



**Camera Series**



ES-916N/P | ES-916HN/P  
ES-916N6/P6 | ES-916HN6/P6



ES-920N/P | ES-920HN/P  
ES-920N6/P6 | ES-920HN6/P6



ES-930N/P | ES-930HN/P



ES-968N/P | ES-968HN/P  
ES-968N6/P6 | ES-968HN6/P6

**DVR Series**



• DVR204



• DVR208



• DVR216



**Home Series Product**

ES-916 ES-920 ES-930 ES-968  
ES-916H ES-920H ES-930H ES-968H

**Camera Series**

DVR204 DVR208 DVR216

**DVR Series**



# Camera Series



## ES-916 | ES-916H INFRARED CAMERA

### Features :

- Avoid IR Reflection to Provide Perfect Video
- Adopt "Special Optical Low Pass filter"
- High Efficiency IR LED: Radiant Distance 16M
- Automatically Activates LED: Below 10 Lux
- High Sensitivity Sensor, Excellent Picture Quality



## ES-930 | ES-930H D/N VARI-FOCAL INFRARED CAMERA

### Features :

- Radiant Distance Up to 30M
- Cable Managed Housing and Bracket
- High Sensitivity CCD Sensor
- Perfect Solution for Day / Night Applications
- IP66 Weather Rating
- Automatically Activates LED: Below 10 Lux



## ES-920 | ES-920H INFRARED CAMERA

### Features :

- Adopt "Special Optical Low Pass Filter"
- High Efficiency IR LED: Radiant Distance 20M
- Automatically Activates LED: Below 10 Lux
- Aluminum Housing with IP 68 Rating
- High Sensitivity Sensor, Excellent Picture Quality



## ES-968 | ES-968H COLOR MINI DOME CAMERA

### Features :

- RCA Video Connector for Easy Adjustment on Site
- 3-Axis Camera Construction
- Optically Perfect Impact and Dust Resistant Polycarbonate Dome Cover
- Special Circuit to Avoid Color Rolling
- Screw-on Design Dome Cover

Name	INFRARED CAMERA				D/N VARI-FOCAL INFRARED CAMERA				COLOR MINI DOME CAMERA							
Model No	380TVL	ES-916N/P	ES-916N6/P6	ES-920N/P	ES-920N6/P6	ES-930N/P	ES-968N/P	ES-968N6/P6	540TVL	ES-916HN/P	ES-916HN6/P6	ES-920HN/P	ES-920HN6/P6	ES-930HN/P	ES-968HN/P	ES-968HN6/P6
Focal Length		3.6mm	6.0mm	3.6mm	6.0mm	4~9mm	3.6mm	6.0mm								
Iris		F2.0	F1.8	F2.0	F1.8	F1.6	F2.0	F1.8								
Lens	Angle of view	H	73°	44.5°	73°	44.5°	69°~30.7°	73°	44.5°							
		V	54.5°	33.1°	54.5°	33.1°	51°~23°	54.5°	33.1°							
		D	92°	56°	92°	56°	86°~38.5°	92°	56°							
Power Input Voltage		DC12V(±10%)														
System		NTSC or PAL														
Sync. Mode		Internal														
Pick Up Element		1/3" Interline Transfer CCD Sensor														
Effective Pixels	380TVL	512(H)x492(V) [NTSC] / 512(H)x582(V) [PAL]														
	540TVL	768(H)x494(V) [NTSC] / 752(H)x582(V) [PAL]														
Chip Size		5.59(H)x4.68(V)mm														
Horizontal & Vertical		15.734KHz / 59.94Hz[NTSC]														
Sync. Frequency		15.625KHz / 50Hz[PAL]														
Scanning System		2:1 Interlace														
Resolution		380 TV Lines / 540TV Lines														
Minimum Illumination	380TVL	0.2 Lux(F2.0 / F1.8), 0 Lux(IR ON)	0.2 Lux (F2.0 / F1.8), 0 Lux (IR ON)	0.1 Lux (F1.6), 0 Lux (IR ON)	0.2 Lux(F2.0 / F1.8)											
	540TVL	0.5 Lux(F2.0 / F1.8), 0 Lux(IR ON)	0.5 Lux (F2.0 / F1.8), 0 Lux (IR ON)	0.3 Lux (F1.6), 0 Lux (IR ON)	0.5 Lux(F2.0 / F1.8)											
S/N Ratio		More Than 50dB (AGC OFF)														
Auto Gain Control		36dB Variable Gain														
White Balance		ATW														
Aperture Correction		Horizontal , Vertical														
Power Consumption		3.0W		4.8W		5.8W		2.2W								
Shutter		1/60(1/50)S~1/100,000S(Auto)														
Back Light Compensation		Auto														
Video Output		CVBS1.0Vp-p ,750hm														
Gamma Characteristic		γ=0.45														
IP Rating			IP68		IP66											
	Peak Wavelength		850nm		850nm		850nm		-							
	Beam Spread		30°		30°		30°		-							
Infrared LED	Radiant Distance		16M		20M		30M		-							
	Operating Temperature		-10°C ~ +50°C (14°F ~ 122°F)													
Dimension		Ø 93x74mm(H)				78(W)x66.5(H)x88(D)mm				Body: 82(W)x72.5(H)x154(D)mm Bracket: 101(L)mm Fix Ring: Ø112x40.5mm(H)						
	Weight	230g				340g				500g				250g		

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# DVR Series

- H.264 Video Compression
- 240 PPS(DVR208/DVR216) ; 120PPS(DVR204)
- Recording quality/ rate adjustment per channel available
- Audio Backup / Audio Streaming.
- Graphic User Interface ( GUI )
- Support time-point backup function under Ethernet remote control mode. User can select any time period to process backup from remote side.
- Support time-search & event-search function under Ethernet remote control mode.
- Up to four online clients for independent remote control; individual Live-time, Play-back & Time-search available
- Support PPPoE/Static/DHCP IP & DDNS
- Real Triplex, recording/ live-time & playback operation at the same time available.



Digital Video Recorder (DVR)			
Type	H.264		
Model	DVR204	DVR208	DVR216
LIVE-TIME RESOLUTION	NTSC: 720x480 PAL: 720x576		
LIVE-TIME DISPLAY RATE	NTSC: 4x30 Frame / Sec PAL: 4x25 Frame / Sec	NTSC: 8x30 Frame / Sec PAL: 8x25 Frame / Sec	NTSC: 16x30 Frame / Sec PAL: 16x25 Frame / Sec
SPLIT SCREEN	1,4	1,4,9	1,4,9,13,16
VIDEO INPUT	BNC x 4	BNC x 8	BNC x 1
VIDEO OUTPUT (BNC)	BNC x 1	BNC x 2	BNC x 1
VIDEO OUTPUT (SPOT MONITOR)	No		BNC x 1
VIDEO OUTPUT (S-VIDEO)	No	Yes	No
VIDEO OUTPUT (VGA)	Yes		
AUDIO			
AUDIO INPUT	RCA x 1		
AUDIO OUTPUT	RCA x 1		
AUDIO BACKUP	Yes		
AUDIO STREAMING	Yes		
RECORDING			
COMPRESSION TYPE	H.264		
RECORDING RESOLUTION (D1)	NTSC: 720x480 PAL: 720x576		
RECORDING RESOLUTION (HALF D1)	NTSC: 720x240 PAL: 720x288		
RECORDING RESOLUTION (CIF)	NTSC: 360x240 PAL: 360x288		
RECORDING RATE (D1)	NTSC: 720x480 up to 30 PPS PAL: 720x576 up to 25 PPS	NTSC: 720x480 up to 60 PPS PAL: 720x576 up to 50 PPS	NTSC: 720x480 up to 60 PPS PAL: 720x576 up to 50 PPS
RECORDING RATE (HALF D1)	NTSC: 720x240 up to 60 PPS PAL: 720x288 up to 50 PPS	NTSC: 720x240 up to 120 PPS PAL: 720x288 up to 100 PPS	NTSC: 720x240 up to 120 PPS PAL: 720x288 up to 100 PPS
RECORDING RATE (CIF)	NTSC: 360x240 up to 120 PPS PAL: 352x288 up to 100 PPS	NTSC: 360x240 up to 240 PPS PAL: 352x288 up to 200 PPS	NTSC: 360x240 up to 240 PPS PAL: 352x288 up to 200 PPS
COMPRESSION RATE	Low : 1 K Bytes Medium : 2.2 K Bytes High : 3.2 K Bytes Best : 6 K Bytes		
RECORDING MODE	Manual / Schedule / Alarm		
STORAGE & BACKUP DEVICE			
INTERNAL HDD SUPPORT	SATA HDD x1	SATA HDD x 2	
USB BACKUP	Yes		

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## Digital Video Recorder (DVR)

Type	H.264		
Model	DVR204	DVR208	DVR216
PLAYBACK & SEARCH			
PLAYBACK RATE (CIF)	NTSC: 120 PPS PAL: 100 PPS	NTSC: 120 PPS PAL: 100 PPS; Each channel rate is 15/12.5 PPS in 8CH; Each channel rate is 30/25 PPS in 4CH	NTSC: 120 PPS PAL: 100 PPS; Each channel rate is 7.5/6.25 PPS in 16CH; Each channel rate is 15/12.5 PPS in 8CH; Each channel rate is 30/25 PPS in 4CH
PLAYBACK SPEED	Fast Forward X2 X4 X8 Fast Backward X2 X4 X8 field by field Playback/Pause		
TIME SEARCH	Yes		
EVENT SEARCH	Yes		
EVENT LIST	3000 records per H.D.D (Maximum)		
OSD & CONTROL INTERFACE			
TITLE	8 Characters		
ON SCREEN DISPLAY & SETUP	Time / Date / Setup Menu		
GRAPHIC USER INTERFACE (GUI)	Yes		
DVR CONTROL PANEL	Yes		
MOUSE	Yes		
IR REMOTE CONTROLLER	Yes		
IE BROWSER	Yes		
PLAYER	Yes		
NETWORK			
ETHERNET COMPRESSION FORMAT	H.264		
DDNS	Yes		
E-MAIL & FTP	Yes		
NETWORK IP	Static/ Dynamic/ PPPoE		
MULTI-REMOTE CLIENT	Yes ( 4 Clients at the same time available)		
PDA/ CELL PHONE SUPPORT	Yes ( MPEG4 )		
3GPP	Yes ( MPEG4 )		
ALARM			
ALARM INPUT	4 In (NO/ NC)		
ALARM OUTPUT	1 Out (NO/ NC)		
MOTION DETECTION	Yes		
MOTION DETECTION AREA	30 x 24 grids		
MOTION DETECTION SENSITIVITY	1-100		
VIDEO LOSS DETECTION	Yes		
ALARM RECORDING	Yes		
BUZZER	Yes		
SETUP & OTHER FUNCTIONS			
DAYLIGHT SAVING TIME	Yes		
PTZ CONTROL	Yes		
RS-485	Yes		
DIGITAL ZOOM	Yes		
PASSWORD CONTROL	Two levels, one for system and the other for HDD format		
KEY-LOCK	Yes		
MULTI-LANGUAGE	Yes		
FIRMWARE UPDATE	USB Host & Update on line		
OTHERS			
POWER INPUT	DC 12V		
DIMENSIONS (W x H x D)	218 X 44 X 202	360mm X 60mm X 311mm	
WEIGHT (kg)	1.4 kg	3kg	
OPERATION TEMPERATURE	0~40° C		
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DVR Series			
• DVR204	• DVR208	• DVR216	