Allied Vision

Manta

G-146

- 17.8 fps at full resolution
- PoE option
- Angled-head and board level variants
- Video-iris lens control

Description

GigE Vision camera with Sony ICX267 CCD sensor

Manta G-146 is a value packed GigE Vision camera. Manta G-146 is offered in both monochrome and color models. It incorporates the high quality Type 1/2 (8.0 mm diagonal) Sony ICX267 CCD sensor. At full resolution, this camera runs 17.8 frames per second. With a smaller region of interest, higher frame rates are possible.
Manta is one of Allied Vision's versatile GigE Vision cameras with a wide range of features. Particular highlights are the three look-up tables, sophisticated color correction capabilities, a robust metal housing, and many modular options. By default monochrome models ship with protection glass B 270 (ASG) and color models ship with an IRC Hoya C-5000 IR cut filter.

Benefits and features:

- Monochrome (G-146B) and color (G-146C) models
- GigE Vision interface with Power over Ethernet option
- Screw mount RJ45 Ethernet connector for secure operation in industrial environments
- Supports cable lengths up to 100 meters (CAT-5e or CAT-6)
- Comprehensive I/O functionality for simplified system integration
- Popular C-Mount lens mount
- Easy camera mounting via standard M3 threads on top and bottom of housing or optional tripod adapter
- Easy software integration with Allied Vision's Vimba SDK and compatibility to the most popular third party image-processing libraries.

Options:

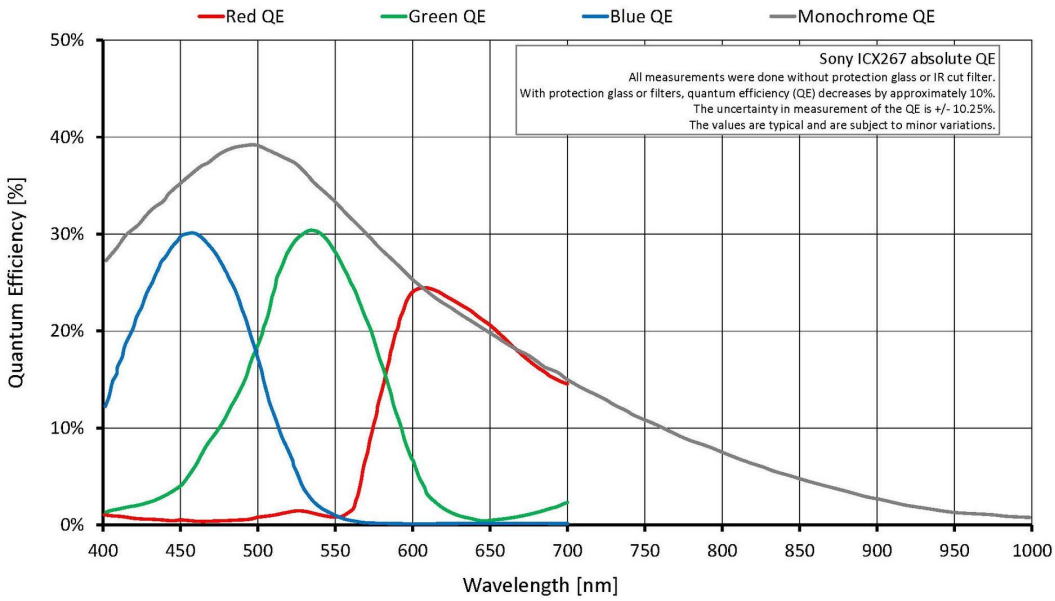
- Available with Power over Ethernet (PoE) compliant interface
- Available with CS-Mount or M12-Mount adapter

- Available with Protection glass B 270 (ASG), IRC type Jenofilt 217 (IR cut filter), IRC Hoya C-5000 (IR cut filter), IRP RG715 (IR pass filter), IRP RG830 (IR pass filter)
- Available with various angled-head housings or board level version
- Available with white medical design

See the Modular Concept for lens mount, housing variants, optical filters, case design, and other modular options. See the Customization and OEM Solutions webpage for additional options.

Specifications

Manta	G-146
Interface	IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE) optional
Resolution	1388 (H) × 1038 (V)
Sensor	Sony ICX267
Sensor type	CCD Progressive
Sensor size	Type 1/2
Pixel size	4.65 µm × 4.65 µm
Lens mount (default)	C-Mount
Max. frame rate at full resolution	17.8 fps
ADC	12 bit
Image buffer (RAM)	32 MByte
Output	
Bit depth	8/12 bit
Monochrome pixel formats	Mono8, Mono12, Mono12Packed
YUV color pixel formats	YUV411Packed, YUV422Packed, YUV444Packed
RGB color pixel formats	RGB8Packed, BGR8Packed, RGBA8Packed, BGRA8Packed
Raw pixel formats	BayerGB8, BayerGB12Packed, BayerGB12
General purpose inputs/outputs (GPIOs)	
Opto-isolated I/Os	2 inputs, 2 outputs
RS232	1
Operating conditions/dimensions	
Operating temperature	+5 °C to +45 °C ambient (without condensation)
Power requirements (DC)	8 to 30 VDC; PoE
Power consumption	3.6 W at 12 VDC; 4.2 W PoE
Mass	200 g; 210 g (PoE)
Body dimensions (L × W × H in mm)	86.4 × 44 × 29 (including connectors)
Regulations	CE: 2014/30/EU (EMC), 2011/65/EU, including amendment 2015/863/EU (RoHS); FCC Class B; CAN ICES-003



Features

Image optimization features:

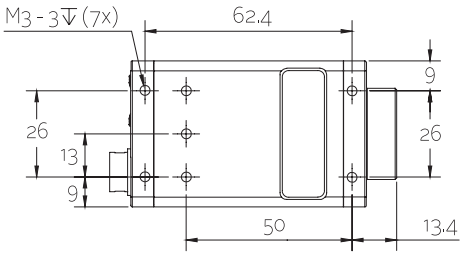
- Auto gain (manual gain control: 0 to 33 dB; 1 dB increments)
- Auto exposure (31 µs to 60 s; 1 µs increments)
- Auto white balance (G-146C only)
- Binning
- Black level (offset)
- Color correction, hue, saturation (G-146C only)
- Decimation
- Gamma correction
- Three look-up tables (LUTs)
- Region of interest (ROI), separate ROI for auto features
- ReverseX (G-146B only)

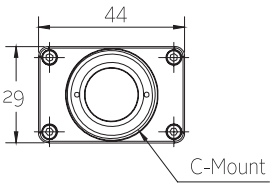
Camera control features:

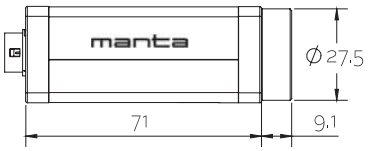
- Auto-iris (video type)
- Event channel
- Image chunk data
- Storable user sets
- StreamBytesPerSecond (bandwidth control)
- Stream hold
- Sync out modes: Trigger ready, input, exposing, readout, imaging, strobe, GPO

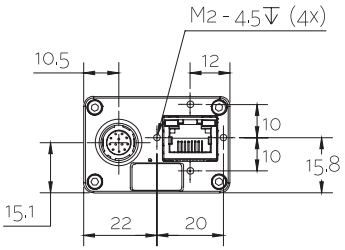
Allied Vision

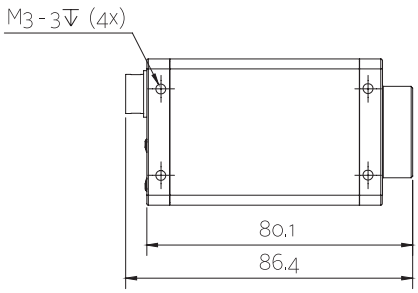
Technical drawing

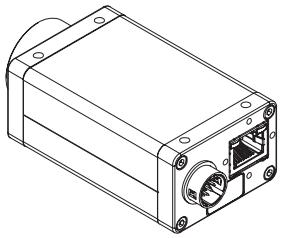












Applications

Manta G-146 is ideal for a wide range of applications including:

- Machine vision
- Industrial inspection
- Logistics and automation
- Healthcare
- Intelligent traffic solutions (ITS)