



Camera Series



ES-916 | ES-916H



ES-920 | ES-920H



ES-930 | ES-930H



ES-968 | ES-968H

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 | ES-916 ES-916H | | ES-920 ES-920H | | ES-930 ES-930H | |
| Focal Length | 3.6mm / 6.0mm | | 3.6mm / 6.0mm | | 4~9mm | |
| Iris | F2.0 / F1.8 | | F2.0 / F1.8 | | F1.6 | |
| Lens | Angle of view | H | 73° / 44.5° | | 69° ~ 30.7° | |
| | | V | 54.5° / 33.1° | | 51° ~ 23° | |
| | | D | 92° / 56° | | 86° ~ 38.5° | |
| | | | | | | |
| 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] | | 380TVL : 512(H)x582(V) [PAL] | | 540TVL : 768(H)x494(V) [NTSC] | |
| | | | | | 540TVL : 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 | | 380 TV Lines 540TV Lines | | 380 TV Lines 540TV Lines | |
| Minimum Illumination | 380TVL | 0.2 Lux(F2.0 / F1.8), 0 Lux(IR ON) | 540TVL | 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) |
| 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 | |
| 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 | |
| | Beam Spread | | 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 | |

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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 | | |
| 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: 720 x 480 up to 30 PPS PAL: 720 x 576 up to 25 PPS | NTSC: 720 x 480 up to 60 PPS PAL: 720 x 576 up to 50 PPS | NTSC: 720 x 480 up to 60 PPS PAL: 720 x 576 up to 50 PPS |
| RECORDING RATE (HALF D1) | NTSC: 720 x 240 up to 60 PPS PAL: 720 x 288 up to 50 PPS | NTSC: 720 x 240 up to 120 PPS PAL: 720 x 288 up to 100 PPS | NTSC: 720 x 240 up to 120 PPS PAL: 720 x 288 up to 100 PPS |
| RECORDING RATE (CIF) | NTSC: 360 x 240 up to 120 PPS PAL: 352 x 288 up to 100 PPS | NTSC: 360 x 240 up to 240 PPS PAL: 352 x 288 up to 200 PPS | NTSC: 360 x 240 up to 240 PPS PAL: 352 x 288 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 X 2 X 4 X 8 Fast Backward X 2 X 4 X 8 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