

# HRD-E1630L/E830L/E430L

16CH/8CH/4CH 1080p Analog HD Real-time DVR



## Key Features

- 16CH/8CH/4CH 1080p real-time DVR
- Up to 480/240/120(1080p)fps recording rate (NTSC)  
Up to 400/200/100(1080p)fps recording rate (PAL)
- HDMI / VGA video output
- 4CH audio inputs / 1CH audio output
- 1 internal HDDs (Max. 6TB)
- Coaxial cable (ACP)
- Enhanced network bandwidth up to 64/32/16Mbps

## Dimensions

Unit: mm (inch)

## HRD-E1630L/E830L/E430L

DISPLAY			
Video	Inputs	16CH BNC (HRD-E1630L), 8CH BNC (HRD-E830L), 4CH BNC (HRD-E430L)	
	System	AHD, NTSC / PAL	
	Resolution	1920 x 1080 (Full HD), 1280 x 720 (HD), 960 x 480 (960H)	
Live	Frame Rate	(HRD-E1630L) NTSC : 480fps@1920 x 1080, 480fps@1280 x 720, 480fps@960 x 480 PAL : 400fps@1920 x 1080, 400fps@1280 x 720, 400fps@960 x 576 (HRD-E830L) NTSC : 240fps@1920 x 1080, 240fps@1280 x 720, 240fps@960 x 480 PAL : 200fps@1920 x 1080, 200fps@1280 x 720, 200fps@960 x 576 (HRD-E430L) NTSC : 120fps@1920 x 1080, 120fps@1280 x 720, 120fps@960 x 480 PAL : 100fps@1920 x 1080, 100fps@1280 x 720, 100fps@960 x 576	
		Resolution	1080p, 720p, 960H
		Multi Screen Display	1 / 4 / 9 / 13 / 16 / Sequence
		<b>PERFORMANCE</b>	
Operating System	Embedded	Linux	
	Installation Wizard	Support	
	Compression	H.264	
Recording	Record Rate	HRD-E1630L : Up to 240fps@1920 x 1080, Up to 480fps@1280 x 720 Up to 480fps@960 x 480, Up to 400fps@960 x 576 HRD-E830L : Up to 120fps@1920 x 1080, Up to 240fps@1280 x 720 Up to 240fps@960 x 480, Up to 200fps@960 x 576 HRD-E430L : Up to 60fps@1920 x 1080, Up to 120fps@1280 x 720 Up to 120fps@960 x 480, Up to 100fps@960 x 576	
		Mode	Manual, Schedule (Continuous / Event), Event (Pre / Post)
		Event	Video loss, Motion (Sensitivity level 1 ~ 8)
		Overwrite Modes	Off / On (Auto / 1 / 3 / 7 / 14 / 30 / 90days)
	Pre-alarm	Min. 1sec	
	Post-alarm	Up to 5min (30sec, 1 / 2 / 5min)	
	Search & Playback	Search Mode	Date/Time, Event, Motion
Playback Function		Fast forward / backward (2x, 4x, 8x, 16x) Slow forward (1/2x, 1/4x, 1/8x, 1/16x) Step forward (CMS support) (Applicable for local DVR only)	
		Synchronous	16CH (HRD-E1630L), 8CH (HRD-E830L), 4CH (HRD-E430L)
Network (IPv4)	Transmission Speed	Max. 240fps@1080p (HRD-E1630L), Max. 120fps@1080p (HRD-E830L) Max. 60fps@1080p (HRD-E430L)	
	Bandwidth	Up to 64Mbps (HRD-E1630L), Up to 32Mbps (HRD-E830L), Up to 16Mbps (HRD-E430L)	
	Live Stream	Max. 240fps@1080p (HRD-E1630L), Max. 120fps@1080p (HRD-E830L), Max. 60fps@1080p (HRD-E430L)	
	Max. Remote Users	20 (Max. bandwidth 32M)	
	Protocol Support	TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, DHCP(Server, Client), PPPoE, SMTP, DNS, DDNS, uPnP	
	Monitoring	Webviewer, Mobile Viewer, CMS (HD E-Viewer)	
Remote Monitoring	Platform	Supported OS - PC : Windows® XP, Windows® Vista, Windows® 7, Windows® 8 Mac OS X® 10.9 or above - Mobile : Android Ver3.0 or above, iOS® 5.1 or above	
		Supported browser - Microsoft Internet Explorer (Ver. 11, 10, 9, 8), Mozilla Firefox Ver 19.x or higher, Google Chrome Ver 44.x or lower, Safari® 5.1 or above	
	Protocol Support	TCP/IP, UDP/IP, UDP	
	Protocol Support	Max.30fps@CIF, 4CIF, 720p, 1080p (per Channel)	
Storage	Max. Remote Users	20 (Max. bandwidth 64M)	
	Internal HDD	1 SATA HDD *Support max. 6T	
	External (e-SATA Interface)	2 USB ports	
Security	File Format (Backup)	H.264, AVI, MPEG-4	
	Password Protection	1 Admin, 6 User	
<b>INTERFACE</b>			
Monitors	VGA	1 VGA (1024 x 768, 1280 x 1,024, 1280 x 720, 1440 x 900, 1920 x 1080)	
	HDMI	1 HDMI (1024 x 768, 1280 x 1,024, 1280 x 720, 1440 x 900, 1920 x 1080)	
Audio	Simultaneous Output	VGA and HDMI	
	Inputs / Output	4CH RCA in / 1CH RCA out	
Alarm	Compression	G.711, 8KHz	
	Remote Notification	Notification via e-mail	
Connections	Ethernet	1 RJ-45 1000 Base-T	
	USB	USB 2.0, 2 ports (Front / Rear)	
	Serial	RS-485	
	Application Support	Mouse, Remote controller	
	RS-485 Protocol	Pelco-D/P	
	Coax Protocol	ACP (UTC)	
<b>GENERAL</b>			
Electrical	Input Voltage / Current	12V / 2A DC adaptor	
	Power Consumption	Max. 15.5W (HRD-E1630L), Max. 9.5W (HRD-E830L), Max. 7W (HRD-E430L) (HDD not included)	
Environmental	Operating Temperature	+0°C ~ +40°C (+32°F ~ +104°F)	
	Operating Humidity	20% ~ 85% RH	
Mechanical	Dimensions (WxHxD)	300.0 x 52.0 x 220.0mm (11.8" x 2.05" x 8.66")	
	Weight (With hard disks)	1.17Kg (2.58 lb) (HRD-E1630L), 1.04Kg (2.29 lb) (HRD-E830L), 1.02Kg (2.25 lb) (HRD-E430L)	
Language	English, French, German, Spanish, Italian, Russian, Turkish, Portuguese (For Korean model : Korean only)		

\* This Model don't support the SSM, SmartViewer & ipolis Mobile Viewer

\* The latest product information / sepecification can be found at [hanwha-security.com](http://hanwha-security.com)