

## PRODUCT DATASHEET



### At a glance:

- **NVR channels: up to 32 IP**
- **HVR channels: up to 16 IP & 16 analogue**
- **Hard drives: up to 2 x 3.5"**
- **Internal storage: up to 12TB**
- **IP throughput: up to 300 Mbits/s**

### E-Series Servers

Available in pure IP or Hybrid versions, Wavestore's **E-Series** servers offer a robust and reliable recording, management and control solution for small to medium size security and video surveillance projects. With the ability to connect up to 32 network cameras per standalone unit, users are also afforded the option of a Hybrid unit which delivers 16 IP and 16 analogue channels (32 total).

Rack mountable, **E-Series** servers can accommodate 2 x 3.5" internal hard drives to provide up to 12TB of storage and thanks to industry leading throughput, users can typically expect 31 days storage of images from more than 20 Full HD cameras being recorded in real-time, 24 hours a day\*\*. A wide mix of camera technologies, including 360° fisheye cameras, are supported and customisable recording rates can be set per individual channel for both normal and 'on alarm' recording.

Multiple servers can be configured into server groups\* to satisfy large and distributed video surveillance installations via a single Graphical User Interface (GUI). Initial setup allows connection of monitor, mouse and keyboard, whilst day-to-day operation requires remote client device connections. All **E-Series** servers are provided with a full three year return to base hardware warranty.

### Wavestore Video Management Software (VMS)

**E-Series** servers are compatible with all three levels of Wavestore's Video Management Software (VMS): Base, Premium, and Enterprise, which offer a broad range of capabilities to ensure the right solution for any application. Coupled with a flexible and cost-effective licence model, additional camera channels or functionality can easily be added

at a later date without disruption to the existing system.

Full compliance with ONVIF, combined with Wavestore's 'any video, any format' philosophy enables users to benefit from camera technologies and compression formats offered by leading manufacturers.

In addition, integration with third-party providers for Access Control, Video Analytics, Alarm, PIDs & Sensor, Audio and EPoS & Text systems makes it possible to create best-in-breed total security solutions that meet exacting specifications for the end-customer\*.

### WaveView: one screen, total control

Known as 'the operators' favourite', WaveView is Wavestore's licence-free 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 **E-Series** servers 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 archived data, even over large amounts of stored data.

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.

### Key features:

- Wavestore's VMS is embedded directly onto the Linux operating system providing ultra-secure robust and reliable operation
- High megapixel, UHD, 4K, HD, MP, 360° fisheye, thermal and analogue\*\*\* camera support
- Leading client side 360° fisheye camera de-warping and ability to create multiple 'virtual cameras' from just one camera stream
- H.264, MJPEG, MPEG-2, MPEG-4, MxPEG and JPEG2000 video formats supported
- Host of additional third-party integration options covering Access Control, Video Analytics and other technologies
- View live and playback recorded video on the same screen simultaneously
- Configurable camera layouts by size, format and position
- Instantaneous video recall with 3-click export process - even from multiple cameras
- Instantly transmit video clips associated with an event
- Lip-sync audio as standard
- Specialist and bespoke device integration available via the WaveStar integration service\*
- Truly independent, open platform and ONVIF conformant

\* VMS licence level dependent

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

\*\*\* Analogue cameras via compatible third-party video encoder or build-in analogue capture cards (hybrid option)

TECHNICAL SPECIFICATION	E-Series
Max. IP channels (NVR models / hybrid models)	32 / 16
Max. analogue channels (hybrid models)	16
Max. total channels (NVR models / hybrid models)	32
Max. audio channels	24
Max. IP throughput	300Mbps/sec
Compression formats	H.264, MJPEG, MPEG-2, MPEG-4, MxPEG and JPEG2000
Typical video storage rate	600 FPS
Max. number of Hard Drive Disks (HDD)	2
Max. internal storage (with 6TB drives)	12TB
Hot swap HDD bays	-
Storage redundancy (RAID 5, RAID 6 / N+1, N+2)	-
Redundant PSU (dual)	-
Form factor	1U rack mount case
Dimensions (D x W x H)	410mm x 483mm x 44.5mm
Weight (with 1 HDD fitted)	5.0Kg

TECHNICAL SPECIFICATION	E-Series
Operating temperature range	5 to 40°C
Operating system	Linux
Operating system drive	60GB SATA SSD
CPU	i3 4670
RAM	4GB DDR3 ECC
Network interfaces	2 x Gb NIC
Additional network interfaces (optional)	-
USB ports	4 x USB2.0 plus 2 x USB3.0
Monitor outputs	DVI-I, Display Port
Alarm I/O module	Optional
Keyboard and mouse	Not Supplied
Local client use	Setup
Power input	100-240v AC 50/60Hz
Power consumption	100W typical
Wavestore VMS software compatibility	Base, Premium, Enterprise
Standard warranty	3 years (see warranty statement)

## Build your E-Series server:

Series	Form Factor	Max No. of HDDs	Storage fitted (TB)	Drive type fitted	No. of drives fitted	RAID ports	No. of NICs	Analogue channels	Power supply	CPU options	Graphics options	IP Licenses per server
E	1 (1U)	2	2 (1 x 2TB) - 4 (1 x 4TB) - 6 (1 x 6TB) 8 (2x 4TB) - 12 (2 x 6TB)	PU (WD Purple) PV (WD Purple NV)	1 2	NR (none)	2G (2)	NA (none) 16A (16)	S (single)	1 (i3 4170)	1 (standard)	1 to 32 B (Base) P (Premium) E (Enterprise)

We recommend the use of PV HDDs if more than 60TB is written to each HDD per year

## Popular configurations:

**E12-4PU1-NR-2G-NA-S11-8B**

E-Series rack-mount server, 1 x 4TB WD Purple HDD, 300Mbps/sec, 100-240v AC with 8 Base IP licenses

**E12-6PU1-NR-2G-NA-S11-8P**

E-Series rack-mount server, 1 x 6TB WD Purple HDD, 300Mbps/sec, 100-240v AC with 8 Premium IP licenses

**E12-6PU1-NR-2G-16A-S11-8P**

E-Series rack-mount server, 1 x 6TB WD Purple HDD, 300Mbps/sec, 100-240v AC with 16 analogue channels and 8 Premium IP licenses

**E12-12PV2-NR-2G-NA-S11-24P**

E-Series rack-mount server, 2 x 6TB WD Purple NV HDDs, 300Mbps/sec, 100-240v AC with 24 Premium IP licenses



1. Mains Input
2. USB Ports
3. Serial Ports
4. DVI & Display Port Monitor Connections (Setup Only)

5. Network Interface Ports 0, 1
6. USB Ports
7. Audio Ports
8. Analogue Camera Inputs (hybrid models)



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The IP-based  
Security Standard