

# Manta G-031



## Description

### Fast GigE camera with ICX618, 125 fps, with LUTs, PoE option

#### \*Preliminary\*

The Manta G-031B/C is a fast GigE camera with the ICX618 sensor. This EXview HAD CCD sensor is very sensitive both in the visible spectrum and in the NIR (near-infrared) spectrum. At full resolution, this camera runs 125 fps. With a smaller ROI, higher frame rates are possible.

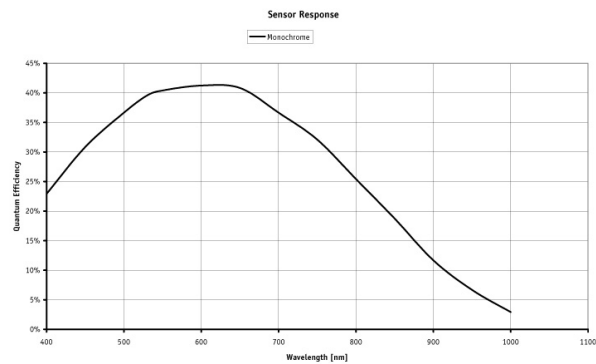
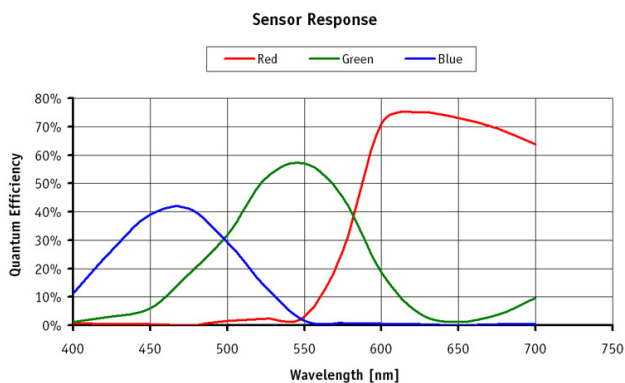
The camera incorporates three LUTs, sophisticated color correction algorithms, a robust metal housing, and many modular options like angled heads or board level versions. All Manta cameras are optionally available with PoE (Power over Ethernet).

- Sony ICX618 EXview HAD CCD sensor (VGA)
- Trigger
  - External trigger event: rising/falling/any edge, level high/low
  - External trigger delay: 0 to 60 seconds in 1  $\mu$ s increments
- Sync modes
  - Trigger ready, trigger input, exposing, readout, imaging, strobe, GPO
- Modular options
  - Various IR cut/pass filters
  - CS-Mount
  - Board level version
  - Angled head
  - White medical housing
  - **PoE (Power over Ethernet)**

## Specifications

<b>Manta</b>		<b>G-031</b>	
<b>Interface</b>	IEEE 802.3 1000baseT		
<b>Resolution</b>	656 x 492		
<b>Sensor</b>	Sony ICX618		
<b>Sensor type</b>	CCD Progressive		
<b>Sensor size</b>	Type 1/4		
<b>Cell size</b>	5.6 µm		
<b>Lens mount</b>	C-Mount		
<b>Max frame rate at full resolution</b>	125 fps		
<b>A/D</b>	14 bit		
<b>On-board FIFO</b>	32 MB		
<b>Output</b>			
<b>Bit depth</b>	8-12 bit		
<b>Mono modes</b>	Mono8, Mono12Packed, Mono16		
<b>Color modes YUV</b>	YUV411, YUV422, YUV444		
<b>Color modes RGB</b>	RGB24, BGR24, RGBA32, BGRA32		
<b>Raw modes</b>	Bayer8, Bayer12Packed, Bayer16		
<b>General purpose inputs/outputs (GPIOs)</b>			
<b>Opto-coupled I/Os</b>	2 inputs, 2 outputs		
<b>RS-232</b>	1		
<b>Operating conditions/Dimensions</b>			
<b>Operating temperature</b>	+5 °C ... +45 °C		
<b>Power requirements (DC)</b>	8 V - 30 V		
<b>Power consumption (12 V)</b>	<3.7 W		
<b>Mass</b>	<200 g		
<b>Body Dimensions (L x W x H in mm)</b>	86.4 x 44 x 29 mm incl. connectors		
<b>Regulations</b>	CE, FCC Class B, RoHS		

[Download Manta technical drawing \(click here\)](#)



## Smart features

- ROI (Region of Interest Readout)
- Exposure
  - Auto/one push/programmable
  - Exposure time 58  $\mu$ s to 60 s
- White balance
  - Auto/one push/programmable
- On-board debayering
- Hue, saturation, sharpness (color versions)
- Gain
  - Auto/one push/programmable
  - Manual gain control: 0 to 32 dB (1 dB/step)
- Three look-up tables (LUTs), gamma correction
- DSP subregion (selectable ROI for auto features)
- Binning (up to 8 x 14, independent x and y binning)
- Stream hold
- StreamBytesPerSecond (easy bandwidth control)
- Event channel
- Chunk data
- Video-type auto-iris
- 5 storable user sets

## Applications

The Manta G-031B/C is a fast and sensitive (also NIR sensitive) GigE camera. Its flexible modular options include PoE (Power over Ethernet).

Typical Applications:

- Machine vision
- Robotics
- Semiconductor inspection
- Logistics
- Security and Surveillance
- Pharmaceutical industry
- Food inspection
- ITS/Traffic monitoring