MV-CH120-20GM/GC

12 MP 1" CMOS GigE Area Scan Camera

GEN<i>CAM

GigE VISION®

Introduction

MV-CH120-20GM/GC 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, GenlCam Standard, and third-party software based on the protocol and standard.
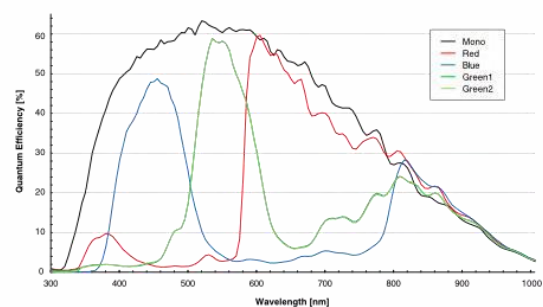
Available Model

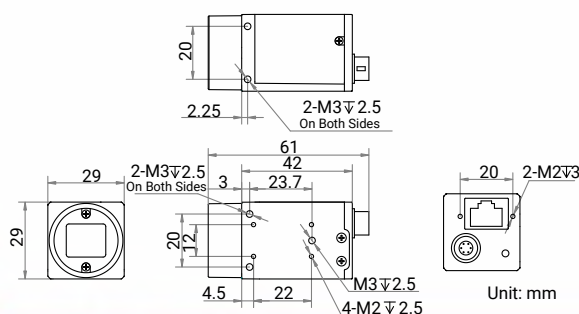- Mono camera: MV-CH120-20GM
- Color camera: MV-CH120-20GC

Applicable Industry

Electronic semiconductor, factory automation, logistics, etc.

Sensor Quantum Efficiency

Dimension

Unit: mm

Specification

Model	MV-CH120-20GM	MV-CH120-20GC
Performance		
Sensor type	CMOS, global shutter	
Sensor model	OnSemi XGS12000	
Pixel size	3.2 µm × 3.2 µm	
Sensor size	1"	
Resolution	4096 × 3072	
Max. frame rate	9.6 fps @4096 × 3072 Mono 8	9.6 fps @4096 × 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 × 1, 2 × 2, 4 × 4	
Decimation	Supports 1 × 1, 2 × 2	
Reverse image	Supports horizontal and vertical reverse image output	
Electrical feature		
Data interface	Gigabit Ethernet, compatible with Fast Ethernet	
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. 2.6 W@12 VDC	Typ. 2.7 W@12 VDC
Mechanical		
Lens mount	C-mount	
Dimension	29 mm × 29 mm × 42 mm (1.1" × 1.1" × 1.7")	
Weight	Approx. 100 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 70 °C (-22 °F to 158 °F)	
Humidity	20% to 95% RH, non-condensing	
General		
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, RoHS, KC	

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