# MER3-810-36G3M-P-UV(-AF) F02

## MERCURY3 Series 8MP CMOS 2.5GigE UV Camera



MER3-810-36G3M-P-UV(-AF) F02 camera is a UV GigE Vision camera with the Sony "Pregius S" CMOS sensor designed for the wavelength between 200nm to 1100nm. MER3-810-36G3M-P-UV(-AF) F02 is capable of 2.5Gbit/s maximum transfer data rate, and has opto-isolated I/Os that adapt to specific needs. Four-side mounting holes provide maximum installation flexibility for camera. Thanks to the extremely compact (29mm × 29mm), robust metal housings and locking screw connectors, the MERCURY3 cameras can secure the reliability of cameras deployed in harsh environments.

## Applications

Suitable for defect inspection, discharge inspection, recycle industry, printing industry, life science and so on.

## Features

- -AF model support autofocus
- The Sequencer Control supports multiple sets of parameters configuration
- Binning, Decimation, Gamma, Digital Shift and Black Level
- Burst Acquisition
- Timer, Counter, LUTs and User Set Control

## Spectral Response*
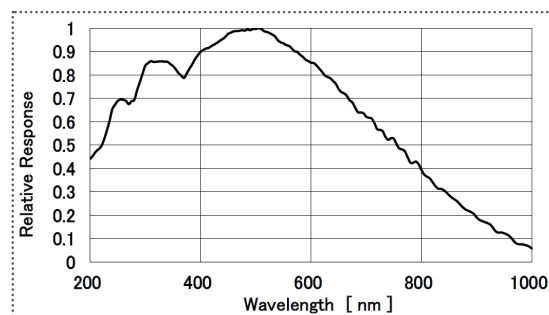


*IMX487 is designed to have best performance at UV wavelength from 200nm~400nm. While the sensor is capable of sensing light beyond 400nm, visible light performance is not guaranteed.

*UV-ray may cause damage to the image sensor device, so customer need to evaluate lifetime under each own light source conditions and confirm the lifetime design.
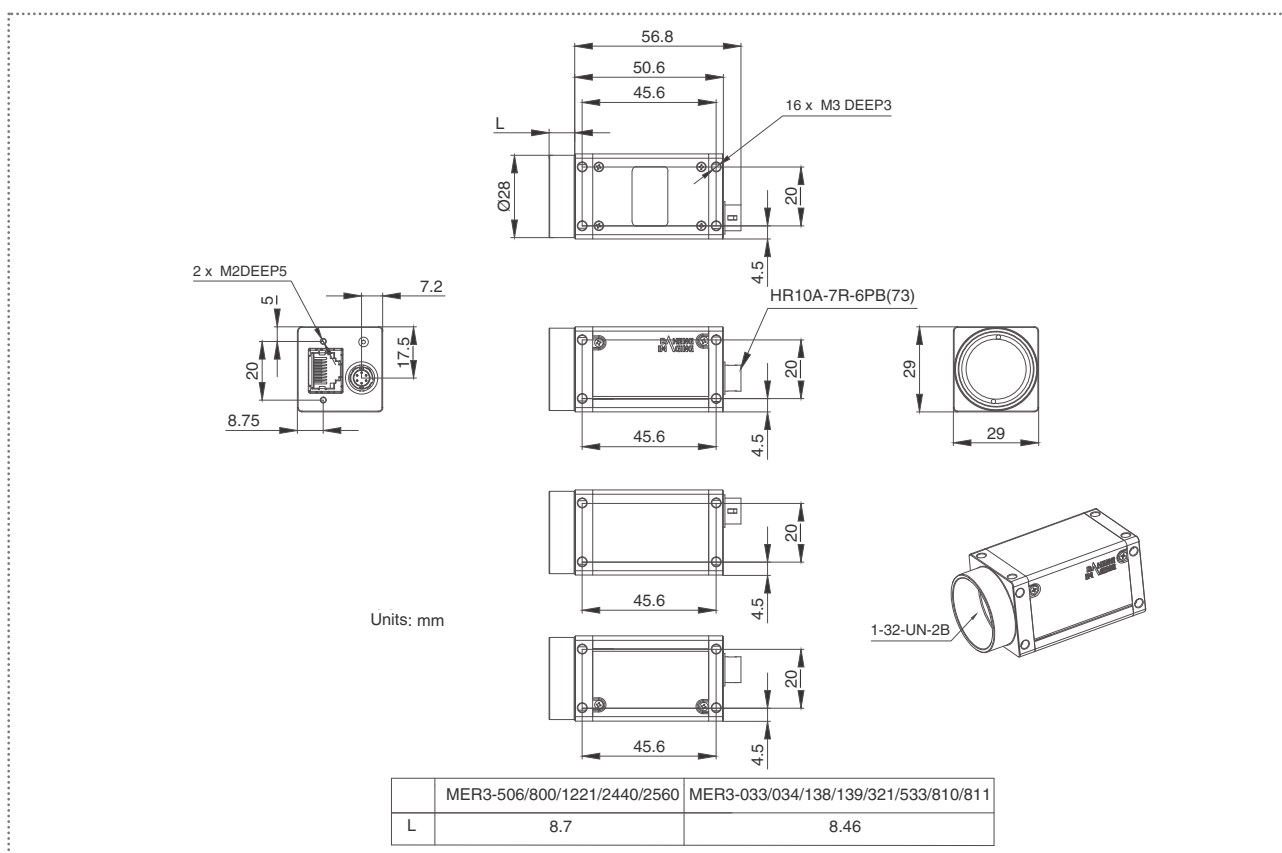
## Specifications

| Model | MER3-810-36G3M-P-UV F02 | MER3-810-36G3M-P-UV-AF F02 |
|---|---|---|
| Resolution | 2856(H) × 2848(V) ||
| Sensor | Sony IMX487 Global shutter CMOS ||
| Sensor Format | 2/3" ||
| Pixel Size | 2.74µm × 2.74µm ||
| Frame Rate | 34.55fps @ 2856 × 2848<br>Adjust the packet size to 8164 and reserved bandwidth to 5, frame rate up to 36.13fps<br>Under acquisition burst high speed mode, acquisition frame rate up to 55.62fps ||
| ADC | 12 bit ||
| Pixel Bit Depth | 8 bit, 12 bit ||
| Mono/Color | Mono, UV ||
| Pixel Formats | Mono8 / Mono12 ||
| SNR | 39.77 dB ||
| Exposure Time | UltraShort: 1µs~2.4µs, Actual Steps: 0.1µs<br>Standard: 3µs~20µs, Actual Steps: 1µs; 21µs~1s, Actual Steps: 1 row period ||
| Gain | 0dB ~ 16dB, Default: 0dB, Steps: 0.1dB ||
| Binning | Sensor: 1×1, 2×2 ||
| Decimation | Sensor: 1×1, 2×2 ||
| Synchronization | Hardware trigger, software trigger ||
| Acquisition Mode | Single frame, Continuous, Software trigger, Hardware trigger ||
| Reverse X/Y | Reverse X/Y ||
| I/O Interface | 1 input with opto-isolated, 2 programmable GPIOs ||
| Data Interface | 2.5GigE ||
| Power Supply | PoE (Power over Ethernet, IEEE802.3af compliant) or 12VDC-10% ~ 24VDC+10% ||
| Power Consumption | < 4.73 W @ 12V / PoE ||
| Operating Temp. | 0°C ~ +50°C ||
| Storage Temp. | -20°C ~ +70°C ||
| Operating Humidity | 10% ~ 80% ||
| Lens Mount | C ||
| Filters / Transparent Glass | - ||
| Dimensions | 29(W) × 29(H) × 50.6(L) mm (without lens adapter or connectors) ||
| Weight | 69 g ||
| Software | 3rd-party software such as HALCON, VisionPro and LabVIEW ||
| OS | 32bit / 64bit Windows, Linux, Mac OS ||
| Conformity | CE, RoHS, FCC, ICES, UKCA, GigE Vision®, GenICam® ||

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## I/O Interface
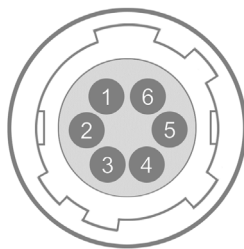
| Pin | Definition | Description |
|-----|-----------|-------------|
| 1 | POWER_IN | Camera external power, +12V DC~+24V DC |
| 2 | Line0+ | Opto-isolated input + |
| 3 | Line2 | GPIO0 input/output |
| 4 | Line3 | GPIO1 input/output |
| 5 | Line0- | Opto-isolated input - |
| 6 | GND | PWR GND & GPIO GND |

## Technical Drawing



| | MER3-506/800/1221/2440/2560 | MER3-033/034/138/139/321/533/810/811 |
|---|---|---|
| L | 8.7 | 8.46 |

Units: mm

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