# MV-CH250-90XM/XC

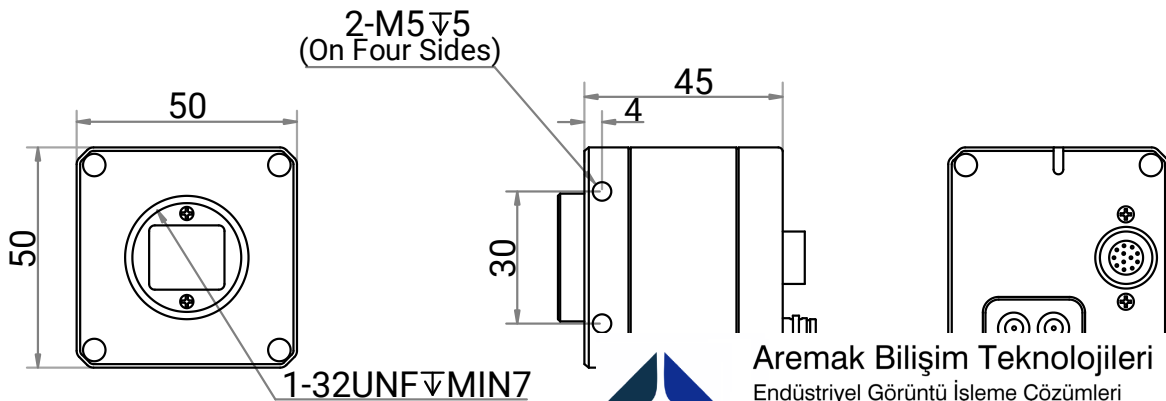**25 MP CMOS CoaXPress Area Scan Camera**



GEN<i>CAM

## Introduction

MV-CH250-90XM/XC camera adopts Gpixel GMAX0505 sensor to provide high quality image. It uses CXP-6 interface to transmit images in real time, and its max. frame rate can reach 41.5 fps in full resolution.

## Key Feature

- Resolution of 5120 × 5120, pixel size of 2.5 μm × 2.5 μm.
- Adopts global shutter CMOS sensor to provide high dynamic range, SNR, and high-quality image.
- Adopts CXP-6 interface to transmit data.
- Compatible with CoaXPress Protocol, GenlCam Standard, and third-party software based on the protocol and standard.
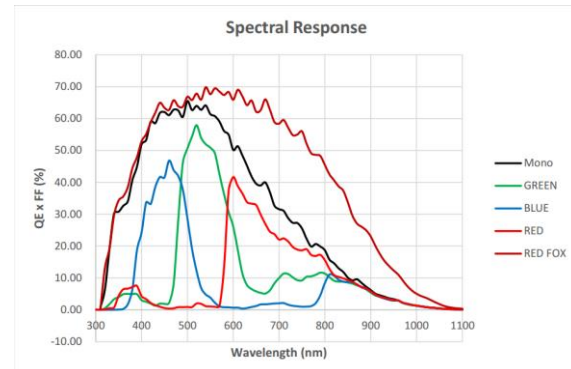
## Dimension

## Available Model

Mono camera: MV-CH250-90XM-C-NN
Color camera: MV-CH250-90XC-C-NN

## Applicable Industry

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

## Sensor Quantum Efficiency





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# Specification

| Model | MV-CH250-90XM | MV-CH250-90XC |
|---|---|---|
| *Performance* | | |
| Sensor type | CMOS, global shutter | |
| Sensor model | Gpixel GMAX0505 | |
| Pixel size | 2.5 µm × 2.5 µm | |
| Sensor size | 1.1" | |
| Resolution | 5120 × 5120 | |
| Max. frame rate | 41.5 fps @ 5120 × 5120 Mono 8 | 41.5 fps @ 5120 × 5120 Bayer BG 8 |
| Dynamic range | 65 dB | |
| SNR | 41 dB | |
| Gain | 2.0 × to 5.0 × | |
| Exposure time | 13 µs to 10 sec | UltraShort exposure mode: 3 µs to 8 µs<br>Standard exposure mode: 10 µs to 10 sec |
| Exposure mode | Off/Once/Continuous exposure mode | |
| Mono/color | Mono | Color |
| Pixel format | Mono 8/10/12 | Bayer BG 8/10/12 |
| Binning | Supports 1 × 1, 1 × 2, 1 × 4, 2 × 1, 2 × 2, 2 × 4, 4 × 1, 4 × 2, 4 × 4 | |
| Decimation | Supports 1 × 1, 1 × 2, 1 × 4, 2 × 1, 2 × 2, 2 × 4, 4 × 1, 4 × 2, 4 × 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 × 1 (Line 0), opto-isolated output × 1(Line 1), bi-directional non-isolated I/O × 1 (Line 2), and RS-232 × 1. | |
| Power supply | 9 VDC to 24 VDC, CXP-1 supports PoCXP | |
| Power consumption | Typ. 7.0 W @ 12 VDC | Typ. 6.5 W @ 12 VDC |
| *Mechanical* | | |
| Lens mount | C-mount, flange back focal length 17.52 mm | |
| Dimension | 50 mm × 50 mm × 45 mm (2.0" × 2.0" × 1.8") | |
| Weight | Approx. 207 g (0.5 lb.) | |
| Ingress protection | IP40 (under proper lens installation and wiring) | |
| Temperature | Working temperature: 0 °C to 50 °C (32 °F to 122 °F)<br>Storage temperature: −30 °C to 80 °C (−22 °F to 176 °F) | |
| Humidity | 20% RH to 95% RH (no condensation) | |
| *General* | | |
| Client software | MVS or third-party software meeting with CoaXPress Protocol | |
| Operating system | 32/64-bit Windows XP/7/10/11, 32/64-bit Linux | |
| Compatibility | CoaXPress, GenlCam | |
| Certifications | CE, RoHS, KC | |