

Manta

G-031



- Versatile VGA camera
- Power over Ethernet option
- Angled head and board level variants
- Video-iris lens control

Description

Fast GigE camera with Sony ICX618 sensor, 125.2 frames per second, PoE option

Manta G-031B/G-031C is a fast GigE Vision camera that incorporates the high quality Type 1/4 (4.5 mm diagonal) Sony ICX618 CCD sensor. The EXview HAD CCD sensor is very sensitive both in the visible spectrum and in the near-infrared spectrum. At full resolution, this camera runs 125.2 frames per second. With a smaller region of interest, higher frame rates are possible. The Manta is one of Allied Vision's versatile GigE Vision cameras with a wide range of features. Particular highlights are the three look-up tables, sophisticated color correction capabilities, a robust metal housing, and many modular options. By default monochrome models ship with protection glass B 270 (ASG) and color models ship with an IRC Hoya C-5000 IR cut filter.

Options:

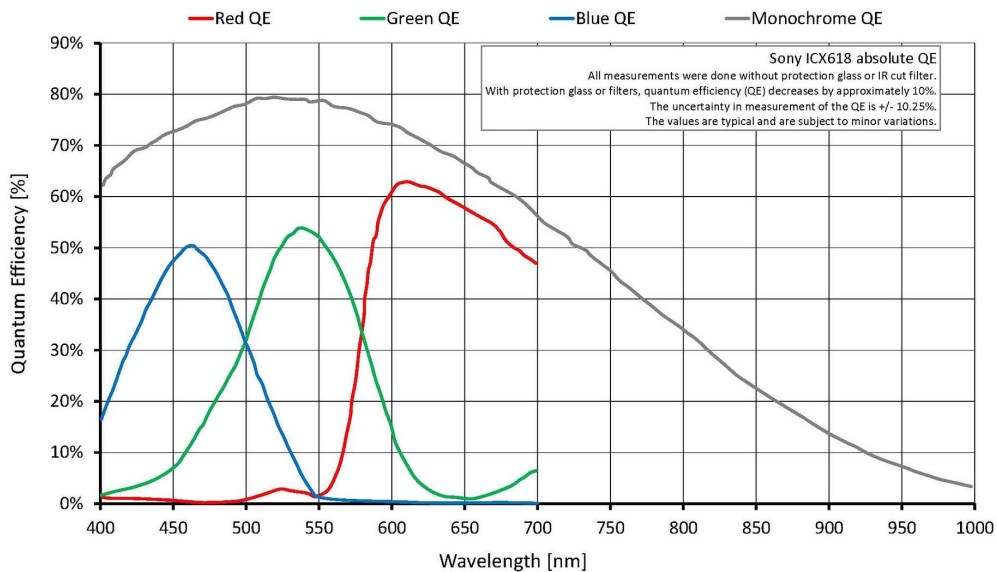
- Power over Ethernet (PoE)
- Various optical filter and lens mount options
- Angled head, board level variants, white medical housing

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

Specifications

Manta	G-031
Interface	IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE) optional
Resolution	656 (H) × 492 (V)
Sensor	Sony ICX618
Sensor type	CCD Progressive

Manta	G-031
Cell size	5.6 μm x 5.6 μm
Lens mount	C-Mount
Max frame rate at full resolution	125.2 fps
ADC	12 bit
Image buffer (RAM)	32 MByte
Output	
Bit depth	8-12 bit
Mono modes	Mono8, Mono12, Mono12Packed
Color modes YUV	YUV411Packed, YUV422Packed, YUV444Packed
Color modes RGB	RGB8Packed, BGR8Packed, RGBA8Packed, BGRA8Packed
Raw modes	BayerRG8, BayerRG12Packed, 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)	3.7 W @ 12 VDC; 4.3 W PoE
Mass	200 g; 210 g (PoE)
Body dimensions (L x W x H in mm)	86.4 x 44 x 29 (including connectors)
Regulations	CE, RoHS, REACH, WEEE, FCC, ICES





Features

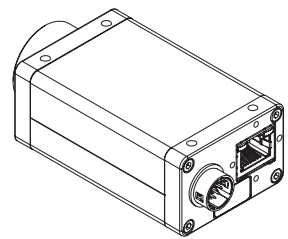
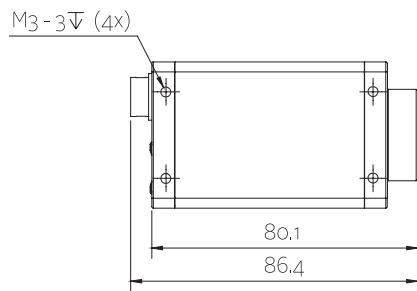
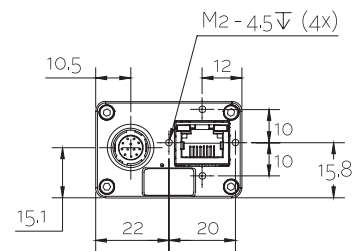
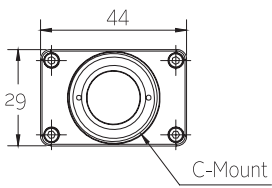
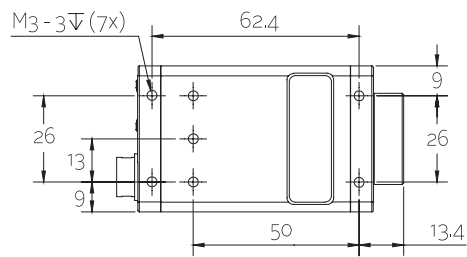
Image optimization features:

- Auto gain (manual gain control: 0 to 32 dB; 1 dB increments)
- Auto exposure (58 μ s to 60 s; 1 μ s increments)
- Auto white balance (color models only)
- Binning (Sum)
- Black level (offset)
- Color correction, hue, saturation (color models only)
- Decimation
- Gamma correction
- Look-up tables (LUTs) (3)
- Region of interest (ROI), separate ROI for auto features
- ReverseX (monochrome models only)

Camera control features:

- Auto-iris (video type)
- Event channel
- Image chunk data
- Storable user sets
- StreamBytesPerSecond (easy bandwidth control)
- Stream hold
- Sync out modes: Trigger ready, input, exposing, readout, imaging, strobe, GPO

Technical drawing





Applications

Manta G-031B/G-031C is ideal for a wide range of applications including:

- Machine vision
- Robotics
- Semiconductor inspection
- Logistics
- Security and Surveillance
- Pharmaceutical industry
- Food inspection
- Intelligent traffic solutions (ITS)