Allied Vision

Manta
G-319

- Latest Sony CMOS sensor
- PoE option
- Angled head and board level variants
- Video-iris lens control

Description

GigE Vision camera featuring the Sony IMX265 sensor, global shutter
Manta G-319B/G-319C is an industrial camera with the high quality Sony IMX265 Pregius series CMOS sensor with global shutter. This camera is offered with several modular options.
Options:

- Power over Ethernet (PoE)
- Various optical filters and lens mounts
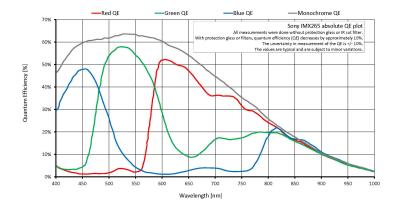- Angled head, board level version, white medical housing

See the Modular Concept for lens mount, housing variants, optical filters, case design, and other modular options.

Specifications

Manta	G-319
Interface	IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE) optional
Resolution	2064 (H) × 1544 (V)
Sensor	Sony IMX265
Sensor type	CMOS Progressive
Cell size	3.45 µm x 3.45 µm
Lens mount	C-Mount
Max frame rate at full resolution	37.6 fps
ADC	12 bit
Image buffer (RAM)	128 MByte
Non-volatile memory (Flash)	1024 KByte
Output	
Bit depth	8-12 bit

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Mono modes	Mono8, Mono12Packed, Mono12
Color modes YUV	YUV411Packed, YUV422Packed, YUV444Packed
Color modes RGB	RGB8Packed, BGR8Packed
Raw modes	BayerRG8, BayerRG12
General purpose inputs/outputs (GPIOs)	
Opto-isolated I/Os	2 inputs, 2 outputs
RS-232	1
Operating conditions/dimensions	
Operating temperature	+5 °C to +45 °C ambient (without condensation)
Power requirements (DC)	8 to 30 VDC; PoE
Power consumption (@12 V)	2.7 W @ 12 VDC; 3.1 W PoE
Mass	190 g; 200 g (PoE)
Body dimensions (L × W × H in mm)	86.4 × 44 × 29 (including connectors)
Regulations	CE, RoHS, REACH, WEEE, FCC, ICES

Sony IMX265 absolute QE plot
All measurements were done without protection glass or IR cut filter.
With protection glass or filters, quantum efficiency (QE) decreases by approximately 10%.
The uncertainty in measurement of the QE is +/- 10%.
The values are typical and are subject to minor variations.

Features

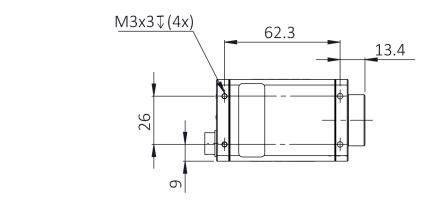Manta G-319B/G-319C features include:

- Precision Time Protocol (IEEE 1588)
- Camera temperature monitoring
- Video-type auto iris
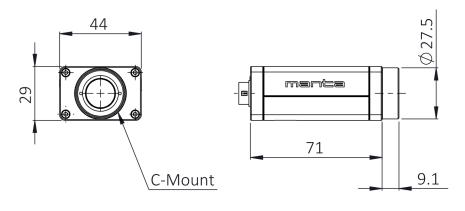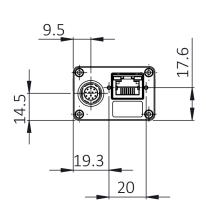- Region of interest (ROI), separate ROI for auto features

- Binning
- Decimation
- Auto gain (manual gain control: 0 to 40 dB)
- Auto exposure
- Auto white balance
- Look-up tables (LUTs))
- Gamma
- Hue, saturation, color correction (color models only)
- Reverse X/Y
- StreamBytesPerSecond (easy bandwidth control)
- Stream hold
- Sync out modes: Trigger ready, input, exposing, readout, imaging, strobe, GPO
- Trigger over Ethernet (ToE) Action Commands
- Event channel
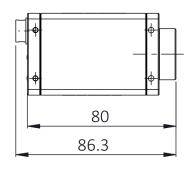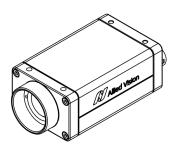- Chunk data
- Storable user sets

Technical drawing

M3x3 ↧ (4x)

62.3

13.4

26

9

44

29

Ø 27.5

manta

71

9.1

C-Mount

9.5

17.6

14.5

19.3

20

80

86.3

Applications

Manta G-319B/G-319C is ideal for a wide range of applications including:

- Machine Vision
- Broadcast analysis requiring Full HD such as sports analytics
- Industrial inspection
- Security and surveillance
- Intelligent traffic solutions (ITS), traffic (traffic monitoring, speed enforcement, toll collection)
- Low light / high sensitivity conditions
- Outdoor applications with dynamic lighting situations