SUNELL DPS Super Wide Dynamic High Resolution Color Camera

SN-586C Super Wide Dynamic High Resolution Color Camera

- Excellent image quality
- Patent DPS® Digital Pixel System Technology
- Super wide dynamic range: 101dB Typital, 120dB Maximum
- Strong software function
- OSD programmable setting
- High price-to-performance ratio
- AC24V/DC12V accepted

SN-587C Super Wide Dynamic High Resolution Color Camera

- Excellent image quality
- Patent DPS® Digital Pixel System Technology
- Super wide dynamic range: 95/101dB Typital, 120dB Maximum
- Strong software function
- Video Motion Detection and Alarm input/output function
- Unique digital zoom function
- Remote control function
- Multiple Video output interfaces
- OSD Programming setting
- High price-to-performance ratio
- AC24V/DC12V accepted

■ SN-586C and SN-587C adopt the innovative DPS wide dynamic image sensor and image processing technology with built-in wide dynamic sensor. DPS is an innovative video capture(sensor) and image processing mode, the video sensor samples each pixel multiple times in a single capture frame. DPS not only records the light, but also calculates the changing rate, so it provides a wider dynamic range for each pixel than CCD and CMOS, even when there is a large contrast between lightness and darkness. The processor translates the light into a digital value at the point of capture, thus minimizing signal degradation and allowing for greater noise reduction methods and an optimal image reproduction.

Main Characteristics

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- Adopted 1/3″ DPS（Digital Pixel System）Wide Dynamic image sensor
- Provides a wider dynamic range than conventional WDR camera. The DPS sensor can quickly and precisely responds the lighting condition changes so as to Achieve high-quality, fully-exposed images.

DPS Technology
With wide dynamic sensor and DPS chipset which can adjust the lightness of each pixel, camera can capture sharp and crisp images not only in the foreground, but also in light background. It can get clear images even if there is a large contrast between lightness and darkness.

Resolution up to 480 TVL
Horizontal resolution 480 TVL, vertical resolution 400 TVL, captures sharp and crisp images for recording.

Low light mode
Auto-switch from color at daytime to B/W at night time（SN-586C/B, SN-587C, SN-587C/A, SN-587C/B）

Super Wide Dynamic Range
Multi-sampling every pixel in a single capture frame. The imaging system determines the optimal time to sample and store pixel information before being saturated and no longer holding additional charge, realizing high speed wide dynamic function of camera. Dynamic Range: 95/101dB Typital, 120dB Maximum

Motion Detection(SN-587C, SN-587C/A, SN-587C/B)
Motion Detection Alarm, Detected area enlarge, Alarm, Outside alarm output.

Digital Zoom function(SN-587C, SN-587C/A, SN-587C/B)
4 times digital zoom function, can move the picture up and down, left and right., the traditional CCD camera without the function.

Alarm input/output function (SN-587C, SN-587C/A, SN-587C/B)
Alarm input, preset zoom area, alarm character display, alarm output

RS232/485 remote control function(SN-587C, SN-587C/A, SN-587C/B)
Remote change parameter of the camera through RS232/485

Multiple Video output interfaces (SN-587C, SN-587C/A, SN-587C/B)
Except the standard video signal output, can also supply other video signal output, such as simulation: Y/Cb/Cr、R/G/B; digital signal output: ITU-656 (Optional)

OSD Menu function

Convenient OSD operation, multi-language platform, the following settings can be adjusted: Video format, Auto-iris lens, Automatic White Balance (AWB/indo -or/outdoor), Automatic gain control, Wide dynamic range, Title, OSD mode, Brightness/Sharpness, Low light mode, B/W mode and mirror function) Excellent picture quality and super wide dynamic range, specially suitable for application in scenes with sharp light contrast while requiring high image quality. It is an ideal replacement of conventional camera. Recommended places of application: Highway, Toll gate, Railway station, Ports, Squares, Communities, Entrance and exit of public sites.

Contrast between WDR and Regular Camera

Normal

BLC

WDR

Specification

Model	SN-586C/A	SN-586C/B	SN-587C	SN-587C/A	SN-587C/B
Image Sensor	1/3 DPS Digital Pixel System				
Signal system	PAL or NTSC Color system				
Effective Pixels	PAL 720(H) 540(V) NTSC 720(H) 540(V)				
Resolution	Horizontal Resolution 480 TVLines Vertical Resolution 400 TVLines				
Minimum Illumination	0.5Lux/F1.2; 0.08Lux/F1.2 Slow Shutter	0.5Lux/F1.2; 0.08Lux/F1.2 Slow Shutter 0Lux (with IR-LED)	1.0Lux/F1.2; 0.08Lux/F1.2 Slow Shutter	1.0Lux/F1.2; 0.08Lux/F1.2 Slow Shutter ; 0Lux (with IR-LED)	0.5Lux/F1.2; 0.08Lux/F1.2 Slow Shutter ; 0Lux (with IR-LED)
S/N Ratio	More than 48dB				
Dynamic Range	101dB Typical 120dB maximum		95dB Typical 120dB maximum		101dB Typical 120dB maximum
Control Method	OSD Function Control				
White Balance	AWB/ATW/ATW LIMIT/ATW DESAT/MANUAL Selectable				
Auto White Balance Range	2000K to 11,000K				
AGC	Adjustable				
Day/Night Function	N/A	Yes, with removable IR-Cut Filter	Yes	Yes, with removable IR-Cut Filter	Yes, with removable IR-Cut Filter
Video Output	1.0-1.2Vp-p adjustable, 75 Ohm, sync negative polarity		1.0-1.2Vp-p adjustable, 75 Ohm; ITU-656 optional		
Motion Detection	Yes				
Digital PTZ	Yes				
Alarm In/Out	Yes				
Remote control	Yes, RS232/485 Optional				
Gamma Correction	Adjustable				
Sync mode	INT/L.L.				
Lens Mount	CS/C with Ring				
Auto Iris	DC/VIDEO				
Power Supply	24VAC/12VDC				
Power Consumption	4.5W(MAX)				
Operating Temperature	-10 ~+50 RH95%MAX				
Dimension	62 W 60 H 121 D mm				
Camera Mount	Two 1/4 20 UNC (bottom and top)				
Weight	500g				

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SUNELL DPS Super Wide Dynamic High Resolution Dome Camera

SN-586DC
SN-586DC/W

SN-VP586DC
SN-VP586DC/W

■ **SN-586DC, SN-586DC/W Super Wide Dynamic High Resolution Dome Camera**

■ **SN-VP586DC, SN-VP586DC/W Super Wide Dynamic Multifunction Dome Camera**

○ World's First Super Wide Dynamic Color Dome Camera using DPS

○ Excellent image quality   ○ Patent DPS Digital Pixel System technology

○ Super wide dynamic range: 101dB Typital,120dB Maximum   ○ Strong software function

○ OSD Programming setting   ○ High efficiency /price rate Graceful appearance)

○ AC/DC Voltage acceptable   ○ Dome case selectable (including Vandal-Proof dome case)

■ Adopt innovative DPS wide dynamic image sensor and image processing technology with built-in wide dynamic sensor. DPS is an innovative video capture (sensor) and image processing mode, video sensor samples each pixel multiple times in a single capture frame. DPS not only records the light, but also calculates changing rate, so it provides a wider dynamic range for each pixel than CCD and CMOS, even when there is a large contrast between lightness and darkness. Processor translates light into a digital value at the immediate point of capture, thus minimizing signal degradation and allowing for greater noise reduction methods and an optimal image reproduction.

Main Characteristics

■ **Adopted 1/3"DPS   Digital Pixel System   Wide Dynamic image sensor**
Provides a wider dynamic range than conventional WDR camera. DPS sensor can quickly and precisely responds lighting condition changes to achieve a high-quality, fully-exposed images.

■ **DPS Technology**
With wide dynamic sensor and DPS chipset adjusting lightness of each pixel, camera can capture sharp and crisp images not only in foreground, but also in light background. It can get clear images similar to human's vision even if there is a large contrast between lightness and darkness.

■ **Super high resolution up to 540TVL**
Horizontal resolution 540TVL, vertical resolution 400 TVL, captures sharp and crisp images for recording.

■ **Sensitivity: normal mode**
0.5 Lux/F1.2   low light mode: 0.08Lux/F1.2   Low Shutter

■ **Super Wide Dynamic Range Multi-sampling every pixel in a single capture frame**
Imaging system determines optimal time to sample and store pixel information before saturated and can no longer hold additional charge, realize high speed wide dynamic function of camera. Dynamic Range: 101dB Typital,120dB Maximum

■ **Convenient OSD operation, multi-language platform, following settings can be adjusted**
Video format, Auto-iris lens, Automatic White Balance (AWB/in-door/outdoor), Automatic gain control, Wide dynamic range, Title, OSD mode, Brightness/Sharpness, Low light mode, B/W mode and mirror

■ **Elegant appearance, applying in concealing place**
Easy installation and adjustment, built-in manual Pan/Tilt   360 adjustable.

■ Excellent picture quality, specially designed for super wide dynamic range, suitable for scenes with sharp lightness contrast while requiring high image quality. It is an ideal replacement of conventional camera. Recommended placed of application: Bank, Hotel, Marketplace, Office, Hospital, School, Pos office, Government office, Accounting dept., Toll gate etc. Can install easily on the ceiling or wall, and responded to the decoration around.

■ Multifunction Series Dome Camera is a culminating solution provided for the strictest security application. It is the best performance camera with auto-iris and manual zoom lens installed into an aluminum housing and a polygon dome shield, which can bear up to 120 pounds and won't be destroyed. It has excellent sealing performance and can also be adopted by outdoor applications; If used outdoor, there are two installing way. Bracket available   SN-BK320A (Wall Mount), SN-BK320B (Pendant Mount).

Specification

Model	SN-586DC SN-VP586DC	SN-586DC/W SN-VP586DC/W
Image Sensor	1/3″ DPS（Digital Pixel System）	
Signal system	PAL or NTSC Color system	
Effective Pixels	PAL：720(H)×540(V)；NTSC：720(H)×540(V)	
Resolution	Horizontal Resolution：504 TVLines（up to 540 TVLines ViaSetting ） Vertical Resolution：400 TVLines	
Minimum Illumination	0.5Lux/F1.2；0.08Lux/F1.2（Slow Shutter）	
S/N Ratio	More than 48dB	
Dynamic Range	101dB Typical，120dB maximum	
Control Method	DIP Switch and OSD Menu	
White Balance	AWB/ATW/ATW LIMIT/ATW DESAT/MANUAL Selectable	
Auto White Balance Range	ATW 2000K to 11,00K	
AGC	Adjustable	
Day/Night Function	N/A	Yes, with removable IR-Cut Filter
Gamma Correction	Adjustabl	
Sync mode	INT/L.	
Lens	Fixed Board Lens, f=2.8,3.6,6,8,12mm (SN-586DC，SN-586DC/W) DC Auto-Iris, Vari-focal lens，f=2.6-6mm or 4-9mm (SN-VP586DC，SN-VP586DC/W)	
ideo Output	1.0-1.2Vp-p adjustable, 75 Ohm, sync negative polarity	
Power Supply	DC12V/AC24V	
Power Consumption	4.5W(MAX)	
Operating Temperature	-10℃~+50℃ RH95%MAX	
Dimension	Φ114×87mm (SN-586DC) Φ138×92mm(SN-VP586C)	Φ114×87mm (SN-586DC/W) Φ138×92mm(SN-VP586C/W)
Weight	350g (SN-586DC) 600g (SN-VP586C)	350g (SN-586DC/W) 600g (SN-VP586C/W)

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Special features of all the High Speed Dome

Userfriendly design for installation and maintenance---address, control protocol and baud rate adjustment switch are underlying- convenient for adjustment without disassembling.

3D Coordinate Display function: show coordinate of PAN ,TILT, and camera angle of view (so-called 3D coordinate). For example: 240 50 20, means the level angle is 240°, upright angle is 50°, camera angle of view is 20°. On/Off adjustable.

Power on auto restore function. Camera restore the sets automatically when power off, for example camera is running tour, if suddenly power off, will restore state of running tour after power on. This function is very useful, if power off in some district, needn't to restart cameras after power on, will back to before working state automatically. On /Off adjustable.

Quick Installation and hot-swap function support. It is very useful for power centralized supplying , if one camera in trouble, it is possible to take off and install back directly without power off and won't affect other cameras.

SN-687PT/18   Indoor 18X Zoom Intelligent High Speed Dome
- 1/4″ SONY IT CCD,480TVL，1.0Lux;
- 18×optical(f=4.1～73.8mm) zoom lens,12×digital zoom;
- S/N ratio over 50dB，BLC;
- Built-in RS-485 Receiver/Driver and Pan/Tilt, Multiple protocols selectable by DIP switch
- Pan speed: 0.5°-300°/S in 0°-360° ; Tilt speed:0-120°/S in 0°-90°
- 180° Auto-flip
- Up to 128 programmable preset positions
- Power source：24VAC,2A
- Multiple installing kinds available(pendant mount, wall mount)

SN-687PT/18W Indoor 18X Zoom Day/Night Intelligent High Speed Dome
- 1/4″ SONY Exview HAD CCD,480TVL，0.01Lux;
- Automatic conversed from color mode to B/W mode in dark circumstance
- 18×optical(f=4.1～73.8mm) zoom lens,12×digital zoom;
- S/N ratio over 50dB，BLC;
- Built-in RS-485 Receiver/Driver and Pan/Tilt, Multiple protocols selectable by DIP switch
- Pan speed: 0.5°-300°/S in 0°-360° ; Tilt speed:0-120°/S in 0°-90° ;
- 180° Auto-flip
- Up to 128 programmable preset positions
- Power source：24VAC,2A
- Multiple installing kinds available(pendant mount, wall mount)

SN-687PT/22W Indoor 22X Zoom Day/Night Intelligent High Speed Dome
- 1/4″ SONY Super HAD CCD
- Automatic conversed from color mode to B/W mode in dark circumstance
- Horizontal resolution :480TV lines (Color), 530TV lines (B/W)
- Illumination:0.5lux(Color), 0.05lux (B/W), 0.001lux (low-shutter)
- Built-in 22x optical Lens, f=3.9-85.8mm,11x digital Zoom optional
- S/N ratio over 52dB，BLC;
- Built-in RS-485 Receiver/Driver and Pan/Tilt, Multiple protocols selectable by DIP switch
- Pan speed: 0.5°-300°/S in 0°-360° ; Tilt speed:0-120°/S in 0°-90° ;
- 180° Auto-flip
- Up to 128 programmable preset positions
- Power source：24VAC,2A
- Multiple installing kinds available(pendant mount, wall mount)

SN-687PT/23W Indoor 23X Zoom Day/Night Intelligent High Speed Dome
- 1/4″ SONY Ex-view CCD,480TVL，0.01Lux;
- Automatic conversed from color mode to B/W mode in dark circumstance
- 23×optical(f=3.6～82.8mm) zoom lens,12×digital zoom;
- S/N ratio over 50dB，BLC;
- Built-in RS-485 Receiver/Driver and Pan/Tilt, Multiple protocols selectable by DIP switch
- Pan speed: 0.5°-300°/S in 0°-360° ; Tilt speed:0-120°/S in 0°-90° ;
- 180° Auto-flip
- Up to 128 programmable preset positions
- Power source：24VAC,2A
- Multiple installing kinds available(ceiling mount, embedded mount)

SN-687PT/26W Indoor 26×Zoom Day/Night Intelligent High Speed Dome
- 1/4″ SONY Ex-view CCD,480TVL;
- Automatic conversed from color mode to B/W mode in dark circumstance
- Illumination:1.0lux(Color), 0.15Lux/1/50sec (B/W)
- 26×optical (f=3.5～91mm) zoom lens,12×digital zoom;
- S/N ratio over 50dB，BLC;
- Built-in RS-485 Receiver/Driver and Pan/Tilt, Multiple protocols selectable by DIP switch
- Pan speed: 0.5°-300°/S in 0°-360° ; Tilt speed:0-120°/S in 0°-90° ;
- 180° Auto-flip
- Up to 128 programmable preset positions
- Power source：24VAC,2A
- Multiple installing kinds available(ceiling mount, embedded mount)

SN-WP687PT/18 Outdoor 18×Zoom Intelligent High Speed Dome
- 1/4″ SONY IT CCD,480TVL，1.0Lux;
- 18×optical(f=4.1～73.8mm) zoom lens,12×digital zoom;
- S/N ratio over 50dB，BLC;
- Built-in RS-485 Receiver/Driver and Pan/Tilt, Multiple protocols selectable by DIP switch
- Pan speed: 0.5°-300°/S in 0°-360°; Tilt speed:0-120°/S in 0°-90°;
- 180° Auto-flip
- Up to 128 programmable preset positions
- Power source：24VAC,2A
- Double-layer housing
- Automatically temperature-controlled function
- Multiple installing kinds available(pendant mount, wall mount, corner mount, pole mount)

SN- WP 687PT/18W Outdoor 18X Zoom Day/Night Intelligent High Speed Dome
- 1/4″ SONY Ex-view CCD,480TVL，0.01Lux;
- Automatic conversed from color mode to B/W mode in dark circumstance
- 18×optical(f=4.1～73.8mm) zoom lens,12×digital zoom;
- S/N ratio over 50dB，BLC;
- Built-in RS-485 Receiver/Driver and Pan/Tilt, Multiple protocols selectable by DIP switch
- Pan speed: 0.5°-300°/S in 0°-360°; Tilt speed:0-120°/S in 0°-90°;
- 180° Auto-flip
- Up to 128 programmable preset positions
- Power source：24VAC,2A
- Double-layer housing
- Automatically temperature-controlled function
- Multiple installing kinds available(pendant mount, wall mount, corner mount, pole mount)

SN- WP 687PT/22W Outdoor 22X Zoom Day/Night Intelligent High Speed Dome
- 1/4″ SONY Super HAD CCD
- Automatic conversed from color mode to B/W mode in dark circumstance
- Horizontal resolution :480TV lines (Color), 530TV lines (B/W)
- Illumination:0.5lux(Color), 0.05lux (B/W), 0.001lux (low-shutter)
- Built-in 22x optical Lens, f=3.9-85.8mm,11x digital Zoom optional
- S/N ratio over 52dB，BLC;
- Built-in RS-485 Receiver/Driver and Pan/Tilt, Multiple protocols selectable by DIP switch
- Pan speed: 0.5°-300°/S in 0°-360°; Tilt speed:0-120°/S in 0°-90°;
- 180° Auto-flip
- Up to 128 programmable preset positions
- Power source：24VAC,2A
- Double-layer housing
- Automatically temperature-controlled function
- Multiple installing kinds available(pendant mount, wall mount, corner mount, pole mount)

SN- WP687PT/23W Outdoor 23X Zoom Day/Night Intelligent High Speed Dome
- 1/4″ SONY Ex-view CCD,480TVL，0.01Lux;
- Automatic conversed from color mode to B/W mode in dark circumstance
- 23×optical(f=3.6～82.8mm) zoom lens,12×digital zoom;
- S/N ratio over 50dB，BLC;
- Built-in RS-485 Receiver/Driver and Pan/Tilt, Multiple protocols selectable by DIP switch
- Pan speed: 0.5°-300°/S in 0°-360°; Tilt speed:0-120°/S in 0°-90°;
- 180° Auto-flip
- Up to 128 programmable preset positions
- Power source：24VAC,2A
- Double-layer housing
- Automatically temperature-controlled function
- Multiple installing kinds available(pendant mount, wall mount, corner mount, pole mount)

SN- WP687PT/26W Outdoor 26X Zoom Day/Night Intelligent High Speed Dome
- 1/4″ SONY Ex-view CCD,480TVL;
- Automatic conversed from color mode to B/W mode in dark circumstance
- Illumination:1.0Lux(Color), 0.15Lux/1/50sec(B/W)
- 26×optical(f=3.5～91mm) zoom lens,12×digital zoom;
- S/N ratio over 50dB，BLC;
- Built-in RS-485 Receiver/Driver and Pan/Tilt, Multiple protocols selectable by DIP switch
- Pan speed: 0.5°-300°/S in 0°-360°; Tilt speed:0-120°/S in 0°-90°;
- 180° Auto-flip
- Up to 128 programmable preset positions
- Power source：24VAC,2A
- Double-layer housing
- Automatically temperature-controlled function
- Multiple installing kinds available(pendant mount, wall mount, corner mount, pole mount)

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Dimensions

Outdoor Speed Dome Camera

Dimeension for wall mounting

Dimeension for pendant mounting

Outdoor Speed Dome Camera

Dimeension for wall mounting

Dimeension for pendant mounting

System Configuration

Speed Dome SN-687PT

Speed Dome SN-687PT

Speed Dome SN-687PT

Monitor

ADR

ADR

ADR

interlinkage

interlinkage

PC

System Control Keyboard SN-CC50

< >

Enable Termination(on)

Enable Termination(on)

< >

Specification

Model	SN-687PT/18 (SN-WP687PT/18)	SN-687PT/18W (SN-WP687PT/18W)	SN-687PT/22W (SN-WP687PT/22W)	SN-687PT/23W (SN-WP687PT/23W)	SN-687PT/26W (SN-WP687PT/26W)
CAMERA					
Signal System	PAL orNTSC Color system				
Image Sensor	1/4″ IT CCD (SONY)	1/4″ Ex-View HAD CCD (SONY)	1/4″ Super HAD CCD (SONY)	1/4″ Ex-View HAD CCD (SONY)	
Day/Night function	N/A	Yes			
Mini. Illumination	1.0Lux	0.7Lux(Color) 0.01Lux(B/W)	0.7Lux(Color) 0.01Lux(B/W)	0.5Lux(Color) 0.05Lux(B/W)	1.0Lux(Color) 0.15Lux/1/50sec(PAL,B/W)
Active pixel	PAL: 752(H)×582(V) NTSC: 768(H)×494(V)		PAL: 795(H)×596(V) NTSC: 811(H)×508(V)	PAL: 758(H)×592(V) NTSC: 768(H)×494(V)	
Horizontal resolution	480Lines				
Focus Length	4.1mm～73.8mm		3.9mm～85.8mm	3.6mm～82.8mm	3.5mm～91mm
Zoom Ratio	18×Optical zoom		22×Optical zoom	23×Optical zoom	26×Optical zoom
	with autofocus (12×digital zoom)		with autofocus (11×digital zoom)	withautofocus (12×digital zoom)	with autofocus (12×digital zoom)
FUNCTION					
Panning angle					
Tilt angle	360° Continuous rotation				
Preset	0°～90°				
Pattern	128 positions				
Tour	1 Pattern (record usercontrol up to 40sec)				
Speed	6 guard tours				
Alarm	Manual control speed 0°～300°/sec(Pan); 0°～120°/sec(Tilt)				
Power	4 input, 2relay outputs				
	Nominal 24VAC,2Amaximum				

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Special features of High Speed Dome

3D Coordinate Display function: the camera can show the coordinate of PAN ,TILT, and camera angle of view (the so-called 3D coordinate). For example: 240 50 20, means the level angle is 240°, upright angle is 50°, camera angle of view is 20°. Adjustable for On/Off.

Power on auto restore function. Camera restore the sets automatically when power off, for example camera is running tour, if suddenly power off, will restore state of running tour after power on. This function is very useful, if power off in some district, needn't to restart cameras after power on, will back to before working state automatically. On/Off adjustable.

Quick Installation and hot-swap function support. It is very useful for power centralized supplying , if one camera in trouble, it is possible to take off and install back directly without power off and won't affect other cameras.

■ SN-686PT/18 Indoor 18x High Speed Dome Color Camera
- 1/4″ SONY CCD,480 TVLines ,1.0Lux
- Built-in 18X Zoom lens,f= 4.1-73.8mm
- Built-in RS-485 receiver driver, multiple protocols selectable by switch
- S/N more than 48dB,BLC
- Integrate high speed pan/tilt, Pan speed 0- 300°/S, tilt speed , 0- 120°/S,continuously rotate 360°
- 256 preset, 180 ° auto tilt.
- 4 alarm input and 1-relay output.
- Power supply AC 24V
- Available for various mounting (indoor ceiling ,indoor embedded)

■ SN-686PT/18W Indoor 18x day&night High Speed Dome Camera
- 1/4″ Ex-view HAD CCD,480 TVLines ,0.01Lux
- Color/B/W Automatic Switchable
- Built-in 18X Zoom lens,f= 4.1-73.8mm
- Built-in RS-485 receiver driver, multiple protocols selectable by switch
- S/N ratio more than 48dB,BLC
- Integrate high speed pan/tilt, Pan speed 0- 300°/S, tilt speed ,0- 120°/S,continuously rotate 360°.
- 256 preset, 180 ° auto tilt.
- 4 alarm input and 1-relay output.
- Power supply AC 24V
- Available for various mounting (indoor ceiling ,indoor embeded)

■ SN-686PT/22W Indoor 22 × Zoom Day/Night Intelligent High Speed Dome
- 1/4″ SONY Super HAD CCD,480TVL
- Min. illumination: 0.5Lux(Color), 0.01Lux(B/W), 0.001Lux(Low-shutter);
- Automatic conversed from color mode to B/W mode in dark circumstance
- 22 × optical (f=3.8 ~ 83.6mm) zoom lens,11 × digital zoom;
- S/N ratio over 52dB，BLC;
- Built-in RS-485 Receiver/Driver and Pan/Tilt, Multiple protocols selectable by DIP switch
- Pan speed: 0.5°-300°/S in 0°-360°；Tilt speed:0-120°S in 0°-90°；
- 180° Auto-flip
- Up to 256 programmable preset positions
- Power source: 24VAC,2A
- Multiple installing kinds available(ceiling mount, embedded mount)

■ SN-686PT/23W Indoor 23x day&night High Speed Dome Camera
- 1/4″ Ex-view HAD CCD,480 TVLines ,0.01Lux
- Color/B/W Automatic Switchable
- Built-in 23X Zoom lens,f= 3.6-82.8mm
- Built-in RS-485 receiver driver, multiple protocols selectable by switch
- S/N More than 48dB,BLC
- Integrate high speed pan/tilt, Pan speed 0- 300°/S, tilt speed , 0- 120°/S,continuously rotate 360°.
- 256 preset, 180 ° auto tilt.
- 4 alarm input and 1relay output.
- Power supply AC 24V
- Available for various mounting (indoor ceiling ,indoor embeded

■ SN-WP686PT/18 Outdoor18X High Speed Dome Color Camera
- 1/4″ SONY CCD,480 TVLines ,0.7Lux
- Built-in 18X Zoom lens,f= 4.1-73.8mm
- Built-in RS-485 receiver driver, multiple protocols selectable by switch
- S/N More than 48dB,BLC
- Integrate high speed pan/tilt, Pan speed 0- 300°/S, tilt speed ,0- 120°/S,continuously rotate 360°.
- 256 preset, 180 ° auto tilt.
- 4 alarm input and 1-relay output.
- Power supply AC 24V
- Double protect housing .
- Auto temperature control function
- Available for various mounting (Outdoor ceiling mounting, Outdoor wall mounting)

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■ SN-WP686PT/18W Outdoor 18x day&night High Speed Dome Camera

- 1/4″ Ex-view HAD CCD,480 TVLines ,0.01Lux
- Color/B/W Automatic Switchable
- Built-in 18X Zoom lens,f= 4.1-73.8mm
- Built-in RS-485 receiver driver, multiple protocols selectable by switch
- S/N More than 48dB,BLC
- Integrate high speed pan/tilt, Pan speed 0- 300°/S, tilt speed ,0- 120°/S,continuously rotate 360°.
- 256 preset, 180 ° auto tilt.
- 4 alarm input and 1-relay output.
- Power supply AC 24V
- Available for various mounting (indoor ceiling ,indoor embeded)

■ SN-WP686PT/22W Outdoor 22 × Zoom Day/Night Intelligent High Speed Dome

- 1/4″ SONY Super HAD CCD,480TVL
- Min. illumination:0.5Lux(Color), 0.01Lux(B/W), 0.001Lux(Low-shutter);
- Automatic conversed from color mode to B/W mode in dark circumstance
- 22 × optical(f=3.8 ~ 83.6mm) zoom lens,11 × digital zoom;
- S/N ratio over 52dB，BLC;
- Built-in RS-485 Receiver/Driver and Pan/Tilt, Multiple protocols selectable by DIP switch
- Pan speed: 0.5°-300°/S in 0°-360°; Tilt speed:0-120°/S in 0°-90°;
- 180° Auto-flip
- Up to 256 programmable preset positions
- Power source：24VAC,2A
- Double-layer housing
- Automatically temperature-controlled function
- Multiple installing kinds available(pendant mount, wall mount, corner mount, pole mount)

■ SN-WP686PT/23W Outdoor 23x day&night High Speed Dome Camera

- Built-in RS-485 receiver driver, multiple protocols selectable by switch
- S/N More than 48dB,BLC
- Integrate high speed pan/tilt, Pan speed 0- 300°/S, tilt speed , 0- 120°/S,continuously rotate 360°.
- 256 preset, 180 ° auto tilt.
- 4 alarm input and 1-relay output.
- Power supply AC 24V
- Double protect housing .
- Auto temperature control function
- Available for various mounting (Outdoor ceiling mounting, Outdoor wall mounting,
- outdoor corner mounting, outdoor side mounting)

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Specification

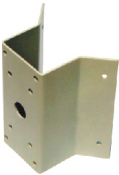| Model	SN-686PT/18 (WP686PT/18)	SN-686PT/18W (WP686PT/18W)	SN-WP686PT/22W (SN-WP686PT/22W)	SN-WP686PT/23W (SN-WP686PT/23W)
CAMERA				
Signal System	PAL or NTSC Color system			
Image Sensor	1/4″ IT CCD (SONY)	1/4″ Ex-View HAD CCD (SONY)	1/4″ Super HAD CCD (SONY)	1/4″ Ex-View HAD CCD (SONY)
Active pixel	PAL:752(H) × 582(V) NTSC: 768(H) × 494(V)		PAL:795(H) × 596(V) NTSC: 811(H) × 508(V)	PAL:758(H) × 592(V) NTSC: 768(H) × 494(V)
Horizontal resolution	480Lines			
Focus Length	4.1mm ~ 73.8mm		3.8mm ~ 83.6mm	3.6mm ~ 82.8mm
Zoom Ratio	18 × Optical zoom with auto focus (12 × digital zoom)		22 × Optical zoom with auto focus (11 × digital zoom)	23 × Optical zoom with auto focus (12 × digital zoom)
FUNCTION				
Panning angle	360° Continuous rotation			
Tilt angle	0° ~ 90°			
Preset	256 positions			
Pattern	1 Pattern (record user control up to 40sec)			
Tour	6 guard tours			
Speed	Manual control speed 0° ~ 300° sec(Pan); 0° ~ 120° sec(Tilt)			
Alarm	4 input, 2 relay outputs			
Power	Nominal 24VAC,2A maximum			

Order guidance

| Model	SN-686PT/18/10 SN-686PT/18W/10 SN-686PT/22W/10 SN-686PT/23W/10	SN-WP686PT/18/10 SN-WP686PT/18W/10 SN-WP686PT/22W/10 SN-WP686PT/23W/10	SN-686PT/18/20 SN-686PT/18W/20 SN-686PT/22W/20 SN-686PT/23W/20	SN-WP686PT/18/20 SN-WP686PT/18W/20 SN-WP686PT/22W/20 SN-WP686PT/23W/20
Signal system	PAL		NTSC	

Accessories (optional)

SN-BK601
Bracket for pole mounting

SN-BK602
Bracket for corner mounting

SN-BK603
Indoor embedded mounting bracket

Dimension for wall mounfing

Dimension for pendant mounfing

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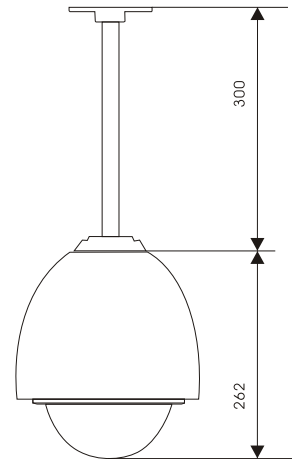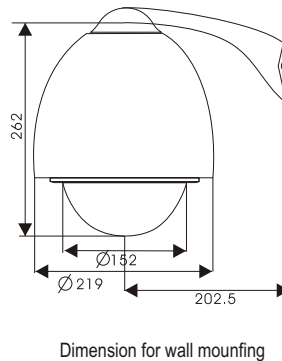
Keyboard

■ SN-CC50 System Control Keyboard

- Powerful control function, available to control all functions of ADR, high speed dome etc.
- Up to 96 sets ADR and 1536 pieces High Speed dome controllable
- Integrate multi High Speed dome control protocol
- Three-dimensional changeable speed rocker and built-in 5.6″ LCD, convenient to use.
- Exquisite profile design for human body engineering.
- Communication interface mode: RS-485
- Max communication distance: 1.2Km
- Input power:DC12V/1A, Power consumed: less than 10W.

■ SN-CC2 Speed Dome Controller

- Intelligent,multifunction,remote control panel.Keyboard features pan/tilt joystick which can be set for variable-or fixed-speed operation
- Push button control on keyboard for camera and monitor selection, zoom,focus,iris, auto pan,receiver preset position entry alarm a knowledge
- Up to 32 speed dome camera or receivers via RS-485 controllable
- Max communication distance: 1.2Km
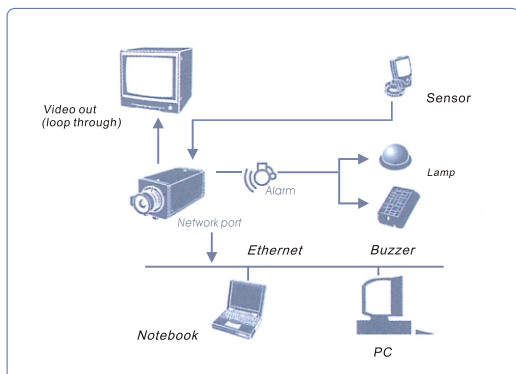
SN-IP520/C SN-IP520/D Network Camera

Adopt advanced H.264 hardware image compression technology and optimized network video communication technology, compression rate is 10-30 times more than M-JPEG. It can transmit high quality (QCIF-4CIF) video images real time at the speed of 25/30 F/S (PAL/NTSC). And amalgamate the advanced Multicast technology in video industry, can not only satisfy the needs for multi-users, but also save network resource. Built-in WEB server, IE browse supported, can remote set, startup and upgrade through interface and network, convenient to manage and maintain.

- Adopted H.264 Video compression, QCIF, CIF, Half D1, Full D1 supported
- Bi-direction audio communication function, adopted G.729 audio compression technology, built-in microphone (optional)
- Built-in watchdog, will reset at abnormity to remove machine dying completely.
- Network protocol: UDP/IP, TCP/IP, Multicast , DNS & DHCP, PPPoE, DDNS
- Wireless network transmission and Local Video/Audio storage function supported（optional）.
- Built-in WEB Browser, frame rate control, code rate control, different rate selection function supported, possible to watch video and audio image through Web browser.
- Motion detection, FTP, E-mail notification, message alarm function supported
- Remote surveillance/recording/playback function supported
- Real time surveillance the scene, audio/video signal transmission synchronization, can connect to microphone and sound box etc, realize
- Bi-direction audio communication function through network.
- Built-in RS485 communication interface, PTZ preset position function can be controlled.
- Alarm input/output function supported or DPS (Digital Pixel System) image Sensor.
- SONY IT CCD, provide high resolution image.
- Strong centralized control software, convenient installation, humanism interface design, easy to operate.

Specification

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Model	SN-IP520/C	SN-IP520/D
Power Source	DC 12V,Max.6W	
mage sensor	1/3" SONY IT CCD	1/3" DPS(Digital Pixel System)
Horizontal Resolution	480 TV Lines	504 TV Lines(up to 540TVL)
Minimum Illumination	0.3 lux/F1.2	0.5 lux/F1.2
Video Compression	H.264	
Resolution	QCIF、CIF、HalfD1、D1 supported	
Transmitted Speed	1～25F/S（PAL）,1～30F/S（NTSC）	
Browser	IE and Monitor S/W	
Connection	Video Output	1 channel，BNC
	Bi-direction audio communication	2 channel, RCA. Adopted G.729 audio compression technology
	Network interface	RJ-45，10/100Base-T
	Control function	9-pole SUB-D Socket，PTZ can be controlled
	Alarm function	4 channel input，2 channel relay output，
Other function	Function of Software	Can combinate the images from cameras randomly, 1/4/6/8/9/16 channels display, and can display in turn automatically, or switch manually. Recording Video/Audio data transmitted through network, the recorded data can be playback conveniently Bi-direction audio communication and PTZ controlling function supported.
	Network protocol	UDP/IP，TCP/IP，Multicast，DNS & DHCP，PPPoE，DDNS
	Band Width	From 30Kbit/sec.to 4Mbit/sec.(selectable through monitor S/W)
	Security	Multi-level password protection
	Alarm E-mail	Yes
	Motion detect function	Yes
	Wireless network transmission function optional	Wireless802.11、GPRS、CDMA1X
	Local Video/Audio storage function optional	Use SD/CF storage card

Video out (loop through)   Sensor   Lamp   Alarm   Network port   Ethernet   Buzzer   Notebook   PC

SN-582C
High Resolution Color Camera

- 1/2" SONY CCD, adopt advanced Digital Signal Processor(DSP) technology
- 480 TVL High Horizontal Resolution
- OSD menu Function
- Minimum Illumination:0.05Lux/F1.2；
- S/N Ratio: More than 50dB
- Privacy masking function
- 5 Programmable BLC Area
- ES, AGC, AWB
- DC/VIDEO Auto Iris
- Latest Industrialized Design

SN-582C/A
Super High Resolution Color Camera

- 1/2" SONY CCD, adopt advanced Digital Signal Processor(DSP) technology
- 540 TVL High Horizontal Resolution
- OSD menu Function
- Minimum Illumination:0.05Lux/F1.2；
- S/N Ratio: More than 50dB
- Privacy masking function
- 5 Programmable BLC Area
- ES, AGC, AWB
- DC/VIDEO Auto Iris
- Latest Industrialized Design

■ Sn- 582C series of High Performance 1/2-inch Digital CCD Color Cameras create the best possible image, even under the most difficult light and scene conditions;

■ Provides ideal product for the requiring high picture quality and low-light, like transportation, finance system and government organizations.

Specification

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Model	SN-582C	SN-582C/A
Image Pick up device	1/3" SONY CCD	
Signal system	PAL or NTSC Color system	
No. of Effective Pixels	PAL:752(H)×582(V); NTSC:768(H)×494(V)	
Horizontal Resolution	480 TV Lines	540 TV Lines
Control Method	OSD Menu	
Minimum Illumination	0.05Lux/F1.2;	
S/N Ratio	Over 50dB	
Electronic Shutter	1/50-1/100,000 sec (PAL),1/60-1/100,000 sec (NTSC)	
BLC	Max.5 Area, select through OSD Menu	
AWB	Multi-mode selectable through OSD Menu	
Privacy Area	Max.8 Area, select through OSD Menu	
AGC	Adjustable through menu	
Auto Iris	DC/Video	
Gamma	0.45	
Video output	BNC 1.0Vp-p 75 Ohm	
Power Source	12VDC/24VAC,50/60Hz	
Sync mode	ACR/ INT	
Lens Mount	CS/C	
Operating Temperature	-10 ℃ ~+50 ℃ RH95%	
Power Consumption	3W(Max.)	
Dimension	62(W) x60(H) x121(D)mm	
Weight	500g	

SN-580C Super High Resolution Color Camera

- 1/3" SONY CCD, adopt advanced Digital Signal Processor(DSP) technology
- 540 TVL SuperHigh Horizontal Resolution
- Minimum Illumination: 0.3Lux/F1.2
- S/N Ratio: More than 50 dB
- Back Light Compensation
- Electronic Shutter   ◎ AGC& AWB
- DC/VIDEO Auto Iris   ◎ Audio Optional
- Latest industrialized Design

SN-580C/A Super High Resolution Color Camera

- 1/3" SONY CCD, adopt advanced Digital Signal Processor(DSP) technology
- 540 TVL SuperHigh Horizontal Resolution
- OSD menu Function
- Minimum Illumination:0.3Lux/F1.2；
- S/N Ratio: More than50dB
- Privacy masking function   ◎ ES,AGC,AWB
- 5 Programmable BLCArea
- DC/VIDEO Auto Iris
- Latest Industrialized Design

SN-580C/W Day/Night Super High Resolution Camera

- 1/3" SONY CCD, adopt advanced Digital Signal Processor(DSP) technology
- 540 TVL SuperHigh Horizontal Resolution
- Day/Night function, with removable IR-Cut Filter
- OSD menu Function   ◎ S/NRatio: More than 50dB
- Minimum Illumination: Color Mode:0.3Lux/F1.2；
                           B/W Mode:0.08Lux/F1.2；
- Privacy masking function   ◎ ES,AGC,AWB
- 5 Programmable BLCArea   ◎ DC/VIDEO Auto Iris
- Latest Industrialized Design

■ Advanced Digital Signal Processor(DSP)technology, enhances picture quality to a horizontal resolution up to 540 TVL.

■ Provides ideal product with high quality picture, like banking system, transportation and govement organizations.

Specification

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Model	SN-580C	SN-580C/A	SN-580C/W
Image Pick up device	1/3" SONY CCD		
Signal system	PAL or NTSC Color system		
No. of Effective Pixels	PAL:752(H)×582(V); NTSC: 768(H)×494(V)		
Horizonal Resolution	540TVLines		
Control Method	DIP Switch	OSD Menu	
Day/Night function	N/A		Yes, with removable IR-Cut Filter
Minimum Illumination	0.3Lux/F1.2;		Color Mode:0.3Lux/F1.2; B/W Mode:0.08Lux/F1.2
S/N Ratio	Over 50dB		
Electronic Shutter	1/50-1/100,000 sec (PAL),1/60-1/100,000 sec (NTSC)		
BLC	On/Off	fMax.5 Area, select through OSD Menu	
AWB	AWB/ATW(Selectable through DIP Switch)	Multi-mode selectable through OSD Menu	
Privacy Area	N/A	Max.5 Area, select through OSD Menu	
AGC	On/Off		
Auto Iris	DC/Video		
Gamma	0.45		
Video output	BNC 1.0Vp-p 75 Ohm		
Power Source	12VDC/24VAC,50/60Hz		
Sync mode	LL/INT		
Lens Mount	CS/C		
Operating Temperature	-10 ℃ ~+50 ℃ RH95%		
Power Consumption	3W(Max.)		
Dimension	62(W) × 60(H) × 121(D)mm		
Weight	500g		

Order guidance

Model	SN-580C/10 SN-580C/A/10 SN-580C/W/10	SN-580C/20 SN-580C/A/20	SN-580C/50 SN-580C/A/50	SN-580C/60 SN-580C/A/60 SN-580C/W/60
Rated voltage	12VDC 24VAC 50Hz	12VDC 24VAC 60Hz	AC90V-240V 50Hz	AC90V-240V 60Hz
Signal system	PAL	NTSC	PAL	NTSC

SN-468C Day&Night HighSensitivity High Resolution Color Camera

- 1/3″ Ex-view CCD
- High Resolution, 480 TVL
- 0.008Lux/F1.2 （0Lux with IR LED on）
- When below 1～3Lux, automatically converse from Color mode to B/W mode
- S/N Ration over 48dB
- BLC, ES, AGC, AWB/ATW
- Video/DC driver auto-iris lens supported
- Audio optional

SN-448C Day&Night High Sensitivity Color Camera

- 1/3″ Ex-view CCD
- Resolution 420 TVL
- 0.01Lux/F1.2 （0Lux with IR LED on）
- When below 1～3Lux ,utomatically converse from Color mode to B/W mode
- S/N ratio over 48dB
- BLC, ES, AGC, AWB/ATW
- Video/DC driver auto-iris lens supported
- Audio optional

SN-465C Day&Night High Sensitivity High Resolution Color Camera

- 1/3″ Super HAD CCD
- High Resolution 480 TVL
- 0.01Lux/F1.2 （0Lux with IR LED on）
- When below 1～3Lux , automatically converse from Color mode to B/W mode
- S/N ratio more than 48dB
- BLC, ES, AGC, AWB/ATW
- Video/DC driver auto-iris lens supported
- Audio optional

■ Advanced DSP technology that provides higher quality picture and more advanced functions.

■ Adopt 1/3"SONY Ex-view IT CCD and special Red Remote CTO filter providing a 2 in 1 camera with real colorful image at day and high sensitivity B/W image at night, and also greatly improved sensitivity. Provide high contrast, high S/N ratio. Perfect choice for a surveillance system.

■ Designed especially for D/N surveillance such as Entry & Exit of Bank, Treasury, ATM, Road, Station, Port, Square, and Warehouse.

Specification

| Model	SN-468C	SN-448C	SN-465C
Image Sensor	1/3″ Ex-view CCD	1/3″ Ex-view CCD	1/3″ Super HAD CCD
Signal system	PAL or NTSC Color system		
Effective Pixels	PAL: 752(H)×582(V); NTSC: 768(H)×494(V)	PAL: 500(H)×582(V); NTSC:510(H)×494(V)	PAL: 752(H)×582(V); NTSC: 768(H)×494(V)
Resolution	480 TV Lines	420 TV Lines	480 TV Lines
Minimum illumination	0.008Lux/F1.2 （0 Lux with IR）	0.01Lux/F1.2 （0 Lux with IR）	0.01Lux/F1.2 （0 Lux with IR）
Day/Night Automatically Switch	Illumination < 1-3 Lux/F1.2		
S/N Ratio	More than 48dB		
Electronic shutter	1/50～1/100,000sec(PAL), 1/60～1/100,000sec(NTSC)		
White Balance	ATW/AWB		
ES /BLC	ON/OFF		
AGC (Night mode)	ON/OFF		
Flicker less	ON/OFF		
Gamma correction	0.45		
Video output	1.0Vp-p, 75 Ohm, sync negative polarity		
Sync mode	INT/L.L.		
Lens Type	CS/C with Ring		
Auto Iris	DC/VIDEO		
Audio output	optional		
Power Supply	24VAC/12VDC AC90V-240V(option)		
Power Consumption	3W(MAX)		
Operation temperature	-10℃ ~+50℃ RH95%MAX		
Camera Mount	Two 1/4″ 20 UNC (bottom and top)		
Dimension	62(W)×60(H)×121(D)mm		
Weight	Approx. 500g		

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Order guidance

Model	SN-468C/10 SN-448C/10 SN-465C/10	SN-468C/20 SN-448C/20 SN-465C/20	SN-468C/50 SN-448C/50 SN-465C/50	SN-468C/60 SN-448C/60 SN-465C/60
Rated voltage	12VDC 24VAC 50HZ	12VDC 24VAC 60HZ	AC90V-240V 50HZ	AC90V-240V 60HZ
Signal system	PAL	NTSC	PAL	NTSC

SUNELL CS-Mount Camera
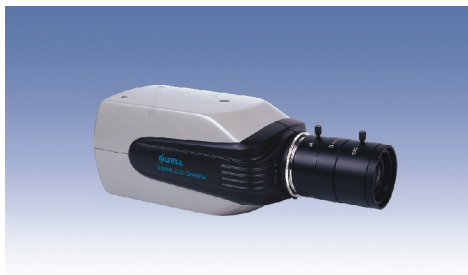
SN-485C/B
High Resolution Color Camera

- 1/3" SONY CCD, adopt advanced Digital Signal Processor(DSP) technology
- Horizontal Resolution : 480 TVL
- Minimum Illumination:0.3Lux/F1.2；
- S/N Ratio: More than 50dB
- BLC,ES,AGC,AWB
- ACR （avoid color—roll）function
- DC/VIDEO Auto Iris
- Latest Industrialized Design
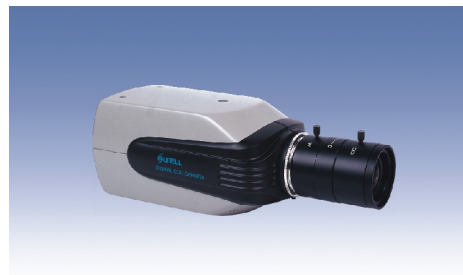
SN-485C/C
High Resolution Color Camera

- 1/3" SONY CCD, adopt advanced Digital Signal Processor(DSP) technology
- Horizontal Resolution ：480 TVL
- OSD menu Function
- Minimum Illumination:0.3Lux/F1.2；
- S/N Ratio: More than 50dB
- Privacy masking function
- 5 Programmable BLC Area
- ES,AGC,AWB
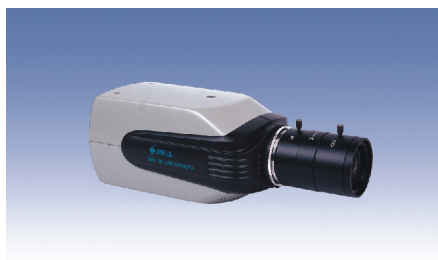- DC/VIDEO Auto Iris
- Latest Industrialized Design

- Adopt advanced DSP technology for higher quality picture and more advanced functions；
- Adopt high quality 1/3" IT CCD, provides not only sharp, fresh picture, but also greatly improved sensitivity. Provide high contrast、high definition picture even in extreme darkness；
- Distinctive appearance, body and lens combine with each other well: discrete yet aesthetically pleasing；
- Designed especially for security surveillance use, the smart choice for a surveillance system。

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Specification

| Model	SN-485C/B	SN-485C/C
Image Pick up device	1/3" SONY CCD	
Signal system	PAL or NTSC Color system	
No. of Effective Pixels	PAL:752(H)×582(V); NTSC: 768(H)×494(V)	
Horizonal Resolution	480TVLines	
Control Method	DIP Switch	OSD Menu
Minimum Illumination	0.3Lux/F1.2;	
S/N Ratio	Over 50dB	
Electronic Shutter	1/50-1/100,000 sec (PAL),1/60-1/100,000 sec (NTSC)	
BLC	On/Off	Max.5 Area, select through OSD Menu
AWB	AWB/ATW(Selectable through DIP Switch)	Multi-mode selectable through OSD Menu
Privacy Area	N/A	Max.5 Area, select through OSD Menu
AGC	On/Off	
Auto Iris	DC/Video	
Gamma	0.45	
Video output	BNC 1.0Vp-p 75 Ohm	
Power Source	12VDC/24VAC,50/60Hz	
Sync mode	LL/INT	
Lens Mount	CS/C	
Operating Temperature	-10 ℃ ~+50 ℃ RH95%	
Power Consumption	3W(Max.)	
Dimension	62(W) × 60(H) × 121(D)mm	
Weight	500g	

Order guidance

Model	SN-485C/B/10 SN-485C/C/10	SN-485C/B/20 SN-485C/C/20	SN-485C/B/50 SN-485C/C/50	SN-485C/B/60 SN-485C/C/60
Rated voltage	12VDC 24VAC 50HZ	12VDC 24VAC 60HZ	AC90V-240V 50HZ	AC90V-240V 60HZ
Signal system	PAL	NTSC	PAL	NTSC

SN-485C
DSP High Resolution Color Camera

- 1/3" SONY CCD,high resolution 480TVL；
- 0.3lux/F1.2
- S/N ratio over 50dB
- BLC,ES,AGC,AWB/ATW
- DC/Video driver auto-iris lens supported
- Audio optional
- Latest industrialized design
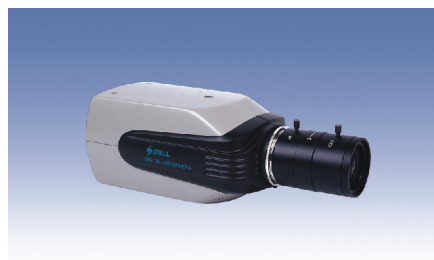
SN-481C
DSP High Resolution Color Camera

- 1/3"SHARP CCD ,480TVL；
- 0.8Lux/F1.2
- S/N Ratio over 48dB
- BLC ,ES ,AGC, AWB/ATW
- Mirror function
- DC/Video driver auto-iris lens supported
- Audio optional
- Latest industrialized design

■ Adopt advanced DSP technology for higher quality picture and more advanced functions；

■ Adopt high quality 1/3" IT CCD, provides not only sharp, fresh picture, but also greatly improved sensitivity. Provide high contrast、high definition picture even in extreme darkness；

■ Distinctive appearance, body and lens combine with each other well: discrete yet aesthetically pleasing；

■ Designed especially for security surveillance use, the smart choice for a surveillance system。

Specification

Model	SN-485C	SN-481C
Image pick up device	1/3"CCD	1/3"CCD
Signal system	PAL or NTSC system	PAL or NTSC Color system
No. of Effective pixel	PAL：752（H）×582(V) NTSC: 768 (H) x 494 (V)	PAL: 752(H)×582(V); NTSC: 768(H)×494(V)
Horizontal resolution	480 TV Lines	
Minimum illumination	0.3LUX/F1.2	0.8Lux/F1.2
S/N Ratio	More than 50dB	More than 48dB
Electronic Shutter	1/50～1/100,000sec(PAL), 1/60～1/100,000sec(NTSC)	
BLC	ON/OFF	
White Balance	ATW/AWB	
AGC	ON/OFF	Automatic
Auto Iris	DC/VIDEO	
Mirror		On/Off
Gamma Correction	0.45	
Video Output	BNC 1.0Vp-p,75 Ohm	1.0Vp-p, 75 Ohm, sync negative polarity
Sync mode	LL/ INT	INT
Lens Type	C/CS with ring	
Microphone	Option	
Operation Temperature	-10℃ ~ +50℃ RH95%MAX	
Power Source	AC24V /DC12V　AC90V-240V(option)	
Power Consumption	3W(Max)	
Dimensions	62(W)×60(H)×121(D)mm	
Weight	510g	500g

Order guidance

Model	SN-485C/10 SN-481C/10	SN-485C/20 SN-481C/20	SN-485C/50 SN-481C/50	SN-485C/60 SN-481C/60
Rated voltage	12VDC 24VAC 50HZ	12VDC 24VAC 60HZ	AC90V-240V 50HZ	AC90V-240V 60HZ
Signal system	PAL	NTSC	PAL	NTSC

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SN-435C
DSP Standard Resolution Color Camera

- 1/3"IT CCD，more than 420 TVL
- 0.8lux/F1.2
- S/N ratio over 48dB
- BLC,ES,AGC,AWB,MIR
- DC/Video driver auto-iris lens supported
- Audio optional
- Latest industrialized design

SN-433C
DSP Standard Resolution Color Camera

- 1/4"IT CCD，more than 420 TVL
- 0.8lux/F1.2
- S/N ratio over 48dB
- BLC,ES,AWB,AGC,MIR
- DC/Video driver auto-iris lens supported
- Audio optional
- Latest industrialized design

- Adopt advanced DSP technology that provides higher quality picture and more advanced functions；
- Adopt high quality 1/3" IT CCD，provides not only sharp、fresh picture, but also greatly improved sensitivity. Provide high contrast、high definition picture even in extreme darkness；
- Distinctive appearance, the body and lens seem to flow into each other, like one object rather than two, make the camera the perfect combination: discrete yet aesthetically pleasing；
- Designed especially for security surveillance use, the smart choice for a surveillance system。

Specification

Model	SN-435C	SN-433C
Image pick up device	1/3″ IT CCD	1/4″ IT CCD
Signal system	PAL or NTSC system	
No. of Effective pixel	PAL：512（H）×582(V) NTSC：512（H）×494(V)	
Horizontal resolution	420TV Lines	
Minimum illumination	0.8Lux/F1.2	
S/N Ratio	48dB	
Electronic Shutter	1/50-1/10,000ses(PAL), 1/60-1/10,000ses(NTSC),	
BLC	ON/OFF	
AWB/MIR	ON/OFF	
AGC	Automatic	
Auto Iris	DC/VIDEO	
Gamma Correction	0.45	
Video Output	BNC 1.0Vp-p,75 Ohm	
Sync mode	INT	
Lens Type	C/CS with ring	
Microphone	Option	
Operation Temperature	-10℃ ~ +50℃ RH95%MAX	
Power Source	AC24V /DC12V AC90V-240V(option)	
Power Consumption	3W(Max.)	
Dimensions	62(W)×60(H)×121(D)mm	
Weight	500g	

Order guidance

Model	SN-435C/10 SN-433C/10	SN-435C/20 SN-433C/20	SN-435C/50 SN-433C/50	SN-435C/60 SN-433C/60
Rated voltage	12VDC 24VAC 50HZ	12VDC 24VAC 60HZ	AC90V-240V 50HZ	AC90V-240V 60HZ
Signal system	PAL	NTSC	PAL	NTSC

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■ SN-436C
Standard Resolution Color Camera

- ◎ 1/3″ IT CCD, more than 420 TVL
- ◎ 0.3Lux/F1.2
- ◎ S/N ratio over 50dB
- ◎ BLC,ES,AGC,AWB
- ◎ DC/Video driver, auto-iris lens supported
- ◎ Audio optional
- ◎ Latest industrialized design.

■ SN-434C
DSP Standard Resolution Color Camera

- ◎ 1/4″ IT CCD, more than 420 TVL
- ◎ 0.3Lux/F1.2
- ◎ S/N ratio over 50dB
- ◎ BLC,ES,AGC,AWB
- ◎ DC/Video driver, auto-iris lens supported
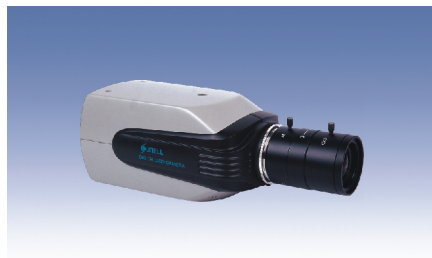- ◎ Audio optional
- ◎ Latest industrialized design.

■ Adopt advanced DSP technology that provides higher quality picture and more advanced functions;

■ Adopt high quality 1/3" IT CCD, provides not only sharp、fresh picture, but also greatly improved sensitivity. Provide high contrast、high definition picture even in extreme darkness;

■ Distinctive appearance, the body and lens seem to flow into each other, like one object rather than two, make the camera the perfect combination: discrete yet aesthetically pleasing;

■ Designed especially for security surveillance use, the smart choice for a surveillance system。

Specification

Model	SN-436C	SN-434C
Image Pick up device	1/3" CCD	1/4" CCD
Signal system	PAL or NTSC Color system	
No. of Effective Pixels	PAL:500(H)x582(V); NTSC:510(H)x494(V)	
Horizonal Resolution	420TVLines	
Sensitivity	0.3Lux/F1.2	
S/N Ratio	More than 50dB	
Electronic Shutter	1/50-1/100,000sec(PAL),1/60-1/100,000sec(NTSC)	
BLC/BLC	ON/OFF	
AWB	ATW/AWB	
Auto Iris	DC/Video	
Gamma Correction	0.45	
Video output	BNC 1.0Vp-p 75Ohm	
Rated voltage	Low Voltage:12VDC/24VAC;Main Voltage:90-240VAC	
Sync mode	LL/INT	
Lens Mount	CS/C with Ring	
Microphone	Optional	
Operating Temperature	-10℃~+50℃ RH95%MAX	
Power Consumption	3W(Max)	
Dimension	62(W) x 60(H) x 121(D)mm	
Weight	500g	

Order guidance

Model	SN-436C/10 SN-434C/10	SN-436C/50 SN-434C/50	SN-436C/20 SN-434C/20	SN-436C/60 SN-434C/60
Rated voltage	12VDC/24VAC,	50Hz90-240VAC,50Hz	12VDC/24VAC,60Hz	90-240VAC,60Hz
Signal system	PAL		NTSC	

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SUNELL CS-Mount Camera

SN-475M
B/W High Resolution Camera

- 1/3"IT CCD，High Resolution 570 TVL
- 0.04lux/F1.2
- S/N ratio over 50dB
- BLC,ES,AGC
- DC/Video driver auto-iris lens supported
- Audio optional
- Latest industrialized design

SN-425M
B/W Standard Resolution Camera

- 1/3"IT CCD，More than 420TVL
- 0.1lux/F1.2
- S/N ratio over 48dB
- BLC,ES,AGC
- DC/Video driver auto-iris lens supported
- Audio optional
- Latest industrialized design

■ Adopt high quality 1/3" IT CCD, provides not only sharp, fresh picture, but also greatly improved sensitivity. Provide high contrast、high definition picture even in extreme darkness；

■ Distinctive appearance, body and lens combine with each other well: discrete yet aesthetically pleasing；

■ Better performance, easy operation, competitive price, smart choice for a surveillance system.

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Specification

Model	SN-475M	SN-425M
Image Pick Up Device	1/3″ IT CCD	
Signal System	CCIR or EIA System	
No.of Effective Pixels	CCIR:752(H)×582(V) EIA:768(H)×494(V)	CCIR:500(H)×582(V) EIA:510(H)×492(V)
Horizontal Resolution	570 TV Lines	420 TV Lines
Sensitivity	0.04Lux/F1.2	0.1Lux/F1.2
S/N Ratio	more than 50dB	more than 48dB
Electronic Shutter	1/50-1/100，000SEC (CCIR),1/60-1/100，000SEC(EIA)	
BLC	ON/OFF	
AGC	ON/OFF	
Auto Iris	DC/VIDEO	
Gamma Correction	0.45	
Video Output	BNC 1.0Vp-p,75(Ω)	
Sync Mode	LL/INT	
Lens Mount	C/CS with Ring	
Microphone	Option	
Operation Temperature	-10℃ ~ +50℃ RH95%(MAX)	
Power Source	AC24V /DC12V AC90V-240V(option)	
Power Consumption	3W(MAX)	
Dimension	62(W)×60(H)×121(D)mm	
Weight	500g	500g

Order guidance

Model	SN-475M/10 SN-425M/10	SN-475M/20 SN-425M/20	SN-475M/50 SN-425M/50	SN-475M/60 SN-425M/60
Rated voltage	12VDC 24VAC 50HZ	12VDC 24VAC 60HZ	AC90V-240V 50HZ	AC90V-240V 60HZ
Signal system	CCIR	EIA	CCIR	EIA

SN-600H-22
22x Zoom Lowlight Color Camera

- 1/4´SONY Super-HAD CCD Digital Signal Process,470TVL
- Delicate and Elegant Appearance
- 1.0 Lux/F1.6 in Normal Mode,0.02Lux/F1.6 in Lowlight Mode
- Built-in 22× optic Lens f=3.9-85.8mm,11× digital Zoom optional
- AWB, ES,Iris Control
- Menu function
- White balance, shutter speed selectable
- OSD
- Excellent picture quality

SN-600H-22/W
22 Zoom Day/Night Camera

- 1/4" SONY Super-HAD CCD , Digital Signal Process
- Day&Night mode: Color converts to B&W in low light with ICR (Infrared Cut filter Removal) function
- Horizontal Resolution:480TV lines (Color), 530TV lines (B/W)
- Illumination:0.5lux(Color), 0.05lux (B/W), 0.001lux (low-shutter)
- Built-in 22× optic Lens f=3.9-85.8mm,11× digital Zoom optional
- Menu function
- AWB, ES, Iris Control
- Digital zoom, Positive/Negative B/W, Mirror,PIP,Freeze, BLC, Title Camera ID Display ,DNR,WDR,DIS Low-Shutter
- Excellent picture quality

Specification

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Model	SN-600H-22	SN-600H-22/W
Signal system	PAL or NTSC System	PAL or NTSC System
Image sensor	1/4" Super-HAD Color CCD(SONY)	
Active pixel	752(H)x582(V)(PAL) 768(H)x494(V)(NTSC)	795(H)x596(V)(PAL) 811(H)x508(V)(NTSC)
Horizontal Resolution	480 TV Lines	480TV lines (Color),530TV lines (B/W)
Min scene illumination	1.0Lux/normal mode 0.02Lux/Low Shutter mode	0.5lux(Color), 0.05lux (B/W), 0.001lux (low-shutter mode)
Day/Night switch function	N/A	Yes, with removable IR-cut Filter
S/N ratio	52dB(AGC OFF)	
Focus Length	3.9mm～85.8mm	
Iris	F1.6～F32	
Zoom Ratio	OpticalX22, DigitalX11	
Minimum Object Distance	(X1-X4)10cm,(X5-X22)1m	
Exposure control	Auto,Manual,IRIS PRI, Shutter PRI,AGC on/off	
Function	Digital zoom,Positive/NegativeB/W,Mirror,PIP,Freeze,BLC,Title Camera ID Display PresetDNR,WDR,DIS Low-Shutter	
Output Signal	1.0 Vp-p,75 Ohm	
Power Requirement	DC12V ±10%(4.3W)	
Dimension	60(W)×67(H)×115(D)mm	60(W)×67(H)×105(D)mm
Weight	240g approximately	315g approximately
Tolerance Temperature	-10℃ to +50℃ RH95%(MAX)	
Tolerance Humidity	0%～96%	

SN-VP489DC/A Color
High Resolution Multifunction Dome Camera

- 1/3"IT CCD，480TVL，0.3Lux, DigitalSignal Processing
- S/N Ratio over 48dB
- BLC, AGC, AWB
- Built-in Manual Zoom Auto-Iris lens，
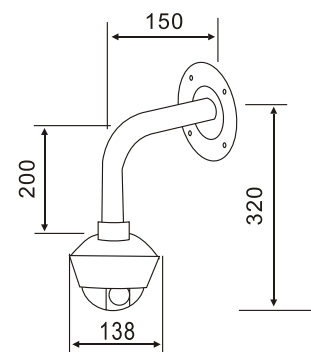 f=4-9mm or f=2.6-6mm
- 12VDC Voltages
- Elegant Appearance

- Waterproof Structure
- Stainless steel made screws, Anti-Corruption Capability
- Easy electrical connection by lead jack at back or side
- Against-Dismantle
- SN-VP Vandal Proof Dome Camera is extensively used in Prison, Courthouse, Public Places, Entry & Exit of Bank, ATM and Cash Carrier.
- Multifunction Series Dome Camera is a culminating solution provided for the strictest security application; Its advantage is that the best performance camera with auto-iris and manual zoom lens is installed into an Aluminum housing and apolygon dome shield, which can bear up to 120 pounds impact and won't be destroyed. It has excellent sealing performance and can also be adopted by outdoor applications;
- Polygon material made dome shield possesses high light permeate rate, strong shock resistance capability. The whole Aluminum base can stand durative shock and high temperature. If used outdoor, there are two installing ways.

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Specification

Model	SN-VP489DC/A
Image pick up device	1/3″ Sony Super HAD CCD
number of effective pixels	PAL: 752(H)x582(V) NTSC: 768(H)x494(V)
Signal system	PAL/NTSC system
Horizontal resolution	480Lines
S/N ratio	48dB
Minimum illumination	0.3Lux/F1.2
Lens	Varifocal DC Auto-Iris lens,f=2.6-6mm or 4-9mm
Gamma Correction	0.45
AWB	Automatic
Output signal	1.0Vp-p, 75 Ohm
AGC	Automatic
ES / BLC	Automatic
MIR	on/off
Power supply	12VDC
Sync mode	INT
Consumed Current	150mA MAX
Operating temperature	-10℃～+50℃ RH95%MAX
External dimensions	ϕ138x92mm
Weight	580g

Wall mount

Pendant mount

Order guidance

Model	SN-489DC/A/10	SN-489DC/A/20
Signal system	PAL	NTSC
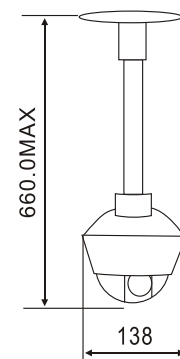
SN-VP Series Vandal Proof Dome Camera

- Installed into an Aluminum housing and a polygon dome shield, which can bear up to 120 pounds impact and won't be destroyed.
- Excellent sealing performance and can be adopted by outdoor applications
- Corol Vandal ProofDome Camera Series
  SN-VP580DC/A Super High resolution vandal proof corol dome camera
  SN-VP480DC/A High resolution vandal proof color dome camera
  SN-VP430DC/A Vandal proof corol dome camera
- B/W Vandal Proof Dome Camera Series
  SN-VP470DM/A High resolution vandal proof B/W dome camera
  SN-VP420DM/A Vandal proof B/W dome camera

- Dome Structure, delicate appearance and good sealing performance
- Polygon material made dome shield possesses high light permeate rate, strong shock resistance capability. The whole Aluminum base can stand durable shock and high temperature
- Waterproof Structure
- Stainless steel made screws, Anti-Corruption Capability
- Against-Dismantle
- Easy electrical connection by lead jack at back or side
- SN-VP Vandal Proof Dome Camera is extensively for in Prison, Courthouse, Public Places, Entry & Exit of Bank, ATM, and Cash Carrier

Specification

Color dome camera series

Model	SN-VP580DC/A	SN-VP480DC/A	SN-VP430DC/A
Image Pick up Device	1/3″ IT CCD	1/3″ IT CCD	1/4″ IT CCD
No.of Effective Pixels	PAL:752(H)X582(V);NTSC:768(H)X494(V)		PAL:512(H)X582(V); NTSC:512(H)X494(V)
Signal System	PAL or NTSC Color System		
Horizontal Resolution	540Lines	480Lines	420Lines
S/N Ratio	48dB		
White Balance	0.3Lux/F1.2	0.3Lux/F1.2	1.0Lux/F2.0
Minimum Illumination	Automatic		
ELectronic Shutter	1/50-1/100,000SEC(PAL); 1/60-100,000SEC(NTSC)		
Lens	C&CS mount Lens f=4,6,8,12,16mm(AUTO IRIS)		
Gamma Correction	0.45		
Output Signal	1.0Vp-p,75(Ω),sync negative polarity		
AGC/AWB/ES	Automatic		
Power Supply	DC12V Regulated		
Consumed Current	180mA (MAX.)	150mA (MAX.)	
Preservation Temperature	-10℃ ~ +50℃ RH95%(MAX)		
External Dimensions	φ 138x92mm		
Weight	500g Approximately		

B/W dome camera series

Model	SN-VP470DM/A	SN-VP420DM /A
Image Pick up Device	1/3″ IT CCD	
NO.of Effective Pixels	CCIR:752(H)X582(V);EIA:768(H)X494(V)	CCIR:500(H)X582（V）;EIA:510(H)X492(V)
Signal System	EIA/ CCIR B/W System	
Horizontal Resolution	570Lines	420Lines
S/N Ratio	50dB	48dB
Minimum Illumination	0.04Lux/F2.0	0.1Lux/F2.0
Electronic shutter	1/60-1/100000sec(CCIR),1/50-1/100000sec(EIA)	
Lens	f=4,6,8,12,16mm optional	
Gamma Correction	0.45	
Output Signal	1.0Vp-p,75(Ω)	
AGC/ES	Automatic	
Power Supply	DC12V Regulated	
Consumed Current	110mA (MAX.)	
Preservation Temperature	-10℃ ~ +50℃ RH95%(MAX)	
External Dimensions	φ138x92mm	
Weight	500g Approximately	

Order guidance

Model	SN-VP580DC/A/10 SN-VP480DC/A/10 SN-VP430DC/A/10	SN-VP470DM/A/10 SN-VP420DM/A/10	SN-VP580DC/A/20 SN-VP480DC/A/20 SN-VP430DC/A/20	SN-VP470DM/A/20 SN-VP420DM/A/20
Signal system	PAL	CCIR	NTSC	EIA

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SN-VP3080

High Resolution Color Vandal-proof Dome Camera

- 1/3" IT Color CCD, 480TVL
- Minimum Illumination：1.0Lux/F2.0
- Built-in integrative lens, f=2.8, 3.6, 6, 8, 12mm optional
- S/N ratio over 48dB
- AGC, AWB, BLC
- Electronic Shutter, 1/50-1/100,000sec(PAL), 1/60-1/100,000sec(NTSC)
- Mirror function optional

SN-VP3030

Color Vandal-Proof Dome Camera

- 1/4" IT Color CCD, 420TVL
- Minimum Illumination：0.3Lux/F2.0
- Built-in integrative lens, f=2.8, 3.6, 6, 8, 12mm optional
- S/N ratio over 48dB
- AGC, AWB, BLC
- Electronic Shutter, 1/50-1/100,000sec(PAL), 1/60-1/100,000sec(NTSC)

- ■ Exquisite design, precise circuit & structure, incarnated the highest technology
- ■ Aluminum structure, All-sealed water-proof body
- ■ 2.8, 3.6, 6, 8, 12mm lens optional

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Specification

Model	SN-VP3080	SN-VP3030
Image Sensor	1/3" IT CCD	1/4" IT CCD
Signal system	PAL or NTSC Color system	
Effective Pixels	PAL:752(H)×582(V) NTSC:768(H)×494(V)	PAL: 512(H)×582(V) NTSC:512(H)×494(V)
Horizontal Resolution	480 TV Line	420 TV Line
Minimum Illumination	1.0Lux/F2.0	0.3Lux/F2.0
S/N Ratio	More than 48dB	
Electronic Shutter	1/50～1/100,000sec(PAL) 1/60～1/100,000sec(NTSC)	
White Balance	Automatic	
AGC	Automatic	
BLC	On/ Off	
Mirror	On/ Off	
Gamma Correction	0.45	
Sync mode	INT	
Lens	Fixed board lens, f=2.8, 3.6, 6, 8, 12mm	
Video Output	1.0Vp-p, 75Ohm, sync negative polarity	
Power Supply	12VDC	
Consumed Current	150mA (MAX)	
Operating Temperature	-10℃~+50℃ RH95%MAX	
Body	Aluminum	
Dimension	Φ94x80.5mm	
Weight	300g	

SN-VP3080IR
Vandal-Proof Dome Camera
with IR Light

- 1/3" SONY SuperHAD Color CCD, 480TVL
- Built-in powerful IR-LED, provide high quality picture even in extreme darkness
- Max. 10- 15 meters working distance with IR-LED On
- Automatically switch to B/W mode under low light when Illumination under 1～3Lux
- Minimum Illumination：0.1Lux/F2.0(LED OFF); 0Lux(LED ON)
- S/N ratio over 48dB
- AGC,AWB,BLC
- Electronic Shutter, 1/50-1/100,000sec(PAL), 1/60-1/100,000sec(NTSC)

SN-VP3050IR
Vandal-Proof Dome Camera
with IR Light

- 1/3" IT Color CCD, 420TVL
- Built-in powerful IR-LED, provide high quality picture even in extreme darkness
- Max. 10- 15 meters working distance with IR-LED On
- Automatically switch to B/W mode under low light when Illumination under 1～3Lux
- Minimum Illumination：0.1Lux/F2.0(LED OFF) ;0Lux(LED ON)
- S/N ratio over 48dB
- AGC,AWB,BLC
- Electronic Shutter, 1/50-1/100,000sec(PAL), 1/60-1/100,000sec(NTSC)

SN-VP3030IR
Vandal-Proof Dome Camera
with IR Light

- 1/4" IT Color CCD, 420TVL
- Built-in powerful IR-LED, provide high quality picture even in extreme darkness
- Max. 10- 15 meters working distance with IR-LED On
- Automatically switch to B/W mode under low light when Illumination under 1～3Lux
- Minimum Illumination：0.3Lux/F2.0(LED OFF); 0Lux(LED ON)
- S/N ratio over 48dB
- AGC,AWB,BLC
- Exquisite design, precise circuit & structure, incarnated the highest technology
- Aluminum structure, All-sealed water-proof body
- 2.8, 3.6, 6, 8,12mm lens optional, can need surveillance for different distance.
- Built-in IR light, excellent night vision.

- Exquisite design, precise circuit & structure, incarnated the highest technology
- Aluminum structure, All-sealed water-proof body
- Bulit-in IR light, excellent night vision

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Specification

Model	SN-VP3080IR	SN-VP3050IR	SN-VP3030IR
Image Sensor	1/3" IT CCD		1/4" IT CCD
Signal system	PAL or NTSC Color system		
Effective Pixels	PAL:752(H)×582(V)	PAL:512(H)×582(V)	
	NTSC:768(H)×494(V)	NTSC:512(H)×494(V)	
Horizontal Resolution	480 TV Line	420 TV Line	
Minimum Illumination Day/Night Automatically Switch	0.1Lux/F2.0（LED OFF）, 0Lux (LED ON)	0.1Lux/F2.0（LED OFF）, 0Lux (LED ON)	0.3Lux/F2.0（LED OFF）, 0Lux (LED ON)
S/N Ratio	Illumination< 1～3 Lux/F2.0		
Electronic Shutter	More than 48dB		
White Balance	1/50～1/100,000sec(PAL) 1/60～1/100,000sec(NTSC)		
AGC	Automatic		
BLC	Automatic		
Mirror	Automatic		
Gamma Correction	0.45		
Sync mode	INT		
Lens	Fixed board lens, f=2.8, 3.6, 6, 8, 12mm		
IR-LED	Wave Length:850nm		
IR-LED drive	ON:1～3Lux; OFF:5～6Lux		
Video Output	1.0Vp-p, 75Ohm, sync negative polarity		
Power Supply	12VDC		
Consumed Current	150mA (MAX)＋400mA (LED ON)	120mA (MAX)＋400mA (LED ON)	
Operating Temperature	-10℃~+50℃ RH95%MAX		
Body	Aluminum		
Dimension	∅94x80.5mm		
Weight	300g（Approx.）		

SNELL Dome camera

■ SN-580DC/A Super High Resolution Color Dome Camera

- ◎ 1/3" SONY CCD, adopt advanced Digital Signal Processor(DSP) technology
- ◎ 540 TVL Super High Horizontal Resolution
- ◎ Minimum Illumination: 0.3Lux/F1.2
- ◎ S/N Ratio: More than 50 dB
- ◎ Back Light Compensation
- ◎ AGC & AWB
- ◎ Built-in Fixed Focus Lens, f=4,6,8,12,16mm Optional
- ◎ Elegant Appearance

■ SN-580DC Super High Resolution Color Dome Camera

- ◎ 1/3" SONY CCD, adopt advanced Digital Signal Processor(DSP) technology
- ◎ 540 TVL Super High Horizontal Resolution
- ◎ Minimum Illumination: 0.3Lux/F1.2
- ◎ S/N Ratio: More than 50 dB
- ◎ Back Light Compensation
- ◎ AGC & AWB
- ◎ Built-in Fixed Board Lens, f=2.8,3.6,6,8,12,16mm Optional
- ◎ Elegant Appearance

■ Special designed housing of optics materials, reduce light loss

■ Easy installation and adjustment, built-in manual Pan/Tilt，360°djustable;

■ Advanced Digital Signal Processor(DSP)technology, enhances picture quality greatly to a horizontal resolution of 540TVL,provides clearer and more vivid image；

■ Reliable performance, stable quality, competitive price, widely application in bank、hotel, supermarket, office building, hospital, schools, post offices, government offices, financial department, toll station, etc.

■ Available with both black and white respond to environment around.

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Specification

Model	SN-580DC/A	SN-580DC
Image Pick up Device	1/3″ IT CCD	
Number of Efective Pixels	PAL:752(H)×582(V)　　NTSC:768(H)×494(V)	
Signal System	PAL or NTSC Color System	
Scanning Frequency	625Lines 2:l interlace	
Horizontal Resolution	540 TV Lines	
S/N Ratio	More than 50dB	
Minimum Illumination	0.3Lux/F1.2	
White Balance	Automatic	
Electronic Shutter	1/50-1/100,000sec(PAL),1/60-1/100,000sec(NTSC)	
Lens	C& CS Lens, f=4，6，8，12,16mm optional	Fixed Board Lens, f=2.8,3.6, 6, 8,12,16mm optional
Gamma Correction	0.45	
Video output	BNC 1.0Vp-p 75 Ohm	
Operating Temperature	-10℃~+50℃ RH95%MAX	
Consumed Current	180mA(Max)	
Dimension	φ117(W)x104(H)mm	φ114(W)x87(H)mm
Weight	410g	220g
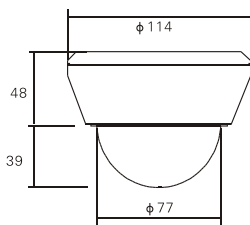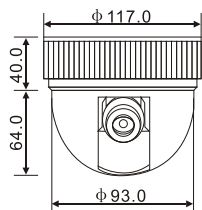
Board Lens	Angle of View
F=2.8	140°
f=3.6	92°
f=4.3	78°
f=6	53°
f=8	40°
f=12	28°

Order guidance

Model	SN-580DC/A/10　SN-580DC/10	SN-580DC/A/20　SN-580DC/20
Signal system	PAL	NTSC

■ SN-468DC/A Day&Night High Sensitivity
High Resolution Color Dome Camera
- 1/3″ SONY Ex-view CCD
- High Resolution, 480 TVL
- 0.02Lux/F1.2 （0Lux with IR LED on ）
- When below 1 ～ 3Lux，Automatically conversed from Color mode to B/W mode
- S/N Ration 48db
- AGC, AWB
- Built-in Fixed Focus Lens, f=4,6,8,12,16mm Optional
- Elegant Appearance

■ SN-468DC Day&Night High Sensitivity
High Resolution Color Dome Camera
- 1/3″ SONY Ex-view CCD
- High Resolution, 480 TVL
- 0.02Lux/F1.2 （0Lux with IR LED on ）
- When below 1 ～ 3Lux，Automatically conversed from Color mode to B/W mode
- S/N Ration 48db
- AGC, AWB
- Built-in Fixed Board Lens, f=2.8,3.6,6,8,12,16mm Optional
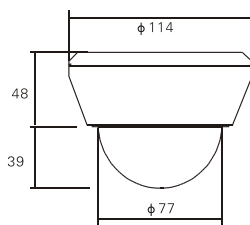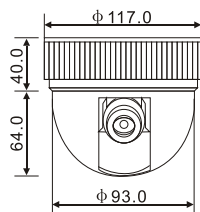- Elegant Appearance

■ Special designed housing of optics materials, reduce light loss

■ Easy installation and adjustment, built-in manual Pan/Tilt，360°adjustable;

■ Adopt 1/3"SONY Ex-view IT CCD and special Red Remote CTO filter providing a 2 in 1 camera with real colorful image at day and high sensitivity B/W image at night, greatly improved sensitivity. Provide high contrast, high S/N ratio. Perfect choice for a surveillance system.

Specification

Model	SN-468DC/A	SN-468DC
Image Pick up device	1/3" SONY Ex-view CCD	
Signal system	PAL or NTSC Color system	
No. of Effective Pixels	PAL:752(H)×582(V); NTSC: 768(H)×494(V)	
Horizontal Resolution	480 TV Lines	
Sensitivity	0.02Lux/F1.2 （ 0 Lux with IR ）; Day/Night Mode Switch: illumination<1-3 Lux/F1.2	
S/N Ratio	48dB	
Electronic Shutter	1/50-1/100,000sec(PAL),1/60-1/100,000sec(NTSC)	
Lens	Fixed CS Lens, f=4，6，8，12mm optional	Fixed Board Lens, f=2.8，3.6，6,8，12mm optional
AWB/AGC/ES	Automatic	
Gamma Correction	0.45	
Video output	BNC 1.0Vp-p 75 Ohm	
Operating Temperature	-10 ℃ ~+50 ℃ RH95%MAX	
Consumed Current	150mA(Max)	
Dimension	∅ 117(W) ×104(H)mm	∅ 114(W) ×87(H)mm
Weight	410g	220g

Board Lens	Angle of View
F=2.8	140°
f=3.6	92°
f=4.3	78°
f=6	53°
f=8	40°
f=12	28°

φ 117.0
40.0
64.0
φ 93.0

φ 114
48
39
φ 77

Order guidance

Model	SN-468DC/A/10 SN-468DC/10	SN-468DC/A/20 SN-468DC/20
Signal system	PAL	NTSC

26

■ SN-436DC/A Color Dome Camera

- 1/4″ IT CCD,420TVL,0.3Lux, Digital Signal Processing
- S/N ratio 48dB
- BLC, AGC, AWB
- Built-in Fixed Focus lens, f=4,6, 8,12, 16,16mm optional
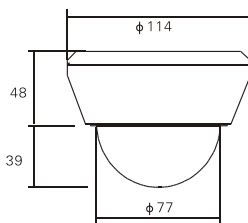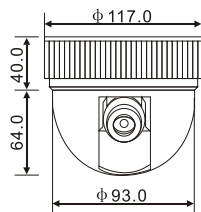- Elegant Appearance, applying in concealing place.

■ SN-436DC Color Dome Camera

- 1/4″ IT CCD,420TVL,0.3Lux, Digital Signal Processing
- S/N ratio 48dB
- BLC, AGC, AWB
- Built-in integrative lens, f=2.8, 3.6, 6,8, 12, 16mm optional
- Elegant Appearance, applying in concealing place.

■ Special designed housing of optics materials, reduce light loss

■ Easy installation and adjustment, built-in manual Pan/Tilt, 360° adjustable;

■ Reliable performance, stable quality, competitive price, widely application in bank, hotel, supermarket, office building, hospital, schools, post offices, government offices, financial department, toll station, etc.

■ Available with both black and white dome and respond to environment around

Specification

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Model	SN-436DC/A	SN-436DC
Image Sensor	1/4″ IT CCD	
Signal system	PAL or NTSC Color system	
Effective Pixels	PAL：500(H) x 582(V)；NTSC:510(H) x494(V)	
Resolution	420 TV Lines	
Minimum Illumination	0.3Lux/F2.0	
S/N Ratio	More than 48dB	
Electronic Shutter	1/50 ～ 1/100,000sec(PAL), 1/60 ～ 1/100,000sec(NTSC)	
White Balance	Automatic	
AGC/ BLC	Automatic	On/Off
Gamma Correction	0.45	
Sync mode	INT	
Lens	C&CS mount f=4,6,8,12,16mm	Fixed board lens, f=3.6, 6, 8,12,16mm
Video Output	1.0Vp-p, 75Ohm, sync negative polarity	
Power Supply	12VDC	
Consumed Current	110mA(MAX)	
Operating Temperature	-10 ℃ ~+50 ℃ RH95%MAX	
Dimension	∅ 117x104(mm)	∅ 114x87(mm)
Weight	410g	220g

Board Lens	Angle of View
F=2.8	140°
f=3.6	92°
f=4.3	78°
f=6	53°
f=8	40°
f=12	28°

φ 117.0
40.0
64.0
φ 93.0
φ 114
48
39
φ 77

Order guidance

Model	SN-436DC/A/10 SN-436DC/10	SN-436DC/A/20 SN-436DC/20
Signal system	PAL	NTSC

■ **SN-485DC High Resolution Color Dome Camera**

- 1/3″ SONY CCD，480TVL，0.3Lux, Digital Signal Processing
- S/N ratio 48dB
- BLC, AGC, AWB
- Built-in integrative len f=2.8、3.6、6、8、12、16mm optional
- Elegant Appearance, applying in concealing place

■ **SN-481DC Color Dome Camera**

- 1/3" SHARP CCD, 480TV Lines
- 0.8Lux/F1.2
- S/N ratio over 48dB
- AGC,BLC,AWB
- Built-in integrative lens,
- f=2.8、3.6、4.3、6、8、12、16mm optional
- Elegant Appearance, applying in concealing place

■ Special designed housing of optics materials, reduce light loss

■ Easy installation and adjustment, built-in manual Pan/Tilt，360° adjustable;

■ Reliable performance, stable quality, competitive price, widely application in bank, hotel, supermarket, office building, hospital, schools, post offices, government offices, financial department, toll station, etc.

■ Available with both black and white dome and respond to environment around.

Specification

Model	SN-485DC	SN-481DC
Image Pick up Device	1/3″ SONY CCD	1/3″ SHARP CCD
Number of Efective Pixels	PAL: 752(H)×582(V); NTSC: 768(H)×494(V)	
Signal System	PAL or NTSC Color system	
Horizontal Resolution	480 TVLines	
S/N Ratio	48dB	
Minimum Illumination	0.3 Lux/F1.2	0.8Lux/F1.2
White Balance	Automatic	
Electronic Shutter	1/50～1/100,000sec(PAL), 1/60～1/100,000sec(NTSC)	
Lens	Fixed Board Lens,f=2.8,3.6,6,8,12 ,16 mm	
Gamma Correction	0.45	
Output Signal	1.0Vp-p,75(Ω), sync negative polarity	
AGC/AWB	Automatic	
Power Supply	DC12V Regulated	
Consumed Current	150mA(MAX)	110mA(MAX)
Operating Temperature	-10℃ ~ +50℃ RH95%(MAX)	
External Dimensions	φ114×87mm	
Weight	250g	220g

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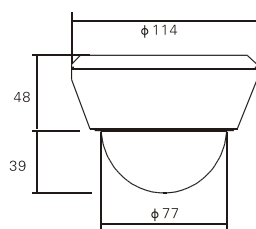
Board Lens	Angle of View
F=2.8	140°
f=3.6	92°
f=4.3	53°
f=6	40°
f=8	40°
f=12	28°

φ114
48
39
φ77

Order guidance

Model	SN-485DC/10 SN-481DC/10	SN-485DC/20 SN-481DC/20
Signal system	PAL	NTSC

■ SN-455DC Color Dome Camera

- ◎ 1/3″ IT CCD，420TVL，1.0Lux, Digital Signal Processing
- ◎ S/N ratio 48dB
- ◎ BLC, AGC, AWB
- ◎ Built-in integrative len f=2.8、3.6、6、8、12,16mm optional
- ◎ Elegant Appearance, applying in concealing place.

■ SN-435DC Color Dome Camera

- ◎ 1/4″ IT CCD，420TVL，1.0Lux, Digital Signal Processing
- ◎ S/N ratio 48dB
- ◎ BLC, AGC, AWB
- ◎ Built-in integrative len f=2.8、3.6、6、8、12,16mm optional
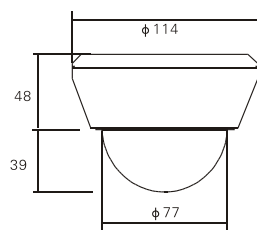- ◎ Elegant Appearance, applying in concealing place.

■ Special designed housing of optics materials, reduce light loss

■ Easy installation and adjustment, built-in manual Pan/Tilt，360° adjustable;

■ Reliable performance, stable quality, competitive price, widely application in bank, hotel, supermarket, office building, hospital, schools, post offices, government offices, financial department, toll station, etc.

■ Available with both black and white dome and respond to environment around.

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Specification

Model	SN-455DC	SN-435DC
Image Pick up Device	1/3″ interline transfer CCD	1/4″ interline transfer CCD
Number of Efective Pixels	512×582(PAL) 512×494(NTSC)	512×582(PAL) 512×494(NTSC)
Signal System	NTSC or PAL System	
Scanning Frequency	625Lines 2:l interlace	
Horizontal Resolution	420TV Lines	
S/N Ratio	48dB	
Minimum Illumination	1.0Lux/F2.0	1.0Lux/F2.0
White Balance	Automatic	
Electronic Shutter	1/60-1/100000(NTSC),1/50-1/100000(PAL)	
Lens	Fixed board lens,f=2.8,3.6,6,8,12,16mm optional	
Gamma Correction	0.45	
Output Signal	1.0Vp-p,75(Ω), sync negative polarity	
AGC/AWB	Automatic	
Power Supply	DC12V Regulated	
Consumed Current	110mA(MAX)	
Operating Temperature	-10℃ ~ +50℃ RH95%(MAX)	
External Dimensions	φ114×87mm	
Weight	220g	

φ114
48
39
φ77

Board Lens	Angle of View
F=2.8	140°
f=3.6	92°
f=4.3	78°
f=6	53°
f=8	40°
f=12	28°

Order guidance

Model	SN-455DC/10 SN-435DC/10	SN-455DC/20 SN-435DC/20
Signal system	PAL	NTSC

SN-456DC/A Color Dome Camera

- 1/3″ IT CCD,420TVL,0.1Lux, Digital Signal Processing
- S/N ratio 48dB
- BLC, AGC, AWB
- Built-in Fixed Focus lens, f=4, 6, 8, 12, 16mm optional
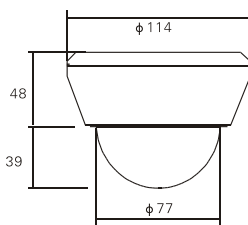- Elegant Appearance, applying in concealing place.

SN-456DC Color Dome Camera

- 1/3″ IT CCD,420TVL,0.1Lux, Digital Signal Processing
- S/N ratio 48dB
- BLC, AGC, AWB
- Built-in Fixed Board lens, f=2.8,3.6,6,8, 12mm optional
- Elegant Appearance, applying in concealing place.

- Special designed housing of optics materials, reduce light loss
- Easy installation and adjustment, built-in manual Pan/Tilt, 360° adjustable;
- Reliable performance, stable quality, competitive price, widely application in bank, hotel, supermarket, office building, hospital, schools, post offices, government offices, financial department, toll station, etc.
- Available with both black and white dome and respond to environment around

Specification

Model	SN-456DC/A	SN-456DC
Image Sensor	1/3″ IT CCD	
Signal system	PAL or NTSC Color system	
Effective Pixels	PAL：500(H) x582(V); NTSC:510(H) x 494(V)	
Resolution	420 TV Lines	
Minimum Illumination	0.1Lux/F2.0	
S/N Ratio	More than 48dB	
Electronic Shutter	1/50 ～ 1/100,000sec(PAL), 1/60 ～ 1/100,000sec(NTSC)	
White Balance	Automatic	
AGC/ BLC	Automatic	On/Off
Gamma Correction	0.45	
Sync mode	INT	
Lens	C&CS mount f=4,6,8,12,16mm	Fixed board lens, f= 3.6, 6,8, 12,16mm
Video Output	1.0Vp-p, 75Ohm, sync negative polarity	
Power Supply	12VDC	
Consumed Current	120mA (MAX)	
Operating Temperature	-10 ℃ ~+50 ℃ RH95%MAX	
Dimension	∅ 117x104(mm)	∅ 114x87(mm)
Weight	410g	220g

Board Lens	Angle of View
F=2.8	140°
f=3.6	92°
f=4.3	78°
f=6	53°
f=8	40°
f=12	28°

φ 117.0
40.0
64.0
φ 93.0
φ 114
48
39
φ 77

Order guidance

Model	SN-456DC/A/10 SN-436DC/10	SN-456DC/A/20 SN-436DC/20
Signal system	PAL	NTSC

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SUNELL Dome camera

SN-475DM High Resolution B/W Dome Camera

- ◎ 1/3″ IT CCD，High Resolution 570TVL，0.04LUX
- ◎ S/N Ratio 50dB
- ◎ BLC, AGC, ES
- ◎ Built-in integrative len f=2.8、3.6、6、8、12,16mm optional
- ◎ Elegant Appearance, applying in concealing place

SN-415DM B/W Dome Camera

- ◎ 1/3″ IT CCD，420TVL，0.1LUX
- ◎ S/N Ratio 50dB
- ◎ BLC, AGC
- ◎ Built-in integrative len f=2.8、3.6、6、8、12,16mm optional
- ◎ Elegant Appearance, applying in concealing place.

- ■ Special designed housing of optics materials, reduce light loss
- ■ Easy installation and adjustment, built-in manual Pan/Tilt，360° adjustable;
- ■ Reliable performance, stable quality, competitive price, widely application in bank、hotel, supermarket, office building, hospital, schools, post offices, government offices, financial department, toll station, etc.
- ■ Available with both black and white dome and respond to environment around.

Specification

31

Model	SN-475DM	SN-415DM
Image Pick up Device	1/3″ interline transfer CCD	
NO. of Effective Pixels	752(H)×582(V)(CCIR) 768(H)×494(V)(EIA)	500(H)×582(V)(CCIR) 510(H)×492(V)(EIA)
Signal System	CCIR or EIA System	
Scanning Frequency		625Lines 2:1 interlace
Horizontal Resolution	570TV Lines	420 Lines
S/N Ratio	50dB	50dB
Minimum Illumination	0.04Lux/F2.0	0.1Lux/F2.0
Electronic Shutter	1/60-1/100000sec(EIA),1/50-1/100000sec(CCIR)	
Lens	Fixed board lens,f=2.8,3.6,6,8,12,16mm optional	
Gamma Correction	0.45	
Output Signal	1.0Vp-p75 ohm,sync negative polarity	
AGC/ES	Automatic	
Power Supply	DC12V Regulated	
Consumed Current	110mA(MAX)	
Operating Temperature	-10℃ ~ +50℃ RH95%(MAX)	
External Dimension	φ114×87mm	
Weight	220g	220g

Board lens	Angle of View
f=2.8	140°
f=3.6	92°
f=4.3	78°
f=6	53°
f=8	40°
f=12	28°

φ114
48
39
φ77
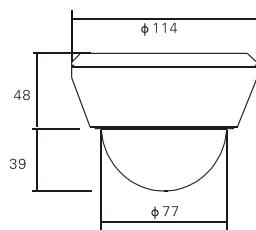
Order guidance

Model	SN-475DM/10 SN-415DM/10	SN-475DM/20 SN-415DM/20
Signal system	CCIR	EIA

SN-480DC/A
High Resolution Color Dome Camera
- 1/3" CCD,high resolution 480TVL
- 0.3Lux/F1.2
- S/N ratio 48dB
- AGC,BLC,AWB
- Auto Iris
- Built-in CS-mount Fixed Focus LensF=4,6,8,12,16mm Optional
- Elegant Appearance
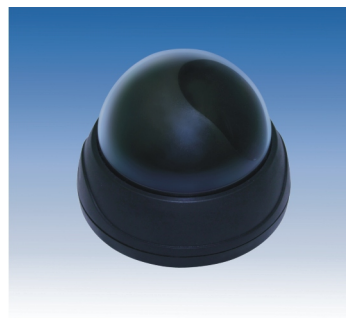
SN-481DC/A
DSP Color High Resolution Dome Camera
- 1/3" CCD,high resolution 480TVL
- 0.8Lux/F1.2
- S/N ratio over 48dB
- AGC,BLC,AWB
- Built-in CS Mount fixed-focus lens,
  f=4、6、8、12、16mm optional,Auto-Iris inside
- Elegant Appearance, applying in concealing place

■ Reliable performance, stable quality, competitive price, widely application in bank,hotel, supermarket, office building, hospital, schools, post offices, government offices, financial department, toll station, etc.
■ Available with both black and white dome and respond to environment around

Specification

Model	SN-480DC/A	SN-481DC/A
Image Pick up Device	1/3″ CCD	
Number of Efective Pixels	PAL: 752(H)×582(V); NTSC: 768(H)×494(V)	
Signal System	NTSC/PAL Color System	
Scanning Frequency	625Lines 2:I interlace	
Horizontal Resolution	480Lines	
S/N Ratio	More than 48dB	
Minimum Illumination	0.3Lux/F1.2	0.8Lux/F1.2
White Balance	Automatic	
Electronic Shutter	1/50～1/100,000sec(PAL), 1/60～1/100,000sec(NTSC)	
Lens	C&CS mount f=4,6,8,12,16mm(AUTO IRIS)	
Gamma Correction	0.45	
Output Signal	1.0Vp-p,75(Ω), Sync Negative Polarity	
AGC/AWB/ES	Automatic	
Power Supply	DC12V Regulated	
Consumed Current	150mA(MAX)	110mA(MAX)
Operating Temperature	-10℃ ~ +50℃ RH95%(MAX)	
External Dimensions	φ117×104mm	
Weight	410g	410g

C Lens	Angle of view
f=4	80°
f=6	53°
f=8	40°
f=12	28°
f=16	21°

φ117.0 / 40.0 / 64.0 / φ93.0

Order guidance

Model	SN-480DC/A/10 SN-481DC/A/10	SN-480DC/A/20 SN-481DC/A/20
Signal system	PAL	NTSC

32

■ SN-450DC/A Color Dome Camera

- 1/3" IT CCD, more than 420TVL
- 1.0Lux/F2.0
- S/N ratio 48dB
- AGC, BLC, AWB, AutoIris
- Built-in CS-mount Fixed Focus Lens
  f=4,6,8,12,16mm Optional
- Elegant Appearance
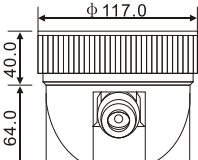
■ SN-430DC/A Color Dome Camera

- 1/4" IT CCD, more than 420TVL
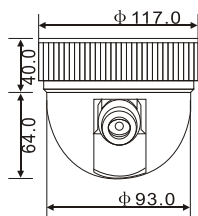- 1.0Lux/F2.0
- S/N ratio 48dB
- BLC, AGC, AWB, Auto Iris
- Built-in CS-mount Fixed Focus Lens
  f=4,6,8,12,16mm Optional
- Elegant Appearance

■ Reliable performance, stable quality, reasonable price, widely application in bank, hotel, supermarked, office, hospital, school, postoffice, toll station, accounting dept, government office, easily installation;

■ Available with both black and white dome and respond to decorations around.

Specification

33

Model	SN-450DC/A	SN-430DC/A
Image Pick up Device	1/3″ Interline Transfer CCD	1/4″ Interline Transfer CCD
Number of Efective Pixels	512X582(PAL),512X494(NTSC)	512X582(PAL),512X494(NTSC)
Signal System	NTSC/PAL Color System	
Scanning Frequency	625Lines 2:I interlace	
Horizontal Resolution	420Lines	420Lines
S/N Ratio	48dB	
Minimum Illumination	1.0Lux/F2.0	
White Balance	Automatic	
Electronic Shutter	1/50～1/100,000sec(PAL), 1/60～1/100,000sec(NTSC)	
Lens	CS mount f=4,6,8,12,16mm(AUTO IRIS)	
Gamma Correction	0.45	
Output Signal	1.0Vp-p,75(Ω), Sync Negative Polarity	
AGC/AWB/ES	Automatic	
Power Supply	DC12V Regulated	
Consumed Current	180mA(MAX.)	
Operating Temperature	-10℃ ~ +50℃ RH95%(MAX)	
External Dimensions	φ117×104mm	
Weight	410g	400g

C Lens	Angle of view
f=4	80°
f=6	53°
f=8	40°
f=12	28°
f=16	21°

φ117.0
40.0
64.0
φ93.0

Order guidance

Model	SN-450DC/A/10 SN-430DC/A/10	SN-450DC/A/20 SN-430DC/A/20
Signal system	PAL	NTSC

SN-470DM/A
High Resolution B/W Dome Camera
- 1/3" IT CCD,high resolution ,570 TVL
- 0.04Lux/F2.0
- S/N ratio over 50dB
- Electronic Shutter,AGC,BLC
- Built-in C-mount Fixed Focus Lens
  f=4,6,8,12,16mm Optional
- Elegant Appearance

SN-420DM/A
B/W Dome Camera
- 1/3" IT CCD,420TVL
- 0.1Lux/F2.0
- S/N ratio over 48dB
- Electronic Shutter,AGC,BLC
- Built-in CS-mount Fixed Focus Lens
  f=4,6,8,12,16mm Optional
- Elegant Appearance

Specification

Model	SN-470DM/A	SN-420DM/A
Image Pick up Device	1/3″ interline transfer CCD	
NO. of Effective Pixels	CCIR: 500(H)X582(V), EIA:510(H)X492(V)	
Signal System	EIA/CCIR B/W System	
Scanning Frequency	625Lines 2:1 interlace	
Horizontal Resolution	570 Lines	420 Lines
S/N Ratio	50dB	
Minimum Illumination	0.04Lux/F2.0	0.1Lux/F2.0
Electronic Shutter	1/60-1/100000sec(EIA),1/50-1/100000sec(CCIR)	
Lens	C&CS mount f=4,6,8,12,16mm (AUTO IRIS)	
Gamma Correction	0.45	
Output Signal	1.0Vp-p, 75(Ω)	
AGC/ES	Automatic	
Power Supply	DC12V regulated	
Consumed Current	110mA (MAX.)	
Operating Temperature	-10℃ ~ +50℃ RH95%(MAX)	
External Dimension	φ 117 × 104mm	
Weight	360g	

φ 117.0 / 40.0 / 64.0 / φ 93.0
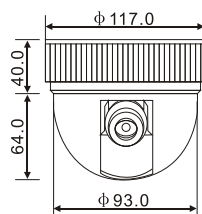
CS Lens	Angle of View
f=4	80°
f=6	53°
f=8	40°
f=12	28°
f=16	21°

Order guidance

Model	SN-470DM/A/10 SN-420DM/A/10	SN-470DM/A/20 SN-420DM/A/20
Signal system	CCIR	EIA

34
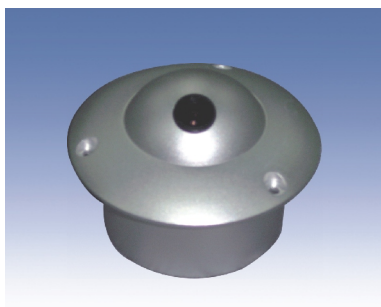
■ **SN-360DC Color Mini Dome Camera**

- ○ 1/4" CCD,420TV Lines
- ○ 1.0Lux/F2.0,S/N Ratio over 48dB
- ○ AGC, Auto-Iris
- ○ Smallest Compact Aluminum Housing
- ○ Wide range of input voltage(9-15VDC)
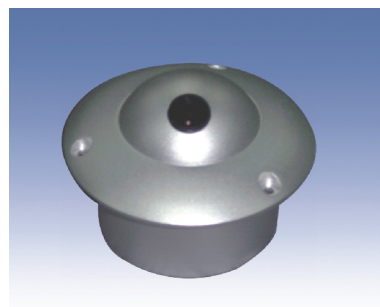
■ **SN-310DM B/W Mini Dome Camera**

- ○ 1/3" CCD, 420TV Lines
- ○ 0.1Lux/F2.0, S/N Ratio over 48dB
- ○ AGC, Auto-Iris
- ○ Smallest Compact Aluminum Housing
- ○ Wide range of input voltage (9-15VDC)

■ Exquisite design, precise circuit & structure, The Smallest Dome Camera, incarnated the highest technology;
■ Aluminum structure
■ Adopted Pinhole Lens
■ Installing Easily
■ Compact-sized, suitable for elevator in particular

Specification

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Model	SN-360DC	SN-310DM
Image Sensor	1/4″ IT CCD	1/3″ B/W IT CCD
Signal system	PAL or NTSC Color system	CCIR or EIA B/W system
Effective Pixels	PAL:512(H)×582(V) NTSC:512(H)×494(V)	CCIR:500(H)×582(V) EIA:510(H)×492(V)
Resolution	420 TVLines	420 TVLines
Minimum Illumination	1.0Lux/F2.0	0.1Lux/F2.0
S/N Ratio	More than 48dB	
Electronic Shutter	1/50～1/100,000sec(PAL) 1/60～1/100,000sec(NTSC)	1/50～1/100,000sec(CCIR) 1/60～1/100,000sec(EIA)
White Balance	Automatic	
AGC	Automatic	Automatic
BLC	On / Off	Automatic
Mirror	On / Off	On / Off
Gamma Correction	0.45	
Sync mode	INT	
Lens	Pinhole Lens 3.7，4.3mm；Fixed board lens, f=2.8, 3.6, 6, 8, 12mm	
Video Output	1.0Vp-p, 75Ohm, sync negative polarity	
Audio Output	Optional	
Power Supply	9-15VDC	
Consumed Current	100mA (MAX)	
Operating Temperature	-10℃~+50℃ RH95%MAX	
Body	Aluminum	
Dimension A×B	35.5(A)× φ64(B)mm	
Dimension C×D×E	56.5(C)× φ86(D)× φ14(E)mm	
Weight	280 g	

Order guidance

Model	SN-360DC/10	SN-310DM/10	SN-360DC/20	SN-310DM/20
Signal system	PAL	CCIR	NTSC	EIA

■ SN-368DC
Color Mini Dome Camera

- 1/3" CCD, 480TV Lines
- S/N Ratio over 48dB, 1.0Lux/F2.0
- AGC, AWB, BLC
- Mirror function optional
- Smallest Compact Aluminum Housing
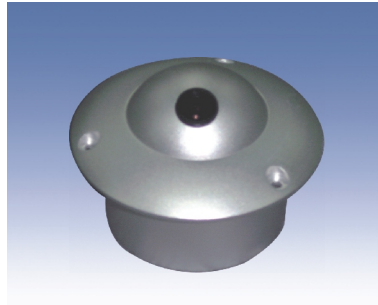
■ SN-355DC
Color Mini Dome Camera

- 1/3" CCD, 420TV Lines
- S/N Ratio over 48dB, 0.1Lux/F2.0
- AGC, AWB, BLC
- Smallest Compact Aluminum Housing
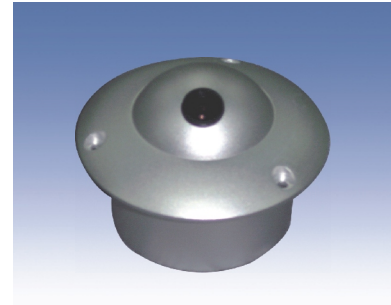
■ SN-350DC
Color Mini Dome Camera

- 1/4" CCD, 420TV Lines
- S/N Ratio over 48dB, 0.3Lux/F2.0
- AGC, AWB, BLC
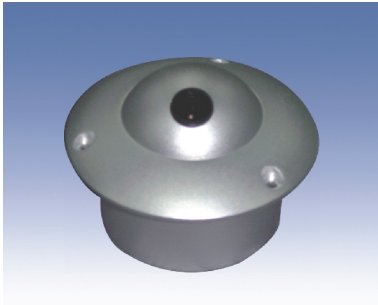- Smallest Compact Aluminum Housing

■ Exquisite design, precise circuit & structure, The Smallest Dome Camera, incarnated the highest technology;
■ Aluminum structure
■ Adopted Pinhole Lens(optional)
■ Installing Easily
■ Compact-sized, suitable for elevator in specially

Specification

Model	SN-368DC	SN-355DC	SN-350DC
Image Sensor	1/3″ IT CCD		1/4″ IT CCD
Signal system	PAL or NTSC Color system		
Effective Pixels	PAL：752(H) x 582(V); NTSC:768(H) x 494(V)	PAL：500(H) x 582(V); NTSC:510(H) x 494(V)	
Resolution	480 TV Lines	420 TV Lines	
Minimum Illumination	1.0Lux/F2.0	0.1Lux/F2.0	0.3Lux/F2.0
S/N Ratio	More than 48dB		
Electronic Shutter	1/50 ∼ 1/100,000sec(PAL), 1/60 ∼ 1/100,000sec(NTSC)		
White Balance	Automatic		
AGC	Automatic	On/Off	
BLC	On/Off		
Mirror	On/Off		
Gamma Correction	0.45		
Sync mode	INT		
Lens	Pinhole Lens, f=3.7, 4.3mm ; Fixed board lens, f=2.8, 3.6, 6, 8, 12mm		
Video Output	1.0Vp-p, 75Ohm, sync negative polarity		
Power Supply	12VDC		
Consumed Current	100mA (MAX)		
Operating Temperature	-10℃~+50℃RH95%MAX		
Body	Aluminum		
Dimension	Φ86×56.5mm		
Weight	280g		

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Order guidance

Model	SN-368DC/10 SN-355DC/10 SN-350DC/10	SN-368DC/ 20 SN-355DC/20 SN-350DC/20
Signal system	PAL	NTSC

■ SN-PT Series Dome Camera with Pan-tilt

■ Assemble camera、Pan-tilt and decoder/driver
  into a Aluminum dome housing，is an effective surveillance tool
■ Reduced the connecting wire between all device，reliability
  of the product is strengthened
■ Elegant Appearance, simple operation
  Easy Installation and Service
■ Overcome the weakness for the traditional dome camera is a better
  choice for wide range surveillance
■ SN-PT482DC/A High Resolution Color Dome Camera with Pan-tilt
■ SN-PT432DC/A Color Dome Camera with Pan-tilt
■ SN-PT352DC/A Color Dome Camera with Pan-tilt
■ SN-PT411DM/A B/W Dome Camera with Pan-tilt

◉ Dome structure，elegant appearance
◉ Built-in integrative lens，f=2.8, 3.6, 4,6, 8, 12,16mm optional
◉ Built-in RS-485 receiver/drivers
◉ Muti-protocol selectable through DIP switch
◉ Built-in Pan-tilt, Pan range：0-360°，Pan speed： 0-12°/sec；
◉ Tilt range:0-90°;Tilt speed:0-12°/sec；
◉ 32 preset can be storied
◉ 1 group programmable auto-scan,6 group programmable guard tours
◉ SN-PT Dome Camera with Pan-tilt series are widely application in bank, hotel, supermarket, office building, hospital, schools,
  post offices, government offices, financial department, toll station, etc
◉ Available to installed on ceiling or wall

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Specification

Model	SN-PT482DC/A	SN-PT432DC/A	SN-PT352DC/A	SN-PT411DM/A
Image pick up device	1/3" interline transfer CCD	1/4" interline transfer CCD	1/4" interline transfer CCD	1/3" interline transfer CCD
NO.of effective pixels	PAL:752(H)X582(V); NTSC:768(H)X494(V)	PAL:500(H)X582(V); NTSC: 510(H)X492(V)		CCIR:500(H)X582(V); EIA:510(H)X492(V)
Signal system	PAL Color system			CCIR B/W System
Horizontal resolution	480Lines	420Lines		420Lines
S/N ratio	48dB			50dB
Minimum illumination	1.0Lux/F1.4	1.0Lux/F1.4		1.0Lux/F1.4
White balance	Automatic			
Electronic shutter	1/50-1/100,000SEC(PAL/CCIR); 1/60-100,000SEC(NTSC/EIA)			
Lens	CS mount and Fixed board lens，f=2.8，3.6，4，6，8，12，16mm			
Gamma Correction	0.45			
Output signal	1.0Vp-p,75 Ohm, sync negative polarity			
Power supply	DC 12V Regulated			
Consumed Current	1.0A,MAX			
Safekeeping temperature	-10℃ ~ +50℃ RH95%MAX			
External dimensions	φ 130 X 105mm			
Weight	450g approximately			

Order guidance

Model	SN-PT482DC/A/10 SN-PT432DC/A/10 SN-PT352DC/A/10	SN-PT411DM/A/10	SN-PT482DC/A/20 SN-PT432DC/A/20 SN-PT352DC/A/20	SN-PT411DM/A/20
Signal system	PAL	CCIR	NTSC	EIA

SN-IR141DC
Color Dome Camera with IR

- 1/3″ IT CCD,420TVL
- 0.1Lux/F1.2(IR-LED Off),0Lux (IR-LED On)
- AGC, AWB, ES, BLC
- Automaticlly switch to B/W mode under low light when illumination under 1-3 lux
- Built-in Powerful IR-LED, provide high quality picture even in extreme darkness, Max. 10-15 meters working distance with IR-LED on
- Light control design, automatically measure light to control the On/Off of the IR-LED.

SN-IR123DC
Color Dome Camera with IR

- 1/4″ IT CCD,420TVL
- 0.3Lux/F1.2(IR-LED Off),0Lux (IR-LED On)
- AGC, AWB, ES, BLC
- Automatic switch to B/W mode under low light when illumination under 1-3 lux
- Built-in Powerful IR-LED, provide high quality picture even in extreme darkness, Max. 10-15 meters working distance with IR-LED on
- Light control design, automatically measure light to control the On/Off of the IR-LED.

SN-IR101DM
B/W Dome Camera with IR

- 1/4″ IT CCD,420TVL
- 0.1Lux/F1.2(IR-LED Off),0Lux (IR-LED On)
- AGC, ES, BLC
- Built-in Powerful IR-LED, provide high quality picture even in extreme darkness, Max. 10-15 meters working distance with IR-LED on
- Light control design, automatically measure light to control the On/Off of the IR-LED.

- Exquisite design, precise circuit & structure, incarnated the highest technology
- Latest industrialized design, cabinet bulk, especially apply for concealed place.
- Easy installation, convinent adjustment, possible to adjust up and down, left and right .

Specification

Model	SN-IR141DC	SN-IR123DC	SN-IR101DM
Image Sensor	1/3″ IT CCD	1/4″ IT CCD	1/3″ B/W IT CCD
Signal system	PAL or NTSC Color system		CCIR or EIA B/W system
Effective Pixels	PAL:500H)×582(V) NTSC:510(H)×494(V)		CCIR:500H)×582(V) EIA:510(H)×492(V)
Resolution	420 TVLines		
Minimum Illumination	0.1Lux/F2.0（LED OFF） 0Lux (LED ON)	0.3Lux/F2.0（LED OFF） 0Lux (LED ON)	0.1Lux/F2.0（LED OFF） 0Lux (LED ON)
Day/Night Automatically Switch	Illumination < 1～3 Lux/F2.0		
S/N Ratio	More than 48dB		
Electronic Shutter	1/50～1/100,000sec(PAL) 1/60～1/100,000sec(NTSC)		1/50～1/100,000sec(CCIR) 1/60～1/100,000sec(EIA)
White Balance	Automatic		
AGC	On/Off		Automatic
BLC	On/Off		Automatic
Gamma Correction	0.45		
Sync mode	INT		
Lens	Fixed board lens, f= 3.6, 6, 8, 12mm		
IR-LED	Wave Length:850nm		
IR-LED drive	ON:1～3Lux; OFF:5～6Lux		
Video Output	1.0Vp-p, 75Ohm, sync negative polarity		
Power Supply	12VDC		
Consumed Current	100mA (MAX)＋100mA (LED ON)		
Operating Temperature	-10℃~+50℃ RH95%MAX		
Body	ABS		
Dimension	100×65(mm)		
Weight	180g		

Order guidance

Model	SN-IR141DC/10 SN-IR123DC/10	SN-IR123DC/10	SN-IR141DC/10 SN-IR123DC/10	SN-IR123DC/20
Signal system	PAL	CCIR	NTSC	EIA

SN-598C/IR
Day/Night Camera with High-Power IR Light

- 1/3″ SONY Super HAD CCD, 480TVL
- Built-in powerful& high- efficiency IR-LED, provide high quality picture even in extreme darkness
- Max. 80-100 meters working distance with IR-LED On
- Automatically switch to B/W mode under low light when Illumination under 1～3Lux
- IR-LED Automatically Turn ON when Illumination under 1～3Lux
- 0.4Lux/F2.0(IR-LED Off); 0Lux(IR-LED On);
- S/N ratio over 48dB
- AGC,AWB
- AES,BLC

SN-597M/IR
B/W Camera with High-Power IR Light

- 1/3″ SONY CCD, 570TVL
- Built-in powerful& high- efficiency IR-LED, provide high quality picture even in extreme darkness
- Max. 80-100 meters working distance with IR-LED On
- IR-LED Automatically Turn ON when Illumination under 1～3Lux
- 0.4Lux/F2.0(IR-LED Off); 0Lux(IR-LED On); S/N ratio over 48dB
- AGC
- AES,BLC

- Exquisite design, precise circuit & structure, incarnated the highest technology
- Aluminum structure, All-sealed water-proof body
- Sunshield used for outdoor supplied
- Longer working distance at night, best choice for larger area surveillance system such as border&warehouse etc.

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Specification

Model	SN-598C/IR	SN-597M/IR
Image Pick up Device	1/3" SONY Super HAD CCD	1/3" SONY CCD
Signal System	NTSC / PAL Color System	CCIR / EIA B/W System
Horizontal Resolution	480 TVLines	570 TVLines
Number of Effective Pixels	PAL:752(H)x582(V)NTSC:768(H)x494(V)	CCIR:752(H)x582(V)EIA:768(H)x494(V)
Minimum Illumination	0.4Lux/F2.0（LED OFF）,0Lux (LED ON)	0.04Lux/F2.0（LED OFF）,0Lux (LED ON)
Day/Night Automatically Switch	Illumination < 1～3 Lux/F2.0	
White balance	Automatic	
Electronic shutter	1/60-1/100000(NTSC/EIA),1/50-1/100000(PAL/CCIR)	
AGC / BLC	Automatic	
Filter	400 ~ 645 nm+ 850nm	
Lens	Board Len, f=25mm	
High Power IR LED	6 PCS	
IR LED Wavelength	850nm	
IR Series Distance	80~100 M	
LED / Fan Control	ON:1～3Lux; OFF:5～6Lux	
Fan Control	ON:+45℃±2℃; OFF:+40℃±2℃;	
IR LED Life	100,000Hours	
Gamma	0.45	
Sync mode	INT	
Video Output	1.0Vp-p, 75 Ohm	
Power Supply	AC 110-220V	
Consumed Current	100mA (MAX)＋ 400mA (LED ON)	
Operating Temperature	-10℃~+50℃RH95%MAX	
Body	Aluminum	

Order guidance

Model	SN-598C/IR/10	SN-597M/IR/10	SN-598C/IR/20	SN-597M/IR/20
Signal system	PAL	CCIR	NTSC	EIA

SN-5901IR/A   Day/Night Camera with High-Power IR Light

- 1/3" SONY Super HAD CCD,420TVL
- Built-in powerful& high-efficiency IR-LED, provide high quality picture even in extreme darkness
- Max. 30-50 meters working distance with IR-LED On
- Automatically switch to B/W mode under low light when Illumination under 1-3Lux
- IR-LED Automatically Turn ON when Illumination under 1-3Lux
- 0.3Lux/F2.0(IR-LED Off); 0Lux(IR-LED On);
- AGC, AWB
- AES, BLC

SN-IR SN-5901IR/B   Day/Night Camera with High-Power IR Light

- 1/3" SONY Super HAD CCD,480TVL
- Built-in powerful& high-efficiency IR-LED, provide high quality picture even in extreme darkness
- Max. 30-50 meters working distance with IR-LED On
- Automatically switch to B/W mode under low light when Illumination under 1-3Lux
- IR-LED Automatically Turn ON when Illumination under 1-3Lux
- 0.3Lux/F2.0(IR-LED Off); 0Lux(IR-LED On);
- AGC, AWB
- AES, BLC

SN-IR SN-5901IR/C   Day/Night Camera with High-Power IR Light

- 1/3" SONY Super HAD CCD,540TVL
- Built-in powerful& high-efficiency IR-LED, provide high quality picture even in extreme darkness
- Max. 30-50 meters working distance with IR-LED On
- Automatically switch to B/W mode under low light when Illumination under 1-3Lux
- IR-LED Automatically Turn ON when Illumination under 1-3Lux
- 0.3Lux/F2.0(IR-LED Off); 0Lux(IR-LED On);
- AGC, AWB
- AES, BLC

- ■ Exquisite design, precise circuit & structure, incarnated the highest technology
- ■ Aluminum structure, All-sealed water-proof body
- ■ Sunshield used for outdoor supplied
- ■ Longer working distance at night, best choice for larger area surveillance system such as border&warehouse etc.

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Specification

Model	SN-IR5901/A	SN-IR5901/B	SN-IR5901/C
Image Pick up Device	1/3〞SONY Super HAD CCD		
Signal system	PAL or NTSC Color system		
Horizontal Resolution	PAL:500(H)×582(V); NTSC:510(H)×494(V)	PAL:752(H)×582(V);NTSC:768(H)×494(V)	
No. of Effective Pixels	420 TV lines	480 TV lines	540 TV Lines
Minimum Illumination	0.3Lux/F2.0（LED OFF）;0Lux (LED ON)		
Day/Nigh Automatically Switch	Illumination < 1～3 Lux/F2.0		
LED/Fan Control	ON：1～3 Lux；OFF：5～6 Lux		
S/N Ratio	More than 48dB		
Electronic Shutter	1/50～1/100,000S(PAL), 1/60～1/100,000S(NTSC)		
AGC /BLC	ON		
Lens	Board lens f=12，16mm		
High Power IR-LED	28+28 PCS		
IR-LED Wavelength	850nm		
IR Series Distance	30～50m		
Gamma	0.45		
Sync mode	INT		
Video Output	1.0Vp-p, 75 Ohm		
Power Supply	DC12V		
Consumed Current	2.5W(LED OFF)＋6W (LED ON)		
Operating Temperature	-10℃~+50℃ RH95%MAX		
Body	Aluminum		
Weight	900 g		

SN-IR5911/A B/W Camera with High-Power IR Light

- 1/3" SONY Super HAD CCD,420TVL
- Built-in powerful& high-efficiency IR-LED, provide high quality picture even in extreme darkness
- Max. 30-50 meters working distance with IR-LED On
- IR-LED Automatically Turn ON when Illumination under 1-3Lux
- 0.3Lux/F2.0(IR-LED Off); 0Lux(IR-LED On);
- AGC
- AES,BLC

SN-IR5911/B B/W Camera with High-Power IR Light

- 1/3" SONY Super HAD CCD,570TVL
- Built-in powerful& high-efficiency IR-LED, provide high quality picture even in extreme darkness
- Max. 30-50 meters working distance with IR-LED On
- 0.3Lux/F2.0(IR-LED Off); 0Lux(IR-LED On);
- AGC
- AES,BLC

- Exquisite design, precise circuit & structure, incarnated the highest technology
- Aluminum structure, All-sealed water-proof body
- Sunshield used for outdoor supplied
- Longer working distance at night, best choice for larger area surveillance system such as border& warehouse etc.

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Specification

Model	SN-IR5911/A	SN-IR5911/B
Image Pick up Device	1/3〞SONY Super HAD CCD	
Signal system	CCIR or EIA system	
Horizontal Resolution	CCIR:500(H) × 582(V); EIA:510(H) × 492(V)	CCIR:752(H) × 582(V); EIA:768(H) × 494(V)
No. of Effective Pixels	420 TVL	570 TVL
Minimum Illumination	0.3Lux/F2.0（R-LED OFF）;0Lux (R-LED ON)	
LED/Fan Control	ON：1～3 Lux；OFF：5～6 Lux	
S/N Ratio	More than 48dB	
S/N Ratio Electronic Shutter	1/50 ～ 1/100,000S(CCIR), 1/60 ～ 1/100,000S(EIA)	
Lens	Board lens f=12，16mm	
High Power IR-LED	28+28 PCS	
IR-LED Wavelength	850nm	
IR Series Distance	30～50m	
Gamma	0.45	
Sync mode	INT	
Video Output	1.0Vp-p, 75 Ohm	
Power Supply	DC 12V	
Consumed Current	2.5W(LED OFF) ＋6W (LED ON)	
Operating Temperature	-10 ℃~+50 ℃ RH95%MAX	
Body	Aluminum	
Weight	900 g	

SN-497C/IR Water-proof Color Camera with IR
- 1/3″ IT Color CCD, 480TVL
- Built-in 24 pcs powerful IR-LED, provide high quality picture even in extreme darkness
- Max. 10- 15 meters working distance with IR-LED On 1.0Lux/F2.0
- Automatically switch to B/W mode under low light when Illumination under 1~3Lux
- S/N ratio over 48dB
- AGC, AWB, BLC
- Electronic Shutter, 1/50-1/100,000sec(PAL), 1/60-1/100,000sec(NTSC)
- Mirror optional

SN-397C/IR Water-proof Color Camera with IR
- 1/4″ IT Color CCD, 420TVL
- Built-in 24 pcs powerful IR-LED, provide high quality picture even in extreme darkness
- Max. 10- 15 meters working distance with IR-LED On
- 1.5Lux/F2.0 (Color, IR LED OFF), 0Lux (B/W, IR LED ON)
- Automatically switch to B/W mode under low light when Illumination under 1~3Lux
- S/N ratio over 48dB, AGC, AWB, BLC
- Electronic Shutter, 1/50-1/100,000sec(PAL). 1/60-1/100,000(NTSC)
- Mirror optional

SN-297M/IR Water-proof B/W Camera with IR
- 1/3″ B/W IT CCD, 420TVL
- Built- in 24 pcs powerful IR-LED, Provide high quality picture even in extreme darkness
- Max. 10- 15 meters working distance with IR-LED On
- 0.1Lux/F2.0 (IR LED OFF), 0Lux(IR LED ON)
- IR-LED Automatically switch when Illumination under 1~3Lux
- S/N ratio 48dB
- Electronic Shutter，1/50~1/100,000sec
- AGC,BLC

- Exquisite design, precise circuit & structure, incarnated the highest technology
- Aluminum structure, All-sealed water-proof body
- Sunshield used for outdoor application
- Cabinet bulk, applications in dark place indoor or outdoor

Specification

Model	SN-497C/IR	SN-397C/IR	SN-297M/IR
Image Sensor	1/3″ IT CCD	1/4″ IT CCD	1/3″ IT CCD
Signal system	PAL or NTSC Color system		CCIR or EIA B/W System
Effective Pixels	PAL:752(H)×582(V) NTSC:768(H)×494(V)	PAL:512(H)×582(V) NTSC:512(H)×494(V)	CCIR:500(H)×582(V) EIA:510(H)×492(V)
Resolution	480TV Lines	420TV Lines	420TV Lines
Minimum Illumination	1.0Lux/F2.0 （LED OFF）; 0Lux (LED ON)		0.1Lux/F2.0 （LED OFF）; 0Lux (LED ON)
Day/Night Automatically Switch	Illumination< 1~3 Lux/F2.0		
S/N Ratio	More than 48dB		
Electronic Shutter	1/50~1/100,000sec(PAL) 1/60~1/100,000sec(NTSC)		1/50 ~ 1/100,000sec(CCIR), 1/60 ~ 1/100,000sec(EIA)
White Balance	Automatic		
AGC	Automatic		Automatic
BLC	On/ Off		Automatic
Mirror	On/ Off		
Gamma Correction	0.45		
Sync mode	INT		
Lens	Fixed board lens, f=2.8, 3.6, 6, 8, 12mm		
IR-LED	Wave Length: 850nm		
IR-LED drive	ON:1~3Lux; OFF:5~6Lux		
Video Output	1.0Vp-p, 75Ohm, sync negative polarity		
Power Supply	12VDC ,100mA minimum		
Consumed Current	100mA (MAX)＋300mA (LED ON)		
Operating Temperature	-10℃~+50℃ RH95%MAX		
Body	Aluminum		
Dimension	Φ52.5×104(mm)		
Weight	400g		

Order guidance

Model	SN-497C/IR/10 SN-397C/IR/10	SN-297M/IR/10	SN-497C/IR/20 SN-397C/IR/20	SN-297M/IR/20
Signal system	PAL	CCIR	NTSC	EIA

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SN-385C/IR Water-proof Color Camera with IR

- 1/3" IT Color CCD, 420TVL
- Built-in 24 pcs powerful IR-LED, provide high quality picture even in extreme darkness
- Max. 10- 15 meters working distance with IR-LED On 0.1Lux/F2.0(IR LED OFF),0Lux(B/W,IR LED ON)
- Automatically switch to B/W mode under low light when Illumination under 1~3Lux
- S/N ratio over 48dB
- AGC,AWB,BLC

SN-387C/IR Water-proof Color Camera with IR

- 1/4" IT Color CCD, 420TVL
- Built-in 24 pcs powerful IR-LED, provide high quality picture even in extreme darkness
- Max. 10- 15 meters working distance with IR-LED On 0.3Lux/F2.0(IR LED OFF),0Lux(B/W,IR LED ON)
- Automatically switch to B/W mode under low light when Illumination under 1~3Lux
- S/N ratio over 48dB
- AGC,AWB,BLC

- Exquisite design, precise circuit & structure, incarnated the highest technology
- Aluminum structure, All-sealed water-proof body
- Sunshield used for outdoor application
- Cabinet bulk, applications in dark place indoor or outdoor

Specification

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Model	SN-385C/IR	SN-387C/IR
Image Sensor	1/3″ IT CCD	1/4″ IT CCD
Signal system	PAL or NTSC Color system	
Effective Pixels	PAL：500(H) x 582(V)；NTSC:510(H)x 494(V)	
Resolution	420 TVLines	
Minimum Illumination	0.1Lux/F2.0（LED OFF) 0Lux (LED ON)	0.3Lux/F2.0（LED OFF） 0Lux(LED ON)
Day/Night Automatically Switch	Illumination < 1~3 Lux/F2.0	
S/N Ratio	More than 48dB	
Electronic Shutter	1/50~1/100,000sec(PAL), 1/60~1/100,000sec(NTSC)	
White Balance	Automatic	
AGC	On/Off	
BLC	On/Off	
Gamma Correction	0.45	
Sync mode	INT	
Lens	Fixed board lens, f=2.8, 3.6, 6, 8, 12mm	
IR-LED	Wave Length:850nm	
IR-LED drive	ON:1~3Lux; OFF:5-6Lux	
Video Output	1.0Vp-p, 75Ohm, sync negative polarity	
Power Supply	12VDC	
Consumed Current	120mA (MAX)＋300mA (LED ON)	
Operating Temperature	-10℃~+50℃ RH95%MAX	
Body	Aluminum	
Dimension	Φ52.5x104(mm)	
Weight	400g	

Order guidance

Model	SN-385C/IR/10 SN-387C/IR/10	SN-385C/IR/20 SN-387C/IR/20
Signal system	PAL	NTSC

SN-396C Microminiature Color Mini Camera

- 1/4″ IT CCD, 420TVL
- Minimum Illumination 1.0Lux/F2.0
- S/N ratio over 48dB
- AGC ,AWB
- Bullet shape ,Cabinet bulk
- Wide range working voltage(9-15VDC)

SN-296M Microminiature B/W Mini Camera

- 1/3″ B/W IT CCD,420TVL
- S/N ratio 48dB, 0.1Lux/F2.0
- AGC
- Bullet exterior ,Cabinet bulk
- Wide range working voltage(9-15VDC)

- Exquisite design, precise circuit & structure, incarnated the highest technology
- Wimble pinhole lens
- Installed easily
- Cabinet bulk, especially for concealed place.

Specification

Model	SN-396C	SN-296M
Image Sensor	1/4″ SUPER HAD CCD	1/3″ B/W IT CCD
Signal System	PAL or NTSC Color system	CCIR or EIA B/W system
Scanning System	2:1 Interlace	625 Lines 2:1 interlace
Horizontal resolution	420 Lines	420 TVLines
Effective pixel	PAL:512 (H)×582(V); NTSC:512(H)×494(V)	CCIR:500H)×582(V); EIA:510(H)×492(V)
Electronic Shutter	1/50～1/100,000sec(CCIR), 1/60～1/100,000sec(EIA)	
S/N Ratio	More than 48dB	
Signal Process	Digital Signal Processor	
White Balance	Automatic	
Sensitivity	1.0Lux/F2.0	0.1Lux/F2.0
Gamma Correction	0.45	
Sync. Type	INT	
Output Signal	Standard composite signal 1.0Vp-p,75(Ω)	1.0Vp-p, 75Ohm, sync negative polarity
Lens Option	Pinhole lens, f=3.7,4.3mm Fixed Board Lens f=2.8,3.6,6,8,12mm(Auto IRIS)	
Power Supply	9-15VDC	
Operating Temperature	-10℃ ~ +50℃	
Storage Temperature	-20℃ ~ +60℃	
Operating Humidity	10% ~ 80%	
External Dimensions	Board Lens: Φ24x90mm / Pinhole Lens: Φ23x63mm	
Weight	Board Lens:130g / Pinhole Lens: 80g	

Order guidance

Model	SN-396C/10	SN-296M/10	SN-396C/20	SN-296M/20
Signal system	PAL	CCIR	NTSC	EIA

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SUNELL Mini Camera

SN-494C
Smallest Compact Color Camera
- 1/3" IT CCD, 480TVL
- Minimum illumination 1.0Lux/F2.0
- S/N ratio over 48dB
- AGC, AWB
- Electronic Shutter,1/50-1/100,000sec(PAL), 1/60-1/100,000sec(NTSC)
- Squareness, Cabinet bulk
- Wide range working voltage(9-15VDC)
- Pinhole Lenses & Fixed Board Lens selectable
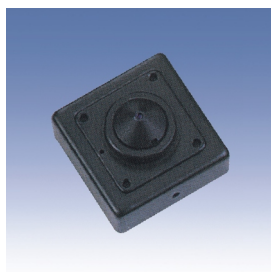
SN-394C
Smallest Compact Color Camera
- 1/4″ IT CCD, 420TVL
- Minimum Illumination 1.0Lux/F2.0
- S/N ratio over 48dB
- AGC ,AWB
- squareness ,Cabinet bulk
- Wide range working voltage(9-15VDC)
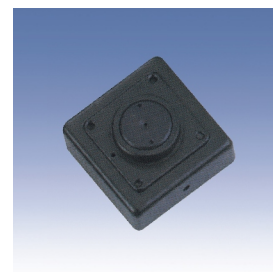
SN-294M
Smallest Compact B/W Camera
- 1/3″ B/W IT CCD,420TVL
- S/N Ratio over 48dB, 0.1LUX/F2.0
- AGC
- Square appearance , Compact-sized
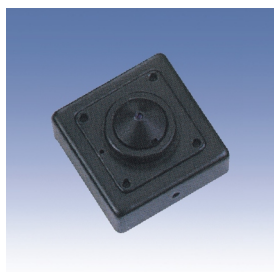- Wide range of input voltage (9-15VDC)

- Exquisite design, precise circuit & structure, incarnated the highest technology
- Wimble pinhole lens
- Installed easily
- Cabinet bulk, especially for concealed place.

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Specification

Model	SN-494C	SN-394C	SN-294M
Image Sensor	1/3″ IT CCD	1/4″ IT CCD	1/3″ B/W IT CCD
Signal System	PAL or NTSC Color system	PAL or NTSC Color system	CCIR or EIA B/W system
Effective pixel	PAL:752(H)X582(V)NTSC :768(H)X494(V)	PAL:512(H)X582(V)NTSC :512(H)X494(V)	CCIR :500(H)X582(V)EIA :510(H)X492(V)
Resolution	480Lines	420 Lines	420Lines
Minimum illumination	1.0Lux/F2.0	1.0Lux/F2.0	0.1Lux/F2.0
S/N Ratio	More than 48dB		
Electronic Shutter	1/50-1/100,000 sec(PAL) 1/60-1/100,000 sec(NTSC)		1/50-1/100,000 sec(CCIR) 1/60-1/100,000 sec(EIA)
White Balance	Automatic		
AGC	Automatic		
BLC	On/Off		Automatic
Mirror	On/Off		
Gamma Correction	0.45		
Sync. Type	Internal		
Output Signal	Standard composite signal 1.0Vp-p,75 Ohm		
Lens Option	Pinhole Lens: f=3.7mm,4.3mm / Fixed board Lens: f=2.8,3.6,6,8,12,16mm		
Power Supply	9-15VDC		
Storage Temperature	-20℃~+60℃		
Operating Humidity	10%~80%		
Operating Temperature	-10℃~+50℃		
External Dimensions	36(W)x35(H) x25(D)mm		
Weight	50g		

Order guidance

Model	SN-494C/10 SN-394C/10	SN-294M/10	SN-494C/20 SN-394C/20	SN-294M/20
Signal system	PAL	CCIR	NTSC	EIA

SN-341C
Smallest Compact Color Camera

- 1/3" IT CCD,420TVL
- S/N ratio over 48dB
- Minimum illumination:0.1Lux/F2.0
- AGC,AWB,ES,BLC
- Squareness, Cabinet bulk
- Pinhole Lens or Fixed board lens selectable
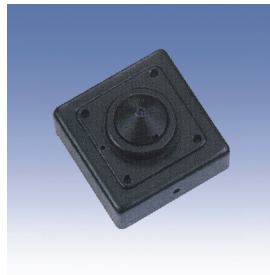
SN-384C
Smallest Compact Color Camera

- 1/4" IT CCD,420TVL
- S/N ratio over 48dB
- Minimum illumination:0.3Lux/F2.0
- AGC,AWB,ES,BLC
- Squareness, Cabinet bulk
- Pinhole Lens or Fixed board lens selectable

- Exquisite design, precise circuit & structure, incarnated the highest technology
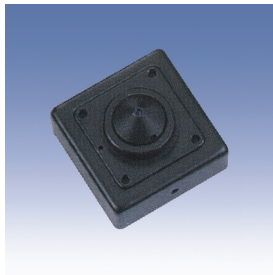- Aluminum structure
- Cabinet bulk, especially for concealed place.

Specification

Model	SN-341C	SN-384C
Image Pick up device	1/3" IT CCD	1/4" IT CCD
Signal system	PAL or NTSC Color system	
No. of Effective Pixels	PAL:500(H)x82(V); NTSC:510(H)x94(V)	
Horizonal Resolution	420TVLines	
Sensitivity	0. 1Lux/F2.0	0.3Lux/F2.0
S/N Ratio	More than 48dB	
Electronic Shutter	1/50-1/100,000sec(PAL),1/60-1/100,000sec(NTSC)	
BLC	ON/OFF	
White Balance	Automatic	
AGC	ON/OFF	
Gamma Correction	0.45	
Sync mode	INT	
Lens	Pinhole Lens:3.7, 4.3mm; Fixed Board Lensf=2.8,3.6, 6, 8,12mm	
Video output	BNC 1.0Vp-p 75 Ohm	
Rated voltage	12VDC	
Consumed Current	120mA(Max)	
Operating Temperature	-10 ℃ ~+50 ℃ RH95%MAX	
Body	Aluminum	
Dimension	36(W) x35(H) x25(D)mm	
Weight	50g	

Order guidance

Model	SN-341C/10 SN-384C/10	SN-341C/20 SN-384C/20
Signal system	PAL	NTSC

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■ SN-390C
Color Water-proof Mini Camera

- 1/4" IT CCD,420TVL 1.0Lux
- S/N ratio over 48dB 、AGC
- Underwater depth≤ 30m
- Brass Body

■ SN-391C/IR Water-proof Color Mini
Camera with IR LED

- 1/4″ IT CCD ,420TVL
- Built-in powerful IR-LED provide high quality picture, can see 10 meters
- Minimum illumination 1.0Lux/F2.0 (Color, LED off), 0Lux（B/W,LED on）
- Automatically switch to B/W mode under low light when illumination under 1～3Lux
- S/N ratio more than 48dB , AGC /BLC
- Brass Body

■ Exquisite design, precise circuit & structure, incarnated the highest technology;
■ Camera (Model No.:SN-391C/IR) with built-in powerful IR-LED, providing high quality picture even in extreme darkness.
■ Cabinet bulk, especially for concealed place.　　■ All-sealed water-proof body, cable length 20m-60m optional.

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Specification

Model	SN-390C	SN-391C/IR
Image Sensor	1/4″ IT CCD	
Signal system	PAL orNTSC Color system	
Effective Pixels	PAL:512H)×582(V); NTSC:512(H)×494(V)	
Resolution	420 TVLines	
Minimum Illumination	1.0Lux/F2.0	1.0Lux/F2.0（LED OFF）; 0Lux (LED ON)
Day/Night Automatically Switch		Illumination < 1～3 Lux/F2.0
S/N Ratio	More than 48dB	
Electronic Shutter	1/50～1/100,000sec(PAL), 1/60～1/100,000sec(NTSC)	
White Balance	Automatic	
AGC /BLC	Automatic	
Mirror	Optional	
Gamma Correction	0.45	
Sync mode	INT	
Lens	Fixed board lens, f=2.8, 3.6, 6, 8, 12mm	
IR-LED		Wave Length:850nm
IR-LED drive		ON:1～3Lux; OFF:5-6Lux
Video Output	1.0Vp-p, 75Ohm, sync negative polarity	
Power Supply	12VDC	
Consumed Current	100mA (MAX)	100mA (MAX)＋100mA (LED ON)
Operating Temperature	-10℃~+50℃ RH95%MAX	
Body	Brass	
Dimension	φ35.5×67(mm)	
Weight	250g	

Order guidance

Model	SN-390C/10	SN-391C/IR/10	SN-390C/20	SN-391C/IR/20
Signal system	PAL		NTSC	

■ **SN-291M Water-proof B/W Mini Camera**

- 1/3″ IT CCD,420TVL
- 0.1Lux/F2.0
- S/N ratio over 48dB
- AGC
- Brass Body

■ **SN-291M / IR Water-proof B/W Mini Camera with IR LED**

- 1/3″ B/W IT CCD,420TVL
- 0.1Lux/F2.0(IR LED OFF),0Lux(IR LED ON)
- S/N ratio 48dB
- AGC
- Brass Body

■ Exquisite desige, precise circuit & structure, incarnated the highest technology ■ ALL-sealed water-proof body
■ The camera (Model No.:SN-291M/IR) with built-in powerful IR-LED, providing high quality picture even in extreme darkness
■ Cabinet bulk, especially for concealed place.

Specification

Model	SN-291M	SN-291M/IR
Image Sensor	1/3″ B/W IT CCD	
Signal system	CCIR or EIA B/W system	
Effective Pixels	CCIR:500(H)×582(V); EIA:510(H)×492(V)	
Resolution	420 TVLines IR-LEDoff IR-LEDon	
Minimum Illumination	0.1Lux/F2.0	0.1Lux/F2.0（LED OFF）; 0Lux (LED ON)
S/N Ratio	More than 48dB	
Electronic Shutter	1/50～1/100,000sec(CCIR), 1/60～1/100,000sec(EIA)	
AGC /BLC	Automatic	
Gamma Correction	0.45	
Sync mode	INT	
Lens	Fixed board lens, f=2.8, 3.6, 6, 8, 12mm	
IR-LED		Wave Length:850nm
IR-LED drive		ON:1～3Lux; OFF:5-6Lux
Video Output	1.0Vp-p, 75Ohm, sync negative polarity	
Power Supply	12VDC	
Consumed Current	100mA (MAX)	100mA (MAX)＋100mA (LED ON)
Operating Temperature	-10℃~+50℃ RH95%MAX	
Body	Brass	
Dimension	Φ35.5x67mm	
Weight	250g	

Order guidance

Model	SN-291M/10	SN-291M/IR/10	SN-291M/20	SN-291M/IR/20
Signal system	CCIR		EIA	

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■ SN-395C Water-proof Color Mini Camera

- 1/4″ IT CCD, 420TVL
- Minimum Illumination 1.0Lux/F2.0
- S/N ratio over 48dB
- AGC ,AWB
- Mirror function optional
- Aluminum Body

■ SN-295M Water-proof B/W Mini Camera

- 1/3″ IT CCD,420TVL
- 0.1Lux/F2.0
- S/N ratio over 48dB
- AGC
- Aluminum Body

■ Exquisite design, precise circuit & structure, incarnated the highest technology

■ ALL-sealed water-proof brass body　　■ Cabinet bulk, especially for concealed place.

Specification

Model	SN-395C	SN-295M
Image Sensor	1/4″ IT CCD	1/3″ IT CCD
Signal system	PAL or NTSC Color system	CCIR or EIA B/W system
Effective Pixels	PAL:512 (H)×582(V); NTSC:512(H)×494(V)	CCIR:500 (H)×582(V); EIA:510(H)×492(V)
Resolution	420 TVLines	420 TVLines
Minimum Illumination	1.0Lux/F2.0	0.1Lux/F2.0
S/N Ratio	More than 48dB	
Electronic Shutter	1/50～1/100,000sec(PAL), 1/60～1/100,000sec(NTSC)	1/50～1/100,000sec(CCIR), 1/60～1/100,000sec(EIA)
White Balance	Automatic	
AGC /BLC	Automatic	
Mirror	Optional	
Gamma Correction	0.45	
Sync mode	INT	
Lens	Fixed board lens, f=2.8, 3.6, 6, 8, 12mm	
Video Output	1.0Vp-p, 75Ohm, sync negative polarity	
Power Supply	12VDC	
Consumed Current	100mA (MAX)	
Operating Temperature	-10℃~+50℃ RH95%MAX	
Body	Aluminum	
Dimension	φ29×90(mm)	
Weight	150g	

Order guidance

Model	SN-395C/10	SN-295M/10	SN-395C/20	SN-295M/20
Signal system	PAL	CCIR	NTSC	EIA

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SN-498C/IR Water-proof Color Mobile Camera with IR LED

- 1/3″ IT Color CCD, 480TVL
- Built-in powerful IR-LED, Provide high quality picture even in extreme darkness
- Max. 3-5 meters working distance with IR-LED On
- 1.0Lux/F2.0（Color，IR LED OFF）, 0Lux（B/W，IR LED ON）
- Automatically switch to B/W mode under low light when Illumination under 1～3Lux
- S/N ratio over 48dB
- AGC, BLC, AWB
- Mirror function optional

SN-398C/IR Water-proof Color Mobile Camera with IR LED

- 1/4″ IT Color CCD, 420TVL
- Built-in powerful IR-LED, Provide high quality picture even in extreme darkness
- Max. 3-5 meters working distance with IR-LED On
- 1.0Lux/F2.0(Color,IR LED OFF)， 0Lux(B/W,IR LED ON）
- Automatically switch to B/W mode under low light when Illumination under 1～3Lux
- S/N ratio over 48dB
- AGC, BLC, AWB
- Mirror function optional

SN-298M/IR Water-proof B/W Mobile Camera with IR LED

- 1/3″ B/W IT CCD, 420TVL
- Built-in powerful IR-LED, Provide high quality picture even in extreme darkness
- Max. 3-5 meters working distance with IR-LED On
- 0.1Lux/F2.0(Color,IR LED OFF)， 0Lux(B/W,IR LED ON）
- IR-LED Automatically switch when Illumination under 1～3Lux
- S/N ratio over 48dB
- Electronic Shutter
- Audio optional

■ Exquisite desige, precise circuit & structure, incarnated the highest technology
■ View-angle cabe adjusted during installation, Sunshield used outdoor
■ Excellent Shock-proof capability, used especially for mobile surveillance

■ Aluminum structure, All-sealed water-proof body, can be used under water

Specification

Model	SN-498C/IR	SN-398C/IR	SN-298M/IR
Image Sensor	PALor NTSC Color System		CCIR or EIA B/W system
Signal system	1/3″ IT CCD	1/4″ IT CCD	1/3″ IT CCD
Effective Pixels	PAL:752(H)X582(V) NTSC:768(H)X494(V)	PAL:512(H)X582(V) NTSC:512(H)X494(V)	CCIR:500(H)X582(V) EIA:510(H)X492(V)
Resolution	480 TVLines	420 TVLines	420 TVLines
Minimum Illumination	1.0Lux/F2.0(LED OFF),0Lux(LED ON)		0.1Lux/F2.0(LED OFF),0Lux(LED ON)
Day/Night Automatically Switch	Illumination < 1～3 Lux/F2.0		
S/N Ratio	More than 48dB		
Electronic Shutter	1/50～1/100,000sec(PAL) 1/60～1/100,000sec(NTSC)		1/50～1/100,000sec(CCIR) 1/60～1/100,000sec(EIA)
White Balance	Automatic		
AGC	Automatic		
BLC	On / Off		Automatic
Mirror	On / Off		
Gamma Correction	0.45		
Sync mode	INT		
Lens	Fixed board lens, f=2.8, 3.6, 6, 8, 12mm		
IR-LED	Wave Length:850nm		
IR-LED drive	ON:1～3Lux; OFF:5～6Lux		
Video Output	1.0Vp-p, 75Ohm, sync negative polarity		
Audio Output	Optional		
Power Supply	12VDC		
Consumed Current	100mA (MAX)＋100mA (LED ON)		100mA (MAX)＋100mA (LED ON)
Operating Temperature	-10℃~+50℃ RH95%MAX		
Body	Polycarbonate		
Dimension	80(L)×54(W)×42(H)mm		
Weight	280 g		

Order guidance

Model	SN-498C/IR/10	SN-398C/IR/10	SN-298M/IR/10	SN-498C/IR/20	SN-398C/IR/20	SN-298M/IR/20
Signal system	PAL		CCIR	NTSC		EIA

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■ SN-386C/IR Water-proof
Color Mobile Camera with IR LED

- 1/3" IT Color CCD, 420TVL
- Built- in powerful IR-LED, Provide high quality picture even in extreme darkness
- Max. 3- 5 meters working distance with IR-LED On
- 1.0Lux/F2.0(IR LED OFF), 0Lux(IR LED ON)
- Automatically switch to B/W mode under low light when Illumination under 1 ~ 3Lux
- S/N ratio over 48dB
- AGC, BLC, AWB

■ SN-388C/IR Water-proof
Color Mobile Camera with IR LED

- 1/4" IT Color CCD, 420TVL
- Built- in powerful IR-LED, Provide high quality picture even in extreme darkness
- Max. 3- 5 meters working distance with IR-LED On
- 1.0Lux/F2.0(IR LED OFF), 0Lux(IR LED ON)
- Automatically switch to B/W mode under low light when Illumination under 1 ~ 3Lux
- S/N ratio over 48dB
- AGC, BLC, AWB
- Mirror function and Audio function optional

■ Exquisite design, precise circuit & structure, incarnated the highest technology
■ Aluminum structure, All-sealed water-proof body, can be used under water
■ View-angle can be adjusted during installation, Sunshield used outdoor
■ Excellent Shock-proof capability, Designed especially for mobile surveillance

Specification

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Model	SN-386C/IR	SN-388C/IR
Image Sensor	1/3 ″ IT CCD	1/4″ IT CCD
Signal system	PAL or NTSC Color system	
Effective Pixels	PAL：500(H) x582(V); NTSC:510(H)x494(V)	
Resolution	420 TVLines	
Minimum Illumination	0.1Lux/F2.0（LED OFF） 0Lux (LED ON)	0.3Lux/F2.0（LED OFF） 0Lux (LED ON)
Day/Night Automatically Switch	Illumination < 1 ～ 3 Lux/F2.0	
S/N Ratio	More than 48dB	
Electronic Shutter	1/50 ～ 1/100,000sec(PAL), 1/60 ～ 1/100,000sec(NTSC)	
White Balance	Automatic	
AGC	On/Off	
BLC	On/Off	
Gamma Correction	0.45	
Sync mode	INT	
Lens	Fixed board lens, f=2.8, 3.6, 6, 8, 12mm	
IR-LED	Wave Length:850nm	
IR-LED drive	ON:1 ～ 3Lux; OFF:5-6Lux	
Video Output	1.0Vp-p, 75Ohm, sync negative polarity	
Power Supply	12VDC	
Consumed Current	120mA (MAX) ＋ 100mA (LED ON)	
Operating Temperature	-10℃ ~+50℃ RH95%MAX	
Body	Polycarbonate	
Dimension	80(L)x54(W) x42(H) (mm)	
Weight	280g	

Order guidance

Model	SN-386C/IR/10 SN-388C/IR/10	SN-386C/IR/20 SN-388C/IR/20
Signal system	PAL	NTSC
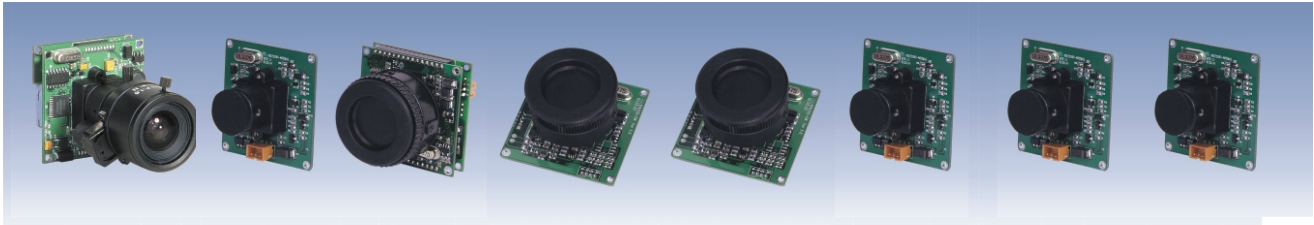
Model	SN-BC281	SN-BC282	SN-BC280	SN-BC285	SN-BC580	SN-BC240	SN-BC220	SN-BC221	SN-BC223	SN-BC230	SN-BC231	SN-BC241
Image Sensor	1/3″ CCD						1/4″ CCD				1/3″ CCD	
Signal system	PAL or NTSC Color system											
Effective Pixels	PAL:752(H)×582(V); NTSC:768(H)×494(V)						PAL:512(H)×582(V);NTSC:512(H)×494(V)		PAL:500(H)×582(V); NTSC:510(H)×494(V)			
Resolution	480 TV Lines				540 TV Lines	420 TV Lines						
Minimum Illumination	0.8Lux/F1.2	0.3Lux/F1.2					0.8Lux/F1.2		0.3Lux/F1.2		0.2Lux/F1.2	
S/N Ratio	≥48dB											
Electronic Shutter	1/50～1/100,000sec(PAL); 1/60～1/100,000sec(NTSC)											
White Balance	Automatic						ON/OFF	Automatic		ON/OFF		Automatic
AGC	Automatic									ON/OFF		
BLC		ON/OFF	ON / OFF									
Mirror		ON/OFF	ON / OFF									
Gamma Correction	0.45											
Sync mode	INT											
Lens	C& CS mount lens：f=4, 6, 8, 12, 16mm; Fixed board lens, f=2.8, 3.6, 6, 8, 12mm											
Video Output	1.0Vp-p, 75 Ohm, sync negative polarity											
Power Supply	DC 12V Regulated											
Consumed Current (MAX)	120mA 160mA140mA200mA 110mA											
Operating Temperature	-10℃~+50℃，RH95%MAX											
Dimension(mm)	42×42	32×32	42×42			42×42	32×32	32×32	38×38	38×38		32×32

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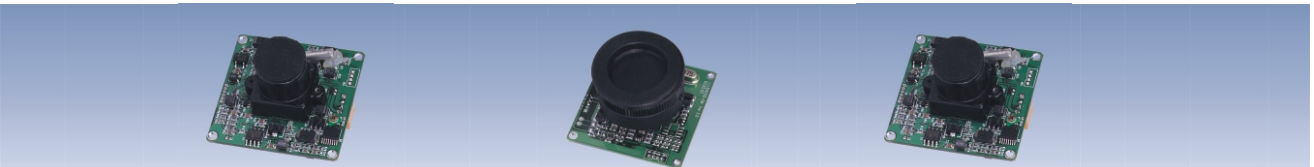
Model	SN-BM170	SN-BM103	SN-BM101
Image Sensor	1/3″ CCD	1/3″ CCD	
Signal system	CCIR or EIA B/W system		
Effective Pixels	CCIR:752(H)×582(V); EIA:768(H)×494(V)	CCIR:500(H)×582(V); EIA:510(H)×492(V)	
Resolution	570 TV Lines	420 TV Lines	
Minimum Illumination	0.04Lux/F1.2	0.1Lux/F1.2	
S/N Ratio	≥48dB		
Electronic Shutter	1/50～1/100,000sec(CCIR); 1/60～1/100,000sec(EIA)		
AGC	Automatic		
BLC	Automatic		
Gamma Correction	0.45		
Sync mode	INT		
Lens	C& CS mount lens：f=4, 6, 8, 12, 16mm; Fixed board lens：f=2.8, 3.6, 6, 8, 12mm		
Video Output	1.0Vp-p, 75 Ohm, sync negative polarity		
Power Supply	DC 12V Regulated		
Consumed Current	150mA (MAX)	100mA (MAX)	
Operating Temperature	-10℃~+50℃，RH95%MAX		
Dimension	42×42mm	38×38mm	32×32mm

Model	SN-DBC1500	SN-DBC1500R	SN-DBC1600	SN-DBC2500
Image Sensor	1/3″ PIXIM DPS			
Signal system	Compatible PAL and NTSC Color system			
Effective Pixels	PAL:720(H)×480(V); NTSC:720(H)×480(V)			
Resolution	Horizontal Resolution：480 TVL; Vertical Resolution: 400 TVL	Horizontal Resolution：504 TVL (up to 540TVL via setting); Vertical Resolution: 400 TVL		
Minimum Illumination	0.5Lux/F1.2;0.08Lux/F1.2（Slow Shutter）	0.5Lux/F1.2；0.08Lux/F1.2（Slow Shutter）		
Dynamic Range	101dB Typical，120dB maximum			
S/N Ratio	≥48dB			
Control Method	OSD Function Control (Optional)			
Electronic Shutter	Automatic			
White Balance	Automatic			
AGC	Automatic			
BLC	Automatic			
Gamma Correction	0.45			
Sync mode	INT			
Lens	Fixed board lens, f=2.8, 3.6, 6, 8, 12mm; Vari-focal DC Auto-iris Lens, f=2.6～6mm, 4～9mm			
Video Output	1.0Vp-p, 75 Ohm, sync negative polarity		No	1.0Vp-p, 75 Ohm, sync negative polarity
ITU656 Output	No		Yes	Yes
Power Supply	DC 12V Regulated			
Power Consumption	4.5W(MAX)			
Operating Temperature	-10℃~+50℃，RH95%MAX			
Dimension(mm)	38x38			
Remark	Dual board			

■ SN-ADR1004/1008/1016
  4/8/16 Channels MPEG-4 Real-time Digital Recording System

■ Vweb Pure Hardware MPEG-4 Compressed Chip enhance picture quality

■ Accredited the Highest Reliable Real-time Operation System— Vxworks

■ Professional industrial grade high speed CPU

Main Characteristics

- Adopted high speed industrial-grade stand-alone digital signal processor and RTOS (Vxworks), free from virus and instability, fast startup, system parameters save in FLASH, prevent from losing while power off.
- Adopt pure Hardware MPEG-4 compression/decompression chip, more reliability and stability
- High resolution, DVD image quality, from CIF to D1 image format supported, fixed and Variable bit rate optional.
- Display/Record simultaneously with Audio/Video, record separately by each channel and the highest frame up to 25 f/s/CH, frame rate adjustable.
- Built-in 4 IDE interfaces, connect up to 8 great volume HDDs, meet to record for long time and great volume.
- Unique recording management technology, supply convenient and fast recording data searches.
- Userfriendly graphical interface, Chinese menu optional, each channel status display provided.
- Strong Network function, remote display/record/playback simultaneously supported.
- Support remote management control function, realize centralized surveillance
- VGA Video output optional
- Act as Network Video Sever when without HDD connected.
- GSM message alarm module optional
- 802.11 wireless network optional
- RS485 interface optional for control functions of pan/tilt and lens
- USB backup and network backup function
- IR remote control supported.
- Ideal choice for guard surveillance system upgrade.

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System configuration
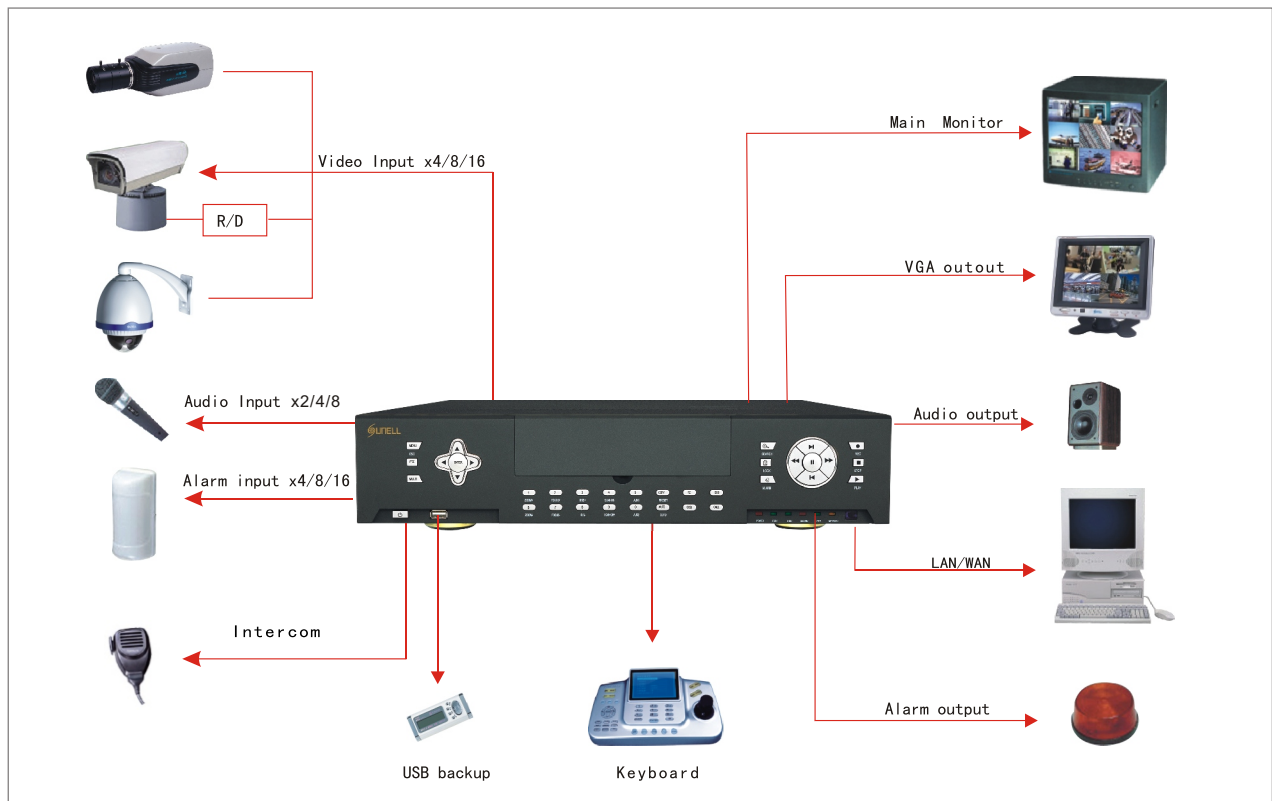
Function Description

System Mode
- Adopted high speed industrial-grade stand-alone digital signal processor and RTOS (Vxworks), free from virus and instability, fast startup, and all the system parameters save in FLASH, prevent from losing while power off.
- Unique modularized design, ease for using and maintenance

Compression
- Pure hardware MPEG-4 Audio/Video Code/decode Adopted pure hardware compression/decompression chip, non-DSP compression processor, higher stability.
- Fixed and flexible bit rate optional.

Display
- 4/8/16 channel Video input, 2/4/8 channels Audio input, 1 channel Audio/Video output.
- Full screen, Automatic switch, 4/8/16 channels displaying, 25f/s(PAL), 30f/s(NTSC) display each channel, realtime, no time lapse.
- Brightness, contrast, hue, saturation and crisp of each camera adjustable
- Each channel title can be set, up to 10 characters for each channel
- VGA Video output optional

Recording
- 4/8/16 channel Audio/Video simultaneous record/display.
- High resolution DVD image quality, from CIF to D1 recording format supported, user-defined image quality supported, fixed and Variable bit rate optional.
- Display/Record simultaneously with Audio/Video, up to 25 f/s/ch(PAL),30 f/s/ch(NTSC) frame rate adjustable.
- Manual Recording, Schedule Recording, Alarm Recording, Motion Detection Recording and Pro-Alarm Recording etc modes provided.
- Recording quality adjustable, 5 level standard image quality and 3 level user-defined image quality optional.
- Power-on recording function supported.

Motion Detection
- Max.192 detection zones adjustable for each channel
- Detection sensitivity adjustable for each channel

Storage
- Built-in 4 IDE interfaces, up to 8 great volume HDDs can be connected
- Meet ATA-6 criterion, recording data on the HDD can be played directly through PC.
- Recording lock function supported, overwrite and stop recording when the HDD is fully occupied.
- Recording power-off protection function supported, automatically re-stared recording when power on.
- Non-working HDD stand-by mode, reduce the heat and power consumption and extend the life-span of HDD.

Search
- By time, date, channel No. Searching function supported.
- By Alarm event searching function supported.

Playback
- Simultaneously Recording/playback
- FF, REW, Pause, Prev, Play, Mute function supported.

Watermark
- Add information such as time, date, channel No., and special marks on video image against forge, ensuring uniqueness and credibility.

Pan/Tilt
- RS485 bi-direction communication interfaces, multiple Pan/Tilt control protocols supported.)
- Pan/Tilt preset function supported.
- Pan/Tilt speed adjustable function supported.

Alarm
- 4/8/16 channels alarm input, 2 channels alarm output.
- Alarm output type set and alarm output time adjustable
- Manually stop alarm.

Network
- 10/100M Ethernet network to realize remote real time surveillance.
- Network remote control software to realize centralized management.
- Network Timing Protocol function provided
- Remote recording data searching and playing through network function
- Pan/tilt and Lens can be controlled through network
- Network bi-direction intercom function provided.
- Embedded web server, connect ADR through IE browser directly

Security Management
- Several levels password for access authority of different users different operation, system log.

User Interface
- Multiple languages operation platform and friendly graphical interface provided
- Detailed display of system running status display provided.
- Panel operation and IR remote controller provided.

Backup
- Backup through Network
- Backup through USB2.0 high speed data interface

Communication Interface
- RS232 interface, ATM, POS system connection available, data storage and search available (optional function).
- RS422 interface for master control keyboard, realize centralized management and control.
- Interface for PC, easy for system maintenance and upgrade.

Others function
- Community with GPRS, realize image transmit, mobile phone message alarm and control (optional)
- 802.11 wireless network transmit for wireless network management and control function (optional).

Specification

Model	SN-ADR1004	SN-ADR1008	SN-ADR1016
Video input	4 Channels, PAL/NTS (1.0Vp-p, 75 Ohm)	8 Channels, PAL/NTSC (1.0Vp-p, 75 Ohm)	16 Channels, PAL/NTSC (1.0Vp-p, 75 Ohm)
Audio input	2 channels, BNC	4 channels, BNC	8 channels, BNC
Video output	1 channels, BNC（PAL/ NTSC 1.0Vp-p，75Ω），1 channels VGA Video output（optional）		
Audio output	1 channel, BNC		
Bi-direction intercom input	1 channel, BNC		
Bi-direction intercom Output	1 channel, BNC		
Audio/Video Compression	Pure hardware MPEG-4		
Display Mode	Full screen, 4 channels displaying,	Full screen, 4 channels, 8 channels displaying,	Full screen, 4 channels, 9 channels, 16 channels displaying,
Recording Resolution	Single channel：CIF；Quad：D1；DVD image quality		
Surveillance	25f/s/channel（PAL），30 f/s/channel（NTSC），complete real-time, no time lapse		
Recording Rate	Max.:25f/s/channel（PAL），30 f/s/channel（NTSC），frame rate adjustable		
Alarm Input	4 channels alarm signal input	8 channels alarm signal input	16 channels alarm signal input
Alarm Output	2 Channels relay output(N.O or N.C)		
Recording image Quality	5 level standard image quality and 3 level user-defined image quality optional.		
Recording Mode	Manual, Continuous, schedule, event, motion detection and pre-event recording		
Motion Detection	Each channel up to 192 detection zones，sensitivity adjustable		
HDD Type	Built-in 4 IDE interfaces, up to 8 great volume 3.5″ HDDs can be connected, Meet ATA-6 criterion		
Function	Flexible searching function Alarm event Log Recording files locked Manual urgently recording function Network Timing protocol(NTP) and DST function Watermark function(Information such as time, date, channel No etc.)		
Network Connectivity	10/100M Ethernet transmitted function Supported，TCP/IP. IE browse support		
Backup	1)Backup through USB2.0 high speed data interface 2)Backup through Network 3)HDD Backup：Master-Slave HDD data backup, recording data on the HDD can be play directly through PC		
Control Function	Front-panel or IR remote controller（optional）		
RS232 Interface	Yes		
Wireless	GPRS function（optional）		
Communication	802.11 wireless network transmit function（optional）		
Power Supply	110/ 220VAC，50/60Hz		
Power Consumption	35W（Not including HDDs）		
Operation Temperature	0℃～+50℃；RH 90%(MAX.)		
Dimension	440(W)×100(H)×340(D)mm	440(W)×100(H)×510(D)mm	
Weight	4.5Kg	9Kg	

ADR Series Real-time Digital Recording System

- **SN-ADR400/600/900**
  4/6/9 Channels MPEG-4 Real-time Digital Recording System
- **SN-ADR400/ATM**
  4 Channels MPEG-4 Real-time Digital Recording System for ATM

- Vweb Pure Hardware MPEG-4 Compressed Chip enhance picture quality

- Accredited the Highest Reliable Real-time Operation System Vxworks

- Professional industrial grade high speed CPU

Main Characteristics

- Adopted high speed industrial-grade stand-alone digital signal processor and RTOS (Vxworks), free from virus and instability, fast startup, system parameters save in FLASH, prevent from losing while power off.
- Adopt pure hardware MPEG-4 compression/decompression chip, more reliability and stability
- High resolution, DVD image quality, from CIF to half-D1 image format supported, fixed and Variable bit rate optional.
- Display/Record simultaneously with Audio/Video, record separately by each channel and the highest frame up to 25 f/s/CH(PAL), 30 f/s/CH(NTSC), frame rate adjustable.
- Built-in 8 IDE interfaces, connect up to 16 great volume HDDs, meet to record for long time and great volume.
- Unique recording management technology, supply convenient and fast recording data searches.
- Friendly graphical user interface, Chinese/English menu optional, each channel status display provided.
- Strong Network function, remote display/record/playback simultaneously supported.
- Support remote management control function, realize centralized surveillance
- Main monitor, Call monitor output supported
- VGA Video output optional
- Act as Network Video Sever when without HDD connected.
- USB backup and network backup function
- IR remote control supported.
- Ideal upgrading choice for Banks and other industry operating system.

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System configuration
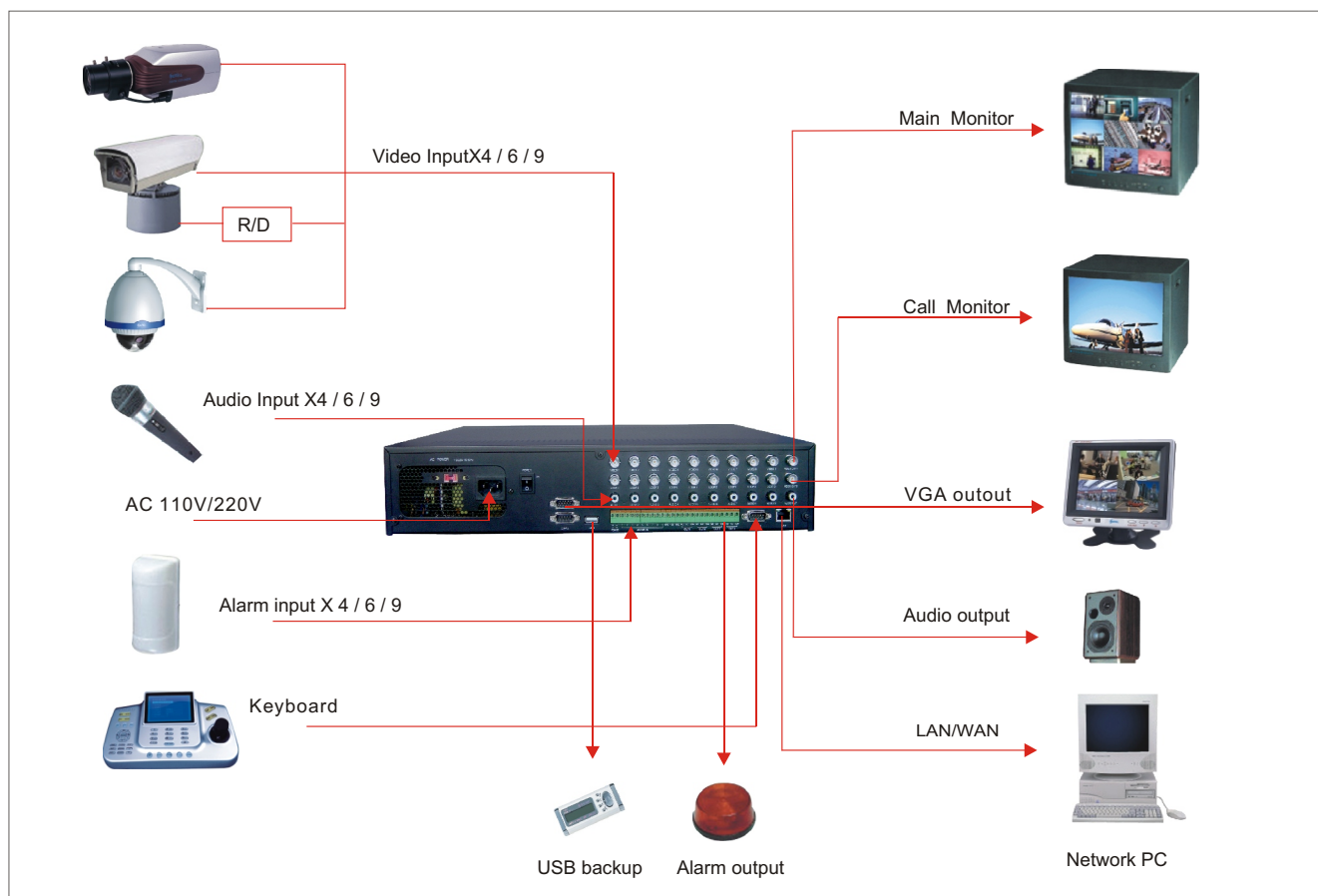
Functions

System Mode
- High technical grade, special high speed stand-alone digital signal processor and RTOS (Vxworks), complete stand-alone, thoroughly secure from virus and instability problem of PC-base;
- Unique modularization design, system operation more stable, more easy for maintenance. Compress method
- Complete hardware MPEG-4 compression/un-compression chip, Non-DSP process, higher stability;
- Video and audio synch compression by each channel separately.
- Compression fixed byte and Variable byte optional;

Display
- 4/6/9 channels audio and video input, Main/Call monitor output;
- Main monitor support 1 channel, 4 channels, 6 channels, 9 channels image display format, 25f/s(PAL), 30 f/s(NTSC) display per channel. Complete real-time, no time lapse;
- Call monitor can output the image of each camera and alarm separately or by looping.
- Support automatically image switch and image freeze each channel;
- Image position, hue, saturation and brightness dynamically adjustable ;
- Dynamically set each channel name Maximum input 10 character;
- VGA video output optional;

Recording
- 4,6,9 Channels Audio/Video Simultaneous Recording
- High resolution DVD image quality, Half D1 record format, fixed and Variable bit rate optional;
- Display/record simultaneously with audio and video, record separately by each channel and the highest frame up to 25f/s/ ch(PAL), 30 f/s/ ch(NTSC), frame rate adjustable;
- Manual Recording, schedule Recording, Alarm Recording and Motion Detection Recording modes.
- Recording quality adjustable, 6 levels selectable;
- Power-on recording function supported

Motion Detection
- Max. 192 detection zones on each channel;
- 1~99 level detection sensitivity adjustable for each channel.

Stored
- Meet ATA-6 criterion, max. support 16 HDD,
- Overwrite and stop recording function after NO space of HDD
- Spare HDD standby mode, reduce the heat and power consumption and extend the life-span of HDD.

Search
- By time, date, channel No.
- On Event search function supported

Playback
- 1 Channel local playback supported;
- FF, REW, Pause. Prev. next, jump play, audio mute function

Watermark function
- Add information such as time, date, channel number and special marks to recorded files against forge, ensuring their uniqueness and credibility.

Pan/Tilt function
- RS485, Multiple PTZ control protocols;
- Pan/tilt preset function;
- Pan/tilt speed adjustable;

Alarm function
- 4,6,9 Channels Alarm Input, 4 Channels Alarm Output
- Alarm input type selectable and Alarm Output time adjustable
- Manually stop alarm

Network function
- 10/100M Ethernet transmitted function;
- With Network Remote Control software, Provide configured and monitored/record/backup function
- Research and playback function through network
- Control PTZ function through Network
- Built-in web server, IE browse
- Acted as Network Sever when without HDD

Security Management
- 3 levels password control, distinguish management access of different users Log

User Interface

- userfriendly Graphical interface;
- Detail display of system running status
- Front Panel and remote controller;
- Network Remote Control software

Backup

- Record data backup via network
- Record data backup by USB
- Connect and playback HDD with backup data to PC

Communication interface

- Master control keyboard connection, realize centralized control;
- PC COM connection, easy for system maintenance and upgrade

Additional Functions of SN-ADR400/ATM

- Card-Insertion Triggered Record Function
- Bank Card Number record function
- Communications function between ATM and DVR
  1) ATM stop working at Video-lose on DVR; resume at Video retrieval.
  2) ATM stop working at DVR malfunction; resume when DVR malfunction problem solved.
  3)Timing function: timing command from ATM at any moment to synchronize time of DVR and
  ATM. Updated time effects immediately after timing. However, if such timing happens during file recording period, original
  file time would not be effected.
- Card Number display during playback.
- Simultaneously backup: slaver HDD simultaneous backup, to protect data in Main HDD.

Specification

	SN-ADR400	SN-ADR600	SN-ADR900
Video input	4 Channels PAL/NTSC, BNC(1.0Vp-p,75 Ohm)	6 Channels PAL/NTSC, BNC(1.0Vp-p,75 Ohm)	9 Channels PAL/NTSC, BNC(1.0Vp-p,75 Ohm)
Video output	Main monitor, support 1 channel, 4 channels, 6 channel, 9 channel image display format		
	Call monitor, each camera and alarm picture can be displayed		
	VGA video output optional, support 1 channel, 4 channel, 6 channel, 9 channel image display format		
Audio output	4 Channels, 8dB, 22K, RCA	6 Channels, 8dB, 22K, RCA	9 Channels, 8dB, 22K, RCA
Video Compression	MPEG-4		
Recording Resolution	352x76(PAL) /352x80(NTSC)		
Alarm input	4 Channels(N.O)	6 Channels(N.O)	9 Channels(N.O)
Alarm output	4 Channels(N.O or N.C)		
Video display	Full, Quad, 6, 9 for live and playback		
Video loss Detection	Yes		
Ethernet	RJ45 connections for network communications		
Event log	Yes		
Hard Disk Storage	3.5" IDE interface, Up to 16 HDD, FAT32 Format		
Recording Mode	Continuous, schedule, event, motion detection and pre-event recording		
Recording Rate Playback Rate	Up to 30/25 pictures per second for NTSC/PAL Up to 30/25 pictures per second for NTSC/PAL		
Playback search	By time, Channel No., alarm event		
Motion Detection	Each channel up to 192 detection zones		
Setup	On Screen display setup		
User Interface	Menu driven		
Operation System	Real time operation system(Vxworks)		
User Input Device	Front pannel keypad or remote controller(optional)		
Timer	Built-in real time clock		
Watch Dog Timer	Yes		
RS-232	9-pin female connector		
RS485	Three Conductor terminal block		
Backup Device	1) USB Backup 2) Network Backup		
Dimension	440mm(W)x100mm(H)x510mm(D) {ADR400/ATM: 440(W)x100(H)x340(D)mm }		
Operating Temperature	0℃～+50℃		
Power Consumption	80W		
Power Source	110/220 VAC, 60/50Hz		
Weight	Approx. 9Kg(without HDD){ ADR400/ATM: 6.4Kg }		

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■ **SN-QDR1104**
4 Channel Stand-alone Digital
Video Recorder

- Stand-alone system, single chip design, no operation system, high capability and stability.
- Adopt hardware compression technique(M-JPEG),support high image quality.
- Real-time monitor resolution：PAL：720×576，NTSC：720×480；
  record resolution : PAL：640×272，NTSC：640×224；
- Double record mode optional (Each & Quad mode)
- 4 channels Video&1 channel Audio real-time monitor and record.
- PAL/NTSC selectable.
- 2 large capacity HDDs could be connected and one is removable. SATA HDD supported(Optional)
- Easy and convenient data search, search via time while playback.
- 4 channel Alarm input, 1 channel Alarm output.
- Manual/Schedule /Motion detect/Alarm record selectable.
- Power-off Protection of records, Automatic resume when power on.
- Connect HDD with Recorded data playback and backup through special software on the PC
- Easy to install and operate.
- Cost-effective, high capability.
- Designed for widely surveillance applicant such as small marketplace factory, warehouse, gasstation, building, family, etc.

System configuration

60
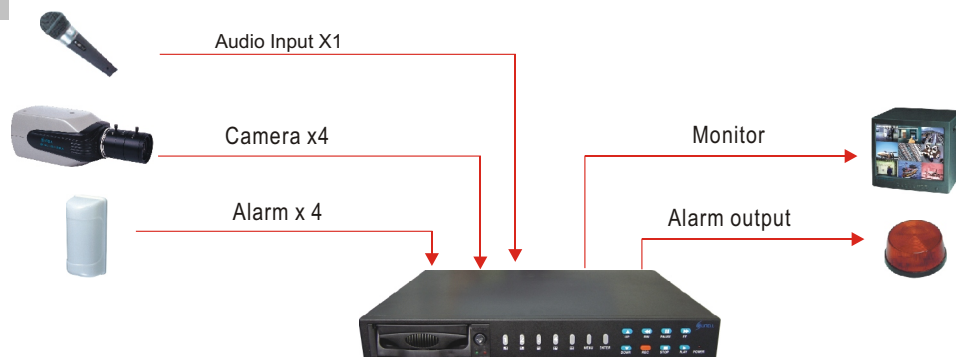
Specification

ITEM	SN-QDR1104
Video System	PAL/NTSC
Video Input	4 Channels, BNC(1.0p-p75 Ohm)
Video Output	2 Channels PAL/NTSC，BNC (1.0Vpp 75 Ohm)
Audio Input	1 Channel, RCA(8dB，22K)
Audio Output	1 Channel ,RCA(8dB，22K)
Compression mode	M-JPEG(5-20K bytes/frame)
Display Format	Full screen,2x2.
Display speed	100 f/s(PAL),120f/s(NTSC), complete real time
Display resolution	PAL:720x576; NTSC:720x480
Record Speed	Quad Mode:1-25 f/s(PAL,Quad);1-30 f/s(NTSC,Quad)
	Each Mode:1-6.5 f/s(PAL,Quad);1-7.5 f/s(NTSC,Quad)
Record Resolution	Quad Mode:320x136 (PAL); 320x112(NTSC)
	Each Mode:640x224 (PAL); 640x272 (NTSC)
Record image quality	High、Normal、Low 3 grade image quality selectable
Record Mode	Continuous/Schedule/Motion detect/Alarm record selectable
Record Search	Quick search by time
Safety function	Password protection function
Users Interface	OSD Screen Setup
HDD Storage	Connect up to 2HDDs, one is Removable,SATAHDD supported
Motion Detection	detection zones and detection sensitivity adjustable
Alarm Input	4 channels alarm input(NO/NC)
Alarm output	1 channel alarm output
Power Source	AC90-230V,50Hz/60Hz
Power consumption	25W
Operation	-10℃--+50℃,RH95%
Dimension	440(L)×60(H)×322(D)mm
Weight	Approx 4Kg (without HDD)

MDR3000 Series

MDR5000 Series

MDR4000 Series

Real-time Monitor	Black Box	GPS	Wireless network	Advertisment Playback Enterainment
• Audio/video real-time monitor /record synch. • USB backup supported.	• Monitor/ record vehicle speed and moving status • Support over-speed Alarm	• GPS function supported	• Support WLAN/CDMA/GPRS	• Advertisement/ Movie intervene play function;
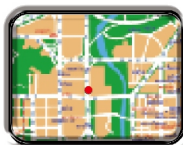
Main Functions

Main Characteristics

System Mode
● Adopted high speed industrial-grade stand-alone digital signal processor and RTOS(Vxworks), free from virus and instability, excellent stability and reliability. ● Unique modularized design, ease for using and maintenance

Compression
● Pure hardware MPEG-4 Audio/Video Code/decode, non-DSP compression processor, higher stability.
● Fixed and flexible bit rate optional

Display
● 2/4 channels Video input, 2channels audio input, 1 channel Audio/Video output.
● Support Full screen, Automatic switch, 2 channels, 4 channels display etc, 25f/s(PAL), 30f/s(NTSC) display speed for each channel, complete real-time, no time lapse.
● Brightness, contrast, hue, saturation and crisp of each camera adjustable. Unique image mirror function, surveillance function while reversing.
● Title(up to 10 characters) for each channel can be set. ● Built-in 7" In-dash lip-out TFT LCD Monitor(SN-MDR3202/3204)
● In addition to display live and playback images of the MDR ,the LCD Monitor can also receive Radio and TV signal, up to 99 channel . The built-in Audio Amplifier can drive speakers in the vehicle directly SN-MDR3202/3204).

Recording
● 1/4 channel Audio/Video simultaneous record/display.
● High resolution DVD image quality, from CIF to D1 recording resolution, user-defined image quality supported, fixed and flexible bit rate optional.
● Display/Record simultaneously with Audio/Video, Max. up to 25 f/s/ch (PAL), 30 f/s/ch (NTSC), frame rate adjustable.
● Manual Recording in emergency, Schedule Recording, Alarm Recording, Motion Detection Recording and Pro-alarm Recording etc modes provided.
● Recording quality adjustable, 5 levels standard image quality and 3 levels user-defined image quality optional.
● Power-on automatically recording function.

Motion Detection
- Max.192 detection zones at each channel
- Detection sensitivity adjustable at each channel

Storage
- Removable HDD design, 3.5" /2.5" HDD optional
- Meet ATA-6 criterion play, recording data on the HDD through PC.
- Recorded file lock function, overwrite and stop recording when HDD is fully occupied.
- Recording power-off protection function , automatically resume recording when power on again.
- Non-working HDD stand-by mode, reduce heat and power consumption and extend the life-span of HDD.

Search
- By time, date, channel No.
- By Alarm event

Playback
- Recording/playback simultaneously supported.
- FF, REW, Pause, Prev, Play, Mute Audio function supported.

Watermark
- Add information such as time, date, channel No., and special marks on video image to against forge, ensuring their uniqueness and credibility.

Pan/Tilt
- RS422 bi-directly communication interfaces, multiple Pan/Tilt control protocols.
- Pan/Tilt preset function.

Alarm
- 4 channels alarm signal input, 2 channels alarm output.
- Alarm output type and alarm output time adjustable
- Stop alarm manually available.

Network
- 10/100M Ethernet network function to realize remote real time surveillance.
- Network remote control software to realize centralized management.
- Network timing protocol function, can keep the same time to multiple MDR.
- Search and play recording data through network.
- Pan/tilt and Lens controlling via network
- Bi-directly intercom through network
- Embedded web server, connect MDR through IE browser directly

Security Management
- Several levels password for access authority of different users different operation, system log.

User Interface
- Multiple languages operation platform and user friendly graphical interface.
- Detailed display of system running status.
- IR remote controller or wired keypad controller(optional).

Backup
- Network backup function.
- Backup through USB2.0 high speed data interface

Moving Status
- Vehicle sensor Black-box function, can record the moving status such as turning right, turning left, brake, reverse etc.
- Speed of vehicle can be collected, displayed and calibrated.
- Over speed alarm function.
- Shut down delay (0-60 Min's adjustable) function, can record continuously for a certain period of time after vehicle shut down.
- Route and car license plate number can be input and recorded.

Mobile Entertaining
- Using assigned HDD zone to save high resolution entertaining program, simultaneous record/playback available.
- Entertaining programs can be arranged random, manual playback, continuous playback, resume playback after stop or MDR re-stared, timing advertisement inserting etc.

Mechanical Configuration
- Special double shock absorption structure for rack and HDD brace, unique HDD protected against shock and vibration.
- Built-in heater and temperature controller(Optional)

Power Supply
- Wide power input range, 10-40VDC/40-80VDC optional.
- 1 2VDC/5A power outlet for connected camera.

Others
- GPS function, greater travelling security for vehicle(optional).
- GPRS function, realize image transmission, mobile phone alarm message (optional).
- 802.11 wireless network transmission supported, realize the network management and control function(optional).
- Ultra-thin design(thickness:1DIN),can be installed in control panel of vehicle（SN-MDR3104/MDR3204）

Attractive Application
1、Long-distance Luxury bus, City Luxury bus, passenger car pre-installation
2、Special vehicle: Container truck, prison van, Police wagon, Military vehicle
3、Train, Plane etc which have special need for security

MDR Core Tech.

Processor and operation system
· Adopted high speed industrial-grade stand-alone digital signal processor and RTOS(Vxworks),excellent stability and reliability

Compression
· Adopt pure hardware MPEG-4 Audio/Video encode/decode chipset
· Non-DSP compression processor, higher stability

Moving Status Recording
· Vehicle sensor Black-box function, can record moving status such as turning right, turning left, brake, reverse etc.
· Speed of vehicle can be collected, displayed and calibrated.
· Shut down delay (time adjustable) function, can record continuously for a certain period of time after shut down.
· Input and record the route and car license plate number.

Mobile Entertaining
· HDD save/play high resolution and image quality DVD entertaining program while recording.
· Available to set programs random, real time play, manual play, replay, stop and play continuously, timing advertisement inserting etc.

Alarm Function
· Alarm input and output function
· Alarm output linking sound and light annunciator
· Transmit alarm information and status to management center

Security Management
· Multi-levels password control for access authority of different users flexibly, different operation, system log
· To realize operator's ID validation via only ID No. from video surveillance equipment.

GPS Function
· GPS Function ,enhance security of running.
· Superposition GPS information on image, can be saved and searched independent as a database.

Wireless Transmission
· Wireless transmission function ,transmitted images can be played remotely on Surveillance management center
· GPS data, alarm information are transmitted to surveillance management center.
· Remote control stop at emergency available.

Patented Mechanical shock-absorption system design
· MDR Video surveillance equipment has special designed structure/HDD double shock-absorption, to protect HDD against shock and vibration.

Patented Power Management System
· Wide voltage input
· 12V/5A power output, available for 4 cameras, 2 units LCD monitors same time.
· Perfect security: short-circuit protection, Low-Voltage protection, High-voltage protection and over-currency protection

Temperature Applicability
· Built-in temperature sensor, alarm at emergency when temperature exceeds the set value .
· Built-in heater and temperature controller, available to work normally at low temperature.

Central Management

Functions :

1、 Available to track all vehicles' running any time on electrical map, and watch surveillance images of any vehicle；and will shoot out the alarm info. on computer automatically while any vehicle alarming.

2、 Route , license plate, location and speed of running vehicle can be shown on electrical map.

3、 When there is important thing and emergency or security's need, surveillance center can cut off power a petrol via remote control to stop concerned vehicle on force, and vehicle can run continuously after handling situation and release from password.

4、 It's available to playback start and stop point, track, time and image of vehicle.

Vehicle with MDR product

Integrated Management Platform software

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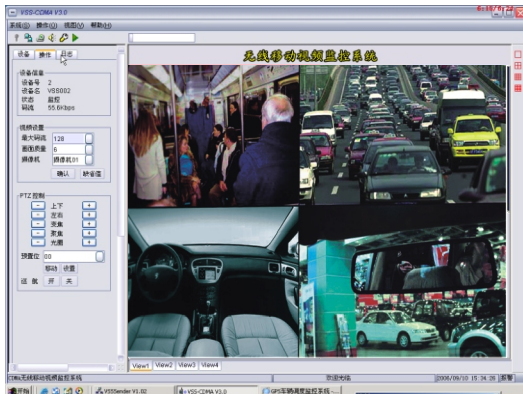
Surveillance Interface
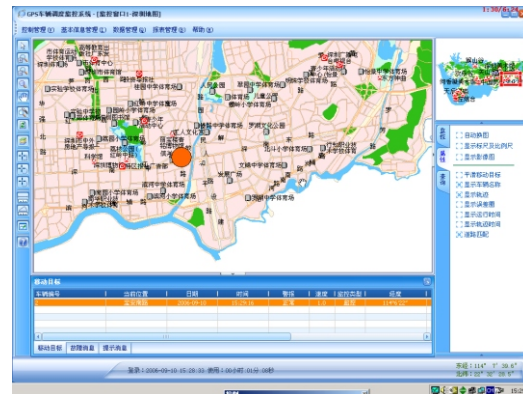
GPS Interface
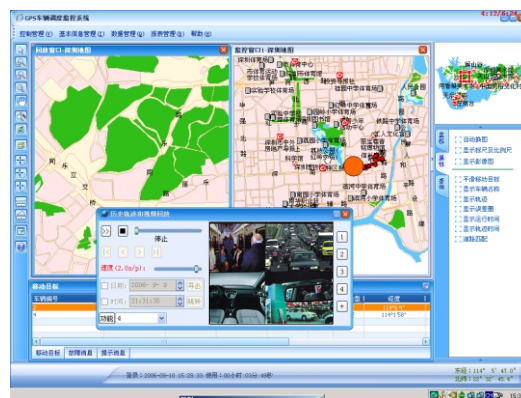
Running Track Interface

System configu
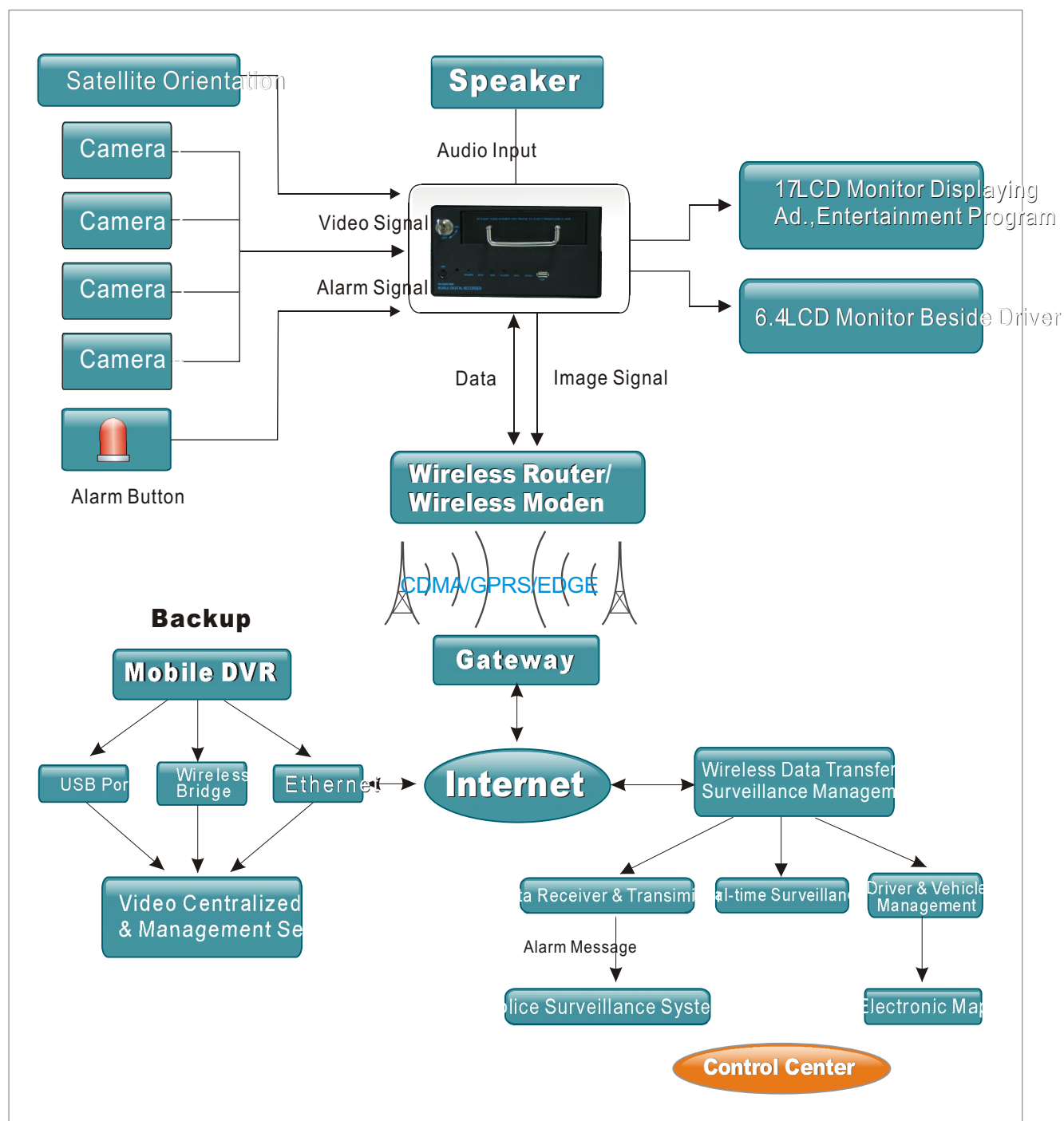
No.	Item	Model	Usage
1	GPS Module	SN-GPS100	Receive GPS position coordinate data to overlap on the images.
2	Wired control Pannl	SN-CC20	Control MDR functions via wire
3	USB HDD Case	SN-USB100	Input/Output files in Mobile HDD Recording System by USB HD Case.
4	Mobile HDD USB Converter	SN-USB200	Connect the Mobile recorder with PC via USB Converter

Accessories List (o

MDR3000 Serie

SN-MDR3102/3104   SN-MDR3002/3004   SN-MDR3202/3204

2/4 Channels MDR HDD INFORMATION MANAGEMENT SYSTEM

1、Stand-alone real time operation system (Vxwork)
2、3D User Graphical Interface, easy to operate
3、Network remote control and management function
4、Shut down delay (time adjustable) record
5、Unique surveillance function while reversing
6、Special designed, Anti-Vibration and shock
7、USB, HDD and Network Backup

8、Wide power supply
9、Remote IR Control, Flexible installation
10、Vehicle sensor function (Black box)
11、Entertaining Programs
12、GPS function (optional)
13、Wireless network transmission (optional)

Front panel function configuration

HDD power switch lock
Specially designed, HDD hot swappable

Front A/V output
Connect the surveillance equipment directly to the front panel

IR remote receiver
Operate the MDR by IR remote controller

Removable HDD holder
Removable HDD holder design, easy for users. Support both 3.5" & 2.5" HDD

Anti-shock cushion
Case and HDD with special double shock-absorption design

USB Backup

Status indicator light
Indicate the working status of power, operation, HDD, alarm, easy to see the status of the system operation

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Back panel function configuration

GPS
Remote vehicle positioning and wireless transmission of pictures

Alarm input/output
Supply four groups of alarm input, two groups of alarm output

DC 12V power output
Power outlet for other equipments connecting

Mobile power input plug
Support 12V/24V DC power supply

IR remote
Easy for the direct operarion of MDR from remote distance

Lan port

USB

Moving status sensor
Black box function, connect with vehicle sensor record the moving status accurately

Camera
Video Input x4

Monitor

Audio Output

Audio Intput x2

Intercom

MDR3000 Series
2/4 Channels MDR HDD INFORMATION MANAGEMENT SYSTEM

Specification

Model	MDR3002/3004	MDR3102/3104	MDR3202/3204
Video Input	2/4 channels BNC Video Input(PAL/NTSC,1.0VP-P,75Ω)., B/W & Color Compatible		
Audio Input	2 channels BNCAudioinput.		
Video Output	PAL/ NTSC 1.0Vp-p，75Ω,1 channel BNCVideooutpu t		Throughthe Built-in 7" In-Dash Flip-out TFT LCD Monitor
Audio Amplifier output			Built-in Audio Amplifier (30W×4),can drive thespeake rs of thevehicledirect ly
Audio output	1 channel Audio output		
Two-way intercom input	1 channel BNCAudioinput		
Two-way intercom output	I channel BNC Audio output		
Audio/Video Compression Format	Pure Hardware MPEG-4		
Display Mode	FullScreen ,2 channels(SN-MDR3002/MDR31 02/MDR32 02); FullScreen , 4 channels(SN-MDR3004/MDR31 04/MDR32 04)		
Record Resolution	2 channels: HalfD1/ch ; DVDimagequalit y, 4 channels: CIF/ch;DVD image quality		
Record frame rate	25 f/s/ch(Pal), 30 f/s/ch(NTSC),		
Record	Max.:25f/s/channel (PAL), 30 f/s/channel (NTSC), frame rate adjustable		
Alarm Input	4 channels alarm signal input		
Alarm Output	2 Channels relay output(N.O or N.C)		
Picture quality	5 level standardimag e quality and3 level user-definedimagequalit y optional.		
Record Mode	Manual,Contin uous, schedule, event, motiondetecti on andpre-ev entrecord ing		
Motion Detection	Each channel up to 192detect ionzones，sensitivity adjustable		
Removable HDD	Harddisk host-swapping，3.5″ &2.5″ HDDselect able	Harddisk host-swapping，2.5″ HDD	
Function	● Easyto SearchRecordFile ● Signof Alarm Event Recordingfiles locked Manualurgentl y recording function ● Uniquesurveilla ncefunctio n while reversingthe vehicle● Shutdowndelay(0-60 Min's adjustable)recordin g function ● NetworkTimingprotoc ol(NTP)andDST function● Watermarkfunctio n(Information suchas time, date, channel Noetc.) ● Licenseplate andtravelPath displaying andrecord ing		
Network Interface	10/100 M RJ45，TCP/IP Protocol, IE Brower supported		
Backup function	1) Backupthroug h USB2.0 highspeeddata interface 2) Backupthroug h Network 3) HDDBacku p：Recording data on the swapable HDDcan be playdirect ly throughPC		
Control Function	IR remote controller or wired keypad (optional)		
Camera Power	12VDC/1.5A for connected camera		
Vehicle status signal (Black box function)	Brake—B Stop—S Warning—W Left—L Right—R A, Z—Aux. input VehicleSpeedcalibra tionfunctio n，Km/h or Mile/h selectable, over speed alarm function		
Mobile Entertaining	Yes		
GPS Function	GPSfunctio n (Optional)		
Wireless Communication	● GPRS function(Optional) ● 802.11 wirelessnetwor k transmission（Optional）		
Mechanical Configuration	● Shock resistantstructu re of rack ● Shock resistantstructu re of HDDbrace		
Power Supply	10～30VDC，60～90VDC(option al)	10～30VDC	10～15VDC
Power Consumption	25W（MAX）		160W（MAX）
Temperature	Work Temperature：-30℃-+50℃；humidity：< 90%		
Dimension	335（W）×130（H）×305（D）mm	235（W）×60（H）×310（D）mm	235（W）×105（H）×305（D）
Weight	6.5Kg	3.5Kg	6.5Kg

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※ All data subuect to change without notice ※

MDR4000 Series

2/4 Channels Mini MDR HDD INFORMATION MANAGEMENT SYSTEM

MDR4000 series are the miniaturization products optimized on the basis of MDR3004 series, the height is suitable for need of installation on vehicle (1 DISH standard). It is optimized on basis of keeping the original excellent characteristics of MDR3004, and supply wider power input (7-32VDC), strong output current 5A/DC12V, to strengthen control and management to power. PCMCIA extent interface supplied to make function extent conveniently (wireless network card, storage card, ID recognised card etc), work temperature -10℃～+80℃ suitable bad vehicle condition.

Front panel function configuration

Removable HDD holder
Removable HDD holder design, easy for users. Support both 3.5" & 2.5" HDD

Lan port

USB

Status indicator light
Indicate the working status of power, operation, HDD, alarm, easy to see the status of the system operation

HDD power switch lock
Specially designed, HDD hot swappable

Front A/V output
Connect the surveillance equipment directly to the front panel

PCMCIA
Wireless Network Card
Storage Card
ID recognizing Card

Back panel function configuration

GPS
Remote vehicle positioning and wireless transmission of pictures

Alarm input/output
Supply four groups of alarm input, two groups of alarm output

IR remote receiver
Operate the MDR by IR remote controller

Audio Intput x2

Mobile power input plug
Support 12V/24V DC power supply

Moving status sensor
Black box function, connect with vehicle sensor record the moving status accurately

Camera
Video Input x4

Monitor

Audio Output

Cooler

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MDR4000 Series

2/4 Channel Mini MDR HDD INFORMATION MANAGEMENT SYSTEM

Specification

Model	SN-MDR4000/21	SN-MDR4000/41
Video Input	2 channels Video Input（PAL/ NTSC 1.0Vp-p，75Ω），B/W & Color Compatible	4 channels Video Input（PAL/ NTSC 1.0Vp-p，75Ω），B/W & Color Compatible
Audio Input	2 channels Audio input	
Video Output	1 channel Video output（PAL/ NTSC 1.0Vp-p，75Ω）+ 1 channel A/V output + 1 channel VGA output	
Audio output	1 channel Audio output	
Bi-direction intercom input	1 channel Audioinput	
Bi-direction intercom Output	1 channel Audio output	
Video Compression Format	Pure Hardware MPEG-4	
Display Mode	Full Screen,2 channels	Full Screen,4 channels
Record Resolution	From chCIF/ch to D1/ch Supported	
Monitor frame rate	25 f/s/ch(Pal), 30 f/s/ch(NTSC)	
Recording frame rate	25 f/s/ch(Pal), 30 f/s/ch(NTSC)，frame rate adjustable	
Alarm Input	4 channels alarm signal input	
Alarm Output	2 Channels relay output(N.O or N.C)	
Recording Picture quality	5 level standard image quality and 3 level user-defined image quality optional	
Record Mode	Manual, Continuous, schedule, event, motion detection and pre-event recording	
Motion Detection	Each channel up to 192 detection zones, sensitivity adjustable	
Removable HDD	2.5″ Hard disk host-swapping	
Function	1）Easy to Search 2）Record FileSign of Alarm 3) EventRecording files locked 4）Manual urgently recording function 5）Reverse car surveillance function 6）Shut down delay (0-60 mins adjustable) function 7）Network Timing protocol(NTP)and DST function 8）Watermark function(Information such as time, date, channel No etc.) License plate and travel Path displaying and recording	
Network Interface	10/100 M RJ45,TCP/IP Protocol, IE Brower supported	
Backup function	1）Backup through USB2.0 high speed data interface 2）Backup through Network 3）HDD Backup:Master-Slave HDD data backup, recording data on the HDD can be play directly through PC	
Control Function	IR remote controller or wired keypad(optional)	
Camera Power	12VDC/5A for connected camera, LCD Monitor etc.	
Vehicle status signal	Brake—B Stop—S Warning—W Left—L Right—R A、Z—Aux. Input	
(Black box function)	Vehicle Speed calibration function, Km/h or Mile/h selectable	
Mobile Entertaining	yes	
PCMCIA extent insert slot	For wireless network card, storage card, ID recognizing card etc.	
GPS Function	GPS function(Optional)	
Wireless Communication	GPRS/ CDMAfunction(Optional) 802.11 wireless network transmission(Optional)	
Mechanical Configuration	Shock resistant structure of rack Shock resistant structure of HDD brace	
Power Supply	7~32VDC	
Power Consumption	80W（MAX）	
Temperature	Work Temperature:-10℃-+80℃；humidity:< 90%	
Dimension	181(W) x 52 (H) x 200 (D)mm	

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MDR5000 Series

8/16Channels MDR HDD INFORMATION MANAGEMENT SYSTEM

MDR5000 series are a kind of 5 in 1 MDR HDD INFORMATION MANAGEMENT
SYSTEM with 8/16 channels video input, available for application on vehicle. Power input period
7-32VDC, output currency is 5A /DC12V, to strengthen power intelligent control and management.
Operating temperature -10℃～+80℃ to suit worse vehicle condition.

Front panel function configuration

HDD power switch lock
Specially designed, HDD hot swappable

Front A/V output
Connect the surveillance equipment
directly to the front panel

IR remote receiver
Operate the MDR by IR remote controller

Removable HDD holder
Removable HDD holder design,
easy for users. Support both 3.5"
& 2.5" HDD

Status indicator light
Indicate the working status of
power, operation, HDD, alarm,
easy to see the status of the
system operation

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Back panel function configuration

Mobile power input plug
Support 12V/24V DC power supply

Camera
Dc/2V power output

IR remote
Easy for the direct operarion of
MDR from remote distance

Audio Output

Monitor

Camera
Video input x8/16

Audio Intput
Video input x2/4

Intercom

USB backup device

Lan port

Moving status sensor
Black box function, connect with
vehicle sensor record the moving
status accurately

GPS
Remote vehicle positioning and
wireless transmission of pictures

Alarm input/output
Supply four groups of alarm input,
two groups of alarm output

MDR5000 Series

8/16 Channels MDR HDD INFORMATION MANAGEMENT SYSTEM

Specification

Model	SN-MDR5008	SN-MDR5016
Video Input	8channels Video Input (PAL/ NTSC 1.0Vp-p，75Ω）, B/W & Color Compatible	16 channels Video Input (PAL/ NTSC 1.0Vp-p，75Ω）, B/W & Color Compatible
Audio Input	2 channels Audio input	4channels Audio input
Video Output	1 channel Video output（PAL/ NTSC 1.0Vp-p，75Ω）+ 1 channel A/V output + 1 channel VGA output	
Audio output	1 channel Audio output	
Bi-direction intercom input	1 channel Audio input（optional）	
Bi-direction intercom Output	1 channel Audio output（optional）	
Video Compression Format	Pure Hardware MPEG-4	
Display Mode	Full Screen,4 channels，8channels	Full Screen,4 /8/16channels
Record Resolution	From CIF/ch to D1/ch supported	
Monitor frame rate	25 f/s/ch(Pal), 30 f/s/ch(NTSC)	
Recording frame rate	25 f/s/ch(Pal), 30 f/s/ch(NTSC)，frame rate adjustable	
Alarm Input	8 channels alarm signal input	16 channels alarm signal input
Alarm Output	4 Channels relay output(N.O or N.C)	
Recording Picture quality	5 level standard image quality and 3 level user-defined image quality optional	
Record Mode	Manual, Continuous, schedule, event, motion detection and pre-event recording	
Motion Detection	Each channel up to 192 detection zones, sensitivity adjustable	
Removable HDD	2.5″ or 3.5″ Hard disk，host-swapping	
Function	1) Easy to Search Record File 2) Sign of Alarm Event 3) Recording files locked 4)Reverse car surveillance functionShut down delay (0-60 mins adjustable) function 5) Network Timing protocol(NTP)and DST function 6) Manual urgently recording function 7) Watermark function(Information such as time, date, channel No etc.) 8) License plate and travel Path displaying and recording	
Network Interface	10/100 M RJ45,TCP/IP Protocol, IE Brower supported	
Backup function	1）Backup through USB2.0 high speed data interface 2）Backup through Network 3）HDD Backup:Master-Slave HDD data backup, recording data on the HDD can be play directly through PC	
Control Function	IR remote controller or wired keypad(optional)	
Camera Power	12VDC/5A for connected camera, LCD Monitor etc.	
Vehicle status signal	Brake—B Stop—S Warning—W Left—L Right—RA、Z—Aux. input	
(Black box function)	Vehicle Speed calibration function, Km/h or Mile/h selectable	
Mobile Entertaining	yes	
GPS Function	GPS function(Optional)	
Wireless Communication	GPRS/ CDMAfunction(Optional) 802.11 wireless network transmission(Optional)	
Mechanical Configuration	Shock resistant structure of rack Shock resistant structure of HDD brace	
Power Supply	7～32VDC	
Power Consumption	80W（MAX）	
Temperature	Work Temperature:-10℃-+80℃；humidity:< 90%	

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Board Lens

Model No	Format	Focus(mm)	Back focus (mm)	Aperture	Angle of view(HOR)
SN-BL2520	1/3"	2.5	5.05	2.0	130°
SN-BL2820	1/3"	2.8	6.34	2.0	120°
SN-BL3622	1/3"	3.6	6.0	2.2	95°
SN-BL0624	1/3"	6	8.69	2.4	56°
SN-BL0820	1/3"	8	5.40	2.0	50°
SN-BL1230	1/3"	12	8.38	3.0	30°
SN-BL2566	1/3"	25	20.4	6.6	20°

Fixed-Iris Lens

Model No	Focus(mm)	Aperture	Mount	Format	Angle of view(HOR)	M.O.D(m)	Weight(g)
SN-TF0256	2.5	1.6	CS	1/3"	107.1°	0.2	36
SN-TF0286	2.8	1.6	CS	1/3"	95.6°	0.15	53
SN-TF0416	4.0	1.6	CS	1/3"	70.6°	0.1	51
SN-TF0616	6.0	1.6	CS	1/3"	48.1°	0.1	54
SN-TF0816	8.0	1.6	CS	1/3"	33.4°	0.1	59
SN-TF1216	12.0	1.6	CS	1/3"	22.1°	0.1	42
SN-TF1616	16.0	1.6	CS	1/3"	17.1°	0.1	47
SN-TF2514	25.0	1.4	CS	1/3"	20.0°	0.3	67

Manual-Iris Lens

Model No	Focus(mm)	Aperture	Mount	Format	Angle of view(HOR)	M.O.D(m)	Weight(g)
SN-TM0284	2.8	1.4-C	CS	1/3"	95.6°	0.15	81
SN-TM0412	4.0	1.2-C	CS	1/3"	70.6°	0.1	72
SN-TM0612	6.0	1.2-C	CS	1/3"	48.6°	0.1	70
SN-TM0812	8.0	1.2-C	CS	1/3"	36.5°	0.1	74
SN-TM1214	12.0	1.4-C	CS	1/3"	22.1°	0.2	58

Manual Zoom Lens

Model No	Focus(mm)	Aperture	Mount	Format	Angle of view(HOR)	M.O.D(m)	Weight(g)
SN-TZ0358	3.5-8.0	1.4-360	CS	1/3"	81.9°-35°	0.1	106
SN-TZ0615	6.0-15	1.4-360	CS	1/3"	48.1°-18.6°	0.1	125
SN-TZ1230	12-30	1.6-360	CS	1/3"	21.9°-9.6°	0.2	123
SN-TZ0660	6.0-60	1.6-360	CS	1/3"	49.3°-4.7°	0.2	171
SN-TZ05100	5.0-100	1.8-360	CS	1/3"	50.1°-2.8°	0.2	258

Manual Zoom &Auto-Iris Lens

Model No	Focus(mm)	Aperture	Mount	Format	Angle of view(HOR)	M.O.D(m)	Weight(g)	Note
SN-TGZ02812	2.8-12	1.4-360	CS	1/3"	95.6°-22.1°	0.1	156	DD
SN-TGZ02812A	2.8-12	1.4-360	CS	1/3"	95.6°-22.1°	0.1	156	VD
SN-TGZ0358	3.5-8.0	1.4-360	CS	1/3"	81.9°-35°	0.1	104	DD
SN-TGZ0358A	3.5-8.0	1.4-360	CS	1/3"	81.9°-35°	0.1	104	VD
SN-TGZ0615	6.0-15	1.4-360	CS	1/3"	48.1°-18.6°	0.1	133	DD
SN-TGZ0615A	6.0-15	1.4-360	CS	1/3"	48.1°-18.6°	0.1	133	VD
SN-TGZ1230	12-30	1.6-360	CS	1/3"	21.9°-9.6°	0.2	128	DD
SN-TGZ1230A	12-30	1.6-360	CS	1/3"	21.9°-9.6°	0.2	128	VD
SN-TGZ0660	6.0-60	1.6-360	CS	1/3"	49.3°-4.7°	0.2	167	DD
SN-TGZ0660A	6.0-60	1.6-360	CS	1/3"	49.3°-4.7°	0.2	167	VD
SN-TGZ05100	5.0-100	1.8-360	CS	1/3"	50.1°-2.8°	0.2	242	DD
SN-TGZ05100A	5.0-100	1.8-360	CS	1/3"	50.1°-2.8°	0.2	242	VD

Auto-Iris Lens

Model No	Focus(mm)	Aperture	Mount	Format	Angle of view(HOR)	M.O.D(m)	Weight(g)	Note
SN-TG0284	2.8	1.4	CS	1/3"	95.6°	0.15	82	DD
SN-TG0284A	2.8	1.4	CS	1/3"	95.6°	0.15	82	VD
SN-TG0412	4.0	1.2	CS	1/3"	70.6°	0.1	84	DD
SN-TG0412A	4.0	1.2	CS	1/3"	70.6°	0.1	84	VD
SN-TG0612	6.0	1.2	CS	1/3"	48.1°	0.1	76	DD
SN-TG0612A	6.0	1.2	CS	1/3"	48.1°	0.1	76	VD
SN-TG0812	8.0	1.2	CS	1/3"	36.5°	0.1	69	DD
SN-TG0812A	8.0	1.2	CS	1/3"	36.5°	0.1	69	VD
SN-TG1214	12.0	1.4	CS	1/3"	22.1°	0.1	71	DD
SN-TG1214A	12.0	1.4	CS	1/3"	22.1°	0.1	71	VD

SN-BM1410 14" B/W Monitor

- 14 ″ Flat Square Tube
- Center Resolution Over 800 Lines
- CCIR/EIA Automatic Selectable
- 1 Channel Audio In/Out; RCA Jack x2
- Power Source: AC117/220V:50/60HZ
- Power consumption: 30 W
- Dimension: 315(W)x315(D)x305(H)mm

SN-BM1700 17" B/W Monitor

- 17 ″ Flat Square Tube
- Resolution :1000 Lines
- Power Source: AC96-256V
- Power consumption:40 W
- Dimension: 420(W)x400(D)x400(H)mm

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SN-BM 2000 20" B/W Monitor

- 20 ″ Flat Square Tube
- Resolution :1000 Lines
- Power Source: AC96-256V
- Power consumption:48 W
- Dimension: 463(W)x385(D)x436(H)mm

SN-CM1400 14" Color Monitor

- 14" Flat Square Tube
- Resolution Over 450 Lines
- NTSC/PAL Automatic Selectable
- Black electric level expansion circuits & image definition enhance circuits to improve
- contrast and sharpness
- 2 Channel Audio In/Out: RCA Jack x 4;
- Power Source: AC100-250V,50/60HZ;
- Power consumption:60W;
- Heavy-duty Metal Cabinet
- Dimension:343(W)x319(D)x380(H)mm.

SN-CM1510
15" High Resolution Color Monitor

- 15" color tube with vivid color and clear images
- Resolution: 720TV lines, NTSC/PAL automatic selectable
- Video In/Out: Video A/B
- Audio In/Out: 75Ω HI-Z auto terminating.
- on-screen menus: either in Chinese or English.
- Max Power Source: AC 100~240V, 50Hz/60Hz
- Power Consumption: 75W
- Dimensions: 362(W)X375(D)X340(H)mm
- Weight: 14.5kg

SN-CM2120
21 Flat Square High Resolution Color Monitor

- 21″ color flat Square tube with vivid color and clear images
- Horizontal resolution up to 600 TV lines
- The latest I2C bus control circuit, Black level stretch circuits and image definition enhance circuits are incorporated to improve the contrast and sharpness of pictures
- Monitor allows for input of two composite video and one Y/C separate video，with two audio signals inputs, all manually selective
- 75 Ω Auto-termination function for two composite video
- Chinese or English Menu selectable

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Specification

Model		SN-CM1510	SN-CM2120
Picture Tube	Tube	15"	21"
	Phosphor	P22	P22
	In-line	0.28mm stripe	0.48mm stripe
	Deflection	90° angle	90° angle
Horizontal Resolution		More than 720 lines	More than 600 lines
Scanning System		NTSC/PAL automatic selectable	
Video In/Out	Composite A/B	NTSC/PAL composite Video:1.0V p-p X2	
	S-VHS	Y signal=1 Vp-p C signal=0.285 Vp-p	
Audio In/Out		300mvrms/2W	
Connector		Video A/B IN/OUT:BNC connector X4 Auto termination Y/C IN/OUT:　mini Din 4-pin connector X2 auto termination Audio IN/OUT:RCA phone connector x 4	
Linearity		Horizontal:10% max, Vertical:10% max	Horizontal:10% max, Vertical:10% max
Ambient Temperature		0℃～+40℃	
Ambient Humidity		10%～90%	
Power Source		AC100-240AC,50Hz/60Hz(Universal Power)	
Power Consumption		75w	80W
Dimensions(mm)		362(w)X 375(H)X373(D)	490(w)X 442(H)X478(D)
Weight		14.5kg	27.5Kg

■ **SN-LCD660 6.6 High Light, High Resolution LCD Monitor**

- 6.6″ High Light,High Resolution TFT-LCD Monitor
- Back Light: Cold Cathode Fluorescent Lamp
- Lightness, color, contrast adjustable
- Light and portability, elegant appearance, suit for family and car useness, especially for sub-surveillance

■ **SN-LCD710 7"High Light,High Resolution Mobile Sunshield LCD Monitor**

- 7″ High Light,High Resolution TFT-LCD Monitor
- Back Light: Cold Cathode Fluorescent Lamp
- Lightness, color, contrast adjustable
- Light and portability, elegant appearance
- Sun-shield panel design, can be easily installed and operated in vehicles

■ **SN-LCD701 In-Dash Fully-automatic TFT LCD Monitor**

- 7" In-Dash Fully-automatic TFT LCD Monitor
- Full-function remote control
- Built-In power amplifier
- Built-In TV and Ratio Receiver
- Can be installed in control panel of vehicle, special suitable to use with the Mobile Digital Video Recording System

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Specification

Model		SN-LCD 660	SN-LCD 710	SN-LCD 701
Display Screen	Size	6.6" (135x99mm)	7"(165x102mm)	7" (155x88mm)
	Element		TFT LCD	
	Format	960(W)x240(H)	800(W)x480(H)	234(W)x480(H)
Backlight		Cold cathode fluorescent lamp		
Power Supply		12VDC		10.5 -14VDC
Audio Input		N/A		Approx. 400mV
Audio Output		N/A		25/40 W
Radio Reception Frequency		N/A		AM 531 - 1620 KHZ(Step: 9K) AM 530 - 1710 KHZ(Step: 10K) FM 87.5 - 108 MHZ
TV Reception Frequency		N/A		45.25 - 863.25 MHZ
TV Reception System		N/A		PAL B/G,B/K,I,or NTSC 4.5 MHZ
Video Input		1 channel,1 V_{P-P},75 Ohm	2 channel,1 V_{P-P},75 Ohm	1 channel,1 V_{P-P},75 Ohm
TV Channel Storing		N/A		99
Radio Channel Storing		N/A		99
Operation temperature		+5 --+40		
Storage temperature		-20 --+60		
Dimension (WxDxH)		172x131x35.5mm	360x138x21mm	178x168x50mm
Net Weight		0.5Kg	0.76Kg	2.8Kg

■ SN-400PC 4 Channel Color Quad Processor

- Super High Resolution Broadcast Quality 768 512, 16 million true color
- Connect up to 4 cameras, 4 channel real-time display, 50 field/s for displaying and recording
- Brightness, Contrast and Color adjustable for each camera
- Live or Tape Playback include full screen, PIP, 2x2,and 2 Digital Zoom Function
- Moniting and freeze full screen quadrant picture in live and playback display optional.
- Quad line color optional
- Built-in timer, title generator and buzzer alarm.
- Motion detection is available for 4 channels simultaneously, sensitivity adjustable
- Video Loss Detection
- OSD Menu Set Up

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Specification

Model	SN-400PC
Signal System	PAL or NTSC System
Resolution	768(H)×512(V)
Display Speed	50 Field/Sec
Video Input	4 Camera＋1VCR, 1.0Vp-p/ 75 Ohm
Video Out	1 Monitor＋1 VCR, 1.0Vp-p/ 75 Ohm
Video Loss Detection	Yes
Motion Detection	Yes
Alarm Input	4 Alarm Input
Alarm Out	1 NO, 1 NC Relay Output
Buzzer	Yes
Title	Yes
Timer	Built-in Real Time Clock
Setup	OSD Set up
Power Source	DC12/1A
Operation Temperature	-10℃～+50℃ RH95%(MAX)
Dimension	210(W)×200(D)×44(H) mm
Weight	1.2kg

■ **SN-RX110 Receiver & Driver**

■ **SN-RX220 Receiver & Driver**

■ SN-RX110/SN-RX220 Receiver & Driver is mainly used to control lens of camera and Pan/Tilt in surveillance system, available for indoor/Outdoor Pan/tilts Motorized Zoom lens and spot lights, DC12V/AC24V power source for camera supplied. Main feature as follows:

- All directions Pan/Tilt and automatic function controlable.
- Positive and negative control voltage for lens optional
- Most Digital Video Recorder compatible
- Assistant relay output

- Compatible with Pelco, VICON and Kalatel etc keyboard
- Lens aperture, focus and zoom controllable
- Light and rain-brush in scene controllable

Advantages:

- Adopt digital tube display(SN-RX110) or DIP switch(SN-RX220)to select protocol and baud rate ,easily operation. Avoid effectively dialing the code by mistake. Address, protocol and baud rate resetting needn't switch off the decoder.
- Status memory function. Can resume the original status automatically after decode switch off or microprocessor restart.
- Up/down and left/right lock each other for Pan/Tilt control. For example: while the Pan/Tilt move upside, the relay for down switch off, ie, only one relay works for moving up and down, ensure the Pan/Tilt from damage.
- The protection function for lens setting, ie, while misconnection or over current, can protect the lens and decodes from damage.
- Two kinds of rain brush controlling: relay output and power supply output.

Specification

Model	SN-RX110	SN-RX220
Supply Power	220/230VAC±10%,50/60HZ	
Power consumption	45W	
Pan/Tilt Drive	220VAC/1A;24VAC/1.2A（through DIP switch）	
Lens Drive	±6V、±9V、±12V（select through jumper）	
Camera Supply Power	12VDC/700mA,24VAC/250mA（two power supply outputs）	
Communication Connection Mode	RS232/RS485	RS485
Bits Rate	1200bps、2400bps、4800bps、9600bps、19200bps（through DIP switch）	
Compatible Protocol	PALCO_D、PALCO_P、VICON、KALATEL-312（through DIP switch）	
Address Range	1～64	
Manual Test Function	Yes	No
Dimension	70mmx165mmx270mm（HxW×L）	
Material	Iron Shell	
Operation Temperature	-10℃～60℃	
Operation Humidity	90%	

■SN−CH201A   SN−CH201B

Type	Indoor mounting
Materials	Alloy Aluminum
Color of surface	Silver white
View-windows size	80　L　x63　W　mm
Outside dimension	295　L　x105　W　x88　H　mm
Inside dimension	253　L　x92　W　x72　H　mm

■SN−CH301L   SN−CH301M   SN−CH301S

Type	Indoor/Outdoor mounting
Materials	Alloy Aluminum
Color of surface	Silver grey
Outside dimension	SN-CH301L: 390　L　X110　W　X100　H　mm SN-CH301M: 340　L　X110　W　X100　H　mm SN-CH301S: 260　L　X110　W　X100　H　mm
Inside dimension	SN-CH301L:270　L　X70　W　X60　H　mm SN-CH301M: 220　L　X70　W　X60　H　mm SN-CH301S: 140　L　X70　W　X60　H　mm
View-windows size	63　L　X58　W　mm
Enclosure Protection	IP66
Input Voltage	12VDC/24VAC/110VAC/220VAC
Temperature controlling	Heater: ON:15　3　　OFF: 25　3
Weight	SN-CH301L: 1200g SN-CH301M: 1100g SN-CH301S: 736g
Package	15pcs/case 15pcs/case 15pcs/case

■SN−CH302   SN−CH302HF

Type	Indoor/Outdoor mounting	
Materials	Alloy Aluminum	
Color of surface	Light white	
Outside dimension	SN-CH302: 390　L　x142　W　x15　H　mm SN-CH302HF: 310　L　x 142　W　x115　H　mm	
Inside dimension	SN-CH302: 300　L　x05　W　x80　H　mm SN-CH302HF: 220　L　x 105　W　x80　H　mm	
View-windows size	74　L　x63　W　mm	
Enclosure Protection	IP66	
Input Voltage	12VDC/24VAC/110VAC/220VAC	
Temperature controlling for SN-CH302HF only	Heater ON:15　3 OFF: 25　3	Fan ON:35　3 OFF: 25　3
Weight	SH-CH302:1488g SH-CH302HF:1290g	
Package	15pcs/case 15pcs/case 20pcs/case	

■SN−CH303   SN−CH303HF

Type	Indoor/Outdoor mounting	
Materials	Alloy Aluminum	
Color of surface	Light white	
Outside dimension	375　L　x125　W　x126　H　mm	
Inside dimension	SN-CH303: 300　L　x90　W　x60　H　mm SN-CH303HF: 220　L　x90　W　x60　H　mm	
View-windows size	76　L　x66　W　mm	
Input Voltage	12VDC/24VAC/110VAC/220VAC	
Temperature controlling for SN-CH303HF only	Heater ON:15　3 OFF: 2515　3	Fan ON:3515　3 OFF: 2515　3
Enclosure Protection	Ip66	
Weight	1196g	
Package	8pcs/case	

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■ SN−CH304　SN−CH304H

Type	Indoor/Outdoor mounting	
Materials	Alloy Aluminum	
Color of surface	Light white	
Outside dimension	410　L　x120　W　x108　H　mm	
Inside dimension	SN-CH304: 260　L　x70　W　x60　H　mm	
	SN-CH304H: 260　L　x70　W　x60　H　mm	
View-windows size	64　L　x53　W　mm	
Input Voltage	12VDC/24VAC/110VAC/220VAC	
Temperature controlling	Heater	Fan
for SN-CH304HF only	ON:15　3	ON:35　3
	OFF: 25　3	OFF: 25　3
Enclosure Protection	IP66	
Weight	1600g	
Package	10pcs/case	

■ SN−CH305　SN−CH305HF

Type	Indoor/Outdoor mounting	
Materials	Alloy Aluminum	
Color of surface	Light white	
Outside dimension	400（L）x140（W）x112（H）mm	
Inside dimension	SN-CH305: 300（L）x80（W）x80（H）mm	
	SN-CH305HF: 240（L）x80（W）x80（H）mm	
View-windows size	∅72mm	
Input Voltage	12VDC/24VAC/110VAC/220VAC	
Temperature controlling	Heater	Fan
for SN-CH305HF only	ON:15℃±3℃	ON:35℃±3℃
	OFF: 25℃±3℃	OFF: 25℃±3℃
Enclosure Protection	IP66	
Weight	1532g	
Package	8pcs/case	

■ SN−CH306　SN−CH306HF

Type	Indoor/Outdoor mounting	
Materials	ABS	
Color of surface	Light white	
Outside dimension	400（L）x178（W）x158（H）mm	
Inside dimension	SN-CH306:230（L）x90（W）x75（H）mm	
	SN-CH306HF: 230（L）x90（W）x75（H）mm	
View-windows size	∅82mm	
Input Voltage	12VDC/24VAC/110VAC/220VAC	
Temperature controlling,	Heater	Fan
for SN-CH306HF only	ON:15℃±3℃	ON:35℃±3℃
	OFF: 25℃±3℃	OFF: 25℃±3℃
Enclosure Protection	IP66	
Weight	1532g	
Package	8pcs/case	

■ **SN-CH100VP Vandal Proof Dome Case**

- The dome is made of Poly Carbonate and the body is dome of Aluminum Die Casting.
  It can resist impactand heat well.
- Weather-Proof,able to be installed outdoors.
- Special Stainless Screws can resist rust and being disassembled.
- Connectable with video and power cable by the side screws.
- Dimensions: ∅150　110(H)mm
- 5" Dome Case

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SN-BK302

Type	INDOOR/OUTDOOR
Mounting Mode	WALL
Material	Aluminum
Dimension	202mm
Max-Load	5Kg

SN–BK311

Type	INDOOR/OUTDOOR
Mounting Mode	WALL
Material	ABS
Color	BEIGE
Dimension	160mm
Max-Load	4Kg
Swivel Angle	360
Weight	200g
Packing	24PCS/CTN

SN–BK312A SN–BK312B

Type	INDOOR/OUTDOOR
Mounting Mode	WALL
Material	ZINC
Color	SILVER,WHITE,BLACK
Dimension	SN-BK312A:50mm SN-BK312B:100mm
Max-Load	5Kg
Swivel Angle	360
Weight	SN-BK312A:90g SN-BK312B:128g
Packing	200PCS/CTN 80PCS/CTN

SN–BK313A SN–BK313B SN–BK313C

Type	INDOOR/OUTDOOR
Mounting Mode	SN-BK312A,SN-BK312C:WALL SN-BK312B:CEILING
Material	ZINC,IRON
Color	GREY
Dimension	SN-BK313A:145mm ;SN-BK313B:265 80mm; SN-BK313C:245mm
Max-Load	5Kg
Swivel Angle	360
Weight	SN-BK313A:512g; SN-BK313B:628g SN-BK313C:570g
Packing	20PCS/CTN

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■SN−BK314

Type	INDOOR/OUTDOOR
Mounting Mode	WALL
Material	ALUMINIUM
Color	BEIGE
Dimension	240mm
Max-Load	10Kg
Swivel Angle	360
Weight	500g
Packing	24PCS/CTN

■SN−BK315

Type	INDOOR/OUTDOOR
Mounting Mode	WALL
Material	ALUMINIUM
Color	BEIGE
Dimension	205mm
Max-Load	10Kg
Swivel Angle	360
Weight	650g
Packing	20PCS/CTN

■SN-BK320A SN-BK320B

Type	INDOOR/OUTDOOR
Mounting Mode	WALL,CEILING
Material	ALUMINIUM, IRON
Color	GREY
Dimension	SN-BK320A:350mm SN-BK320B:200 200mm
Max-Load	5Kg
Weight	SN-BK320A:500g SN-BK320B:600g
Packing	1PCS/CTN 1PCS/CTN