MER3-138-136G3M-P-SWIR

MERCURY3 Series 1.3MP CMOS 2.5GigE Area Scan Camera

The MER3-138-136G3M-P-SWIR camera is a SWIR GigE Vision camera with Sony IMX990 global shutter CMOS sensor and high performance FPGA. The MER3-138-136G3M-P-SWIR camera 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.

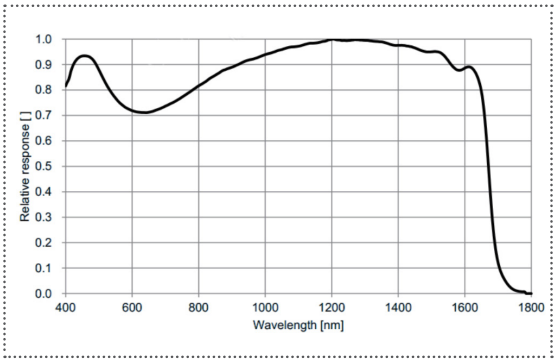
Applications

Suitable for machine vision applications such as industrial inspection, rail traffic, scientific research, 3D reconstruction and so on.

Features

- The Sequencer Control supports multiple sets of parameters configuration
- Decimation, Gamma, Digital Shift and Black Level
- Burst Acquisition
- Timed exposure mode and TriggerWidth exposure mode
- Two exposure modes: Standard / UltraShort
- Timer, Counter, LUTs and User Set Control

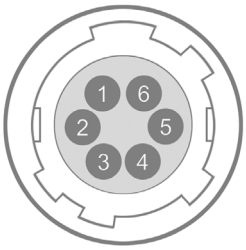
Spectral Response



Specifications

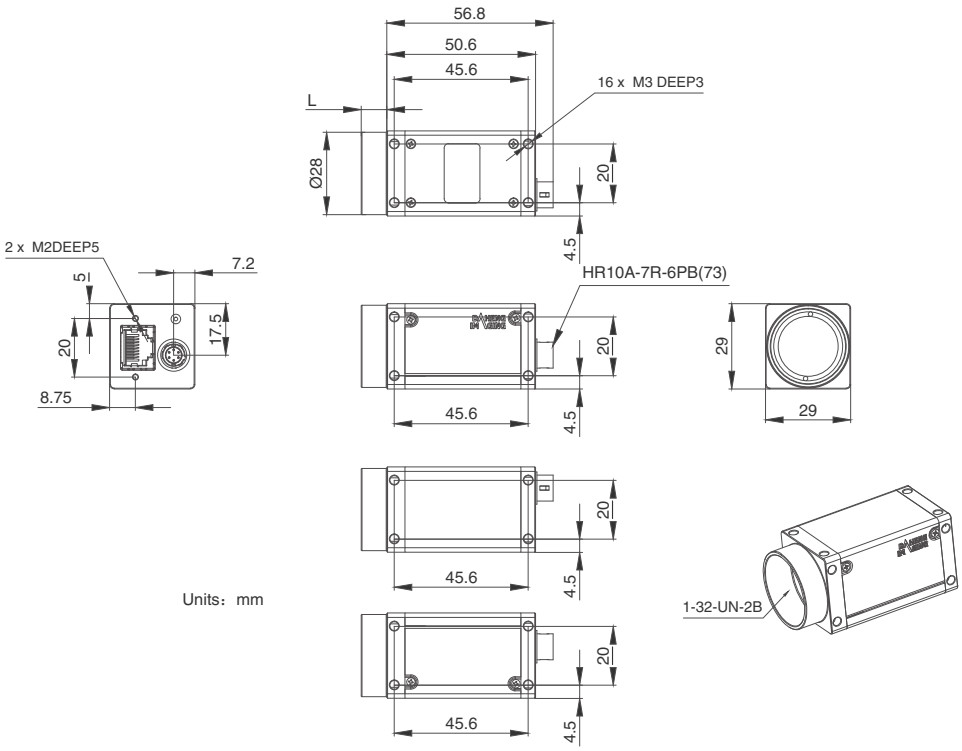
Model	MER3-138-136G3M-P-SWIR
Resolution	1280(H) × 1024(V)
Sensor	Sony IMX990 Global shutter CMOS
Sensor Format	1/2"
Pixel Size	5μm × 5μm
Frame Rate	72.4fps @ 1280 × 1024 When sensor bit depth is BPP8 , adjust the packet length to 8164 and reserve bandwidth to 5, the frame rate is 135.54fps. When in Acquisition Burst Mode, sensor bit depth is BPP8, the frame rate can reach up to 135.54fps
ADC	8 bit, 10bit, 12 bit
Pixel Bit Depth	8 bit, 10bit, 12 bit
Mono/Color	Mono, SWIR
Pixel Formats	Mono8 / Mono10 / Mono12
SNR	50.76 dB
Exposure Time	UltraShort: 3μs~100μs, Actual Steps: 1μs Standard: 13μs~1s, Actual Steps: 1 row period
Gain	0dB ~ 24dB, Default: 0dB, Steps: 0.1dB
Binning	1×1, 1×2, 2×1, 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	< 5 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 C lens or connectors)
Weight	68 g
Software	3rd-party software such as HALCON, VisionPro and LabVIEW
OS	32bit / 64bit Windows, Linux, Mac OS
Conformity	CE, RoHS, FCC, GigE Vision®, GenICam®

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	MER3-033/138/810
L	8.7	8.46

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