

FCB-ER8300

Color Block Camera

SONY

Sony proudly introduces the first in a new family of 4K modules to its FCB block camera products. This new camera offers superb 4K resolution up to 20x zoom, thanks to Sony's Exmor R[®] CMOS image sensor technology and an innovative super resolution zoom capability.

The new FCB-ER8300 block camera incorporates a 1/2.3-type Exmor R sensor capable of 4K resolution (3,840 x 2,160, QFHD) up to 29.97p. The camera features a high-quality 12x optical zoom lens which – when combined with super resolution zoom – can maintain 4K resolution up to 20x zoom, providing enhanced 4K visibility within a compact form factor.

This camera also inherits some of the unique features of Sony's popular FCB Series cameras such as auto ICR, privacy zone masking, noise reduction and visibility enhancement, supporting use under challenging lighting conditions.

These outstanding features and benefits make the FCB-ER8300 ideal for demanding wide-area surveillance applications such as transportation, sports event monitoring, video conferencing, and much more.



Key Features

▶ Superb Picture Quality with 4K CMOS Sensor

The FCB-ER8300 employs a 1/2.3-type 4K CMOS sensor that offers a resolution four times higher than Full HD (1080p) for excellent detail and image quality.

▶ Super Resolution Zoom

Unique to Sony, the super resolution zoom feature means the FCB-ER8300 can retain a compact size but achieve the equivalent of 20x zoom at full 4K resolution by intelligently combining the 12x optical lens with digital zoom for superb image quality over distance.

▶ Video outputs from HD to 4K

The FCB-ER8300 supports a 4K video format in 4K resolution with output flexibility. So depending on your application and configuration, you can select the format that is right for you with up to eight video formats from HD to 4K.

▶ Low Power Consumption and Compact Design

This compact block camera is low in power consumption. In addition, the compact and lightweight body means you can install the FCB-ER8300 in many different space-restricted environments.

▶ Other Features

- Auto ICR
- Privacy zone masking
- Noise reduction
- Slow AE
- Defog
- Visibility enhancer

Exmor R[®]

4K

Specifications

FCB-ER8300	
Camera	
Image Sensor	1/2.3 type Exmor R CMOS
Image Sensor (Number of Effective Pixels)	Approx. 8.93 Mega Pixels
Signal System	4K
	FHD/HD
Minimum Illumination (50%, High Sensitivity Mode)	Color: 0.75 lx (F1.8, AGC on, 1/30 s)
Minimum Illumination (50%, Normal Mode)	Color: 3 lx (F1.8, AGC on, 1/30 s)
Recommended Illumination	100 lx to 100,000 lx
S/N Ratio	-
Gain	Auto/Manual (0 dB to 33 dB) Max. Gain Limit (9 dB to 33 dB)
Shutter Speed	1/1 s to 1/10,000 s, 22 steps
Sync System	Internal
Exposure Control	Auto, Manual, Priority mode (shutter priority & iris priority), Bright, EV compensation
Backlight Compensation	Yes
Aperture Control	16 steps
White Balance	Auto, ATW, Indoor, Outdoor, Outdoor Auto, Sodium Vapor Lamp (Fix/Auto/Outdoor Auto), One-push, Manual
Lens	12x optical zoom, f = 3.9 mm (wide) to 46.8 mm (tele) F1.8 to F2.0
Digital Zoom	12x (144x with optical zoom)
Focusing System	Auto (Sensitivity: normal, low), One-push AF, Manual, Interval AF, Zoom Trigger AF, Focus compensation in ICR on
Horizontal Viewing Angle (2016p Mode)	70.7° (wide end) to 6.2° (tele end)
Horizontal Viewing Angle (1080p Mode)	70.7° (wide end) to 6.2° (tele end)
Horizontal Viewing Angle (720p Mode)	70.7° (wide end) to 6.2° (tele end)
Horizontal Viewing Angle (SD)	-
Minimum Object Distance	10 mm (wide end) to 1,500 mm (tele end) (Default: 300 mm)
Camera Features	
Auto ICR	Yes
Wide-D ¹	No
Visibility Enhancer	Yes
Defog	Yes
High Light Compensation	Yes
Noise Reduction	Yes (6 steps)
Progressive Scan Mode	Yes
Image Stabilization	No
Image Stabilization for Still Image	No
Stablezoom	No
Digital Output	Yes
Spherical Privacy Zone Masking	Yes
Motion Detection	Yes
Alarm	No
Slow AE Response	Yes
Picture Effects	E-Flip, Black & White, Mirror image, Color enhancement
Picture Freeze	Yes
Slow Shutter	Yes
Temperature Readout	Yes
Title Display	20 characters/line, max. 11 lines
Camera Mode Display	Yes
Key Switch Control	No
Camera Operation Switch	No
Interface	
Video Output (QFHD, FHD, HD)	Digital: Y/Cb/Cr 4:2:2 8bits component, R/G/B 4:4:4 8bits component, Comparable to CEA-861-F
Camera Control Interface	VISCA (CMOS 3.1 V level), Baud rate: 9.6 Kbps, 19.2 Kbps, 38.4 Kbps, 57.6 Kbps, 115.2 Kbps, Stop bit: 1 bit
General	
Power Requirements	6.0 V to 12.0 V DC
Power Consumption	2.9 W (zoom/focus inactive), 3.7 W (zoom/focus active)
Operating Temperature	-5°C to +60°C (23°F to 140°F)
Storage Temperature	-20°C to +60°C (-4°F to 140°F)
Operating Humidity	20% to 80%, Absolute humidity: 36 g/m ³
Storage Humidity	20% to 95%, Absolute humidity: 36 g/m ³
Dimensions (W x H x D) ^{*2}	60.0 x 64.0 x 105.0 mm (2 3/8 x 2 5/8 x 4 1/4 inches)
Mass	Approx. 385 g (Approx. 13.6 oz)

*1 Wide dynamic range. *2 The values for dimensions are approximate.

Pin Assignments

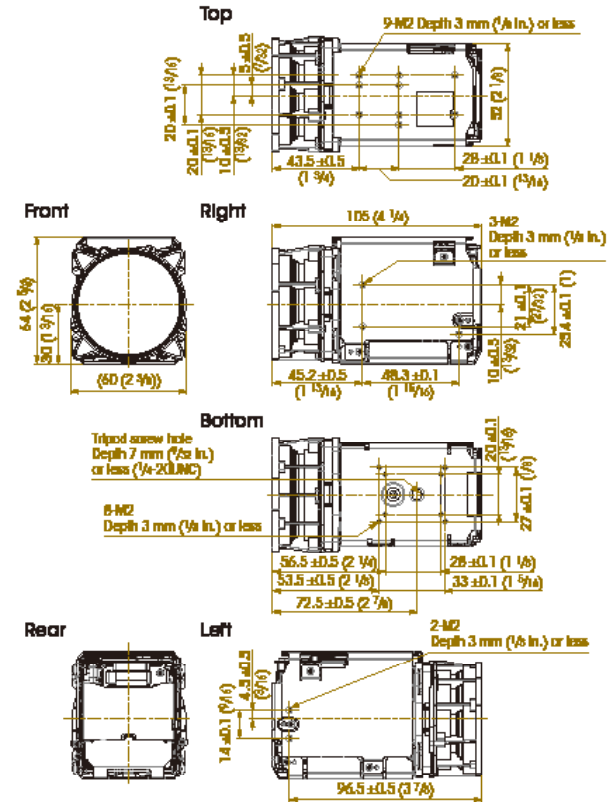
CN701

Pin No.	Name	Level	Pin No.	Name	Level
1	GND		19	USB_VBUS	USB Active : 5V DC USB InActive : Open or GND
2	TMDS Clock-		20	GND	
3	TMDS Clock+		21	USB_D-	
4	GND		22	USB_D+	
5	TMDS Data 0-		23	GND	
6	TMDS Data 0+		24	VISCA_RxD	CMOS 3.1V (High : Min 2.3 [V], Low : Max 1.0 [V])
7	GND		25	VISCA_TxD	CMOS 3.1V (High : Min 2.7 [V], Low : Max 0.4 [V])
8	TMDS Data 1-		26	RESET	Reset : Low (GDN) Normal : Open (High impedance)
9	TMDS Data 1+		27	DC_IN	6 to 12 V DC
10	GND		28	DC_IN	6 to 12 V DC
11	TMDS Data 2-		29	DC_IN	6 to 12 V DC
12	TMDS Data 2+		30	DC_IN	6 to 12 V DC
13	GND				
14	NC				
15	NC				
16	NC				
17	Hot Plug Detect	TMDS Out : 5V DC TMDS Stop : Open or GND			
18	+5V Power				

Unit: mm (Inches)

Connector: USL00-30L-C (KEL Co.)

Dimensions



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