XCG-CG Series

Digital Video Camera Module

SONY

1/1.2-type 2.4MP 41fps
XCG-CG240(B/W) **XCG-CG240C**(Color)

2/3-type 5.1 MP 23fps
XCG-CG510(B/W) **XCG-CG510C**(Color)

Global Shutter CMOS Sensor

Cubic Size

Dimensions
29 (W) x 29 (H) x 42 (D) mm

Unique Image Processing

- Area gain
- Defect pixel correction
- Shading correction

System Optimization

- PoE/DC12V support
- Noise filter
- IEEE1588 compliant

Exmor Pregius GiGE VISION PoE

Sony proudly introduces four new GigE Vision® cameras to its popular XCG Series: the high-quality, high-resolution XCG-CG240, XCG-CG240C, XCG-CG510, and XCG-CG510C. These cameras incorporate Sony's CMOS image sensor with a global shutter function which is able to accurately capture high-speed moving images. In addition, these new cameras incorporate some unique image processing features including area gain, defect pixel correction, and shading correction. With a compact design, each camera can be integrated into a variety of space-restricted environments. These new advanced features and benefits make XCG GigE Vision® Series cameras ideal for various applications such as ITS (Intelligent Transportation Systems) as well as traditional machine-vision applications.

	5.1M GigE Vision®		2.4M GigE Vision®	
	XCG-CG510	XCG-CG510C	XCG-CG240	XCG-CG240C
B/W /Color	B/W	Color	B/W	Color
Image Sensor	2/3-type Global Shutter CMOS sensor		1/1.2-type Global Shutter CMOS sensor	
Image Sensor (Number of Effective Pixels, H x V)	2,464 x 2,056		1,936 x 1,216	
Cell Size (H x V)	3.45 µm x 3.45 µm		5.86 µm x 5.86 µm	
Frame Rate (8 bit)	23 fps		41 fps	

- External trigger, software trigger
- Short latency
- Special trigger modes : Bulk Trigger, Sequential Trigger
- LUT (Look Up Table)
- Partial scan
- GigE Vision® Version 2.0/1.2
- SDK OS support : Windows / Linux
- C mount
- High shock and vibration resistance

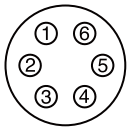
SPECIFICATIONS

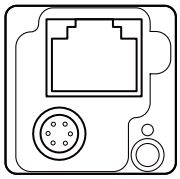
	XCG-CG510	XCG-CG510C	XCG-CG240	XCG-CG240C
Camera				
Image Sensor	2/3-type CMOS Image sensors with a global shutter function (PREGIUS)		1/1.2-type CMOS Image sensors with a global shutter function (PREGIUS)	
Image Sensor (Number of Effective Pixels, H x V)	2,464 x 2,056		1,936 x 1,216	
Cell Size (H x V)	3.45 µm x 3.45 µm		5.86 µm x 5.86 µm	
Output Pixels (H x V)	2,448 x 2,048		1,920 x 1,200	
Frame Rate	23 fps		41 fps	
Minimum Illumination (50%)	0.5 lx (Iris: F1.4, Gain: +18 dB, Shutter: 1/23 s)	10 lx (Iris: F1.4, Gain: +18 dB, Shutter: 1/23 s)	0.5 lx (Iris: F1.4, Gain: +18 dB, Shutter: 1/30 s)	10 lx (Iris: F1.4, Gain: +18 dB,Shutter: 1/30 s)
Sensitivity	F8 (400 lx, Gain: 0 dB, Shutter: 1/23 s)	F8 (2000 lx, Gain: 0 dB, Shutter: 1/23 s)	F5.6 (400 lx, Gain: 0 dB, Shutter: 1/30 s)	F5.6 (2000 lx, Gain: 0 dB, Shutter: 1/30 s)
S/N Ratio	More than 50 dB (Lens close, Gain: 0 dB, 8 bits)			
Gain	Auto,Manual : 0 dB to +18 dB			
Shutter Speed	Auto, Manual : 60 s to 1/100,000 s		Auto, Manual : 60 s to 1/40,000 s	
White Balance	–	Manual, One push, Auto	–	Manual, One push, Auto
Camera Features				
Readout Modes	Normal, Partial scan			
Readout Features	Binnarization, Built-in test pattern			
Synchronization	Hardware trigger, Software trigger,PTP (IEEE1588)			
Trigger Modes	Edge detection, Pulse width detection, Bulk trigger, Sequential trigger			
User Set	16 channels			
User Memory	64 bytes x 16 channels			
Other Features	Shading correction, Defect correction, Temperature readout, Noise filter, LUT, Area gain			
Interface				
Video Data Output	Mono8, 10, 12-bit	Raw8, 10, 12-bit, RGB,YUV444,YUV422	Mono8, 10, 12-bit	Raw8, 10, 12-bit, RGB,YUV444,YUV422
Digital Interface	Gigabit Ethernet (100BASE-TX / 1000BASE-T)			
Camera Specification	GigE Vision® Version 1.2/2.0			
Digital Input/Output	ISO IN (x1), GP IN/OUT (x2,selectable)			
General				
Lens Mount	C mount			
Power Requirements	DC +12 V (+10.5 V to +15.0 V), IEEE802.3af (+37 V to +57 V)			
Power Consumption	DC +12 V : 3.0 W (max.)			
	IEEE802.3af : 3.7 W (max.)		IEEE802.3af : 3.6 W (max.)	
Operating Temperature	-5°C to +45°C			
	23°F to + 113°F			
Performance Guarantee Temperature	0°C to 40°C			
	32°F to 104°F			
Storage Temperature	-30°C to +60°C			
	-22°F to 140°F			
Operating Humidity	20% to 80% (no condensation)			
Storage Humidity	20% to 95% (no condensation)			
Vibration Resistance	10 G (20 Hz to 200 Hz)			
Shock Resistance	70 G			
Dimensions (W × H × D) *1	29 x 29 x 42 mm (excluding protrusions)			
	1 3/16 x 1 3/16 x 1 11/16 inches (excluding protrusions)			
Mass	65g			
	2.3 oz			
Regulations	UL60950-1, FCC Class A, CSA C22.2-No.60950-1, IC Class A Digital Device, CE : EN61326 (Class A), AS EMC: EN61326-1, VCCI Class A, KCC, CISPR22/24+IEC61000-3-2/-3			
Supplied Accessories	Lens mount cap (1)			
	Operating instructions (1)			

*1 The values for dimensions are approximate.

PIN ASSIGNMENTS

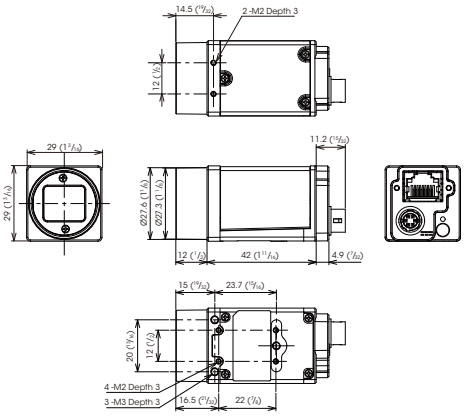
Pin No.	Signal	Pin No.	Signal
1	DC input (10.5 V to 15 V)	4	GPI3/GPO3
2	GPI1 (ISO +)	5	GPI1 (ISO –)
3	GPI2/GPO2	6	GND





DIMENSIONS

Unit: mm (inches)



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