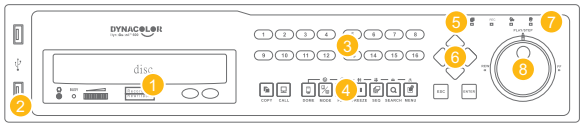
network Dyna**Guard**™ 600 Series

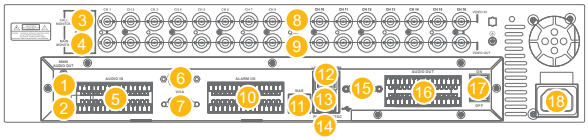
Premium H.264 Hybrid DVR

Front Panel



1. DVD/RW or Cartridge; *optional*
2. USB 2.0 Ports
3. Channel Keys
4. Function Keys
5. LEDs
6. Direction Keys
7. IR
8. Jog / Shuttle

Rear Panel



1. Main Audio Output
2. S-Video Output
3. Call Monitor Output (BNC)
4. Main Monitor Output (BNC)
5. Audio Input
6. VGA Output
7. Digital Display Output
8. Video Input
9. Video Looping
10. Alarm I/O and RS-485
11. NAS Port (RJ45)
12. LAN 10/100/1000M (RJ45)
13. USB 2.0 Ports
14. NTSC / PAL Switch
15. RS-232
16. Audio Output; *optional*
17. Power Switch
18. Power Jack

Features

Advanced Functions

- H.264 / MPEG-4 / MJPEG compression
- NEW Up to 8CH IP camera recording
- NEW Megapixel recording
- NEW Real-time recording
- Pentaplex operation
- NEW User management
- Per channel configuration
- NTP for time synchronization
- WLAN, SMS
- Built-in Pelco Coaxitron® protocol
- POS function: transaction monitoring
- Up to 4 internal SATA HDDs
- Supports internal DVD+RW
- NEW Digital display output
- NEW Dual-gigabit LAN ports
- NEW 4/8/16CH audio recording
- Mobile View software
- Dyna**Remote**™ for remote monitoring
- Dyna**Guard**™ CMS for video management

Humane Technology

- GUI
- NEW USB mouse / USB keyboard; *optional*
- Control keyboard; *optional*
- IR remote control
- Jog / Shuttle
- NEW UPnP™
- Exports AVI file for Microsoft® Media Player

Modular Upgrade Kits

- NEW T / V / U Module (DG600S only) for real-time recording
- Dyna**Storage**™ 200 for extended recording storage
- Alarm Hub for 16CH alarm relay output
- NEW Audio Module for 4/8/16CH audio output

Specification

Item		DG604S / T	DG608S / V	DG616S / T / U
Video				
Operation System		Embedded (Linux)		
Video Standard		NTSC / PAL Switch Selectable		
Input		BNC × 4,1.0 Vp-p, 75 ohm	BNC × 8,1.0 Vp-p, 75 ohm	BNC × 16,1.0 Vp-p, 75 ohm
Input IP devices		Up to 4CH	Up to 8CH	Up to 8CH
Outputs	Main Monitor	BNC × 1, S-Video × 1, 1.0 Vp-p, 75 ohm		
	Call Monitor	BNC × 1, 1.0 Vp-p, 75 ohm		
	Loop	BNC × 4,1.0 Vp-p, 75 ohm	BNC × 8,1.0 Vp-p, 75 ohm	BNC × 16,1.0 Vp-p, 75 ohm
Digital Display Output		800 × 600, 1024 × 768, 1280 × 1024 pixels		
VGA Output		800 × 600, 1024 × 768, 1280 × 1024 pixels		
Picture Refresh Rate		NTSC: 30 pps/per CH, PAL: 25 pps/per CH		
Audio				
Input		Terminal Block × 4, Line-In	Terminal Block × 8, Line-In	Terminal Block × 16, Line-In
Output		RCA × 1, Line-Out		
Compression Method		ADPCM, G.726		
Data Rate		8 KB/s, per CH		
Recording				
Compression Method		H.264 (DG600S / T / V / U); MPEG-4 / MJPEG (DG600S / T)		
Recording Mode		Schedule, Alarm, Motion Detection		
Pre-alarm		Yes		
H.264	NTSC 720 × 480	S / T: Max 60 / 120 pps	S / V: Max 60 / 240 pps	S / T / U: Max 60 / 120 / 480 pps
	PAL 720 × 576	S / T: Max 50 / 100 pps	S / V: Max 50 / 200 pps	S / T / U: Max 50 / 100 / 400 pps
MPEG-4 / MJPEG	NTSC 720 × 480	S / T: Max 120 / 120 pps	S : Max 120 pps	S / T : Max 120 / 240 pps
	PAL 720 × 576	S / T: Max 100 / 100 pps	S : Max 100 pps	S / T : Max 100 / 200 pps
Recording Quality		8 Levels Presets, Adjustable		
Storage Mode		Linear / Circular		
Data Lifetime		Yes (Programmable)		
Storage				
Built-in Storage Interface		× 4 SATA for HDD and DVD+RW		
Cartridge / DVD+RW		Optional		
External Storage		Dyna**Storage**™ 200 (Gigabit LAN)		
Export		× 4 USB 2.0 Ports, Support ThumbDrive and DVD+RW		
Alarm				
Alarm Input		× 4, Terminal Block (TTL)	× 8, Terminal Block (TTL)	× 16, Terminal Block (TTL)
Alarm Relay Output		× 2, Terminal Block, 3.0A / 30 VDC or 3.0A / 125 VAC	× 2, Terminal Block, 3.0A / 30 VDC or 3.0A / 125 VAC	× 3, Terminal Block, 3.0A / 30 VDC or 3.0A / 125 VAC
Alarm Detection		N.C. / N.O., programmable		
Motion Detection		15 × 11 Grid Array, Sensitivity, Trigger level adjustable		
Video Loss Detection		Programmable		
Communication				
Network Connectivity		Ethernet RJ45 connector, 10/100/1000 Mbps		
Compatible IP Cameras		ACTi, AXIS, DynaColor, HUNT, SANYO, SONY, VIVOTEK		
Remote Control Software		Dyna**Guard**™ CMS, Dyna**Remote**™①		
Remote Operation		Monitoring, Playback, Recording, System setup, Dome camera control, Archiving		
RS-232C		D-SUB 9 pin male		
RS-485		Terminal Block		
Dome Camera Control Protocol		DSCP, Pelco P, Pelco D, AD422, Fastrax 2, Panasonic, JVC		
General				
Unit Dimension (W × H × D)		440 × 90 × 413 mm (17.3 × 3.54 × 16.3 inches)		
Unit Weight		7 Kg (15.42 lbs) with DVD+RW		
Package Dimension (W × H × D)		563 × 197 × 521 mm (22.17 × 7.76 × 20.51 inches)		
Package Weight		10 Kg (22.03 lbs)		
Operation Temperature		0 °C ~ 40 °C (32 °F ~ 104 °F)		
Relative Humidity		10% ~ 90% Non-condensing		
Power Consumption & Input		AC 100 ~ 240V, 50-60 Hz, 200W (Manual select)		

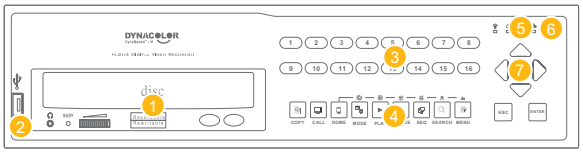
Product specification and availability subject to change without notice. Certain product names mentioned herein may be trade names and / or registered trademarks of their companies.

Remark ①: Dyna**Remote**™ Software Requirements:
Windows 2000, XP or Vista, Intel® Pentium® M 1.40GHZ or faster, 512 MB RAM (1 GB RAM or above is recommended), Microsoft® Internet Explorer 6.0 SP2, LAN or Internet connection.

network Dyna**Guard**™ 80 Series

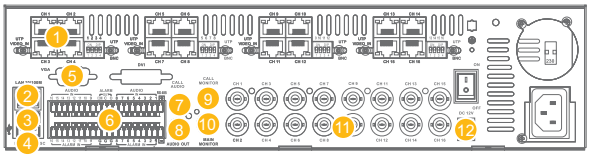
Versatile H.264 Hybrid DVR

Front Panel



1. DVD/RW or Cartridge; *optional*
2. USB 2.0 Port
3. Channel Keys
4. Function Keys
5. LEDs
6. IR
7. Direction Keys

Rear Panel



1. UTP Ports; *optional*
2. LAN 10/100M (RJ45)
3. USB 2.0 Ports
4. NTSC / PAL Switch
5. VGA Port; *optional*
6. Alarm I/O & Audio Input & RS-485 (Terminal Block)
7. Call Audio Output
8. Main Audio Output
9. Call Monitor Output (BNC)
10. Main Monitor Output (BNC)
11. Video Input
12. Power Jack

Features

Advanced Functions

- H.264 / MJPEG compression
- NEW Up to 2CH IP camera recording
- Quadplex operation
- NEW User management
- Per channel configuration
- NTP for time synchronization
- Motion detection marker
- Up to 3 internal SATA HDDs
- Supports internal DVD+RW
- UTP connection; *optional*
- NEW 4/8/16CH audio recording
- Mobile View software
- Dyna**Remote**™ for remote monitoring
- Dyna**Guard**™ CMS for video management

Humane Technology

- GUI
- NEW Touch panel
- USB mouse; *optional*
- Control keyboard; *optional*
- IR remote control

Specification

Item		DG84	DG88	DG86
Video				
Operation System		Embedded (Linux)		
Input		BNC × 4, 1.0 Vp-p, 75 ohm	BNC × 8, 1.0 Vp-p, 75 ohm	BNC × 16, 1.0 Vp-p, 75 ohm
UTP; *optional*		4CH UTP	8CH UTP	16CH UTP
Input IP devices		Up to 2CH		
Outputs	Main Monitor	BNC × 1, 1.0 Vp-p, 75 ohm		
	Call Monitor	BNC × 1, 1.0 Vp-p, 75 ohm		
VGA Output; *optional*		800 × 600, 1024 × 768, 1280 × 1024 pixels		
Picture Refresh Rate		NTSC: 30 pps/per CH, PAL: 25 pps/per CH		
Audio				
Input		Terminal Block × 4, Line-In	Terminal Block × 8, Line-In	Terminal Block × 16, Line-In
Output	Main Audio	RCA × 1, Line-Out		
	Call Audio	RCA × 1, Line-Out		
Compression Method		Proprietary		
Data Rate		8 KB/s, per CH		
Recording				
Compression Method		H.264 / MJPEG		
Recording Mode		Schedule, Alarm, Motion Detection		
Pre-alarm		Yes		
Recording Resolution & Rate	NTSC 720 × 480	Max 30 pps	Max 60 pps	
	720 × 240	Max 60 pps	Max 120 pps	
	360 × 240	Max 120 pps	Max 240 pps	
	PAL 720 × 576	Max 25 pps	Max 50 pps	
	720 × 288	Max 50 pps	Max 100 pps	
	360 × 288	Max 100 pps	Max 200 pps	
Recording Quality		8 Levels Presets, Adjustable		
Image Size		1 KB to 22 KB/Picture		
Storage Mode		Linear / Circular		
Data Lifetime		Yes (Programmable)		
Storage				
Built-in Storage Interface		× 3 SATA for HDD and DVD+RW		
Cartridge / DVD+RW		Optional		
Export		× 3 USB 2.0 Ports, Support ThumbDrive and DVD+RW		
Alarm				
Alarm Input		× 4, Terminal Block (TTL)	× 8, Terminal Block (TTL)	× 16, Terminal Block (TTL)
Alarm Relay Output		× 1, Terminal Block, 1.0A / 30 VDC or 1.0A / 120 VAC		
Alarm Detection		N.C. / N.O., programmable		
Motion Detection		16 × 12 Grid Array, Sensitivity, Trigger level adjustable		
Video Loss Detection		Programmable		
Communication				
Network Connectivity		Ethernet RJ45 connector, 10/100 Mbps		
Compatible IP Camera		ACTi, AXIS, DynaColor, HUNT, SANYO, SONY, VIVOTEK		
Remote Control Software		Dyna**Guard**™ CMS, Dyna**Remote**™①		
Remote Operation		Monitoring, Playback, Recording, System setup, Dome camera control, Archiving		
RS-485		Terminal Block		
Dome Camera Control Protocol		DSCP, Pelco P, Pelco D, AD422, Fastrax 2, Panasonic, JVC		
General				
Unit Dimension (W × H × D)		362 × 90 × 350 mm (14.2 × 3.5 × 13.7 inches)		
Unit Weight		5.5 Kg (12.1 lbs)		
Package Dimension (W × H × D)		410 × 210 × 500 mm (16.1 × 8.2 × 19.6 inches)		
Package Weight		7 Kg (15.4 lbs)		
Operation Temperature		0 °C ~ 40 °C (32 °F ~ 104 °F)		
Relative Humidity		10% ~ 90% Non-condensing		
Power Consumption & Input		AC 100 ~ 240V, 50-60 Hz, 60W adaptor		

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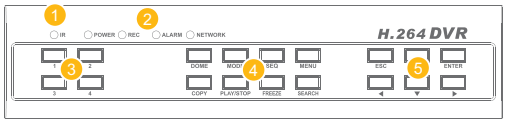
Windows 2000, XP or Vista, Intel® Pentium® M 1.40GHZ or faster, 512 MB RAM (1 GB RAM or above is recommended), Microsoft® Internet Explorer 6.0 SP2, LAN or Internet connection.

network Dyna**Guard**™ L80 Series

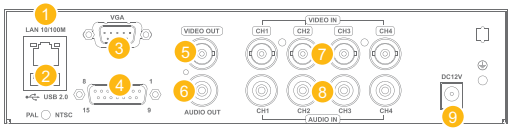
Lite H.264 DVR

Front Panel



1. IR
2. LEDs
3. Channel Keys
4. Function Keys
5. Direction Keys

Rear Panel



1. LAN 10/100M (RJ45)
2. USB 2.0 Port
3. VGA Port; *optional*
4. Alarm I/O & Audio Input & RS-485 (D-SUB)
5. Main Monitor Output (BNC)
6. Main Audio Output
7. Video Input
8. Audio Input
9. Power Jack

Features

Advanced Functions

- H.264 compression
- Quadplex operation
- NEW User management
- Per channel configuration
- NTP for time synchronization
- Motion detection marker
- Up to 2 internal SATA HDDs
- NEW 4/8/16CH audio recording
- Mobile View software
- Dyna**Remote**™ for remote monitoring
- Dyna**Guard**™ CMS for video management

Humane Technology

- GUI
- USB mouse (PS/2 protocol); *optional*
- Control keyboard; *optional*
- IR remote control; *optional*

Specification

Item		L84	L88	L86
Video				
Operation System		Embedded (Linux)		
Input		BNC × 4, 1.0 Vp-p, 75 ohm	BNC × 8, 1.0 Vp-p, 75 ohm	BNC × 16, 1.0 Vp-p, 75 ohm
Outputs	Main Monitor	BNC × 1, 1.0 Vp-p, 75 ohm		
	Call Monitor	N / A	BNC × 1, 1.0 Vp-p, 75 ohm	
VGA Output; *optional*		800 × 600, 1024 × 768, 1280 × 1024 pixels		
Picture Refresh Rate		NTSC: 30 pps/per CH, PAL: 25 pps/per CH		
Audio				
Input		RCA × 4, Line-In	D-SUB × 8, Line-In	D-SUB × 16, Line-In
Output	Main Audio	RCA × 1, Line-Out		
	Call Audio	N / A	RCA × 1, Line-Out	
Compression Method		Proprietary		
Data Rate		8 KB/s, per CH		
Recording				
Compression Method		H.264		
Recording Mode		Schedule, Alarm, Motion Detection		
Pre-alarm		Yes		
Recording Resolution & Rate	NTSC 720 × 480	Max 30 pps	Max 60 pps	
	720 × 240	Max 60 pps	Max 120 pps	
	360 × 240	Max 120 pps	Max 240 pps	
	PAL 720 × 576	Max 25 pps	Max 50 pps	
	720 × 288	Max 50 pps	Max 100 pps	
	360 × 288	Max 100 pps	Max 200 pps	
Recording Quality		8 Levels Presets, Adjustable		
Image Size		1 K to 22 KB/Picture		
Storage Mode		Linear / Circular		
Data Lifetime		Yes (Programmable)		
Storage				
Built-in Storage Interface		× 2 SATA		
Export		× 1 USB 2.0 Port, Supports ThumbDrive, or DVD+RW		
Alarm				
Alarm Input		× 4, D-SUB (TTL)	× 8, D-SUB (TTL)	× 16, D-SUB (TTL)
Alarm Relay Output		× 1, D-SUB, 1.0A / 30 VDC or 1.0A / 120 VAC		
Alarm Detection		N.C. / N.O., Programmable		
Motion Detection		16 × 12 Grid Array, Sensitivity, Trigger level adjustable		
Video Loss Detection		Programmable		
Communication				
Network Connectivity		Ethernet RJ45 connector, 10/100 Mbps		
Remote Control Software		Dyna**Guard**™ CMS, Dyna**Remote**™①		
Remote Operation		Monitoring, Playback, Recording, System setup, Dome camera control, Archiving		
RS-485		D-SUB		
IR Remote; *optional*		Yes		
Dome Camra Control Protocol		DSCP, Pelco P, Pelco D, AD422, Fastrax 2, Panasonic, JVC		
General				
Unit Dimension (W × H × D)		300 × 55 × 360 mm (11.8 × 2.2 × 14.2 inches)		
Unit Weight		2.3 Kg (5.1 lbs)		
Package Dimension (W × H × D)		456 × 145 × 456 mm (18.0 × 5.7 × 18.0 inches)		
Package Weight		3.8 Kg (8.4 lbs)		
Operation Temperature		0 °C ~ 40 °C (32 °F ~ 104 °F)		
Relative Humidity		10% ~ 90% Non-condensing		
Power Consumption & Input		AC 100 ~ 240V, 50-60Hz, 60W adaptor		

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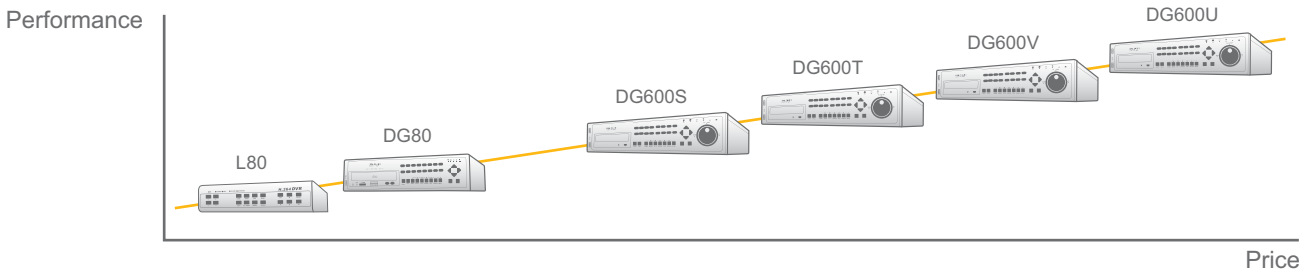
H.264 Hybrid DVR

Value Chart



Comparison Chart

Feature	Premium H.264 DVR DG600 Series			Versatile H.264 DVR DG80 Series					
	DG616S / T / U	DG608S / V	DG604S / T	DG86	DG88	DG84	L86	L88	L84
Recording									
Recording Rate (H.264 @ D1)	60 / 120 / 480	60 / 240	60 / 120	60	60	30	60	60	30
Recording Rate (M / J @ D1)	120 / 240 / -	120 / -	120 / 120	60 (J)	60 (J)	30 (J)	-	-	-
*Compression Method	H / M / J	H / M / J	H / M / J	H / J	H / J	H / J	H	H	H
IP Camera Compatibility	8	8	4	2	2	2	-	-	-
Per Channel Configuration	●	●	●	●	●	●	●	●	●
Storage									
Max. HDDs	4	4	4	3	3	3	2	2	2
Network Attached Storage	○	○	○	-	-	-	-	-	-
Gigabit LAN Port	●	●	●	-	-	-	-	-	-
USB Ports	4	4	4	3	3	3	2	2	2
DVD Burner	●	●	●	●	●	●	○	○	○
Remote Network									
Dyna**Remote**™ S/W	●	●	●	●	●	●	●	●	●
WLAN / SMS	●	●	●	-	-	-	-	-	-
Upgrade Kits									
Audio Module	○	○	○	-	-	-	-	-	-
T / V / U Module	○ / - / -	○ / -	○ / -	-	-	-	-	-	-
Alarm Hub	○	○	○	○	○	○	○	○	○
UTP Module	-	-	-	○	○	○	-	-	-
VGA Module	●	●	●	○	○	○	○	○	○
Application									
Dyna**Guard**™ CMS	●	●	●	●	●	●	○	○	○
Mobile View S/W	●	●	●	●	●	●	●	●	●
Time Synchronization	●	●	●	●	●	●	●	●	●
UPnP™	●	●	●	-	-	-	-	-	-
Dual-Main Function	●	●	●	-	-	-	-	-	-
Digital Display Output	●	●	●	-	-	-	-	-	-
Operation Interface									
Jog / Shuttle	●	●	●	-	-	-	-	-	-
USB Mouse	○	○	○	○	○	○	○	○	○
USB Keyboard	○	○	○	-	-	-	-	-	-
IR Remote Control	●	●	●	●	●	●	○	○	○
Compact Control Keyboard	○	○	○	○	○	○	○	○	○
GUI	●	●	●	●	●	●	●	●	●
Touch Panel	-	-	-	●	●	●	-	-	-

* : H stands for H.264 compression, M stands for MPEG-4 compression, J stands for MJPEG compression, V and U models don't support MPEG-4 and MJPEG compressions
● Supported ○ Optional - Not supported

The network Dyna**Guard**™ series supports H.264 compression and Megapixel IP camera recording. It keeps all intelligent functions for managing and provides an integrated solution of recording videos from both existing analog cameras and oncoming IP cameras. With the hybrid video-in configurations, it saves the cost of replacement of camera devices in the period of IP transition.

The Central Management System, Dyna**Guard**™ CMS, is a free bundled video management software that allows the administrator to monitor up to 64 live video channels from cameras or DVRs, to record and playback on the PC using instant or schedule recording modes, and to archive the DVR recorded video remotely.

Product Selection

DG6 □ - □ □

Channels	HDD	Device Option	Video System
04S: 4 CH S model	***000:*** None	***0:*** None	***P:*** PAL
04T: 4 CH T model	***016:*** 160 GB	***M:*** Cartridge	***N:*** NTSC
08S: 8 CH S model	***032:*** 320 GB	***D:*** DVD+RW	
08V: 8 CH V model	***050:*** 500 GB	***A:*** Audio Module	
16S: 16 CH S model	***064:*** 640 GB		
16T: 16 CH T model	***075:*** 750 GB		
16U: 16 CH U model	***100:*** 1000 GB		

DG08 □ - □ □ □

Channels	HDD	Connection	Device Option	Video System
4: 4 CH	***000:*** None	***0:*** BNC	***0:*** None	***P:*** PAL
8: 8 CH	***016:*** 160 GB	***U:*** UTP	***M:*** Cartridge	***N:*** NTSC
6: 16 CH	***032:*** 320 GB		***D:*** DVD+RW	
	050: 500 GB			
	064: 640 GB			
	075: 750 GB			
	100: 1000 GB			

L08 □ - □ □

Channels	HDD	Device Option	Video System
4: 4 CH	***000:*** None	***0:*** None	***P:*** PAL
8: 8 CH	***016:*** 160 GB	***M:*** Cartridge	***N:*** NTSC
6: 16 CH	***032:*** 320 GB	***D:*** DVD+RW	
	050: 500 GB		
	064: 640 GB		
	075: 750 GB		
	100: 1000 GB		

Product specification and availability subject to change without notice.
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Application

Central Management System

Features

- Instant DVR and IP camera settings
- NEW Up to 512 channels viewing
- eMap management
- Instant / scheduled recording
- Remote & local playback
- Image adjustment of recorded videos
- Event playback and alert notification
- NEW Remote archiving / configuring
- NEW Configuration exporting and importing
- NEW Digital pan, tilt and zoom & 2-way audio
- NEW Analog & IP speed dome control / IP joystick support
- NEW User management / lock function
- HDD status report
- Multi-language support
- NEW Smart motion playback

Specification

Item	DynaGuard™ CMS
Input Devices	
Camera	NH Series / NW Series / AXIS 200 Series / Vivotek 7000 Series
DVR	DG80 / DG200 / DG600
Video Encoder / Dome Camera	D7521 / DH500e / DH701e / DH801+e
Video Format	
Video Channels	Up to 64CH
Video Compression	H.264 / MJPEG / MPEG-4
Resolution	Up to 2048 × 1536
Recording	
Instant Recording	Manually start / stop recording
Scheduled Recording	Scheduled time frame for recording
Audio	
Recording w/ audio	Supports instant recording w/ audio
Live w/ audio	Supports live display w/ audio
Two-way audio	Bidirectional audio transmission
Monitoring	
Live Monitoring	Different viewing modes / Full screen / Sequence
Remote Playback	Playback recorded videos remotely
Local Playback	Playback recorded videos on PC
Snapshot	Still image
Dome Camera Control	Multiple dome camera control protocols
Image Adjustment	Brightness, Saturation, Hue, Contrast
Event	
Playback	Select and playback events from the event list
Remote Archiving	Select and archive events from the event list
Search	All events will be listed by time
Notification	Event full screen / Alert notification
System Requirement	
Operation System	Windows XP, Windows Vista
CPU	Pentium 4, 2.0 GHz or above
Memory	1 GB or above