

Mako U

U-051



- Latest CMOS sensor
- High frame rates
- Ultra-compact
- Extensively tested accessories

Description

Mako U-051B with CMOS ON Semi PYTHON 500 sensor

Mako U-051B is a monochrome USB3 Vision camera with the ON Semiconductor PYTHON 500 CMOS sensor. All Mako USB cameras have the same compact housing with a form factor of 49.5 x 29 x 29 mm. Screw locks ensure a safe electrical connection even in harsh industrial environments.

Every model is powered over the USB interface and has opto-isolated I/Os. The GPIOs give Mako U maximum flexibility to adapt to specific needs. The two non-isolated GPIO lines are TTL-based and programmable as input or output.

Options:

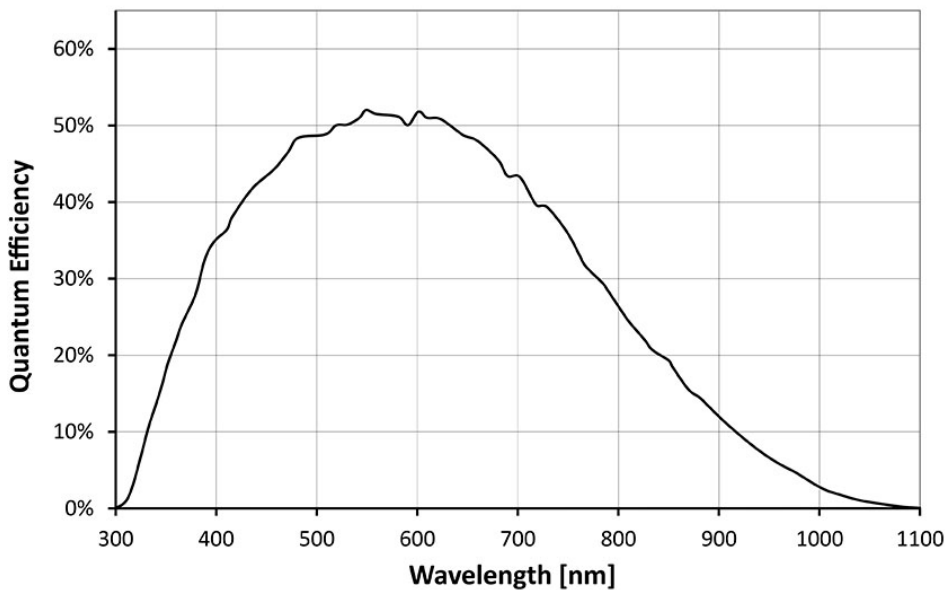
- Various IR cut/pass filters, protection glass, various lens mounts
- White medical housing

Specifications

| Mako U | U-051 |
|------------------------------------|--------------------|
| Interface | USB3 Vision |
| Resolution | 800 (H) × 600 (V) |
| Sensor | ON Semi PYTHON 500 |
| Sensor type | CMOS |
| Sensor size | Type 1/3.6 |
| Pixel size | 4.8 μm × 4.8 μm |
| Lens mount (default) | C-Mount, CS-Mount |
| Max. frame rate at full resolution | 391 fps |
| ADC | 10 bit |
| Image buffer (RAM) | 128 MByte |

Output

| Mako U | U-051 |
|---|---|
| Bit depth | 8/10 bit |
| Monochrome pixel formats | Mono8, Mono10p |
| General purpose inputs/outputs (GPIOs) | |
| TTL I/Os | 2 programmable GPIOs |
| Opto-isolated I/Os | 1 input, 1 output |
| Operating conditions/dimensions | |
| Operating temperature | +5 °C to +45 °C (housing temperature) |
| Power requirements (DC) | Power over USB 3.0 |
| Power consumption | 2.7 W @ 5 VDC |
| Mass | 60 g |
| Body dimensions (L × W × H in mm) | 49.5 × 29 × 29 (including connectors) |
| Regulations | CE: 2014/30/EU (EMC), 2011/65/EU, incl. amendment 2015/863/EU (RoHS); FCC Class B |

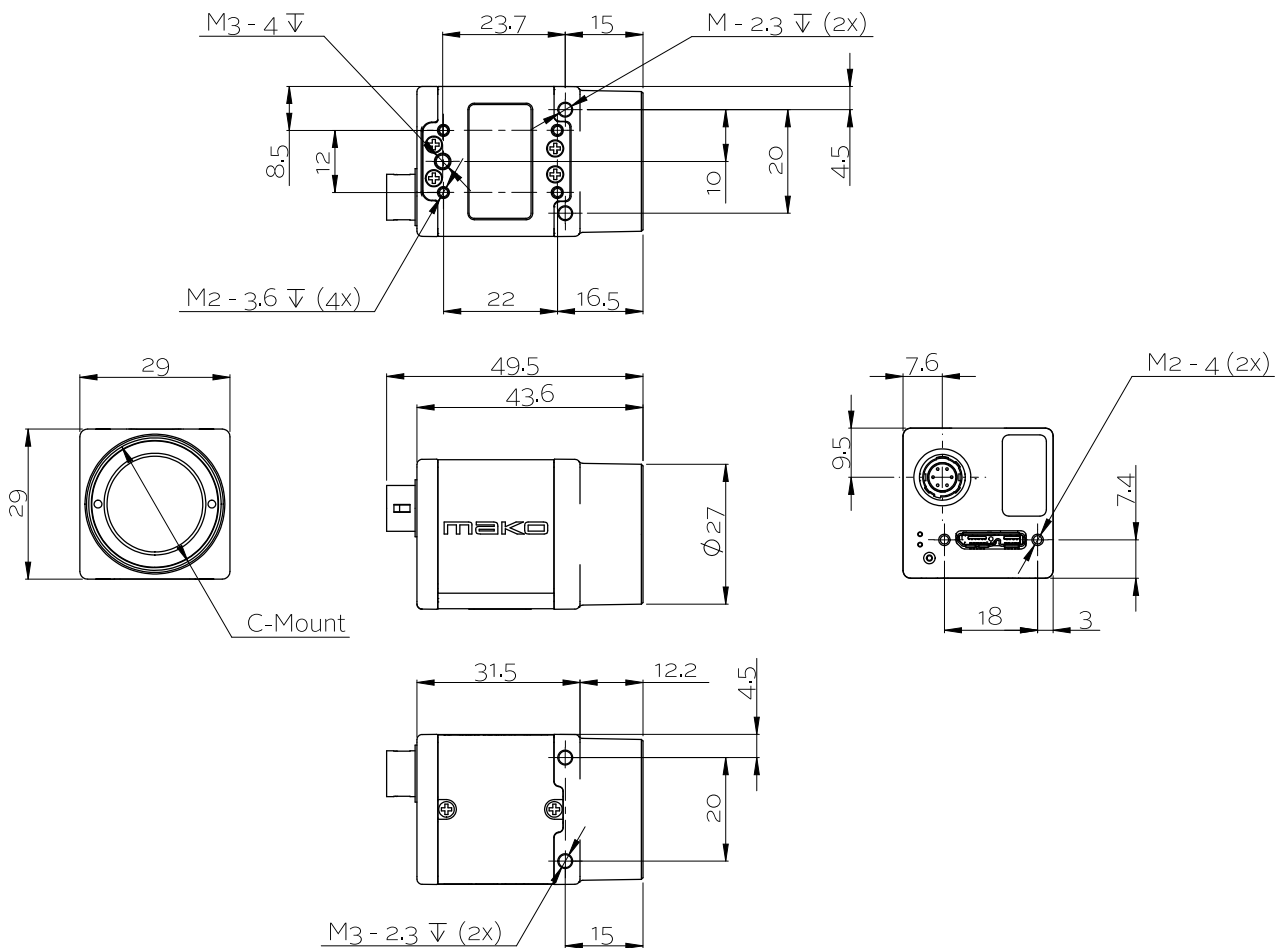


Features

- Defect pixel correction (on/off)
- Fixed pattern noise correction (on/off)
- Region of interest (ROI)
- Gain (manual control, 0 to 20 dB)
- Exposure (manual control, 44.2 μs to 1.4 s)
- Gamma correction
- Reverse X

- DeviceLinkThroughputLimit (easy bandwidth control)
- Sync out modes: Waiting for a trigger, exposing, readout, imaging
- Storable user sets

Technical drawing





Applications

The Mako U is an inexpensive USB 3.0 camera with a compact housing. USB 3.0 technology has lower latency and jitter times with less CPU load than other camera interfaces.

Typical applications for Mako U cameras:

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