

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.

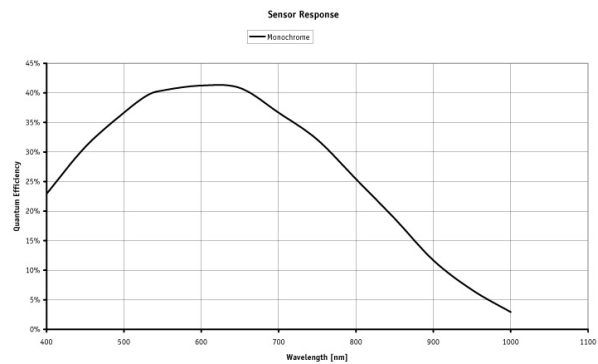
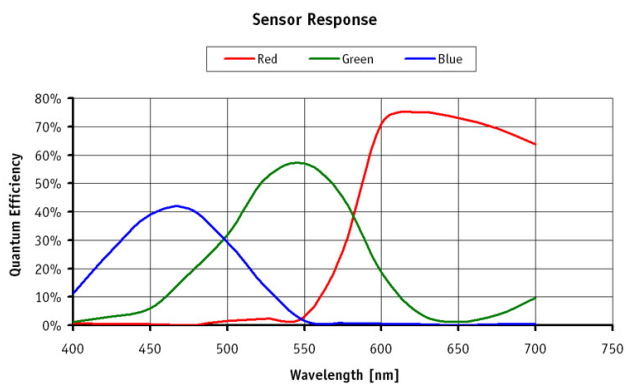
The camera incorporates three LUTs, sophisticated color correction algorithms, a robust metal housing, and many modular options like angled heads or board level versions. All Manta cameras are optionally available with PoE (Power over Ethernet).

- 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 μ 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

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