

MV-CH140-90XM

14 MP CMOS CoaXPress Area Scan Camera



GEN< i >CAM

Introduction

MV-CH140-90XM camera adopts Gsprint 5514 BSI sensor to provide high-quality image. It uses CXP-6 interface to transmit non-compressed images in real time, and its max. frame rate can reach 169 fps in full resolution.

Key Features

- Resolution of 4608×3072 , pixel size of $5.5 \mu\text{m} \times 5.5 \mu\text{m}$.
- Adopts global shutter CMOS to provide high dynamic range, SNR, and high-quality images.
- Adopts CXP-6 interface to transmit data.
- Compatible with CoaXPress Protocol and GenICam Standard.

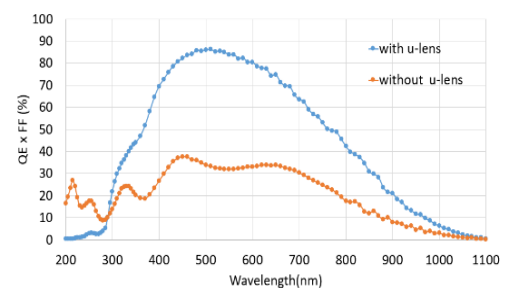
Available Model

Mono camera: MV-CH140-90XM-M58S-NN

Applicable Industry

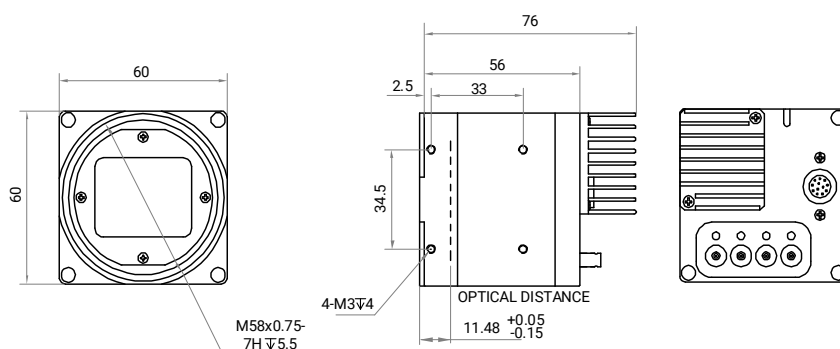
Electronics, semiconductor, PCB AOI, 3D application, motion capture, etc.

Sensor Quantum Efficiency



MV-CH140-90XM

Dimension



Unit: mm

Specification

Model	MV-CH140-90XM
Camera	
Sensor type	CMOS, global shutter
Sensor model	Gpixel Gsprint 5514
Pixel size	5.5 μm $\times$ 5.5 μm
Sensor size	25.34 mm $\times$ 16.9 mm
Resolution	4608 $\times$ 3072
Max. frame rate	169 fps @ 4608 $\times$ 3072 Mono 8
Dynamic range	75 dB
SNR	44.7 dB
Gain	Supports 1.0 $\times$, 1.6 $\times$, 2.3 $\times$, 2.9 $\times$, 5.0 $\times$
Exposure time	2 μs to 10 sec
Exposure mode	Off/Once/Continuous exposure mode
Mono/color	Mono
Pixel format	Mono 8/10/12
Binning	Supports 1 $\times$ 1, 1 $\times$ 2, 1 $\times$ 4, 2 $\times$ 1, 2 $\times$ 2, 2 $\times$ 4, 4 $\times$ 1, 4 $\times$ 2, 4 $\times$ 4
Decimation	Supports 1 $\times$ 1, 1 $\times$ 2, 1 $\times$ 4, 2 $\times$ 1, 2 $\times$ 2, 2 $\times$ 4, 4 $\times$ 1, 4 $\times$ 2, 4 $\times$ 4
Reverse image	Supports horizontal and vertical reverse image output
Electrical features	
Data interface	CoaXPress with DIN interface
Digital I/O	12-pin P10 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), and RS-232 $\times$ 1.
Power supply	12 VDC to 24 VDC, CXP-0 and CXP-1 connectors support PoCXP
Power consumption	Typ. 15.1 W @ 24 VDC
Mechanical	
Lens mount	M58 $\times$ 0.75, flange back length 11.48 mm
Dimension	60 mm $\times$ 60 mm $\times$ 76 mm (2.4" $\times$ 2.4" $\times$ 3.0") (without lens mount)
Weight	Approx. 790 g (1.7 lb.)
Ingress protection	IP40 (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 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 frame grabber software meeting with CoaXPress Protocol
Operating system	32/64-bit Windows 7/10, 64-bit Windows 11, 32/64-bit Linux
Compatibility	CoaXPress, GenICam
Certification	CE, RoHS, KC