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Description

Inexpensive GigE Vision camera with Sony ICX285 ExView HAD CCD

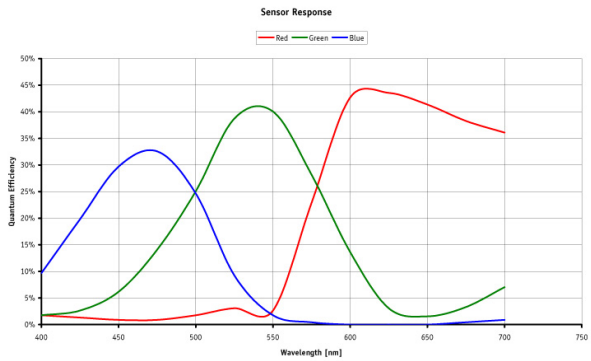
The Manta G-145B/C is an inexpensive GigE Vision camera with the very sensitive Sony ICX285 ExView HAD sensor. It runs at 16 fps (full resolution). With a smaller ROI, higher frame rates are possible.
The color version includes color interpolation/color correction functions that outperform most cameras in this price class.

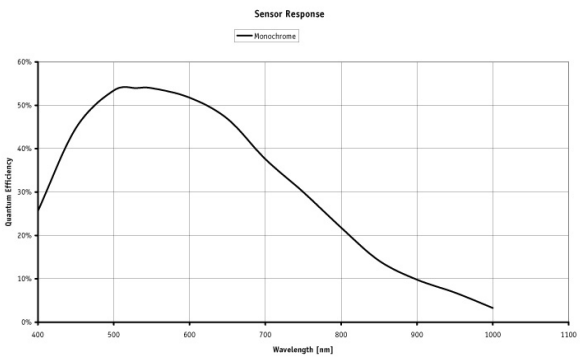
- Sony ICX285 (type 2/3), ExView HAD CCD, 1.4 Megapixels
- Two configurable inputs, two configurable outputs (all optocoupled), RS-232
- Pixel format
  - B/w: Mono8, Mono16
  - Color: Bayer8, Bayer16, RGB24, YUV411, YUV422, YUV444, BGR24
- Trigger
  - External trigger event: rising/falling/any edge, level high/low
  - External trigger delay: 0 to 60 seconds in 1 µs increments
- Sync modes
  - Trigger ready, trigger input, exposing, readout, imaging, strobe, GPO
- Modular options
  - Various IR cut/pass filters
  - CS-/M12-Mount (standard: C-Mount)
  - Board level version

Specifications

Manta	G-145
Resolution	1388 x 1038
Max frame rate at full resolution	16 fps
Type	CCD Progressive
Interface	IEEE 802.3 1000baseT
A/D	14 bit
Output	8-12 bit
Sensor Size	Type 2/3
Sensor	Sony ICX285
Cell size	6.45 µm
On-board FIFO	32 MB
Body Dimensions (L x W x H in mm)	86.4 x 44 x 29 mm incl. connectors, w/o tripod and lens

Download Manta technical drawing (click here)





Smart features

- ROI (Region of Interest Readout)
- Exposure
  - Auto/one push/programmable
  - Exposure time 33.4 µs 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
- ... and many more