

MV-CH250-25TM/TC

25 MP CMOS 10 GigE Area Scan Camera



GEN*i*CAM

10GigE
VISION

Introduction

MV-CH250-25TM/TC camera adopts OnSemi PYTHON25K sensor to provide high-quality image. It uses 10 GigE interface to transmit non-compressed image in real-time with max. frame rate reaching 40 fps in full resolution.

Key Feature

- Resolution of 5120 × 5120 and pixel size of 4.5 μm × 4.5 μm.
- Adopts 10 GigE interface providing max. transmission distance of 100 meters without relay.
- Supports auto or manual adjustment for gain, exposure time, and manual adjustment for Look-Up Table (LUT), Gamma correction, etc.
- Compatible with GigE Vision Protocol V2.0, GenICam Standard, and third-party software based on protocols.

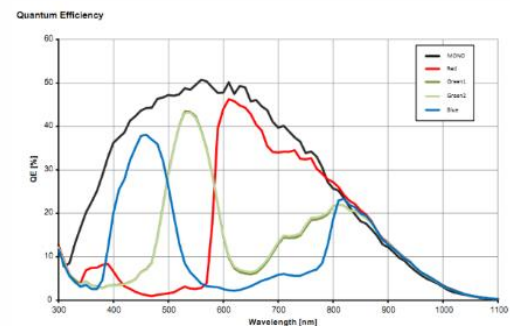
Available Model

- M58-mount with fan, mono: MV-CH250-25TM-M58S-NF
- M58-mount with fan, color: MV-CH250-25TC-M58S-NF
- F-mount with fan, mono: MV-CH250-25TM-F-NF
- F-mount with fan, color: MV-CH250-25TC-F-NF

Applicable Industry

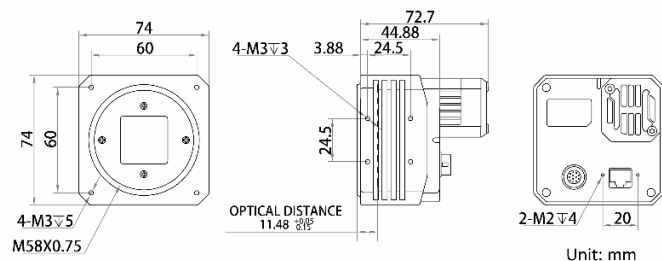
SMT/ PCB AOI, FPD, railway related applications, PV, etc.

Sensor Quantum Efficiency

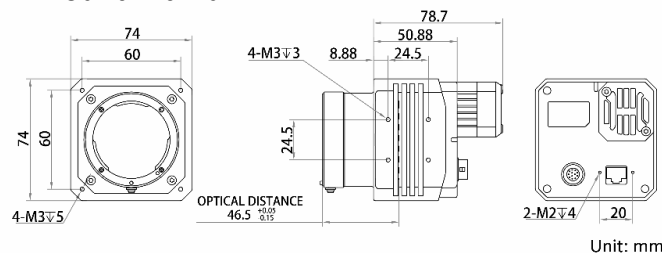


Dimension

M58-mount with fan:



F-mount with fan:



Specification

| Model | MV-CH250-25TM | MV-CH250-25TC |
|---------------------------|---|---|
| Camera | | |
| Sensor type | CMOS, global shutter | |
| Sensor model | OnSemi PYTHON25K | |
| Pixel size | 4.5 μm \times 4.5 μm | |
| Sensor size | 23 mm \times 23 mm | |
| Resolution | 5120 \times 5120 | |
| Max. frame rate | 40 fps @5120 \times 5120 | |
| Dynamic range | 58 dB | |
| SNR | 41 dB | |
| Gain | 0 dB to 15 dB | |
| Exposure time | 45 μs to 10 sec | |
| Exposure mode | Off/Once/Continuous exposure mode | |
| Mono/color | Mono | Color |
| Pixel format | Mono 8/10/10p/12/12p | Mono 8/10/12, Bayer 8/10/10p/12/12p, YUV422Packed, YUV422_YUYV_Packed, RGB 8, BGR 8 |
| Binning | Supports 1 \times 1, 1 \times 2, 1 \times 4, 2 \times 1, 2 \times 2, 2 \times 4, 4 \times 1, 4 \times 2, 4 \times 4 | |
| Decimation | Supports 1 \times 1, 1 \times 2, 1 \times 4, 2 \times 1, 2 \times 2, 2 \times 4, 4 \times 1, 4 \times 2, 4 \times 4 | |
| Reverse image | Supports horizontal and vertical reverse image output | |
| Electrical feature | | |
| Data interface | 10 Gigabit Ethernet, compatible with Gigabit Ethernet | |
| Digital I/O | 12-pin Hirose connector provides power and I/O, including opto-isolated input \times 1 (Line 0), opto-isolated output \times 1 (Line 1), bi-directional non-isolated I/O \times 1 (Line 2), RS-232 \times 1 | |
| Power supply | 9 VDC to 24 VDC | |
| Power consumption | Typ. 11.5 W@24 VDC | Typ. 12.5 W@24 VDC |
| Mechanical | | |
| Lens mount | M58-mount, optical back focal length 11.48 mm (0.5"), F-mount, optical back focal length 46.5 mm (1.8") | |
| Dimension | M58-mount with fan: 74 mm \times 74 mm \times 72.7 mm (2.9" \times 2.9" \times 2.9") F-mount with fan: 74 mm \times 74 mm \times 78.7 mm (2.9" \times 2.9" \times 3.1") | |
| Weight | M58-mount with fan: approx. 450 g (1.0 lb.), F-mount with fan: approx. 600 g (1.3 lb.) | |
| Ingress protection | IP40 (under proper lens installation and wiring) | |
| Temperature | Working temperature: 0 $^{\circ}\text{C}$ to 50 $^{\circ}\text{C}$ (32 $^{\circ}\text{F}$ to 122 $^{\circ}\text{F}$), Storage temperature: -30 $^{\circ}\text{C}$ to 70 $^{\circ}\text{C}$ (-22 $^{\circ}\text{F}$ to 158 $^{\circ}\text{F}$) | |
| Humidity | 20% to 95% RH, non-condensing | |
| General | | |
| Client software | MVS or third-party software meeting with GigE Vision Protocol | |
| Operating system | 32/64-bit Windows XP/7/10 | |
| Compatibility | GigE Vision V2.0, GenICam | |
| Certification | CE, FCC, RoHS, KC | |

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