

# MV-CS050-20GM/GC

5 MP 2/3" CMOS GigE Area Scan Camera



**GEN<i>i>CAM**

**GigE**  
VISION

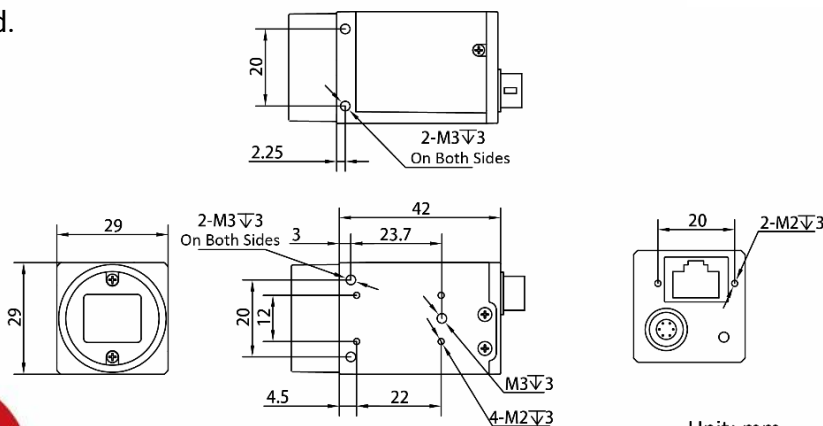
## Introduction

With GigE interface, MV-CS050-20GM/GC camera adopts OnSemi XGS5000 sensor to provide high-quality images and transmit images in real time, and its max. frame rate can reach 22.7 fps in full resolution.

## Key Feature

- Adopts brand new design to reduce power consumption.
- Supports contrast ratio function to adjust image clarity.
- Supports auto or manual adjustment for gain, exposure control, LUT, Gamma correction, etc.
- Compact design with mounting holes on panels for flexible mounting from 4 sides.
- Adopts GigE interface and max. transmission distance of 100 meters without relay.
- 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-CS050-20GM
- Color camera: MV-CS050-20GC

## Applicable Industry

SMT/ PCB AOI, consumer electronics, electrical semiconductor, etc.

## Sensor Quantum Efficiency

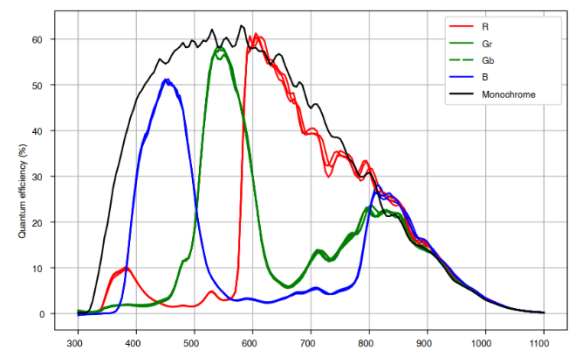


Figure 57. Quantum Efficiency (Mono)

Unit: mm



# Specification

Model	MV-CS050-20GM	MV-CS050-20GC
<b>Camera</b>		
<b>Sensor type</b>	CMOS, global shutter	
<b>Sensor model</b>	OnSemi XGS5000	
<b>Pixel size</b>	3.2 $\mu\text{m}$ $\times$ 3.2 $\mu\text{m}$	
<b>Sensor size</b>	2/3"	
<b>Resolution</b>	2592 $\times$ 2048	
<b>Max. frame rate</b>	22.7 fps @2592 $\times$ 2048	
<b>Dynamic range</b>	66 dB	
<b>SNR</b>	39.6 dB	
<b>Gain</b>	0 dB to 18 dB	
<b>Exposure time</b>	UltraShort exposure mode: 23 $\mu\text{s}$ to 99 $\mu\text{s}$	
	Standard exposure mode: 100 $\mu\text{s}$ to 10 sec	
<b>Exposure mode</b>	Off/Once/Continuous exposure mode	
<b>Mono/color</b>	Mono	Color
<b>Pixel format</b>	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
<b>Binning</b>	Supports 1 $\times$ 1, 2 $\times$ 2, 4 $\times$ 4	
<b>Decimation</b>	Supports 1 $\times$ 1, 2 $\times$ 2	
<b>Reverse image</b>	Supports horizontal and vertical reverse image output	
<b>Electrical features</b>		
<b>Data interface</b>	Gigabit Ethernet, compatible with Fast Ethernet	
<b>Digital I/O</b>	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).	
<b>Power supply</b>	9 VDC to 24 VDC, supports PoE	
<b>Power consumption</b>	Typ. 2.5 W@12 VDC	Typ. 2.7 W@12 VDC
<b>Mechanical</b>		
<b>Lens mount</b>	C-Mount	
<b>Dimension</b>	29 mm $\times$ 29 mm $\times$ 42 mm (1.1" $\times$ 1.1" $\times$ 1.2")	
<b>Weight</b>	Approx. 100 g (0.22 lb.)	
<b>Ingress protection</b>	IP40 (under proper lens installation and wiring)	
<b>Temperature</b>	Working temperature: -30 $^{\circ}\text{C}$ to 60 $^{\circ}\text{C}$ (-22 $^{\circ}\text{F}$ to 140 $^{\circ}\text{F}$ )	
	Storage temperature: -30 $^{\circ}\text{C}$ to 70 $^{\circ}\text{C}$ (-22 $^{\circ}\text{F}$ to 158 $^{\circ}\text{F}$ )	
<b>Humidity</b>	20% to 95% RH, non-condensing	
<b>General</b>		
<b>Client software</b>	MVS or third-party software meeting with GigE Vision Protocol	
<b>Operating system</b>	32/64-bit Windows XP/7/10, 32/64-bit Linux and 64-bit MacOS	
<b>Compatibility</b>	GigE Vision V2.0, GenICam	
<b>Certification</b>	CE, FCC, RoHS, KC	



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