MV-CH250-25TM/TC

25 MP CMOS 10 GigE Area Scan Camera

Introduction

MV-CH250-25TM/TC camera adopts OnSemi PYTHON25K sensor to provide high-quality images. 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, third-party software based on protocols.

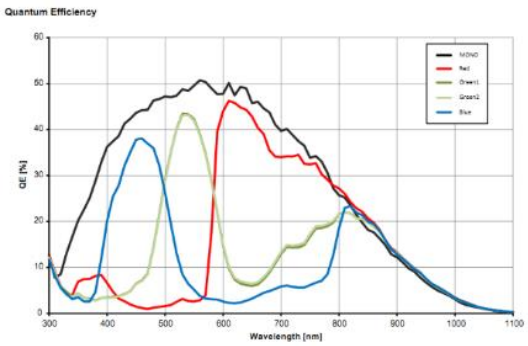
Available Model

- 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

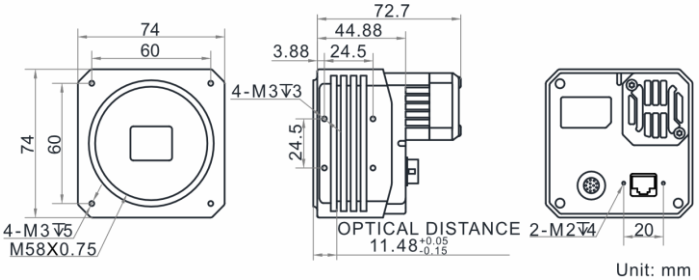
SMT/ PCB AOI, FPD, railway related applications, PV, etc.

Sensor Quantum Efficiency

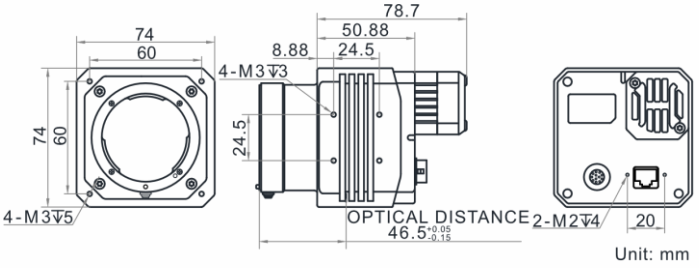


Dimension

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 × 4.5 μm	
Sensor size	23 mm × 23 mm	
Resolution	5120 × 5120	
Max. frame rate	40 fps @5120 × 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 RG 8/10/10p/12/12p, YUV422Packed, YUV422_YUYV_Packed, RGB 8, BGR 8
Binning	Supports 1 × 1, 1 × 2, 1 × 4, 2 × 1, 2 × 2, 2 × 4, 4 × 1, 4 × 2, 4 × 4	
Decimation	Supports 1 × 1, 1 × 2, 1 × 4, 2 × 1, 2 × 2, 2 × 4, 4 × 1, 4 × 2, 4 × 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 P10 connector provides power and I/O, including opto-isolated input × 1 (Line 0), opto-isolated output × 1 (Line 1), bi-directional non-isolated I/O × 1 (Line 2), RS-232 × 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 × 74 mm × 72.7 mm (2.9" × 2.9" × 2.9") F-mount with fan: 74 mm × 74 mm × 78.7 mm (2.9" × 2.9" × 3.1")	
Weight	M58-mount with fan: approx. 550 g (1.2 lb.) F-mount with fan: approx. 600 g (1.3 lb.)	
Ingress protection	IP40 (under proper lens installation and wiring)	
Temperature	Working temperature: 0 °C to 50 °C (32 °F to 122 °F) Storage temperature: -30 °C to 70 °C (-22 °F to 158 °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, RoHS, KC	

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