

## VCXG-53NIR

Gigabit Ethernet, 5,3 Megapixel, Monochrome

Article number: 11701178

### Overview

- 2592 x 2048 px
- onsemi PYTHON5000
- 1" CMOS
- 23 fps
- Gigabit Ethernet



GEN*i*CAM



### Technical data

#### Sensor information

Sensor	onsemi PYTHON5000
Mono/Color	NIR
Sensor type	1" CMOS
Shutter type	Global shutter
Resolution	2592 × 2048 px
Pixel size	4.8 × 4.8 µm
Exposure time	0.02 ... 1000 ms

#### Data quality (EMVA 1288 typical)

Dark noise	10.68 e-
Saturation capacity	9307 e-
Dynamic range	58.1 dB
Signal-to-noise ratio	39.7 dB
Quantum efficiency	63.8 % @ 536 nm

#### Acquisition formats

Image formats, interface frame rate max.	Full Frame, 2592 × 2048 px, max. 23 fps Binning 2×2, 1296 × 1024 px, max. 28 fps Binning 2×1, 1296 × 2048 px, max. 28 fps Binning 1×2, 2592 × 1024 px, max. 28 fps
Image formats, acquisition frame rate max. (Burst Mode)	Full Frame, 2592 × 2048 px, max. 28 fps
Pixel formats	Mono8 Mono10

#### Image preprocessing

Analog controls	Gain (0 ... 12 dB) Offset (0 ... 63 LSB 10 Bit)
Color models	NIR

#### 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
Acquisition / Interface	Burst Mode Adjustable Framerate Device Link Throughput Limit Internal Image Buffer
Synchronization	free running trigger
Trigger sources	Hardware Software ActionCommand
Trigger delay	0 ... 2 sec, tracking and buffering of up to 256 trigger signals

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#### Camera features

Process Synchronization	Events Timer Trigger Delay Debouncer Counter Sequencer Trigger via Action CMD (GigE) Additional Output Modes (e.g. Trigger Ready) Chunk data inside transferred image Encoder support via Counter End trigger source
Additional Functions	User Set Integrated temperature sensor Readable additional information (e.g. sensor information) Save Custom Data
Internal image buffer	122 MB 8 images (Trigger Mode) 1 image (Free Running Mode)

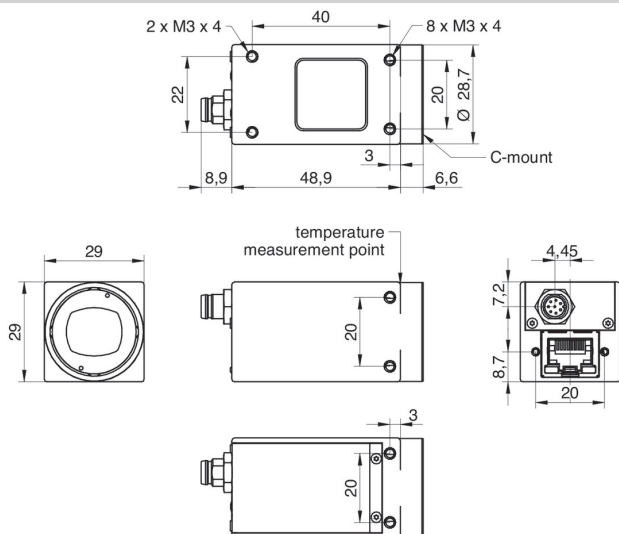
#### Interfaces and connectors

Data interface	Gigabit Ethernet, Transfer rate 1000 Mb/s/sec, Fast Ethernet, Transfer Rate 100 Mb/s/sec, Connector: 8P8C Modular Jack (RJ45), screwable type
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

### Dimension drawing



#### Mechanical data

Weight	≤ 120 g
Material	zinc die casting, baked varnish (until 02-2020 nickel-chrome-plated), IP 40

#### Electrical data

Voltage supply range +Vs	12 ... 24 V DC (external power supply) 36 ... 57 V DC (Power over Ethernet)
Power consumption	approx. 2,9 W @ 12 VDC (PoE) and 23 fps approx. 3,5 W @ 48 VDC (PoE) and 23 fps

#### Non-volatile memory

Flash memory size	128 kB
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#### Environmental conditions

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

#### Digital I/Os

Lines	1 input line 1 output line 2 general purpose lines
Output line sources	Off Exposure Active Timer1 Readout Active User0 User1 User2 TriggerReady

#### Conformity

Conformity	CE RoHS
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