

MV-CH120-90GM/GC V5

12 MP GigE Area Scan Camera



GEN*i*CAM

GigE
VISION

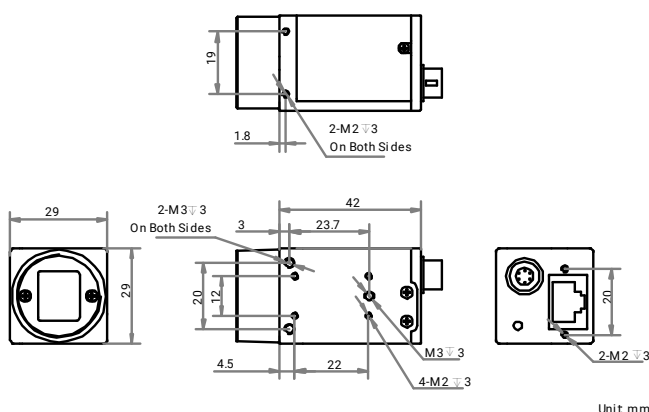
Introduction

MV-CH120-90GM/GC V5 camera adopts Gpixel GMAX3412 sensor to provide high-quality images. It uses GigE interface to transmit non-compressed images in real time, and its max. frame rate can reach 9.7 fps in full resolution.

Key Features

- Compact design supporting flexible mounting from 4 sides and compatible with C-mount lens.
- Supports auto or manual adjustment of gain and exposure time, and manual adjustment of LUT and Gamma correction.
- Supports LSC, Sequencer, passive transmission, etc.
- Color camera supports functions like interpolation, white balance, CCM, Super Palette, and Super Bayer to provide high-quality images.
- Compatible with GigE Vision V2.0 Protocol, GenICam Standard, and the third-party software based on the protocol and standard.

Dimension



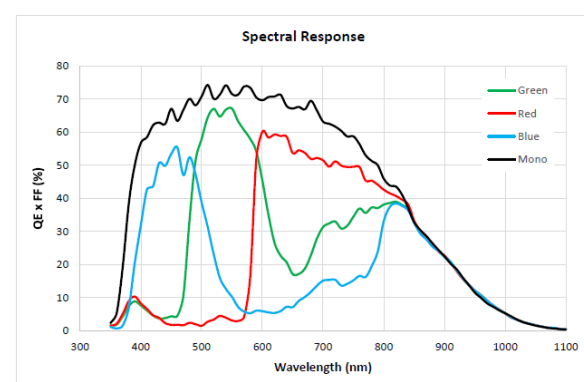
Available Model

- Mono camera: MV-CH120-90GM V5
- Color camera: MV-CH120-90GC V5

Applicable Industry

Electronic semiconductor, factory automation, liquor and beverage bottle inspection, medicine packing, screen AOI, etc.

Sensor Quantum Efficiency



Model	MV-CH120-90GM V5	MV-CH120-90GC V5
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	9.7 fps @ 4096 × 3072 Mono 8	9.7 fps @ 4096 × 3072 Bayer GB 8
Dynamic range	66.1 dB	
SNR	39.4 dB	
Gain	0 dB to 6.1 dB	
Exposure time	6 μs to 10 sec	
Exposure mode	Off/Once/Continuous exposure mode, supports TriggerWidth	
Mono/color	Mono	Color
Pixel format	Mono 8/10/10Packed/12/12Packed	Mono 8 Bayer GB 8/10/10Packed/12/12Packed YUV422Packed, YUV422_YUYV_Packed RGB 8, BGR 8
Binning	Supports 1 × 1, 2 × 2, 4 × 4	
Decimation	Supports 1 × 1, 2 × 2, 4 × 4	
Reverse image	Supports horizontal and vertical reverse image output	
Electrical feature		
Data interface	Gigabit Ethernet (1000 Mbit/s), compatible with Fast Ethernet (100 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), bi-directional non-isolated I/O × 1 (Line 2).	
Power supply	9 VDC to 24 VDC, supports PoE	
Power consumption	Typ. 2.4 W @ 12 VDC	
Mechanical		
Lens mount	C-mount	
Dimension (without lens)	29 mm × 29 mm × 42 mm (1.1" × 1.1" × 1.7")	
Weight	Approx. 80 g (0.2 lb.)	
Ingress protection	IP40 (under proper lens installation and wiring)	
Temperature	Working temperature: −10 °C to 50 °C (14 °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	