MV-CH250-21TM
25 MP CMOS 10 GigE Area Scan Camera

Introduction

MV-CH250-21TM camera adopts OnSemi PYTHON25K sensor and provides high-quality image. It uses 10 GigE interface to transmit non-compressed images in real time with max. frame rate reaching 40 fps.

Key Feature

- Resolution of 5120 × 5120 and pixel size of 4.5 μm × 4.5 μm
- Adopts 10 GigE interface, compatible with GigE, and max. transmission distance of 100 meters without relay
- Up to 1024 MB local memory for burst transmission and retransmission
- Supports serial communication, and communication protocol RS232.
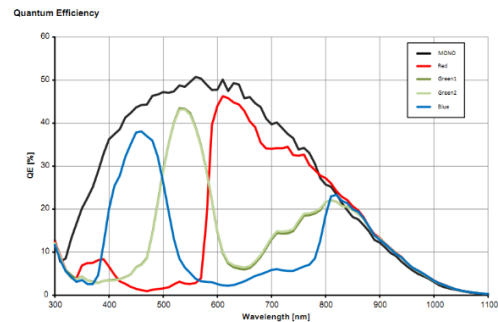- Compact design with mounting holes on the up and bottom panels for flexible mounting

Applicable Industry

SMT/ PCB AOI, FPD, railway related applications, etc.
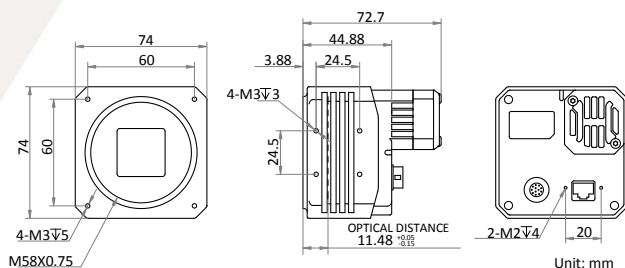
Available Model

- M58-mount with fan, Mono: MV-CH250-21TM-M58S-NF
- F-mount with fan, Mono: MV-CH250-21TM-F-NF
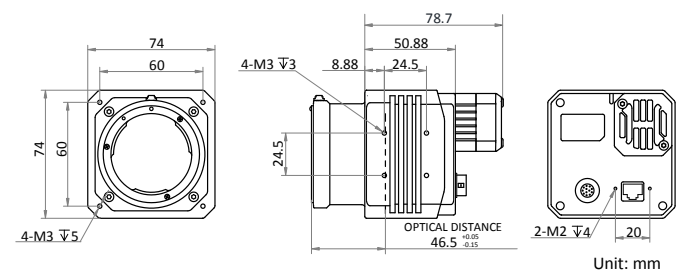
Sensor Quantum Efficiency

Dimension

M58-mount with fan:

F-mount with fan:

Specification

Model Parameters	MV-CH250-21TM 25 MP CMOS 10 GigE Area Scan Camera
Camera	
Sensor type	CMOS, global shutter
Sensor model	OnSemi PYTHON25K
Pixel size	4.5 μm × 4.5 μm
Sensor size	23 mm x 23 mm
Resolution	5120× 5120
Frame rate	40 fps
Dynamic range	58 dB
SNR	40 dB
Gain	0 dB to 15 dB
Exposure time	45 μs to 10 s
Shutter mode	Off/Once/Continuous exposure mode
Pixel format	Mono 8/10/10p/12/12p
Acquisition mode	Continuous mode and SingleFrame mode
Reverse image	Supports vertical reverse image output
Image buffer	1024 MB
Electrical features	
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 x 1 (Line0), opto-isolated output x 1 (Line1), bi-directional non-isolated I/O x 1 (Line2), RS232 x 1, and full-duplex RS485 x 1
Power supply	9 VDC to 26 VDC
Power consumption	< 14 W@12 VDC
Structure	
Lens mount	M58-mount, optical back focal length 11.48 mm (0.45") 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" × 2.86") F-mount with fan: 74 mm × 74 mm × 78.7 mm (2.9" × 2.9" × 3.1")
Weight	M58-mount with fan: < 450 g (1.0 lb.), F-mount with fan: < 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, without condensation
General	
Client software	MVS or third-party software meeting with GigE Vision Protocol
Operating system	Windows XP/7/10 32/64-bit
Compatibility	GigE Vision V2.0, GenICam
Certification	CE, FCC, RoHS, KC