



## HS1600F-D

Penta-brid HD DVR supporting multi video format & Built-in DoubleReach™

### Key Features

- 16ch Standalone DVR supporting multi-video input
- Supports diverse video standards  
Digital : HD1080p, HD720p, DoubleReach™  
Analog : Analog, 960H (NTSC/PAL)
- Built-in DoubleReach™ 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
- High-resolutions over 1200TVL at Live/Playback for HD1080p and DoubleReach™ video input
- Supports Dual Codec(H.264,JPEG) & Multi Stream
- HDMI, VGA, BNC video output  
HDMI & VGA : 1920 x 1080 video output  
BNC : CVBS. User-defined display & Alarm spot monitor support
- Various Live and Playback display (1/4/9/10/13/16 Split-screen)
- Robust IPFR (Intelligent Power Failure Recovery) DVR File System
- Max. 5 Internal SATA Type HDDs
- Supports Max. 128TB(NS04R connection via Gigabit ethernet) and Max. 32TB(e-SATA) external storage interface
- 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
- Supports various mobile platform (iPhone/Android Viewer)
- Provides Full SDK for easy and powerful customization

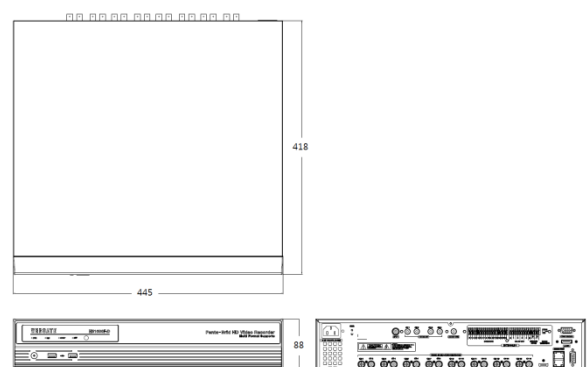
Front



Back



### Dimensions (Unit : mm)



## Specifications

<b>VIDEO INPUT</b>		<b>PTZ</b>				
Video input Format	HD-SDI (SMPTE 292M), DoubleReach™ CVBS, 960H		Protocols	35 models including C1080, C1080PT-Z20, Pelco-D, Pelco-P, Samsung, Panasonic and others		
Resolution / Frame Rate	HD1080p	1920x1080 / 25, 30 FPS		<b>NETWORK</b>		
	HD720p	1280x720 / 25, 30, 50, 60 FPS		Interface	2 Gigabit Ethernet (10/100/1000Mbps)	
	DoubleReach	1920x1080 / 25, 30FPS		Type	Static IP, Dynamic IP, xDSL	
	510H/760H	720x480 / 60i or 720x576 / 50i		DDNS	WNS, DynDNS, NoIP, WRS	
	960H	960x480 / 60i or 960x576 / 50i		Bandwidth limit	Supported	
Connectors	16ch, 75Ω BNC connector		NTP	Server / Client / Both		
<b>VIDEO OUTPUT</b>		<b>SECURITY</b>		Users	10 Monitoring, 2 Playback	
Video output	HDMI VGA	1, 4, 9, 10, 13, 16 split-screen		Streaming	H.264 stream, High resolution	
		1920 x 1080			1 additional H.264 stream, Normal resolution	
		User-defined display / Alarm pop-up			1 JPEG stream, Normal resolution for e-mail or mobile	
	BNC	1, 4, 9, 10, 13, 16 split-screen			<b>STORAGE &amp; BACKUP</b>	
CVBS		Storage devices	5 internal SATA HDDs, 1 external eSATA Interface, 1 Gigabit network for storage(NS04R)			
		Channel Switching / Alarm pop-up		File system	Proprietary file system, Data-loss protection against power-failure	
<b>RECORDING</b>		<b>STORAGE &amp; BACKUP</b>		Capacity	Max. 32TB with eSATA, Max. 128TB with cascaded NS04R	
Compression	H.264 / JPEG		Backup type	Multi-channel or Single channel avi file		
Resolution	1920 x 1080, 1280 x 720, 720 x 480(576), 960 x 480(576)		Backup device	USB drive (2 ports)		
Rate	Max. 30fps(25fps) per channel		S.M.A.R.T.	Temperature and Health checking		
Quality	10 levels up to 12Mbps		<b>SERIAL &amp; I/O</b>	Serial port	1 RS-232C, 2 RS-485	
Mode	Manual & Event / Schedule & Event / Continuous & Event		Sensor input	16 Dry-contacts		
Schedule	24hrs / 7days		Relay output	4 Relays		
<b>PLAYBACK</b>		<b>CONTROLLER</b>		<b>SOFTWARE</b>	Web viewer	Monitoring / Event / PTZ / Playback for IE
Mode	Instant Playback / Search		Device	IR remote controller, Joystick Keyboard, Mouse	Java viewer	Monitoring / Event / PTZ for IE, Chrome, Safari
Speed	Max. 30fps(25fps) per channel		<b>ENVIRONMENTAL &amp; PHYSICAL</b>	Dimension	445(W) x 418(D) x 88(H) mm	
Search type	Date/Time, Calendar/Time-line, Event, Thumbnail, Text		Weight	10 Kg (No HDD)		
Block playback	24hours ~ 99days		Operating Temperature	5°C~45°C (41°F ~ 113°F)		
<b>EVENT &amp; ALARM</b>		<b>SYSTEM ALARM</b>		Power	AC free volt (100 ~ 240VAC), 50/60Hz	
Event source	MD(Motion Detection), Sensor, Text, Video Loss		Alarm source	HDD fail, HDD almost full, Fan fail, Password fail, WRS fail		
Event check Schedule	24hrs / 7days		Alarm action	Warning message, Buzzer, E-mail, Relay		
Event action	Buzzer, Relay, E-mail, FTP, Alarm pop-up		<b>AUDIO</b>	Input/output	4 RCA input / HDMI & RCA output	
MD area	15 x 10		Compression	ADPCM (32Kbps, 16KHz, 16bit sampling)		
Sensor input	Dry contact (NO or NC selectable)		Direction	Both		
Text input	POS/ATM support, AVE VSI Pro/Hydra support					
<b>SYSTEM ALARM</b>		<b>POWER</b>		Power Consumption	Max. 100W, Typical 70W (1 HDD)	
Alarm source	HDD fail, HDD almost full, Fan fail, Password fail, WRS fail		Approval	KC, FCC, CE, RoHS		
Alarm action	Warning message, Buzzer, E-mail, Relay					
<b>AUDIO</b>		<b>POWER</b>				
Input/output	4 RCA input / HDMI & RCA output					
Compression	ADPCM (32Kbps, 16KHz, 16bit sampling)					
Direction	Both					