HC-CH050-10UM/UC

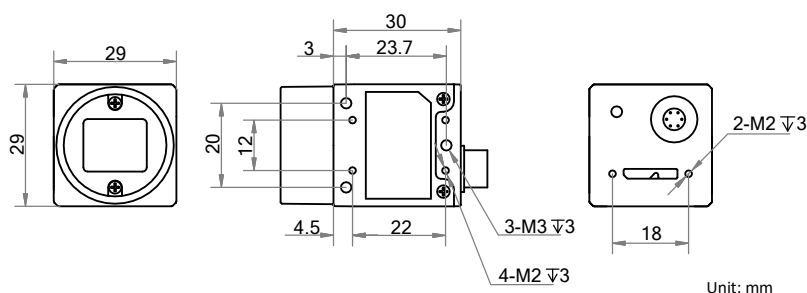## 5 MP 2/3" CMOS USB3.0 Area Scan Camera

Introduction

HC-CH050-10UM/UC camera adopts Sony® IMX250 sensor to provide high-quality image. It uses USB3.0 interface to transmit non-compressed images in real time, and its max. frame rate can reach 74 fps in full resolution.

Key Feature

- Supports auto and manual adjustment for gain, exposure control, LUT, Gamma correction, etc.
- Supports hardware triggering, software triggering and free run mode.
- Adopts M2 screw holes for securing cable that connects USB3.0 interface.
- Compatible with USB3 Vision Protocol, GenICam Standard, and the third-party software based on these protocol and standard.
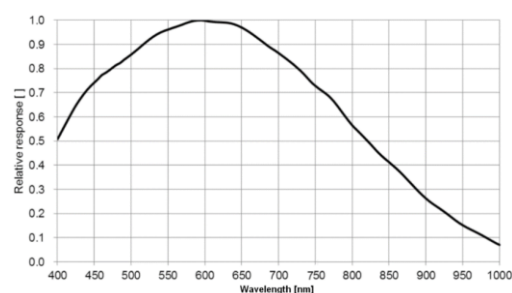
Dimension

Unit: mm

Available Model

- Mono camera: HC-CH050-10UM
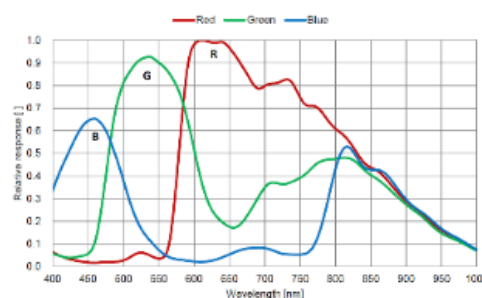- Color camera: HC-CH050-10UC

Applicable Industry

Electronic semiconductor, factory automation, liquor and beverage, medicine packing, etc.

Sensor Quantum Efficiency

HC-CH050-10UM

HC-CH050-10UC

Specification

Model	HC-CH050-10UM	HC-CH050-10UC
Camera		
Sensor type	CMOS, global shutter	
Sensor model	Sony® IMX250	
Pixel size	3.45 μm × 3.45 μm	
Sensor size	2/3"	
Resolution	2448 × 2048	
Max. frame rate	74 fps @2448 × 2048	
Dynamic range	75.4 dB	
SNR	40 dB	
Gain	0 dB to 17 dB	0 dB to 20 dB
Exposure time	UltraShort exposure mode: 1 μs to 14 μs	
	Standard exposure mode: 15 μs 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 RG 8/10/10p/12/12p, YUV422Packed, YUV422_YUYV_Packed, RGB 8, BGR 8
Binning	Supports 1 × 1, 2 × 2	
Decimation	Supports 1 × 1, 2 × 2	
Reverse image	Supports horizontal and vertical reverse image output	
Image buffer	128 MB	
Electrical feature		
Data interface	USB3.0, compatible with USB2.0	
Digital I/O	6-pin Hirose connector provides power and I/O, including opto-isolated input × 1 (Line 0), opto-isolated output × 1(Line 1), and bi-directional non-isolated I/O × 1 (Line 2)	
Power supply	9 VDC to 24 VDC, supports USB3.0 power supply	
Power consumption	Typ. 3.5 W@5 VDC (USB3.0 provides power supply)	
Mechanical		
Lens mount	C-Mount	
Dimension	29 mm × 29 mm × 30 mm (1.1" × 1.1" × 1.2")	
Weight	Approx. 80 g (0.2 lb.)	
Ingress protection	IP30 (under proper lens installation and wiring)	
Temperature	Working temperature: 0 °C to 50 °C (32 °F to 122 °F)	
	Storage temperature: -30 °C to 70 °C (-22 °F to 158 °F)	
Humidity	20% to 80% RH, non-condensing	
General		
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	