FlexWATCH®
(주)세연테크 Seyeon Tech Co., Ltd.

IP 16CH - HD Network Video Recorder

FW5072 is a stand-alone network video recorder for 16 HD 720P IP cameras. FW5072, fully IE browser enabled network video recorder, can display, record and playback the real time MJPEG, MPEG4 and H.264 video streams transmitted from any FlexWATCH® IP cameras and video servers over TCP/IP network. It also supports multi-vendors' IP cameras and Video Servers such as Axis, Panasonic, Mobotix, Arecont Vision*, IQinvision, Vivotek and so on.

FW5072 is based on Unified Communication Protocol. Compared with other NVR (s/w or h/w based) products, FW5072 requires only single TCP port for remote live view, playback and configuration. It minimizes network configuration burden and realizes much easier way for video management. By accessing FW5072 locally or remotely, IP cameras connected to FW5072 can be viewed and controlled.

FW5072 is affordable for a surveillance system for unmanned facilities, retail stores, accommodations, gas stations, etc. Having an advantage of flexibility of network video devices and digital interfacing to other systems, and it is also interoperated with various applications like as POS, Access Control, and Building Automation.

Key Features

High Performance 16CH HD NVR (H.264)
Max 6 HD cameras real-time recording & streaming
Max 8 HD cameras recording(only) at 30fps/each camera
Max 10 HD cameras recording(only) at 15fps/each camera
Max 12 HD cameras recording(only) at 7.5fps/each camera
Simultaneous recording, live, playback and backup
Note: please see next page for the details

Multi-Vendor Supports
Axis, Panasonic, Mobotix, Arecont, IQinvision, Vivotek, etc

Unified Communication Protocol
Single TCP port only for view, playback and control
Single TCP port (e.g., HTTP:80) for command and control

MJPEG/MPEG-4/H.264 NVR
MJEPG / MPEG-4 / H.264 supports selectively
Audio recording & transmission (optionally)
Up to 2M resolution support.

Channel-based User Authentication
Channel based multi level protection for live-cast, playback, PTZ, DI/DO and audio control

Supported Vendors

ACTi Connecting Vision | Arecont Vision | AXIS COMMUNICATIONS | IQinVision | MOBOTIX | Panasonic ideas for life | VIVOTEK

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Video Channels	1 ~ 16 IP Cameras	**Proxy Supported**	All Interface to network device through only one standard Web Interface - Video Proxy - Audio Proxy - PTZ Proxy - DI/DO Proxy
IP camera Brand	FlexWATCH, Axis, Mobotix, Panasonic, Arecont vision, IQinVision, and Vivotek, etc. Please make sure the supported models with Seyeon Tech before sales.	**Security**	Channel based user password protection for live-cast, PTZ, alarm output and audio
Live Casting	16 channels of video, audio and data	**Software (default Web interface)**	Live-cast, PTZ control, search through Web browser (Minimum PC requirement - XP Pro / IE 6.x or later) - Pentium4, 2Ghz, 2G(RAM) - Video Card(256MB RAM, 1024x768)
Bandwidth Management	Bandwidth control according to 32kbps resolutions	**Dynamic IP support**	Dynamic IP service using www.ipcctvdns.com
Recording	Video Recording] MJPEG / MPEG-4 / H.264 [Audio Recording] G.711 (4-bit, 8KHz) recording support [Data Recording] POS, ATM, Video Analytics, Access Control and various serial devices Please make sure the recording streams according to the brand Note: Please see below table and figure for recording performance	**System Integration Features**	[Protocol] HTTP, TCP/IP, RTP/RTSP, Multicast, ARP, ICMP, Telnet, Ftp, PPPoE, SMTP, DHCP, uPNP, NTP (Some of protocols are only for built-in module) [SDK] Open HTTP API / ActiveX for live-cast with audio, playback, & PTZ [Service] Image upload / notification service / special service for POS integration
Recording storage	Supports up to 4TB by 2 SATA HDD	**Installation and maintenance**	Configuration: installation wizard, HTTP, telnet and console. Upgrade firmware: HTTP, telnet & ftp
Recording condition	Scheduled recording Motion driven recording Event (DI/DO of each camera) driven recording Various recording mode according to multiple combination of date / time / alarm (using 'AND' & 'OR' condition)	**Misc.**	OSD (On-Screen Display) Transmit serial input data with video Quick Time & VLC media player compatible
Recording frame rate	*Refer to the table below.*	**System hardware**	32bit RISC CPU / Embedded Linux / 128MByte DDR2 RAM / 8MByte Flash
Search	Based on the multiple combination of date / time / event using 'AND' & 'OR' condition	**Power**	Power Supply - SMPS 12V (5A) [AC100~240V, 50/60Hz] Power Consumption - DC12Volt, max 1.8A
Playback	Forward, reverse, fast forward, fast reverse, single step forward, single step backward 16 channels can be played simultaneously	**Approvals**	KCC, FCC(Class A), CE(Class A), RoHS
HDD management	Disk full notification / Periodic notification via e-mail HDD error notification via e-mail HDD error notification using beep sound (for local area notification)	**External Interface**	10/100/1000-Base-T Ethernet (auto-sensing) 1 serial port (COM: RS-232) 1 USB port(reserved) Factory Default Button
PTZ support	PTZ cameras can be controlled remotely through NVR	**Dimension / Weight**	378(W) x 267(D) x 64(H) (in mm) 2.3kg without Power Supply
Audio support	N/A	**Working Environment**	Temperature : 32°~ 122℉ (0°~ 50℃) Humidity : 20~80% RH
UART support	Console, By-pass command to control UART device	**Rack Mountable**	N/A

* All specifications are subject to change without prior notice.

Recording Performance

Below table shows the details of the recording performance. Sixteen HD camera were used for the performance test. The encoding method is H.264 at Constant Bit Rate(CBR) of 3Mbps, encoding speed=30fps, GOP=16 and 1280x720 resolution(HD, 720p). In order to provide performance estimate at other encoding conditions, CBR was used rather than VBR. VBR generates the unexpected amount of data according the complexity of video (scene).

	HD resolution	D1 resolution	CIF resolution
Recording only	8 cameras	10 cameras	16 cameras
Streaming(Live view) only	8 cameras	10 cameras	16 cameras
Recording + Streaming	6 cameras	5~6 cameras	12 cameras

Above data should be used as a reference for system design. Recording & Streaming(Live view) speeds are real-time speed of max 30fps per each camera. The number of cameras in the table has around 5-10% deviation from the exact performance. In case of VBR, total number of supported cameras(channels) varies according to the encoding speed. At VBR and 15fps encoding speed, 10 cameras are supported at recording only mode. At VBR and 7.5fps/camera recording only mode, maximum 12 HD cameras are supported without any degradation in recording speed.
Network speed (environment) may influence to the overall system performance. Particularly, live view performance varies on the graphic performance of PC.