

# Manta

## G-031



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

## Description

### VGA machine vision camera with GigE Vision compliant interface

Manta G-031 is a fast GigE Vision camera. Manta G-031 is offered in both monochrome and color models. It 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.

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.

### Benefits and features:

- Monochrome (G-031B) and color (G-031C) models
- GigE Vision interface with Power over Ethernet option
- Screw mount RJ45 Ethernet connector for secure operation in industrial environments
- Supports cable lengths up to 100 meters (CAT-5e or CAT-6)
- Comprehensive I/O functionality for simplified system integration
- Popular C-Mount lens mount
- Easy camera mounting via standard M3 threads on top and bottom of housing or optional tripod adapter
- Easy software integration with Allied Vision's [Vimba SDK](#) and compatibility to the most popular [third party image-processing libraries](#).

### Options:

- Available with Power over Ethernet (PoE) compliant interface



- Available with CS-Mount or M12-Mount adapter
- Available with Protection glass B 270 (ASG), IRC type Jenofilt 217 (IR cut filter), IRC Hoya C-5000 (IR cut filter), IRP RG715 (IR pass filter), IRP RG830 (IR pass filter)
- Available with various angled-head housings or board level version
- Available with white medical design

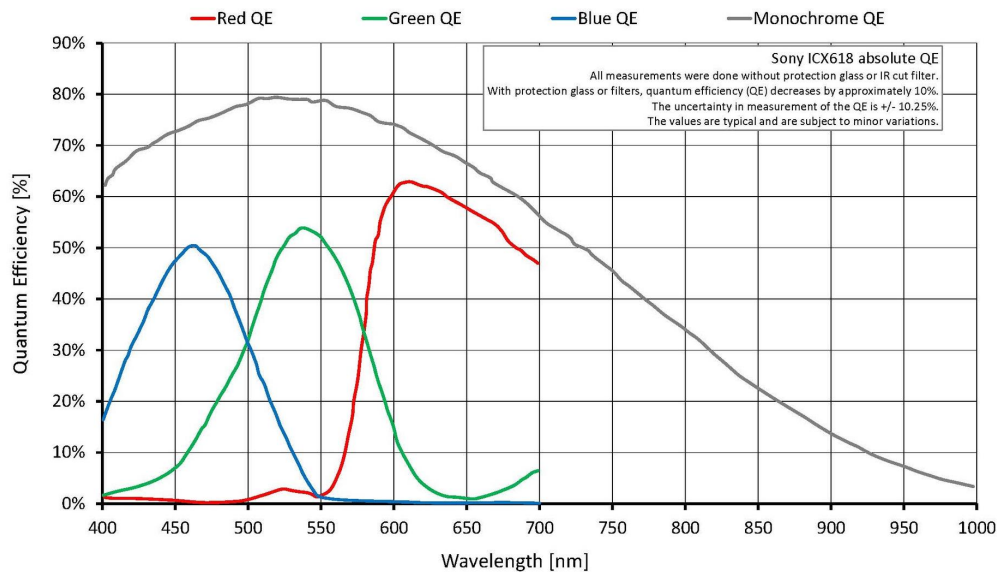
See the [Modular Concept](#) for lens mount, housing variants, optical filters, case design, and other modular options. See the [Customization and OEM Solutions](#) webpage for additional options.

## Specifications

Manta	G-031
インターフェイス	IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE) optional
解像度	656 (H) × 492 (V)
センサー	Sony ICX618
Sensor type	CCD Progressive
センサーサイズ	Type 1/4
ピクセルサイズ	5.6 μm × 5.6 μm
レンズマウント (標準搭載)	C-Mount
フレームレート (フル解像度)	125.2 fps
ADC	12 bit
Image buffer (RAM)	32 MByte
Output	
Bit depth	8/12 bit
ビデオフォーマット(Mono)	Mono8, Mono12, Mono12Packed
ビデオフォーマット(YUV)	YUV411Packed, YUV422Packed, YUV444Packed
ビデオフォーマット(RGB)	RGB8Packed, BGR8Packed, RGBA8Packed, BGRA8Packed
ビデオフォーマット(Raw)	BayerRG8, BayerRG12Packed, BayerRG12
General purpose inputs/outputs (GPIOs)	
Opto-isolated I/Os	2 inputs, 2 outputs
RS232	1
Operating conditions/dimensions	
Operating temperature	+5 °C to +45 °C ambient (without condensation)
Power requirements (DC)	8 to 30 VDC; PoE
消費電力	3.7 W at 12 VDC; 4.3 W PoE
Mass	200 g; 210 g (PoE)
Body dimensions (L × W × H in mm)	86.4 × 44 × 29 (including connectors)

Manta  
Regulations

G-031  
CE: 2014/30/EU (EMC), 2011/65/EU, including amendment 2015/863/EU (RoHS); FCC Class B; CAN ICES-003



## Features

### Image optimization features:

- Auto gain (manual gain control: 0 to 32 dB; 1 dB increments)
- Auto exposure (58  $\mu$ s to 60 s; 1  $\mu$ s increments)
- Auto white balance (G-031C only)
- Binning (Sum)
- Black level (offset)
- Color correction, hue, saturation (G-031C only)
- Decimation
- Gamma correction
- Three look-up tables (LUTs)
- Region of interest (ROI), separate ROI for auto features
- ReverseX (G-031B only)

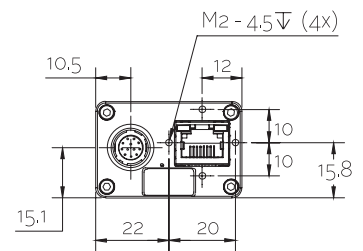
### Camera control features:

- Auto-iris (video type)



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

## Technical drawing





## Applications

Manta G-031 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)