

FCB-EX780S FCB-EX780SP

Component/OEM



OUTLINE

The FCB-EX780S/EX780SP color block cameras incorporate a newly developed, powerful 25x AF zoom lens and a 1/6 type Super HAD CCD™ as well as an image stabilizer function. These cameras also feature a newly developed Digital Signal Processing (DSP) that greatly enhances the quality realized by the slow shutter function and the digital zoom. The image stabilizer minimizes the appearance of shaky images caused by low frequency vibration, making the FCB-EX780S/EX780SP cameras ideal for outdoor surveillance and traffic monitoring applications. Also incorporated in the FCB-EX780S Series is a new automatic ICR (IR Cut filter Removal) mode for increased sensitivity in low light environments. The ICR will automatically engage depending on the ambient light, allowing the camera to be effective in day/night environment. With the combination of the ICR mode and slow shutter speed operation, the FCB-EX780S/EX780SP cameras can achieve superb near-infrared sensitivity of 0.02 lux.

The FCB-EX780S/EX780SP cameras also offer privacy zone masking, quick camera control via high-speed serial interface (max. 38.4 kb/s) and convenient preset functions perfectly suited for a wide range of surveillance and monitoring applications.

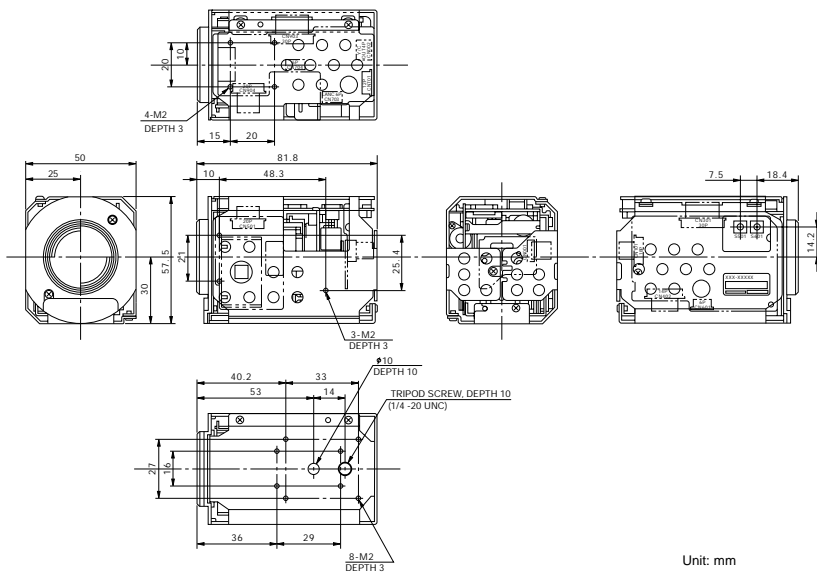
FEATURES

- Super HAD CCD with 680,000 pixels (NTSC) /800,000 pixels (PAL)
- 300x zoom ratio (25x optical, 12x digital)
- Auto ICR Mode
Auto ICR function automatically controls ICR to achieve sensitivity to near-infrared range in low light environments, making the camera ideal for day/night monitoring operations
- Spot AE
With its new DSP system, the AE area can be user-defined and controlled to optimize the brightness within the specific area.
- Electric shutter/slow shutter (long time exposure)
- Image Stabilizer
Image Stabilizer minimizes the affect of shaky images caused by low frequency vibration, allowing the camera to be used in outdoor applications. When this function is activated, horizontal resolution is kept as normal.
- Privacy Zone Masking
The Privacy Zone Masking function allows preset, prohibited sections from being captured when monitoring outside environments. Maximum of six positions can be preset.
- Various Auto Functions
AE (Auto Exposure), WB (White Balance) and AF (Auto Focus)
- Picture Effects (Negative/Positive Reversal, Black White (Monochrome Image))
- High speed serial interface (max. 38.4 kb/s) and TTL signal level control (VISCA protocol)
- Preset (six positions)
- Internal/External sync.
- Low power consumption - min. 1.5 W (with non-active motors)

SPECIFICATIONS

	FCB-EX780S	FCB-EX780SP
CCD Sensor	1/6 Type CCD	1/6 Type CCD
Signal System	NTSC	PAL
Picture Elements	Approx. 680,000 pixels	Approx. 800,000 pixels
Horizontal Resolution	470 TV lines	460 TV lines
Lens	25x zoom, f=2.4 mm (wide) to 60 mm (tele), F1.6 to F2.7	
Digital Zoom	12x (300x with optical zoom)	
Angle of View (H)	45 degrees (wide end) to 2 degrees (tele end)	
Minimum Working Distance	35 mm (wide end), 800 mm (tele end)	
Sync System	Internal/External (V-Lock)	
Recommended Illumination	100 to 100,000 lux	
Minimum Illumination	3.0 lux (50 IRE)	
S/N Ratio	49 dB	
Electronic Shutter Speed	1/4 to 1/10,000 s, 20 steps	1/3 to 1/10,000 s, 20 steps
White Balance	Auto, ATW, Indoor, Outdoor, One-Push WB, Manual WB	
Gain	Auto/Manual (-3 to 28 dB, 16 steps)	
AE Control	Auto, Manual, Priority mode, Bright, Exposure compensation, Back Light compensation	
EV Compensation	-10.5 to +10.5 dB (1.5 dB steps)	
Focusing System	Auto (Sensitivity: Normal, Low), One-Push AF, Manual, Infinity, Interval AF, Zoom Trigger AF	
Picture Effects	Negative/Positive Reversal, Black White (Monochrome Image)	
Camera Operation Switch	Zoom tele, Zoom wide	
Aperture Control	16 steps	
Preset	6 positions	
Serial Interface	VISCA protocol (TTL), 9.6 kb/s, 19.2 kb/s, 38.4 kb/s, Stop bit 1/2 bit	
Video Output	VBS: 1.0 Vp-p (Sync negative) Y/C Output	
Storage Temperature/Humidity	-20 to 60°C/20 to 95%	
Operating Temperature/Humidity	0 to +50°C/20 to 80%	
Power Requirements/Power Consumption	6 to 12 V DC/1.5 W (9.0 V) (when a lens is not in operation)	
Mass	230 g (8.1 oz)	
Dimensions	50.0 (W) x 57.5 (H) x 82 (D) mm (2 x 2 3/8 x 3 1/4 inches)	

DIMENSIONS



PIN ASSIGNMENT

■ CN901

Pin No.	Name	Level
1	RxD	CMOS 5 V (low: max 0.8 V, high: min 2.0 V) Read Data
2	TxD	CMOS 5 V (low: max 0.1 V, high: min 4.4 V) Send Data
3	GND (for RxD&TxD)	
4	DC IN	9.0 ± 3V
5	GND (for DC IN)	
6	VBS OUT	1.0 ± 0.2 V (75 Ω terminated)
7	GND (for VBS OUT)	
8	V LOCK PULSE	External VD-Lock Pulse (EX.FV: Negative, 3 Vp-p 50% duty)
9	GND (VL PULSE)	

Connector: PG-FPC9SM-T (ELCO)

■ CN902

Pin No.	Name
1	Y_Out
2	GND (for Y signal)
3	C_Out
4	GND (for C signal)

Product information is available on the ISP Home Page

Sony online <http://www.sony.co.jp/ISP/>

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Product Information

Information including product features and catalogs

Document & Software

Product document information and sample software downloads

Product catalog

User's Guide

Application Guide

Technical Manual
FCB-EX780S/EX780SP

Sample software
FCB-EX780S/EX780SP

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