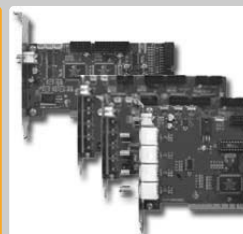




SECURITY DIVISION

CCTV

Keeping to do the reliable high technology and the best quality for the industrial field and consumer field for security as top professional manufacturer.



- CCTV CAMERA
- CCTV MONITOR
- CCTV CONTROLLER
- OBSERVATION SYSTEM
- ACCESSORY
- WIRING NETWORK

Hanse
Hanse Electronics Co., Ltd.

Keeping to do the reliable high technology and the best quality for the industrial field and consumer field for security as top professional manufacturer.

- WATER-PROOF CAMERA
- PIPE CAMERA
- MINIATURE CAMERA
- PIR SENSOR CAMERA
- DOME CAMERA
- COLOR ZOOM CAMERA
- COLOR MONITOR
- VIDEO MEMORY UNIT
- TIME LAPSE RECORDER
- CAR REAR VIEWER SYSTEM
- HOME TV OBSERVATION SYSTEM
- IR CAMERA
- CMOS CAMERA
- COLOR CCD CAMERA, B/W CAMERA
- DAY & NIGHT COLOR CAMERA
- SPEED DOME CAMERA
- COLOR TFT LCD MONITOR
- DVR
- 4CH AUTO SWITCHER
- COLOR CAMERA & LCD MONITOR SYSTEM
- B/W 2WAY AUDIO 5.5" OBSERVATION SYSTEM



Underwriters Laboratories Inc.®



Hanse History

Hanse Electronics Co., Ltd.

- 1994. 9. Established
- 1994.12. Camera modules (B/W) were developed
- 1995. 1. CRT module (B/W) was developed
- 1995. 3. Camera Modules (Color) were developed
- 1996. 6. Built own factory at Bucheon, Korea
- 1997. 1. Moved expanded to Incheon, Korea
- 1998. 1. TFT LCD color module was developed
- Home TV camera system was developed
- LCD color observation system was developed
- 1998. 2. Appointed prospect export SMPC
- 1998. 5. CCTV Camera (B/W, Color) was Developed
- 1998. 11. Awarded export tower 5Million USD
- 1999. 2. Started to manufacturing easy installation DIY products
- 1999. 9. Approved venture company
- 2000. 1. 2.4GHz wireless RX/TX developed
- 2000. 2. 2CH 2way Audio Observation System developed
- 2000. 3. Overseas Biz. Team and R&D Team moved to new office at Seoul
- 2001.11 Awarded export tower 10million USD
- 2002. 6. Miniature camera, pipe camera were developed
- 2002. 8. Microscope were developed
- 2002. 9. TFT LCD TV/Monitor (5.6", 7") were developed
- 2002.11 Organized R&D Institute
- 2003. 1. Color Memory Card were developed
- 2003. 5. DVR were developed
- 2004. 9. TFT LCD Module(4") were developed
- 2005. 7. TFT LCD Module(2.5", 3.5", 4", 5, 5.6", 7") were developed
- Employees 100 / PI-Capital USD10,000,000 / Y-Turn over USD40,000,000

CONTENTS

{ CONTENTS }

Zoom Camera

HCC-Z260N/P, HCC-Z220N/P

- Digital CCD Color Zoom Camera
- 1/4" CCD 410,000(NTSC), 470,000(PAL)
- 470 TV Lines
- Slow Scan : 0.05lx
- 10X Digital Zoom
- 26X Optical Zoom
- RS232 / 485, OSD Function
- Module available



Color CCD Camera



HCC-475N/P

- 1/3" Color CCD 410K pixels
- 59.5(W)X64(H)X119.5(D)
- DC 12V 130mA

Water proof camera

HMC-M300N/P HMC-M300A/C

- Super picture Quality 1/4 Inch resolution CCD
- Water-proof Camera
- Mirror function
- Built-in AGC, AE, BLC
- 60(W)X38(H)X38(D)
- DC 12V 100mA



IR Camera

HCC-IR225N/P

- 1/3" CCD
- High resolution over Horizontal 480TV Lines
- Back Light compensation
- High resolution:Vivid Sharp Picture
- Indoor 15m/Outdoor 12m
- Rain proof
- Damper proof
- 48 units Infrared LED



CCTV CAMERA 5

- WATER-PROOF CAMERA / 6
- IR CAMERA / 8
- PIPE CAMERA / 9
- CMOS CAMERA / 10
- MINIATURE CAMERA / 11
- COLOR CCD CAMERA, B/W CAMERA / 12
- PIR SENSOR CAMERA / 13
- DAY & NIGHT COLOR CAMERA / 14
- DOME CAMERA / 14
- SPEED DOME CAMERA / 17
- COLOR ZOOM CAMERA / 18

CCTV MONITOR 19

- COLOR TFT LCD MONITOR / 20
- COLOR MONITOR / 21

CCTV CONTROLLER 23

- DVR / 24
- VIDEO MEMORY UNIT / 25
- 4CH AUTO SWITCHER / 26
- TIME LAPSE RECORDER / 26

OBSERVATION SYSTEM 27

- COLOR CAMERA & LCD MONITOR SYSTEM / 28
- CAR REAR VIEWER SYSTEM / 29
- B/W 2WAY AUDIO 5.5" OBSERVATION SYSTEM / 29
- HOME TV OBSERVATION SYSTEM / 30

ACCESSORY 31

WIRING NETWORK 36

CCTV Camera

Hanse Electronics Co., Ltd.

HMC-M200N/P, HMC-M201N/P, HMC-M210N/P, HMC-M211N/P

HMC-M200N/P, HMC-M210N/P



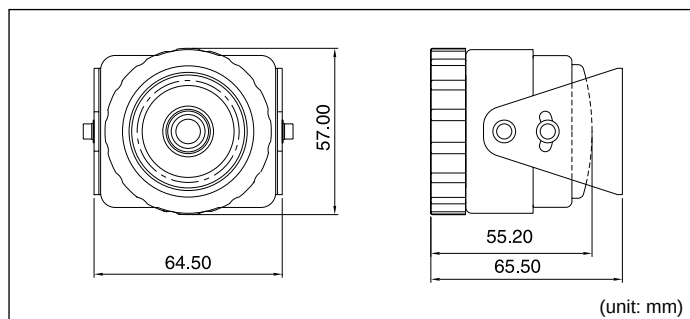
HMC-M201N/P, HMC-M211N/P



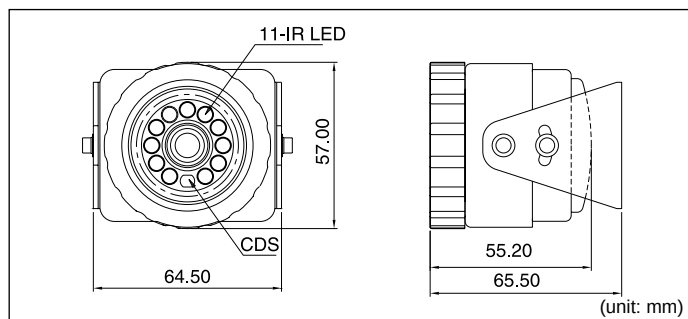
Features

- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> • Super picture Quality 1/4 Inch CCD • Water-proof Camera • Easy Installation as DIY • Built-in AGC, AE, BLC • High sensitivity • Reliability lower power consumption • Available wide anglevew | <ul style="list-style-type: none"> • Mirror function • With 20m cable | <ul style="list-style-type: none"> • Super picture Quality 1/4 Inch CCD • Water-proof Camera • Easy Installation as DIY • High sensitivity • Reliability lower power consumption • Day & Night function • Available wide anglevew | <ul style="list-style-type: none"> • Mirror function • Auto control of brightness & darkness • With 20m cable • Optional : Built in 11pcs IR LED |
|---|---|--|--|

Dimensions



(unit: mm)



(unit: mm)

Specifications

Description	HMC-M200N/P	HMC-M201N/P	HMC-M210N/P	HMC-M211N/P
TV System	NTSC/PAL	NTSC/PAL	NTSC/PAL	NTSC/PAL
Image sensor	1/4 Inch CCD 270K(320K) pixel	1/4 Inch CCD 270K(320K) pixel		
Effective pixel	H512 × V491/H512 × V581			
Scanning system	525line 2:1 Interlacing/625line 2:1 Interlacing			
Sync. System	Internal			
Scanning frequency	15.734KHz(H), 59.94Hz(V)/15.625KHz, 50Hz(V)			
Horizontal resolution	330 TV lines(Center)		330 TV lines(Center)	
Video output	1.0Vp-p, 75ohm			
S/N ratio	48dB above(AGC OFF)			
Gamma(γ)	γ=0.45			
IR LED	—	11 unit Infrared LED, 850nm	—	11 unit Infrared LED, 850nm
AGC	ON			
IRIS	Electrical Auto Iris			
Shutter speed	1/60(50) ~ 1/100,000 sec			
Min. Illumination	0.5lx / F=1.2 (AGC ON)		0.5lx / F=1.2 (AGC ON)	
Lens	f=3.6mm, F2.0			
White balance	ATW			
Power Consumption	DC 12V ± 1V / 130mA Max	DC 12V ± 1V / 130mA Max		
OperatingTemp	-10°C ~ 60°C			
Dimensions(mm)	64.5(W) × 57(H) × 65.5(D)			
Housing materia	Zinc			

The product may include option or additional functions.

HMC-M300N/P, HMC-M301N/P, HMC-M310N/P, HMC-M311N/P

HMC-M300N/P, HMC-M310N/P



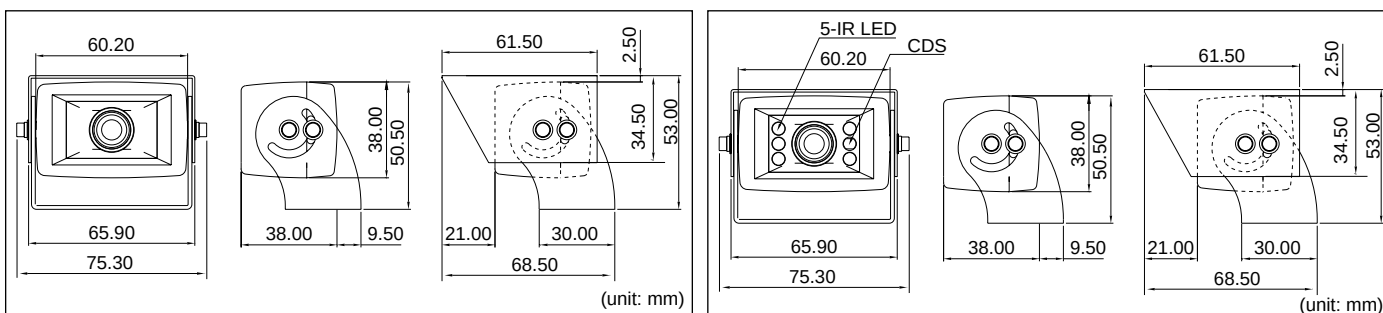
HMC-M301N/P, HMC-M311N/P



Features

- | | | | |
|---|---|---|--|
| <ul style="list-style-type: none"> • Super picture Quality 1/4 Inch CCD • Mirror function • Built-in AGC, AE, BLC • Reliability lower power consumption • Available wide angleview | <ul style="list-style-type: none"> • Water-proof Camera • Easy Installation as DIY • High sensitivity • Optional: 20m cable | <ul style="list-style-type: none"> • Super picture Quality 1/4 Inch CCD • Mirror function • Auto control of brightness & darkness • Reliability lower power consumption • Day & Night function • DC 12V adaptor | <ul style="list-style-type: none"> • Water-proof Camera • Easy Installation as DIY • High sensitivity • Optional: 20m cable • Optional : Built in 5pcs IR LED • Available wide angleview |
|---|---|---|--|

Dimensions



Specifications

Description	HMC-M300N/P	HMC-M301N/P	HMC-M310N/P	HMC-M311N/P
TV System	NTSC/PAL		NTSC/PAL	
Image sensor	1/4 Inch CCD 270K(320K) pixel		1/4 Inch CCD 270K(320K) pixel	
Effective pixel	H512 × V491/H512 × V581			
Scanning system	525line 2:1 Interlacing/625line 2:1 Interlacing			
Sync. System	Internal			
Scanning frequency	15.734KHz(H), 59.94Hz(V)/15.625KHz, 50Hz(V)			
Horizontal resolution	330 TV lines(Center)			
Video output	1.0Vp-p, 75ohm			
S/N ratio	45dB above(AGC OFF)			
Gamma(γ)	γ=0.45			
IR LED	—	5 unit Infrared LED, 850nm	—	5 unit Infrared LED, 850nm
AGC	ON			
IRIS	Electrical Auto Iris			
Shutter speed	1/60(50) ~ 1/100,000 sec			
Min. Illumination	0.5lx/F=1.2(AGC ON)		0.5lx/F=1.4(AGC ON)	
Lens	f=3.6mm, F2.0 or Option			
White balance	ATW			
Power Consumption	DC 12V ± 10%/ 100mA Max	DC 12V ± 10%/ 130mA Max	DC 12V ± 10%/ 100mA Max	DC 12V ± 10% / 130mA Max
OperatingTemp	-10℃ ~60℃			
Dimensions(mm)	75.3(W) × 53(H) × 68.5(D)			
Housing materia	Zinc			

The product may include option or additional functions.

HCC-IR225N/P, HCC-IR226N/P, HCC-IR227N/P

HCC-IR225N/P



HCC-IR226N/P



HCC-IR227N/P



HCC-203N/P, HBC-203A/C, HCC-204N/P, HBC-204A/C HCC-205N/P, HSC-CM204N/P(C-MOS Camera)

HCC-203N/P, HBC-203A/C

HCC-204N/P, HBC-204A/C

HCC-205N/P

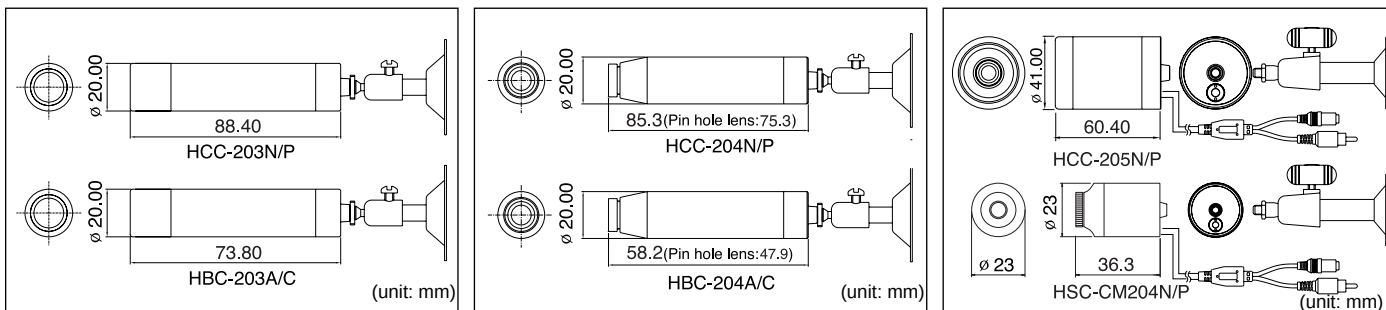
HSC-CM204N/P(C-MOS Camera)



Features

- Low Power Consumption
- Low Cost
- High quality picture
- High sensitivity
- Compact size
- Low Cost
- Compact size
- High quality picture
- High sensitivity
- DC 12V available
(Dimension: $\phi 41 \times 64.8 \text{ mm}$)
- Exposure, Gain, White Balance, Built in BLC It realized the highest image.

Dimensions



Specifications

Description	HCC-203N/P, 204N/P, P204N/P	HBC-203A/C, 204A/C, P204A/C	HCC-205N/P	Description	HSC-CM204N/P
TV System	NTSC/PAL			TV System	NTSC/ PAL
Image sensor	1/4inch CCD 270K(320K) pixels	1/3inch, 270K(320)pixels	1/4inch 270K(320K) pixels	Image sensor	1/3inch, CMOS Image Sensor 318Kpixel
Effective pixel	H512 $\times$ V491/H512 $\times$ V581			Scanning system	525 Lines 2:1 interlacing
Scanning	525line 2:1 interlacing/625line 2:1 interlacing				625 Lines 2:1 interlacing
Synchronize	Internal			Sync. System	Internal Sync.
Scanning frequency	15.734KHz(H), 59.94Hz(V)/15.625KHz, 50Hz(V)			Resolution	250 TV Line(min), 300TV Line(min)
Vertical resolution	330TV line(Center)	380TV line(Center)	330TV line(Center)	Shutter speed	1/60(1/50)~1/15,000sec.
Video Output	1.0Vp-p/75ohm			White balance	Auto control
S/N ratio	50dB Min. (AGC OFF)			AGC	ON
Min. Illumination	0.5lx/ f=1.4,(AGC ON)	0.1lx/ f=1.4,(AGC ON)	0.5lx/ f=1.4,(AGC ON)	Sensitivity Boost	+18dB (AGC ON)
Gamma(γ)	$\gamma=0.45$			S/N ratio	48dB above(AGC OFF)
AGC	ON.			Min. Illumination	3lx (F1.4)
White balance	Auto control	—	Auto control	Video output	1.0Vp-p.75ohm
Electronic Shutter	1/60(1/50)~1/100,000 sec.			Aodio out power	0.36W
Lens	f=4.3 F 2.0 or f=3.6 F 2.0			Aodio Impedance	600 Ω
Audio out power	0.36W			Power Consumption	DC5V $\pm$ 10%, Max 80mA
Audio Impedance	600ohm			Operating Temp.	0°C ~ 40°C
Power Consumption	DC12V $\pm$ 10%/Max. 100mA	DC12V $\pm$ 10%/Max. 120mA	DC5V $\pm$ 10%/Max. 200mA	Housing material	Aluminum
Ambient Conditions	-10°C ~60°C				
Housing material	Aluminum				

The product may include option or additional functions.

HCC-207N/P, HBC-207A/C, HCC-401N/P, HBC-401A/C

HCC-207N/P, HBC-207A/C



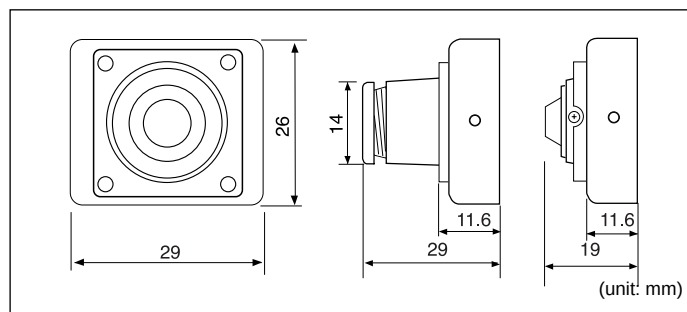
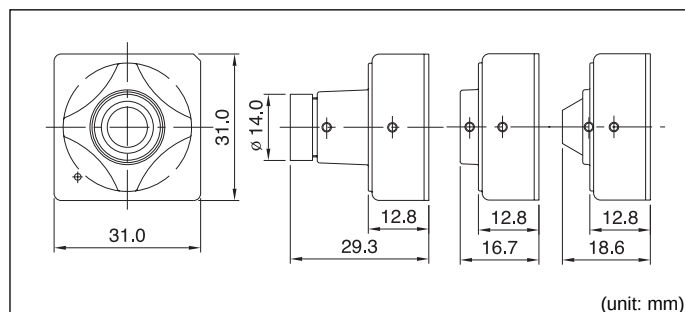
HCC-401N/P, HBC-401A/C



Features

- 270,000(N), 320,000(P) Pixel CCTV Color Camera
- Built-in Automatic function- AGC (Auto Gain Control), ATW (Auto Tracing White Balance), E-S (Electronic Shutter)
- Apply DSP (Digital Signal Processor)
- Economic Power consumption
- Built-in Audio function

Dimensions



Specifications

Description	HCC-207N/P	HBC-207A/C	HCC-401N/P, P401N/P	HBC-401A/C, P401A/C
TV System	NTSC/PAL	EIA/CCIR	NTSC/PAL	EIA/CCIR
Image sensor	1/4 Inch CCD 270K(320K) pixel	1/3 Inch CCD 270K(320K) pixel	1/4 Inch CCD 270K(320K) pixel	1/3inch CCD 270K(320K) Pixels
Effective pixel	510(H) × 492(V)/512(H) × 582(V)	510(H) × 492(V)/512(H) × 582(V)	510(H) × 492(V)/512(H) × 582(V)	
Scanning system	525line 2:1 Interlacing/625line 2:1 Interlacing			
Sync. System	Internal			
Scanning frequency	15.734KHz(H), 59.94Hz(V)/15.625KHz, 50Hz(V)			
Horizontal resolution	330 TV lines(Center)	380 TV lines(Center)	330 TV lines(Center)	330 TV lines(Center)
Video output	1.0V p-p / 75ohm			
S/N ratio	48dB Max(AGC OFF)	50dB Max (AGC OFF)	46dB Max (AGC Off)	50dB Max (AGC Off)
Gamma(γ)	γ=0.45			
IRIS	ESC	ESC	ESC	ESC
Min. Illumination	0.5lx / F=1.4(AGC ON)	0.1lx / F=1.4(AGC ON)	0.5lx / F=1.4(AGC ON)	0.1lx / F=1.4(AGC ON)
Lens	f=4.3mm, f=3.6mm or Option	f=3.6mm 92° or Option	f=3.6mm or Option	f=3.6mm or Option
AGC	ON			
White balance	Automatic white balance control	—	ATW	—
Shutter speed	1/60(1/50)~1/100,000		1/60 (1/50)~1/96,000 sec	1/60(1/50)~1/120,000
Power Consumption	DC 12V ± 1V / 150mA Max	DC 9~12V / 120mA Max	DC5V ± 10% / 200mA Max	DC5V ± 10% / 200mA Max
Audio Out Power		0.36W		0.36W
Audio Impedance		600 ohm		600 ohm
OperatingTemp	-10°C ~60°C			
Housing materia	Zinc		Aluminum	

The product may include option or additional functions.

HCC-14N/P, HBC-14A/C, HCC-24N/P, HBC-24A/C, HCC-277N/P

HCC-14N/P HBC-14A/C



HCC-24N/P, HBC-24A/C



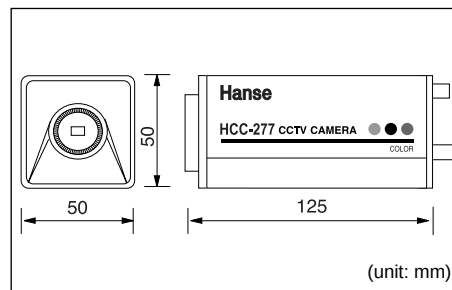
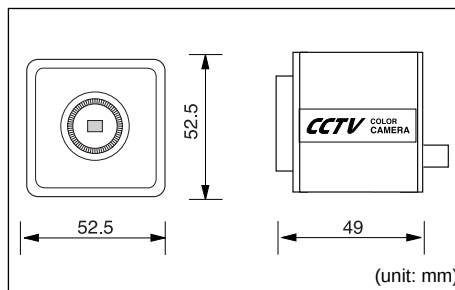
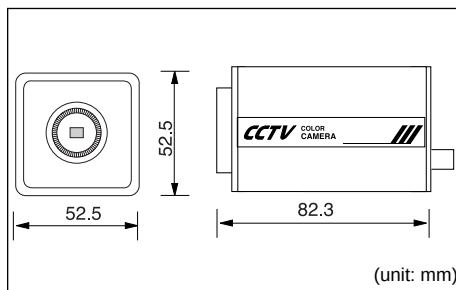
HCC277N/P



Features

- Realization of High quality picture and Natural color.
- Automatic and Super High Speed Electronic Shutter Control
- The various built-in automatic control functions
- Applications
 - Parking lots, Banks, Outdoor observations, Airports, Harbors, Tunnels, and country basis industries etc...
- 1/3 Inch CCD 270,000/320,000 pixel resolution
- High sensitivity and high resolution
- Built-in electronic shutter (Auto iris function)
- Blooming-free circuit • Auto iris/ DC drive
- Auto white balance, AGC
- Audio Function

Dimensions



Specifications

Description	HCC-14N/P, 24N/P	HBC-14A/C, 24A/C	HCC-277N/P
TV System	NTSC/PAL		
Image sensor	1/4inch CCD 270K(320K) pixels	1/3 Inch CCD270K(320K) pixels	1/4 Inch CCD270K(320K) pixels
Effective pixel	H512 × V492 / H500 × V582	H512 × V492/H500 × V582	
Scanning system	525 Line 2:1 interface/ 625 Line 2:1 interface		
Scanning frequency	15.734KHz(H), 59.94Hz(V)/15.625KHz, 50Hz(V)		
Sync. System	Internal		
Horizontal resolution	330TV Lines(Center)		
Min. Illumination	0.5lx / F=1.4(AGC ON)	0.1lx / F=1.4 (AGC ON)	0.5lx / F=1.4(AGC ON)
S/N ratio	48dB (AGC OFF)		
Gamma	$\gamma = 0.45$		
White balance	AUTO	—	AUTO
AGC	ON		
Iris	Electronic Iris	Electronic Iris	Electronic Iris/ALC
Shutter speed	1/60(1/50)~1/100,000sec		
Video Output	1.0V p-p/75ohm		
BLC	Built-in		
Power Consumption	DC 12V ± 10%, 160mA Max	DC 12V ± 10%, 160mA Max	DC 12V ± 10%, 200mA Max
Operating Temp	-10°C ~60°C		
Dimensions(mm)	52.5(W) X 52.5(H) X 82.3(D)	52.5(W) X 52.5(H) X 49(D)	50(W) X 50(H) X 125(D)
Housing materia	Aluminum	Metal	

The product may include option or additional functions.

HCC-310N/P, HCC-475N/P HCC-550N/P

HCC-310N/P



HCC-475N/P



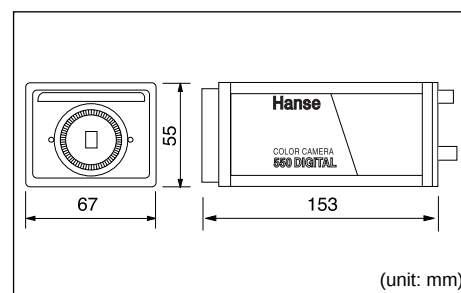
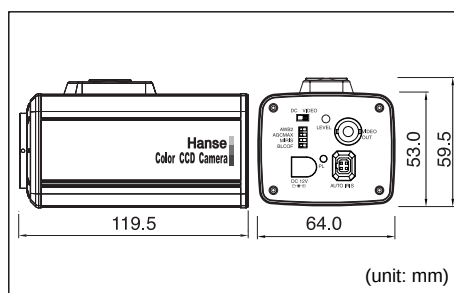
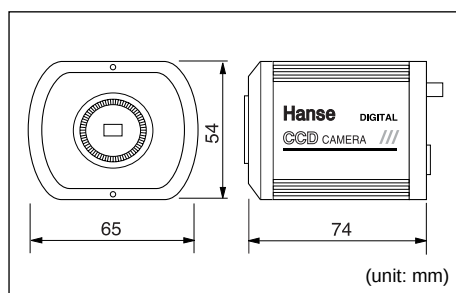
HCC-550N/P



Features

- Super picture Quality 1/3 Inch CCD
- Easy Installation as DIY
- Auto control of brightness & darkness
- High sensitivity
- Reliability lower power consumption
- Super picture Quality 1/3 Inch CCD
- Realization of High quality picture and Natural color.
- Automatic and Super High Speed Electronic Shutter Control
- The various built-in automatic control functions
- DC 12V power / AC24V
- 1/3 inch 410,000/470,000pixel high resolution
- On screen display by function key switch
- Minimum illumination 0.5lx • Metal housing
- Auto white balance, AGC
- Built-in Audio function

Dimensions



Specifications

Description	HCC-310N/P	HCC-475N/P	HCC-550N /P
TV System	NTSC/PAL		
Image sensor	1/3 Inch CCD 410K(470K) pixel	1/3inch CCD 410K(470K) pixels	1/3 Inch CCD 410K(470)pixel
Effective pixel	H768 × V494, / H752 × V582	H768 × V494, / H752 × V582	
Scanning system	525line 2:1 Interlacing / 625line 2:1 Interlacing		
Scanning frequency	15.734KHz(H), 59.94Hz(V)/15.625KHz, 50Hz(V)		
Sync. System	Internal		
Horizontal resolution	480TV Lines(Center)		
Min. Illumination	0.5lx / F=1.8(AGC ON)	0.5lx / F=1.4(AGC ON)	0.5lx / F=1.4(AGC ON)
S/N ratio	48dB (AGC OFF)		γ=0.45, 1(Selstable)
Gamma	γ=0.45		
Video output signal	1.0Vp-p, 75ohm		
S-VHS / Audio	Y Sig, C Sig, GND	—	—
White balance	Automatic White balance control		
AGC	ON/OFF	ON/OFF	ON/OFF
BLC	Off, Pattern1, Pattern2	ON/OFF	ON/OFF
Iris	Video DRV/ DC DRV Auto iris lens, ESC		
Camera Title	On(8character), Off	—	—
Shutter speed	Auto iris (1/50, 1/60 - 1/100,000), Manual(1/50, 1/60, 1/250, 1/500, 1/1,000, 1/2,000, 1/4,000, 1/10,000, Flickless)	1/60(1/50)~1/100,000sec.	1/60(1/50)~1/120,000sec.
Video Output	1.0V p-p, 75ohm		
Power Consumption	DC12V ± 10%, 200mA or AC12V ± 10%, 200mA	DC12V ± 10%, 130mA	DC12V ± 10%, 160mA or AC12V ± 10%, 160mA
OperatingTemp	-10°C ~60°C		
Dimensions(mm)	65(W) × 54(H) × 74(D)	64(W) X 59.5(H) X119.5(D)	67(W) X55(H) X153(D)
Housing materia	Aluminum		

The product may include option or additional functions.

HTC-300N/P, HTC-300A/C, HMC-100N/P, HMC-100A/C

HTC-300N/P, HTC-300A/C



HMC-100N/P, HMC-100A/C

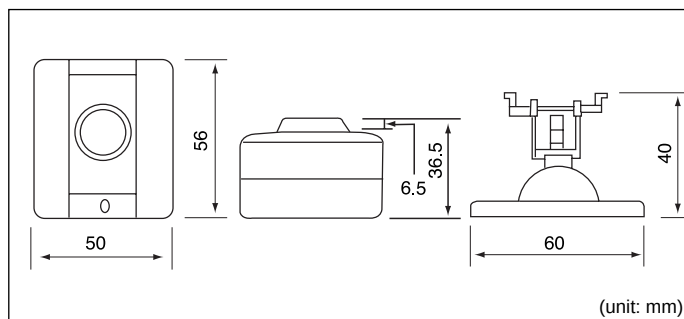
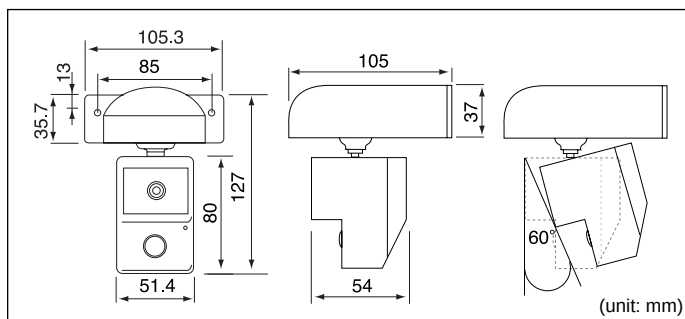


Features

- Super picture Quality
- Easy Installation as DIY
- Built-in AGC
- High resolution camera unit with audio
- Reliability lower power consumption • Built in PIR sensor
- Reliability lower power consumption

- Super picture Quality 1/4 Inch CCD
- Easy Installation as DIY
- Built-in AGC
- High sensitivity
- Reliability lower power consumption

Dimensions



Specifications

Description	HTC-300N/P	HTC-300A/C	HMC-100N/P	HMC-100A/C
TV System	NTSC/PAL	EIA/CCIR	NTSC/PAL	EIA/CCIR
Image sensor	1/4 Inch CCD 270K(320K) pixel	1/3 Inch CCD 270K(320K) pixel	1/4 Inch CCD270K(320K)pixel	1/3 INCH 270K(320K) pixel
Effective pixel	510(H) × 492(V)/512(H) × 582(V)	510(H) × 492(V)/512(H) × 582(V)	510(H) × 492(V)/512(H) × 582(V)	510(H) × 492(V)
Scanning system	525line 2:1 Interlacing/625line 2:1 Interlacing			
Sync. System	Internal			
Scanning frequency	15.734KHz(H), 59.94Hz(V)/15.625KHz, 50Hz(V)		15.734KHz(H), 59.94Hz(V)/15.625KHz, 50Hz(V)	
Horizontal resolution	330TV lines(Center)	380 TV lines(Center)	330 TV lines (Center)	380TV Lines (Center)
Video output	1.0Vp-p, 75ohm			
S/N ratio	48dB above(AGC OFF)	50dB above(AGC OFF)	48dB above(AGC OFF)	48dB above(AGC OFF)
Gamma(γ)	γ=0.45		γ=0.45	γ=0.45
AGC	ON			
IRIS	Electrical Auto Iris			
Shutter speed	1/60(50) ~ 1/100,000 sec	1/60(1/50)~1/120,000	1/60(50) ~ 1/100,000 sec	1/60(50) - 1/120,000
Min. Illumination	0.5lx / F=1.4(AGC ON)	0.1lx / F=1.4(AGC ON)	0.5lx / F=1.4(AGC ON)	0.1lx / F=1.4(AGC ON)
Lens	f=3.6mm / F2.0 or option	f=4.3mm / F 2.0 or option	f=3.6mm / F2.0 or option	f=3.6mm / F2.0 or option
White balance	Automatic white balance control	—	Automatic white balance control	—
Power Consumption	DC 12V ± 10% / 100mA Max	DC 12V ± 10%/ 120mA Max	DC 12V ± 10%/150mA Max	DC 12V ± 10%/120mA Max
OperatingTemp	-10℃ ~60℃			
Dimensions(mm)	105.3(W) × 127(H) × 105(D)		50(W) × 56(H) × 36.5(D)	
Housing materia	Plastic			

The product may include option or additional functions.

HNC-300HE N/P, HNV-7300HVE

HNC-300HE N/P



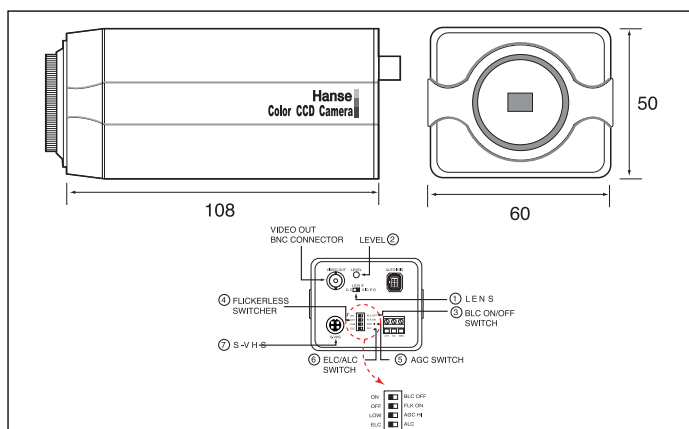
HNV-7300HVE



Features

- 1/3" 410,000pixel(NTSC), 470,000pixel(PAL)SONY Ex viewHAD CCD
- Switches Color to Monochrome under 1.0lx by programmed software
- Back Light Compensation(BLC)
- High Resolution:Vivid Sharp Color
- High Sensitivity of 0.01lx at F1.2
- Accepts 2 types of Auto Iris Lenses(DC/VIDEO)

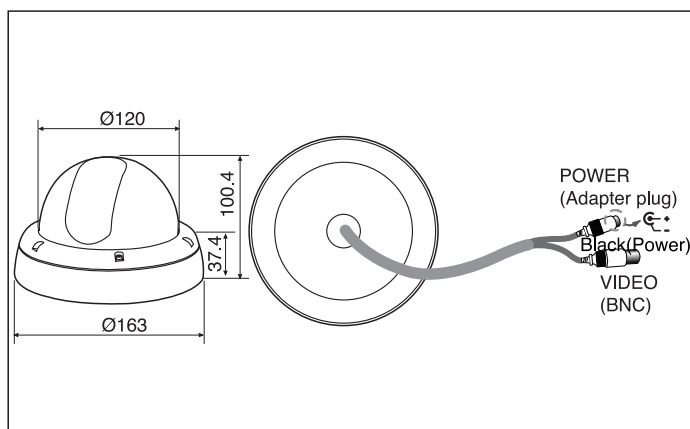
Dimensions



Features

- 1/3" 410,000pixel(NTSC), 470,000pixel(PAL) SONY Ex-VIEW HAD CCD
- High resolution over 480TV Lines
- High resolution:Vivid Sharp Picture
- High Sensitivity, Low smear, High Anti-Blooming
- Weather proof and Vandal proof
- Option : Day & Night Function by programmed software

Dimensions



Specifications

Description	HNC-300HE	HNV-7300HVE
TV System	NTSC/PAL	
Image Sensor	1/3inch SONY EX viewHAD CCD(Option: SuperHAD CCD) 410K(470K) Pixel	1/3inch SONY Ex-VIEW HAD CCD 410K(470K) Pixel
Sync System	Internal	
Horizontal resolution	480 TV Lines (Center)	480 TV Lines (Center)
Scan System	525 line 2:1 Interlace /625 line 2:1 Interlace	
Scanning Frequency	15.734KHz(H), 59.94Hz(V) /15.625KHz(H), 50Hz (V)	
Video Output signal	1.0Vp-p, 75ohm S-VHS: Burst 0.286Vp-p, Video: 0.714Vp-p	1.0V p-p, 75 Ohm
Gamma correction	$\gamma=0.45$	
S / N Ratio	48dB (AGC OFF)	
White Balance	Automatic White balance	
Shutter speed	1/60(1/50)-1/100,000	
Lens	=	4~9mm DC Auto Iris Vari focal Lens(Option: 2.6~6mm, 4~12mm)
External Controls	=	DC Lens level Control, ELC On/Off, Flickerless On/Off, BLC On/Off
Lens Mount	Accepts CS and C mount with adapter	
Min. illumination	0.01lx / F=1.2(AGC ON)	0.01lx / F=1.2(AGC ON)
A G C	ON / OFF	ON
BLC	ON / OFF	—
Flickerless	ON / OFF	—
Iris Mode	Video / DC / ELC	DC /ESC Type
Lens Mount	Accepts CS and C mount with adapter	-
Operating Tempe.	14 $\pm$ ~ 122 $\pm$ (-10 $\pm$ ~ +50 $\pm$)	
Humidity	Within 90%RH	
Dimensions (mm)	60(W) X 50(H) X 108(L)	163 X 100.4(H)
Power Consumption	DC 12V $\pm$ 20%, 180mA	DC 12V $\pm$ 20%, 180mA
Housing material	Metal	

The product may include option or additional functions.

HND-7080HE N/P, HND-7120HVE

HND-7080HE N/P



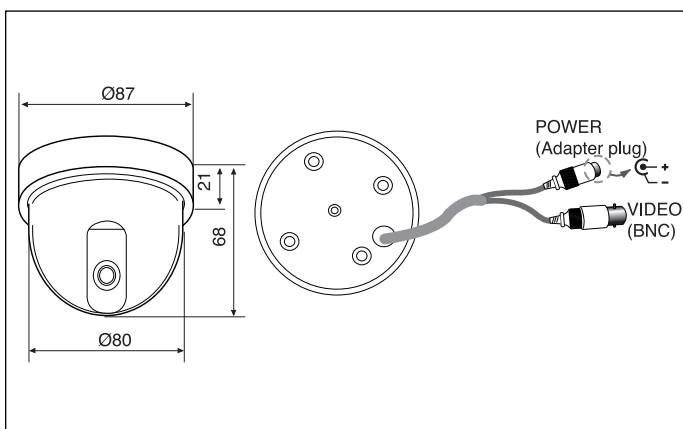
HND-7120HVE



Features

- 1/3" 410K pixel(NTSC), 470K pixel(PAL) SONY Ex-VIEW HAD CCD
- High resolution over 480TV Lines
- Back Light compensation
- High resolution:Vivid Sharp Picture
- High sensitivity of 0.01lx at F=1.2
- Option : Day & Night Function by programmed software Audio & Mirror function

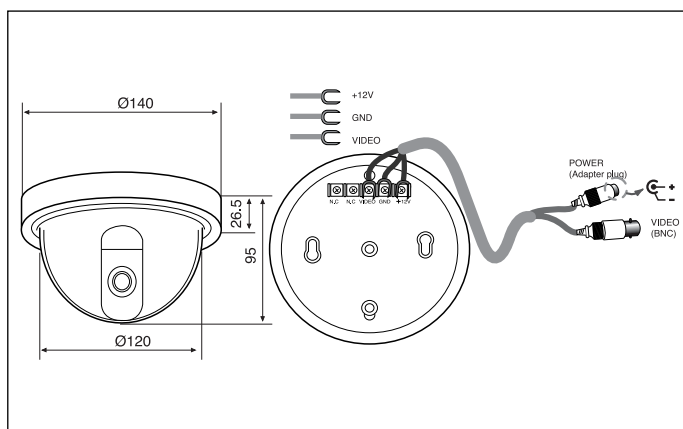
Dimensions



Features

- 1/3" 410K pixel(NTSC), 470K pixel(PAL) SONY Ex-VIEW HAD CCD
- High resolution over 480TV Lines
- Back Light compensation
- High resolution:Vivid Sharp Picture
- Super Low light camera(0.01 lx at F1.2)
- High Sensitivity, Low smear, High Anti-Blooming
- Option : Day & Night Function by programmed software

Dimensions



Specifications

Description	HND-7080HE	HND-7120HVE
TV System	NTSC/PAL	
Image Sensor	1/3inch SONY Ex-VIEW HAD CCD 410K(470K) Pixel	1/3inch SONY Ex-VIEW HAD CCD 410K(470K) Pixel
Sync.System	Internal	
Horizontal Resolution	480 TV Lines (Center)	
Scan System	525 line 2:1 Interlace, 625 line 2:1 Interlace	
Scanning Frequency	15.734KHz(H), 59.94Hz(V) /15.625KHz(H), 50Hz (V)	
Video Output signal	1.0Vp-p Composite 75ohm	
Gamma correction	γ=0.45	
Video S / N Ratio	48dB (AGC OFF)	
White Balance	Automatic White balance(AWB)	
BLC	Auto	
Shutter speed	1/60(1/50)-1/100,000	
External Controls	=	DC Lens level Control, ELC On/Off, Flickerless On/Off, BLC On/Off
Min. illumination	0.01lx / F=1.2(AGC ON)	
Lens	f : 3.6mm or Option (2.9, 4, 6, 8,12mm)	4~9mm DC Auto Iris vari foxal Lens
Operating Tempe.	14°F ~ 122°F (-10°C ~ +50°C)	
Humidity	Within 90%RH	
Power Consumption	DC 12V ± 20%, 90mA	
Dimensions (mm)	87X 68(H)	140X 95(H)

The product may include option or additional functions.

HDC-270N/P, HDC-270A/C, HDC-300N/P, HDC-300A/C

HDC-270N/P, HDC-270A/C



HDC-300N/P, HDC-300A/C

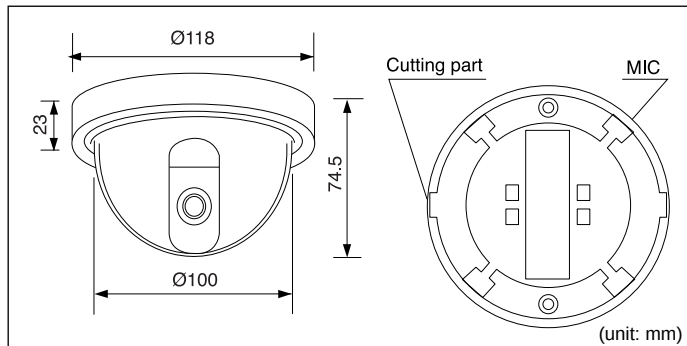
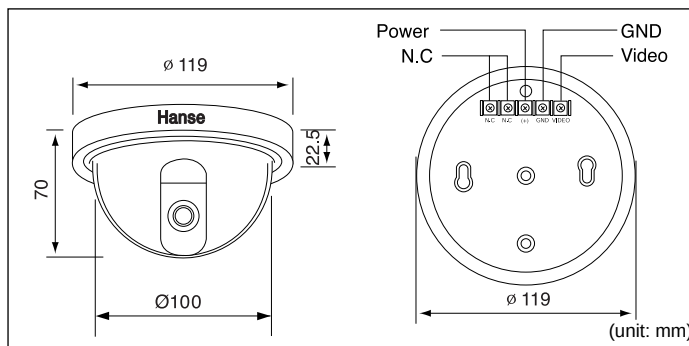


Features

- Compact design dome ϕ 119mm
- Auto white balance, AGC
- Clear image performance
- Durable dome cover
- Anti vandal proof

- Compact design dome ϕ 86mm
- Auto white balance, AGC
- Clear image performance
- Durable dome cover
- Built-in Audio function
- Anti vandal proof

Dimensions



Specifications

Description	HDC-270N/P	HDC-270A/C	HDC-300N/P	HDC-300A/C
TV System	NTSC/PAL	EIA/CCIR	NTSC/PAL	EIA/CCIR
Image sensor	1/4 Inch CCD 270K(320K) pixel	1/3 Inch CCD 270K(320K) pixel	1/4 Inch CCD 410K(470K) pixel	1/3 Inch CCD 410K(470K) pixel
Effective pixel	510(H) $\times$ 492(V)/512(H) $\times$ 582(V)		768(H) $\times$ 494(V)/752(H) $\times$ 582(V)	510(H) $\times$ 492(V)/512(H) $\times$ 582(V)
Scanning system	525line 2:1 Interlacing/625line 2:1 Interlacing			
Sync. System	Internal			
Scanning frequency	15.734KHz(H), 59.94Hz(V)/15.625KHz, 50Hz(V)			
Horizontal resolution	330 TV lines above	380 TV lines , 560 TV lines	480 TV line	380 TV lines , 560 TV lines
Video output	1.0Vp-p / 75ohm	1.0Vp-p.75ohm	1.0V p-p / 75ohm	1.0Vp-p.75ohm
S/N ratio	48dB above(AGC OFF)	45dB above(AGC OFF)	50dB above(AGC OFF)	45dB above(AGC OFF)
Gamma(γ)	$\gamma=0.45$			
AGC	ON			
IRIS	Electrical IRIS			
Min. Illumination	0.5lx / F=1.4(AGC ON)	0.1lx / F=1.4(AGC ON)	0.5lx / F=1.4(AGC ON)	0.1lx / F=1.4(AGC ON)
Lens	f=3.6mm / F=2.0		f=4.3mm / F 2.0 or f=3.6mm / F 2.0	f=4.3 F=2.0 or f=3.6 F= 2.0
White balance	Automatic white balance control	—	Automatic white balance control	—
Shutter speed	1/60~1/100,000/1/50~1/100,000	1/60~1/120,000/1/50~1/120,000	1/60(1/50)~1/100,000	1/60~1/10,000/1/50~1/10,000
Power Consumption	DC 12V $\pm$ 1V / 300mA Max	DC 12V $\pm$ 1V / 120mA Max	DC 12V $\pm$ 1V / 160mA Max	DC 12V $\pm$ 1V or AC 24V/ 200mA Max
OperatingTemp	-10 $\pm$ 60 $\pm$			
Dimensions(mm)	ϕ 119 $\times$ 70		ϕ 118 $\times$ 74.5	
Housing materia	Zinc & Plastic			

The product may include option or additional functions.

HSC-230SI, HSC-230SE, HDK-255

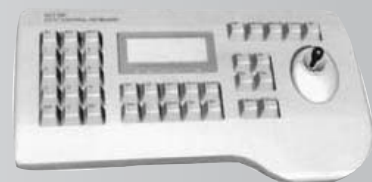
, HSC-230SE, HDK-255



HSC-230SE



HDK-255



Features

- High speed dome camera
- 1/4 " SONY Super HAD CCD
- 22xOptical Zoom, 10xDigitalZoom, Total Zoom 220x
- Max. Pan travel speed - 360°/sec ,
Tilt travel speed - 200°/sec (On preset mode)
- International Standards : CE, FCC
- High speed dome camera
- For External Use Type
- 1/4 " SONY Super HAD CCD
- 22xOpticalZoom, 10xDigitalZoom, Total Zoom 220x
- Max. Pan travel speed - 360°/sec ,
Tilt travel speed - 200°/sec (On preset mode)
- International Standards : CE, FCC
- Controller for receivers and dome cameras
- Preset control: 64 Positions memory set for each camera
- Controls up to maximum 255 CCTV city failure: Power, Auto Pan, Preset Position
- International Standards : CE

Specifications

MODEL	DSC-230SI
TV system	NTSC/PAL
Image sensor	1/4inch Type Sony super HAD CCD 380K(440K) Pixel
Number of effective pixels	768(H)X494(V)/752(H)X582(V)
Horizontal resolution	More than 480 TV lines
Lens	22x Optical zoom, F 1.6(Wide) - 3.8(Tele), f =3.9~ 85.8mm
Digital zoom	10x (Total zoom 220x)
Minimum Shooting Distance	1cm (WIDE) - 10m (TELE) , Max
Minimum illumination	1.0 lx (30 IRE) / , 0.01lx with Electronic Sensitive Up
Luminance S/N ratio	More than 50dB(AGC OFF)
Video output	1.0 Vp-p /75ohm
Brightness control	Manual (Brightness Up/Down)
White balance	Auto/Indoor/Outdoor/Push auto
BLC Control	BLC Level (0 - 80)
AGC set	Auto / 8~ 38 dB selectable
Shutter speed control	1/60(50) ~ 1/10,000 sec 28 steps
Flickerless set	Off/On(1/100 sec shutter set)/Off/On(1/120 sec shutter set)
Pan travel speed	Manual:0.7~250°/sec (64 levels), Preset: Max 360°/sec (64 levels)
Tilt travel speed	Manual:0.7~90°/sec (64 levels), Preset: Max 200°/sec (64 levels)
Preset point	64 Presets
Environment	Indoor
Operating temperature	- 5℃ to 60℃
Storage temperature	- 15℃ to 60℃
Dimensions(mm)	189(D) x 224(H)
Weight	About 3.2Kg
Construction	Ivory body (ABS), Bubble (poly carbonate)
Power consumption	18W (Max)
Power Consumption	AC24V 60/50 Hz

The product may include option or additional functions.

MODEL	HSC-230SE
TV system	NTSC/PAL
Image sensor	1/4inch Sony super HAD CCD 380K(440K) Pixel
Number of effective pixels	768(H)X494(V)/752(H)X582(V)
Horizontal resolution	More than 480 TV lines
Lens	22x Optical zoom, F 1.6(Wide), f =3.9 / 85.8mm
Digital zoom	10x (Total zoom 220x)
Minimum Object Distance	1cm(WIDE), 100cm(TELE)
Minimum illumination	1.0 lx (30 IRE) / 0.01 lx with Electronic Sensitive Up
Luminance S/N ratio	More than 48dB (AGC Off)
Video output	1.0 Vp-p /75ohm
Focus mode	Auto / Push-Auto / Manual
Brightness control	0(brightness down) - 99(brightness up) adjustable / Auto
White balance	Auto / Special / Indoor / Outdoor / Manual / Push Auto
BLC Control (WDR)	On / Off / Auto
AGC Control	Auto / Manual (8dB ~ 38 dB Control)
Iris Control	Auto / Manual (Iris Up / Down)
Shutter speed control	1/60(50) ~ 1/10,000 sec 28 steps
Flickerless set	Off/On
Pan travel speed	Manual:0.7 ~ 250 °/sec (64 levels), Preset: Max 360 °/sec (64 levels)
Tilt travel speed	Manual:0.7~90°/sec (64 levels), Preset: Max 200°/sec (64 levels)
Preset point	64 Presets
Environment	Indoor / Outdoor
Operating temperature	-40°C to 60°C (-40° F to 140° F)
Storage temperature	-15° C to 60°C
Dimensions(mm)	166(D) x 271(H)
Weight	About 5.0Kg
Construction	Aluminum Steel body, Clear bubble (Poly-Carbonate)
Power consumption	18W (Max)
Power Consumption	AC24V 60/50 Hz

The product may include option or additional functions.

HCC-Z260N/P

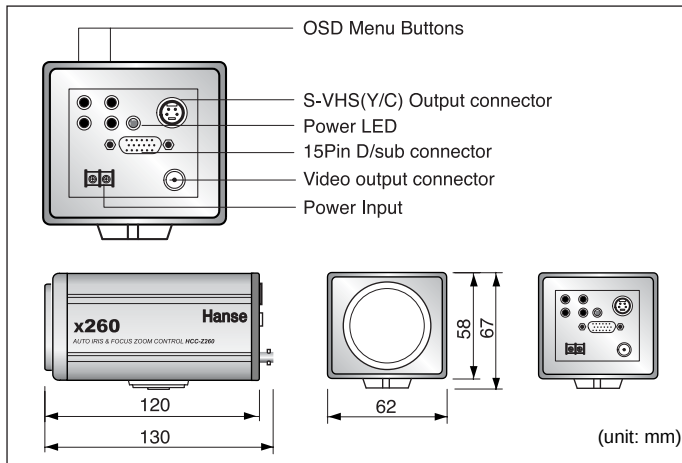
HCC-Z260N/P



Features

- Digital CCD Color Zoom Camera
- 1/4" CCD 410,000(NTSC), 470,000(PAL)
- Night vision Function
- 470 TV Lines
- Slow Scan : 0.05Lux
- Motion Detection, AWB, ALC, AES, AGC, Tracking auto focus
- 64Presets (Zoom, Focus), Reverse(H/V) & Negative Function
- 10X Digital Zoom
- 26X Optical Zoom
- RS232 / 485, OSD Function
- Module available

Dimensions



Specifications

Description	HCC-Z260N/P(260X)
TV System	NTSC 60Hz / PAL 50Hz
Image Sensor	1/4" CCD
Total Pixels	410K / 470K
Effective Pixels	380K / 430K
Horizontal Frequency	15,734KHz / 15,625KHz
Vertical Frequency	59.94Hz / 50.00Hz
Total Zoom	260X (Optical 26X, Digital 10X)
Focal Lenth	F1.6~F3.8, f=3.5mm~91mm
Focus	Auto / Manual
Sensitivity	1 Lux (F1.6, 30IRE) , AGC ON
Slow Scan	0.05 Lux
White Balance	Auto (ATW or AWB) / Fix
Operating Temperature	PAL or NTSC
Power Consumption	DC12V $\pm$ 10%
Dimensions	62(W) X 67(H) X 130(D)

The product may include option or additional functions.

CCTV Monitor

Hanse Electronics Co., Ltd.

HAVI-1510G, HAVI-1700G, HAVI-1710W, HAVI-1900G

HAVI-1510F



HAVI-1700G



HAVI-1710W



HAVI-1900G



Specifications

Specifications		HAVI-1510G
Panel	Panel Type	15" TFT LCD
	Display Area (mm)	307.20 x 230.40
	Display Color	8bit, 16.7M
	Pixel Pitch (mm)	0.297 x 0.297
	Resolution	1024 x 768, XGA
	Contrast	400:1
	Brightness	250 cd/m ²
	Viewing Angle	H: 130°, V: 100°
	Response Time	25 ms
	PC Analog	R.G.B
In/Out	Video	Composite input
	S-Video input	
in/output	Audio	PC Stereo
	DVD input	
PC	Compatibility	IBM, Macintosh
	Plug & Play	VESA DDC 1/2B
	Power Management	VESA DPMS
Others	Speaker	2W x 2W
	Screen Control	On Screen
Display Menu	Tilting Degree(U/D)	30° / -5° degree

Specifications		HAVI-1710W
Panel	Panel type	17"(43cm) TFT LCD
	Display Area	337.98mm x 223.49mm
	Display Color	8bit, 16.7M
	Pixel Pitch	0.291mm x 0.291mm
	Resolution	1280 x 1024, SXGA
	Contrast	500 : 1
	Brightness	450cd/m ²
	Viewing Angle	H: 150° V:120°
	Response Time	25ms
	PC	Analog R.G.B input
In/Out	Video	S-Video input, C-Video
	Audio	PC Stereo in/output, DVD L/R input
TV Signal	Antenna	75 ohm Coaxial Cable
	Color System	NTSC,PAL/SECAM
	Sound System	M,B/G,D/K,L
	Compatibility	IBM , Macintosh PC
	Text	=
Others	V-Chip	-
	Plug & Play	VESA DDC 1/2B
	Power Management	VESA DPMS
	Speaker	5W x 5W
	Screen Control	On Screen Display Menu
	Certificate	FCC,CE,VCCI,CCC,CB,MIC

The product may include option or additional functions.

Specifications		HAVI-1700G
Panel	Panel type	17"(43cm) TFT LCD
	Display Area	337.92mm x 270.33mm
	Display Color	8bit, 16.7M
	Pixel Pitch	0.264mm x 0.264mm
	Resolution	1280 x 1024, SXGA
	Contrast	450 : 1
	Brightness	250cd/m ²
	Viewing Angle	H: 140° V:120°
	Response Time	16ms
	PC	Analog R.G.B
In/Out	Video	Composite input, S-Video input
	Audio	PC Stereo in/output, DVD L/R input
TV Signal	Antenna	75 ohm Coaxial Cable
	Color System	NTSC,PAL/SECAM
	Sound System	M,B/G,D/K,L
Others	Compatibility	IBM , Macintosh PC
	Plug & Play	VESA DDC 1/2B
	Power Management	VESA DPMS
	Speaker	3W x 3W
	Screen Control	On Screen Display Menu
	Tilting Degree(U/D)	30 / -5 degree
	Swivel Degree(L/R)	-
	Certificate	FCC,CE,VCCI,MIC

Specifications		HAVI-1900A
Panel	Panel type	19"(48cm) TFT LCD
	Display Area	376.32mm x 301.056mm
	Display Color	8bit, 16.7M
	Pixel Pitch	0.098mm x 0.294mm
	Resolution	1280 x 1024, SXGA
	Contrast	500:1
	Brightness	250cd/m ²
	Viewing Angle	H: 140° V:140°Option; H: 175° V:175°)
	Response Time	25ms
	PC	Analog R.G.B
In/Out	Video	Composite input, S-Video input
	Audio	PC Stereo in/output, DVD L/R input
TV Signal	Antenna	75 ohm Coaxial Cable
	Color System	NTSC,PAL/SECAM
	Sound System	M,B/G,D/K,L
	Compatibility	IBM , Macintosh PC
	Plug & Play	VESA DDC 1/2B
Others	Power Management	VESA DPMS
	Speaker	2W x 2W
	Screen Control	On Screen Display Menu
	Tilting Degree(U/D)	30 / -5 degree
	Swivel Degree(L/R)	15 / 15 degree
	Certificate	FCC,CE,MIC

HMC-141[1ch], HMC-144Q[4ch, Quad]

HMC-141[1ch]



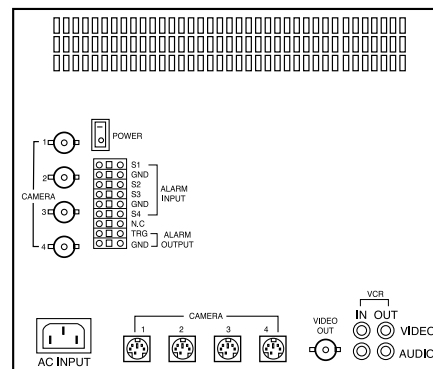
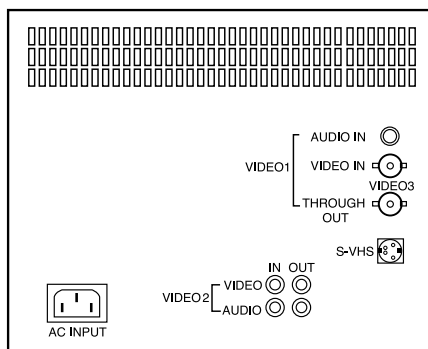
HMC-144Q[4ch, Quad]



Features

- High Performance CCTV Color Monitor
- Crisp, High resolution picture
- Rugged, Attractively style steel case
- UL and DHHS approval
- Conventional up front controls
- Built-in DC restoration(option)
- FCC and CE compliance
- Easy to Install for Monitor and Camera
- One way Audio from camera to monitor.
- Real Time Quad System
- Adjustable Dual Time and Date by OSD
- Quad, Manual Camera Selection or Automatic Sequence
- Universal Power Input (AC 110~ 220 V)
- 2 way Audio with Single Picture
- Alarming Devices Automatically Select Trouble Spot Camera for Full-Screen Viewing
- Dwell Power Saving Switches for CRT off but VCR on
- Function are Controlled on OSD and indicated by LEDS

Dimensions



Specifications

Description	HMC-141N/P
TV System	NTSC/PAL Automatically switching
Picture Tube	14 Inches Diagonal, 90° Deflection angle(0.66mm Stripe Pitch)
Resolution	400TV Lines Video Signal:0.714Vp-p (Composite video signal: 1Vp-p)
Video Input Signals	Sync. Signal:0.286Vp-p Chroma:0.3Vp-p
Video Input (Camera Inputs)	2 Inputs(BNC/RCA) Each
Video Output	2 In Out(BNC/RCA) Each
Audio Input	400mV (RCA)
High Voltage	24kV ± 500V
Operation Temperature	0~40°C
Operation Humidity Ranges	0~90%
AC Input Ranges	AC 120V 50/60Hz(NTSC) AC 220V 50/60Hz(PAL)
Weight(kg)	Approx. 15 kg
Dimensions (mm)	349(W) × 326(H) × 413(D)
Audio Output(watts)	1.0 watts
Power Consumption	65 watts

The product may include option or additional functions.

Description	HMC-144Q N/P
TV System	NTSC/PAL Automatically switching
Picture Tube	14 Inches Diagonal, 90° Deflection angle(0.66mm Stripe Pitch)
Resolution	400 Lines Video Signal:0.714Vp-p (Composite video signal: 1Vp-p)
Input Signals	Sync. Signal:0.286Vp-p Chroma:0.3Vp-p
Video Input (Camera Inputs)	4 Inputs (4 DIN Inputs Each.)
Video Output	1 port RCA for VCR
Refresh Rate	30 frame per sec
Quad Splitter	4CH Quad
Alarm Time/Dwell Time	Off, 1~60 seconds adjustable. / Off, 1~60 seconds adjustable.
O.S.D	Title, Freeze, Date, Time, Alarm, No video, SP
Title	8-characters per CH.
Operation Temperature	0~40°C
Operation Humidity Ranges	0~90%
AC Input Ranges	AC 220V, 60Hz
Dimensions / Weight	349(W) × 326(H) × 413(D) / Approx. 14 kg
Audio Output(watts)	1.0 watts
Power Consumption	60 watts

The product may include option or additional functions.

Memo

CCTV Controller

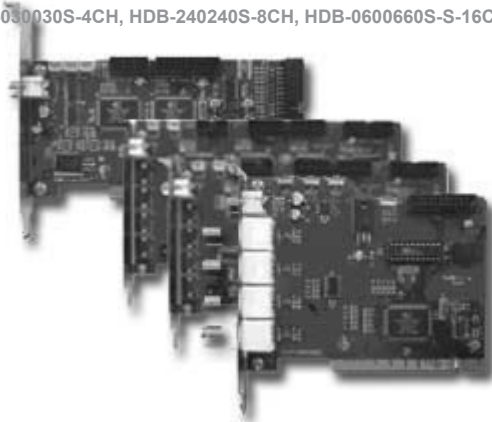
Hanse Electronics Co., Ltd.

HDV-400, DVR Board Series

HDV-400



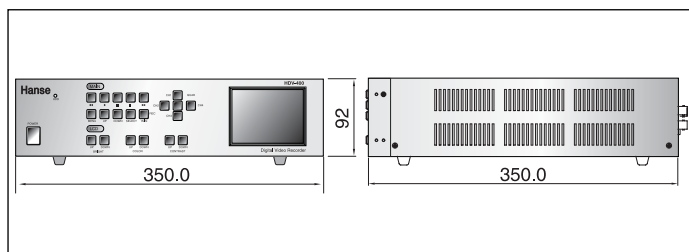
HDB-030030S-4CH, HDB-240240S-8CH, HDB-0600660S-S-16CH



Features

- MJPEG High - quality image compression.
- Embedded Linux OS(Non PC Based).
- Image resolution : 720 X 480
- Monitoring frame rate: 30fps(NTSC), 25fps(PAL).
- Recording frame rate: 30fps(NTSC), 25fps(PAL).
- Any-Multiplexers are compatible.
- Motion detecting with digital-image.
- Variable Recording Function (Motion, Sensor and Time schedule).
- Network function (TCP/IP): Client program-monitoring & playback.
- Recording easy search .
- Display and playback image zoom function.

Dimensions



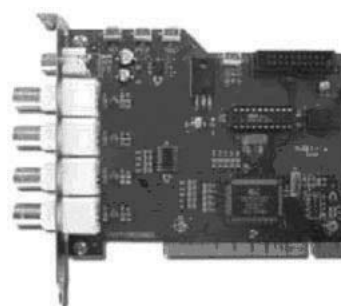
Specifications

Description	HDV-400
Image compression algorithm	MJPEG (average 10-20 Kb/field)
Number of cameras	4(NTSC/PAL)
Duplex/Simplex	Simplex
Image resolution	720 X 480, 360 X 240
Live Image	60field double scanning, QUAD or Full image display
Frame rate for recording	30(NTSC)/25(PAL) fps @ 720x480/720x576 120(NTSC)/100(PAL) fps @ 360X240/360x288(Quad)
Various recording mode	Time laps(30~1fps), Alarm, QUAD or Each channel
Various replay mode	Normal, Various fast speed up to X 2,
various slow speed	Go to time and date Search by alarm list
Frame rate for monitoring	30(NTSC)/25(PAL) fps @ 720x480/720x576 120(NTSC)/100(PAL) fps @ 360X240/360x288(Quad)
Number of sensor input	4
Number of alarm output	1
Motion detection	None
Zoom in Live or playback	None
Backup	Analog video out
Remote access	None
Built-in Device	HDD 80GB (Max 240GB)

The product may include option or additional functions.

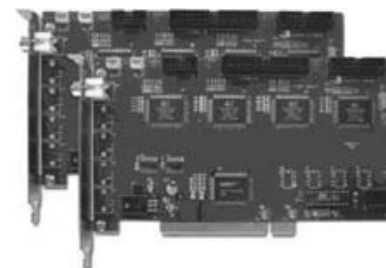
HDB-030030S-4CH

- 4ch BNC Camera Input
- Display 30fps
- Recording 30fps
- 1-ch Audio Support



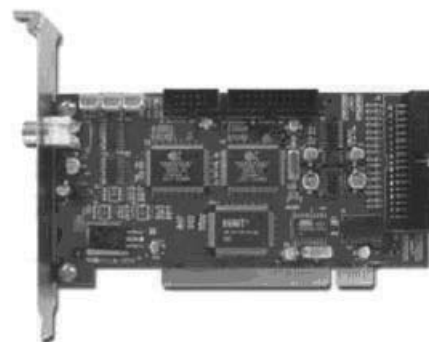
HDB-240240S-8CH

- 16ch BNC Camera Input
- Display 240fps
- Recording 240fps
- 8-ch Audio Support
- 4-ch BNC Guide 2PCS



HDB-0600660S-S-16CH

- 16ch BNC Camera Input
- Display 60fps
- Recording 60fps
- 2-ch Audio Support
- 16-ch BNC Cable Included



HMU-320A/C(B/W), HMU-750N/P(Color)

HMU-320A/C



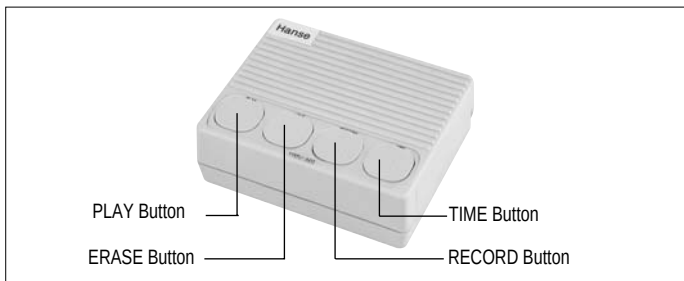
HMU-750N/P



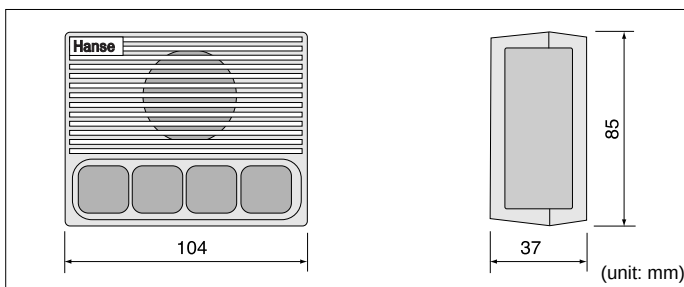
Features

- This video memory unit can be easily connected to any CCTV system. Stores 32(CCIR) or 32(EIA) images in it's memory bank.
- Low power consumption.
- Easy installation.
- Time memory with image.
- Low cost.
- Easy installation.
- Compact and light
- High sensitivity.
- Best quality image.
- Auto function
- Stores 64 images:optional

Whole View-Controls & Functions



Dimensions



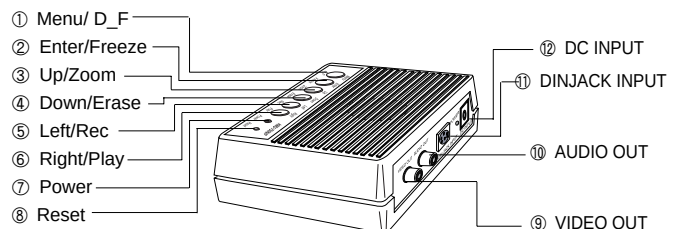
Specifications

Description	HMU-320A(EIA)	HMU-320C(CCIR)
Operating current	DC 12V ± 1V	
Power Consumption	3W	
Number of Memories	32CUT Image	
Effective Pixel	256 X 240(EIA),	256 X 256(CCIR)
Method of Matrix	Interlace: In Normal	
	Non Interlace: In Recording	
Video input	Composite Video 1Vp-p/ 75ohm Input	
Video output	1Vp-p ± 100mV Output	
Setup Image Data ON Power OFF	HI32A-none	
	HI32A-Keeping Function of memories	
In use Temperature	0~50℃	
In use Humidity	RH 10%~80%	
OperatingTemp	-10~60℃	
Dimensions(mm)	104(W) X 85(H) X 37(D)	
The product may include option or additional functions.		

Features

- 720X480 high resolution digital pixel images to display monitor
- It can record up to 30 cut images.
- Full real time display on live image.
- It can compare with recorded image and current image by freezing the current image.
- No mosaic effect digital 2 times zoomed image by vertical and horizontal interpolation
- It can select the recording/playback ways between user command and Auto record/playback.
- User can select the recording/playback g interval from 1 sec to 60sec on auto record/playback.
- Simple menu and easy operation.
- 3 type OSD(RTC) as USA, Europe and ASIA
- This product is implemented ASIC technology(HCM-1).

Whole View-Controls & Functions



Specifications

Description	HMU-750N/P
Power	DC 12V
Video input	Color Composite(CVBS) 1Vp_p / 75ohm
Video output	Color Composite(CVBS) 1Vp_p / 75ohm
Image resolution	NTSC : 720 X 480 PAL : 720 X 580
Recording image	30cuts
Screen split	Full, Dual, Quad
Zoom	2X digital zoomed image use V- and H- interpolation
Auto recording interval	1 sec ~ 255 sec or frame
Power consumption	4.5W
Operating temperature	-10°C ~ 45°C
Operating humidity	10 ~ 80% RH
Dimensions(mm)	104(W) X 85(H) X 37(D)

The product may include option or additional functions.

HSW-40B, HTL-960(96Houes)

HSW-40B



HTL-960(96Houes)

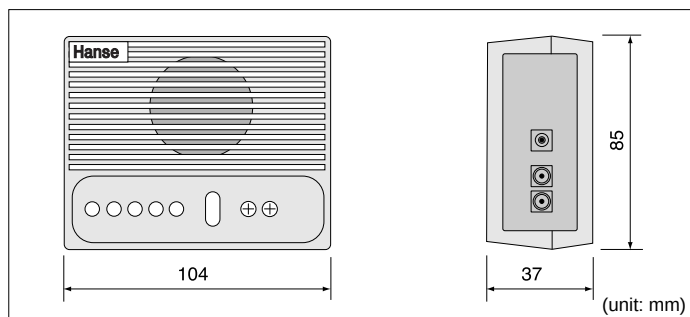


Features

- Sequentially switches up to 4 B/W or color cameras
- When connected to any camera or PIR. It will trigger any device, and stop switching and hold on the corresponding camera channel.
- The unit will also operate with Cameras but will not feature the Alarm hold function.
- Both the Alarm Hold Time and Camera switching time can be adjusted between 1 to 60 seconds.
- Provides power for up to 4 of the cameras installation quick, simple and neat.
- Switches through cameras automatically or manually.
- Auto switchable video and audio

- 3x High Density Recording
- Perfect 3x high field playback with Exclusive Time Lapse VCR Head
- Noiseless image at slow mode seeking, best image quality
- Real Time Recording & Playback

Dimensions

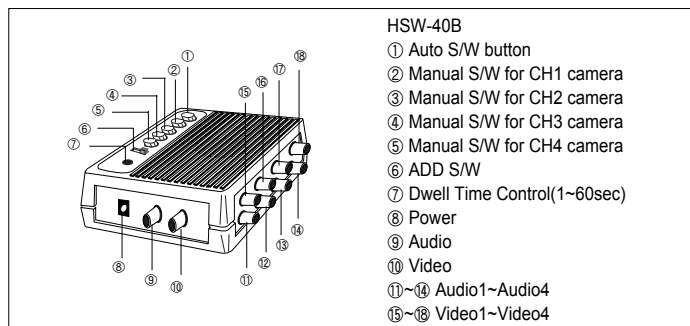


Specifications

Description	HTL-960
Tape Format Type	VHS
Television System	EIA Standard (525 lines, 60 F/S), NTSC Color Signal CCIR Standard (625 lines, 50 F/S), PAL Color Signal
Video Recording System	4 Rotary Heads, Azimuth Helical Scanning System
Luminance Signal	Frequency Modulation Recording
Color Signal	Color Subcarrier , Phase Shift Recording
REC/PB Mode	NTSC REAL L6, L18, L30, 48, 72, 120, 168, 240, 480, 960 PAL REAL (Opt. L9, L18) L6, L30, 48, 72, 120, 168, 240, 480, 960
Horizontal Resolution	More than 320 lines(B/W), More than 280lines(Color)
Signal to Noise Ratio	Video 43dB Audio 42dB
Video Input	1.0 Vp/p, 75ohm, BNC-F jack
Video Output	1.0 Vp/p, 75ohm, BNC-F jack
Audio Tracks	1 Track
Audio Frequency	100Hz~ 7kHz
Audio Input	-8dBm, 47kohm, RCA Pin jack
Audio Output	-6dBm, 1kohm RCA Pin jack
Audio Mode	Up to L30H
Microphone Input	-67dBs 600ohm, 3.5mm Mini Mic jack
Alarm Recording Time	1/3/5 mins, T.END, Level
FF/REW Time	Approx. 3min 30secs With T-120
Elapsed Use Time	To 9,999 hours max
Timer Programs	8 Programs
Battery Backup	31 Days
Remote in	Wireless (opt.)
Power Consumption	90 - 240V AC 50/60Hz
Power Consumption	Approx, 17 Watts
Operating Temperture	5°C - 40°C (41°F - 104°F)
Relative Humidity	Max. 80%
Dimensions (mm)	360(W)×94(H)× 270(D)
Weight	About 3.5kg(Gross Weight 4.6kg)

The product may include option or additional functions.

Name of each parts



OBSERVATION SYSTEM

Hanse Electronics Co., Ltd.

HML-M560N/P, HLM-M700N/P

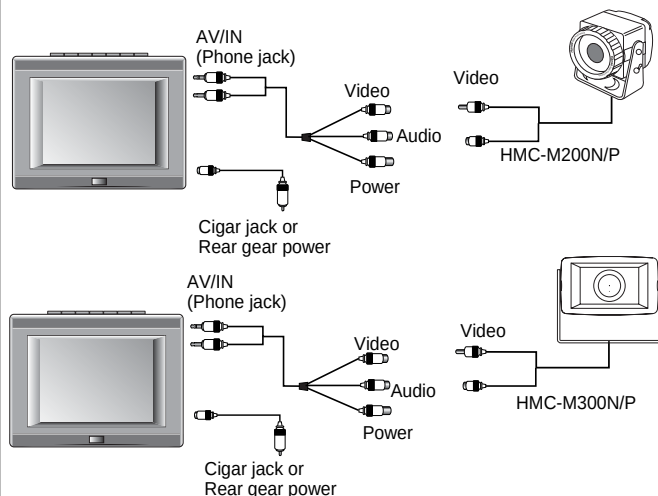
HML-M560N/P



HLM-M700N/P



Car Rear Viewer System



HML-M560N/P Specifications

■ Monitor Specifications

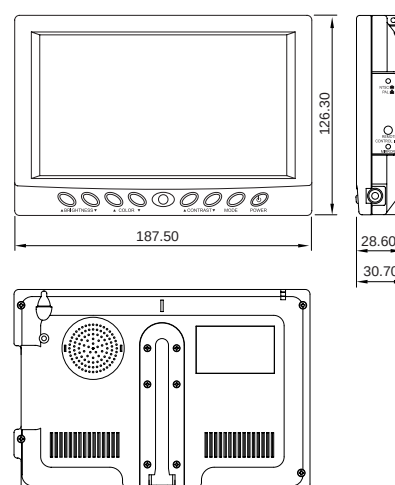
ITEM	MONITOR	HLM-560N/P
LCD	5.6 inch TFT LCD Color	
TV System	NTSC / PAL	
Resolution	86,000 pixels	
Color Configuration	RGB Delta Configurational, Composite Sync. Signal	
Dot Pitch	0.210(W)x0.259(H)	
View Angle	Horizontal: 45°, Vertical: 30°	
Contrast Ratio	60	
Brightness	250cd/m ²	
Video Input	Color Composite(CVBS) 1Vp _p / 75ohm	
Power Consumption	DC 12V, 540mA(Adaptor - DC 12V, 1.5A SMPS)	
Assurance Temperature	0°C ~60°C	
Mounting Type	Desk Top	
Input Impedance	75 ohm	
AV Input	3.5mm MINI 4p Type Stereo Jack	
Video Input	1.0Vp-p(75ohm) composite Video(3.5mm MINI 4p Type Stereo)	
Internal Speaker	0.4W 32ohm	
Weight	1.0kg	
Dimensions(mm)	165(W) × 125(H) × 41.5(D)	

■ Camera Specifications

Description	HMC-M200N/HMC-M300N	HMC-M200P/HMC-M300P
Image sensor	1/4inch, 270,000pixels	1/4inch, 320,000pixels
Horizontal resolution	360 TV lines above(at F2.0 Lens)	
Min. Illumination	0.5 lx / F1.4	
Supplied voltage	DC 12V or DC 24V	

The product may include option or additional functions.

Car Rear Viewer System



HML-M700N/P Specifications

■ Monitor Specifications

ITEM	MONITOR	HLM-700N/P
LCD	7 inch Wide TFT LCD Color(16:9 diagonal)	
TV System	NTSC / PAL Automatically switching	
Resolution	1440(H) X 234(V) dot	
Dot Pitch	0.107(H) X 0.372(V)	
View Angle	Horizontal: 60°, Vertical: 50° (6 o'clock)/40° (12 o'clock)	
Contrast Ratio	150	
Brightness	400 cd/m ²	
Video Input	Color Composite(CVBS) 1Vp _p / 75ohm	
Operating voltage	DC 11V~DC 32V	
Power Consumption	DC 12V/0.67A DC 24V/0.36A	
Assurance Temperature	0°C ~40°C	
Mounting Type	Desk Top	
Dimension/Weight	187.5(W) X 126.3(H) X 30.7(D)/1.0kg	
Adjustment	1. Picture Adjustment: Brightness, Color, Contrast 2. Picture Size Adjustment: Normal(4:3), Full(16:9), Wide(16:9) 3. Mirror on/off	
Input	Video/Camera/Power input cable	

■ Camera Specifications

Description	HMC-M200N/HMC-M300N	HMC-M200P/HMC-M300P
Image sensor	1/4inch, 270,000pixels	1/4inch, 320,000pixels
Horizontal resolution	360 TV lines above(at F2.0 Lens)	
Min. Illumination	0.5 lx / F1.4	
Supplied voltage	DC 12V or DC 24V	

The product may include option or additional functions.

HML-M200A/C, HBM-50

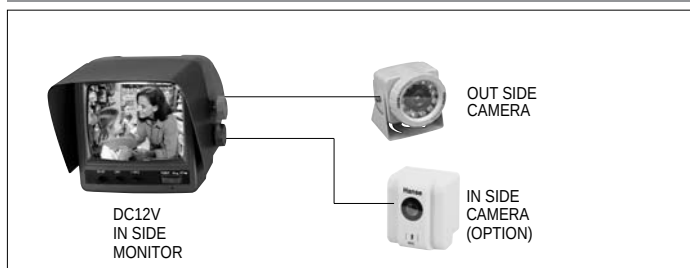
HML-M200A/C



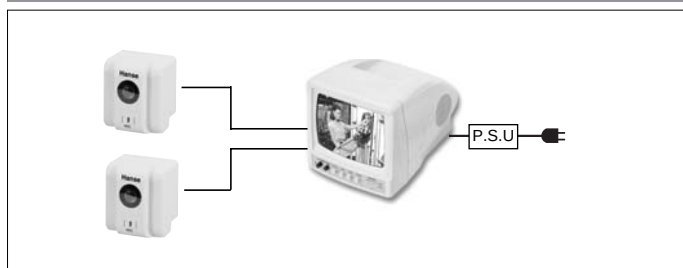
HMC-M301N/P, HMC-M311N/P



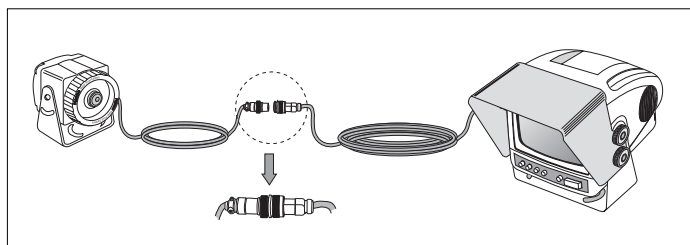
System Configuration



System Configuration



Car Rear Viewer System



Applications

- Switchable two cameras for monitor
- Making the installation much safer and easier
- Built in one way audio function
- Low power consumption and sharpness sensitivity.
- Auto Switchable 2 channel selection by PLL program
- Automatic Gain Control built in for a consistent image output
- Superior high S/N ratio Video and Audio outputs.
- Compact & light

Specifications

■ Monitor Specifications

Description	HML-M200 A/C
TV System	EIA or CCIR
Picture Tube	5.5" Black & White
Resolution	480TV Line
Scanning Frequency	15.734KHz(H) × 59.94Hz(V)EIA 15.625KHz(H) × 50Hz(V)CCIR
Audio Output	1Vp-p 600ohm
Video Output	1Vp-p 75ohm(RCA Jack)
Power Consumption	DC 13.5V
Working Temperature	-10°C ~ 60°C
Scan Time	1~30sec.
Speaker	8ohm, 57mm Round
Supply Current	1,000mA, typ.
Video/Audio	600ohm, 45dB/ 1Vp-p 75ohm
Input Signal level	65dBm
Weight	1,200g
Dimensions(mm)	146.5(W) × 142.5(H) × 195(D)

■ Camera Specifications

Description	HMC-M200N/HMC-M300N	HMC-M200P/HMC-M300P
Image sensor	1/4inch, 270,000pixels	1/4inch, 320,000pixels
Horizontal resolution	360 TV lines above(at F2.0 Lens)	
Min. Illumination	0.5 lx / F1.4	
Supplied voltage	DC 12V or DC 24V	

The product may include option or additional functions.

Specifications

■ Monitor Specifications

Description	HBM-50A/C
TV System	EIA or CCIR
Picture Tube	5.5" Black & White
Resolution	480TV Line
Scanning Frequency	15.734KHz(H) × 59.94Hz(V)EIA 15.625KHz(H) × 50Hz(V)CCIR
Audio Output	1Vp-p 600ohm
Video output	1Vp-p 75ohm(RCA Jack)
Power Consumption	13.5V DC
Working Temperature	-10°C ~ 60°C
Scan Time	1~30sec.
Speaker	57m/m Round
Supply Current	1,000mA, typ.
Audio/Video	600ohm, 45dB/ 1Vp-p 75ohm
Input Signal level	65dBm
Weight	1,200g
Dimensions(mm)	146.5(W) × 142.5(H) × 195(D)

■ Camera Specifications

Description	HMC-M200N/HMC-M300N	HMC-M200P/HMC-M300P
Image sensor	1/4inch, 270,000pixels	1/4inch, 320,000pixels
Horizontal resolution	360 TV lines above(at F2.0 Lens)	
Min. Illumination	0.5 lx / F1.4	
Supplied voltage	DC 12V or DC 24V	

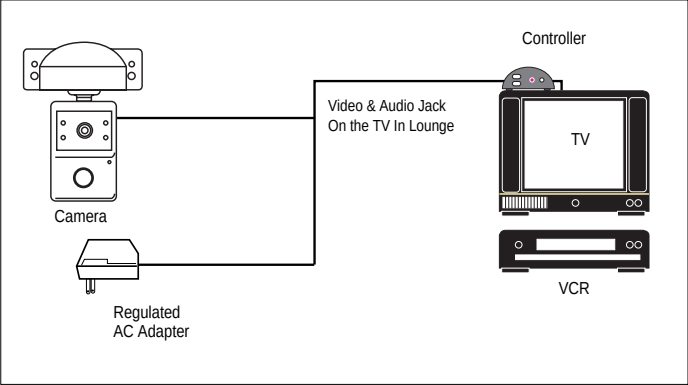
The product may include option or additional functions.

HTS-500N/P, HTS-500A/C

HTS-500N/P, HTS-500A/C



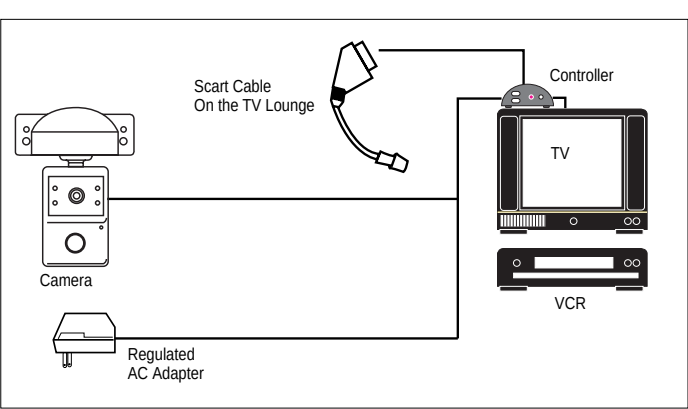
System Configuration



Features

- Low power consumption
- Easy install(AS DIY)
- Plug in Plug system
- Included 20m and option cable
- High quality picture
- High sensitivity
- Low cost
- Included motion detecting sound from controller
- can be adjusted motion detecting sound volume and LED lighting Auto switchable camera channel(In case TV on, used scart cable in PAL area)

System Configuration(with Scart Cable)



Specifications

Description	HTS-500N/P(Color)
Image Sensor	1/4 inch color
Pixel.no	270K(320K) pixels
Video Out put	1VP-P 75ohm
TV System	NTSC or PAL, SECAM
Resolution	330 TV Line
S/N Ratio	48 dB
γ correction	$\gamma=0.45$
Audio Out put	0.36W
Audio Impedance	600ohm
Min.Illumination	0.5LX
Lens	3.6 mm
Power Consumption	12V DC $\pm 10\%$, 200mA Max.
Oper.Temperature	$-10^{\circ}\text{C} \sim 60^{\circ}\text{C}$
IR.LED	NONE
Shutter Speed	1/60 sec $\sim$ 1/100,000 sec
The product may include option or additional functions.	HTS-500A/C(B/W)
	1/3 inch B/W
	270K(320K) pixels
	1VP-P 75ohm
	EIA or CCIR
	380 TV Line
	48 dB
	$\gamma=0.45$
	0.36W
	600ohm
	0.1 LX
	3.6 mm
	890 nm 4 Pcs
	1/60 sec $\sim$ 1/120,000 sec

CCTV Accessory

Hanse Electronics Co., Ltd.

Accessory/CCTV Housing Series&Bracket

HBR-101/HBR-102



▲HBR-101



▲HBR-102

Specifications

ITEM	PRODUCT	HBR-101	HBR-102
Material		Aluminum	Aluminum
Type		'I'	'I'
Camera Fixing		1.4"20-UNC	1.4"20-UNC
Max load		2.5Kg	2.5Kg
Weight		225g	230g
Dimensions(mm)		68(D) × 100(L)	68(D) × 150(L)
Standard Accessory		SCREW × 3EA	SCREW × 3EA



▲HB-215



▲HB-205L

Specifications

ITEM	PRODUCT	HB-215	HB-205L
Material		Stainless	Stainless
Thickness		ø 19	ø 11
Dimensions(mm)		215	205(H)X100(L)

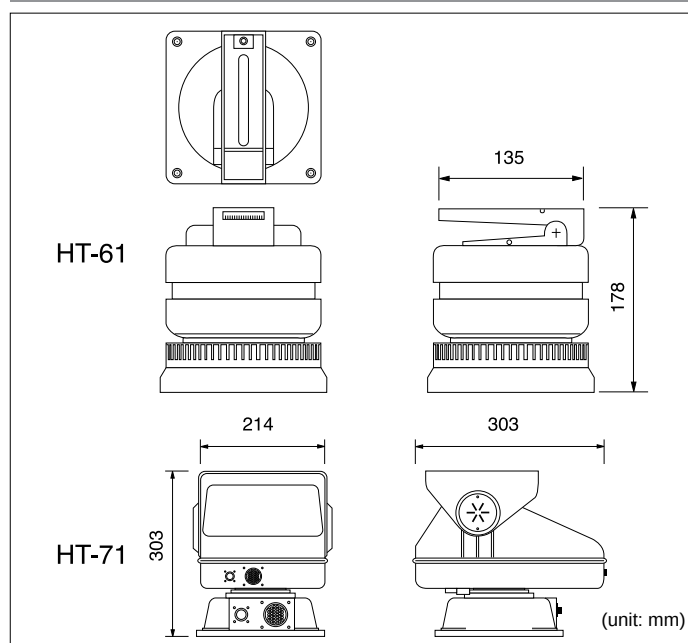
HT-61 / HT-71



Specifications

ITEM	PRODUCT	HT-61	HT-71
Angular Travel		Pan:352° Max, Automatic Scan	Pan:352° Tilt: ± 60° ~66°
Speed		Pan:6° /Sec(60Hz) 5° /Sec(50Hz)	Pan:6° /Sec(60Hz),5° /Sec(50Hz) Tilt:3.6° /Sec(60Hz),3° /Sec(50Hz)
Power Consumption		AC 24 ± 10%(50/60Hz)	AC 24 ± 10%(50/60Hz)
Power Consumption		4 Watts Max.	6 Watts Max.
Operation Temperature		-10℃ ~50℃	-10℃ ~50℃
Load Rating		10Kg	10Kg
Dimensions(mm)		125(H) × 119(D)	173(H) × 126(D) × 201(H)
Weight		1.0Kg	2.0Kg

Dimensions

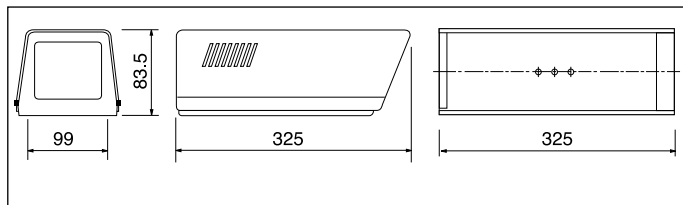


Accessory/CCTV Housing Series&Bracket

HHG-100A



Dimensions



Specifications

ITEM	PRODUCT	HHG-100A
Bracket		HBR-100, HBR-100S
Housing material		Aluminum
Color		Light Gray
Dimensions(mm)		99(W) × 83.5(H) × 325(D)
Weight		550g

HOH-120



Specifications

ITEM	PRODUCT	HOH-120
Housing material		Aluminum
Color		Ivory
Dimensions (mm)		133(W) × 94(H) × 315(D)
Weight		1,800g

HIH-110



Specifications

ITEM	PRODUCT	HIH-110
Housing material		Body:Aluminum, Front, Back:Plastic
Color		White(Aluminum)
Dimensions (mm)		133(W) × 94(H) × 315(D)
Weight		1,500g

HB-360



Specifications

ITEM	PRODUCT	HIH-110
Housing material		Steel
Color		Ivory
Dimensions (mm)		115(W) × 100(H) × 2T
Weight		1,000g

Accessory/CCTV Camera Lens

CCTV CAMERA LENS



• TM6Z0818 II



• TM10Z0814 II



• 256250 CC2.5mm/ F2.0



• TG612 Z 6~12mm/ F1.4
18°~44°, 22°~56°



• TVR3314



• TVR3314AI



• TC0412



• 404250 C 4.0mm/
F2.5 81°, 61°



• 605200 CC
6.0mm/ F2.0 54°, 40.5°



• 85180 C
8mm/ F1.8



• TC0812



• TC3516GAI



• TC1214GAI



• 123200 C
12mm/ F2.0 26°



• 164160 C
16mm/ F1.6 19°

Specifications

Model No.		TM6Z0818 II			TM10Z0814 II			TVR3314
		N	AI	AIPN	N	AI	AIPN	
Focal Length(mm)		8~48			8~80			3.3~8
Aperture(F)		F 1.4~360			F 1.4~360			F 1.4~Close
Operation	Iris	Motorized	Auto		Motorized	Auto		Manual
	Focus	Motorized	Motorized		Motorized	Motorized		Manual
	Zoom	Motorized	Motorized		Motorized	Motorized		Manual
Lens Groups & Elements		12G—12E			12G—12E			9G-10E
Image Format(inch)		1/2" (1/3")			1/2" (1/3")			1/3"
View Angle	Diagonal	W54.48° (41.25°)			W54.48° (41.25°)			W99.02°
		T 9.71° (7.23°)			T 6.06° (4.61°)			T 44.20°
	Horizontal	W44.00° (32.95°)			W44.00° (32.96°)			W78.98°
		T 7.72° (5.76°)			T 4.82° (3.67°)			T 35.32°
	Vertical	W32.95° (24.78°)			W32.95° (24.78°)			W59.02°
		T 5.76° (4.30°)			T 3.67° (2.73°)			T 26.56°
M.O.D(M)		1.5			1.5			0.3
Exit Pupil Position		-52.57			-52.57			55.42~184.45
Back Focal Length(mm)		11.7			11.7			9.34
Effective Front		ø 40.0			ø 40.0			ø 23.0
Aperture(mm) Rear		ø 11.4			ø 11.4			ø 9.0
Filter Size(mm)		M46.0 P=0.75			M46.0 P=0.75			M37.5 P=0.75
Dimension(D×Lmm)		65.0×75.3×102.5			65.0×78.3×102.5			ø 39.5×58.1
Weight(g)		500			500			125
Note		3Motor	Auto	Preset	3Motor	Auto	Preset	CS

Specifications

Model No.		TVR3314AI	TC0412	TC0812	TC3516GAI	TC1214GAI
ITEM						
Focal Length(mm)		3.3~8	4.0	8.0	3.5	12.0
Aperture(F)		F 1.4~125	F 1.2~Close	F 1.2~Close	F 1.6~64	F 1.4~64
Operation	Iris	Auto	Manual	Manual	Auto	Auto
	Focus	Manual	Manual	Manual	Manual	Manual
	Zoom	Manual				
Lens Groups & Elements		9G-10E	6G—7E	5G—5E	6G—7E	5G—5E
Image Format(inch)		1/3"	1/3"	1/3"	1/2" (1/3")	1/2" (1/3")
View Angle	Diagonal	W99.02°	76.2°	42.1°	109.36° (79.6°)	37.83°
		T 44.20°				(27.2°)
	Horizontal	W78.98°	63.8°	33.5°	94.29° (67.4°)	30.28°
		T 26.56°				(21.9°)
	Vertical	W59.02°	48.9°	25.2°	74.33° (53.1°)	22.72°
		T 26.56°				(16.5°)
M.O.D(M)		0.3	0.3	0.3	0.5	1.0
Exit Pupil Position		55.42~184.45	-40.50	-71.60	-28.5	-26.48
Back Focal Length(mm)		9.34	8.49	8.38	7.45	10.4
Effective Front		ø 23.0	ø 18.0	ø 9.3	ø 24.0	ø 10.5
Aperture(mm) Rear		ø 9.0	ø 9.0	ø 8.1	ø 10.0	ø 10.0
Filter Size(mm)		M37.5 P=0.75	M27 P=0.5	M27 P=0.5		M35.5 P=0.5
Dimension(D×Lmm)		ø 39.5×58.1	ø 31.0×31.5	ø 31.0×30.9	ø 47.5×41.0	ø 47.5×46.5
Weight(g)		160	50	40	80	65
Note		CS	CS	CS	DC 7V—18V	DC 7V—18V
					GALVANO CS	GALVANO CS

HRA-220



Specifications

HRA-220	
INput Operating Voltage	AC 220V~60Hz 90mA
Output Operating Voltage	DC 4.2V 650mA

HSA-0151F-12KA

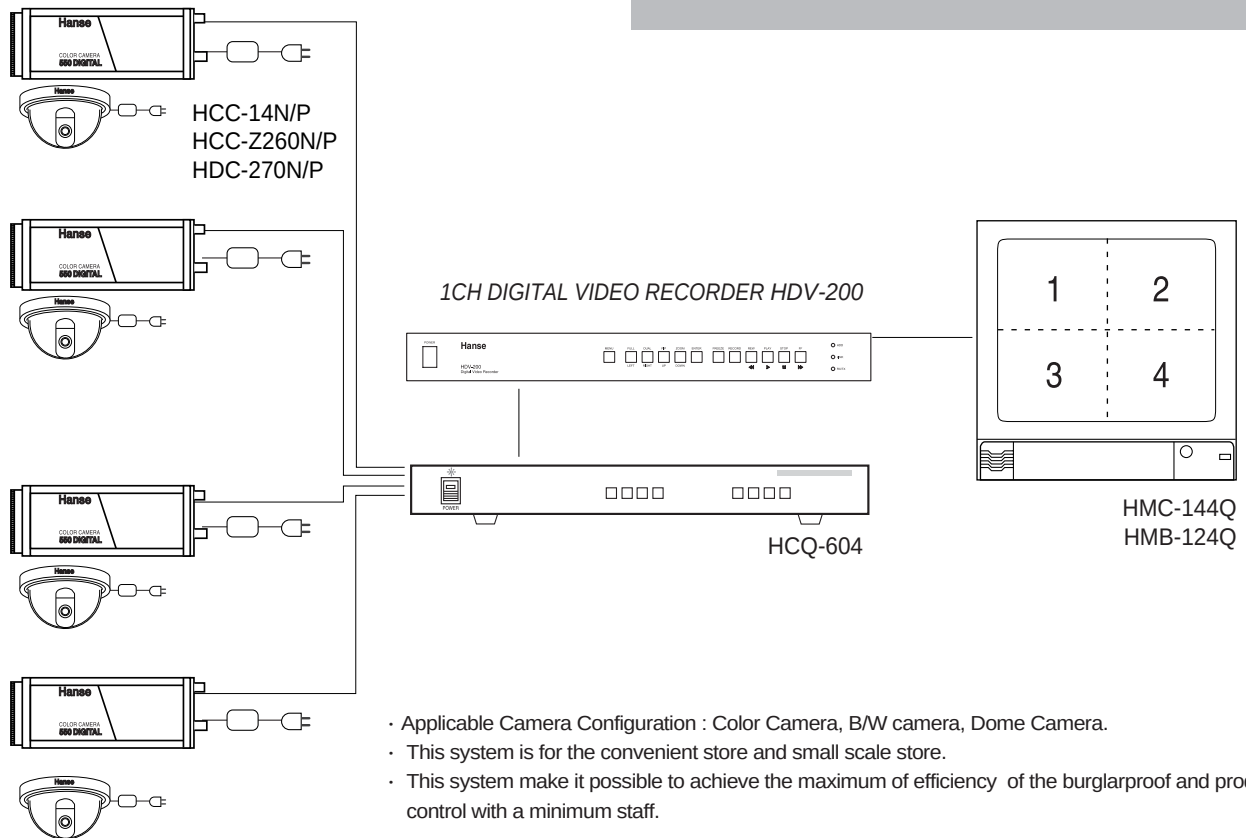


Specifications

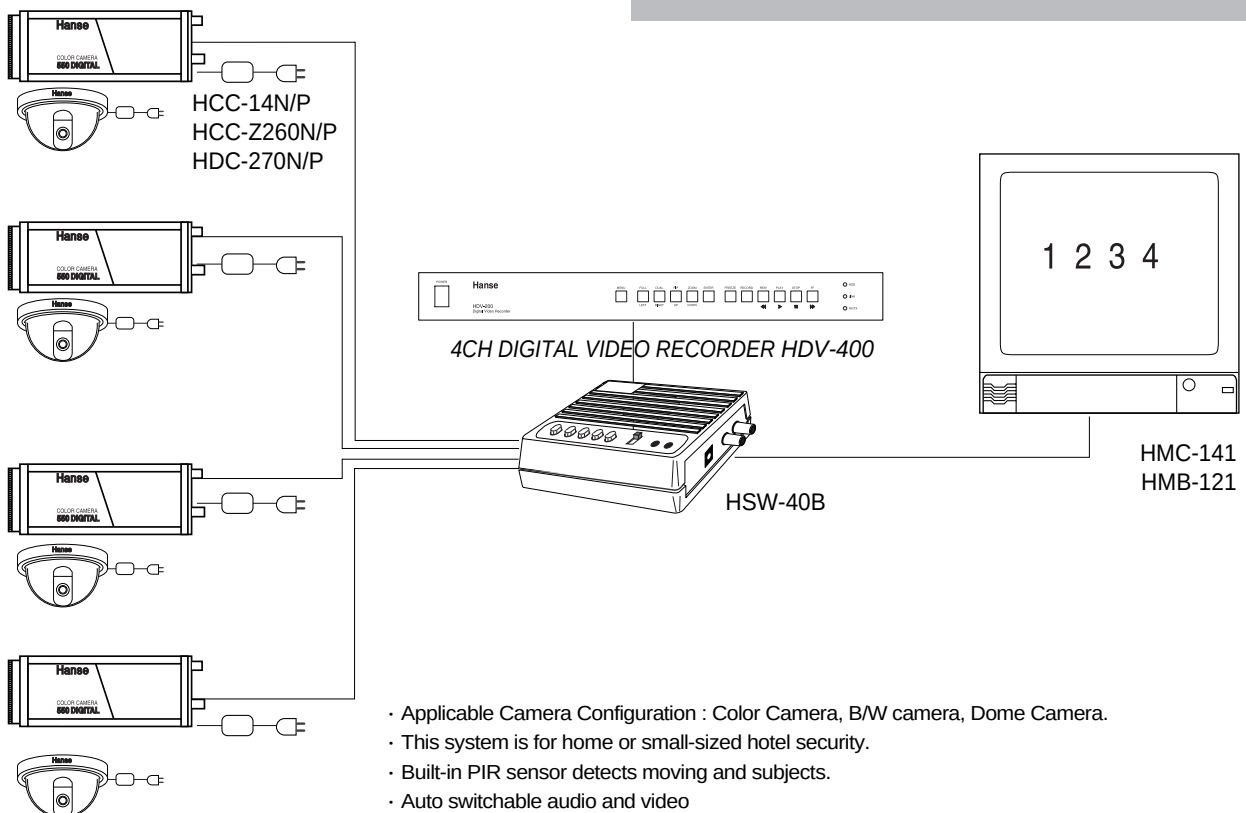
HSA-0151F-12KA	
INput Operating Voltage	AC 100~240~50/60Hz 0.4A
Output Operating Voltage	DC 12V 1.5A

Wiring network

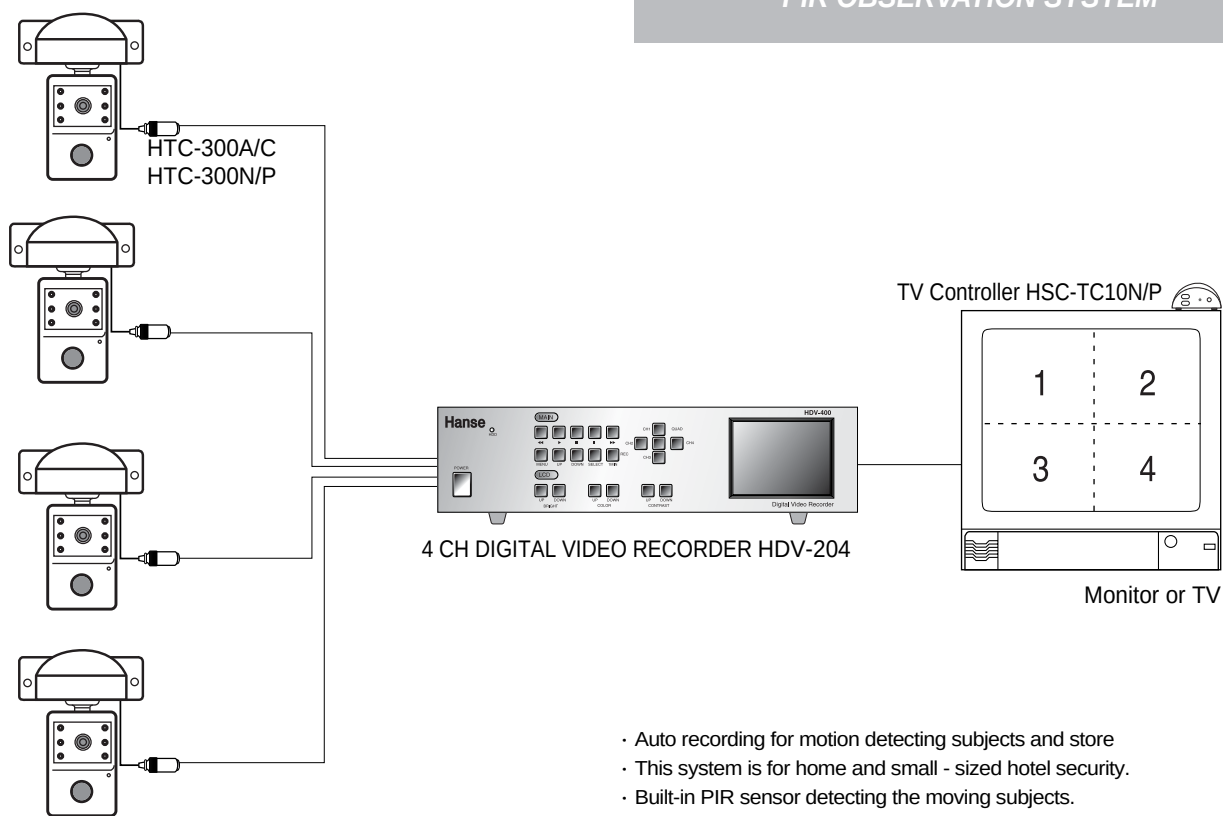
SMALL SCALE OBSERVATION SYSTEM 1



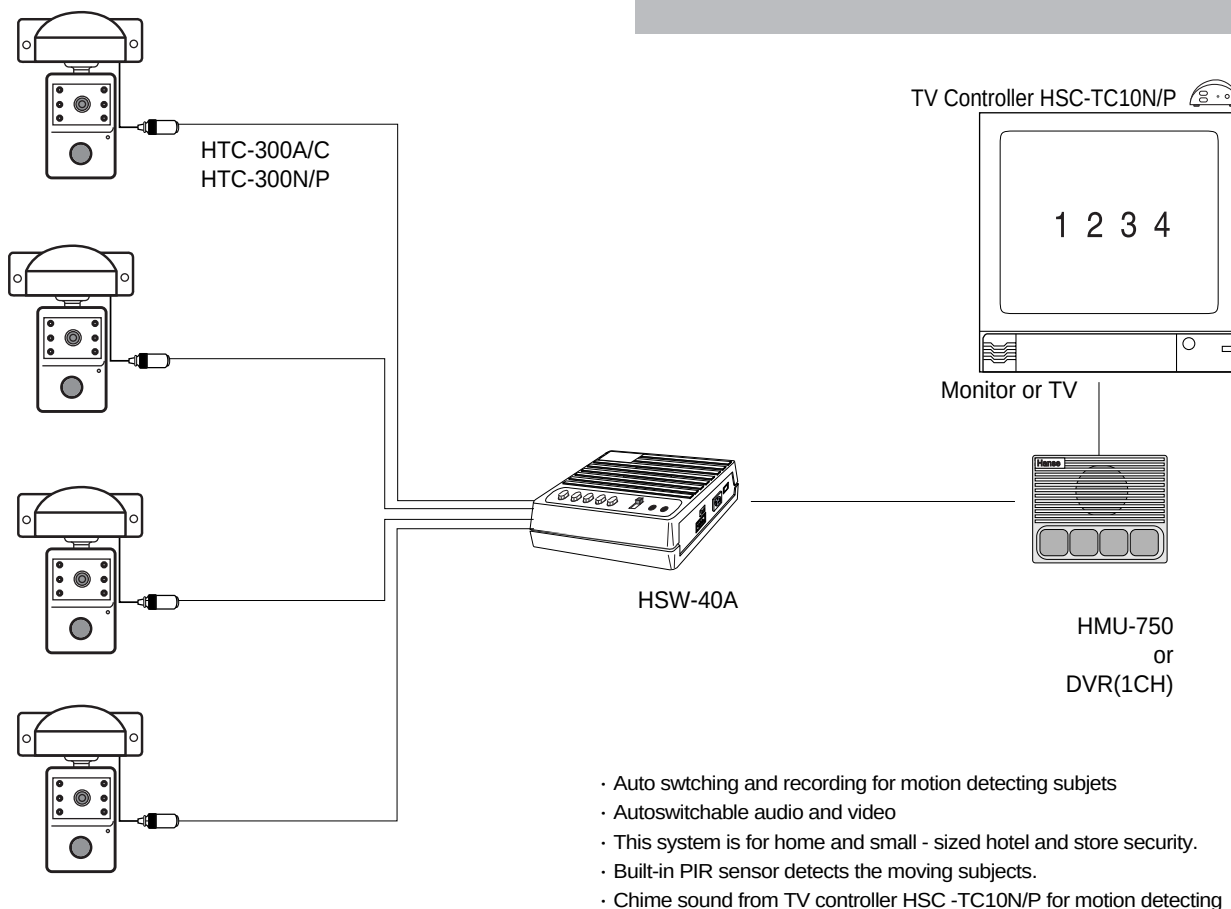
SMALL SCALE OBSERVATION SYSTEM 2



PIR OBSERVATION SYSTEM



PIR OBSERVATION SYSTEM



Memo

