

# Manta G-033



## Description

### GigE Vision camera, Sony ICX414, PoE option

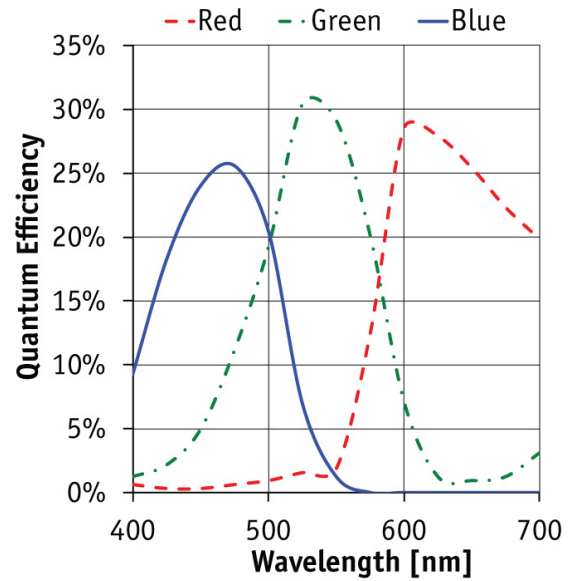
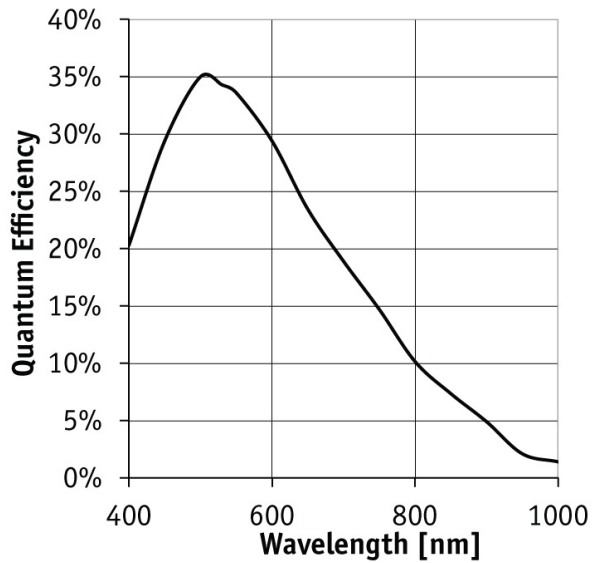
The Manta G-033B/C is a VGA GigE Vision camera with the Sony ICX414 CCD sensor. It runs at 88 fps (full resolution). With a smaller ROI, higher frame rates are possible. It incorporates three LUTs, sophisticated color correction algorithms, a robust metal housing, and many modular options like angled heads or board level versions. Manta cameras cover a wide range of imaging applications. The Manta is optionally available with PoE (Power over Ethernet).

- Sony ICX414 (type 1/2), 0.3 Megapixels
- 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

Manta	G-033
Interface	IEEE 802.3 1000baseT
Resolution	656 x 492
Sensor	Sony ICX414
Sensor type	CCD Progressive
Sensor size	Type 1/2
Cell size	9.9 $\mu$ m
Lens mount	C/CS-Mount
Max frame rate at full resolution	88 fps
A/D	14 bit
On-board FIFO	32 MB
<b>Output</b>	
Bit depth	8-12 bit
Mono modes	Mono8, Mono12, Mono12Packed
Color modes YUV	YUV411, YUV422, YUV444
Color modes RGB	RGB24, BGR24
Raw modes	BayerRG8, BayerGR12, BayerRG12Packed
<b>General purpose inputs/outputs (GPIOs)</b>	
Opto-coupled I/Os	2 inputs, 2 outputs
RS-232	1
<b>Operating conditions/Dimensions</b>	
Operating temperature	+5 °C ... +45 °C
Power requirements (DC)	8 V - 30 V
Power consumption (12 V)	<3.6 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 26  $\mu$ 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 35 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)
- Sub-sampling (decimation)
- Stream hold
- StreamBytesPerSecond (easy bandwidth control)
- Event channel
- Chunk data
- Video-type auto-iris
- 5 storable user sets

## Applications

The Manta G-033B/C is a rich-featured, modular camera with GigE Vision interface and VGA resolution. Many options are available: PoE (Power over Ethernet), three separate look-up tables for R, G, and B, angled heads, or boardlevel versions with separate sensor head.

Typical applications:

- Machine vision
- Industrial inspection and automation
- Semiconductor inspection
- Logistics
- ITS/Traffic monitoring
- ... and many more