Slate

1U Rack-Mountable Hybrid Video Recorder

The Slate is a well designed, flexible and compact 'hybrid' capable digital video recording solution in a 1U form factor chassis, for video surveillance projects in schools, hospitals, office buildings, car parks, retail environments and many other applications. Designed to be used in "headless" applications where the WaveView client is operated remotely.

The design accommodates up to two 3.5" internal hard drives and enables the latest generation of IP network cameras, or analogue cameras or a combination of both as required.

The Wavestore operating software is maintained on a solid state drive, providing a fast boot up and high reliability.

High performance and flexible recording

Easy to install and operate, the Slate is able to simultaneously record video images from a combination of analogue and IP network cameras. Up to 16 channels can be recorded simultaneously from up to 16 analogue or 16 IP/megapixel cameras, with a choice of H.264, MxPEG, JPEG2000, MPEG-4 or MJPEG compression.

Mounting options

The Slate is designed for installation in a standard 19" rack, with the optional analogue video .

Easy to use

Wavestore's remote monitoring software allows users to securely monitor real-time live images or retrieve recorded video over the network, whilst multiple units can be configured into a server group to support large and distributed video surveillance applications.

Simple drag and drop function enables each user to create unique multiple display preferences, whilst the Slate offers an extremely fast search facility to allow users to be able to quickly review recorded images of any incident.

Export video clips in the native Wavestore format and benefit from features such as encryption and image authentication. Alternatively, convert the video to any of a wide selection of standard formats such as MPEG, Flash Video, AVI, and more.

Ultra reliable

The Slate, as is the case with other Wavestore digital recording systems, utilises an ultra reliable Linux based open software platform. It is supplied with a full one year return to base Warranty.

Wavestore is ONVIF Profile S Compliant

Recording System

Video standards	PAL or NTSC standards and IP
Video resolution	QCIF, CIF, 2CIF, DCIF, D1, HD720, HD1080, VGA, megapixel, custom
Analogue rate at D1	Up to 25/30 fps (PAL/NTSC) per input. Up to 800/960 fps per server
IP rate	High image rates supported, camera dependent
Video displays	Adjustable in size and number
Multiscreen displays	Customisable and traditional layouts with saving option per user
Still image	JPEG/BMP/PNG
Record type	Continuous, schedule, motion, alarm, event and digital input trigger
Recording tracks	3 independent tracks assignable to different HDDs with different settings
Overwrite modes	Configurable auto deletion and overwrite function by time or disk allocation
Detection	Motion, camera tamper, darkening, video loss
Motion Mask/Areas of interest	Configurable areas to target analogue analytics
Privacy Mask	Configurable mask to avoid viewing sensitive areas within a camera view
Reported events	Full system monitoring including SMART disk health monitoring
Reporting events	Via screen, email or TCP/IP message
Operating System	Embedded Linux platform
Time zone	Regional setting available
Languages	Multiple languages supported

Remote Viewer Client

Remote users	5 to unlimited concurrent users
Operating Systems	Windows (7, Vista, XP), Linux (Red Hat and Debian based systems) and Android

SDK

Windows ActiveX Component	Connecting to servers, retrieving and displaying multiple cameras, full playback and PTZ control, independent and synchronised playback, date/time searching, events annotations, access to raw decoded images, decryption of encrypted images, extract timestamps from images, variable rewind speed, ability to track recordings, ability to trigger boost and other event actions, command for switching cameras to spot monitors, expose mouse events

Playback, Find, Copy

Playback functions	Linear and logarithmic rewind capability - Variable speed slider
Playback speed	Up to 8192x times
Playback mode	Multi-way: play, rewind, jump, fast-forward and frame-step multiple cameras simultaneously
Slow motion playback	Variable from 0.1 to 2x speed
Zoom	Unlimited digital zoom by mouse wheel
Search mode	Date, time, annotations, motion, alarm
Intelligent search	Highlighted activities on recorded streams
Copy mode	Backup multiple cameras including linked audio
Copy devices	CD, DVD, USB, HDD

Security

Password profile	Multi protection levels
Cameras and displays	Accessible on a per-user basis
Configuration files	Save and restore capability for any server in the group
Digital watermarking	Image authentication with real-time on screen confirmation
Encryption	Up to 4096 bit encryption
Diagnostics	Remote, secure diagnostics, repair functionality available
Remote administration	Remote control via TCP/IP network, including restart and rebooting
Automatic system re-start	After power loss (when power resumes)

Advanced Systems Modules

Advanced Backups	Provides the ability to transcode video and audio data to large number of alternative formats
Advanced Events	Shows a real-time stream of incoming alarms/events on the main window
Interactive Maps	Configurable map screen for finding and interacting with cameras and third party devices
De-warping	De-warp real time and archived fisheye images from hemispheric cameras - Optional
Integrated Applications	People counting, people tracking, queue management, crowd analysis, biometrics solutions, facial recognition, command & control, PSIM, access control, emergency management (C^4ISR), video analytics, licence plate recognition - Optional

—— Coming soon

wavestore: integrity in digital recording

www.wavestore.com

Cameras

Analogue inputs	Up to 16 channel, BNC 1 Vpp, 75Ω - Optional loop through panel with auto-termination
Network inputs	Up to 16 (IP/megapixel) channel
Hybrid configuration	Up to 16 video channels recorded simultaneously
Compression formats	H.264, MPEG-4, M-JPEG, JPEG2000 and MxPEG
PTZ devices	Full 3 axis control (PAN, TILT & ZOOM) using a 3-axis mouse or joystick
PTZ	Preset and Tour
IP camera setup	Drop down menu
IP camera ping	Available
IP camera web browser setup	Direct access
IP camera discovery	uPnP, Bonjour
Camera and tracks	Multiple recording profiles

Audio

Inputs	Up to 16
Recording format	G. 711 (8K samples per sec)
Sampling rate	16kHz or 8kHz
Features	Lip-synchronised playback and live functionality for video/audio, bi-directional

Alarms

Inputs/Outputs	20/20 via USB I/O Device – (Optional extra)
Alarm notification	Via viewer client
Alarm actions	Record on alarm, text overlay, boost recording rate, trigger output, spot monitor, PTZ camera on preset, notify client, run script, emails, flashing light, sound alerts
Alarm triggers	Video loss, darkening, motion within image, camera movement, alarm input, login succeeded, login denied, fault, warning
Other features	Alarm event logging, enable and disable on schedule
Camera alarm	Selected cameras supported
Watchdog function	Auto-reboot of system in case of system failure

Storage

Internal HDD	60GB SSD boot drive for rapid start-up
Internal HDD	Two 3.5" drives
NAS and SAN storage	Via iSCSI interface
RAID level	NA

Network

Network ports	2 ports
Network bandwidth	2 x 1000 Mbps
Supported protocols	TCP/IP, DNS, SMTP, NTP, SSH, HTTP, RTSP
Configuration protocol	Static IP entry
Time sync (NTP)	Automatically synchronized to other Wavestore servers or external time source
Bandwidth control	Per user or per Wavestore

Electrical

Input voltage	90 - 260V
Typical power consumption	65W (with 2 x 4TB HDDs)
Power supply rating	250W
Power supply	Single 80+ Silver

Environmental

Operating Temperature	10°C to 35°C (50°F to 95°F)
Relative humidity	Humidity 20 to 80% RH (non-condensing)

Mechanical

Chassis form factor	1U standard 19" rack mounting
Dimensions	42 H x 480 W x 398 D (mm)
Shipping dimension	270 x 635 x 600 (mm)
Shipping weight	12.5Kg (with 1 HDD)
Rail Kit	
Shipping dimensions	80 x 130 x 720 (mm)
Shipping weight	1.5Kg

Optional Interfaces

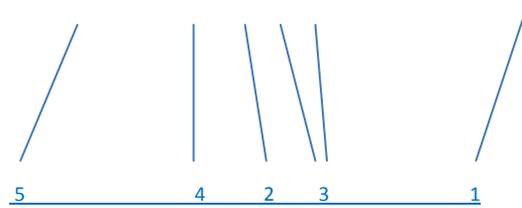|	
Keyboard and joystick controller	Designed to provide an ergonomic and configurable user interface - Optional
Joystick controller	USB 3-axis joystick controller with multiple buttons

— Coming soon

Slate rear panel

1. 90 to 260V AC input
2. 2 USB 2.0 ports, (plus 2 additional ports on the front panel)
3. Gigabit LAN (x 2)
4. VGA output (a second connector is located on the front panel)
5. 8 or 16 channel video inputs
   (optional and must be specified at the time of order)

Supplementary products

The Wavestore 19" BNC Expander Panel provides for up to 16 video inputs and up to 16 buffered loop-through outputs with auto-switching. A 1.2M multi-way cable is included that enables physical access to the server during operation. The loop-through outputs maintain live video to the ancillary equipment even with the server powered down.

The Wavestore Passive Access Panel provides for up to 32 video and up to 16 audio inputs. A 1.2M multi-way cable is included that enables physical access to the server during operation.

The Wavestore Server Range

Granite	Industrial 4U server platform with 16 x 3.5" Hot Swap HDD
Rock	Industrial 4U server platform with 4 x 3.5" Hot Swap HDD
Crystal	Commercial server platform with 4 x 3.5" Internal HDD
Quartz	Compact server platform with 4 x 3.5" Internal HDD
Flint	Compact 2U server platform with 3 x 3.5" Hot Swap HDD
Slate	Commercial 1U server platform with 2 x 3.5" Internal HDD
Opal	Compact server platform with 1 x 3.5" Internal HDD

Wavestore Mobile (DVR/NVR): a compact and powerful integrated video recording solution ideal for mobile applications is schedule for release in Q2/2013.

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