

MV-CH120-40XM

12 MP CMOS CoaXPress Area Scan Camera



GEN<i>i</i>CAM

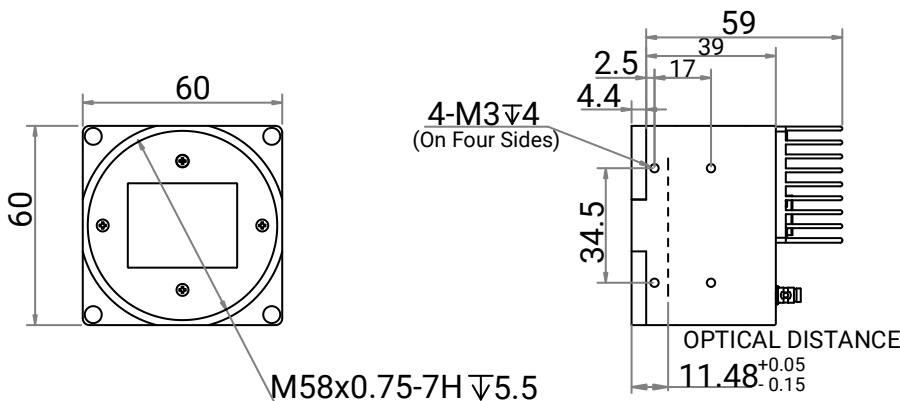
Introduction

MV-CH120-40XM camera adopts CMOS sensor to provide high-quality images. It uses CXP-6 interface to transmit non-compressed images in real time, and its max. frame rate can reach 188 fps in full resolution.

Key Feature

- Resolution of 4096 × 3072, pixel size of 5.5 μm × 5.5 μm.
- Adopts global shutter CMOS sensor to provide high dynamic range, SNR, and high-quality images.
- Supports LSC sequencer polling function.
- Adopts CXP-6 interface to transmit data.
- Compatible with CoaXPress Protocol and GenICam Standard.

Dimension



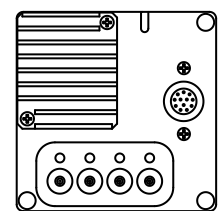
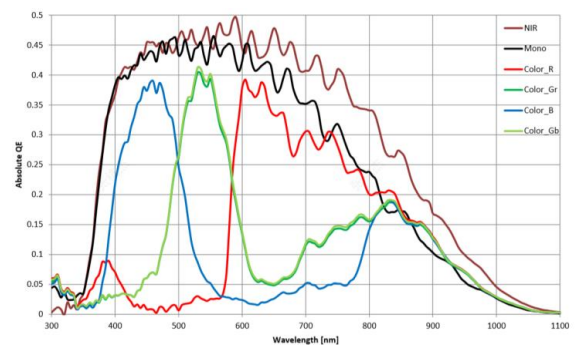
Available Model

MV-CH120-40XM-M58S-NN

Applicable Industry

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

Sensor Quantum Efficiency



Unit: mm

Specification

Model	MV-CH120-40XM
Performance	
Sensor type	CMOS, global shutter
Sensor model	AMS CMV12000
Pixel size	5.5 μm \times 5.5 μm
Sensor size	22.5 mm \times 16.9 mm
Resolution	4096 \times 3072
Max. frame rate	188 fps @ 4096 \times 3072 Mono 8
Dynamic range	55.2 dB
SNR	39.5 dB
Gain	1.0 \times , 2.0 \times , 3.0 \times , 4.0 \times
Exposure time	20 μs to 10 sec
Exposure mode	Off/Once/Continuous exposure mode
Mono/color	Mono
Pixel format	Mono 8/10
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-1 and CXP-2 support PoCXP
Power consumption	Typ. 11.6 W @ 12 VDC
Mechanical	
Lens mount	M58*0.75, flange back length 11.48 mm
Dimension	60 mm \times 60 mm \times 59 mm (2.4" \times 2.4" \times 2.3"), optional with heat sink fins
Weight	Approx. 269 g (0.6 lb.)
Ingress protection	IP40 (under proper lens installation and wiring)
Temperature	Working temperature: 0 $^{\circ}\text{C}$ to 30 $^{\circ}\text{C}$ (32 $^{\circ}\text{F}$ to 86 $^{\circ}\text{F}$) Storage temperature: -30 $^{\circ}\text{C}$ to 70 $^{\circ}\text{C}$ (-22 $^{\circ}\text{F}$ to 158 $^{\circ}\text{F}$)
Humidity	20% 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, and 32/64-bit Linux
Compatibility	CoaXPress, GenICam
Certification	CE, RoHS, KC, UL