

MER3-514-235X2M/C

MERCURY3 5MP CMOS CXP2.0 Area Scan Camera



The MER3-541-235X2M/C camera is equipped with global shutter sensor and uses CoaXPress2.0 interface for high-speed transmission of image data, featuring high quality images, extremely low power, small housing, and stable operating capability. The camera is capable of 12.5Gbit/s maximum transfer data rate, support PoCXP and can secure the reliability of cameras deployed in harsh industrial environments. The cameras are industrial cameras with high reliability, high transmission speed and high image quality.

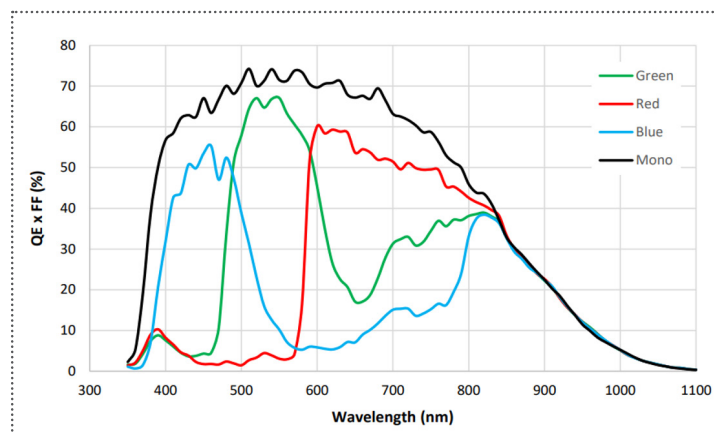
Applications

Suitable for machine vision applications such as new energy inspection, PCB inspection, assembly verification, consumer electronics and so on.

Features

- Static Defect Pixel Correction: correct sensor defect pixels, freely added or deleted defect pixels coordinates
- The Sequencer Control supports multiple sets of parameters configuration
- Color models support Light Source Preset, Color Transformation Control and Saturation
- Gamma, Black Level, Timer, Counter, LUTs and User Set Control
- DAHENG IMAGING or third-party frame grabbers are available

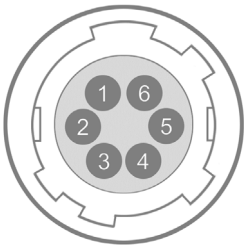
Spectral Response



Specifications

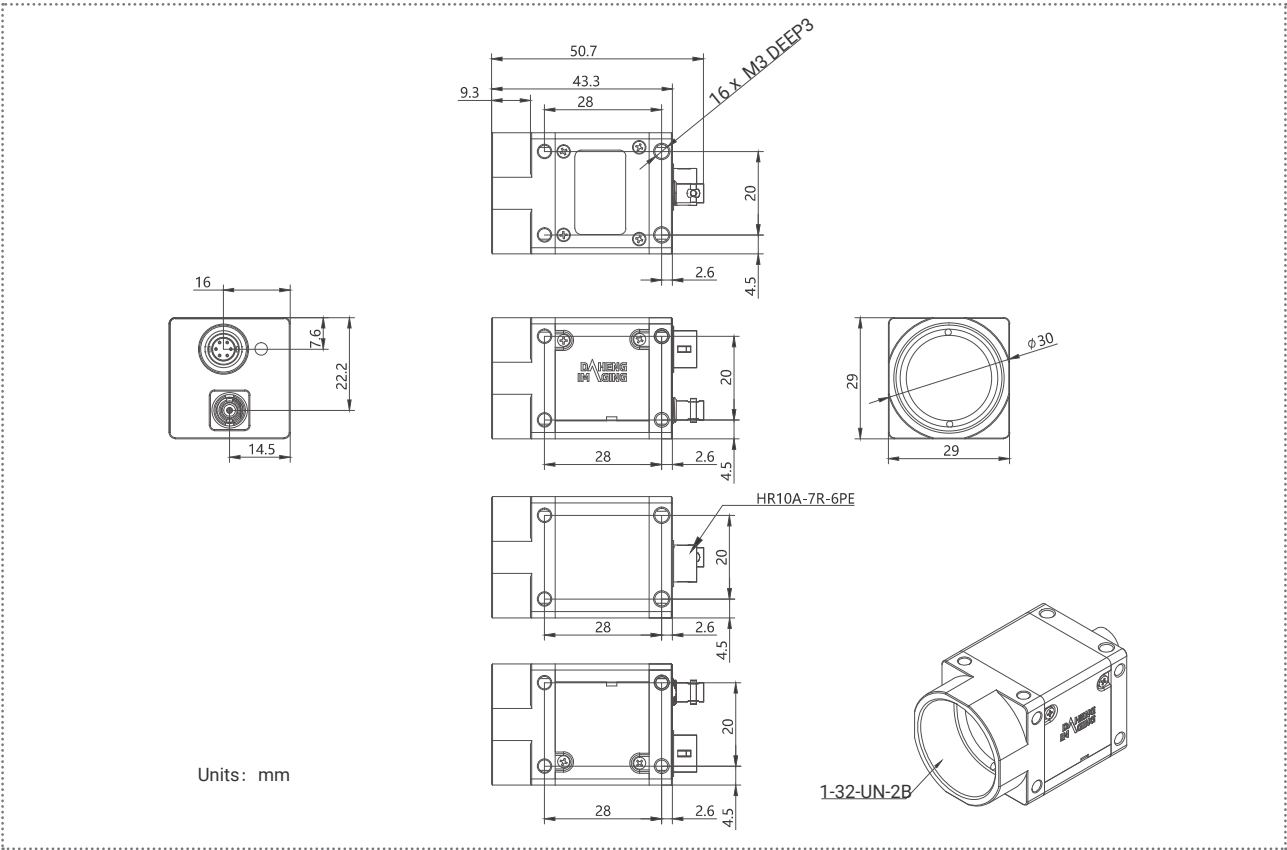
Model	MER3-514-235X2C	MER3-514-235X2M
Resolution	2448(H) × 2048(V)	
Sensor	Customize Global shutter CMOS	
Sensor Format	10.86mm	
Pixel Size	3.4μm × 3.4μm	
Frame Rate	235.5fps	
ADC	10 bit, 12 bit	
Pixel Bit Depth	8 bit, 10 bit, 12 bit	
Mono/Color	Color	Mono
Pixel Formats	Bayer GB8 / Bayer GB10 / Bayer GB12	Mono8 / Mono10 / Mono12
SNR	39.3 dB	39.3 dB
Exposure Time	6 μs~1s, Actual Steps: 1 μs	
Gain	Digital Gain: 0dB~16dB, Default: 0dB, Steps: 0.1dB Analog Gain: 10bit: 1x~2.02x, 12bit: 1x~6.47x, Default: 1x	
Binning	-	
Decimation	Horizontal FPGA, Vertical Sensor: 1×1, 1×2, 1×4, 2×1, 2×2, 2×4, 4×1, 4×2, 4×4	
Synchronization	Hardware trigger, software trigger	
Acquisition Mode	Single frame, Continuous, Software trigger, Hardware trigger, CXP trigger	
Reverse X/Y	Reverse X/Y	
I/O Interface	1 input with opto-isolated, 2 programmable GPIOs	
Data Interface	CXP-12 × 1 (HDBNC)	
Power Supply	PoCXP	
Power Consumption	3.6 W @ PoCXP	
Operating Temp.	0°C ~ +45°C	
Storage Temp.	-20°C ~ +70°C	
Operating Humidity	10% ~ 80%	
Lens Mount	C	
Dimensions	29mm × 29mm × 34mm (without lens adapter or connectors)	
Weight	60 g	
Software	DAHENG IMAGING or third-party frame grabbers supporting software	
OS	Win7 / Win8 / Win10 / Win11	
Conformity	CE, RoHS, FCC, ICES, UKCA, CoaXPress2.0, GenICam	

I/O Interface



Pin	Definition	Description
1	—	—
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



China Daheng Group, Inc. Beijing Image Vision Technology Branch

12F Daheng Science & Technology Tower, No.3 Suzhou Street, Haidian District, Beijing China, 100080

Tel: +86 10 82828878

E-mail: isales@daheng-imaging.com