

MER3-321-224X2M-SWIR F02

MERCURY3 3MP CMOS CXP2.0 SWIR Camera



The MER3-321-224X2M-SWIR F02 camera is equipped with Sony IMX993 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.

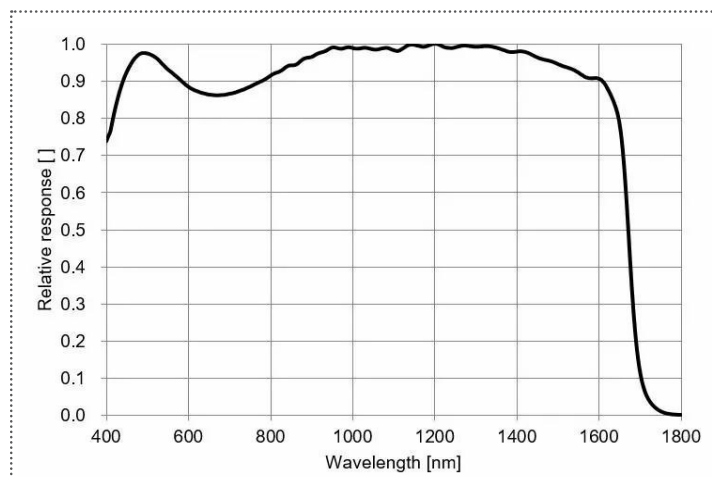
Applications

Suitable for applications such as wafer inspection, AOI inspection, spots inspection, medical inspection 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
- Hot Pixel Correction, Sharpness, Noise Reduction, Black Level, User Set Control, Timer and Counter
- Brightness, Contrast, Gamma, LUTs
- DAHENG IMAGING or third-party frame grabbers are available

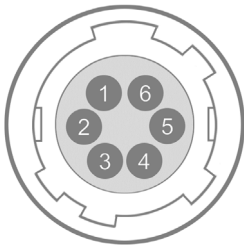
Spectral Response



Specifications

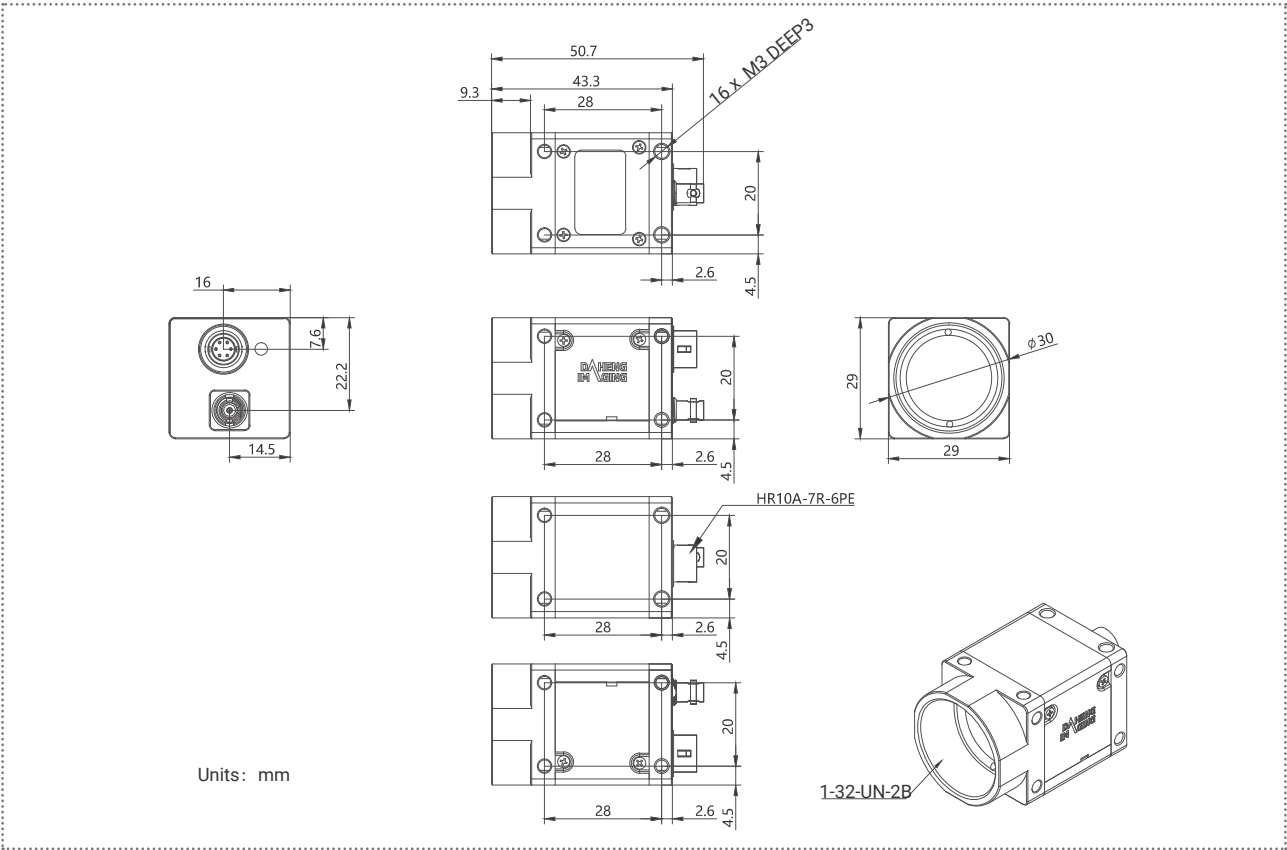
Model	MER3-321-224X2M-SWIR F02
Resolution	2080(H) × 1544(V)
Sensor	Sony IMX993 Global shutter CMOS
Sensor Format	1/1.8"
Pixel Size	3.45μm × 3.45μm
Frame Rate	224.42 fps
ADC	8 bit, 10bit, 12 bit
Pixel Bit Depth	8 bit, 10bit, 12 bit
Mono/Color	Mono, SWIR
Pixel Formats	Mono8 / Mono10 / Mono12
SNR	46.114 dB
Exposure Time	UltraShort: 6μs ~ 26μs, Actual Steps: 1μs; Standard: 27μs ~ 1s, Actual Steps: 1μs
Gain	Digital Gain: 0dB~16dB, Default: 0dB, Steps: 0.1dB
Binning	-
Decimation	Sensor: 1×1, 2×2
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	4 W @ PoCXP
Operating Temp.	0°C ~ +45°C
Storage Temp.	-20°C ~ +70°C
Operating Humidity	10% ~ 80%
Lens Mount	C
Filters / Transparent Glass	-
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