

MV-CH120-20GM/GC V4

12 MP 1" CMOS GigE Area Scan Camera



GEN*i*CAM

GigE
VISION

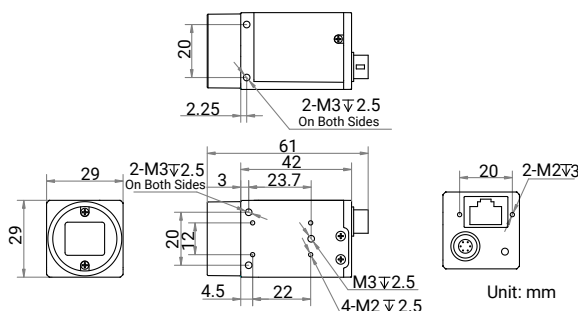
Introduction

MV-CH120-20GM/GC V4 camera adopts OnSemi XGS12000 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 9.6 fps in full resolution.

Key Feature

- Supports auto or manual adjustment for gain and exposure time, and manual adjustment for LUT and Gamma correction.
- Supports LSC, sequencer, passive transmission, etc.
- Color camera supports white balance, CCM, Super Palette, Super Bayer, etc.
- Adopts GigE interface and max. transmission distance of 100 meters without relay.
- Compact design with mounting holes on panels for flexible mounting from 4 sides.
- Compatible with GigE Vision V2.0 Protocol, GenICam Standard, and third-party software based on the protocol and standard.

Dimension



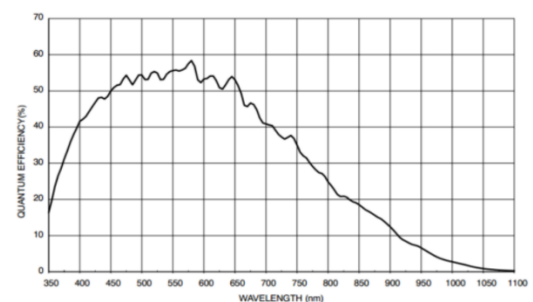
Available Model

- Mono camera: MV-CH120-20GM V4
- Color camera: MV-CH120-20GC V4

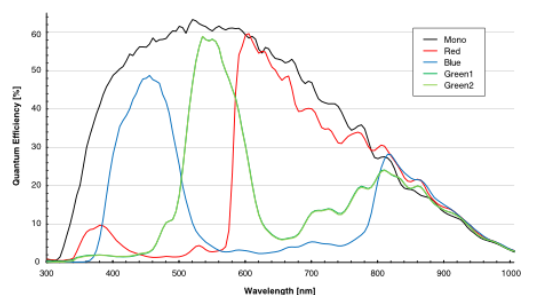
Applicable Industry

Electronic semiconductor, factory automation, logistics, etc.

Sensor Quantum Efficiency



MV-CH120-20GM V4



MV-CH120-20GC V4

Specification

Model	MV-CH120-20GM V4	MV-CH120-20GC V4
Performance		
Sensor type	CMOS, global shutter	
Sensor model	OnSemi XGS12000	
Pixel size	3.2 μm \times 3.2 μm	
Sensor size	1"	
Resolution	4096 \times 3072	
Max. frame rate	9.6 fps @ 4096 \times 3072 Mono 8	9.6 fps @ 4096 \times 3072 Bayer RG 8
Dynamic range	66.4 dB	
SNR	40 dB	
Gain	0 dB to 18 dB	
Exposure time	UltraShort exposure mode: 52 μs to 161 μs	
	Standard exposure mode: 162 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 RG 8/10/10Packed/12/12Packed, YUV422Packed, YUV422_YUYV_Packed, RGB 8, BGR 8
Binning	Supports 1 \times 1, 2 \times 2, 4 \times 4	
Decimation	Supports 1 \times 1, 2 \times 2, 4 \times 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 \times 1 (Line 0), opto-isolated output \times 1 (Line 1), bi-directional non-isolated I/O \times 1 (Line 2).	
Power supply	9 VDC to 24 VDC, supports PoE	
Power consumption	Typ. 2.6 W @ 12 VDC	Typ. 2.7 W @ 12 VDC
Mechanical		
Lens mount	C-mount	
Dimension	29 mm \times 29 mm \times 42 mm (1.1" \times 1.1" \times 1.7")	
Weight	Approx. 100 g (0.2 lb.)	
Ingress protection	IP40 (under proper lens installation and wiring)	
Temperature	Working temperature: -10 $^{\circ}\text{C}$ to 50 $^{\circ}\text{C}$ (14 $^{\circ}\text{F}$ to 122 $^{\circ}\text{F}$)	
	Storage temperature: -30 $^{\circ}\text{C}$ to 80 $^{\circ}\text{C}$ (-22 $^{\circ}\text{F}$ to 176 $^{\circ}\text{F}$)	
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	