# VCXG.2-65C.R

Gigabit Ethernet, 6,2 Megapixel, Color

Article number: 11708162

## Overview

- 3072 x 2048 px
- Sony IMX178
- 1/1.8" CMOS
- 19 fps
- Gigabit Ethernet


*Picture similar*

## Technical data

| | |
|---|---|
| **Sensor information** | |
| Sensor | Sony IMX178 |
| Mono/Color | Color |
| Sensor type | 1/1.8″ CMOS |
| Shutter type | Rolling shutter<br>Global reset shutter |
| Resolution | 3072 × 2048 px |
| Pixel size | 2.4 × 2.4 µm |
| **Data quality (EMVA 1288 typical)** | |
| Dark noise | 2.9 e- |
| Saturation capacity | 14036 e- |
| Dynamic range | 71.8 dB |
| Signal-to-noise ratio | 41.5 dB |
| Quantum efficiency | 58.4 % @ 465 nm<br>62.8 % @ 536 nm<br>47.2 % @ 631 nm |
| **Acquisition formats** | |
| Image formats, interface frame rate max. | Full Frame, 3072 × 2048 px, max. 19 fps<br>Binning 2×2, 1536 × 1024 px, max. 29 fps<br>Binning 2×1, 1536 × 2048 px, max. 29 fps<br>Binning 1×2, 3072 × 1024 px, max. 29 fps |
| Image formats, aquisition frame rate max. (Burst Mode) | Full Frame, 3072 × 2048 px, max. 29 fps |

| | |
|---|---|
| **Acquisition formats** | |
| Pixel formats | BayerRG8<br>BayerRG10<br>BayerRG12<br>BayerRG12 Packed<br>Mono8<br>Mono10<br>Mono12<br>Mono12 Packed<br>RGB8<br>BGR8 |
| **Image preprocessing** | |
| Color models | Mono<br>Raw Bayer<br>RGB<br>BGR |
| **Camera features** | |
| Basic Functions | Exposure<br>Gain / Color Gain<br>Trigger / Exposure Active (Flash)<br>Binning 2x2<br>Partial Scan<br>Offset<br>Free Running Mode (Live Image) |
| Auto Functions | Exposure Auto<br>Gain Auto<br>White Balance Auto<br>Color Transformation Auto |

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| Camera features | |
|---|---|
| Image Pre-processing | Color Processing (RGB, BGR, Mono)<br>Color Enhancement (with optimized ColorTransformationMatrix)<br>LUT / Gamma |
| Acquisition / Interface | Burst Mode<br>Adjustable Framerate<br>Device Link Throughput Limit<br>Internal Image Buffer |
| Synchronization | free running<br>trigger |
| Trigger sources | Hardware<br>Software<br>ActionCommand |
| Process Synchronization | Events<br>Timer<br>Trigger Delay<br>Debouncer<br>Counter<br>Trigger via Action CMD (GigE)<br>Additional Output Modes (e.g. Trigger Ready)<br>Chunk data inside transferred image<br>Encoder support via Counter End trigger source |
| Additional Functions | User Set<br>Integrated temperature sensor<br>Readable additional information (e.g. sensor information) |
| Calibration data | Integrated color correction matrix (3000 K, 5000 K, 6500 K, 9500 K, and user defined)<br>Camera calibration data (user defined storage for intrinsic / extrinsic camera parameters, and geometry distortion values)<br>Customer data storage (128 bytes user defined) |

| 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 or Power over Ethernet (PoE) |
| **Mechanical data** | |
| Lens mount | C-mount |
| Width | 29 mm |
| Height | 29 mm |
| Depth | 49 mm |
| Weight | ≤ 120 g |
| Material | zinc die casting, baked varnish |
| **Electrical data** | |
| Voltage supply range +Vs | 12 … 24 V DC (external power supply)<br>36 … 57 V DC (Power over Ethernet) |
| Power consumption | Approx. 2.7 W @ 12 VDC and 19 fps<br>Approx. 3.2 W @ 48 VDC (PoE) and 19 fps |
| **Environmental conditions** | |
| Operating temperature | 0 … +65 ° @ T = measurement point |
| Storage temperature | -20 … +70 °C |
| Protection class | IP 40 (with mounted lens and cable) |
| **Conformity** | |
| Conformity | CE<br>RoHS<br>UL recognized |

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## Dimension drawing