

# VCXG-14SWIR.XC

Gigabit Ethernet, 1.3 Megapixel, Monochrome

Article number: 11706164

## Overview

- 1296 x 1032 px
- Sony IMX990
- 1/2" CMOS
- 92 fps
- Gigabit Ethernet
- Cooling pipe integrated in the housing (optional use)
- Spectrum: Visible + SWIR (400–1700 nm)

**ATTENTION:** This product is subject to statutory export control regulations and may require written information on intended end use and final destination! Dual Use Classification ECCN/AL: 6A003B



Picture similar



GEN<i>i>CAM



## Technical data

### Sensor information

Sensor	Sony IMX990
Mono/Color	SWIR
Sensor type	1/2" CMOS
Shutter type	Global shutter
Resolution	1296 × 1032 px
Pixel size	5 × 5 μm
Exposure time	0.001 ... 60000 ms

### Data quality (EMVA 1288 typical)

Dark noise	300 e-
Saturation capacity	140000 e-
Dynamic range	57 dB
Signal-to-noise ratio	51 dB
Quantum efficiency	70 % @ 536 nm

### Acquisition formats

Image formats, interface frame rate max.	Full Frame, 1296 × 1032 px, max. 92 fps Binning 2×2, 648 × 516 px, max. 97 fps Binning 2×1, 648 × 1032 px, max. 97 fps Binning 1×2, 1296 × 516 px, max. 97 fps
Image formats, acquisition frame rate max. (Burst Mode)	Full Frame, 1296 × 1032 px, max. 97 fps
Pixel formats	Mono8 Mono10 Mono12 Mono12 Packed

### Image preprocessing

Analog controls	Gain (0 ... 48 dB) Offset (0 ... 255 LSB 12 Bit)
Color models	Mono

### Camera features

Basic Functions	Exposure Gain Trigger / Exposure Active (Flash) Binning 2x2 Partial Scan Offset Free Running Mode (Live Image)
Auto Functions	Exposure Auto Gain Auto
Image Pre-processing	Image Flipping (X/Y) LUT / Gamma Defect Pixel Correction (static/list, dynamic/threshold)
Acquisition / Interface	Burst Mode Adjustable Framerate Short Exposure Time Enable Device Link Throughput Limit Internal Image Buffer
Synchronization	free running trigger
Trigger sources	Hardware Software ActionCommand
Trigger delay	0 ... 2 s, tracking and buffering of up to 256 trigger signals

2024-12-02 The product features and technical data specified do not express or imply any warranty. Technical modifications subject to change.

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### Camera features

Process Synchronization	<ul style="list-style-type: none"> <li>Events</li> <li>Timer</li> <li>Trigger Delay</li> <li>Debouncer</li> <li>Counter</li> <li>Sequencer</li> <li>Trigger via Action CMD (GigE)</li> <li>Additional Output Modes (e.g. Trigger Ready)</li> <li>Chunk data inside transferred image</li> <li>Encoder support via Counter End trigger source</li> </ul>
Additional Functions	<ul style="list-style-type: none"> <li>User Set</li> <li>Integrated temperature sensor (InHouse and Sensor)</li> <li>Readable additional information (e.g. sensor information)</li> </ul>
Calibration data	<ul style="list-style-type: none"> <li>Camera calibration data (user defined storage for intrinsic / extrinsic camera parameters, and geometry distortion values)</li> <li>Customer data storage (128 bytes user defined)</li> </ul>
Internal image buffer	<ul style="list-style-type: none"> <li>115 MB</li> <li>8 images (Trigger Mode)</li> <li>1 image (Free Running Mode)</li> </ul>

### Interfaces and connectors

Data interface	Gigabit Ethernet, Transfer rate 1000 Mbits/sec, Fast Ethernet, Transfer Rate 100 Mbits/sec, Connector: 8P8C Modular Jack (RJ45), screwable TYPE090 (according to GigE Vision Mechanical Supplement)
Process interface	M8 / 8 pins (SACC-DSI-M8MS-8CON-M8-L180)
Power supply	via M8 / 8 pins

### Mechanical data

Lens mount	C-mount
Width	36 mm
Height	36 mm
Depth	46.1 mm
Weight	≤ 110 g
Material	aluminum, baked varnish

### Electrical data

Voltage supply range +Vs	12 ... 24 V DC (external power supply)
Power consumption	Approx. 2.1 W @ 12 VDC and 71 fps

### Non-volatile memory

Flash memory size	128 kB
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### Environmental conditions

Operating temperature	0 ... +65 ° @ T = measurement point
Storage temperature	-20 ... +70 °C
Humidity	10 ... 90 % (non-condensing)
Protection class	IP 40 (with mounted lens and cable)

### Digital I/Os

Lines	<ul style="list-style-type: none"> <li>1 input line</li> <li>1 output line</li> <li>2 general purpose lines</li> </ul>
Output line sources	<ul style="list-style-type: none"> <li>Off</li> <li>Exposure Active</li> <li>Timer1</li> <li>Readout Active</li> <li>UserOutput 1-3</li> <li>TriggerReady</li> </ul>

### Conformity

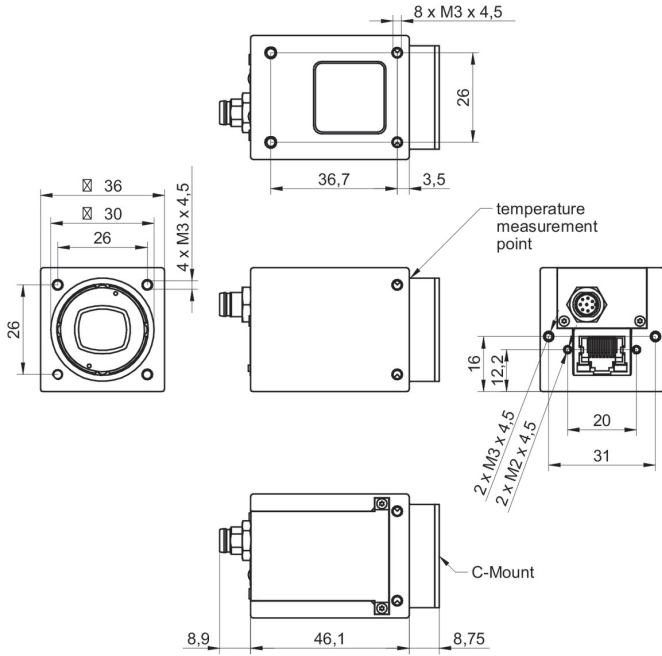
Conformity	<ul style="list-style-type: none"> <li>CE</li> <li>UL recognized</li> <li>RoHS</li> </ul>
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## Dimension drawing



## Principle

