

# ME2S-1610-24U3M/C

## MERCURY2 Super Series 16MP CMOS USB3.0 Area Scan Camera



The ME2S-1610-24U3M/C camera is a monochrome/color USB3.0 Vision camera with the Sony's latest 4th generation "Pregius S" CMOS sensor and higher performance FPGA. The ME2S-1610-24U3M/C camera has opto-isolated I/Os that adapt to specific needs. Four-side mounting holes provide maximum installation flexibility for ME2S-U3. Thanks to the extremely compact (29mm × 29mm), robust metal housings and locking screw connectors, the MERCURY2 Super cameras can secure the reliability of cameras deployed in harsh environments.

### Applications

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

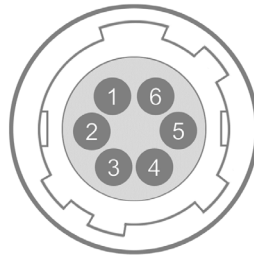
### Features

- Trigger mode: Frame Start /Frame Burst Start
- Two exposure time modes: Standard exposure time mode / UltraShort exposure time mode
- Support Timed exposure mode and TriggerWidth exposure mode
- Acquisition Burst Mode
- Support Gamma, Binning, Decimation, Digital Shift, Black Level and Flat Field Correction
- Color models support Light source preset, Color Transformation Control and Saturation
- Monochrome models support Sharpness and Noise Reduction
- Programmable LUTs and storable user sets
- Support Timer and Counter
- Support Remove Parameter Limit to expand the range of exposure, gain, white balance, and so on
- 16KB data storage area for saving algorithm coefficients and parameter configuration

## Specifications

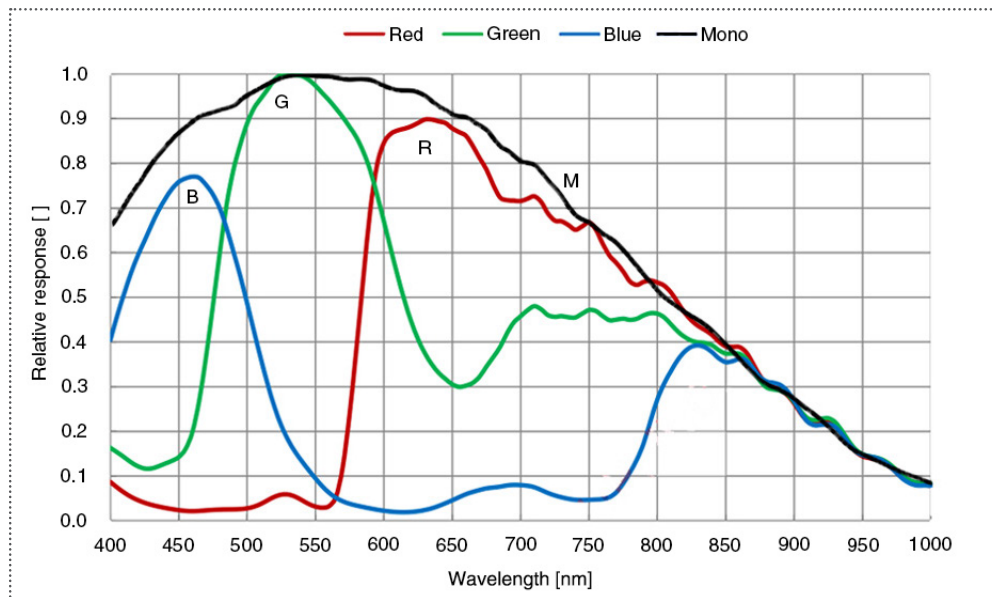
Model	ME2S-1610-24U3C	ME2S-1610-24U3M
Resolution	5320(H) × 3032(V)	
Sensor	Sony IMX542, Global shutter CMOS	
Sensor Format	1.1"	
Pixel Size	2.74μm × 2.74μm	
Frame Rate	24.4fps (Max. frame rate: 32.94fps @ Acquisition Burst Mode)	
ADC	12bit	
Pixel Bit Depth	8bit, 10bit, 12bit	
Mono/Color	Color	Mono
Pixel Formats	Bayer RG8 / Bayer RG10 / Bayer RG12	Mono8 / Mono10 / Mono12
SNR	40.7dB	42.1dB
Exposure Time	UltraShort: 1μs ~ 2.4μs, Actual Steps: 1μs; Standard: 3μs ~ 1s, Actual Steps: 1 row period (decimation enabled/>20μs), 1μs (3μs~20μs)	
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	Sensor: 1×1, 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 and 1 output with opto-isolated, 1 programmable GPIO	
Data Interface	USB3.0	
Power Supply	12VDC-10%~24VDC+10% supplied via the camera's 6-pin Hirose connector (recommend) or power through USB3.0 interface	
Power Consumption	4.0W @ 5VDC	
Operating Temp.	0°C ~ +45°C	
Storage Temp.	-20°C ~ +70°C	
Operating Humidity	10% ~ 80%	
Lens Mount	C	
Dimensions	29(W) × 29(H) × 38.8(L) mm (without lens adapter or connectors)	
Weight	60g	
Software	3rd-party software such as HALCON, MERLIC and LabVIEW	
OS	32bit / 64bit Windows, Linux, Android, ARMv7, ARMv8	
Conformity	CE, RoHS, FCC, GenICam, USB3.0 Vision	

I/O Interface



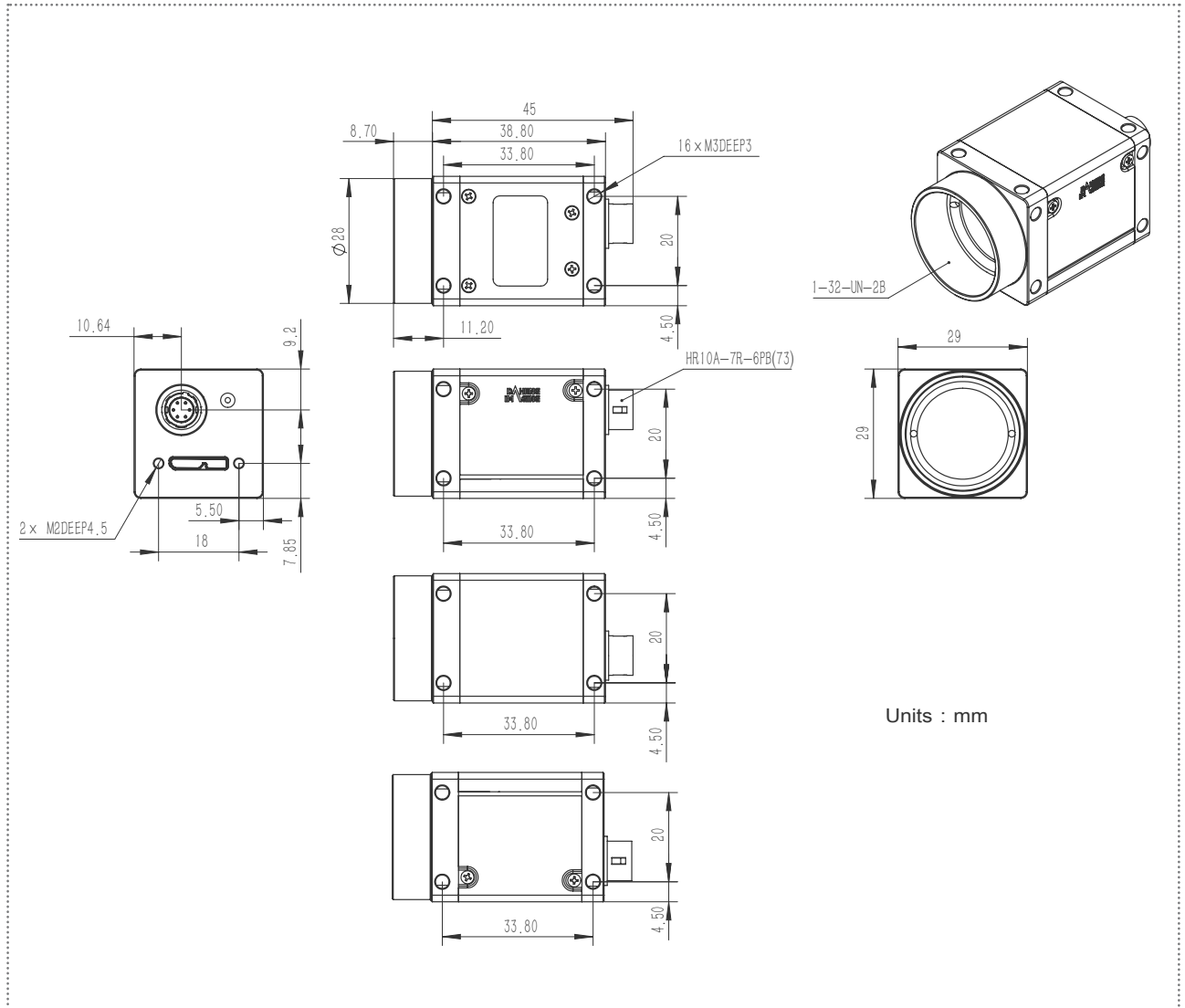
Pin	Definition	Description
1	POWER_IN	Camera external power, +12V DC(-10%)~+24V DC(+10%)
2	Line0+	Opto-isolated input +
3	Line2	GPIO input/output
4	Line1+	Opto-isolated output +
5	Line0-/Line1-	Line0-: Opto-isolated input - Line1-: Opto-isolated output -
6	GND	PWR GND & GPIO GND

Spectral Response



ME2S-1610-24U3M/C

Technical Drawing



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