

VCXG.2-127C

Gigabit Ethernet, 12,2 Megapixel, Color

Article number: 11708159

Overview

- 4096 × 2992 px
- Sony IMX545
- 1/1.1" CMOS
- 10 fps
- Gigabit Ethernet



GEN*i*CAM



Technical data

Sensor information

Sensor	Sony IMX545 Gen4
Mono/Color	Color
Sensor type	1/1.1" CMOS
Shutter type	Global shutter
Resolution	4096 × 2992 px
Pixel size	2.74 × 2.74 µm
Exposure time	0.001 ... 60000 ms

Data quality (EMVA 1288 typical)

Dark noise	2.29 e-
Saturation capacity	8794 e-
Dynamic range	69.5 dB
Signal-to-noise ratio	39.4 dB
Quantum efficiency	41.3 % @ 465 nm 47.9 % @ 536 nm 37.6 % @ 630 nm

Acquisition formats

Image formats, interface frame rate max.	Full Frame, 4096 × 2992 px, max. 10 fps Binning 2×2, 2048 × 1496 px, max. 11 fps Binning 2×1, 2048 × 2992 px, max. 11 fps Binning 1×2, 4096 × 1496 px, max. 11 fps
Image formats, acquisition frame rate max. (Burst Mode)	Full Frame, 4096 × 2992 px, max. 11 fps

Acquisition formats

Pixel formats	BayerRG8 BayerRG10 BayerRG12 BayerRG12 Packed Mono8 Mono10 Mono12 Mono12 Packed RGB8 BGR8
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Image preprocessing

Analog controls	Gain (0 ... 48 dB) Offset (0 ... 255 LSB 12 Bit)
Color models	Mono Raw Bayer RGB BGR
Color processing	Integrated color processor for high quality color calculation

Camera features

Basic Functions	Exposure Gain / Color Gain Trigger / Exposure Active (Flash) Binning 2x2 Partial Scan Offset Free Running Mode (Live Image)
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Camera features

Auto Functions	Exposure Auto Gain Auto White Balance Auto Color Transformation Auto
Image Pre-processing	Image Flipping (X/Y) Color Processing (RGB, BGR, Mono) Color Enhancement (with optimized ColorTransformationMatrix) 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
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)
Calibration data	Integrated color correction matrix (3000 K, 5000 K, 6500 K, 9500 K, and user defined) Camera calibration data (user defined storage for intrinsic / extrinsic camera parameters, and geometry distortion values) Customer data storage (128 bytes user defined)
Internal image buffer	141 MB 4 image (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
Weight	≤ 120 g
Material	zinc die casting, baked varnish

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 and 10 fps Approx. 3.5 W @ 48 VDC (PoE) and 10 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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Dimension drawing

