

VCXG-13NIR

Gigabit Ethernet, 1,3 Megapixel, Monochrome

Article number: 11701179

Overview

- 1280 x 1024 px
- onsemi PYTHON1300
- 1/2" CMOS
- 94 fps
- Gigabit Ethernet



GEN<i>i>CAM



Technical data

Sensor information

Sensor	onsemi PYTHON1300
Mono/Color	NIR
Sensor type	1/2" CMOS
Shutter type	Global shutter
Resolution	1280 × 1024 px
Pixel size	4.8 × 4.8 µm
Exposure time	0.02 ... 1000 ms

Data quality (EMVA 1288 typical)

Dark noise	9.83 e-
Saturation capacity	7835 e-
Dynamic range	57.3 dB
Signal-to-noise ratio	38.9 dB
Quantum efficiency	59.5 % @ 535 nm 2.3 % @ 1042 nm 35.8 % @ 840 nm 15.4 % @ 930 nm 44.2 % @ 406 nm

Acquisition formats

Image formats, interface frame rate max.	Full Frame, 1280 × 1024 px, max. 94 fps Binning 2×2, 640 × 512 px, max. 148 fps Binning 2×1, 640 × 1024 px, max. 148 fps Binning 1×2, 1280 × 512 px, max. 148 fps
Image formats, acquisition frame rate max. (Burst Mode)	Full Frame, 1280 × 1024 px, max. 146 fps
Pixel formats	Mono8 Mono10

Image preprocessing

Analog controls	Gain (0 ... 12 dB) Offset (0 ... 63 LSB 10 Bit)
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Color models	NIR
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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	60 MB 16 images (Trigger Mode) 1 image (Free Running Mode)

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 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
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. 2,5 W @ 12 VDC and 94 fps approx. 3,0 W @ 48 VDC (PoE) and 94 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

Digital I/Os

Lines	1 input line 1 output line 2 general purpose lines
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Conformity

Conformity	CE RoHS EAC
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Dimension drawing

