



## Manta G-145

### Description

#### **Inexpensive GigE Vision camera with Sony ICX285 ExView HAD CCD**

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.

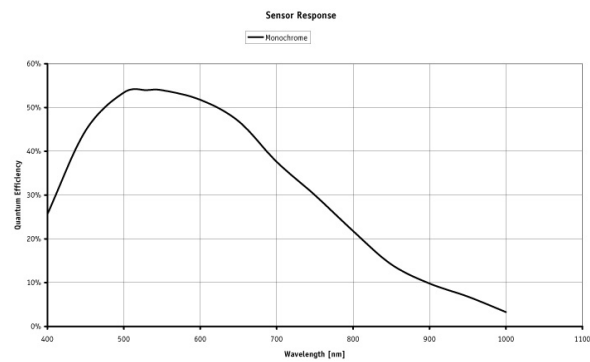
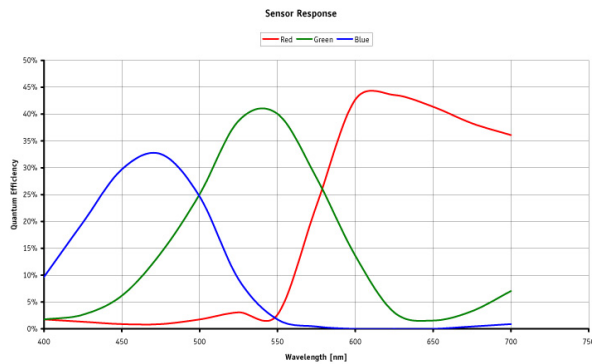
The color version includes color interpolation/color correction functions that outperform most cameras in this price class.

- 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
  - Board level version
  - Angled head
  - White medical housing

## 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		
<b>Color modes YUV</b>	YUV411, YUV422, YUV444		
<b>Color modes RGB</b>	RGB24, BGR24		
<b>Raw modes</b>	Bayer8, Bayer16		
<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 33.4  $\mu$ s to 60 s
- White balance
  - Auto/one push/programmable
- Hue, saturation, sharpness (color versions)
  - Gain Auto/one push/programmable
  - Manual gain control: 0 to 24 dB (1 dB/step)
- Gamma (0.5)
- DSP subregion (selectable ROI for auto features)
- Binning (up to 8 x 8, independent x and y binning)
- Stream hold
- StreamBytesPerSecond (easy bandwidth control)
- On-board debayering
- 3 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.

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