

Manta G-145 NIR



- NIR-enhanced
- Power over Ethernet option
- Angled-head and board level variants
- Video-iris lens control

Description

NIR optimized GigE camera with Sony ICX285 CCD sensor

Manta G-145B NIR is a near-infrared optimized camera with the popular Type 2/3 (11.0 mm diagonal) Sony ICX285 CCD sensor with EXview HAD technology. Besides the enhanced near infrared (NIR) sensitivity, it is distinguished by an excellent anti-blooming. This camera provides three modes with higher frame rates or higher NIR sensitivity. These modes are switchable during operation. On request, board level variants with separate sensor head (up to 200 mm distance to camera main board) are available. By default the Manta G-145B NIR ships with no optical filter.

Benefits and features:

- 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:

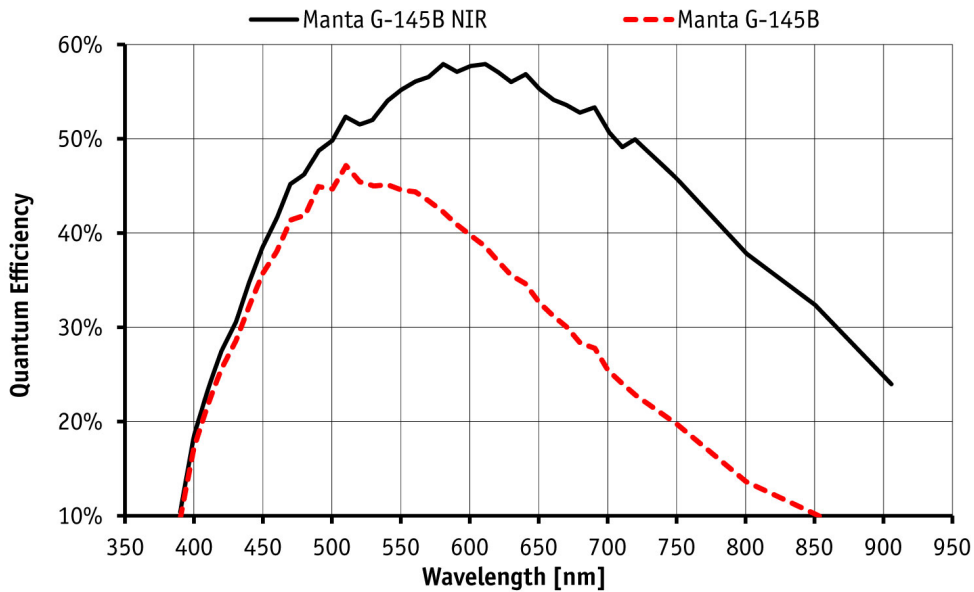
- Available with Power over Ethernet (PoE) compliant interface
- Available with CS-Mount or M12-Mount adapter
- Available with Protection glass B 270 (ASG), IRC type Jenofilt 217 (IR cut filter), IRC Hoya C-5000 (IR cut filter), IRP RG715 (IR pass filter), IRP RG830 (IR pass filter)

- 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-145 NIR
インターフェイス	IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE) optional
解像度	1388 (H) × 1038 (V)
センサー	Sony ICX285
Sensor type	CCD Progressive
センサーサイズ	Type 2/3
ピクセルサイズ	6.45 μm × 6.45 μm
レンズマウント (標準搭載)	C-Mount
フレームレート (フル解像度)	15.0 fps
ADC	12 bit
Image buffer (RAM)	32 MByte
Output	
Bit depth	8/12 bit
ビデオフォーマット(Mono)	Mono8, Mono12, Mono12Packed
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
消費電力	4.2 W at 12 VDC; 4.9 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

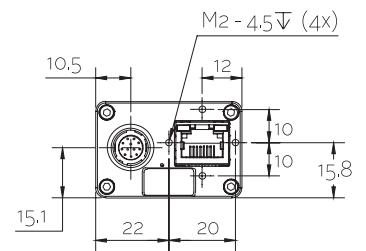
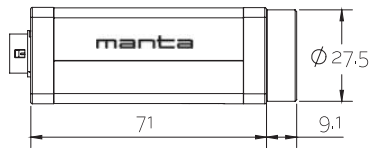
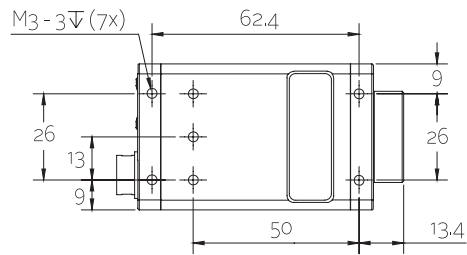
Image optimization features:

- Auto gain (manual gain control: 0 to 33 dB; 1 dB increments)
- Auto exposure (manual exposure control: $\approx 20 \mu\text{s}$ to 60 s, depending on NIR mode)
- Binning
- Black level (offset)
- Decimation
- Gamma correction
- Three look-up tables (LUTs)
- Region of interest (ROI), separate ROI for auto features
- Three operating modes with higher NIR sensitivity or higher frame rates
- ReverseX

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

Technical drawing





Applications

Manta G-145B NIR is ideal for a wide range of applications including:

- Machine vision, visible and NIR spectrum
- Applications which require switching NIR sensitivity on/off
- Food inspection
- Medical and healthcare
- Microscopy
- Intelligent traffic solutions (ITS) and Traffic monitoring