

# Manta G-145-30fps



## Description

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

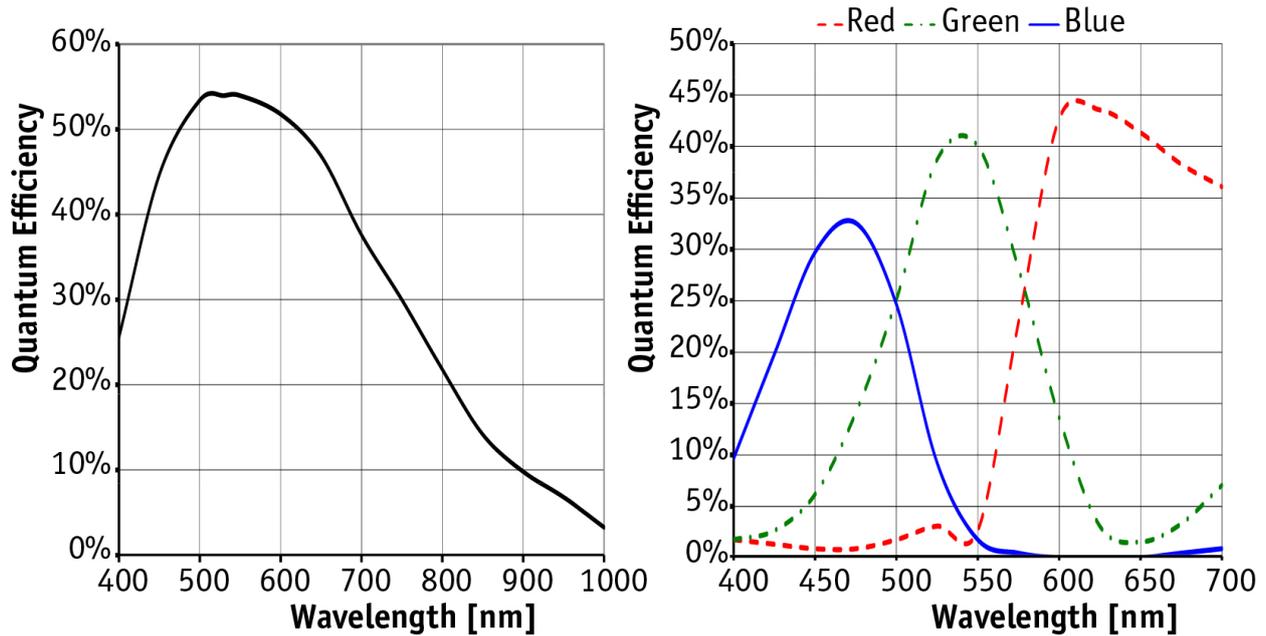
The Manta G-145B/C-30fps is the high-speed version of the Manta G-145B/C. It runs at 30 fps. With a smaller ROI, even higher frame rates are possible.

- 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  $\mu$ 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
  - Power over Ethernet (PoE)

## Specifications

<b>Manta</b>		<b>G-145-30fps</b>	
<b>Interface</b>		IEEE 802.3 1000baseT	
<b>Resolution</b>		1388 x 1038	
<b>Sensor</b>		Sony ICX285	
<b>Sensor type</b>		CCD Progressive	
<b>Sensor size</b>		Type 2/3	
<b>Cell size</b>		6.45 µm	
<b>Lens mount</b>		C/CS-Mount	
<b>Max frame rate at full resolution</b>		30 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, Mono12, Mono12Packed	
<b>Color modes YUV</b>		YUV411, YUV422, YUV444	
<b>Color modes RGB</b>		RGB24, BGR24	
<b>Raw modes</b>		BayerGB8, BayerGB12, BayerGB12Packed	
		<b>General purpose inputs/outputs (GPIOs)</b>	
<b>Opto-coupled I/Os</b>		2 inputs, 2 outputs	
<b>RS-232</b>		1	
		<b>Operating conditions/Dimensions</b>	
<b>Operating temperature</b>		+5 °C ... +45 °C	
<b>Power requirements (DC)</b>		8 V - 30 V	
<b>Power consumption (12 V)</b>		<4.5 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 37  $\mu$ 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-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.