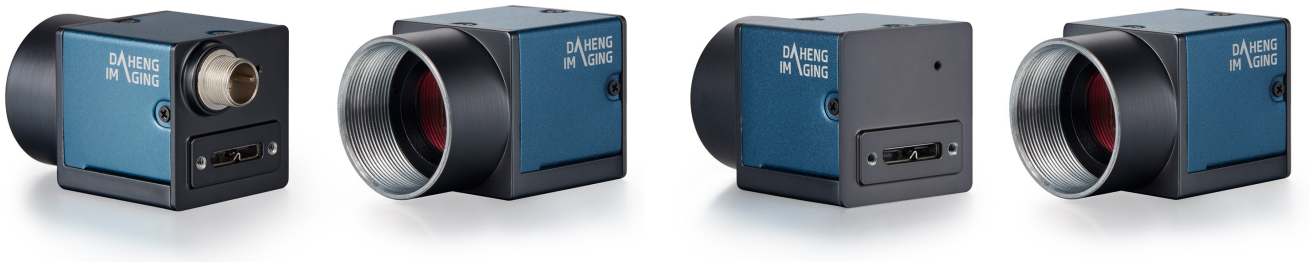
MER2-041-608U3M/C(-L)-HS

MERCURY2 Series 0.4MP CMOS USB3.0 Area Scan Camera



The MER2-041-608U3M/C(-L)-HS camera is a monochrome/color USB3.0 Vision camera with the Sony IMX287 CMOS sensor. Thanks to the extremely compact (29mm × 29mm), robust metal housings and locking screw connectors, the MERCURY2 cameras can secure the reliability of cameras deployed in harsh environments. The MER2-041-608U3M/C(-L)-HS camera is powered over the USB3.0 interface. Compared to the MER2-041-608U3M/C-HS , the MER2-041-608U3M/C-L-HS has no I/O interfaces, so it is more light and handy. The camera has an outstanding price/performance ratio.

Applications

Suitable for machine vision applications such as industrial inspection, medical, scientific research, education and so on.

Features

- Trigger mode: Frame Start /Frame Burst Start
- Two exposure time modes: Standard exposure time mode / UltraShort exposure time mode
- Decimation, Binning, Digital Shift, Black Level and Sensor Bit Depth
- Adjustable Gamma for optimizing the brightness of images
- Color models support Light Source Preset, Color Transformation Control and Saturation
- Monochrome models support Noise Reduction and Sharpness
- Programmable LUTs and User Set Control
- Support Timer and Counter
- 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

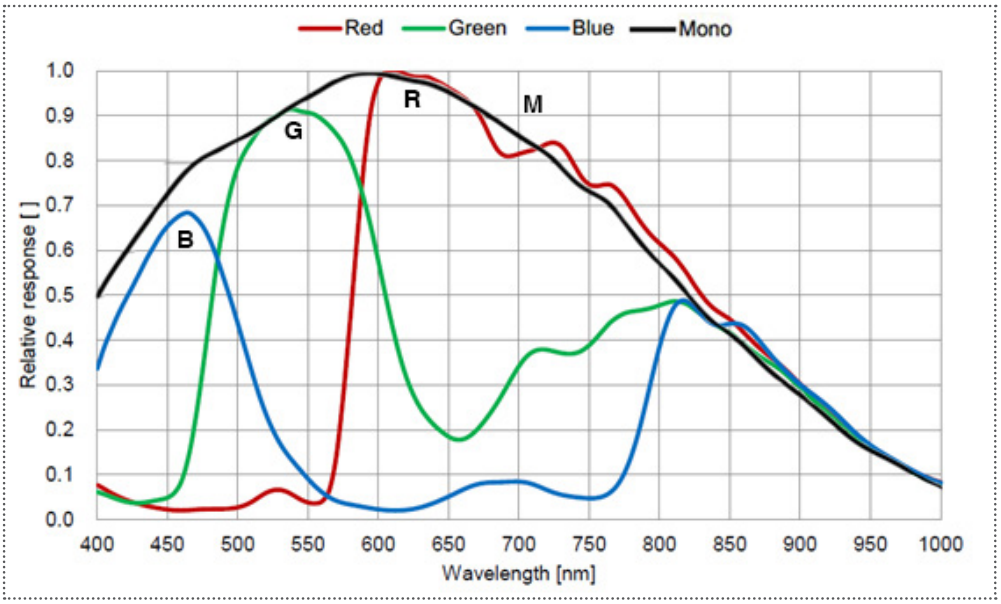
Specifications

Model	MER2-041-608U3C-HS	MER2-041-608U3C-L-HS	MER2-041-608U3M-HS	MER2-041-608U3M-L-HS
Resolution	720(H) × 540(V)			
Sensor	Sony IMX287 Global shutter CMOS			
Sensor Format	1/2.9"			
Pixel Size	6.9μm × 6.9μm			
Frame Rate	608 fps			
ADC	8 bit, 10 bit, 12 bit			
Pixel Bit Depth	8 bit, 10 bit, 12 bit			
Mono/Color	Color		Mono	
Pixel Formats	Bayer RG8 / Bayer RG10 / Bayer RG12		Mono8 / Mono10 / Mono12	
SNR	43.3 dB		43.3 dB	
Exposure Time	UltraShort: 1μs ~ 100μs, Actual Steps: 1 μs; Standard: 20μs ~ 1s, Actual Steps: 1 row period			
Gain	0dB ~ 24dB; Default: 0dB, Steps: 0.1dB			
Binning	1×1, 1×2, 1×4, 2×1, 2×2, 2×4, 4×1, 4×2, 4×4			
Decimation	FPGA: 1×1, 1×2, 1×4, 2×1, 2×2, 2×4, 4×1, 4×2, 4×4			
Synchronization	Hardware trigger (MER2-U3-L: N/A), software trigger			
Acquisition Mode	Single frame, Continuous, Software trigger, Hardware trigger (MER2-U3-L: N/A)			
Reverse X/Y	Reverse X/Y			
I/O Interface	1 input and 1 output with opto-isolated, 2 programmable GPIOs (MER2-U3-L: N/A)			
Data Interface	USB3.0			
Power Supply	Power through USB3.0 interface			
Typical Power	1.66 W @ 5 VDC			
Operating Temp.	0°C ~ +45°C			
Storage Temp.	-20°C ~ +70°C			
Operating Humidity	10% ~ 80%			
Lens Mount	C / CS			
Dimensions	29(W) × 29(H) × 29(L) mm (without lens adapter or connectors)			
Weight	MER2-U3: 65 g; MER2-U3-L: 61 g			
Software	3rd-party software such as HALCON, MERLIC and LabVIEW			
OS	32bit / 64bit Windows, Linux, Android, ARMv7, ARMv8			
Conformity	CE, RoHS, FCC, ICES, UKCA, UL, USB3.0 Vision®, GenICam®			

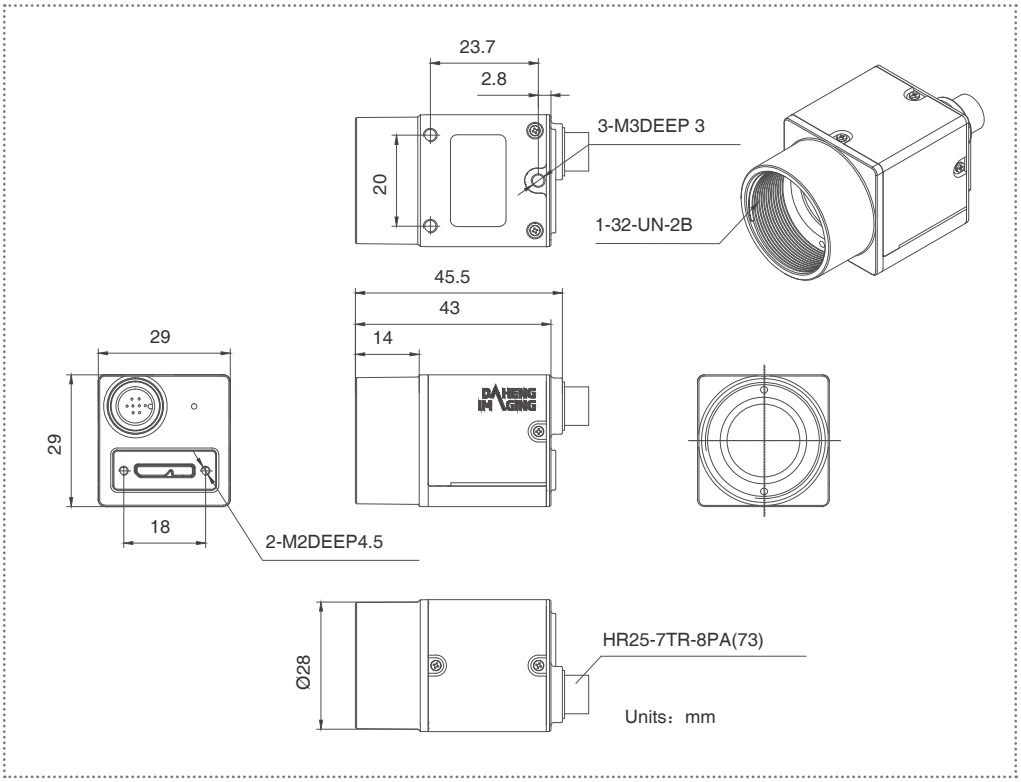
I/O Interface

Pin	Definition	Description
1	Line0+	Opto-isolated input +
2	GND	GPIO GND
3	Line0-	Opto-isolated input -
4	NC	NC
5	Line2	GPIO input/output
6	Line3	GPIO input/output
7	Line1-	Opto-isolated output -
8	Line1+	Opto-isolated output +

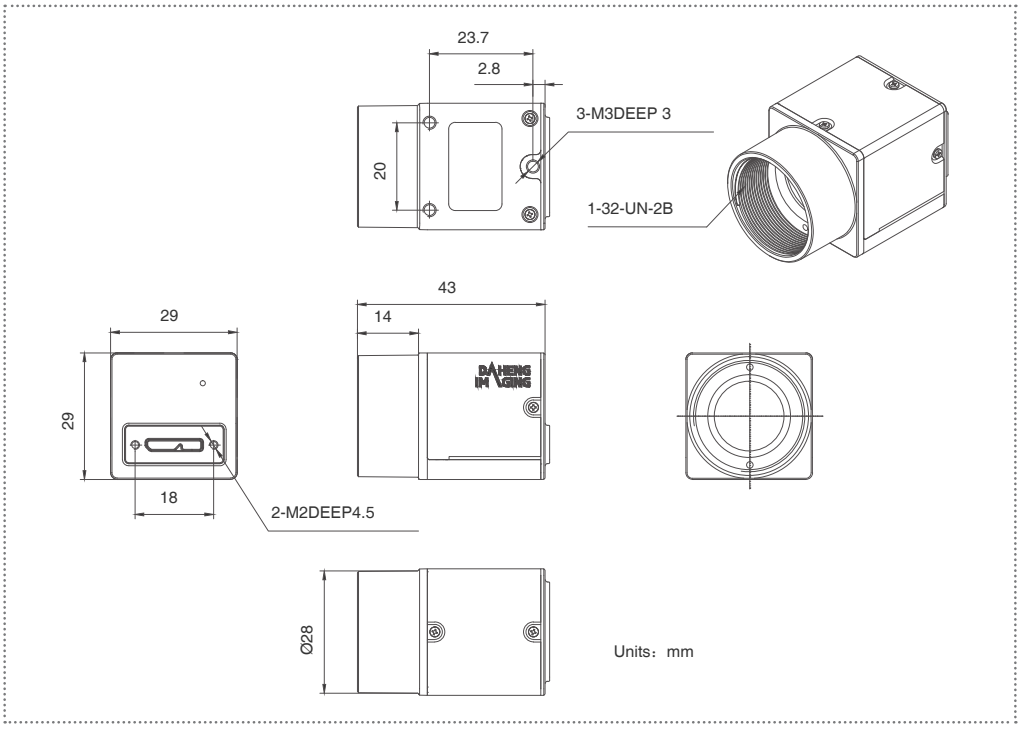
Spectral Response



Technical Drawing



MER2-041-608U3M/C-HS



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