Manta G-145-30fps



Description

GigE Vision camera with Sony ICX285 - 30fps - PoE option

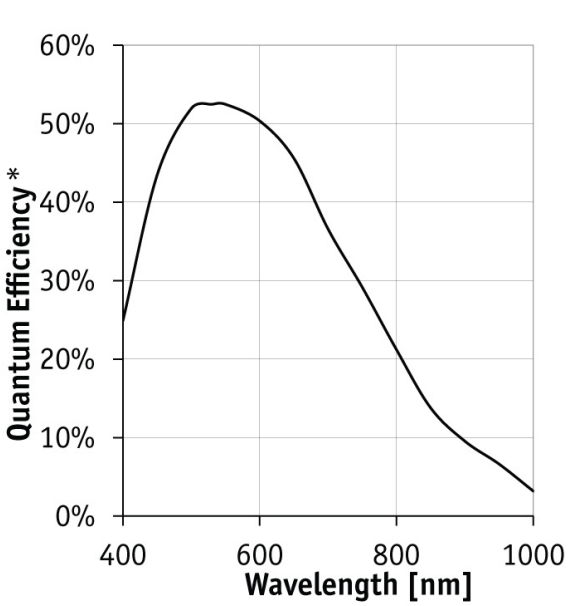
The Manta G-145B/C-30fps is the high-speed version of the Manta G-145B/C. It runs at 30 fps. With a smaller ROI, even higher frame rates are possible.

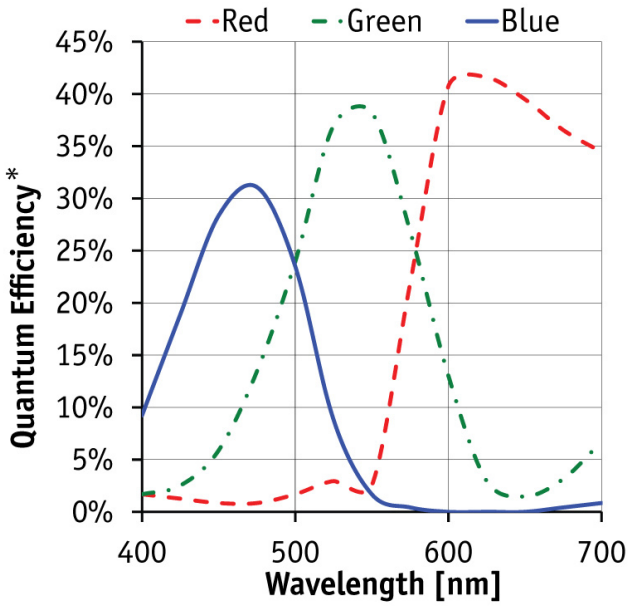
- Sony ICX285 (type 2/3), EXview HAD CCD, 1.4 Megapixels
- Trigger
  - External trigger event: rising/falling/any edge, level high/low
  - External trigger delay: 0 to 60 seconds in 1 µs increments
- Sync modes
  - Trigger ready, trigger input, exposing, readout, imaging, strobe, GPO
- Modular options
  - Various IR cut/pass filters, removed cover glass
  - Board level version
  - Angled head
  - White medical housing
  - Power over Ethernet (PoE)

Specifications

Manta	G-145-30fps
Interface	IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE) optional
Resolution	1388 x 1038
Sensor	Sony ICX285
Sensor type	CCD Progressive
Sensor size	Type 2/3
Cell size	6.45 µm
Lens mount	C/CS-Mount
Max frame rate at full resolution	30 fps
A/D	14 bit
On-board FIFO	32 MB
	Output
Bit depth	8-12 bit
Mono modes	Mono8, Mono12, Mono12Packed
Color modes YUV	YUV411, YUV422, YUV444
Color modes RGB	RGB24, BGR24
Raw modes	BayerGB8, BayerGB12, BayerGB12Packed
	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)	<4.5 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)





*QE measured without protection glass or filters. With glass or filters, quantum efficiency decreases by approximately 10%.

Smart features

- ROI (Region of Interest Readout)
- Exposure
  - Auto/one push/programmable
  - Exposure time 37 µs 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)
- Manta G-145B-30fps camera: X-Mirror
- Stream hold
- StreamBytesPerSecond (easy bandwidth control)
- Event channel
- Chunk data
- 5 storable user sets

Applications

The Manta G-145B/C-30fps is a fast GigE 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. Like the G-145B/C, the 30fps version is also available as boardlevel version with separate sensor head (up to 200 mm distance to camera mainboard).

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

Application case studies:

- **Safe Sex Starts With Virtual Pillow Fight**
  Interactive billboard using AVT Manta camera promotes “Designers Against AIDS” charity by inviting passers-by to join pillow fight with Belgian top model Hannelore Knuts.