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.

Exmor Pregius GIGE POE



Key Features

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

New support functions

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

XCG-CG Series

Digital Video Camera Module



XCG-CG240/240C 1/1.2-type 2.4MP 41fps

XCG-CG510/510C 2/3-type 5.1MP 23fps

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 /Colour	B/W	Colour	B/W	Colour
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	

XCG-CG Series - Specifications

Image Sensor 2/3-type CMOS Image sensors with a global shuffer function (PREGIUS) 1,936 x 1,216 1,936 x 1,216 x 1,216 1,936 x 1,216	Camera	XCG-CG510	XCG-CG510C	XCG-CG240	XCG-CG240C		
Control Features Control Fea	Image Sensor						
Cell Size (H. x V)	(Number of Effective	2,464 x 2,056		1,936 x 1,216			
Frame Rate		3.45 µm)	< 3.45 μm	5.86 µm x 5.86 µm			
Frame Rate	Output Pixels (H x V)	2,448)	<u>'</u>		, ,		
Minimum Illumination	Frame Rate						
Sensitivity Schuller: 1/23 s) GB. Shuttler: 1/23 s) GB. Shuttler: 1/30		Gain: +18 dB,	Gain: +18 dB,	Gain: +18 dB,Shutter:	Gain: +18 dB,Shutter:		
Shutter Speed Auto, Manual : 0 dB to +18 dB Shutter Speed Auto, Manual : 60 s to 1/100,000 s White Balance — Manual, One push, Auto Manual, One push, Auto Manual, One push, Auto Manual, One push, Auto Readout Modes Readout Modes Readout Features Synchronization Trigger Modes Synchronization Trigger Modes Set Ged etection, Pulse width defection, Bullt-in test pattern User Memory Other Features Shading correction, Defect correction, Temperature readout, Noise filter, LUT, Area gain Interface Video Data Output Mono8, 10, 12-bit Raw8, 10, 12-bi	Sensitivity				0 dB, Shutter:		
Shutter Speed Auto, Manual : 60 s to 1/100,000 s	S/N Ratio	Mo	ore than 50 dB (Lens	close,Gain: 0 dB, 8 b	its)		
White Balance				0 dB to +18 dB			
Comera Features Readout Modes Readout Modes Readout Features Synchronization Trigger Modes Edge detection, Pulse width detection, Bullt-in test parttern User Memory Other Features Video Data Output Mono8, 10, 12-bit Digital Interface Camera Specification Digital Input/Output Ceneral Lens Mount Power Requirements Power Consumption Operating Temperature Performance Guarantee Eger Modes District of Africa Original Properties Area Original Properties Raw8, 10, 12-bit Braw8, 10, 12-	Shutter Speed	Auto, Manual : 6		Auto, Manual : 6			
Readout Modes Readout Features Binarization, Built-in test pathern Synchronization Trigger Modes User Set User Memory Other Features Video Data Output Video Data Output Digital Interface Camera Specification Digital Input/Output Ceneral Lens Mount Power Requirements Power Consumption Operating Temperature Performance Guarantee Guarantee Guarantee Guarantee Guarantee Guarantee General Storage Temperature Storage Temperature Storage Humidity Vioration Resistance Dimensions (W × H × D) ** Mass Regulations Regulations Regulations Regulations Regulations Regulations Regulations Regulations Regulations Republic Accessories Reduce Advisor Arch Care Reduce Requirements Readout Features Reduce Reduce Reduce Reduce Regulations Raw8, 10, 12- Diff, RGB, YUV444, Mono8, 10, 12-bit Diff, RGB, YUV444, VUV422 Raw8, 10, 12-bit Diff, RGB, YUV444, Monos, 10, 12-bit Diff, RGB, YUV444, VUV422 Raw8, 10, 12-bit Diff, RGB, YUV444, VUV422 Raw8, 10, 12-bit Diff, RGB, YUV444, Monos, 10, 1	White Balance	-		_			
Readout Features Synchronization Hardware trigger, Software trigger, PTP (IEEE 1588) Irigger Modes User Set User Set User Set User Memory Other Features Nother Features Video Data Output Mono8, 10, 12-bit Digital Interface Camera Specification Digital Input/Output Ceneral Lens Mount Power Requirements Power Consumption Operating Temperature Performance Guarantee Guarantee Guarantee Guarantee Camperature Poperating Temperature Storage Temperature Operating Humidity Storage Humidity Vibration Resistance Dimensions (W × H × D) **I Rade detection, Pulse width defection, bulk trigger, Sequential trigger It de channels Raw8, 10, 12- bit, ReB, YUV444, Mono8, 10, 12-bit VIV442, Mono8, 10, 12-bit VIV442, Mono8, 10, 12-bit VIV442, VIV442 Power Raw8, 10, 12-bit VIV442, Mono8, 10, 12-bit VIV442, VIV442 Digital Interface Gigabit Ethernet (100BASE-TX / 1000BASE-T) Gig Vision® Version 1.2/2.0 ISO IN (x1), GP IN/OUT (x2, selectable) C mount C mount C mount C mount DC +12 V (+10.5 V to +15.0 V), IEEE802.3af (+37 V to +57 V) DC +12 V : 3.0 W (max.) IEEE802.3af : 3.7 W (max.) IEEE802.3af : 3.6 W (max.) Storage Temperature Operating Humidity 20% to 80% (no condensation) Vibration Resistance Dimensions (W × H × D) **I 13/16 x 1 3/16 x 1 11/16 inches (excluding protrusions) Mass Regulations Regulations Supplied Accessories Binarization, Bulk trigger, Sequential trigger 16 channels Raw8, 10, 12- Raw8	Camera Features			I.			
Synchronization Trigger Modes User Set User Memory Other Features Video Data Output Video Data Output Digital Interface Camera Specification Digital Input/Output Ceneral Lens Mount Power Requirements Power Consumption Operating Temperature Performance Guarantee Guarantee Guarantee Guarantee Temperature Storage Temperature Storage Temperature Operating Humidity Storage Humidity Vibration Resistance Shack Resistance Dimensions (W × H × D) ** Mass Regulations Radger, Software trigger, Software trigger, PTP (IEEE 1588) I Hardware trigger, Software trigger, PTP (IEEE 1588) Idea detection, Defect correction, Defendential trigger I de Abetection, Defect correction, Temperature readout, Noise filter, LUT, Area gain Raw8, 10, 12- bit, RGB, YUV4444, Mono8, 10, 12-bit Dit, RGB, YUV4442 Mono8, 10, 12-bit Dit, RGB, YUV4444, Mono8, 10, 12-bit Dit, RGB, YUV4442 Digital Interface Gigabit Ethernet (100BASE-TX / 1000BASE-T) GigE Vision® Version 1.2/2.0 GigE Vision® Version 1.2/2.0 So IN (x1), GP IN/OUT (x2.selectable) C mount C mount C mount C mount DC +12 V (+10.5 V to +15.0 V), IEEE802.3af (+37 V to +57 V) DC +12 V : 3.0 W (max.) IEEE802.3af : 3.7 W (max.) IEEE802.3af : 3.6 W (max.) Operating Temperature 32°F to +113°F OPC to 40°C 32°F to 104°F Operating Humidity 20% to 80% (no condensation) Vibration Resistance Dimensions (W × H × D) ** 1 3/16 x 1 3/16 x 1 11/16 inches (excluding protrusions) Mass Lens mount cap (1) Supplied Accessories	Readout Modes		Normal, Pa	artial scan			
Synchronization Trigger Modes Edge detection, Pulse width detection, Bulk trigger, Sequential trigger User Set User Memory Other Features Nother Features Not			Binarization, Bui	lt-in test pattern			
User Set User Memory Other Features Shading correction, Defect correction, Temperature readout, Noise filter, LUT, Area gain Video Data Output Mono8, 10, 12-bit Digital Interface Camera Specification Digital Input/Output General Lens Mount Power Requirements Power Consumption Operating Temperature Performance Guarantee Temperature Performance Guarantee Temperature Storage Temperature Storage Temperature Operating Humidity Storage Humidity Storage Humidity Storage Humidity Shadis Mass Mass Raw8, 10, 12-bit DRaw8, 10, 12-bit DRa	Synchronization						
Ser Memory 64 bytes x 16 channels	Trigger Modes						
Note Peatures Shading correction, Defect correction, Temperature readout, Noise filter, LUT, Area gain	User Set						
Interface	User Memory						
Video Data Output Mono8, 10, 12-bit Raw8, 10, 12- bit, RGB, YUV4444, VUV422 Digital Interface Gigabit Ethernet (100BASE-TX / 1000BASE-T) GigE Vision® Version 1.2/2.0 Digital Input/Output ISO IN (x1), GP IN/OUT (x2.selectable) Ceneral Lens Mount Power Requirements DC +12 V (+10.5 V to +15.0 V), IEEE802.3af (+37 V to +57 V) DC +12 V : 10.5 V to +15.0 V), IEEE802.3af : 3.6 W (max.) Power Consumption IEEE802.3af : 3.7 W (max.) IEEE802.3af : 3.7 W (max.) IEEE802.3af : 3.6 W (max.) Operating Temperature Performance Guarantee Temperature 32°F to 104°F Storage Temperature Storage Temperature Operating Humidity 20% to 80% (no condensation) Vibration Resistance Shock Resistance Dimensions (W × H × D) *1 Mass Mass Regulations Regul	· ·	Shading correction, Defect correction, Temperature readout, Noise filter, LUT,					
Video Data Output Mono8, 10, 12-bit bit, RGB, YUV444, VUV422 Digital Interface Gigabit Ethernet (100BASE-TX / 1000BASE-T) Camera Specification Digital input/Output General Lens Mount Power Requirements DC +12 V (+10.5 V to +15.0 V), IEEE802.3af (+37 V to +57 V) De +12 V : 3.0 W (max.) Power Consumption Operating Temperature Performance Guarantee Temperature Performance Guarantee Temperature Storage Temperature Operating Humidity Storage Humidity Vibration Resistance Dimensions (W × H × D) *1 Mass Mass Lens Mount C mount C mount C mount C mount C mount C mount Power Requirements DC +12 V (+10.5 V to +15.0 V), IEEE802.3af (+37 V to +57 V) 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 0°C to 40°C -30°C to +60°C -22°F to 104°F Operating Humidity 20% to 80% (no condensation) Storage Humidity Vibration Resistance To G Dimensions (W × H × D) *1 Mass Also Lens Mount Cap (1)	Interface			. -			
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 (+10.5 V to +15.0 V), IEEE802.3af (+37 V to +57 V) Power Consumption DC +12 V (+10.5 V to +15.0 V), IEEE802.3af (+37 V to +57 V) Deparating DC +12 V (+10.5 V to +15.0 V), IEEE802.3af (+37 V to +57 V) Deparating to Consumption IEEE802.3af (+37 V to +57 V) IEEE802.3af (+37 V to +57 V) IEEE802.3af (+37 V to +57 V) Deparating to Consumption IEEE802.3af (+37 V to +57 V) IEEE802.3af (+37 V to +57 V) IEEE802.3af (+37 V to +57 V) Deparating to Consumption Provide (-30 V (max.) Storage Temperature to Consumption 32°F to +45°C Storage Temperature to 40°C -22°F to 140°F Operating Temperature to 40°C -22°F to 140°F Operating Temperature to 40°C -22°F to 140°F Operating Temperature to 40°C to 40°C -22°F to 140°F Operating Temperature to 40°C to 40°C -22°F to 140°F Operating Temper	Video Data Output	Mono8, 10, 12-bit	bit, RGB, YUV444,	Mono8, 10, 12-bit	bit, RGB, YUV444,		
SO IN (x1), GP IN/OUT (x2,selectable)	Digital Interface	Gigabit Ethernet (100BASE-TX / 1000BASE-T)					
Lens Mount	Camera Specification	GigE Vision® Version 1.2/2.0					
Description Description Description	Digital Input/Output	ISO IN (x1), GP IN/OUT (x2,selectable)					
DC +12 V (+10.5 V to +15.0 V), IEEE802.3af (+37 V to +57 V)	General						
DC +12 V : 3.0 W (max.) IEEE802.3af : 3.6 W (max.)	Lens Mount	C mount					
IEEE802.3af : 3.7 W (max.) IEEE802.3af : 3.6 W (max.) Operating Temperature	Power Requirements	DC +12 V (+10.5 V to +15.0 V), IEEE802.3af (+37 V to +57 V)					
IEEE802.3af : 3.7 W (max.) IEEE802.3af : 3.6 W (max.) Operating Temperature	Power Consumption	DC +12 V : 3.0 W (max.)					
Temperature	Tower Consumption	IEEE802.3af : 3.7 W (max.) IEEE802.3af : 3.6 W (max.)					
Performance Guarantee Temperature 32°F to 104°F		-5°C to +45°C					
Storage Temperature	Temperature						
Storage Temperature			40°C				
Storage Temperature		32°F to 104°F					
-22°F to 140°F Operating Humidity 20% to 80% (no condensation) Storage Humidity 20% to 95% (no condensation) Vibration Resistance 30 G Dimensions (W × H × D) *1 Mass Mass Regulations Regulations 10 G (20 Hz to 200 Hz) 29 x 29 x 42 mm (excluding protrusions) 1 3/16 x 1 3/16 x 1 11/16 inches (excluding protrusions) 65g 2.3 oz 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 Lens mount cap (1)	Charge To	-30°C to +60°C					
Storage Humidity 20% to 95% (no condensation)	Storage lemperature	-22°F to 140°F					
Vibration Resistance 10 G (20 Hz to 200 Hz) Shock Resistance 70 G Dimensions (W × H × D) *1 29 × 29 × 42 mm (excluding protrusions) Mass 1 3/16 x 1 3/16 x 1 11/16 inches (excluding protrusions) 65g 2.3 oz 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 Humidity	20% to 80% (no condensation)					
Shock Resistance	Storage Humidity	20% to 95% (no condensation)					
Dimensions	Vibration Resistance	10 G (20 Hz to 200 Hz)					
(W×H×D)*1 1 3/16 x 1 3/16 x 1 11/16 inches (excluding protrusions) 65g 2.3 oz 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 Lens mount cap (1)	Shock Resistance	70 G					
Mass 65g 2.3 oz 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 Lens mount cap (1)		29 x 29 x 42 mm (excluding protrusions)					
Color	(• • • • • • • • • • • • • • • • • • • •					
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 Lens mount cap (1)	Mass	Š					
Supplied Accessories	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,					
Operating instructions (1)	Supplied Accessories		Lens mount cap (1)				
	Supplied Accessories		Operating in	structions (1)			

⁶⁻pin connector

Pin No. Signal

1 DC input (10.5 V to 15 V)

2 GPI1 (ISO +)

3 GPI2/GPO2

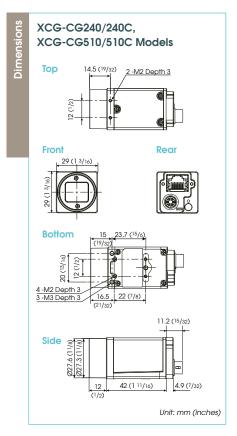
4 GPI3/GPO3

5 GPI1 (ISO -)

6 GND







^{*1} The values for dimensions are approximate.



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