MER3-310-92G3M/C-P

MERCURY3 Series 3MP CMOS 2.5GigE Area Scan Camera



The MER3-310-92G3M/C-P camera is a monochrome/color GigE Vision camera with the global shutter CMOS sensor and high performance FPGA. The MER3-310-92G3M/C-P 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.

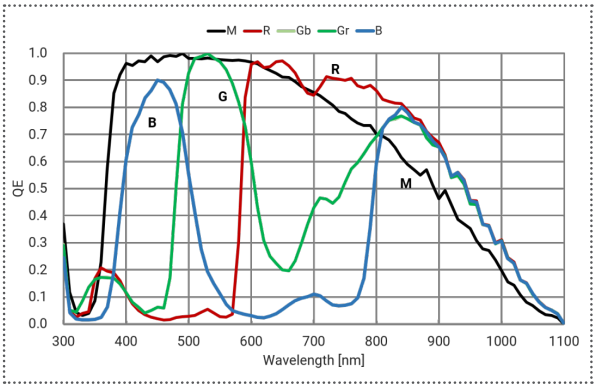
Applications

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

Features

- Trigger mode: Frame Start / Frame Burst Start
- Gamma, Decimation, Digital Shift and Black Level
- LUTs, User Set Control, Timer, Counter and Burst Acquisition
- Timed exposure mode and TriggerWidth exposure mode
- Color models support Light source preset, Color Transformation Control and Saturation
- Mono camera support Noise Reduction
- Support Remove Parameter Limit to expand the range of exposure, gain and so on
- 512K data storage area for saving algorithm coefficients and parameter configuration

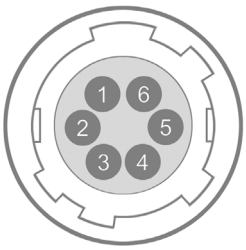
Spectral Response



Specifications

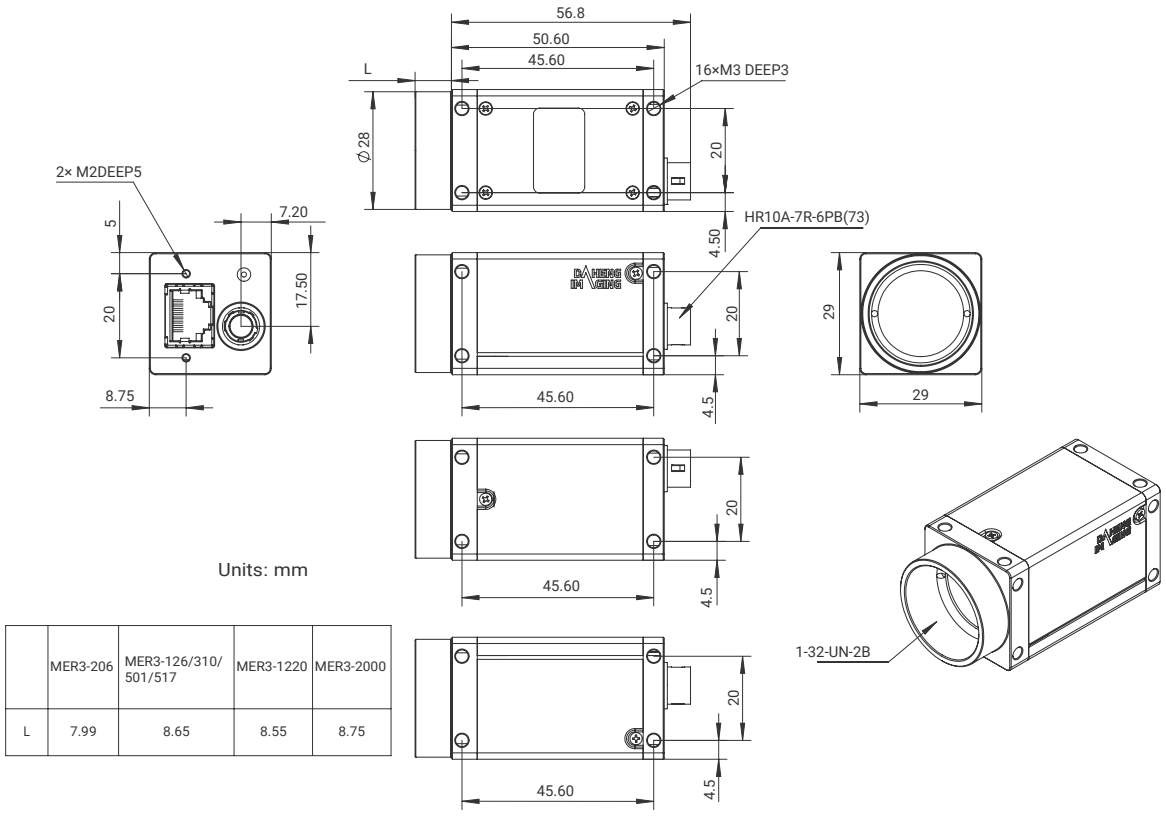
Model	MER3-310-92G3C-P	MER3-310-92G3M-P
Resolution	2064(H) × 1544(V)	
Sensor	OmniVision OG03A Global shutter CMOS	
Sensor Format	1/1.8"	
Pixel Size	3.45μm × 3.45μm	
Frame Rate	92.08fps	
ADC	10 bit	
Pixel Bit Depth	8 bit, 10 bit	
Mono/Color	Color	Mono
Pixel Formats	Bayer BG8 / Bayer BG10 / RGB8 / BGR8 / Mono8	Mono8 / Mono10
SNR	High Illumination Mode: 37.34 dB Low Illumination Mode: 44.13 dB	High Illumination Mode: 37.46 dB Low Illumination Mode: 43.65 dB
Exposure Time	Standard: 30μs~15s, Actual Steps: 1 row period	
Gain	Digital Gain: 0dB~16dB, Default: 0dB, Steps: 0.1dB Analog Gain: 0dB~30.1dB, Default: 0dB, Steps: 0.1dB	
Binning	Sensor: 1×1, 2×2	
Decimation	FPGA: 1×1, 1×2, 2×1, 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	< 4.8 W @ 12V / PoE	
Operating Temp.	0°C ~ +50°C	
Storage Temp.	-20°C ~ +70°C	
Operating Humidity	10% ~ 80%	
Lens Mount	C	
Dimensions	29(W) × 29(H) × 50.6(L) mm (without lens adapter or connectors)	
Weight	67 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®	

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



	MER3-206	MER3-126/310/501/517	MER3-1220	MER3-2000
L	7.99	8.65	8.55	8.75

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