

ME2S-2440-16U3M/C

MERCURY2 Super Series 24.4MP CMOS USB3.0 Area Scan Camera



GEN<i>i>CAM



The ME2S-2440-16U3M/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-2440-16U3M/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.

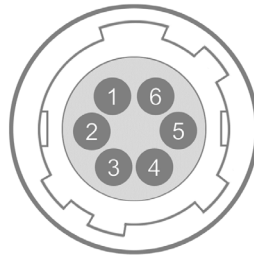
Features

- 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

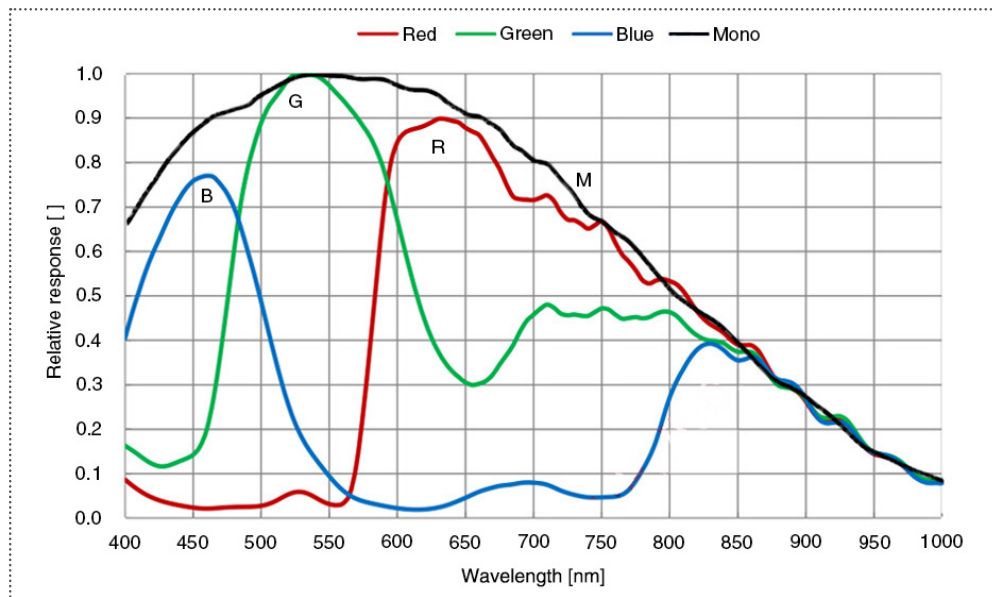
| Model | ME2S-2440-16U3C | ME2S-2440-16U3M |
|--------------------|--|-------------------------|
| Resolution | 5328(H) × 4608(V) | |
| Sensor | Sony IMX540, Global shutter CMOS | |
| Sensor Format | 1.2" | |
| Pixel Size | 2.74μm × 2.74μm | |
| Frame Rate | 16.1fps | |
| ADC | 12bit | |
| Pixel Bit Depth | 8bit, 10bit, 12bit | |
| Mono/Color | Color | Mono |
| Pixel Formats | Bayer RG8 / Bayer RG10 / Bayer RG12 | Mono8 / Mono10 / Mono12 |
| SNR | 41.2dB | 42.3dB |
| Exposure Time | UltraShort: 1μs ~ 2.4μs; Standard: 3μs ~ 1s Actual Steps: 1 row period (decimation enabled/3μs~20μs), 1μs (>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 | |
| Power Consumption | 4.8W @ 24VDC | |
| 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 | |
| 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



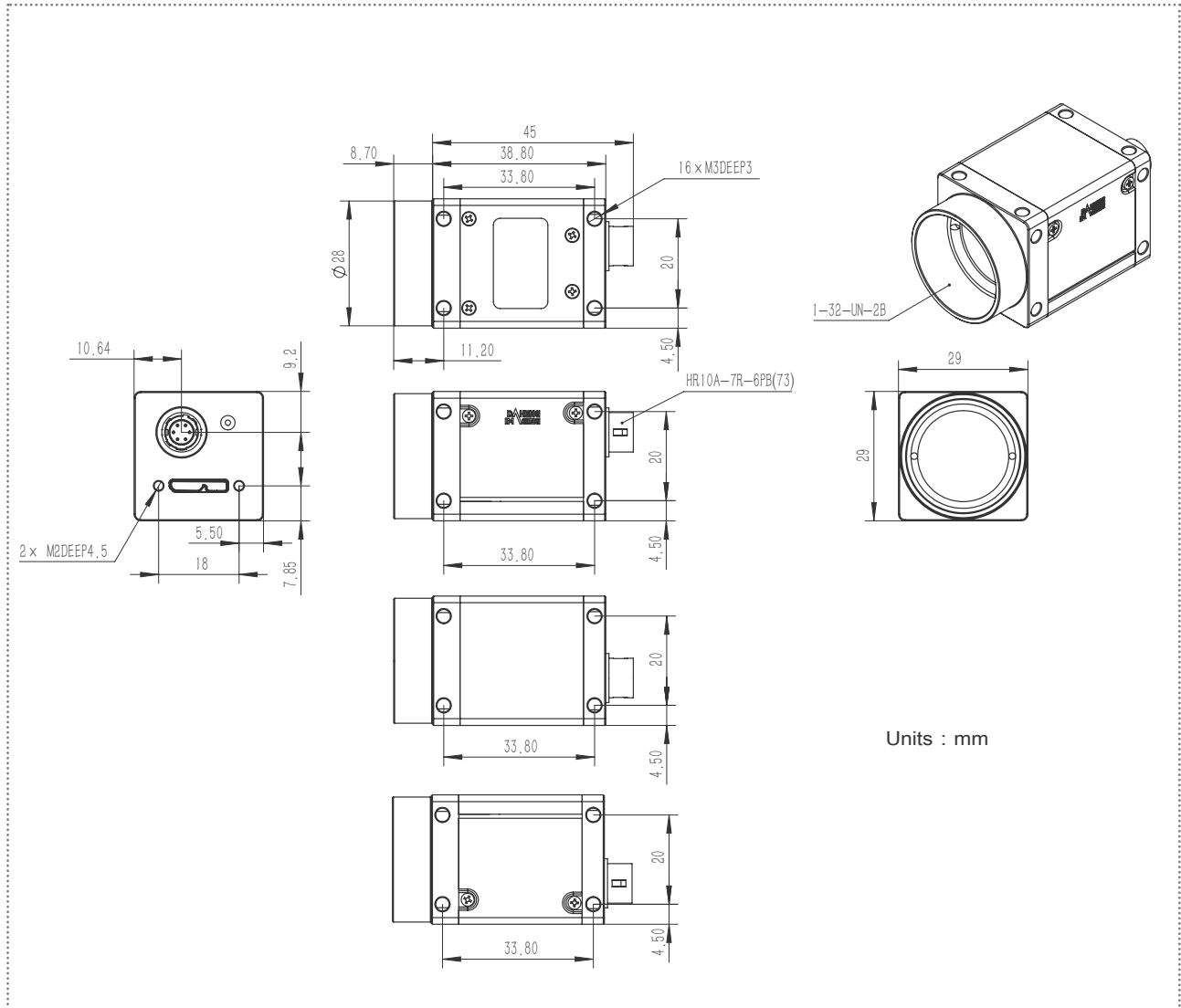
| Pin | Definition | Description |
|-----|---------------|---|
| 1 | POWER_IN | Camera external power, +12V DC(-10%)~+24V DC(+10%) |
| 2 | Line0+ | Opto-isolated input + |
| 3 | Line2 | GPIO input/output |
| 4 | Line1+ | Opto-isolated output + |
| 5 | Line0-/Line1- | Line0-: Opto-isolated input - Line1-: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

Spectral Response



ME2S-2440-16U3M/C

Technical Drawing



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