HD-CAM843 - HD-SDI IR All-In-One Camera With 2.8-12mm Lens

Features

- **1080p At 25fps**
- **True Day Night**
- **2.8-12mm Varifocal**
- **40m IR Range**
- **Wide Dynamic Range**
- **Adjustable IR Brightness**

Specification

FUNCTION	SPECIFICATION
CCD	1/3" 2.1 Mega Pixel Panasonic CMOS
Resolution	1080p @ 25fps
Lens	2.8-12mm Varifocal
Min. Illumination	0 Lux With IRs On
IR LEDs	2 (High Power)
IR Range	40m
Day/Night	Mechanical
Digital Zoom	16x
Video Output	1V p~p, 75Ω
Video Connection	HD-SDI BNC Socket
CVBS Connection	Analogue BNC Socket
Power/Current	12V DC (± 10%) 600mA
Power Connection	2.1mm Socket
Gain Control	Automatic
IP Rating	IP66
Operating Temp.	-10°C ~ +50°C
Dimensions	205 x 98 x 98mm (Ex Bracket)

True Day Night Camera For Spectacular Day & Night Time Viewing

An attractive HD-SDI 1080p True Day-Night camera with mechanical filter that cuts out IR rays during the day (caused by sun and heat) to give great colour reproduction but opens up at night to allow two high powered IR LEDs to offer the camera a visible range of 30-40 metres.
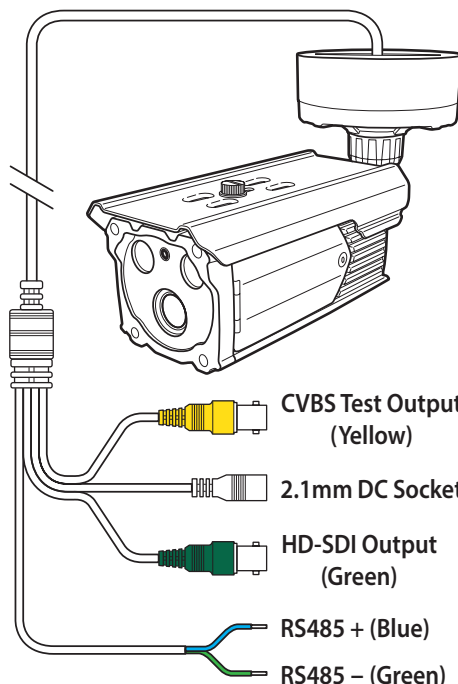
Mounting The Camera

When mounting the camera, the deep base is fixed to the mounting surface and the camera is then attached to the base.

82.5mm

Ø5.5mm

46mm

Options Available

PART CODE	DESCRIPTION
HD-CAM843	2.8-12mm HD-SDI All-In-One

Other Products To Consider

1080p HD-SDI All-In-One IR Camera With A 2.8-11mm 2.1 Mega Pixel Lens
CAM380

700TVL True Day-Night Analogue Camera With 2 High Power LEDs, WDR & UTC.
CAM840
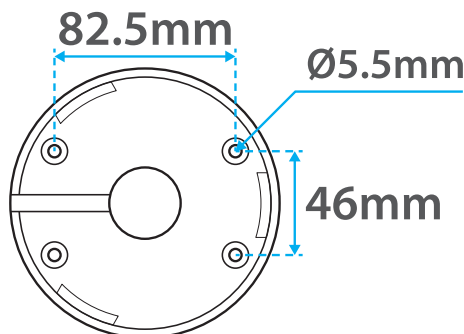
Connecting The Camera

The HD-CAM843 comes with moulded connections for HD-SDI video, analogue video test output (CVBS) and power. There are BNC sockets for connecting the HD and analogue video, a 2.1mm DC socket for connecting the power and two wires for connecting the RS485.

CVBS Test Output (Yellow)

2.1mm DC Socket

HD-SDI Output (Green)

RS485 + (Blue)

RS485 – (Green)

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Powering The Camera

The HD-CAM843 requires a regulated 12V DC power supply providing 600mA. You should always allow additional headroom to account for any extra loads such as auto iris lenses, heater kits or IR LEDs. As a rule of thumb you should add approximately 30% on top of the minimum current consumption of the camera. Taking this into account **we recommend a regulated 12V DC PSU providing no less than 800mA**.
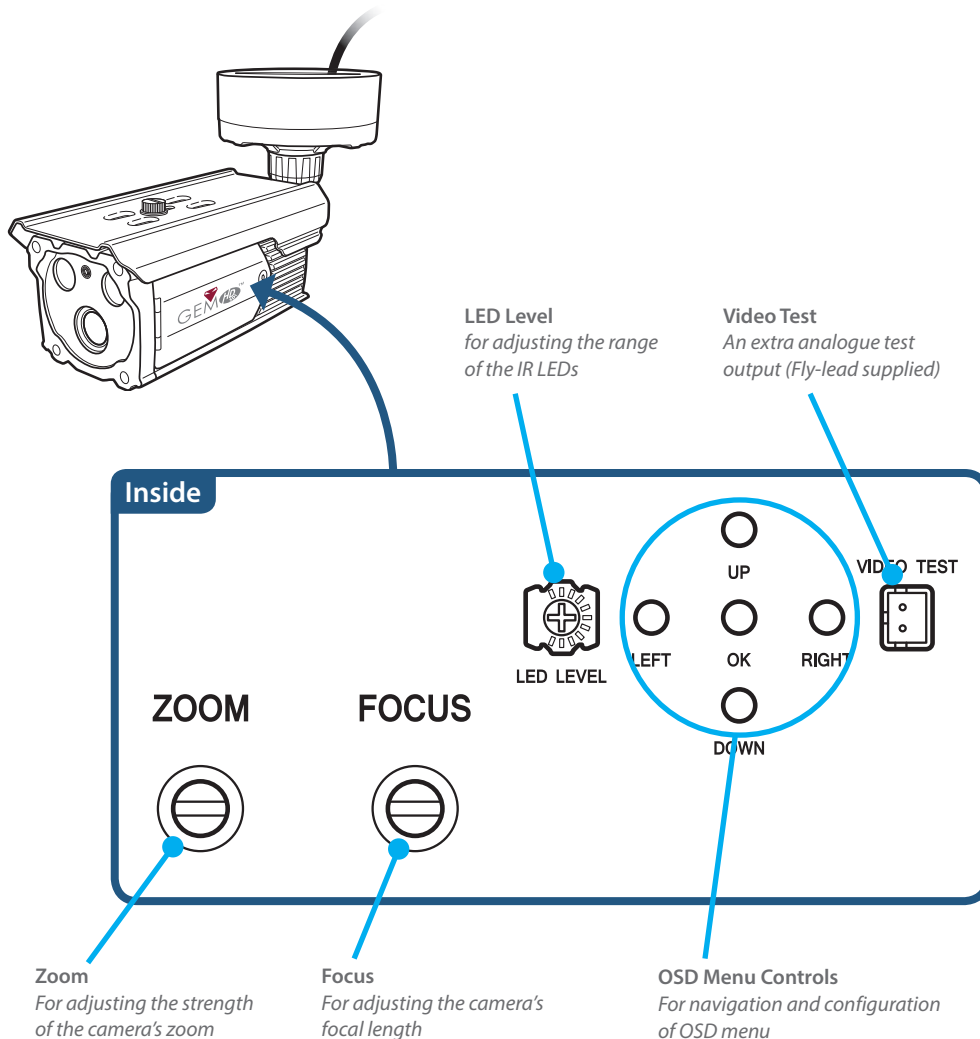
Cabling

When cabling the HD-CAM843 you **must use good quality RG59 co-ax cable**. HD-SDI cameras are designed to be used with co-ax only and will not work with CAT5 cable.

As HD-SDI is a digital transmission it requires a stronger signal to produce a picture when compared to an analogue transmission. The **maximum cable run for HD-SDI cameras without repeaters is 100m**. Longer cable runs require a HD-SDI repeater every 100m and a maximum of 4 repeaters can be used per run.

OSD & Camera Controls

All of the camera's controls are securely hidden under a lockable door on the side of the camera as shown below. To unlock the door use the smaller Hex key supplied.

LED Level
for adjusting the range of the IR LEDs

Video Test
An extra analogue test output (Fly-lead supplied)

Inside

LED LEVEL

UP

LEFT   OK   RIGHT

DOWN

VIDEO TEST

ZOOM   **FOCUS**

Zoom
For adjusting the strength of the camera's zoom

Focus
For adjusting the camera's focal length

OSD Menu Controls
For navigation and configuration of OSD menu

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CAM380

700TVL True Day-Night Analogue Camera With 2 High Power LEDs, WDR & UTC.
CAM840

All specifications are approximate. System Q Ltd reserves the right to change any product specifications or features without notice. Whilst every effort is made to ensure that these instructions are complete and accurate, System Q Ltd cannot be held responsible in any way for any losses, no matter how they arise, from errors or omissions in these instructions, or the performance or non-performance of the equipment that these instructions refer to.

WEE/CG0783SS

This symbol on the products and/or accompanying documents means that used electronic equipment must not be mixed with general household waste. For treatment, recovery and recycling please return this unit to your trade supplier or local designated collection point as defined by your local council.

OSD Menu

To access the OSD menu press the '**OK**' button on the side of the camera.

MENU ITEM	OPTIONS	
IRIS	ELC / ALC	
FOCUS ADJ	ON / OFF	

EXPOSURE	1. BRIGHTNESS: 0~20 (8)
	2. SHUTTER: AUTO / MANUAL / FLICKER
	   AUTO: NORMAL / DEBLUR
	   MANUAL: 1/25~130000 (1/25)
		3. SENS-UP: X2 / X3 / X4 / X5 /
		   X6 / X7 / X8 / X16 /
		   X32 / OFF
		4. AGC: 0~20 (16)

BACKLIGHT	OFF / HLC / BLC / WDR	
	HLC: 1. LEVEL: 0~20 (10)	2. COLOR: BLK / WHT / YEL / CYN / GRN / MAG / RED / BLU
	BLC: 1. H-POS: 0~20 (8) 2. V-POS: 0~20 (7)	3. H-SIZE: 0~20 (3) 4. V-SIZE: 0~20 (3)
	WDR: 1. WEIGHT: LOW / MIDDLE / HIGH	
DAY & NIGHT	MODE: EXTERN / AUTO / COLOUR / B&W	

	EXTERN: 1. ANTI-SAT: 0~20 (8)
	          2. EXTREN S/W: LOW / HIGH
	          3: D>N THRESH: 0~20 (11)
		4: N>D THRESH: 0~20 (8)
		5: DELAY: LOW / MIDDLE / HIGH

	AUTO: 1. ANTI-SAT: 0~20 (8) 3: AGC THRESH: 0~20 (10)	4: AGC MARGIN: 0~20 (10) 5: DELAY: LOW / MIDDLE / HIGH

COLOR	1. AUTO / AUTOext / PRESET / MANUAL
	   MANUAL: C-TEMP: 3000K / 5000K / 8000K
	           R-GAIN: 0~20 (10)
	           B-GAIN: 0~20 (10)
		2. COLOR GAIN: 0~20 (10)

DNR	LOW / MIDDLE / HIGH / OFF	

IMAGE	1. SHARPNESS: 0~10 (5)
	2. GAMMA: 0.45~0.65 (0.55)
	3. MIRROR: OFF / ON
	4. FLIP: OFF / ON
	5. D-ZOOM: 1.0X~16.0X (1.0X)
	6. ACE: OFF / LOW / MIDDLE / HIGH
	7. DEFOG: OFF / ON
	   ON: MODE: AUTO / MANUAL
	         LEVEL: LOW / MIDDLE / HIGH
	8. SHADING: OFF / ON
	   ON: WEIGHT: 0%~100% (100%)
	9. PRIVACY:
	   BOX: OFF / ON
	   ON: ZONE NUM: 0~15 (0)
	         ZONE DISP: ON / OFF
	         H-POS: 0~60 (12)
	         V-POS: 0~40 (2)
	         H-SIZE: 0~40 (3)
	         V-SIZE: 0~40 (3)
	         Y-LEVEL: 0~20 (10)
	         CB-LEVEL: 0~20 (10)
	         CR-LEVEL: 0~20 (10)
	         TRANS: 0~3 (2)
		POLYGON: OFF / ON
		
		ON: ZONE NUM: 0~7 (0)
		      ZONE DISP: ON / OFF
		      POS0-X: 0~120 (80)
		      POS0-Y: 0~68 (5)
		      POS1-X: 0~120 (120)
		      POS1-Y: 0~68 (5)
		      POS2-X: 0~120 (88)
		      POS2-Y: 0~68 (13)
		      POS3-X: 0~120 (80)
		      POS3-Y: 0~68 (13)
		      Y-LEVEL: 0~20 (10)
		      CB-LEVEL: 0~20 (10)
		      CR-LEVEL: 0~20 (10)
		      TRANS: 0~3 (2)

Default settings are displayed in blue.

OSD Menu Continued On Next Page ▶▶▶

For more information on menu options and what they do see online tip 295 ▶▶▶

SEE ONLINE TIP No: 295

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MENU ITEM	OPTIONS	
MOTION	ON / OFF	
	ON: 1. DET WINDOW: WINDOW USE: 0~3 (3) WINDOW ZONE: ON / OFF DET H-POS: 0~60 (0) DET V-POS: 0~40 (0) DET H-SIZE: 0~60 (60) DET V-SIZE: 0~34 (34)	2. SENSITIVITY: 0~10 (5) 3. MOTION OSD: OFF / ON 4. TEXT ALARM: OFF / ON 5. SIGNAL OUT: OFF / ON
SYSTEM	1. COM: CAM ID: 0~255 (0) BAUDRATE: 2400 / 4800 / 9600 / 57600 / 115200 2. IMAGE RANGE: USER / FULL / COMP USER: OFFSET: 0~32 (16) 3. COLOR SPACE: HD-CbCr / YUV / SD-CbCr 4. FRAME RATE: 1080_25P / 720_25P / 720_50P	5. MONITOR: 0~3 (0) 6. FREQ: PAL / NTSC 7. CVBS: ON / OFF 8. LANGUAGE: ENG / CHN / CHN (S) / JPN / KOR 9. COLOUR BAR: OFF / ON 10. RESET
EXIT	EXIT MENU SYSTEM	

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Fault Finding

The table below describes common problems and possible solutions.

Fault	Possible Cause	Possible Solution
Interference On The Camera Picture	Poor or inadequate cabling or an unregulated or poorly regulated power supply.	Make sure you are using a regulated 12V DC power supply.
No Picture	The camera cannot function without the correct working power supply.	Test that the camera has the correct voltage supplying it, you must do this with the camera connected so that there is load on the PSU. The camera should have at least 10.5V DC connected to it.
	Poor or incorrect cable used.	Check there is and image at the camera end with a test monitor using the CVBS test output. If there is a picture here but not at the DVR it could be one of the following: A. Video loss in Composite cable as run too long, usually you would get a picture up to around 100 meters. For longer cable runs you must use a HD-SDI repeater every 100m. A maximum of 4 repeaters can be used per run. B. Ensure that the BNC - BNC lead that you connect between the camera and monitor has no shorts or open circuits. If you are making your own lead, don't forget the lead must have two wires connected to complete the circuit, Video and Ground.
The Picture's Colour Changes Constantly	Fluorescent lighting emits an electromagnetic field which can cause colour roll.	Move the camera further away form any fluorescent lighting.

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