

MER3-2000-15G3M/C-P(-AF)

MERCURY3 Series 20MP CMOS 2.5GigE Area Scan Camera



The MER3-2000-15G3M/C-P(-AF) camera is a monochrome/color GigE Vision camera with the Sony IMX183 rolling shutter CMOS sensor and high performance FPGA. The MER3-2000-15G3M/C-P(-AF) 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.

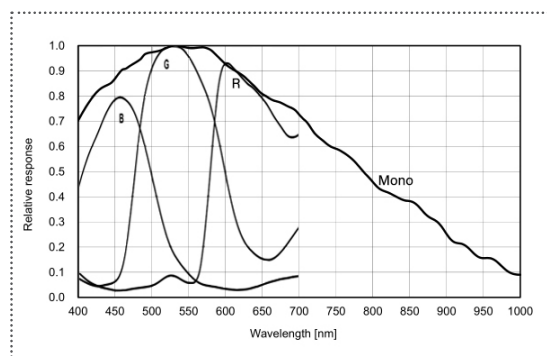
Applications

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

Features

- -AF model support autofocus
- Two trigger types: FrameStart / FrameBurstStart
- Decimation, Gamma, Digital Shift and Black Level
- Burst Acquisition, Timer, Counter, LUTs and User Set Control
- Mono camera support NoiseReduction
- Color models support Light source preset, Color Transformation Control and Saturation
- Support Remove Parameter Limit to expand the range of exposure, gain and so on
- 16KB data storage area for saving algorithm coefficients and parameter configuration

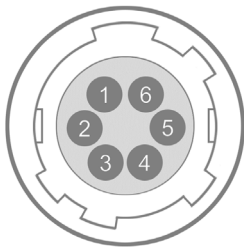
Spectral Response



Specifications

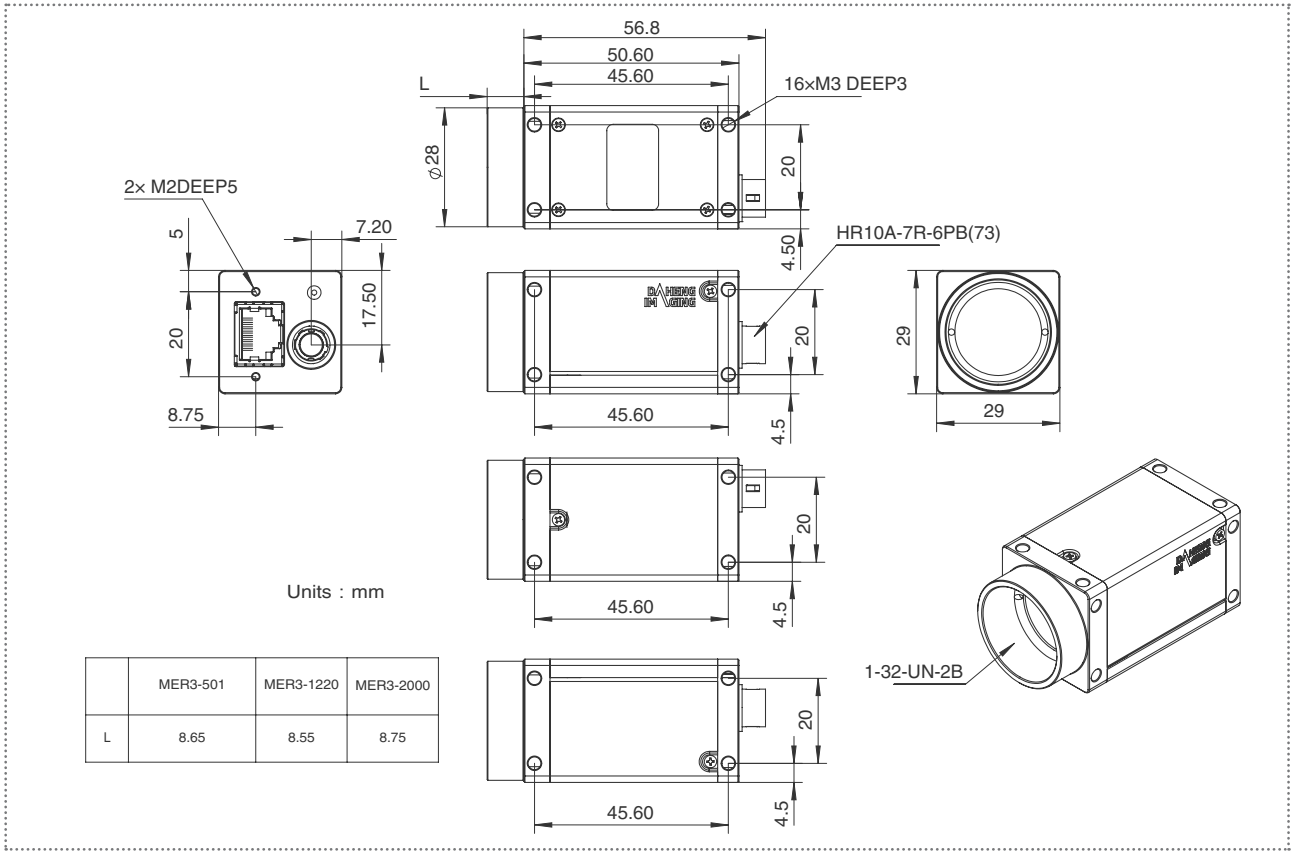
Model	MER3-2000-15G3C-P	MER3-2000-15G3C-P-AF	MER3-2000-15G3M-P	MER3-2000-15G3M-P-AF
Resolution	5496(H) × 3672(V)			
Sensor	Sony IMX183 Rolling shutter CMOS			
Sensor Format	1"			
Pixel Size	2.4μm × 2.4μm			
Frame Rate	13.92fps @ 5496 × 3672 Adjust the packet length to 8164 and reserve bandwidth to 5, the frame rate is 14.55fps			
ADC	12 bit			
Pixel Bit Depth	8 bit, 12 bit			
Mono/Color	Color		Mono	
Pixel Formats	Bayer RG8 / Bayer RG12		Mono8 / Mono12	
SNR	42.03 dB		41.95 dB	
Exposure Time	Standard: 16μs~1s, Actual Steps: 1 row period			
Gain	0dB ~ 24dB, Default: 0dB, Steps: 0.1dB			
Binning	1×1, 1×2, 1×4, 2×1, 4×1, 2×2, 4×4			
Decimation	FPGA: 1×1, 1×2, 1×4, 2×1, 4×1, 2×2, 4×4			
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	< 5W @ 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 C lens 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



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