

2.1MP HD-SDI Box Camera

HDC222



User Manual

Please read these instructions carefully before operating the unit and keep for further reference.

Please read this instruction carefully before operating the product and keep it for further reference. All examples and pictures used here are for reference only. The contents of this manual are subject to change without notice.

CAUTION:

- A regulated DC12V 500mA power supply is recommended for use with this camera to ensure the best picture quality and stable operation. An unregulated power supply may cause damage to the camera. Using an unregulated power supply will void the product warranty.
- It is recommended that the camera is used with a monitor that has a CCTV quality 75 video impedance level. If your monitor is switched to high impedance, then please adjust accordingly.
- Do not attempt to disassemble the camera to access internal components. Refer servicing to your distributor or manufacturer.
- Never face the camera towards the sun or any bright or reflective light, which may cause smear on the picture and possible damage to the image sensor.
- Do not remove the serial sticker for the warranty service.
- Do not use this apparatus near water.
- Clean only with a dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- To help prevent electric shock, plug the equipment and peripheral power cables into properly polarised or grounded electrical outlets. These cables are equipped with the wide blade or the third prong to ensure proper grounding. Do not use adapter plugs or remove the grounding prong from a cable. If the provided plug does not fit your outlet, consult an electrician.
- Ensure that nothing rests on your equipment's cables and that the cables are not located where they can be stepped on, tripped over, or pinched.
- Only use attachments or accessories as specified
- Only use the equipment with the cart, stand, tripod, bracket, or table that is specified by the manufacturer or sold with the apparatus. When a cart is used, use caution to prevent the cart from tipping over and to avoid injury.
- Do not connect or disconnect during lightning storms due to risk of electric shock.
- If any of the following conditions occur, unplug the equipment from the electrical outlet and replace the part or contact your trained service provider:
 - The power cable, extension cable, or plug is damaged.
 - An object has fallen into the equipment.
 - The equipment has been exposed to water.
 - The equipment has been dropped or damaged.
 - The equipment does not operate correctly when you follow the operating instructions.

1.0 Introduction.....	4
1.1 Product Features.....	4
1.2 Product Dimensions	4
1.3 Components.....	4
1.4 Mounting Position	4
1.5 Specification	5
2.0 Installation	6
2.1 Monitor Connection	6
2.2 RS-485 Type.....	6
3.0 OSD Manual.....	7
3.1 Function Description	8
4.0 RS-485.....	11

NOTE:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

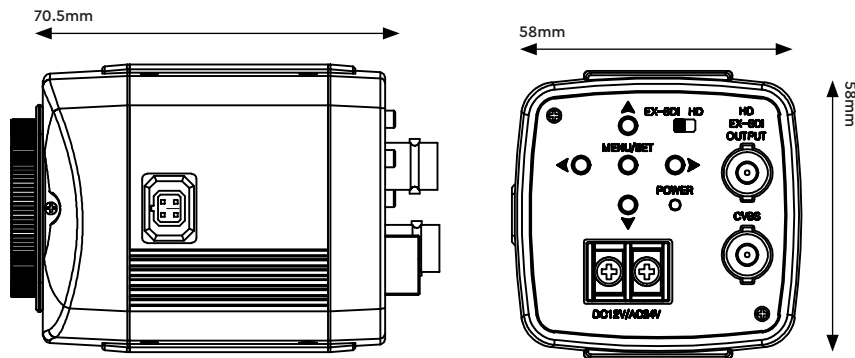
1.0 Introduction

The Genie HDC222 is a 2.1MP HD-SDI box camera with a 6-in1 output (AVI, TVI, CVI, EX-SDI, HD-SDI and CVBS).

1.1 Product Features

- Sony 1/2.8" 2.13MP Progressive Scan SONY Starvis CMOS
- 1080p (1920 × 1080) @ 30(25)fps
- 6-in-1 output (AVI, TVI, CVI, EX-SDI, HD-SDI, CVBS)
- C/CS Mount for lens
- Mechanical Day & Night
- WDR, 3D DNR, Defog
- UCC, UTC function supports OSD Control

1.2 Product Dimensions



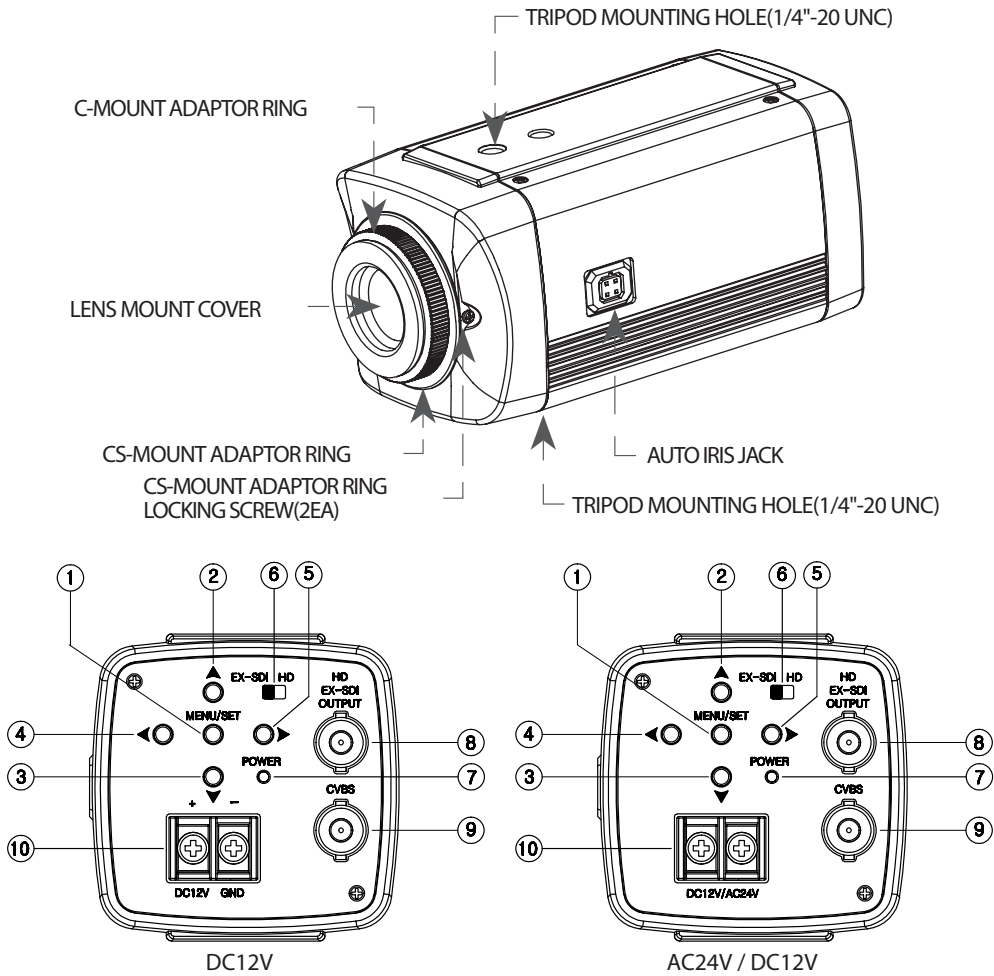
1.3 Components

- Camera
- C-Mount Adapter Ring
- User Manual

1.4 Specification

Camera	Image Sensor	1/2.8" Progressive Scan SONY Starvis CMOS
	Resolution	HD-SDI / EX-SDI1.0 / EX-SDI2.0 / AVI / TVI / CVI : 1080p @ 30fps (25fps) / 720p @ 60fps(50fps) / 720p @ 30fps (25fps) TV out : CVBS NTSC / PAL
	Electronic Shutter	AUTO / FLICKER / MANUAL / (1/30(25)~1/30,000)
	Digital Slow Shutter (DSS)	OFF~ x32
	Minimum Illumination	0.03Lux (F1.2, ICR OFF, AGC33dB, DSS:x2)
	Lens	C/CS Mount lens, depends on lens
	Effective Pixels	1945(H) x 1097(V)
Functions	White Balance	AUTO / AUTO EXT / PUSH LOCK / MANUAL
	WDR/BLC	OFF / BLC / HLC / WDR15P / WDR30P (4 Zones selectable)
	Auto Gain Control (AGC)	OFF~45dB
	Day & Night	AUTO / COLOUR / B&W (Electronic D&N)
	Noise Deduction	3D-DNR (OFF / LOW / MIDDLE / HIGH)
	Motion Detection	OFF / ON (4 Zones)
	Privacy Mask	16 Zones
	Image Rotation	OFF / H-FLIP / V-FLIP / HV-FLIP
	Defog	OFF / ON (AUTO/MANUAL)
	Sharpness	0~10
	Language	8 languages
Others	Video Output	HD-SDI / EX-SDI1.0 / EX-SDI2.0 / AVI / CVI / TVI / CVBS
	Operating Temperature	-10°C~+50°C
	Storage Temperature	-20°C~+60°C
	Power Source	12VDC (±10%)
	Power Consumption	Max.130mA @ 12VDC
	Dimension	58 × 58 × 70.5 mm
	Weight	180g

2.0 Overview & Function



1. MENU BUTTON
2. UP BUTTON
3. DOWN BUTTON
4. LEFT BUTTON
5. RIGHT BUTTON
6. EX-SDI (HD-SDI / EX-SDI 1.0 / EX-SDI 2.0), HD(AVI / TVI / CVI / CVBS) SELECT SWITCH
7. POWER LED (The LED turns on when power is supplied)
8. VIDEO OUT JACK(AVI / TVI / CVI / CVBS / HD-SDI / EX-SDI 1.0 / EX-SDI 2.0)
(By setting, video signal is changed)
(Used to connect an external video monitor or DVR in jack)
9. VIDEO OUT JACK (CVBS)
(Used to connect an external video monitor or DVR in jack)
10. POWER TERMINAL
(Used to connect an DC12V power source)
(Options : AC24V / DC12V)

3.0 Installation

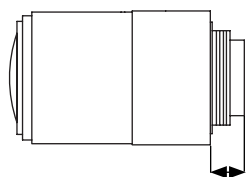
Replace the auto iris lens connection plug cover and take off the Sensor protection cap. Then, attach the auto iris lens to the camera by screwing it in clockwise.

Insert the connection plug that is connected to the auto iris lens cable into the auto iris lens connector, located on the side of the camera.

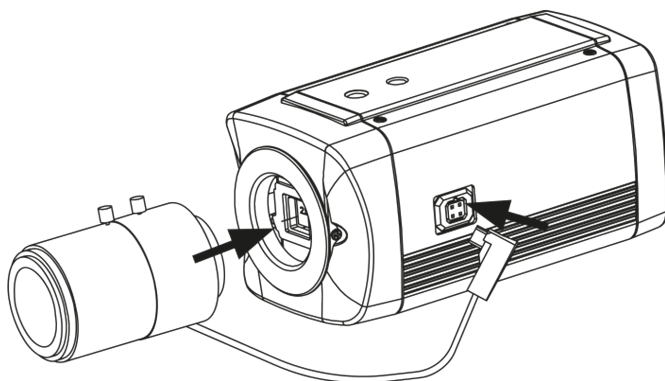
NOTE:

Use only lenses within the specifications shown below.

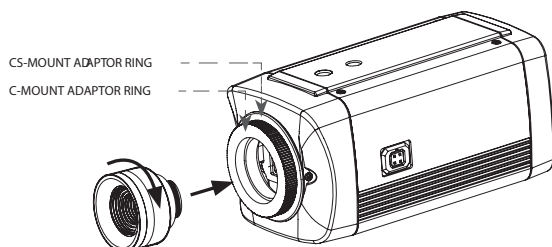
Otherwise, lenses may damage the camera or abnormal fixing may result.



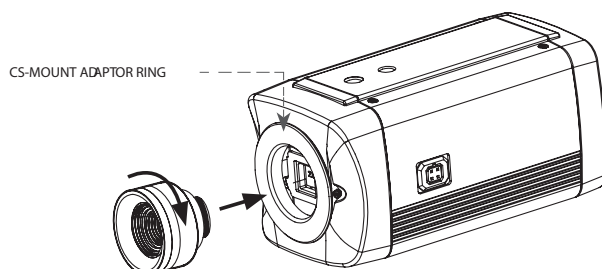
C-mount lens : 10 mm or less
CS-mount lens : 5 mm or less



Installation of C-Mount Lenses

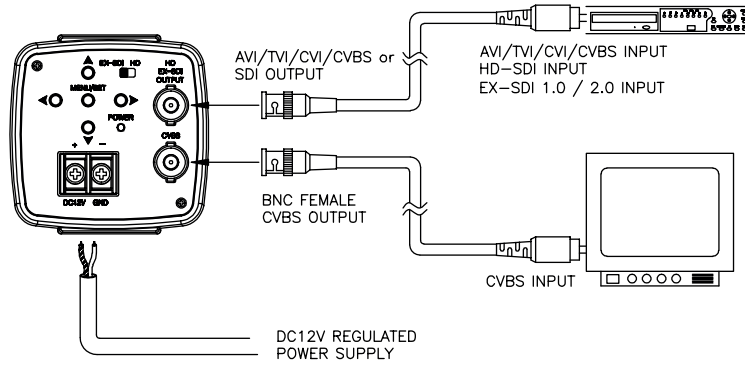


Installation of CS-Mount Lens

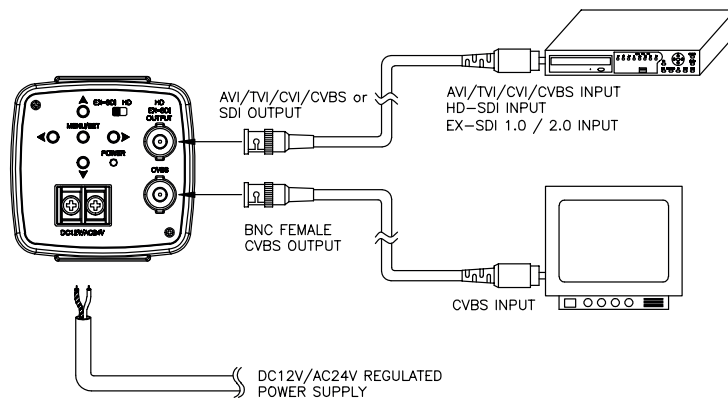


Monitor Connection

DC12V



24VAC/12VDC



CAUTION : After installation, turn off the power and turn it back on.

Menu Structure

Main	1st Sub Menu	2nd Sub Menu	3rd Sub Menu	4th Sub Menu	5th Sub Menu
LENS	LENS TYPE	ALC,ELC			
	LENS MODE	ALC: OUTDOOR, DEBLUR, INDOOR ELC: NORMAL, DEBLUR			
	RETURN				
EXPOSURE	BRIGHTNESS	0~20			
	SHUTTER MODE	AUTO,MANUAL,FLICKER			
	SHUTTER SPEED	1/30(25), 1/60(50), 1/120(100), 1/240, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/16000, 1/30000			
	DSS	OFF,X2~X32			
	AGC MAX	OFF, 3dB, 6dB, 9dB, 12dB, 15dB, 19dB, 22dB, 26dB, 30dB, 33dB, 37dB, 40dB, 42dB, 45dB			
	INITIAL				
	RETURN				
WHITE BALANCE	WB MODE	AUTO, AUTO EXT, PUSH LOCK, MANUAL			
	PUSH AUTO	CONTROLLER			
	COLOR GAIN	0~20			
	KELVIN	LOW, MIDDLE, HIGH			
	RED GAIN	0~20			
	BLUE GAIN	0~20			
	RETURN				
WDR/BLC	MODE	OFF,HLC,BLC, WDR 15P,WDR 30P(*1)			
	LEVEL	HLC:0~20 WDR:LOW,MIDDLE,HIGH			
	ZONE NO	NORMAL, ROI1, ROI2, ROI3, ROI4			
	WINDOW USE	ON,OFF			
	X-POSITION	0~20			
	Y-POSITION	0~20			
	X-SIZE	0~20			
	Y-SIZE	0~20			
	COLOR	BLACK, WHITE, YELLOW, CYAN, GREEN, MAGENTA, RED, BLUE			
	RETURN				
DAY&NIGHT	MODE	AUTO, COLOR, B&W			
	DWELL TIME	0~20sec			
	DAY->NIGHT	0~19			
	NIGHT->DAY	1~20			
	NIGHT BURST	OFF, ON			
	INITIAL				
	RETURN				

Main	1st Sub Menu	2nd Sub Menu	3rd Sub Menu	4th Sub Menu	5th Sub Menu	
IMAGE	SHARPNESS	0~10				
	GAMMA	0.45/0.50/0.55/0.60/0.65/0.70/0.75				
	FLIP	OFF,H-FLIP,V-FLIP,HV-FLIP				
	D-WDR	OFF,LOW,MIDDLE,HIGH				
	DNR	OFF,LOW,MIDDLE,HIGH				
	DEFOG	OFF				
		ON	MODE	AUTO,MANUAL		
			LEVEL	LOW,MIDDLE,HIGH		
	INITIAL					
	RETURN					
SPECIAL	CAM TITLE	OFF				
		ON	CONTROLLER			
			LOCATION	CONTROLLER		
	RETURN					
	PRIVACY	OFF				
		ON	ZONE NO	0~15		
			MASK MODE	OFF,ON		
			X-POSITION	0~60		
			Y-POSITION	0~34		
			X-SIZE	0~60		
			Y-SIZE	0~34		
			COLOR	CYAN,GREEN,MAGENTA,RED,BLUE,WHITE,YELLOW		
			TRANSPARENCY	0%,33%,66%,100%		
			INITIAL			
	RETURN					
	MOTION	OFF				
		ON	ZONE NO	0~3		
			WIDOW USE	OFF/ON		
			X-POSITION	0~60		
			Y-POSITION	0~34		
			X-SIZE	0~60		
			Y-SIZE	0~34		
			SENSITIVITY	0~10		
			ALARM MODE	OSD/TEXT		
			INITIAL			
	RETURN					
	SYSTEM	FRAME RATE	1080_30p,1080_25p,720_60p,720_50p,720_30p,720_25p(*2)			
		SDI OUT	EX-SDI 2.0,EX-SDI 1.0, HD-SDI			
		ANALOG OUT	AVI,CVBS,CVI,TVI			
		APPLY(*3)	CONTROLLER			
DVR SET		DVR(*4)	SDI DVR, ETC, 3R, HIKVISION3.0.4, HIKVISION, RAYSHARP, DAHUA, FOCUS			

Main	1st Sub Menu	2nd Sub Menu	3rd Sub Menu	4th Sub Menu	5th Sub Menu
SPECIAL	SYSTEM	DVR SET	COLOR SET	DELTA	0~20
				BYGAIN-	0~255
				BYGAIN+	0~255
				RYGAIN-	0~255
				RYGAIN+	0~255
				BYHUE-	0~255
				BYHUE+	0~255
				RYHUE-	0~255
				RYHUE+	0~255
				R GAIN	0~100
				G GAIN	0~100
				B GAIN	0~100
				INITIAL	
				RETURN	
					RETURN
	LANGUAGE	ENGLISH, Русский, ESPAÑOL, DEUTSCH, FRANCAISE, PORTUGUÊS, 日本語, 한국어			
	RETURN				
	INITIAL				
	RETURN				
FACTORY DEF(*5)					
EXIT					

(*1) WDR 15P : 3DNR on, 2DNR on, 15 Frame Rate

WDR 30P : 3DNR off, 2DNR on, 30 Frame Rate

The WDR function is not available in the CVBS output.

(*2) The 720/60(50)p mode is not real 60(50) Frame rate because 720/30(25)p scenes are output twice.

(*3) 'APPLY' menu must be selected for changing FRAME RATE, SDI OUT and ANALOG OUT.

(*4) It is recommended to select DVR maker in the menu according to DVR in use.

(*5) Value in SYSTEM menu (FRAME RATE, SDI OUT, ANALOG OUT, DVR, LANGUAGE) is not initialised by FACTORY DEF or INITIAL selection.

Important Note : Setting value changing is available by EXIT menu selection.

Hidden Menu

- CONVERT ANALOG OUTPUT MODE

STEP 1. ENTER

Press UP/DOWN/LEFT/RIGHT key more than 2 sec.

STEP 2. SELECT

Press UP key more than 5 sec : AVI

Press DOWN key more than 5 sec : CVI

Press LEFT key more than 5 sec : CVBS

Press RIGHT key more than 5 sec : TVI

STEP 3. CONFIRM

If the 'YES' is not checked within 30sec, the value returns to the previous setting.

- CONVERT SDI OUTPUT MODE

STEP 1. ENTER

Press UP/DOWN/LEFT/RIGHT key 3 times.

STEP 2. SELECT

Press DOWN key 5 times : EX-SDI 2.0

Press LEFT key 5 times : HD-SDI

Press RIGHT key 5 times : EX-SDI 1.0

STEP 3. CONFIRM

If the 'YES' is not checked within 30sec, the value returns to the previous setting.

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