

FCB-H10

Colour Camera Module



The Sony High-Definition FCB-H10 Colour Camera Module with its stunning images takes your applications to the next generation.

Sony continues to be on the cutting edge of HD (High-Definition) technology and is a leader in producing high quality camera modules. Introducing the first Sony HD camera module to the FCB Series – the FCB-H10. This camera module can expand your solutions by providing high quality and high resolution images that only HD can offer.

The new FCB-H10 colour camera module allows you to experience the world of HD with a 1080i and 720p signal system. This exceptional camera module incorporates a 1/3-type HD CMOS image sensor boasting approximately two-million effective pixels, and provides a 16x9 aspect ratio making it ideal for use with wide screen displays. The FCB-H10 camera module also features multi-format video outputs from SD to full HD (1080i), offering both system flexibility and high quality images.

In addition, the FCB-H10 inherits many outstanding features from the Sony world-renowned FCB Series. With its built-in zoom lens, Picture Freeze Function, SPOT AE Function, and Slow Shutter, the FCB-H10 is ideal for applications that require dynamic, high-resolution images, and flexible outputs such as video conferencing, cable TV broadcasting and point-of-view (POV) applications.



Features

Superb Picture Quality – Two-Megapixel HD CMOS Sensor

The FCB-H10 incorporates a 1/3-type HD CMOS sensor (approximately two-million effective pixels) providing outstanding picture quality and high-resolution images.

Multi-Format Video Outputs from NTSC/PAL to Full HD

The FCB-H10 can provide full high-definition video in 1080i format. Depending on your application and configuration, you can select the format that is right for you. With eight video formats from SD to full HD, the FCB-H10 camera module allows you to easily migrate from SD to HD.

High-Speed Serial Interface (max. 38.4 kb/s) and TTL Signal-Level Control (VISCA protocol)

All camera settings can be performed by VISCA protocol at high communication speeds up to 38.4 kb/s.

120x Zoom Ratio (10x Optical + 12x Digital)

The FCB-H10 incorporates a 10x optical zoom lens, achieving an outstanding zoom capability of up to 120x when used in combination with its 12x digital zoom.

Compact and Lightweight Design

With its compact and lightweight (approx. 120 g/4.2 oz) design, the FCB-H10 can be integrated into systems having limited space.

Picture Freeze Function

The Picture Freeze Function outputs a still image while the camera is panning, tilting, zooming, focusing, initialising the lens, or performing preset operations. This helps prevent the display of unnecessary images.

SPOT AE Function

The AE area of the FCB-H10 can be selected from any block in a 16 x 16 matrix of the image to optimise brightness within the desired area.

Other Features

- Slow Shutter
- Low Power Consumption (3.8 W)

SONY

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Pin assignment & connector

24 P FFC Connector for Camera Control, Analogue Video Output, Power

PIN NO.	NAME	LEVEL
1	GND	
2	TxD	TTL Level (0 V - 5.0 V)
3	TxD	TTL Level (0 V - 5.0 V)
4	RESET-IN	Reset: Low (GND) Normal: Open
5	GND	
6	Y_OUT	Y/C Y_OUT
7	GND	
8	C_OUT	Y/C C_OUT
9	GND	
10	VBS OUT	
11	GND	
12	Y_OUT	HD Analog Component
13	GND	
14 P	b OUT	HD Analog Component
15	GND	
16	Pr OUT	HD Analog Component
17	GND	
18	POWER	6.0 V - 12.0 V DC
19	POWER	6.0 V - 12.0 V DC
20	POWER	6.0 V - 12.0 V DC
21	POWER	6.0 V - 12.0 V DC
22	GND	
23	POWER	6.0 V - 12.0 V DC
24	GND	

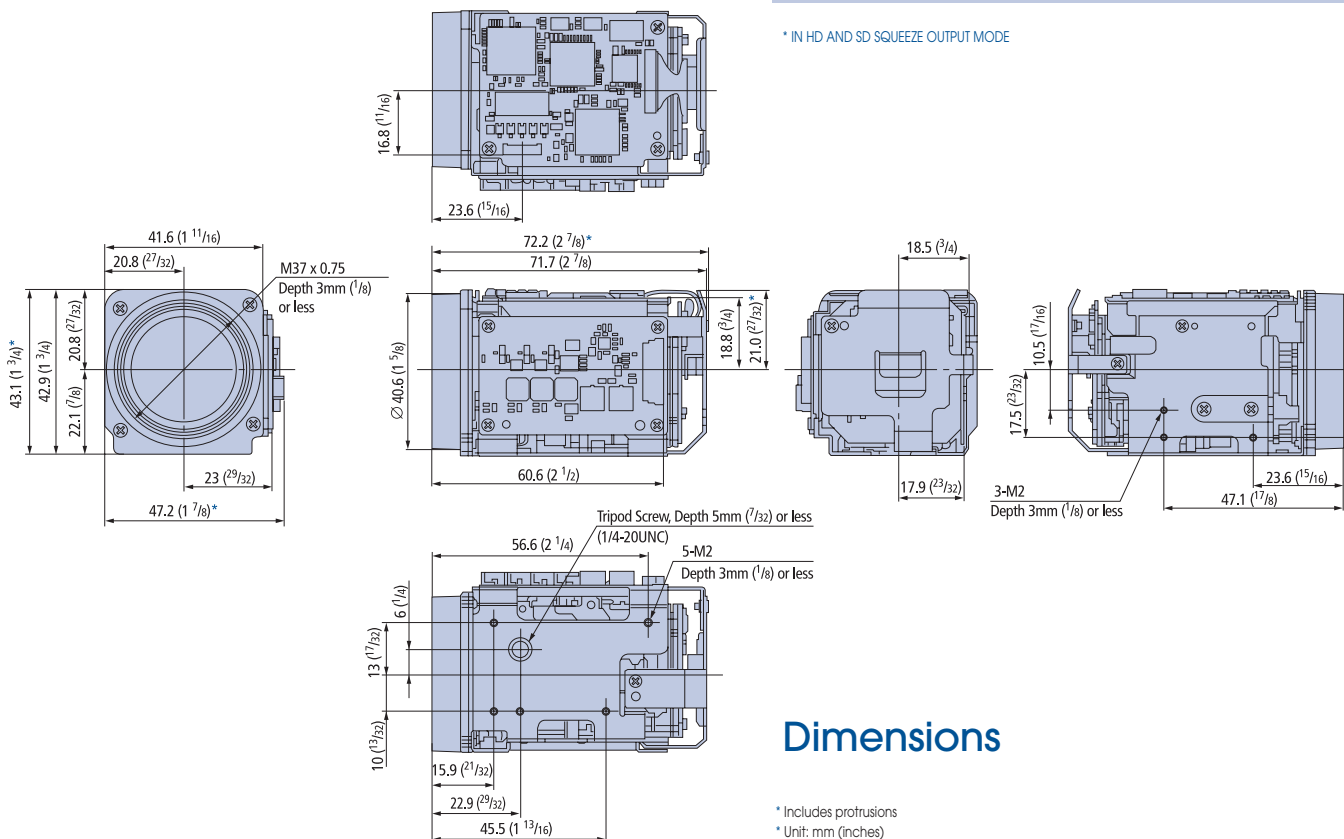
CONNECTOR: KYOCERA ELCO 04 6240 224 006 848+

Specifications

FCB-H10

Image sensor	1/3-type CMOS
Effective Number of Pixels	Approx. 2,000,000 pixels
Aspect ratio	HD 16:9 SD 4:3/16:9
Lens	10x optical zoom, f=5.1 mm (wide) to 51.0 mm (tele), F1.8 to F2.1
Digital zoom	12x (120x with optical zoom)
Horizontal angle of view	50° (wide) to 5.4° (tele)*
Minimum object distance	10 mm (wide) to 800 mm (tele)
Sync system	Internal
Minimum illumination	12 lx (typical) (F1.8, 50 IRE)
S/N ratio	More than 50 dB
Electronic shutter	1/2 to 1/10,000 s, 21 steps
White balance	Auto, Indoor, Outdoor, One-push, Manual
Gain	Auto/Manual (-3 to 18 dB, 8 steps)
AE control	Auto, Manual, Shutter Priority, Iris Priority, Bright, Spot AE
EV compensation	-10.5 to 10.5 dB (15 steps, 1.5 dB increments)
Backlight compensation	On/Off
Signal system	HD 1080/59.94i, 1080/50i, 720/59.94p, 720/50p SD NTSC (Crop/Squeeze), PAL (Crop/Squeeze)
Video output	HD Analog component: Y/Pb/Pr SD VBS: 1.0 Vp-p (sync negative) Y/C
Focus system	Full Auto (Normal AF/Interval AF/Zoom Trigger AF), One-push Trigger, Manual, Infinity, Near Limit Setting
Picture effects	Nega Art, Black & White, Picture Freeze
Camera operation switch	Zoom tele, Zoom wide
Camera control interface	VISCA (TTL signal level), baud rate: 9.6 Kb/s, 19.2 Kb/s, 38.4 Kb/s, stop bit: 1 bit
Storage temperature	-20 to 60 °C (-4 to 140 °F)
Operating temperature	0 °C to 45 °C (32 to 81 °F)
Power consumption	6 to 12 V DC/3.8 W
Mass	Approx. 120 g (4.2 oz)
Dimensions (w x h x d)	47.2 x 43.1 x 72.2 mm (1 7/8 x 1 3/4 x 2 7/8 inches)
Supplied accessory	24P FFC (Flat Flexible Cable)

* IN HD AND SD SQUEEZE OUTPUT MODE



Dimensions

* Includes protrusions
* Unit: mm (inches)