

MV-CH120-90TM/TC

12 MP 1.1" CMOS 10 GigE Area Scan Camera



GEN*i*CAM

10GiGE
VISION

Introduction

MV-CH120-90TM/TC camera adopts Gpixel GMAX3412 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 94 fps in full resolution.

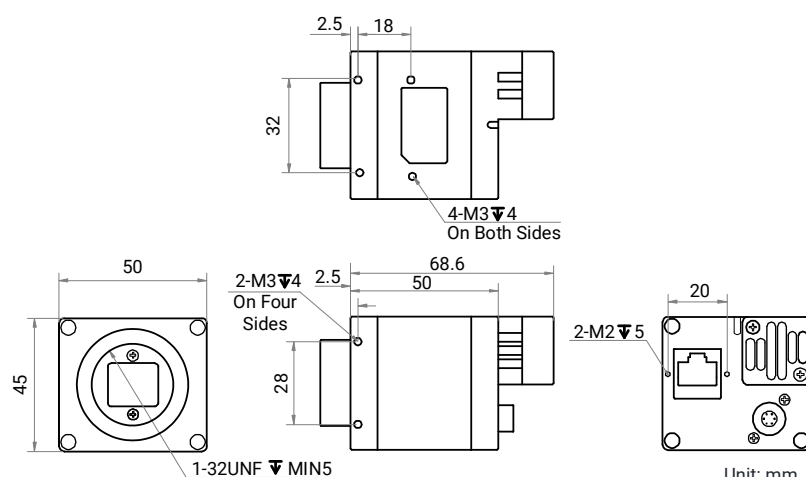
Key Features

- Resolution of 4096×3072 , pixel size of $3.4 \mu\text{m} \times 3.4 \mu\text{m}$.
- Compatible with C-mount lens.
- Adopts 10 GigE interface providing maximum transmission distance of 100 meters.
- Provides mounting holes on panels for flexible installation.
- Compatible with GigE Vision Protocol V2.0, GenICam Standard, and third-party software based on protocols.

Applicable Industry

SMT/PCB AOI, FPD, railway industry, lithium battery, photovoltaics, etc.

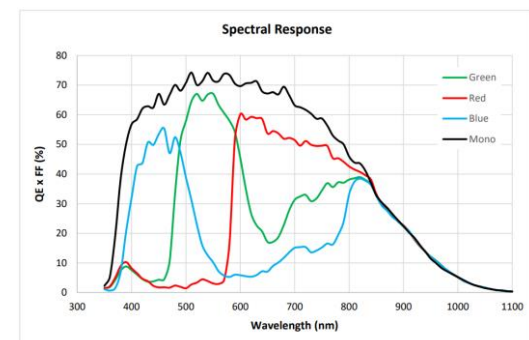
Dimension



Available Model

- Mono camera:
MV-CH120-90TM-C-NF
- Color camera:
MV-CH120-90TC-C-NF

Sensor Quantum Efficiency



Specification

Model	MV-CH120-90TM	MV-CH120-90TC
Performance		
Sensor type	CMOS, global shutter	
Sensor model	Gpixel GMAX3412	
Pixel size	3.4 μm × 3.4 μm	
Sensor size	1.1"	
Resolution	4096 × 3072	
Max. frame rate	94 fps @ 4096 × 3072 Mono 8	94 fps @ 4096 × 3072 Bayer GB 8
Dynamic range	60.1 dB	
SNR	39 dB	
Gain	0 dB to 6.1 dB	
Exposure time	6 μs to 10 sec	
Exposure mode	Off/Once/Continuous exposure mode	
Mono/color	Mono	Color
Pixel format	Mono 8/10/10Packed/12/12Packed	Bayer GB 8/10/10Packed/12/12Packed
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 (10000 Mbit/s), compatible with Gigabit Ethernet (1000 Mbit/s)	
Digital I/O	6-pin P7 connector provides power and I/O, including opto-isolated input × 1 (Line 0), opto-isolated output × 1 (Line 1), and bi-directional non-isolated I/O × 1 (Line 2)	
Power supply	9 VDC to 24 VDC	
Power consumption	10.2 W @ 12 VDC	10.9 W @ 12 VDC
Mechanical		
Lens mount	C-mount	
Dimension	50 mm × 45 mm × 68.6 mm (2.0" × 1.8" × 2.7")	
Weight	Approx. 212 g (0.5 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 80 °C (−22 °F to 176 °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	