

# MV-CH250-21GM/GC

## 25 MP CMOS GigE Area Scan Camera



GEN*i*CAM

GIG*E* VISION

### Introduction

MV-CH250-21GM/GC camera adopts OnSemi PYTHON25K sensor to provide high-quality image. It uses GigE interface to transmit non-compressed images in real time with max. frame rate reaching 4.64 fps.

### Key Feature

- Resolution of 5120 × 5120 and pixel size of 4.5 μm × 4.5 μm.
- Adopts GigE interface providing max. transmission distance of 100 meters without relay.
- Adopts local memory for burst transmission and retransmission.
- Compact design with mounting holes on the up and bottom panels for flexible mounting.
- Compatible with GigE Vision V2.0 Protocol, GenICam Standard, and the third-party software based on these protocol and standard.

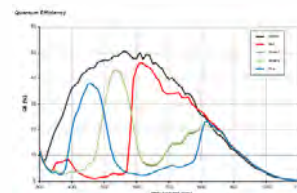
### Available Model

- M58-mount with fan, mono camera: MV-CH250-21GM-M58S-NF
- F-mount with fan, mono camera: MV-CH250-21GM-F-NF
- M58-mount with fan, color camera: MV-CH250-21GC-M58S-NF
- F-mount with fan, color camera: MV-CH250-21GC-F-NF

### Applicable Industry

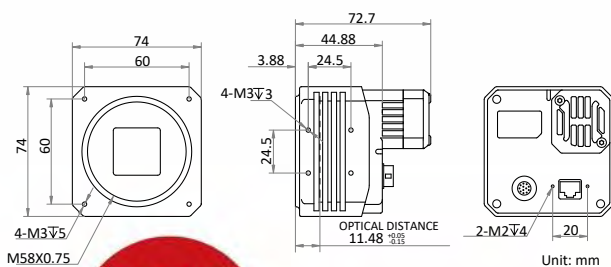
SMT/ PCB AOI, FPD, railway related applications, etc.

### Sensor Quantum Efficiency

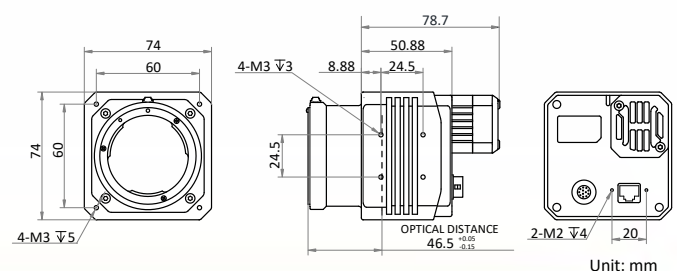


### Dimension

M58-mount with fan:



F-mount with fan:



## Specification

Model	MV-CH250-21GM	MV-CH250-21GC
<b>Camera</b>		
Sensor type	CMOS, global shutter	
Sensor model	OnSemi PYTHON25K	
Pixel size	4.5 $\mu\text{m}$ $\times$ 4.5 $\mu\text{m}$	
Sensor size	23 mm $\times$ 23 mm	
Resolution	5120 $\times$ 5120	
Max. frame rate	4.64 fps @5120 $\times$ 5120	
Dynamic range	58 dB	
SNR	41 dB	
Gain	0 dB to 15 dB	
Exposure time	80 $\mu\text{s}$ 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
Binning	Supports 1 $\times$ 1, 2 $\times$ 2, 4 $\times$ 4	Not support
Decimation	Supports 1 $\times$ 1, 2 $\times$ 2	
Reverse image	Supports horizontal and vertical reverse image output	
<b>Electrical feature</b>		
Data interface	Gigabit Ethernet, compatible with Fast 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, and RS-485 $\times$ 1	
Power supply	12 VDC	
Power consumption	Typ. 6.7 W@12 VDC	Typ. 7.8 W@12 VDC
<b>Mechanical</b>		
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 $\times$ 74 mm $\times$ 72.7 mm (2.9" $\times$ 2.9" $\times$ 2.86") 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: < 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 $^{\circ}\text{C}$ 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	
<b>General</b>		
Client software	MVS or third-party software meeting with GigE Vision Protocol	
Operating system	32/64-bit Windows XP/7/10, 32/64-bit Linux and 64-bit MacOS	
Compatibility	GigE Vision V2.0, GenICam	
Certification	CE, FCC, RoHS, KC	

### HIKROBOT

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