![Wavestore logo - integrity in digital recording]

Flint

The compact Hybrid Video Recorder

The Flint is a low cost but highly reliable, flexible and compact 'hybrid' digital video recording solution in a small form factor chassis, for medium sized video surveillance projects in schools, hospitals, office buildings, car parks, retail environments and a wide range of other applications. It can accommodate up to three 3.5" hot swap hard drives and enables users to benefit from the technology built into the latest generation of IP network cameras whilst also supporting traditional analogue cameras, if required.

High performance and flexible recording

Easy to install and operate, the Flint 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, MPEG-4 or MJPEG compression.

Mounting options

The Flint is supplied as standard for desk top or shelf mounting, and includes detachable brackets for installation in a standard 19" rack.

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 Flint 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 Flint, 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.

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

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 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
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 SDD boot drive for rapid start-up
Hot-Swappable HDD	Three 3.5" tray-less drives
NAS and SAN storage	Via iSCSI interface
RAID level	NA

Network

Network ports	1 port
Network bandwidth	1 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 - 240V
Typical power consumption	100W (2 x 4TB HDDs)
Power supply rating	300W
Power supply	Single 80 PLUS

Environmental

Operating Temperature	5 to 40°C (41 to 104°F)
Relative humidity	Humidity 20 to 40% RH (non-condensing)

Mechanical

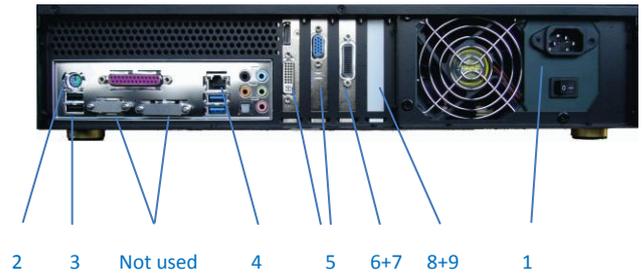|	
Chassis form factor	Compact (Optional 19" rack mounting "ears" included)
Dimension (H x D x W)	96 x 385 x 428 mm
Shipping dimension	220 x 530 x 555 mm
Shipping weight	10kg (with 1 HDD) +

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

Flint rear panel

1. 90 to 240V AC input
2. PS/2 connector
3. 2 USB 2.0 ports, plus 4 additional ports on the front of the unit
4. Gigabit LAN
5. VGA, DVI or HDMI output (not simultaneously)
6. 16 channel or 8 channel video inputs
7. 16 channel or 8 channel audio inputs
8. 8 channel alarm I/O (optional)
9. RS485 (optional)
10. Dual audio channels (requires licensing)

2   3   Not used   4   5   6+7   8+9   1

Note: some of these items are optional and must be specified at the time of order

Additional Wavestore products

	Granite	**Rock**	**Crystal**	**Quartz**	**Opal**
Digital Video Recorder (DVR)	✔	✔	✔	✔	
H.264 Hardware Compression D1 Resolution (NTSC/PAL)	Up to 32 ch	Up to 32 ch	Up to 16 ch	Up to 16 ch	
Network Video Recorder (NVR)	✔	✔	✔	✔	✔
Combinations of H.264, M-JPEG, MPEG-4, MxPEG codecs concurrently supported	Up to 64 ch	Up to 64 ch	Up to 16 ch	Up to 16 ch	Up to 9 ch
Hybrid video recorder (HVR)	✔	✔	✔	✔	
Analogue and network cameras simultaneously supported	Up to 64 total ch	Up to 64 total ch	Up to 16 total ch	Up to 16 total ch	
Hardware configuration	Available on request	Available on request	Available on request	Available on request	Available on request
Internal HDD storage	16 x 3.5"	5 x 3.5"	4 x 3.5"	2 x 3.5"	1 x 3.5"
Front loading HDDs and Hot Swap	✔	✔	na	na	na
IP Gigabit network ports	2	2	1	1	1
Redundant power supply	✔	Optional	na	na	na
Typical power consumption	250W	160W	100W	100W	30W
iSCSI RAID storage expansion	✔	✔	✔	✔	na
SAS RAID storage expansion	Optional	Optional	na	na	na

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

Onvif   bsia
british security industry association