

MV-CH650-90TM/TC

65 MP CMOS 10 GigE Area Scan Camera



GEN*i*CAM

10GiGE
VISION

Introduction

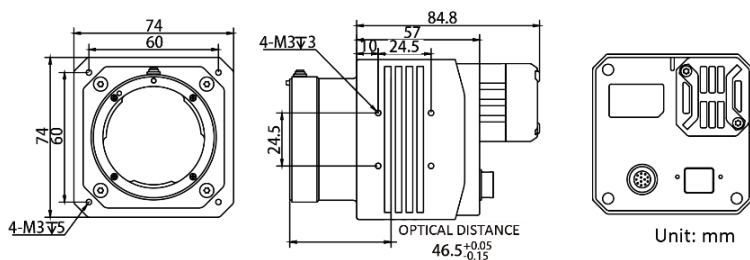
MV-CH650-90TM/TC camera adopts Gpixel GMAX3265 sensor to provide high-quality image. It uses 10 GigE interface to transmit non-compressed image in real time, and its max. frame rate can reach 17.2 fps in full resolution.

Key Feature

- Resolution of 9344 × 7000, and pixel size of 3.2 μm × 3.2 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.

Dimension

F-mount with fan:



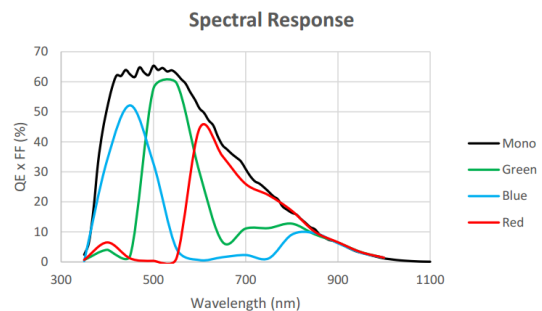
Available Model

- M58-mount with fan, mono: MV-CH650-90TM-M58S-NF
- F-mount with fan, mono: MV-CH650-90TM-F-NF
- M58-mount with fan, color: MV-CH650-90TC-M58S-NF
- F-mount with fan, color: MV-CH650-90TC-F-NF

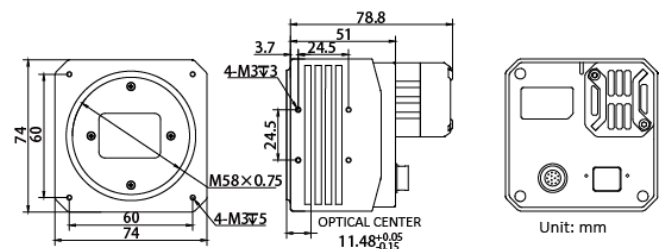
Applicable Industry

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

Sensor Quantum Efficiency



M58-mount with fan:



Specification

Model	MV-CH650-90TM	MV-CH650-90TC
Camera		
Sensor type	CMOS, global shutter	
Sensor model	Gpixel GMAX3265	
Pixel size	3.2 μm \times 3.2 μm	
Sensor size	29.9 mm \times 22.4 mm	
Resolution	9344 \times 7000	
Max. frame rate	17.2 fps @ 9344 \times 7000 Mono 8	17.2 fps @ 9344 \times 7000 Bayer BG 8
Dynamic range	66 dB	
SNR	40 dB	
Gain	1.25 \times to 6 \times	
Exposure time	18 μs to 10 sec	
Exposure mode	Off/Once/Continuous exposure mode	
Mono/color	Mono	Color
Pixel format	Mono 8/10/10Packed/12/12Packed	Mono 8/10/12, Bayer 8/10/10p/12/12 Packed, YUV422 8, YUV422_8_YUYV, 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 (10000 Mbit/s), compatible with Gigabit Ethernet (1000 Mbit/s)	
Digital I/O	12-pin P10 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), and RS-232 \times 1	
Power supply	9 VDC to 24 VDC	
Power consumption	Typ. 10.2 W @ 12 VDC	Typ. 11.6 W @ 12 VDC
Mechanical		
Lens mount	M58*0.75, flange back length 11.48 mm F-mount, flange back length 46.5 mm	
Dimension	M58-mount with fan: 74 mm \times 74 mm \times 78.8 mm (2.9" \times 2.9" \times 3.1") F-mount with fan: 74 mm \times 74 mm \times 84.8 mm (2.9" \times 2.9" \times 3.3")	
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 $^{\circ}\text{C}$ 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% RH to 95% RH (no condensation)	
General		
Client software	MVS or third-party software meeting with GigE Vision Protocol	
Operating system	32/64-bit Windows 7/10, 64-bit Windows 11, and 32/64-bit Linux	
Compatibility	GigE Vision V2.0, GenICam	
Certification	CE, RoHS, KC	