

XCG-C Series

Digital Video Camera Module

Sony is expanding its popular XCG GigE® Vision Series of interface cameras with the introduction of six new compact cameras.



Preliminary brochure

XCG-C130/130C
XCG-C32/32C
XCG-C30/30C

Available in both colour and black & white, the new XCG Cubic GigE Series includes a PoE capability to provide users with the convenience of single-cable operation for power and control. In addition, this new range contains a number of advanced new features including enhanced frame rate performance and low trigger latency capabilities.

The new XCG Cubic GigE Series from Sony brings the best of Sony's imaging technology to the industrial vision market.

	XCG-C130/130C	XCG-C32/32C	XCG-C30/30C
Progressive Scan IT CCD	1/3-type	1/2-type	1/3-type
Cell Size (H) x (V)	3.75 x 3.75 µm	9.9 x 9.9 µm	7.4 x 7.4 µm
Standard Picture Size (H) x (V)	1,280 x 960	640 x 480	640 x 480
Frame Rate	31 fps	104 fps	130 fps

Key Features

High frame rate

Compact size

GigE Vision 2.0/1.2

Gigabit Ethernet with PoE

6-pin connector (supports DC 12 V)

Shorter trigger latency

Trigger range control (noise reduction)

Sensitivity control

Temperature read out

New support functions of GigE Vision

Extended ID 64-bit (GigE Vision 2.0)

Increase the numbering of captured images

Chunk data

Metadata transfer

Event reporting

Transferring information on triggers and more

Flow control

(Control the transferring data)

XCG-C Series Models Specifications

Camera	XCG-C130	XCG-C130C	XCG-C32	XCG-C32C	XCG-C30	XCG-C30C
Image Sensor	1/3-type progressive scan IT CCD		1/2-type progressive scan IT CCD		1/3-type progressive scan IT CCD	
Image Sensor (Number of Effective Pixels, H x V)	1,296 x 966		659 x 494		659 x 494	
Cell Size (H x V)	3.75 μ m x 3.75 μ m		9.9 μ m x 9.9 μ m		7.4 μ m x 7.4 μ m	
Output Pixels (H x V)	1,280 x 960		640 x 480		640 x 480	
Output Pixels (H x V, Full Resolution)	1,296 x 966		658 x 494		658 x 494	
Colour Filter	-	RGB colour mosaic filter	-	RGB colour mosaic filter	-	RGB colour mosaic filter
Frame Rate	31 fps		104 fps (Non-PoE)		130 fps (Non-PoE)	
Minimum Illumination (50%)	0.5 lx (Iris: F1.4, Gain: +18 dB, Shutter: 1/30 s)	12 lx (Iris: F1.4, Gain: +18 dB, Shutter: 1/30 s)	1.0 lx (Iris: F1.4, Gain: +18 dB, Shutter: 1/60 s)	12 lx (Iris: F1.4, Gain: +18 dB, Shutter: 1/60 s)	1.5 lx (Iris: F1.4, Gain: +18 dB, Shutter: 1/90 s)	15 lx (Iris: F1.4, Gain: +18 dB, Shutter: 1/90 s)
Sensitivity	F5.6 (400 lx, Gain: 0 dB)	F5.6 (2000 lx, Gain: 0 dB)	F5.6 (400 lx, Gain: 0 dB)	F5.6 (2000 lx, Gain: 0 dB)	F5.6 (400 lx, Gain: 0 dB)	F5.6 (2000 lx, Gain: 0 dB)
S/N Ratio	More than 50 dB					
Gain	Auto, Manual: 0 dB to +18 dB					
Shutter Speed	2 s to 1/100,000 s					
White Balance	-	One push WB, Manual	-	One push WB, Manual	-	One push WB, Manual
Camera Features						
Readout Modes	Normal, Binning (2 x 1, 1 x 2, 2 x 2), Partial scan	Normal, Partial scan	Normal, Binning (2 x 1, 1 x 2, 2 x 2), Partial scan	Normal, Partial scan	Normal, Binning (2 x 1, 1 x 2, 2 x 2), Partial scan	Normal, Partial scan
Readout Features	Binarization, Gamma (variable), Built-in test pattern, LUT					
Synchronization	Hardware trigger, Software trigger					
Trigger Modes	Edge detection, Pulse width detection, Bulk trigger, Sequential trigger					
User Set/Memory Channel	16 channels					
User Memory	32 kbytes + 64 bytes x 16ch					
Image Buffer	TBD					
Other Features	Temperature readout	Temperature readout, Sensitivity control				
Interface						
Video Data Output	8, 10, 12-bit, digital	8, 10, 12-bit, Raw, digital, RGB Colour, YUV422, YUV444	8, 10, 12-bit, digital	8, 10, 12-bit, Raw, digital, RGB Colour, YUV422, YUV444	8, 10, 12-bit, digital	8, 10, 12-bit, Raw, digital, RGB Colour, YUV422, YUV444
Digital Interface	Gigabit Ethernet (1000BASE-T)					
Camera Specification	GigE Vision® Version 2.0 / 1.2					
Digital Input/Output	ISO IN (x1), ISO OUT (x1), TTL IN/OUT (x2)					
General						
Lens Mount	C mount					
Power Requirements	DC +12 V (+10.5 V to +15.0 V)					
Power over Ethernet	IEEE802.3af					
Power Consumption	TBD					
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 X H X D)	29 x 29 x 42 mm (excluding protrusions) w1 3/16 x 1 3/16 x 1 5/8 inches (excluding protrusions)					
Mass	TBD					
Regulations	UL60950-1, FCC Class A, CSA C22.2-No.1, IC Class A Digital Device, CE: EN61326 (Class A), AS EMC: EN61326, VCCI Class A, KCC					
Supplied Accessories	Lens mount cap (1), Operating Instructions (1)					

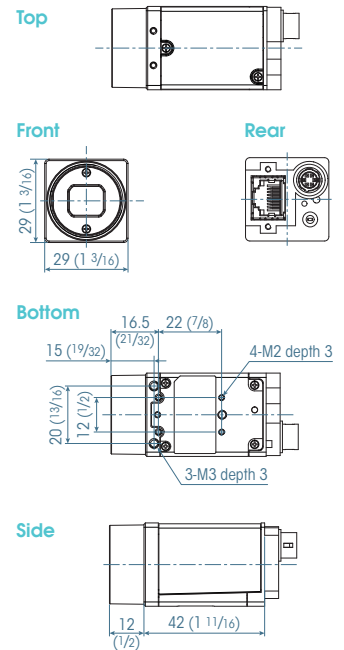
Pin assignments

6-pin connector

Pin No.	
1	DV 12 V
2	ISO IN+ (TRG)
3	IN/OUT
4	IN/OUT
5	ISO IN-
6	GND

Dimensions (mm)

XCG-C130/130C, XCG-C32/32C & XCG-C30/30C Models



Unit: mm (inches)

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