

# HC-CH250-90UM/UC

25 MP 1.1" CMOS GigE Area Scan Camera



GEN<img alt="GenCam logo" data-bbox="675 200 923 232"/>CAM

USB  
VISION

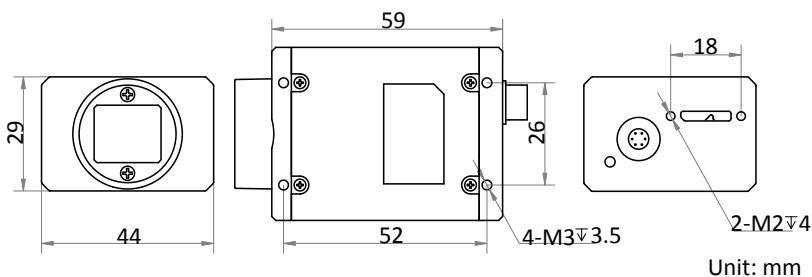
## Introduction

HC-CH250-90UM/UC camera adopts Gpixel GMAX0505 sensor to provide high-quality images. It uses USB3.0 interface to transmit non-compressed images in real time, and its max. frame rate can reach 14.3 fps in full resolution.

## Key Feature

- Resolution of 5120 × 5120, and pixel size of 2.5 μm × 2.5 μm.
- Supports lens shading correction, binning, image reverse, etc.
- Supports hardware trigger, software trigger, and free run.
- Compatible with USB3 Vision Protocol, GenICam Standard, and the third-party software based on the protocol and standard.

## Dimension



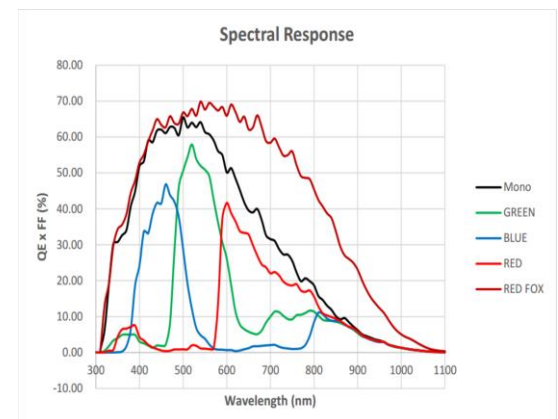
## Available Model

- Mono camera: HC-CH250-90UM
- Color camera: HC-CH250-90UC

## Applicable Industry

SMT/ PCB AOI, FPD, photovoltaic related applications, etc.

## Sensor Quantum Efficiency



## Specification

Model	HC-CH250-90UM	HC-CH250-90UC
<b>Camera</b>		
Sensor type	CMOS, global shutter	
Sensor model	Gpixel GMAX0505	
Pixel size	2.5 $\mu\text{m}$ $\times$ 2.5 $\mu\text{m}$	
Sensor size	1.1"	
Resolution	5120 $\times$ 5120	
Max. frame rate	14.3 fps @5120 $\times$ 5120	
Dynamic range	65 dB	
SNR	36 dB	
Gain	Supports 2.0 $\times$ , 2.5 $\times$ , 3.0 $\times$ , 3.5 $\times$ , 4.0 $\times$ , 4.5 $\times$ , 5.0 $\times$	
Exposure time	12 $\mu\text{s}$ to 10 sec	
Exposure mode	Off/Once/Continuous exposure mode	
Mono/color	Mono	Color
Pixel format	Mono 8/10/10p/12/12p	Mono 8/10/12, Bayer BG 8/10/10p/12/12p, 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	
<b>Electrical feature</b>		
Data interface	USB3.0, compatible with USB2.0	
Digital I/O	6-pin Hirose 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 USB3.0 power supply	
Power consumption	Typ. 3.4 W@5 VDC (USB3.0 provides power supply)	Typ. 4.0 W@5 VDC (USB3.0 provides power supply)
<b>Mechanical</b>		
Lens mount	C-mount	
Dimension	29 mm $\times$ 44 mm $\times$ 59 mm (1.1" $\times$ 1.7" $\times$ 2.3")	
Weight	Approx. 100 g (0.2 lb.)	
Ingress protection	IP30 (under proper lens installation and wiring)	
Temperature	Working temperature: 0 $^{\circ}\text{C}$ to 50 $^{\circ}\text{C}$ (32 $^{\circ}\text{F}$ to 122 $^{\circ}\text{F}$ ) Storage temperature: -30 $^{\circ}\text{C}$ to 70 $^{\circ}\text{C}$ (-22 $^{\circ}\text{F}$ to 158 $^{\circ}\text{F}$ )	
Humidity	20% to 95% RH, non-condensing	
<b>General</b>		
Client software	MVS or third-party software meeting with USB3 Vision Protocol	
Operating system	32/64-bit Windows XP/7/10, 32/64-bit Linux and 64-bit MacOS	
Compatibility	USB3 Vision, GenICam	
Certification	CE, FCC, RoHS, KC	