



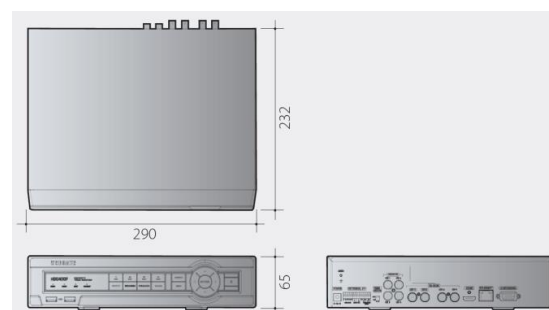
## HSC420F-D

Full-HD & Full-Frame DVR supporting EX-SDI, AHD

### Key Features

- 4ch Standalone DVR supporting multi-video input
- Supports diverse video standards
  - Digital HD : HD-SDI, EX-SDI / 1080p, 720p
  - Analog HD : AHD 2.0 / 1080p, 720p
  - Analog SD : 960H, SD / 960H, 480i, 576i
  - IP camera : ONVIF & WESP protocol camera support (TBD)
- Built-in EX-SDI receiver function for all channels (Supports up to 400m HD video transmission without repeater)
- Up to 30fps(25fps) recording and playback per channel
- Adjustable recording quality and framerate per channel
- Fire alert to DVR, CMS and smart phone when using with flame detection camera
- High-resolutions over 1200TVL at Live/Playback for HD1080p
- Supports Dual Codec(H.264, JPEG) & Multi Stream
- HDMI, VGA, BNC video output
  - HDMI : 1920 x 1080 video output
  - VGA : 1920 x 1080, 1280 x 1024, 1024 x 768, 800 x 600 video output
  - BNC : CVBS. User-defined display & Alarm spot monitor support
- Robust IPFR (Intelligent Power Failure Recovery) DVR File System
- Max. 2 Internal SATA Type HDDs (Up to 6TB each)
- Supports Max. 128TB(NS04R connection via Gigabit ethernet)
- RAID 1/5/10 support with NS04R (TBD)
- Date/Time, Calendar/Time-line, Event, Thumbnail(Time Interval), Text Search available
- At-the-PC Playback of removed DVR HDD
- Lightning arresters on Video input, RS-485, DIO ports
- Provides bundle CMS program, managing Max. 1,024 DVRs in various ways such as E-map, Viewset
- Java Viewer for Chrome, Firefox, Safari, Mac OS X
- Supports various mobile platform (iPhone/Android Viewer)
- Real time push alarm to smart phone
- Provides Full SDK for easy and powerful customization

### Dimension (Unit : mm)



## Specifications

<b>VIDEO INPUT</b>			<b>PTZ</b>	
Video input Format	BNC	HD-SDI (SMPTE 292M), EX-SDI AHD 2.0, Analog 960H/SD	Protocols	41 models including C1080(D1080), C1080PT-Z20, Pelco-D, Pelco-P, Samsung, Panasonic and others
	ETHERNET	IP Camera(Onvif, WESP)	<b>NETWORK</b>	
Resolution / Frame Rate	HD-SDI EX-SDI	1920x1080 / 25, 30fps 1280x720 / 25, 30, 50, 60fps	Interface	1 Gigabit Ethernet (10/100/1000Mbps)
	AHD 2.0	1920x1080 / 25, 30fps 1280x720 / 25, 30fps	Type	Static IP, Dynamic IP, xDSL
	Analog 960H	960x480 / 60i or 960x576 / 50i	DDNS	WNS, DynDNS, NoIP, WRS
	Analog SD	720x480 / 60i or 720x576 / 50i	Bandwidth limit	Supported
Connectors	4ch, 75Ω BNC connector		NTP	Server / Client / Both
<b>VIDEO OUTPUT</b>			Users	10 Monitoring, 2 Playback
Video output	HDMI VGA	1, 4 split-screen HDMI : 1920 x 1080 VGA : 1920x1080, 1280x1024, 1024x768, 800x600(TBD) User defined display / Alarm pop-up / Sequential switching	Streaming	H.264 stream, High resolution
		1, 4 split-screen CVBS User defined display / Sequential switching		1 additional H.264 stream, Normal resolution
	BNC	1, 4 split-screen CVBS User defined display / Sequential switching	1 JPEG stream, Normal resolution for e-mail or mobile	
<b>RECORDING</b>			<b>SECURITY</b>	
Compression	H.264 / JPEG		User level	1 admin, 10 users
Resolution	1920 x 1080, 1280 x 720, 960 x 480(576)		User privilege	Menu, PTZ, Relay, Playback, Power, Copy, Network MIC
Rate	Max. 120/100fps		IP filtering	Supported
Quality	10 levels up to 8Mbps		<b>STORAGE &amp; BACKUP</b>	
Mode	Continuous / Manual / Schedule		Storage devices	2 internal SATA HDDs Gigabit network for NS04R(TBD)
Schedule	24hrs / 7days		RAID Level	External storage including NS04R(Level 1/5/10)
<b>PLAYBACK</b>			File system	Proprietary file system, Data-loss protection against power-failure
Mode	Instant Playback / Search		Capacity	Max. 128TB with cascaded NS04R 6TB HDD Supported
Speed	Max. 120/100fps		Backup type	Multi-channel or Single channel avi file, JPEG(Capture)
Search type	Date/Time, Calendar/Time-line, Event, Thumbnail(Interval/Motion), Text, Bookmark		Backup device	USB 2.0 drive (2 ports)
Block playback	24hours ~ 99days		S.M.A.R.T.	Temperature and Health checking
<b>EVENT &amp; ALARM</b>			<b>SERIAL &amp; I/O</b>	
Event source	MD(Motion Detection), Sensor, Text, Video Loss		Serial port	1 RS-232C, 2 RS-485
Event check Schedule	24hrs / 7days		Sensor input	4 Dry-contacts
Event action	Relay, Buzzer, E-mail, FTP, Video pop-up, Camera Preset, Mobile Alarm Push		Relay output	2 Relays
MD area	15 x 10		<b>CONTROLLER</b>	
Sensor input	Dry contact (NO or NC selectable)		Device	IR remote controller, Joystick Keyboard, Mouse
Text input	POS/ATM support, AVE VSI Pro/Hydra support		<b>SOFTWARE</b>	
<b>SYSTEM ALARM</b>			Web viewer	Monitoring / Event / PTZ / Playback for IE
Alarm source	HDD fail, HDD almost full, Password fail, WRS fail		Java viewer	Monitoring / Event / PTZ for IE, Chrome, Safari, Mac OS X
Alarm action	Warning message, Buzzer, E-mail, Relay, Mobile Alarm Push		Mobile viewer	Monitoring / Playback / Alarm Push / PTZ / Audio / Log View with iPhone & Android
<b>AUDIO</b>			CMS	Control Center, Max. 1024 units
Input/output	1 RCA input / HDMI & RCA output		SDK	ActiveX(COM) SDK
Compression	ADPCM (32Kbps, 16KHz, 16bit sampling)		<b>ENVIRONMENTAL &amp; PHYSICAL</b>	
Direction	Both		Dimension	290(W) x 232(D) x 65(H) mm
			Weight	2.5 Kg (No HDD)
			Operating Temperature	5°C~45°C (41°F ~ 113°F)
			Power	DC 12V / 5A
			Power Consumption	Max. 30W, Typical 20W(1 HDD)
			Approval	MSIP(KC), FCC, CE, RoHS