>                                |   |
| Network interfaces                                 | 4 x Gb NIC                                      |
| USB ports  | 2 x USB 2.0<br>2 x USB 3.0                      |
| Monitor outputs                                    | VGA   |
| Keyboard and mouse                                 | Yes (not supplied)                              |
| <b>Wavestore VMS</b>                               |   |
| Pre-installed with Wavestore's VMS                 | Yes   |
| Wavestore VMS channel license compatibility        | All levels                                      |
| VMS configuration restore points                   | Yes   |
| Multicast support                                  | Yes   |
| Automatic camera discovery and camera group set-up | Yes   |
| <b>WaveView Client</b>                             |   |
| Local client use                                   | Setup only                                      |
| Remote client use                                  | Yes   |
| WaveView Mobile compatible                         | Yes   |

| TECHNICAL SPECIFICATION                      | Q-Series   |
|--|--|
| <b>Storage and Hard Drives (HDDs)</b>        |  |
| Max. number of HDDs                          | 4  |
| Min. internal storage                        | 4TB  |
| Max. internal storage                        | 40TB   |
| HDD type                                     | Surveillance grade (standard)<br>Enterprise grade (option) |
| Hot swap HDD bays                            | Yes  |
| EcoStore™ HDD spin-down compatible*          | Yes  |
| <b>Redundancy</b>                            |  |
| RAID*  | HyperRAID (RAID5/6, N+1/2)                                 |
| Dual PSU                                     | Option   |
| Failover compatible*                         | Yes  |
| <b>Physical</b>                              |  |
| Form factor                                  | 1U rackmount   |
| Dimensions (D x W x H)                       | 503mm x 483mm x 43mm                                       |
| Weight (with 1 HDD fitted)                   | 11.0kg (approx)  |
| Weight (each additional HDD)                 | Approx. 750g   |
| Operating temperature range                  | 5°C to 40°C<br>41°F to 104°F                               |
| Operating relative humidity (non-condensing) | 20% - 80%  |
| <b>Power</b>                                 |  |
| Power input                                  | 100-240v AC 50/60Hz  |
| Power consumption with 1HDD                  | 100W typical   |
| Power consumption (each additional HDD)      | 9W typical   |
| Dual-Redundant Power Supply                  | Optional   |
| <b>Warranty</b>                              |  |
| Standard warranty                            | 3-year return to base                                      |

**Popular configurations:**

- Q14-4PU1-HR-4G-NA-S11** 1U rack-mount server, 4TB storage, 1200Mbps, HyperRAID and EcoStore ready, Single PSU, 3-year warranty
- Q14-20PU2-HR-4G-NA-S11** 1U rack-mount server, 20TB storage, 1200Mbps, HyperRAID and EcoStore ready, Single PSU, 3-year warranty
- Q14-40PU4-HR-4G-NA-D11** 1U rack-mount server, 40TB storage, 1200Mbps, HyperRAID and EcoStore ready, Dual PSU, 3-year warranty

**Rear Panel Connections:**

- VGA monitor connection (for set-up only)
- Network interface Ports 0,1,2,3
- 2 x 3.0 USB ports
- 2 x 2.0 USB ports
- Mains input

**Build your Q-Series Video Server:**

|   | Form Factor | Max No. of HDDs | Storage fitted (TB)                                    | Drive type fitted                                | No. of HDDs fitted | RAID ports           | No. of NICs | Analogue channels | Power supply           | CPU options  | Graphics options |
|---|-------------|-----------------|--|--|--------------------|----------------------|-------------|-------------------|------------------------|--------------|------------------|
| Q | 1 (1U)      | 4               | From 4TB to 40TB in multiples of 4TB, 6TB, 8TB or 10TB | PU (Surveillance grade)<br>GD (Enterprise grade) | 1 to 4             | HR (HyperRAID ready) | 4G (4)      | NA (none)         | S (single)<br>D (dual) | 1 (standard) | 1 (standard)     |