

# Mako G-223 NIR



## Description

### **GigE camera with CMOSIS CMV2000 sensor, NIR optimized, global shutter**

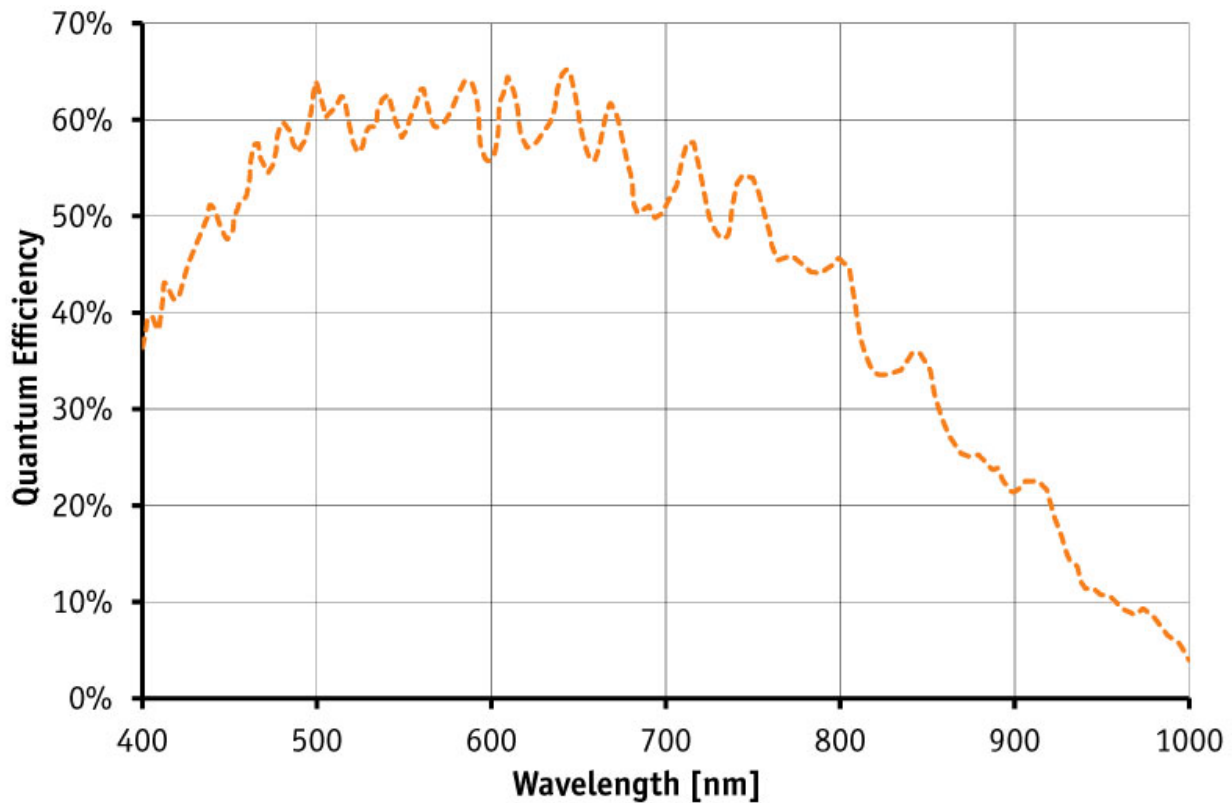
The Mako G-223B NIR is an industrial GigE camera with the CMOSIS CMV2000 sensor. Mako cameras have the same compact form factor and the same mounting positions as many analog cameras. All models include PoE, three optocoupled outputs, and a 64 MB image buffer. The image quality profits from the precisely aligned sensors.

- CMOSIS CMV2000 sensor (type 2/3, 1 inch lens recommended)
- 49.5 fps @ 124 MB/s
- 2 Megapixels, global shutter
- Trigger
  - External trigger event: rising/falling/any edge, level high/low
  - External trigger delay: 0 to 306 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
  - White medical housing

## Specifications

Mako	G-223 NIR
Interface	IEEE 802.3 1000baseT
Resolution	2048 x 1088
Sensor	CMOSIS CMV2000
Sensor type	CMOS Progressive
Sensor size	Type 2/3
Cell size	5.5 $\mu$ m
Lens mount	C/CS-Mount
Max frame rate at full resolution	49.5 fps
A/D	12 bit
On-board FIFO	64 MB
	<b>Output</b>
Bit depth	8/12 bit
Mono modes	Mono8, Mono12, Mono12Packed
	<b>General purpose inputs/outputs (GPIOs)</b>
Opto-coupled I/Os	1 input, 3 outputs
	<b>Operating conditions/Dimensions</b>
Operating temperature	+5°C ... to +50°C (housing temperature)
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 \(click here\)](#)



## Smart features

- ROI (Region of Interest Readout)
- Camera temperature monitoring
- Exposure
  - Auto/one push/programmable
  - Exposure time 21  $\mu$ s to 153 s
- Gain
  - Auto/one push/programmable
  - Manual gain control: 0 to 24 dB (1 dB/step)
- Look-up table (LUT), gamma correction
- DSP subregion (selectable ROI for auto features)
- 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