



## Description

### GigE Vision camera with Sony ICX285 ExView HAD CCD, PoE option

The Manta G-145B/C is an inexpensive GigE Vision camera with the very sensitive Sony ICX285 ExView HAD sensor. It runs at 16 fps (full resolution). With a smaller ROI, higher frame rates are possible.

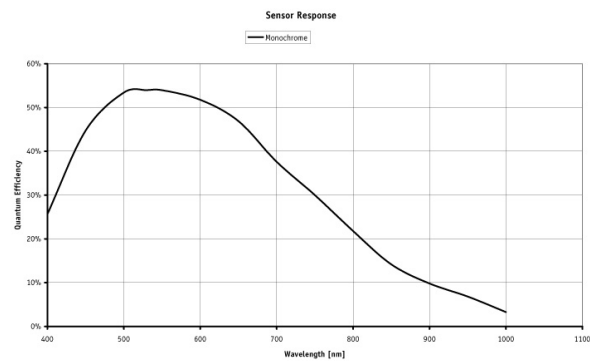
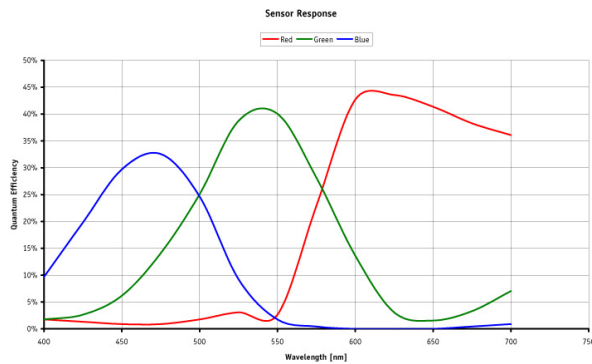
The Manta incorporates three LUTs, sophisticated color correction algorithms, a robust metal housing, and many modular options like angled heads or board level versions. This camera covers a wide range of imaging applications. The Manta is **now optionally available with PoE (Power over Ethernet)**.

- Sony ICX285 (type 2/3), ExView HAD CCD, 1.4 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, removed cover glass
  - Board level version
  - Angled head
  - White medical housing
  - **NEW: PoE (Power over Ethernet)**

## Specifications

<b>Manta</b>		<b>G-145</b>	
<b>Interface</b>	IEEE 802.3 1000baseT		
<b>Resolution</b>	1388 x 1038		
<b>Sensor</b>	Sony ICX285		
<b>Type</b>	CCD Progressive		
<b>Sensor Size</b>	Type 2/3		
<b>Cell size</b>	6.45 µm		
<b>Lens mount</b>	C		
<b>Max frame rate at full resolution</b>	16 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, Mono16, Mono12 packed		
<b>Color modes YUV</b>	YUV411, YUV422, YUV444		
<b>Color modes RGB</b>	RGB24, BGR24		
<b>Raw modes</b>	Bayer8, Bayer16, Bayer12 packed		
<b>General purpose inputs/outputs (GPIOs)</b>			
<b>TTL I/Os</b>	0		
<b>Opto-coupled I/Os</b>	2 inputs, 2 outputs		
<b>RS-232</b>	1		
<b>Power/Mass/Dimensions/Regulations</b>			
<b>Power requirements (DC)</b>	8 V - 30 V		
<b>Power consumption (12 V)</b>	<3.6 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 38  $\mu$ 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 33 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
- 5 storable user sets

## Applications

The Manta G-145B/C is a very affordable GigE Vision camera for machine vision and medical imaging applications. Its sensor is very sensitive in the visible spectrum, and also suitable for applications which require NIR (near infrared) sensitivity. On request, board level versions with separate sensor head (up to 200 mm distance to camera mainboard) are available.

- Machine vision
- Science and research
- Medical and healthcare
- Microscopy
- Ophthalmology
- ITS/Traffic monitoring
- ... and many more