

Mako G-032





## Description

### GigE camera with Sony ICX424 CCD sensor

The Mako G-032B/C is an industrial GigE camera with Sony's ICX424 sensor. Mako cameras have the same compact form factor and the same mounting positions as many analog cameras. All models include PoE, three optocoupled outputs, and a 64 MB image buffer. The image quality profits from the precisely aligned sensors.

- Sony ICX424 (type 1/3), 0.3 Megapixels
- Trigger
  - External trigger event: rising/falling/any edge, level high/low
  - $\circ\,$  External trigger delay: 0 to 46 s in 1  $\mu s$  increments
- Sync modes
  - Trigger ready, trigger input, exposing, readout, imaging, strobe, GPO
- Modular options
  - Various IR cut/pass filters, protection glass
  - CS-Mount
  - Angled head
  - White medical housing



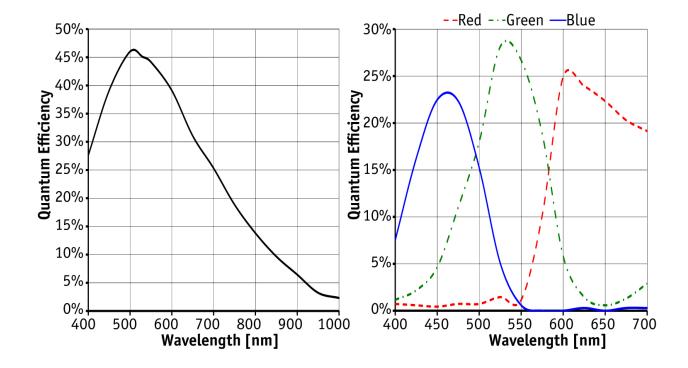
# Specifications

Mako	G-032
Interface	IEEE 802.3 1000baseT
Resolution	658 x 492
Sensor	Sony ICX424
Sensor type	CCD Progressive
Sensor size	Туре 1/3
Cell size	7.4 μm
Lens mount	C/CS-Mount
Max frame rate at full resolution	102 fps
A/D	14 bit
On-board FIFO	64 MB
	Output
Bit depth	8/12 bit
Mono modes	Mono8, Mono12, Mono12Packed
Color modes YUV	YUV411Packed, YUV422Packed, YUV444Packed
Color modes RGB	RGB8Packed, BGR8Packed
Raw modes	BayerRG8, BayerRG12, BayerRG12Packed
	General purpose inputs/outputs (GPIOs)
Opto-coupled I/Os	1 input, 3 outputs
	<b>Operating conditions/Dimensions</b>
Operating temperature	+ 5 °C + 45 °C
Power requirements (DC)	PoE /12 V - 24 V
Power consumption (12 V)	2.8 W (PoE) / 2.4 W (non-PoE)
Mass	80 g
Body Dimensions (L x W x H in mm)	60.5 x 29 x 29 mm, incl. connectors
Regulations	CE, FCC Class B, RoHS

Download technical drawing (click here)



#### SEEING IS BELIEVING



### **Smart features**

- ROI (Region of Interest Readout)
- Camera temperature monitoring
- Exposure
  - Auto/one push/programmable
  - Exposure time 10 µs to 93 s
- White balance
  - Auto/one push/programmable
- On-board debayering
- Hue, saturation
- Gain
  - Auto/one push/programmable
  - Manual gain control: 0 to 30 dB (1 dB/step)
- Look-up table (LUT), gamma correction
- DSP subregion (selectable ROI for auto features)
- Binning (up to 8 x 14, independent x and y binning)
- Stream hold
- StreamBytesPerSecond (easy bandwidth control)
- Event channel
- Chunk data
- 3 storable user sets



## Applications

The Mako is an inexpensive industrial GigE camera with a compact form factor. It is suitable for all typical machine vision applications:

- Robotics
- Quality control
- Inspection, surveillance
- Industrial imaging
- Machine vision
- Logistics