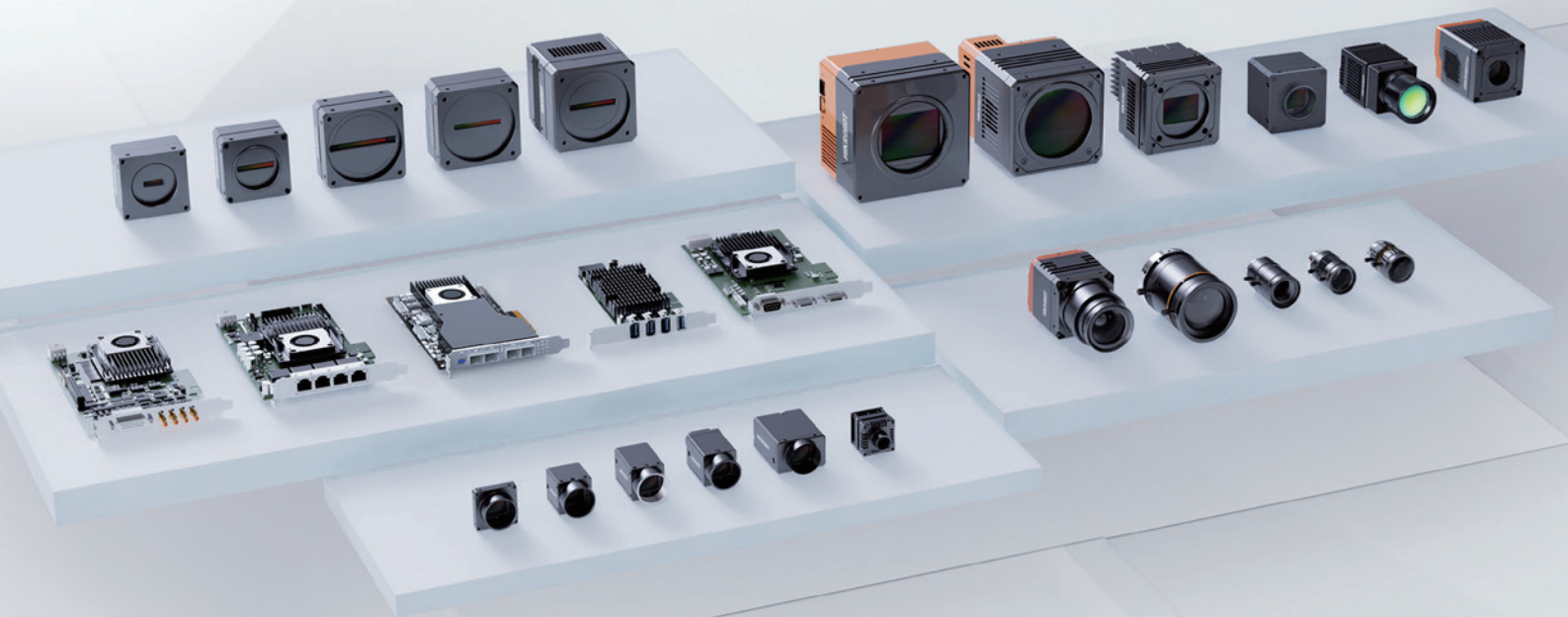


# MACHINE VISION STANDARD PRODUCT CATALOG

Vision for Imagination



# Overview

## Area Scan Camera

P28



- Complete resolution distribution: 0.4MP-604MP
- Equipped data interface: GigE, USB3.0, 10GigE, Camera Link, CoaXPress, XoFLink

## Line scan camera

P28



- Resolution distribution: 2k, 4k, 8k, 16k
- Equipped data interface: GigE, Camera Link, XoFLink

## Board Level Camera

P28



- Single-board or multi-board stacking design, suitable for application scenarios with high space requirements
- Equipped data interface: GigE, USB3.0

## Industrial Infrared Camera

P28



- Short Wave: Equipped with InGaAs sensors, applicable to area scan camera and line scan camera, covering the visible light to short wave range of 0.4 um to 1.7 um

## Frame Grabber

P28



- Rich data interfaces are optional include GigE, 10GigE, USB3.0, Camera Link, CoaXPress, XoFLink

## Lens

P28



- Comprehensive coverage of format and focal length
- Ultra-high image resolution and consistency

## Cable

P28



- Support common interface types and lengths
- Provide stable power supply and data transmission

## Industry Product – Microscope System

P28



- Microscopic magnification, revealing surface details of objects
- Built-in operating system and direct HDMI connection to display

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# Hikrobot

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Hikrobot is a global product and solution supplier specialized in machine vision and mobile robot. Focusing on IIoT, smart logistics and smart manufacturing, we build open cooperation ecosystem, provide service to industry and logistics customers, and commit to continuously promoting the intelligentization and leading the intelligent manufacturing process.

## ■ Machine Vision

With efforts in industrial vision sensing application and hardware technology, the company provides customers with leading machine vision products. The products cover industrial camera, lens, vision box, industrial smart camera and related accessory.

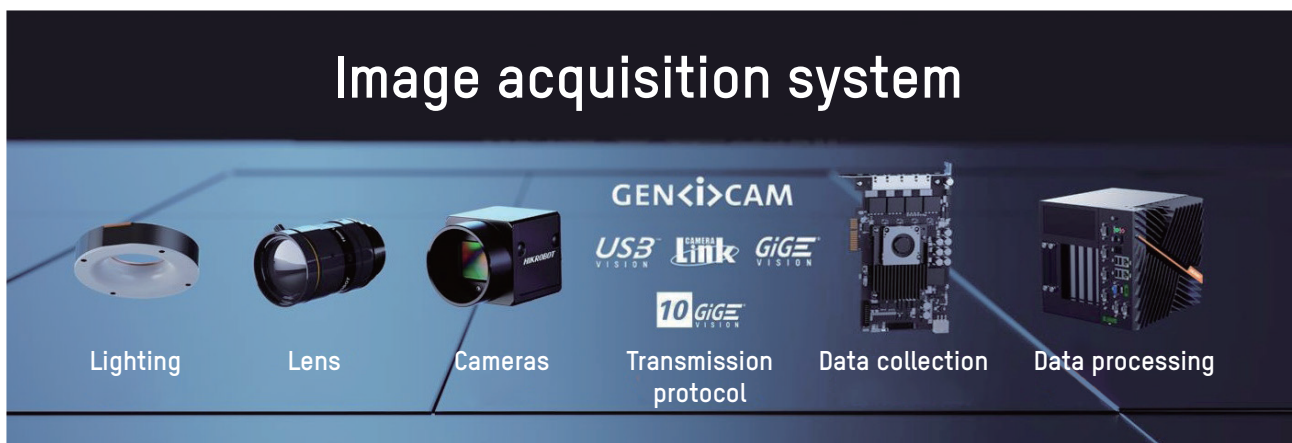
Through rigorous EMC, safety and reliability tests, Hikrobot guarantees the high precision, high efficiency and high environmental performance of each product. The machine vision products are widely used in industrial automation sectors such as consumer electronics, semiconductors and logistics, as a part of the vision applications like positioning guidance, measurement, quality inspection, code reading, OCR, etc. They help users to greatly improve productivity, accuracy and stability.

# Machine Vision System

## Product Background

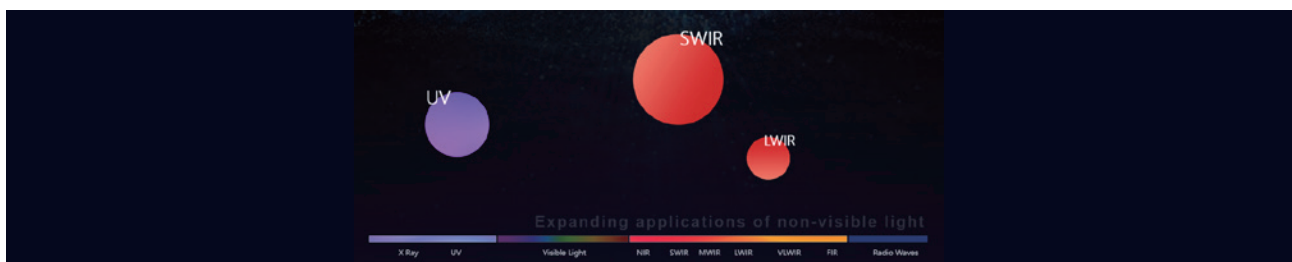
An excellent machine vision system needs to have basic features such as stable acquisition, efficient processing, execution accuracy, and high-quality images. In a typical image acquisition system, there are light source, lens, camera, acquisition protocols, data transmission and data processing. The camera cooperates with the lens and lighting unit to ensure high-quality original images and maximize the difference between target features and background, and carry out stable transmission and collection through a suitable transmission protocol. Finally, the target feature information is extracted from the background through software and perform efficient algorithm processing to obtain the target image.

Hikrobot is committed to providing customers with one-stop procurement services for visual systems. The products cover industrial area scan cameras, line scan cameras, board-level cameras, infrared cameras, and accessories such as frame grabbers, lenses, light sources, and cables. Realize the construction of visual systems for customers to meet various application needs in various industries.



## Product Features

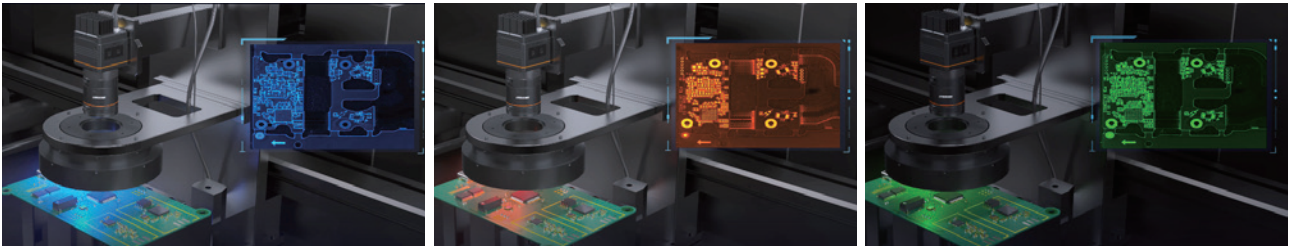
- More spectral coverage, suitable for rich application scenarios.



- X over Fiber self-developed transmission protocol with a more stable and ultra-fast transfer.



- Sequencer function support periodically acquire images according to the preset parameters and improve the acquisition efficiency.



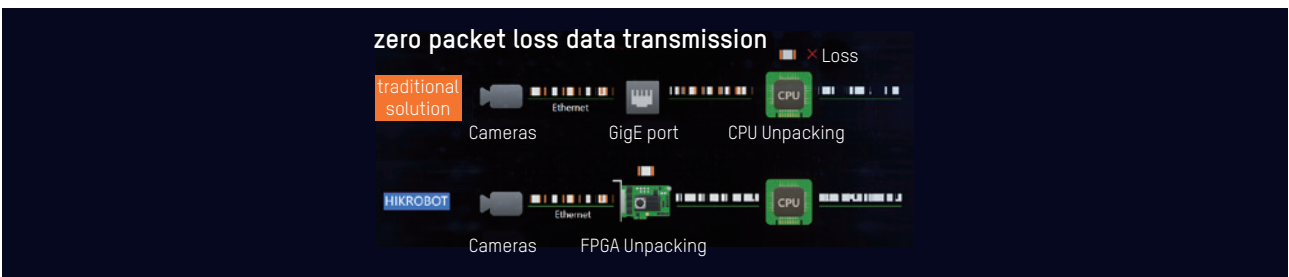
- Enriched ISP algorithms enhance imaging quality.



- The two methods will help the core components in camera to actively cool down and suppress thermal noise.



- Featured and innovative functions of frame grabber, no packet loss, low load at HOST end.



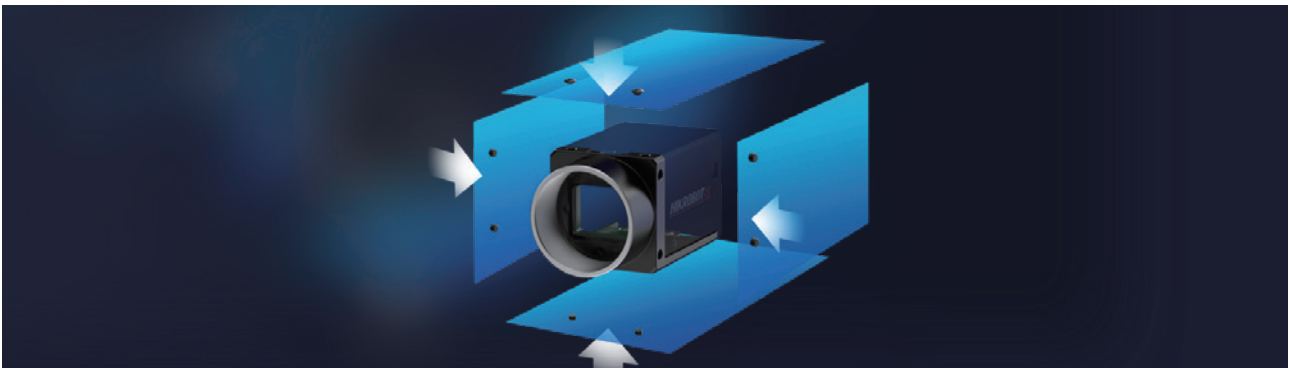
- The SDK compatibility is strong and adaptable to various development platforms.



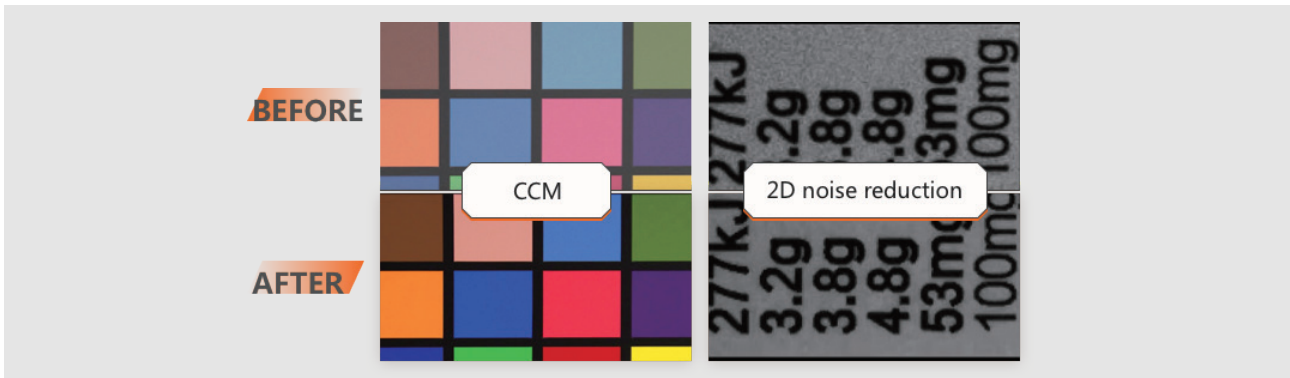
# Area Scan Camera

## CS Series Area Scan Camera

HIKROBOT released the 2nd generation of CS Series with technological breakthroughs from products appearance design, R&D to production management, which gives an upgraded experience to all end users.



Evolved performance, various scenarios adaptable



Upgraded imaging, built-in algorithms

## CS Series GigE Area Scan Camera

CE RoHS

### Specifications

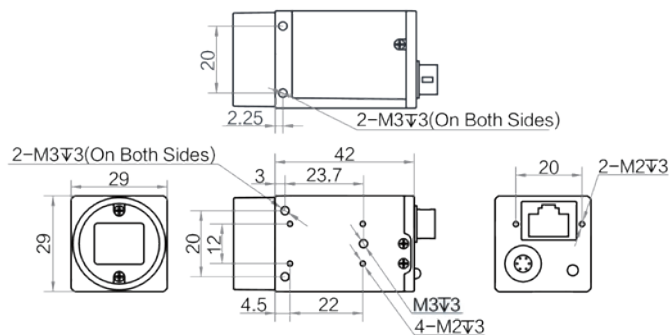
Model	Sensor model	Sensor size	Pixel size	Shutter mode	Resolution	Max. frame rate	Exposure time	Power consumption
MV-CS004-10GM	IMX297	1/2.9"	6.9 μm	Global	720 × 540	125.2 fps	USE: 1 μs-14 μs NE: 15 μs-10 sec	Typ. 2.2 W@12 VDC
MV-CS004-10GC	IMX297	1/2.9"	6.9 μm	Global	720 × 540	125.2 fps	USE: 1 μs-14 μs NE: 15 μs-10 sec	Typ. 2.5 W@12 VDC
MV-CS004-11GM	IMX287	1/2.9"	6.9 μm	Global	720 × 540	312.9 fps	1 μs -10 sec	Typ. 2.2 W@12 VDC
MV-CS004-11GC	IMX287	1/2.9"	6.9 μm	Global	720 × 540	312.9 fps	1 μs -10 sec	Typ. 2.4 W@12 VDC
MV-CS013-60GN	Stacked BSI	2/3"	6.9 um	Global	1224*1024	59.2 fps	30 μs ~ 10 sec	Typ. 2.3 W@12 VDC
MV-CS016-10GM	IMX296	1/2.9"	3.45 μm	Global	1440 × 1080	65.2 fps	USE: 1 μs-14 μs NE: 15 μs-10 sec	Typ. 2.4 W@12 VDC
MV-CS016-10GC	IMX296	1/2.9"	3.45 μm	Global	1440 × 1080	65.2 fps	USE: 1 μs-14 μs NE: 15 μs-10 sec	Typ. 2.5 W@12 VDC
MV-CS016-11GM	IMX273	1/2.9"	3.45 μm	Global	1440 × 1080	78.2 fps	USE: 1 μs ~ 14 μs NE: 15 μs ~ 10 sec	Typ. 2.3 W@12 VDC
MV-CS020-10GM	IMX430	1/1.7"	4.5 μm	Global	1624 × 1240	60 fps	USE: 1 μs-5 μs NE: 6 μs-10 sec	Typ. 2.8 W@12 VDC
MV-CS020-10GC	IMX430	1/1.7"	4.5 μm	Global	1624 × 1240	60 fps	USE: 1 μs-5 μs NE: 6 μs-10 sec	Typ. 3.0 W@12 VDC



Model	Sensor model	Sensor size	Pixel size	Shutter mode	Resolution	Max. frame rate	Exposure time	Power consumption
MV-CS020-60GM	Stacked BSI	1/2.53"	3.45 μm	Global	1632 × 1264	60 fps	5 μs ~ 10 sec	Typ. 2.1 W@12 VDC
MV-CS020-60GC	Stacked BSI	1/2.53"	3.45 μm	Global	1632 × 1264	60 fps	5 μs ~ 10 sec	Typ. 2.3 W@12 VDC
MV-CS023-10GM	IMX249	1/1.2"	5.86 μm	Global	1920 × 1200	41 fps	NE: 15 μs~10 sec	Typ. 2.2 W@12 VDC
MV-CS023-10GC	IMX249	1/1.2"	5.86 μm	Global	1920 × 1200	41 fps	NE: 15 μs~10 sec	Typ. 2.6 W@12 VDC
MV-CS032-60GM	Stacked BSI	1/1.8"	3.45 μm	Global	2048 × 1536	36.8 fps	5 μs ~ 10 sec	Typ. 2.1 W@12 VDC
MV-CS032-60GC	Stacked BSI	1/1.8"	3.45 μm	Global	2048 × 1536	36.8 fps	5 μs ~ 10 sec	Typ. 2.3 W@12 VDC
MV-CS050-10GM	IMX264	2/3"	3.45 μm	Global	2448 × 2048	24.2 fps	USE: 1 μs~14 μs NE: 15 μs~10 sec	Typ. 2.6 W@12 VDC
MV-CS050-10GC	IMX264	2/3"	3.45 μm	Global	2448 × 2048	24.2 fps	USE: 1 μs~14 μs NE: 15 μs~10 sec	Typ. 2.9 W@12 VDC
MV-CS050-10GM-PRO	IMX264	2/3"	3.45 μm	Global	2448 × 2048	35.6 fps	USE: 1 μs~14 μs NE: 15 μs~10 sec	Typ. 2.6 W@12 VDC
MV-CS050-10GC-PRO	IMX264	2/3"	3.45 μm	Global	2448 × 2048	35.6 fps	USE: 1 μs~14 μs NE: 15 μs~10 sec	Typ. 2.9 W@12 VDC
MV-CS050-20GM	XGS5000	2/3"	3.2 μm	Global	2592 × 2048	22.7fps	USE: 23 μs~99 μs NE: 100 μs~10 sec	Typ. 2.5 W@12 VDC
MV-CS050-20GC	XGS5000	2/3"	3.2 μm	Global	2592 × 2048	22.7fps	USE: 23 μs~99 μs NE: 100 μs~10 sec	Typ. 2.7 W@12 VDC
MV-CS050-60GM	Stacked BSI	2/3"	3.45 μm	Global	2448*2048	23 fps	NE: 5 μs ~ 10 sec	Typ. 2.3 W@12 VDC
MV-CS050-60GC	Stacked BSI	2/3"	3.45 μm	Global	2448*2048	23 fps	NE: 5 μs ~ 10 sec	Typ. 2.5 W@12 VDC
MV-CS050-60GN	Stacked BSI	2/3"	3.45 μm	Global	2448 × 2048	23 fps	NE: 5 μs ~ 10 sec	Typ. 2.3 W@12 VDC
MV-CS050-90GM	GMAX3405	2/3"	3.4 μm	Global	2448 × 2048	24.2 fps	USE: 2 μs ~ 4 μs NE: 5 μs ~ 10 sec	Typ. 2.2 W@12 VDC
MV-CS050-90GC	GMAX3405	2/3"	3.4 μm	Global	2448 × 2048	24.2 fps	USE: 2 μs ~ 4 μs NE: 5 μs ~ 10 sec	Typ. 2.3 W@12 VDC
MV-CS060-10GM	IMX178	1/1.8"	2.4 μm	Rolling	3072 × 2048	19.1 fps	NE: 25 μs~2.5 sec	Typ. 2.4 W@12 VDC
MV-CS060-10GC	IMX178	1/1.8"	2.4 μm	Rolling	3072 × 2048	19.1 fps	NE: 25 μs~2.5 sec	Typ. 2.5 W@12 VDC
MV-CS060-10GM-PRO	IMX178	1/1.8"	2.4 μm	Rolling	3072 × 2048	30.7 fps	NE: 25 μs~2.5 sec	Typ. 2.4 W@12 VDC
MV-CS060-10GC-PRO	IMX178	1/1.8"	2.4 μm	Rolling	3072 × 2048	30.7 fps	NE: 25 μs~2.5 sec	Typ. 2.5 W@12 VDC
MV-CS200-10GM	IMX183	1"	2.4 μm	Rolling	5472 × 3648	5.9 fps	NE: 46 μs~2.5 sec	Typ. 2.4 W@12 VDC
MV-CS200-10GC	IMX183	1"	2.4 μm	Rolling	5472 × 3648	5.9 fps	NE: 46 μs~2.5 sec	Typ. 2.5 W@12 VDC

Notice: USE: Ultra-short exposure mode. NE: Normal exposure mode

## Dimension



Unit:mm

# CS Series USB3.0 Area Scan Camera

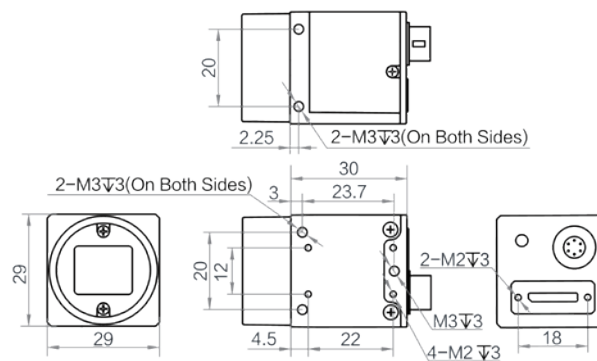


## Specifications

Model	Sensor model	Sensor size	Pixel size	Shutter mode	Resolution	Max. frame rate	Exposure time	Power consumption
MV-CS004-10UM	IMX287	1/2.9"	6.9 μm	Global	720 × 540	526.5 fps	USE: 1 μs-14 μs NE: 15 μs-10 sec	Typ. 2.4 W@5 VDC
MV-CS004-10UC	IMX287	1/2.9"	6.9 μm	Global	720 × 540	526.5 fps	USE: 1 μs-14 μs NE: 15 μs-10 sec	Typ. 2.6 W@5 VDC
MV-CS016-10UM	IMX273	1/2.9"	3.45 μm	Global	1440 × 1080	249.1 fps	USE: 1 μs-14 μs NE: 15 μs-10 sec	Typ. 3.0 W@5 VDC
MV-CS016-10UC	IMX273	1/2.9"	3.45 μm	Global	1440 × 1080	249.1 fps	USE: 1 μs-14 μs NE: 15 μs-10 sec	Typ. 3.3 W@5 VDC
MV-CS020-10UM	IMX430	1/1.7"	4.5 μm	Global	1624 × 1240	90 fps	USE: 1 μs to 5 μs NE: 6 μs to 10 sec	Typ. 2.3 W@5 VDC
MV-CS020-10UC	IMX430	1/1.7"	4.5 μm	Global	1624 × 1240	90 fps	USE: 1 μs to 5 μs NE: 6 μs to 10 sec	Typ. 2.4 W@5 VDC
MV-CS028-10UM	IMX421	2/3"	4.5 μm	Global	1936 × 1464	132.2 fps	USE: 1 μs ~ 5 μs NE: 9 μs ~ 10 sec	Typ. 2.8 W@5 VDC
MV-CS040-A0UM	HK	1"	5.5 μm	Global	2048 × 2048	90.1 fps	30 μs-10 sec	Typ. 2.4 W@5 VDC
MV-CS040-A0UC	HK	1"	5.5 μm	Global	2048 × 2048	90.1 fps	30 μs-10 sec	Typ. 2.4 W@5 VDC
MV-CS050-10UM	IMX264	2/3"	3.45 μm	Global	2448 × 2048	90.1 fps	USE:1 μs-14 μs NE:15 μs-10 sec	Typ. 2.4 W@5 VDC
MV-CS050-10UC	IMX264	2/3"	3.45 μm	Global	2448 × 2048	60 fps	USE:1 μs-14 μs NE:15 μs-10 sec	Typ. 2.8 W@5 VDC
MV-CS050-60UM	Stacked BSI	2/3"	3.45 μm	Global	2448 × 2048	60 fps	5 μs ~ 10 sec	Typ. 1.7 W@5 VDC
MV-CS050-60UC	Stacked BSI	2/3"	3.45 μm	Global	2448 × 2048	60 fps	5 μs ~ 10 sec	Typ. 1.8 W@5 VDC
MV-CS060-10UM-PRO	IMX178	1/1.8"	2.4 μm	Rolling	3072 × 2048	59.6 fps	32 us-1 sec	Typ. 2.3 W@5 VDC
MV-CS060-10UC-PRO	IMX178	1/1.8"	2.4 μm	Rolling	3072 × 2048	59.6 fps	32 us-1 sec	Typ. 2.5 W@5 VDC
MV-CS200-10UM	IMX183	1"	2.4 μm	Rolling	5472 × 3648	19.2 fps	44 μs ~ 0.83 sec	Typ. 2.3 W@5 VDC
MV-CS200-10UC	IMX183	1"	2.4 μm	Rolling	5472 × 3648	19.2 fps	44 μs ~ 0.83 sec	Typ. 2.3 W@5 VDC

**Notice:** USE: Ultra-short exposure mode  
NE: Normal exposure mode

## Dimension

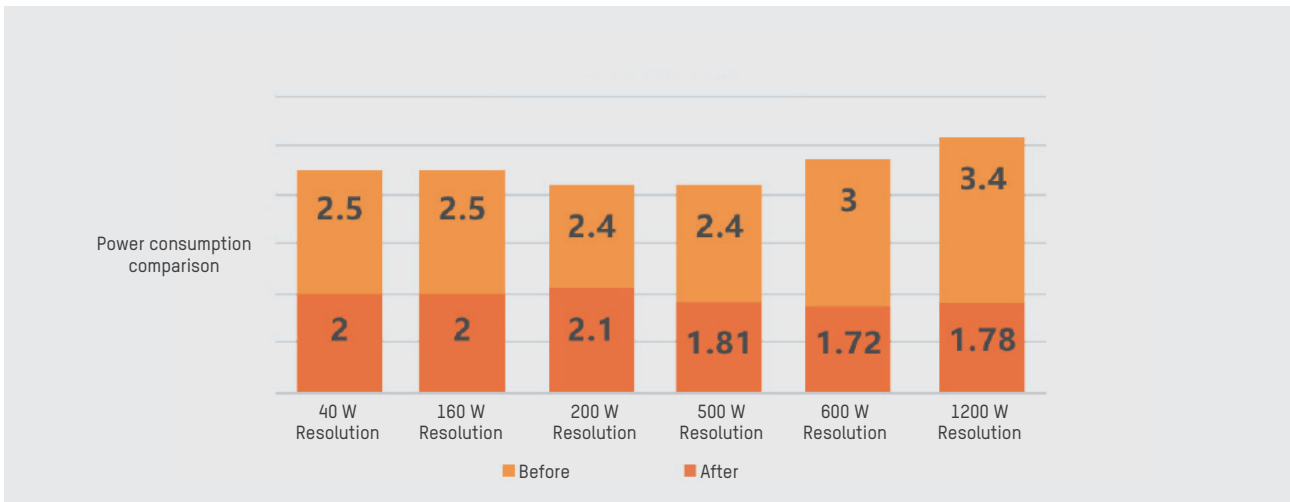


Unit:mm

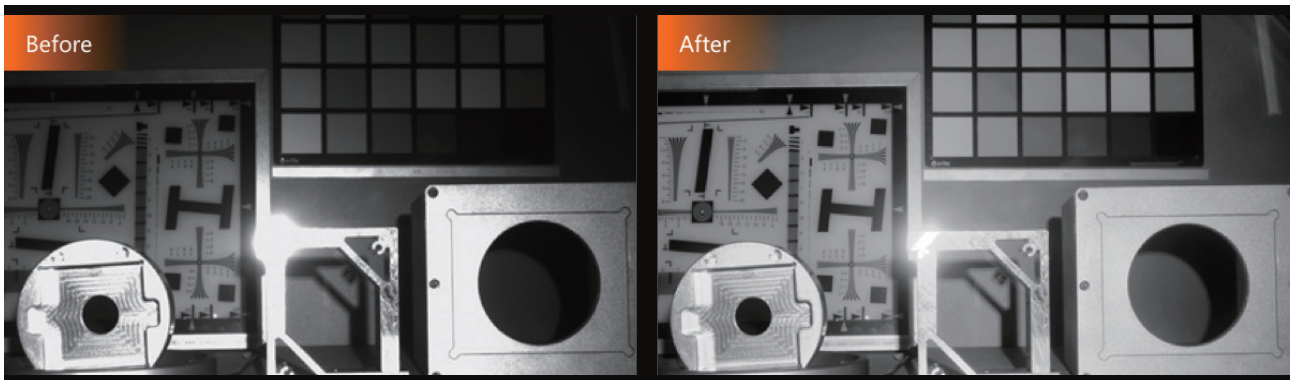


## CU Series Universal Industrial Camera

The CU series is designed with low power-consuming platform and stable performance, which creates a universal industrial camera product that satisfies the requirements for stability and necessary functions, helping users to obtain vision applications more easily.



Ultra-low power supply, stable performance



Built-in image preprocessing

# CU Series GigE Area Scan Camera

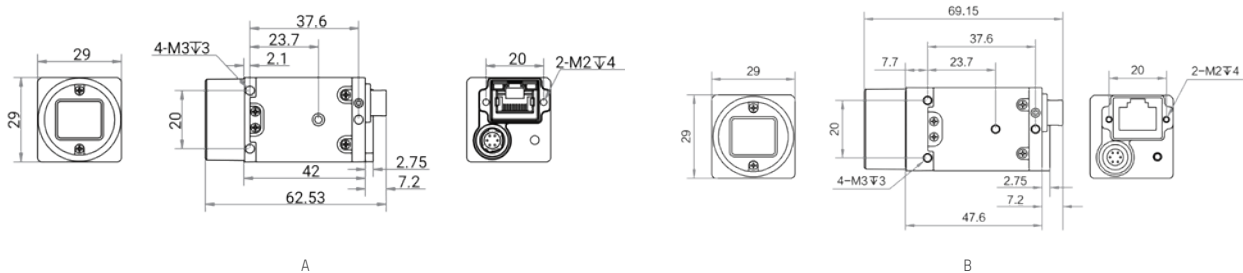


## Specifications

Model	Sensor model	Sensor size	Pixel size	Shutter mode	Resolution	Max. frame rate	Exposure time	Power consumption	Label
MV-CU004-10GM	IMX297	1/2.9"	6.9 μm	Global	720 × 540	126.5 fps	USE: 1 μs-14 μs NE: 15 μs-10 sec	Typ. 2 W@12 VDC	A
MV-CU004-10GC	IMX297	1/2.9"	6.9 μm	Global	720 × 540	126.5 fps	USE: 1 μs-14 μs NE: 15 μs-10 sec	Typ. 2 W@12 VDC	A
MV-CU013-80GM	SS	1/2.7"	4.0 μm	Global	1280 × 1024	89.9 fps	31 μs-1 sec	Typ. 1.9 W@12 VDC	A
MV-CU013-80GC	SS	1/2.7"	4.0 μm	Global	1280 × 1024	89.9 fps	31 μs-1 sec	Typ. 1.9 W@12 VDC	A
MV-CU013-A0GM	HK	1/2"	4.8 μm	Global	1280 × 1024	91.3 fps	10 μs-10 sec	Typ. 1.8 W@12 VDC	A
MV-CU013-A0GC	HK	1/2"	4.8 μm	Global	1280 × 1024	91.3 fps	10 μs-10 sec	Typ. 1.8 W@12 VDC	A
MV-CU016-10GM	IMX296	1/2.9"	3.45 μm	Global	1440 × 1080	65.8 fps	USE: 1 μs-14 μs NE: 15 μs-10 sec	Typ. 2 W@12 VDC	A
MV-CU016-10GC	IMX296	1/2.9"	3.45 μm	Global	1440 × 1080	65.8 fps	USE: 1 μs-14 μs NE: 15 μs-10 sec	Typ. 2 W@12 VDC	A
MV-CU020-19GM	IMX290	1/2.8"	2.9 μm	Rolling	1920 × 1080	56 fps	64 μs-130 ms	Typ. 2.1 W@12 VDC	A
MV-CU020-19GC	IMX290	1/2.8"	2.9 μm	Rolling	1920 × 1080	56 fps	128 μs - 260 ms	Typ. 2.1 W@12 VDC	A
MV-CU020-19GC (850nm)	IMX290	1/2.8"	2.9 μm	Rolling	1920 × 1080	56 fps	128 μs - 260 ms	Typ. 2.1 W@12 VDC	A
MV-CU020-80GM	SC235	1/2.6"	3.45 μm	Global	1600×1200	51 fps	4 μs - 2.5 sec	Typ. 2.5 W@12 VDC	A
MV-CU020-80GC	SC235	1/2.6"	3.45 μm	Global	1600×1200	51 fps	24 μs - 2.5 sec	Typ. 2.5 W@12 VDC	A
MV-CU020-90GM	GMAX4002	1/1.7"	4 μm	Global	2048 × 1200	49 fps	4 us - 10 sec	Typ. 1.9 W@12 VDC	A
MV-CU020-90GC	GMAX4002	1/1.7"	4 μm	Global	2048 × 1200	49 fps	4 us - 10 sec	Typ. 2 W@12 VDC	A
MV-CU050-30GM	AR0521	1/2.5"	2.2 μm	Rolling	2592 × 1944	24 fps	21 μs - 1 sec	Typ. 1.81 W@12 VDC	A
MV-CU050-30GC	AR0521	1/2.5"	2.2 μm	Rolling	2592 × 1944	24 fps	21 μs-1 sec	Typ. 1.81 W@12 VDC	A
MV-CU050-90GM	GMAX2505	1/2"	2.5 μm	Global	2600 × 2160	21 fps	3 μs - 10 sec	Typ. 2.3 W@12 VDC	B
MV-CU050-90GC	GMAX2505	1/2"	2.5 μm	Global	2600 × 2160	21 fps	3 μs - 10 sec	Typ. 2.5 W@12 VDC	B
MV-CU060-10GM	IMX178	1/1.8"	2.4 μm	Rolling	3072 × 2048	19.1 fps	25 μs-2.5 sec	Typ. 1.7 W@12 VDC	A
MV-CU060-10GC	IMX178	1/1.8"	2.4 μm	Rolling	3072 × 2048	19.1 fps	25 μs-2.5 sec	Typ. 1.72 W@12 VDC	A
MV-CU060-60GM	BSI	1/2.4"	3.45 μm	Global	3200 × 1944	19.1 fps	31 μs-1 sec	Typ. 2 W@12 VDC	A
MV-CU060-60GC	BSI	1/2.4"	3.45 μm	Global	3200 × 1944	19.1 fps	31 μs-1 sec	Typ. 2 W@12 VDC	A
MV-CU120-10GM	IMX226	1/1.7"	1.85 μm	Rolling	4024 × 3036	9.7 fps	34 μs-2 sec	Typ. 1.78 W@12 VDC	A
MV-CU120-10GC	IMX226	1/1.7"	1.85 μm	Rolling	4024 × 3036	9.7 fps	34 μs-2 sec	Typ. 1.82 W@12 VDC	A
MV-CU200-20GM	AR2020	1/1.8"	1.4 μm	Rolling	5120 × 3840	5.9fps	31 μs-1 sec	Typ. 2.5 W@12 VDC	A
MV-CU200-20GC	AR2020	1/1.8"	1.4 μm	Rolling	5120 × 3840	5.9fps	31 μs-1 sec	Typ. 2.5 W@12 VDC	A

**Notice:** USE: Ultra-short exposure mode  
NE: Normal exposure mode

## Dimension



Unit:mm

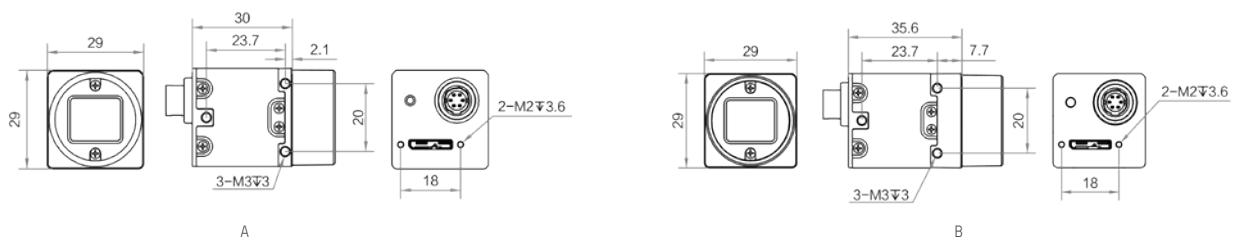
# CU Series USB3.0 Area Scan Camera



## Specifications

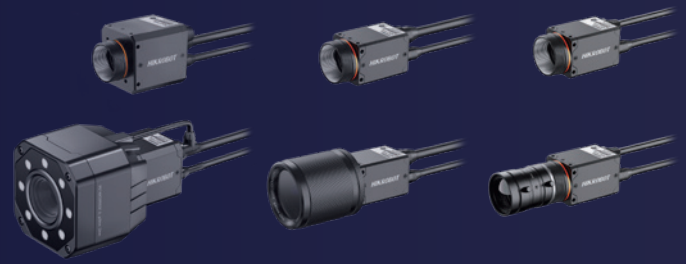
Model	Sensor model	Sensor size	Pixel size	Shutter mode	Resolution	Max. frame rate	Exposure time	Power consumption	Label
MV-CU013-80UM	SS	1/2.7"	4.0 μm	Global	1280 × 1024	240 fps	30 μs-1 sec	Typ. 1.7 W@5 VDC	A
MV-CU013-80UC	SS	1/2.7"	4.0 μm	Global	1280 × 1024	240 fps	30 μs-1 sec	Typ. 1.7 W@5 VDC	A
MV-CU013-A0UM	HK	1/2"	4.8 μm	Global	1280 × 1024	201.4 fps	5 μs-10 sec	Typ. 1.79 W@5 VDC	A
MV-CU013-A0UC	HK	1/2"	4.8 μm	Global	1280 × 1024	201.4 fps	5 μs-10 sec	Typ. 1.81 W@5 VDC	A
MV-CU050-60UM	HK	1/2.5"	2.2 μm	Rolling	2592 × 1944	48.2 fps	12 μs - 1.25 sec	Typ. 2.7 W@5 VDC	A
MV-CU020-90UM	GMAX4002	1/1.7"	4 μm	Global	2048 × 1200	150 fps	4 μs - 10 sec	Typ. 2.0 W@5 VDC	A
MV-CU050-60UM	HK	1/2.5"	2.2 μm	Rolling	2592 × 1944	48.2 fps	12 μs-1.25 sec	Typ. 2.7 W@5 VDC	A
MV-CU050-90UM	GMAX2505	1/2"	2.5 μm	Global	2600 × 2160	58.8 fps	3 μs-10 sec	Typ. 2.1 W@5 VDC	B
MV-CU050-90UC	GMAX2505	1/2"	2.5 μm	Global	2600 × 2160	58.8 fps	3 μs-10 sec	Typ. 2.2 W@5 VDC	B
MV-CU060-10UM	IMX178	1/1.8"	2.4 μm	Rolling	3072 × 2048	59.6 fps	8 μs-1 sec	Typ. 1.9 W@5 VDC,USB	A
MV-CU060-10UC	IMX178	1/1.8"	2.4 μm	Rolling	3072 × 2048	59.6 fps	8 μs-1 sec	Typ. 1.9 W@5 VDC,USB	A
MV-CU120-10UM	IMX226	1/1.7"	1.85 μm	Rolling	4024 × 3036	29.2fps	20 μs-0.5 sec	Typ. 1.9 W@5 VDC	A
MV-CU120-10UC	IMX226	1/1.7"	1.85 μm	Rolling	4024 × 3036	29.2fps	20 μs-0.5 sec	Typ. 2.0 W@5 VDC	A

## Dimension



Unit:mm

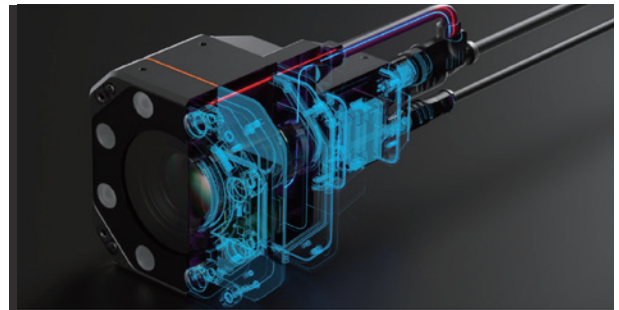
# CT Series Area Scan Camera



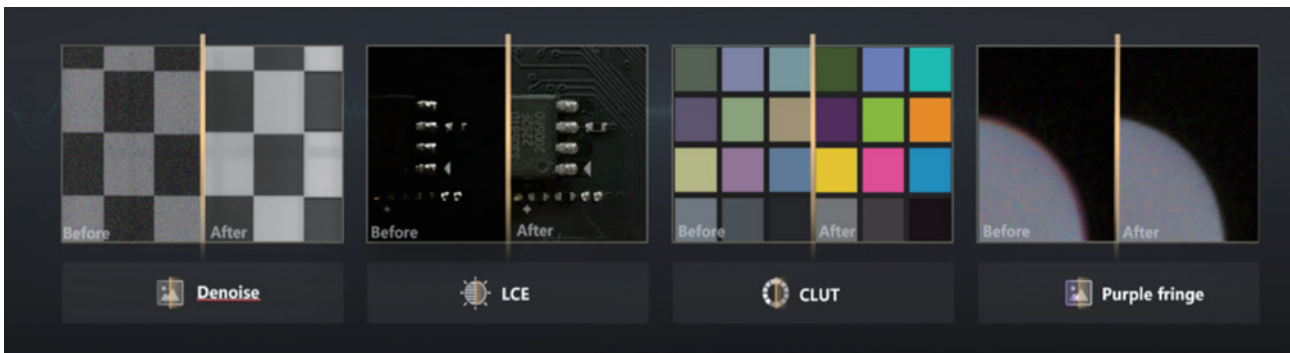
The CT series industrial cameras offer different versions to meet diverse application needs. Optional IP67 rating, expansion interfaces, support for liquid/motorized lenses, and integrated control of the light source and lens hood enable more flexible and efficient systems.



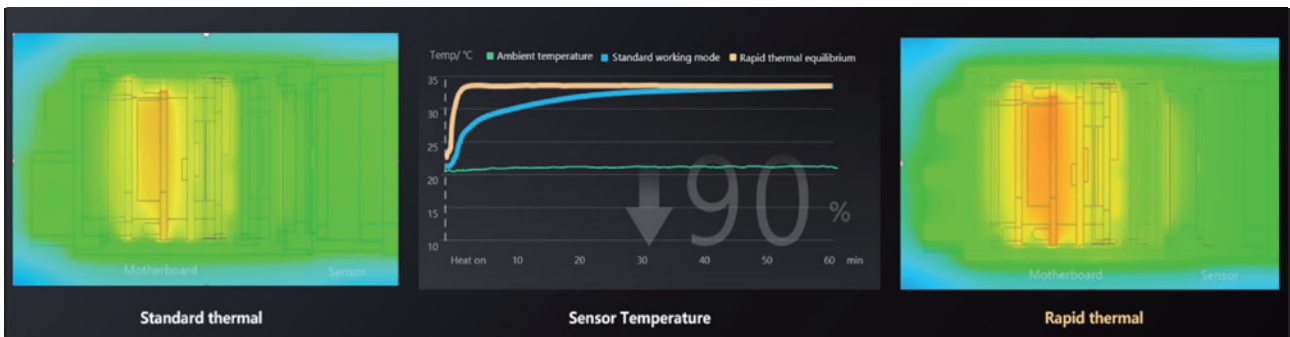
IP67 Ingress Protection to Adapt to Harsh Environments



Integrated Lens and Light Source Control



Optimized ISP Algorithms to Achieve Human-Eye-Level Color Reproduction



Optimized ISP Algorithms to Achieve Human-Eye-Level Color Reproduction

# CT Series GigE Area Scan Camera

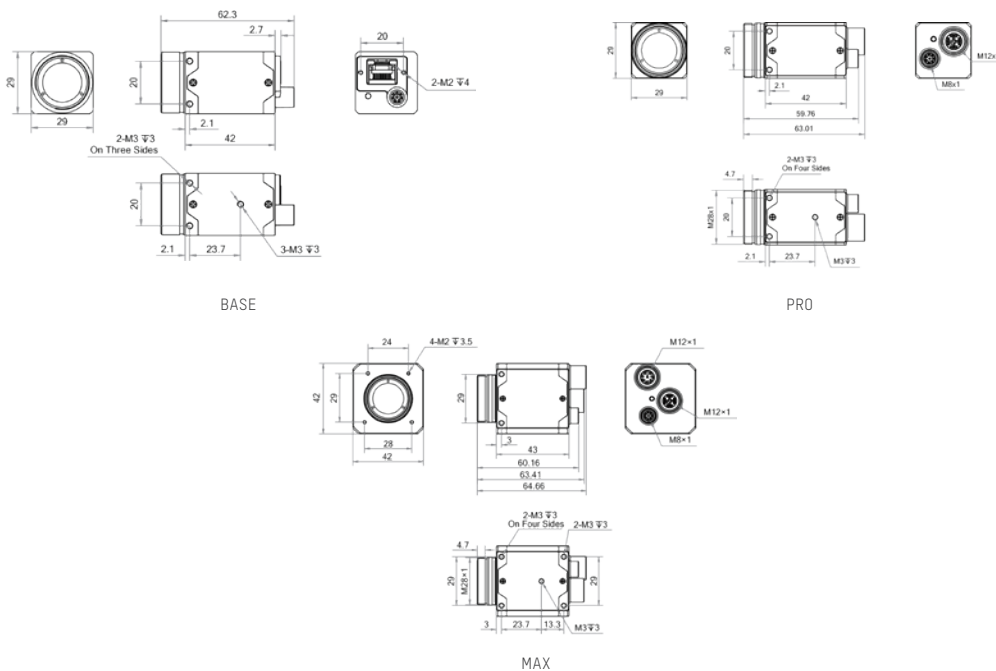


## Specifications

Model	Sensor size	Pixel size	Shutter mode	Resolution	Max. frame rate	Exposure time	Power consumption
MV-CTxMG004	1/2.9"	6.9 μm	Global	720 × 540	125 fps	LCG:45 μs ~ 10 sec HCG:5 μs ~ 10 sec	2 W@12 VDC
MV-CTxC60004	1/2.9"	6.9 μm	Global	720 × 540	125 fps	LCG:45 μs ~ 10 sec HCG:5 μs ~ 10 sec	2 W@12 VDC
MV-CTxMG0016	1/2.9"	3.45 μm	Global	1440 × 1080	78.2 fps	LCG:45 μs ~ 10 sec HCG:5 μs ~ 10 sec	2 W@12 VDC
MV-CTxC60016	1/2.9"	3.45 μm	Global	1440 × 1080	78.2 fps	LCG:45 μs ~ 10 sec HCG:5 μs ~ 10 sec	2 W@12 VDC
MV-CTxMG0020	1/2.53"	3.45 μm	Global	1632 × 1264	60 fps	LCG:45 μs ~ 10 sec HCG:5 μs ~ 10 sec	1.8 W@12 VDC
MV-CTxC60020	1/2.53"	3.45 μm	Global	1632 × 1264	60 fps	LCG:45 μs ~ 10 sec HCG:5 μs ~ 10 sec	1.8 W@12 VDC
MV-CTxMG0032	1/1.8"	3.45 μm	Global	2048 × 1536	39 fps	LCG:30 μs ~ 10 sec HCG:5 μs ~ 10 sec	1.6 W@24 VDC
MV-CTxC60032	1/1.8"	3.45 μm	Global	2048 × 1536	39 fps	LCG:30 μs ~ 10 sec HCG:5 μs ~ 10 sec	1.6 W@24 VDC
MV-CTxMG0050	2/3"	3.45 μm	Global	2448 × 2048	24.5 fps	LCG:30 μs ~ 10 sec HCG:5 μs ~ 10 sec	1.5 W@12 VDC
MV-CTxC60050	2/3"	3.45 μm	Global	2448 × 2048	24.5 fps	LCG:30 μs ~ 10 sec HCG:5 μs ~ 10 sec	1.5 W@12 VDC
MV-CTxMG0060	1/1.8"	2.4 μm	Rolling	3072 × 2048	19.1 fps	25 μs ~ 2.5 sec	2 W@12 VDC
MV-CTxC60060	1/1.8"	2.4 μm	Rolling	3072 × 2048	19.1 fps	25 μs ~ 2.5 sec	2 W@12 VDC
MV-CTxMG0089	1"	3.45 μm	Global	4096 × 2160	13.9 fps	USE:10 μs ~ 19 μs NE:20 μs ~ 10 sec	1.8 W@12 VDC
MV-CTxC60089	1"	3.45 μm	Global	4096 × 2160	13.9 fps	USE:10 μs ~ 19 μs NE:20 μs ~ 10 sec	1.9 W@12 VDC
MV-CTxMG0120	1.1"	3.45 μm	Global	4096 × 3000	9.9 fps	USE:10 μs ~ 19 μs NE:20 μs ~ 10 sec	1.9 W@12 VDC
MV-CTxC60120	1.1"	3.45 μm	Global	4096 × 3000	9.4 fps	USE:10 μs ~ 19 μs NE:20 μs ~ 10 sec	1.9 W@12 VDC
MV-CTxMG0200	1"	2.4 μm	Rolling	5472 × 3648	5.9 fps	46 μs ~ 2.5 sec	2 W@12 VDC
MV-CTxC60200	1"	2.4 μm	Rolling	5472 × 3648	5.9 fps	46 μs ~ 2.5 sec	2 W@12 VDC

**Notice:** x=0,1,2 represent the Base, Pro, and Max versions respectively  
 USE: Ultra-short exposure mode. NE: Normal exposure mode  
 LCG: High full-well mode. HCG: High sensitivity mode

## Dimension



Unit:mm

# CT Series USB3.0 Area Scan Camera

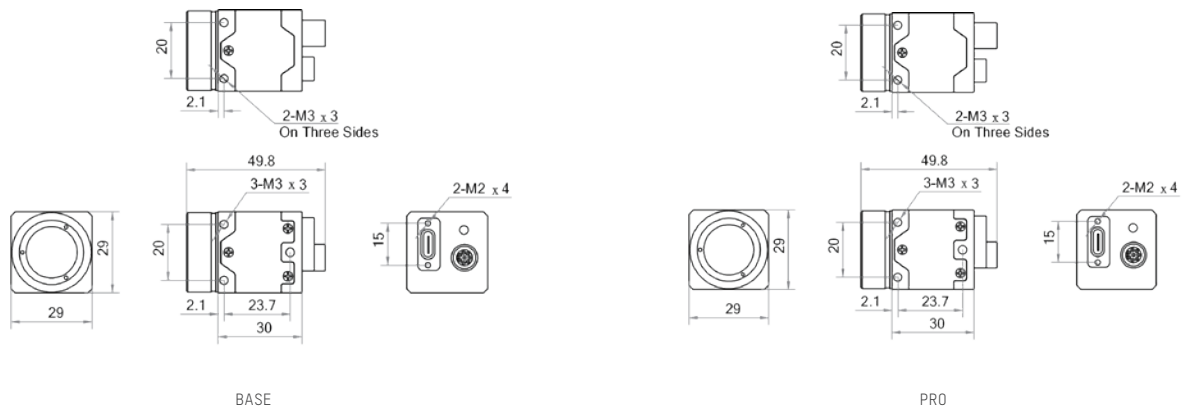


## Specifications

Model	Sensor size	Pixel size	Shutter mode	Resolution	Max. frame rate	Exposure time	Power consumption
MV-CT0MU0004	1/2.9	6.9 μm	Global	720 × 540	526.5 fps	USE:1 μs ~ 14 μs NE:15 μs ~ 10 sec	2 W@5 VDC
MV-CT0CU0004	1/2.9	6.9 μm	Global	720 × 540	526.5 fps	USE:1 μs ~ 14 μs NE:15 μs ~ 10 sec	2 W@5 VDC
MV-CT0MU0016	1/2.9	3.45 μm	Global	1440 × 1080	249.1 fps	USE:1 μs ~ 14 μs NE:15 μs ~ 10 sec	2 W@5 VDC
MV-CT0CU0016	1/2.9	3.45 μm	Global	1440 × 1080	249.1 fps	USE:1 μs ~ 14 μs NE:15 μs ~ 10 sec	2 W@5 VDC
MV-CT0MU0020	1/2.53	3.45 μm	Global	1632 × 1264	180 fps	LCG:45 μs ~ 10 sec HCG:5 μs ~ 10 sec	2 W@5 VDC
MV-CT0CU0020	1/2.53	3.45 μm	Global	1632 × 1264	180 fps	LCG:45 μs ~ 10 sec HCG:5 μs ~ 10 sec	2 W@5 VDC
MV-CT0MU0032	1/1.8	3.45 μm	Global	2048 × 1536	105 fps	LCG:45 μs ~ 10 sec HCG:5 μs ~ 10 sec	1.8 W@12 VDC
MV-CT0CU0032	1/1.8	3.45 μm	Global	2048 × 1536	105 fps	LCG:45 μs ~ 10 sec HCG:5 μs ~ 10 sec	1.8 W@12 VDC
MV-CT0MU0050	2/3	3.45 μm	Global	2448 × 2048	79 fps	USE:1 μs ~ 14 μs NE:15 μs ~ 10 sec	2.3 W@5 VDC
MV-CT0CU0050	2/3	3.45 μm	Global	2448 × 2048	79 fps	USE:1 μs ~ 14 μs NE:15 μs ~ 10 sec	2.3 W@5 VDC
MV-CT0MU0060	1/1.8	2.4 μm	Rolling	3072 × 2048	59.6 fps	32 μs ~ 1 sec	1.8 W@5 VDC
MV-CT0CU0060	1/1.8	2.4 μm	Rolling	3072 × 2048	59.6 fps	32 μs ~ 1 sec	1.8 W@5 VDC
MV-CT0MU0089	1	3.45 μm	Global	4096 × 2160	32 fps	USE: 1 μs ~ 14 μs NE: 15 μs ~ 10 sec	2.5 W@5 VDC
MV-CT0CU0089	1	3.45 μm	Global	4096 × 2160	32 fps	USE: 1 μs ~ 14 μs NE: 15 μs ~ 10 sec	2.5 W@5 VDC
MV-CT0MU0120	1.1	3.45 μm	Global	4096 × 3000	30.5 fps	USE: 1 μs ~ 14 μs NE: 15 μs ~ 10 sec	2.5 W@5 VDC
MV-CT0CU0120	1.1	3.45 μm	Global	4096 × 3000	30.5 fps	USE: 1 μs ~ 14 μs NE: 15 μs ~ 10 sec	2.5 W@5 VDC
MV-CT0MU0200	1	2.4 μm	Rolling	5472 × 3648	19.2 fps	44 μs ~ 0.83 sec	2 W@5 VDC
MV-CT0CU0200	1	2.4 μm	Rolling	5472 × 3648	19.2 fps	44 μs ~ 0.83 sec	2 W@5 VDC

**Notice:** \* will be released soon, please consult details with sales representative  
 USE:Ultra-short exposure mode. NE:Normal exposure mode. LCG: High full-well mode. HCG: High sensitivity mode

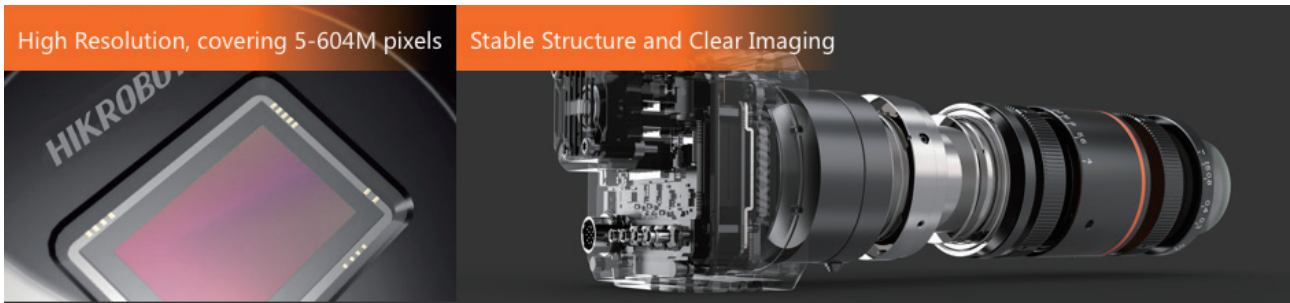
## Dimension



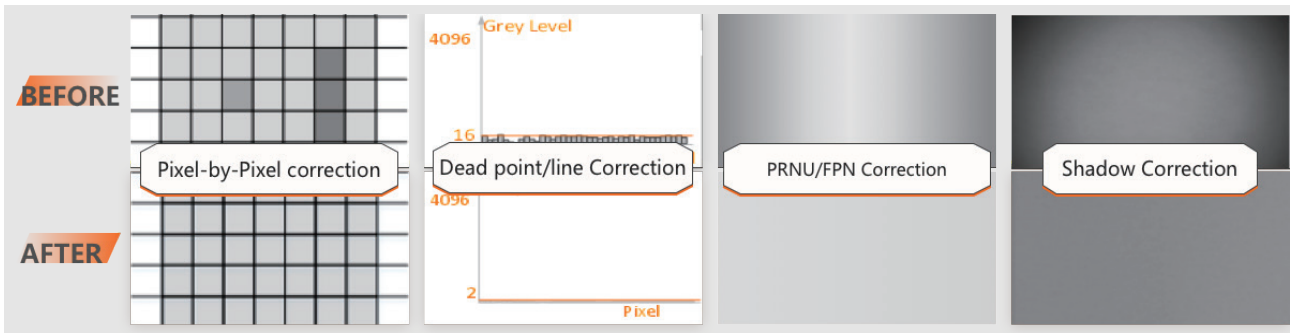
Unit:mm

# CH Series Area Scan Camera

High-end product series designed for high-precision application and development in Panel, electronic semiconductor, new energy and other industries. which covers data interfaces of GigE, USB 3.0, 10 GigE, Camera Link, CoaXPress, XoFLink.



High-end area scan camera with high resolution coverage



Rich ISP algorithm

# CH Series GigE Area Scan Camera



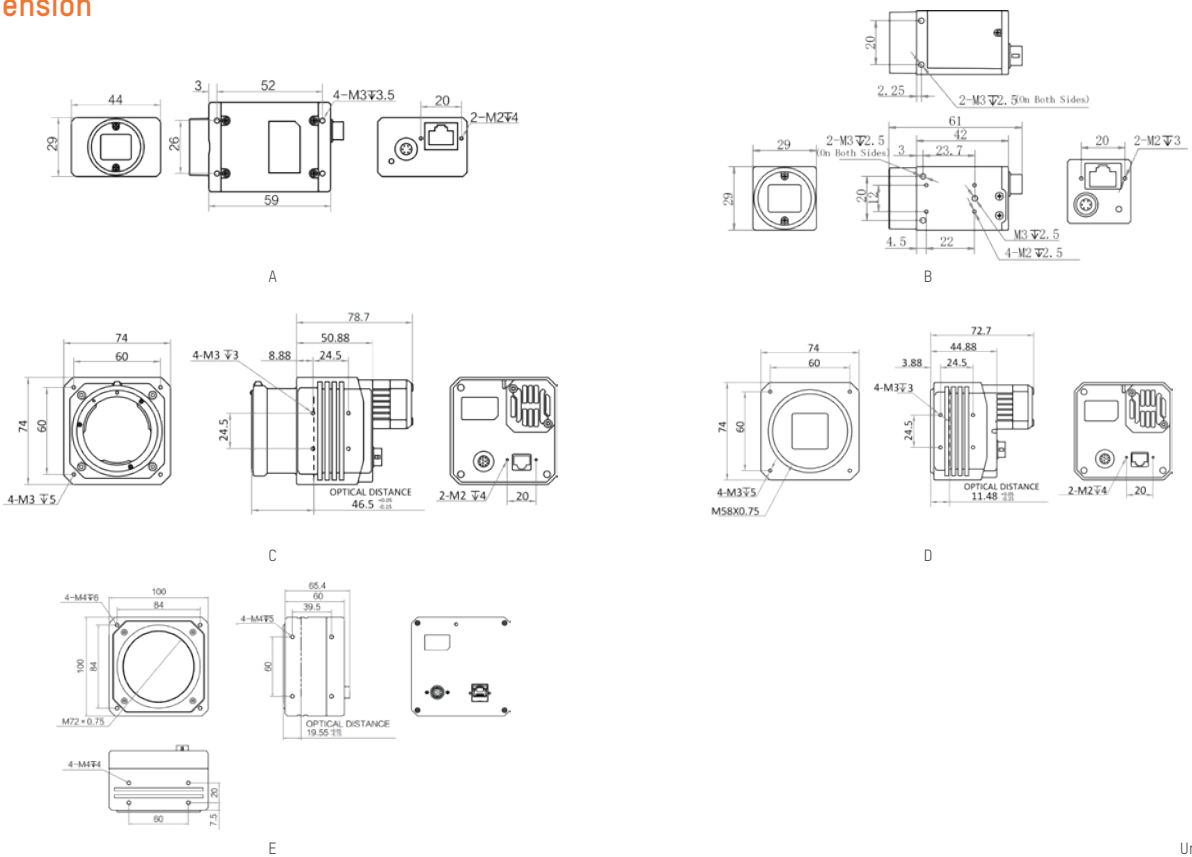
## Specifications

Model	Sensor model	Sensor size	Pixel size	Shutter mode	Resolution	Max. frame rate	Exposure time	Power consumption	Lens mount	Label
MV-CH050-60NM	Stacked BSI	2/3"	3.45 μm	Global	2448 × 2048	60 fps	LCG:30 μs ~ 10 sec HCG:5 μs ~ 10 sec	2.9 W@5 VDC	C	B
MV-CH050-60NC	Stacked BSI	2/3"	3.45 μm	Global	2448 × 2048	60 fps	LCG:30 μs ~ 10 sec HCG:5 μs ~ 10 sec	3.0 W@5 VDC	C	B
MV-CH089-10GM	IMX267	1"	3.45 μm	Global	4096 × 2160	13.7 fps	USE: 1 μs ~ 14 μs NE: 15 μs ~ 10 sec	2.9 W@12 VDC	C	B
MV-CH089-10GC	IMX267	1"	3.45 μm	Global	4096 × 2160	13.7 fps	USE: 1 μs ~ 14 μs NE: 15 μs ~ 10 sec	2.4 W@12 VDC	C	B
MV-CH089-60GM*	Stacked BSI	1.1"	3.45 μm	Global	4096 × 2160	9.6 fps	50 μs ~ 10 sec	3.0 W@12 VDC	C	B
MV-CH089-60GC*	Stacked BSI	1.1"	3.45 μm	Global	4096 × 2160	9.6 fps	50 μs ~ 10 sec	3.0 W@12 VDC	C	B
MV-CH100-60GM	Stacked BSI	1"	3.45 μm	Global	4096 × 2460	12 fps	80 μs~10 sec	3.1 W@12 VDC	C	A
MV-CH100-60GC	Stacked BSI	1"	3.45 μm	Global	4096 × 2460	12 fps	80 μs~10 sec	3.5 W@12 VDC	C	A
MV-CH120-10GM	IMX304	1.1"	3.45 μm	Global	4096 × 3000	9.4 fps	USE: 1 μs~14 μs NE: 15 μs~10 sec	2.9 W@12 VDC	C	B
MV-CH120-10GC	IMX304	1.1"	3.45 μm	Global	4096 × 3000	9.4 fps	USE: 1 μs~14 μs NE: 15 μs~10 sec	3.0 W@12 VDC	C	B
MV-CH120-20GM	XGS12000	1"	3.2 μm	Global	4096 × 3072	9.6 fps	USE: 52 μs~161 μs NE: 162 μs~10 sec	2.6 W@12 VDC	C	B
MV-CH120-20GC	XGS12000	1"	3.2 μm	Global	4096 × 3072	9.6 fps	USE: 52 μs~161 μs NE: 162 μs~10 sec	2.7 W@12 VDC	C	B
MV-CH120-60GM	Stacked BSI	1.1"	3.45 μm	Global	4096 × 3000	9.6 fps	50 μs ~ 10 sec	3.0 W@12 VDC	C	B

Model	Sensor model	Sensor size	Pixel size	Shutter mode	Resolution	Max. frame rate	Exposure time	Power consumption	Lens mount	Label
MV-CH120-60GC	Stacked BSI	1.1"	3.45 μm	Global	4096 × 3000	28 fps	50 μs ~ 10 sec	3.0 W@12 VDC	C	B
MV-CH123-10GM *	IMX545	1/1.1"	2.74 μm	Global	4096 × 3000	9.6 fps	3 μs ~ 10 sec	3.0 W@12 VDC	C	B
MV-CH123-10GC *	IMX545	1/1.1"	2.74 μm	Global	4096 × 3000	9.6 fps	3 μs ~ 10 sec	3.0 W@12 VDC	C	B
MV-CH140-60GM	Stacked BSI	1"	3 μm	Global	4708 × 2824	9 fps	80 μs ~ 10 sec	3.0 W@12 VDC	C	A
MV-CH140-60GC	Stacked BSI	1"	3 μm	Global	4708 × 2824	9 fps	80 μs ~ 10 sec	3.5 W@12 VDC	C	A
MV-CH160-60GM	HK	1.1"	3.2 μm	Global	4000 × 4000	7.25 fps	12 μs~10 sec	3.72 W@12 VDC	C	A
MV-CH250-216M	PYTHON25K	23 mm × 23 mm	4.5 μm	Global	5120 × 5120	4.64 fps	80 μs ~ 10 sec	7.8 W@12 VDC	F M58	C D
MV-CH250-216C	PYTHON25K	23 mm × 23 mm	4.5 μm	Global	5120 × 5120	4.64 fps	80 μs ~ 10 sec	7.8 W@12 VDC	F M58	C D
MV-CH250-90GM	GMAX0505	1.1"	2.5 μm	Global	5120 × 5120	4.5 fps	12 μs~10 sec	3.1 W@12 VDC	C	A
MV-CH250-90GC	GMAX0505	1.1"	2.5 μm	Global	5120 × 5120	4.5 fps	12 μs~10 sec	3.2 W@12 VDC	C	A
MV-CH250-90GN	GMAX0505	1.1"	2.5 μm	Global	5120 × 5120	4.5 fps	12 μs~10 sec	3.1 W@12 VDC	C	A
MV-CH310-10GM	IMX342	22.3 mm × 16.7 mm	3.45 μm	Global	6464 × 4852	3.9 fps	"USE: 3 us ~ 33 us NE: 36 μs ~ 2 Sec"	9 W@12 VDC	F M58	C D
MV-CH310-10GC	IMX342	22.3 mm × 16.7 mm	3.45 μm	Global	6464 × 4852	3.9 fps	"USE: 3 us ~ 33 us NE: 36 μs ~ 10 Sec"	9 W@12 VDC	F M58	C D
MV-CH1520-90GM	GMAX32152	53.0 mm × 29.4 mm	3.2 μm	Global	16320 × 9600	5 fps	20 μs ~ 10 sec	9 W@24 VDC	M72	E

**Notice:** \* New release  
 USE: Ultra-short exposure mode. NE:Normal exposure mode

## Dimension



Unit:mm

# CH Series USB3.0 Area Scan Camera



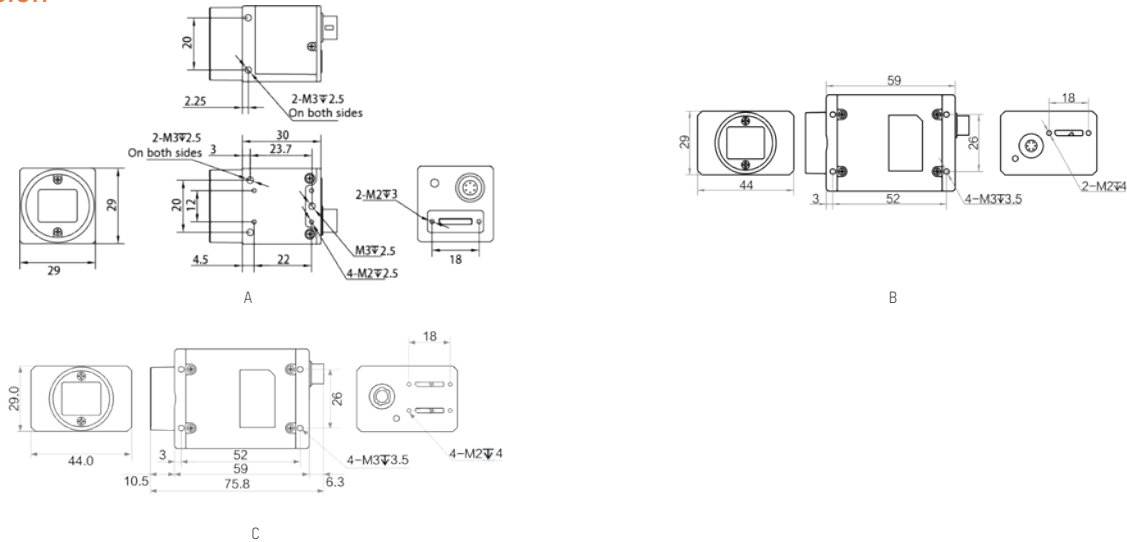
## Specifications

Model	Sensor model	Sensor size	Pixel size	Shutter mode	Resolution	Max. frame rate	Exposure time	Power consumption	Lens mount	Label
MV-CH050-10UM	IMX250	2/3"	3.45 μm	Global	2448 × 2048	74.1 fps	USE: 1 μs~14 μs NE: 15 μs~10 sec	3.3 W@5 VDC	C	A
MV-CH050-10UC	IMX250	2/3"	3.45 μm	Global	2448 × 2048	74.1 fps	USE: 1 μs~14 μs NE: 15 μs~10 sec	2.8 W@5 VDC	C	A

Model	Sensor model	Sensor size	Pixel size	Shutter mode	Resolution	Max. frame rate	Exposure time	Power consumption	Lens mount	Label
MV-CH050-10UP	IMX250	2/3"	3.45 μm	Global	2448 × 2048	74.1 fps	USE: 1 μs-14 μs NE: 15 μs-10 sec	3.3 W@5 VDC	C	A
MV-CH050-60UM	Stacked BSI	2/3"	3.45 μm	Global	2448 × 2048	79 fps	LCG: 30 μs-10 sec HCG: 5 μs-10 sec	1.9 W@5 VDC	C	A
MV-CH050-60UC	Stacked BSI	2/3"	3.45 μm	Global	2448 × 2048	79 fps	LCG: 30 μs-10 sec HCG: 5 μs-10 sec	2.2 W@5 VDC	C	A
MV-CH100-60UM	Stacked BSI	1"	3.45 μm	Global	4096 × 2460	36 fps	80 μs ~ 10 sec	3.6 W@5 VDC	C	B
MV-CH100-60UC	Stacked BSI	1"	3.45 μm	Global	4096 × 2460	36 fps	80 μs ~ 10 sec	4.0 W@5 VDC	C	B
MV-CH120-10UM	IMX304	1.1"	3.45 μm	Global	4096 × 3000	30.5 fps	USE: 1 μs-14 μs NE: 15 μs-10 sec	2.9 W@5 VDC	C	A
MV-CH120-10UC	IMX304	1.1"	3.45 μm	Global	4096 × 3000	30.5 fps	USE: 1 μs-14 μs NE: 15 μs-10 sec	2.9 W@5 VDC	C	A
MV-CH120-20UM	XGS12000	1"	3.2 μm	Global	4096 × 3072	28 fps	USE: 52 μs-161 μs NE: 162 μs-10 sec	2.9 W@5 VDC	C	A
MV-CH120-20UC	XGS12000	1"	3.2 μm	Global	4096 × 3072	28 fps	USE: 10 μs-56 μs NE: 57 μs-10 sec	3.2 W@5 VDC	C	A
MV-CH120-60UM	Stacked BSI	1.1"	3.45 μm	Global	4096 × 3000	30 fps	50 μs ~ 10 sec	3.0 W@12 VDC	C	A
MV-CH120-60UC	Stacked BSI	1.1"	3.45 μm	Global	4096 × 3000	30 fps	50 μs ~ 10 sec	3.0 W@12 VDC	C	A
MV-CH120-60VM	Stacked BSI	1.1"	3.45 μm	Global	4096 × 3000	60 fps	50 μs ~ 10 sec	4.2 W@12 VDC	C	C
MV-CH120-60VC	Stacked BSI	1.1"	3.45 μm	Global	4096 × 3000	60 fps	50 μs ~ 10 sec	4.2 W@12 VDC	C	C
MV-CH123-10UM *	IMX545	1/1.1"	2.74 μm	Global	4096 × 3000	31.5 fps	3 μs ~ 10 sec	2.3 W@5 VDC	C	A
MV-CH123-10UC *	IMX545	1/1.1"	2.74 μm	Global	4096 × 3000	31.5 fps	3 μs ~ 10 sec	2.3 W@5 VDC	C	A
MV-CH140-60UM	Stacked BSI	1"	3 μm	Global	4708 × 2824	27 fps	80 μs ~ 10 sec	4.0 W@5 VDC	C	B
MV-CH250-90UM	GMAX0505	1.1"	2.5 μm	Global	5120 × 5120	14 fps	12 μs-10 sec	3.6 W@5 VDC	C	B
MV-CH250-90UC	GMAX0505	1.1"	2.5 μm	Global	5120 × 5120	14 fps	12 μs-10 sec	3.6 W@5 VDC	C	B
MV-CH250-90UN	GMAX0505	1.1"	2.5 μm	Global	5120 × 5120	14 fps	12 μs ~ 10 sec	3.6 W@5 VDC	C	B
MV-CH250-90VM	GMAX0505	1.1"	2.5 μm	Global	5120 × 5120	28 fps	12 μs-10 sec	4.5 W@5 VDC	C	C
MV-CH250-90VC	GMAX0505	1.1"	2.5 μm	Global	5120 × 5120	30 fps	USE: 1 μs ~ 8 μs NE: 9 μs ~ 10 sec	4.8 W@5 VDC	C	C

Notice: \* New release  
P=Polarization USE: Ultra-short exposure mode NE: Normal exposure mode

## Dimension



Unit:mm

# CH Series 10GigE Area Scan Camera

CE RoHS

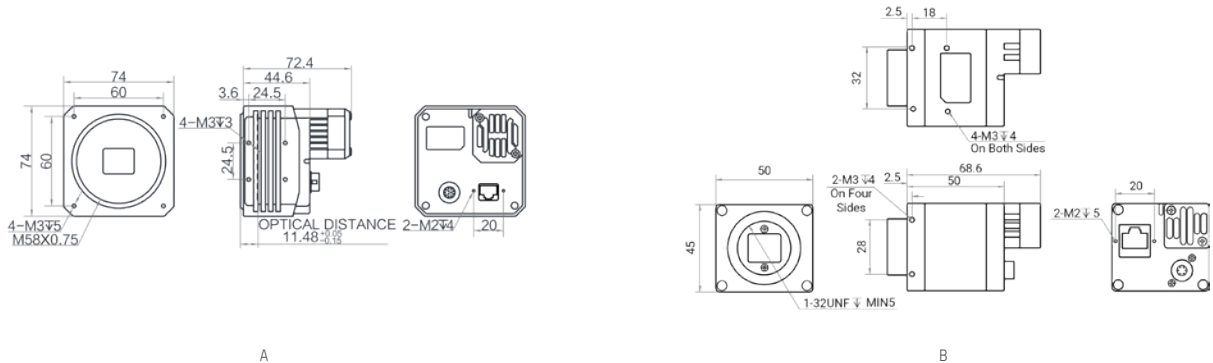
## Specifications

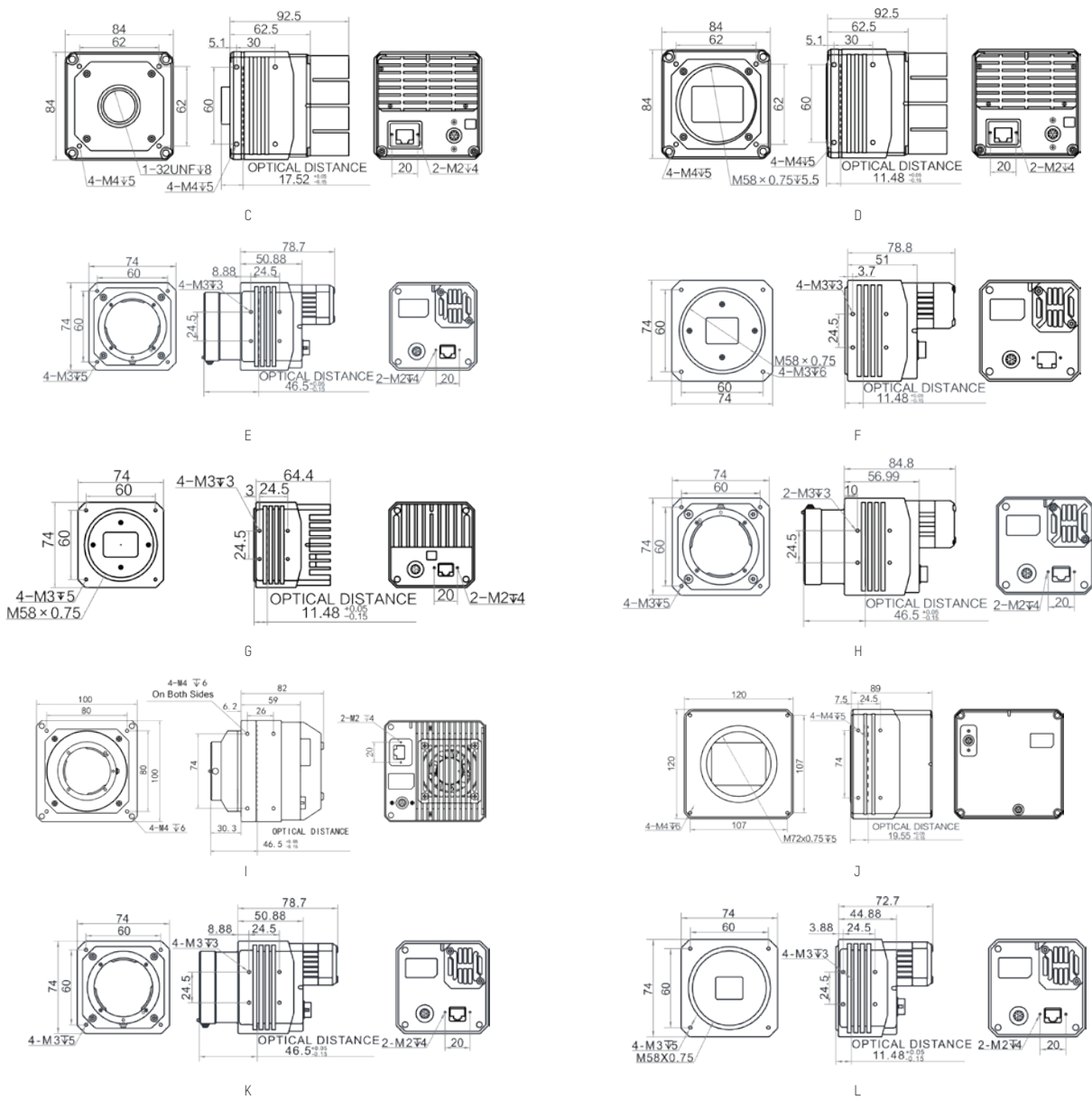
Model	Sensor model	Sensor size	Pixel size	Shutter mode	Resolution	Max. frame rate	Exposure time	Power consumption	Lens mount	Label
MV-CH120-15TM	IMX253	1.1"	3.45 μm	Global	4096 × 3000	68.3 fps	USE: 2 μs-14 μs NE: 15 μs-10 sec	9.6 W@24 VDC	M58	A
MV-CH120-15TC	IMX253	1.1"	3.45 μm	Global	4096 × 3000	68.3 fps	USE: 2 μs-14 μs NE: 15 μs-10 sec	10.1 W@24 VDC	M58	A
MV-CH120-90TM	GMAX3412	1.1"	3.4 μm	Global	4096 × 3072	92 fps	6 μs ~ 10 sec	10.2 W@12 VDC	C	B
MV-CH120-90TC *	GMAX3412	1.1"	3.4 μm	Global	4096 × 3072	92 fps	6 μs ~ 10 sec	10.2 W@12 VDC	C	B
MV-CH240-10TM	IMX540	1.2"	2.74 μm	Global	5328 × 4600	35.1 fps	USE: 1 μs-7 μs NE: 8 μs-10 sec	10 W@12 VDC	C M58	C D

Model	Sensor model	Sensor size	Pixel size	Shutter mode	Resolution	Max. frame rate	Exposure time	Power consumption	Lens mount	Label
MV-CH250-25TM	PYTHON25K	23 mm × 23 mm	4.5 μm	Global	5120 × 5120	40 fps	45 μs ~ 10 sec	12.48 W@24 VDC	F	K
	PYTHON25K	23 mm × 23 mm	4.5 μm	Global	5120 × 5120	40 fps	45 μs ~ 10 sec	12.48 W@24 VDC	M58	L
MV-CH250-25TC	PYTHON25K	23 mm × 23 mm	4.5 μm	Global	5120 × 5120	40 fps	45 μs ~ 10 sec	12.48 W@24 VDC	F	K
	PYTHON25K	23 mm × 23 mm	4.5 μm	Global	5120 × 5120	40 fps	45 μs ~ 10 sec	12.48 W@24 VDC	M58	L
MV-CH250-60TM	HK	23 mm × 23 mm	4.5 μm	Global	5120 × 5120	31.7 fps	15 μs ~ 10 sec	15.1W@12 VDC	M58	E
MV-CH250-90TM	GMAX0505	1.1"	2.5 μm	Global	5120 × 5120	41.5 fps	13 μs ~ 10 sec	9.7 W@12 VDC	C M58	F E
MV-CH250-90TC	GMAX0505	1.1"	2.5 μm	Global	5120 × 5120	41.5 fps	13 μs ~ 10 sec	9.7 W@12 VDC	C M58	F E
MV-CH250-90TN	GMAX0505	1.1"	2.5 μm	Global	5120 × 5120	41.5 fps	USE: 3 μs ~ 8 μs NE: 9 μs ~ 10 sec	9.7 W@12 VDC	M58	E
MV-CH310-10TM	IMX342	22.3 mm × 16.7 mm	3.45 μm	Global	6464 × 4852	17.2 fps	4 μs ~ 10 sec	11.2 W@12 VDC	M58	G
MV-CH310-10TC	IMX342	22.3 mm × 16.7 mm	3.45 μm	Global	6464 × 4852	17.2 fps	4 μs ~ 10 sec	11.4 W@12 VDC	M58	G
MV-CH320-60TM	Stacked BSI	22.6 mm × 12.7 mm	2.9 μm	Rolling	7744 × 4336	35fps	50 μs ~ 10 sec	11 W@12 VDC	M58	D
MV-CH320-60TC	Stacked BSI	22.6 mm × 12.7 mm	2.9 μm	Rolling	7744 × 4336	35fps	50 μs ~ 10 sec	12 W@12 VDC	M58	D
MV-CH500-90TM	GMAX	22.4 mm × 22.4 mm	3.2 μm	Global	7008 × 7000	15.5 fps	15 μs ~ 10 sec	11 W@12 VDC	F M58	H E
MV-CH500-90TC	GMAX	22.4 mm × 22.4 mm	3.2 μm	Global	7008 × 7000	15.5 fps	15 μs ~ 10 sec	12 W@12 VDC	M58	E
MV-CH610-10TM *	IMX455	40.96 mm × 31.10 mm	3.76 μm	Rolling	9568 × 6380	18 fps	15 μs ~ 10 sec	27.6 W@24 VDC	M58	I
MV-CH610-10TC *	IMX455	40.96 mm × 31.10 mm	3.76 μm	Rolling	9568 × 6380	18 fps	15 μs ~ 10 sec	27.6 W@24 VDC	M58	I
MV-CH650-60TM *	Stacked BSI	29.9 mm × 22.4 mm	3.2 μm	Rolling	9344 × 7000	17.4 fps	58 μs ~ 10 sec	13.3 W@12 VDC	M58	D
MV-CH650-60TC *	Stacked BSI	29.9 mm × 22.4 mm	3.2 μm	Rolling	9344 × 7000	17.4 fps	58 μs ~ 10 sec	13.3 W@12 VDC	M58	D
MV-CH650-90TM	GMAX3265	29.9 mm × 22.4 mm	3.2 μm	Global	9344 × 7000	17.2 fps	18 μs ~ 10 sec	10.2 W@12 VDC	F M58	H E
MV-CH650-90TC	GMAX3265	29.9 mm × 22.4 mm	3.2 μm	Global	9344 × 7000	17.2 fps	18 μs ~ 10 sec	11.6 W@12 VDC	F M58	H E
MV-CH800-60TM	Stacked BSI	30 mm × 22.4 mm	2.9 μm	Rolling	10304 × 7712	15fps	50 μs ~ 10 sec	12 W@12 VDC	M58	D
MV-CH800-60TC	Stacked BSI	30 mm × 22.4 mm	2.9 μm	Rolling	10304 × 7712	15fps	50 μs ~ 10 sec	13 W@12 VDC	M58	D
MV-CH1030-90TM	GMAX32103	36.1 mm × 29.4 mm	3.2 μm	Global	11276 × 9200	10fps	15 μs ~ 10 sec	12.6 W@12 VDC	M58	D
MV-CH1030-90TC	GMAX32103	36.1 mm × 29.4 mm	3.2 μm	Global	11276 × 9200	10fps	15 μs ~ 10 sec	12.6 W@12 VDC	M58	D
MV-CH1510-10FM	IMX411	66.7 mm	3.76 μm	Rolling	14208 × 10640	6.2 fps	30 μs ~ 10 sec	TEC off: Typ. 11.3 W@24 VDC TEC on: Typ. 49 W@24 VDC	M72	J
MV-CH1510-10FC	IMX411	66.7 mm	3.76 μm	Rolling	14208 × 10640	6.2 fps	15 μs ~ 10 sec	TEC off: Typ. 13.2 W@24 VDC TEC on: Typ. 51.22 W@24 VDC	M72	J

**Notice:** \* New release  
 USE: Ultra-short exposure mode. NE: Normal exposure mode

## Dimension





Unit:mm

# CH Series Camera Link Area Scan Camera

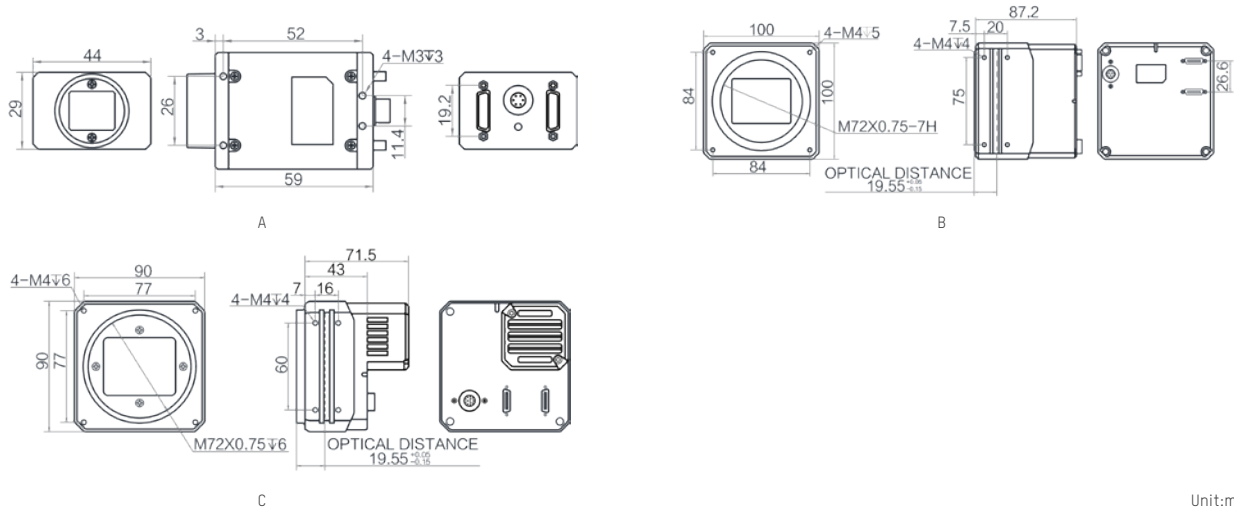


## Specifications

Model	Sensor model	Sensor size	Pixel size	Shutter mode	Resolution	Max. frame rate	Exposure time	Power consumption	Lens mount	Label
MV-CH040-A0CM	HK	1"	5.5µm	Global	2048 × 2048	180 fps	34 µs-10 sec	3.5 W@12 VDC	C	A
MV-CH050-10CM	IMX250	2/3"	3.45 µm	Global	2432 × 2048	140 fps	15 µs-10 sec	3.3 W@12 VDC	C	A
MV-CH050-10CC	IMX250	2/3"	3.45 µm	Global	2432 × 2048	140 fps	15 µs-10 sec	3.41 W@12 VDC	C	A
MV-CH050-11CM	IMX264	2/3"	3.45 µm	Global	2448 × 2048	35 fps	15 µs-10 sec	3.25 W@12 VDC	C	A
MV-CH120-10CM	IMX253	1.1"	3.45 µm	Global	3840 × 3000	69.8 fps	1 µs-10 sec	4.51 W@12 VDC	C	A
MV-CH120-10CC	IMX253	1.1"	3.45 µm	Global	3840 × 3000	68.1 fps	1 µs-10 sec	4.5 W@12 VDC	C	A
MV-CH120-11CM	IMX304	1.1"	3.45 µm	Global	4096 × 3000	23.4 fps	USE: 1 µs-14 sec NE: 15 µs-10 sec	3.48 W@12 VDC	C	A
MV-CH1010-10CM	IMX461	55 mm	3.76 µm	Rolling	11648 × 8740	8.1 fps	14µs-10sec	TEC off: Typ. 14 W@24 VDC TEC on: Typ. 48 W@24 VDC 14 W@24 VDC	M72	B C
MV-CH1010-10CC	IMX461	55 mm	3.76 µm	Rolling	11648 × 8740	8.1 fps	14µs-10sec	TEC off: 14 W@24 VDC TEC on: 48 W@24 VDC Typ.14 W@24 VDC	M72	C B

Notice: USE: Ultra-short exposure mode NE: Normal exposure mode

## Dimension



Unit:mm

# CH Series CoaXPRESS Area Scan Camera



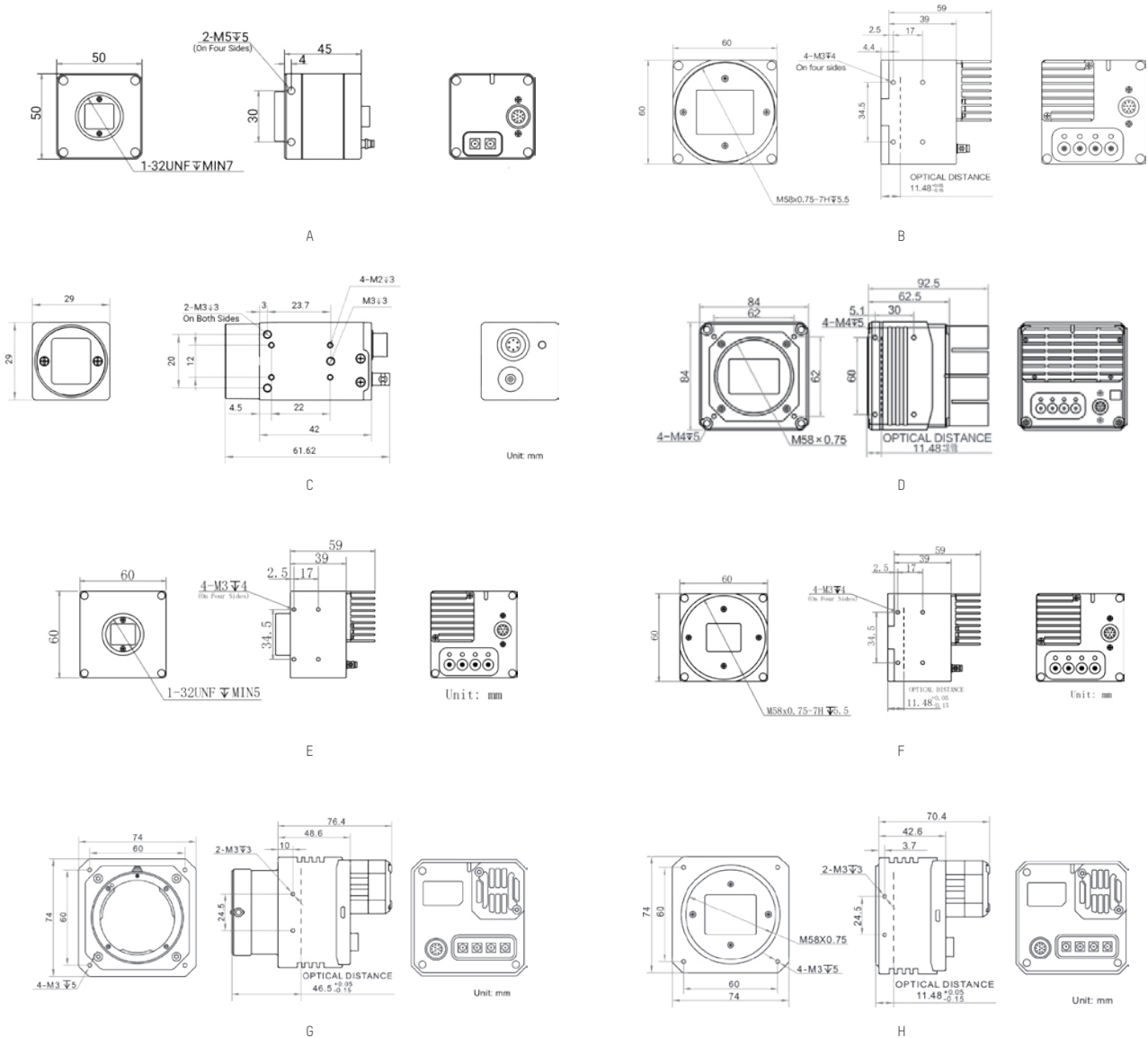
## Specifications

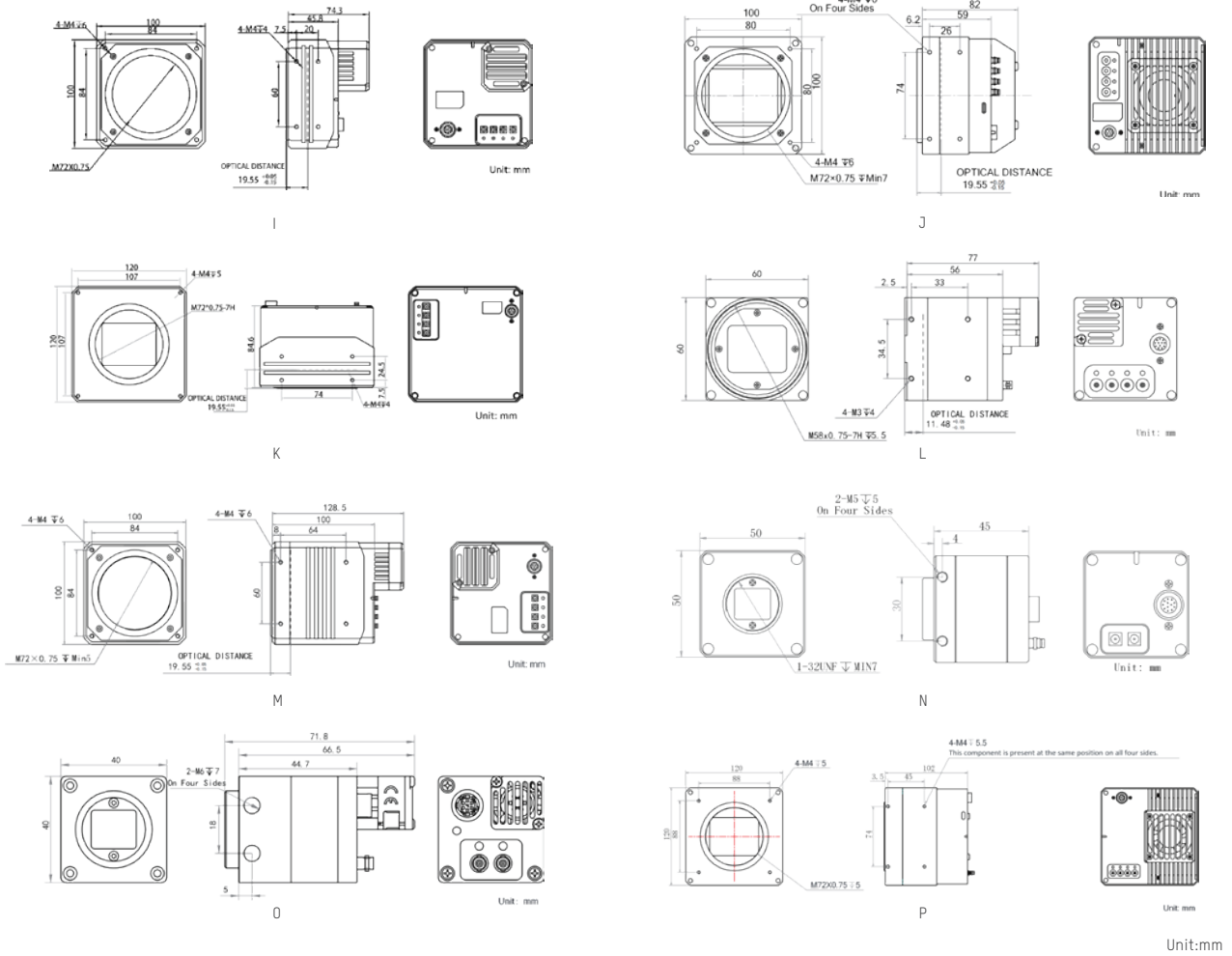
Model	Sensor model	Sensor size	Pixel size	Shutter mode	Resolution	Max. frame rate	Exposure time	Power consumption	Lens mount	Label
MV-CH050-90Y1M *	GMAX3405	2/3"	3.4 μm	Global	2448 × 2048	164 fps	2 μs ~ 10 sec	3.3 W@12 VDC	C	C
MV-CH050-90Y1C *	GMAX3405	2/3"	3.4 μm	Global	2448 × 2048	164 fps	2 μs ~ 10 sec	3.3 W@12 VDC	C	C
MV-CH120-40XM	CMV12000	22.5 mm × 16.9 mm	5.5 μm	Global	4096 × 3072	188 fps	34 μs-10 sec	10 W@12 VDC	M58	B
MV-CH120-90X2M	GMAX3412	1.1"	3.4 μm	Global	4096 × 3072	95 fps	6 μs ~ 10 sec	5.8 W @24 VDC	C	A
MV-CH120-90X2C *	GMAX3412	1.1"	3.4 μm	Global	4096 × 3072	95 fps	6 μs ~ 10 sec	5.8 W @24 VDC	C	A
MV-CH120-90Y1M	GMAX3412	1.1"	3.4 μm	Global	4096 × 3072	93.9 fps	6 μs ~ 10 sec	5 W @12 VDC	C	C
MV-CH120-90Y1C	GMAX3412	1.1"	3.4 μm	Global	4096 × 3072	93.9 fps	6 μs ~ 10 sec	5 W @12 VDC	C	C
MV-CH120-90Y2M	GMAX3412	1.1"	3.4 μm	Global	4096 × 3072	145fps	6 μs ~ 10 sec	5.8 W @24 VDC	C	N
MV-CH120-90Y2C *	GMAX3412	1.1"	3.4 μm	Global	4096 × 3072	145fps	6 μs ~ 10 sec	5.8 W @24 VDC	C	N
MV-CH140-90YM	Gsprint5514	25.34 mm × 16.9 mm	5.5 μm	Global	4608 × 3072	340 fps	4 μs ~ 10 sec	18 W @12 VDC	M58	L
MV-CH140-90YC *	Gsprint5514	25.34 mm × 16.9 mm	5.5 μm	Global	4608 × 3072	340 fps	4 μs ~ 10 sec	18 W @12 VDC	M58	L
MV-CH210-90YM	Gsprint 4521	23.04 mm × 18.43 mm	4.5 μm	Global	5120 × 4096	222 fps	4 μs-10 sec	18 W@24 VDC	M58	D
MV-CH210-90YC	Gsprint 4521	23.04 mm × 18.43 mm	4.5 μm	Global	5120 × 4096	222 fps	4 μs-10 sec	16.3 W@24 VDC	M58	D
MV-CH250-20XM	PYTHON25K	23 mm (H) x 23 mm (V)	4.5 μm	Global	5120 × 5120	80 fps	33 us ~ 10 sec	10.5 W @24 VDC	M58	D
MV-CH250-20XC	PYTHON25K	23 mm (H) x 23 mm (V)	4.5 μm	Global	5120 × 5120	80 fps	33 us ~ 10 sec	10.5 W @24 VDC	M58	D
MV-CH250-90XM	GMAX0505	1.1"	2.5 μm	Global	5120 × 5120	41.5 fps	13 μs ~ 10 sec	7.0 W @12 VDC	C	A
MV-CH250-90XC	GMAX0505	1.1"	2.5 μm	Global	5120 × 5120	41.5 fps	USE: 3 μs ~ 8 μs NE: 10 μs ~ 10 sec	7.0 W @12 VDC	C	A
MV-CH250-90Y2M *	GMAX0505	1.1"	2.5 μm	Global	5120 × 5120	90 fps	USE: 3 μs ~ 8 μs NE: 10 μs ~ 10 sec	7.3 W @12 VDC	C	O
MV-CH250-90YM	GMAX0505	1.1"	2.5 μm	Global	5120 × 5120	150 fps	USE: 3 μs ~ 8 μs NE: 10 μs ~ 10 sec	9.9 W@12 VDC	C M58	E F
MV-CH250-90YC	GMAX0505	1.1"	2.5 μm	Global	5120 × 5120	150 fps	USE: 3 μs ~ 8 μs NE: 10 μs ~ 10 sec	9.9 W @12 VDC	C M58	E F
MV-CH650-90XM	GMAX3265	29.9 mm × 22.4 mm	3.2 μm	Global	9344 × 7000	31.5 fps	14 μs-10 sec	10.5W@12 VDC	F M58	G H
MV-CH650-90XC	GMAX3265	29.9 mm × 22.4 mm	3.2 μm	Global	9344 × 7000	31.5 fps	14 μs-10 sec	10.2 W@12 VDC	M58	H
MV-CH650-90YM	GMAX3265	29.9 mm × 22.4 mm	3.2 μm	Global	9344 × 7000	71 fps	15 μs-10 sec	13.0W@12 VDC	M58	D
MV-CH650-90YM V2.0	GMAX3265	29.9 mm × 22.4 mm	3.2 μm	Global	9344 × 7000	71 fps	12 μs-10 sec	14.4W@12 VDC	M58	B
MV-CH650-90YC	GMAX3265	29.9 mm × 22.4 mm	3.2 μm	Global	9344 × 7000	71 fps	15 μs-10 sec	13.2W@12 VDC	M58	D

Model	Sensor model	Sensor size	Pixel size	Shutter mode	Resolution	Max. frame rate	Exposure time	Power consumption	Lens mount	Label
MV-CH1510-10XM	IMX411	66.7 mm	3.76 μm	Rolling	14208 × 10640	6.2 fps	15 μs-10 sec	18 W@24 VDC	M72	I
MV-CH1510-10XC	IMX411	66.7mm	3.76 μm	Rolling	14208 × 10640	6.2 fps	15 μs-10 sec	21 W@24 VDC	M72	I
MV-CH1510-10XM V2.0 *	IMX411	66.7mm	3.76 μm	Rolling	14208 × 10640	6.2 fps	15 μs-10 sec	TEC off: 20 W@24 VDC TEC on: 40 W@24 VDC	M72	K
MV-CH1510-10XC V2.0*	IMX411	66.7mm	3.76 μm	Rolling	14208 × 10640	6.2 fps	15 μs-10 sec	TEC off: 20 W@24 VDC TEC on: 40 W@24 VDC	M72	K
MV-CH1510-11XM	IMX411	66.7mm	3.76 μm	Rolling	14208 × 10640	6.2 fps	15 μs-10 sec	TEC off: 21 W@24 VDC TEC on: 55 W@24 VDC	M72	K
MV-CH1510-11XC	IMX411	66.7mm	3.76 μm	Rolling	14208 × 10640	6.2 fps	15 μs-10 sec	TEC off: 22 W@24 VDC TEC on: 60 W@24 VDC	M72	K
MV-CH2450-10YM *	IMX811	64.84mm	2.81 μm	Rolling	19200 × 12800	12.4 fps	98 μs-60 sec	TEC off: 17.8 W@24 VDC TEC on: 32.9 W@24 VDC	M72	J
MV-CH2450-10YC *	IMX811	64.84mm	2.81 μm	Rolling	19200 × 12800	12.4 fps	98 μs-60 sec	TEC off: 19.9 W@24 VDC TEC on: 35.3 W@24 VDC	M72	J
MV-CH6040-10XM	IMX411	66.7mm	3.76 μm	Rolling	28416 × 21280	6.2 fps	15 μs-1 sec	TEC off: 15 W@24 VDC TEC on: 45 W@24 VDC	M72	P M
MV-CH6040-10XC	IMX411	66.7mm	3.76 μm	Rolling	28416 × 21280	6.2 fps	15 μs-1 sec	TEC off: 15 W@24 VDC TEC on: 45 W@24 VDC	M72	P M

Notice: \* New release  
 USE:Ultra-short exposure mode. NE:Normal exposure mode

## Dimension





# CH Series XoFLink Area Scan Camera

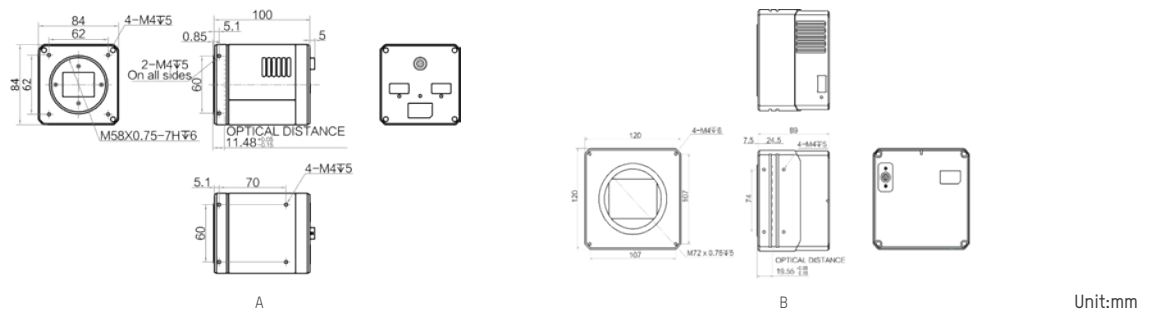


## Specifications

Model	Sensor model	Sensor size	Pixel size	Shutter mode	Resolution	Max. frame rate	Exposure time	Power consumption	Lens mount	Label
MV-CH210-90Q2M	Gsprint 4521	23.04 mm × 18.43 mm	4.5 μm	Global	5120 × 4096	540 fps	4 μs ~ 10 sec	Typ. 25 W@24 VDC	M58	A
MV-CH2450-100M *	BSI	64.84mm	2.81 μm	Rolling	19200 × 12800	12.4 fps	15 μs ~ 10 sec	17.8 W@24 VDC(Non-TEC) 32.9 W@24 VDC(TEC)	M72	B
MV-CH2450-100C *	BSI	64.84mm	2.81 μm	Rolling	19200 × 12800	12.4 fps	15 μs ~ 10 sec	19.9 W@24 VDC(Non-TEC) 35.3 W@24 VDC(TEC)	M72	B

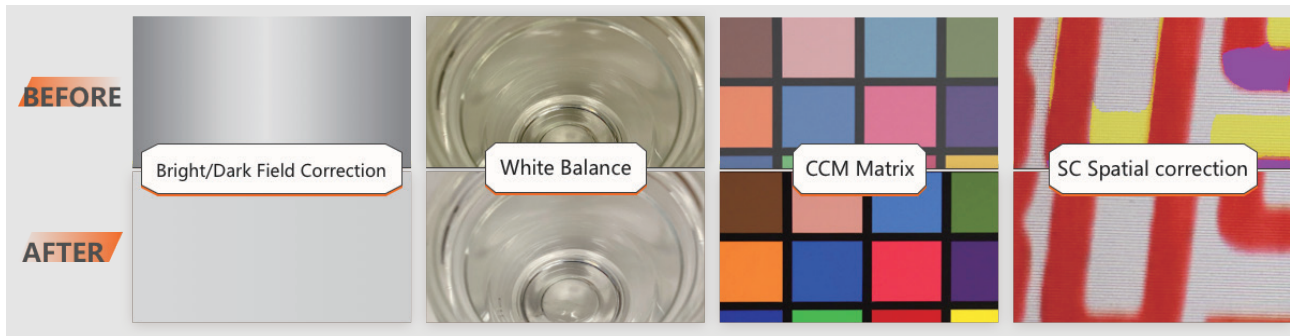
Notice: \* New release

## Dimension



# Line Scan Camera

The CL series covers 2K-16K pixels and equipped with GigE/USB3.0/ Camera Link/CoaXPress/XoF interfaces, support a variety of ISP and algorithms that can fulfill various application needs of line scan cameras.



Diversified processing, flexible Acquisition



High-Bandwidth Mode, high line frequency transmission

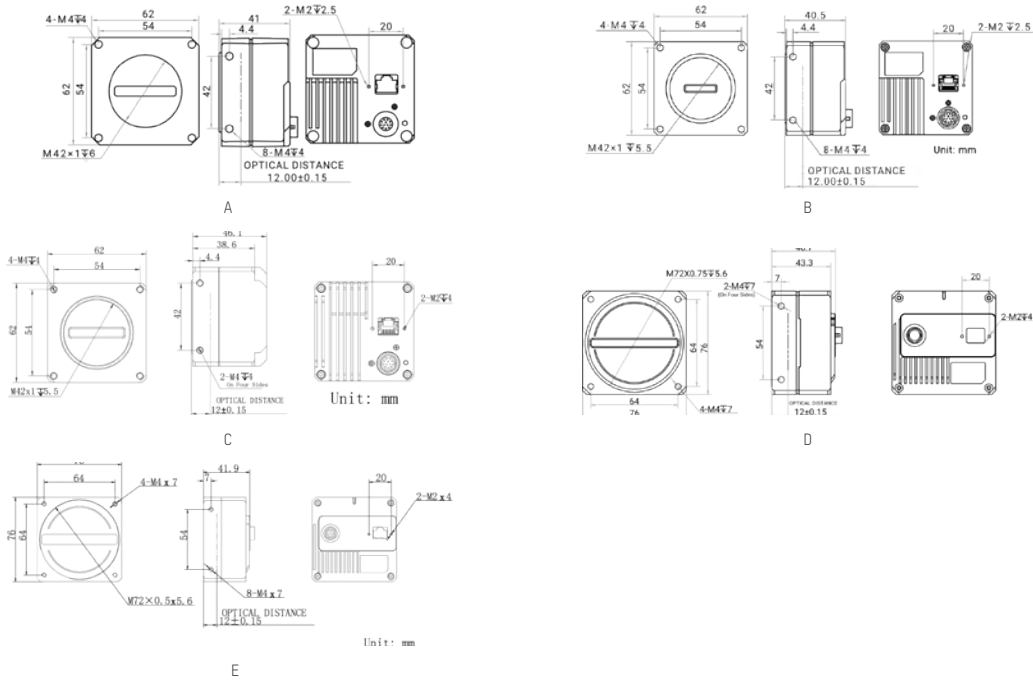
## CL Series GigE Line Scan Camera

CE RoHS

### Specifications

Model	Pixel size	Resolution	Max. line rate	Mono/color	Power supply	Power consumption	Work temperature	Label
MV-CL022-916M	14 μm x 14 μm	2048 × 1	100 kHz@HB peak	Mono	12-24 VDC,PoE	5 W@12 VDC	-20-50°C	A
MV-CL022-916C	14 μm x 14 μm	2048 × 2	40 kHz@HB peak	Color	12-24 VDC,PoE	7.4 W@12 VDC	-20-50°C	A
MV-CL024-916M	7 μm x 7 μm	2048 × 2	86 kHz@HB peak	Mono	12-24 VDC,PoE	5.2 W@12 VDC	-20-55°C	B
MV-CL024-916C	7 μm x 7 μm	2048 × 3	70 kHz@HB peak	Color	12-24 VDC,PoE	5.7 W@12 VDC	-20-55°C	B
MV-CL042-916M	7 μm x 7 μm	4096 × 2	80 kHz@HB peak	Mono	12-24 VDC,PoE	5.8 W@12 VDC	-20-55°C	B
MV-CL042-916C	7 μm x 7 μm	4096 × 2	80 kHz@HB peak	Color	12-24 VDC,PoE	6.6 W@12 VDC	-20-55°C	A
MV-CL043-A1GM-V2	7 μm x 7 μm	4096 × 3	28 kHz	Mono	12 - 24 VDC	3.9 W@12 VDC	-20-50°C	B
MV-CL043-A16C	7 μm x 7 μm	4096 × 3	40 kHz@ROI	Mono	12 - 24 VDC	4.2 W@12 VDC	-20-50°C	B
MV-CL044-91NM	7 μm x 7 μm	4096 × 4	160 kHz@ROI	Mono	12 - 24 VDC	10.3 W@12 VDC	-20-50°C	C
MV-CL044-91NC	7 μm x 7 μm	4096 × 3	100 kHz@ROI	Color	12 - 24 VDC	7.3 W@12 VDC	-20-50°C	C
MV-CL082-926M	7 μm x 7 μm	8192 × 2	50 kHz@HB peak	Mono	12-24 VDC	6.8 W @12 VDC	-20-50°C	D
MV-CL083-926C	7 μm x 7 μm	8192 × 3	33 kHz@HB peak	Color	12-24 VDC	7.7 W @12 VDC	-20-50°C	D
MV-CL084-B1NM	7 μm x 7 μm	8192 × 4	90 kHz@ROI	Mono	12 - 24 VDC	7.56 W@12 VDC	-20-50°C	E
MV-CL084-B1NC	7 μm x 7 μm	8192 × 3	42 kHz@ROI	Color	12 - 24 VDC	8.16 W@12 VDC	-20-50°C	E

## Dimension



Unit:mm

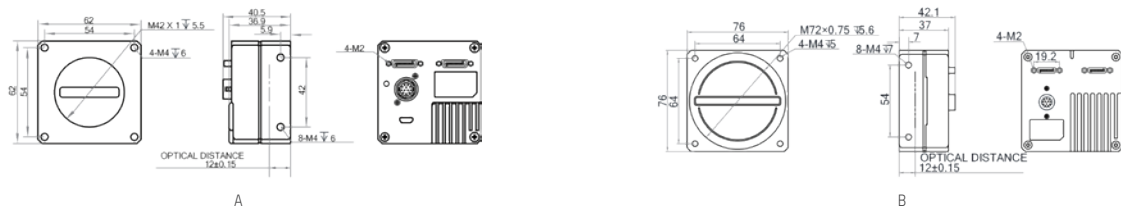
## CL Series Camera Link Line Scan Camera



### Specifications

Model	Pixel size	Resolution	Max. line rate	Mono/color	Power supply	Power consumption	Work temperature	Label
MV-CL042-91CM	7 μm x 7 μm	4096 × 2	100 kHz	Mono	12-24 VDC	Typ. 5.5 W@12 VDC	-20-55°C	A
MV-CL042-91CM-V2	7 μm x 7 μm	4096 × 2	195 kHz	Mono	12 - 24 VDC	Typ. 8 W @12 VDC	-20-45°C	A
MV-CL042-91CC	7 μm x 7 μm	4096 × 2	100 kHz	Color	12-24 VDC	Typ. 6.1 W@12 VDC	-20-55°C	A
MV-CL082-92CM	7 μm x 7 μm	8192 × 2	100 kHz	Mono	12 - 24 VDC	Typ. 9.8 W@12 VDC	-20-55°C	B
MV-CL083-92CC	7 μm x 7 μm	8192 × 3	66.6 kHz@ROI	Color	12 - 24 VDC	Typ. 9.9 W@12 VDC	-20-55°C	B
MV-CL162-91CM	3.5 μm x 3.5 μm	16384 × 2	120 kHz@ROI	Mono	12 - 24 VDC	Typ. 10WE @12 VDC	-20-55°C	B

## Dimension



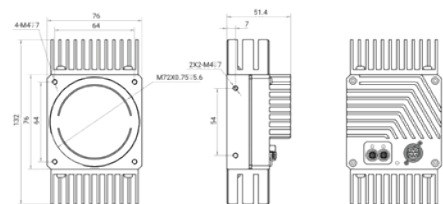
Unit:mm

## CL Series CoXPRESS Line Scan Camera

### Specifications

Model	Pixel size	Resolution	Max. line rate	Mono/color	Power supply	Power consumption	Work temperature
MV-CL084-91Y2M	7 μm x 7 μm	8192 × 4	200 kHz	Mono	12 - 24 VDC	15.5W@24 VDC	-20 ~ 50°C

### Dimension



Unit:mm

# CL Series XoFLink Line Scan Camera

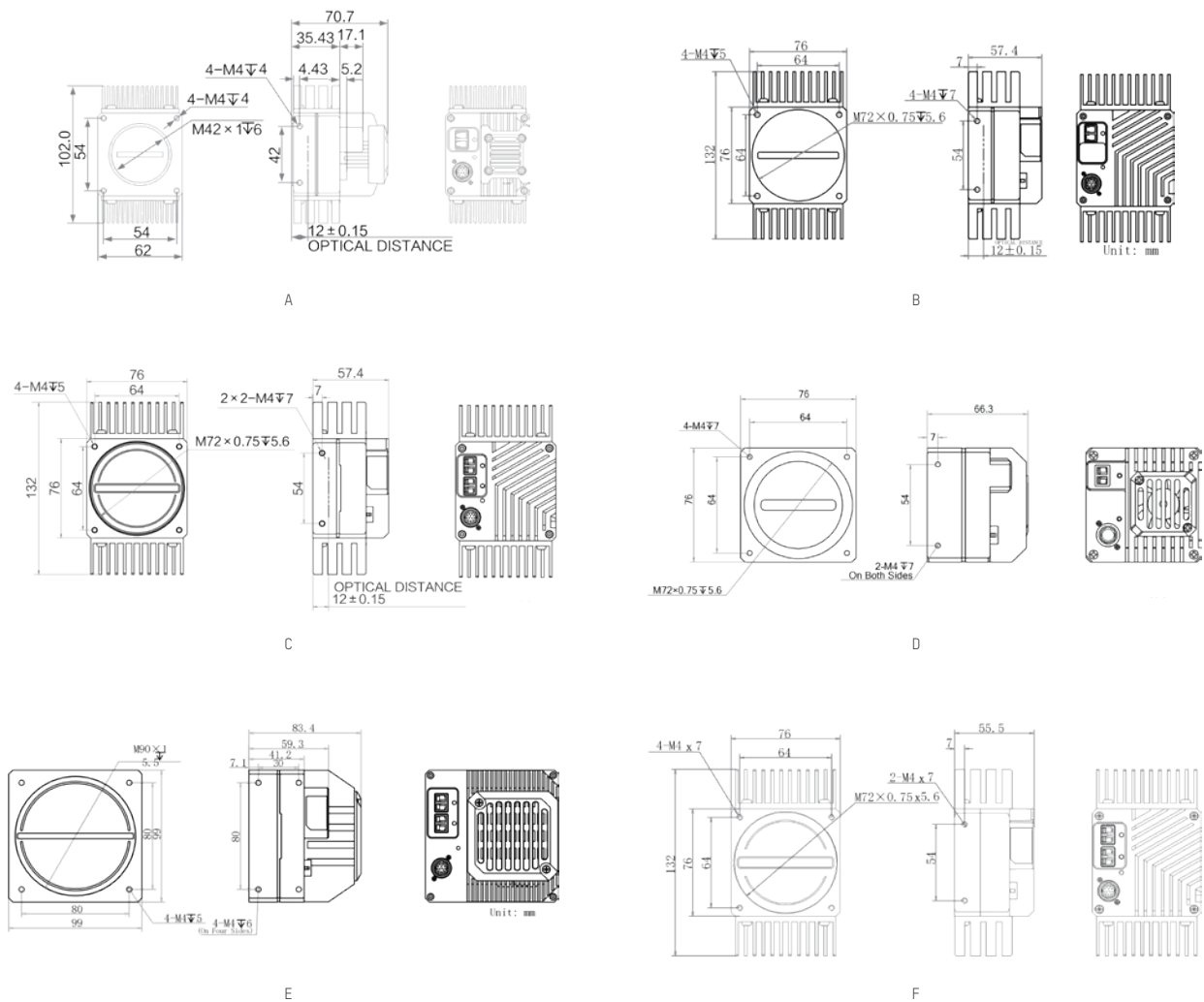


## Specifications

Model	Pixel size	Resolution	Max. line rate	Mono/color	Power supply	Power consumption	Work temperature	Label
MV-CL042-91FM	7 μm × 7 μm	4096 × 2	195 kHz [1-Line], 100 kHz [2-TDI]	Mono	12 ~ 24 VDC	8.8 W@12 VDC	-20~50°C	A
MV-CL042-91FC	7 μm × 7 μm	4096 × 2	100 kHz	Color	12 ~ 24 VDC	9 W@12 VDC	-20~50°C	A
MV-CL081-B0F2M*	7 μm × 7 μm	8192 × 1	240 kHz	Mono	12 ~ 24 VDC	14.7 W@12 VDC	-20~50°C	F
MV-CL083-B0F2C*	7 μm × 7 μm	8192 × 3	71kHz	Color	12 ~ 24 VDC	15.8 W@12 VDC	-20~50°C	F
MV-CL082-91F1M	7 μm × 7 μm	8192 × 4	120 kHz	Mono	12 ~ 24 VDC	5.5W@24 VDC	-20~50°C	B
MV-CL082-91F2M	7 μm × 7 μm	8192 × 2	200 kHz	Mono	12 ~ 24 VDC	14 W@24 VDC	-20~50°C	C
MV-CL083-91F2C	7 μm × 7 μm	8192 × 3	66.6kHz	Color	12 ~ 24 VDC	14 W@24 VDC	-20~50°C	C
MV-CL084-90F1M	7 μm × 7 μm	8192 × 4	146kHz	Mono	12 ~ 24 VDC	11.1 W@24 VDC	-20~50°C	B
MV-CL084-91F2M	7 μm × 7 μm	8192 × 4	200 kHz	Mono	12~24 VDC	15.4 W@24 VDC	-20~50°C	C
MV-CL086-B0F1C*	5 μm × 5 μm	8192 × 12	40 kHz	Color	12 ~ 24 VDC	14.4 W@12 VDC	-20~50°C	D
MV-CL162-91F2M	3.5 μm × 3.5 μm	16384 × 2	120 kHz	Mono	12 ~ 24 VDC	10.6 W@24 VDC	-20~50°C	C
MV-CL166-91F2C	5 μm × 5 μm	16384 × 6	47 kHz	Color	24 VDC	22.5 W@24 VDC	-20~50°C	E

Notice: \* New release

## Dimension

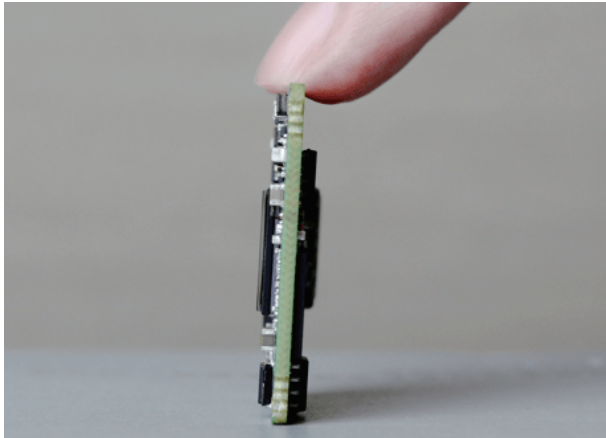


Unit:mm

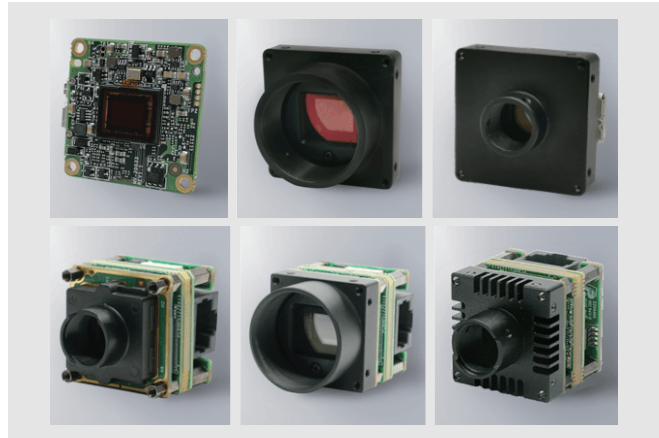


# Board Level Camera

The CB series board-level products is designed with a single board or multi-board stacked, which supports GigE or U3V protocol. It is applicable to the industrial, embedded, 3D, medical and other scenarios with more stringent space requirements.



Ultra-small size, flexible for application



High-Bandwidth Mode, high line frequency transmission

## CB Series GigE Board Level Camera

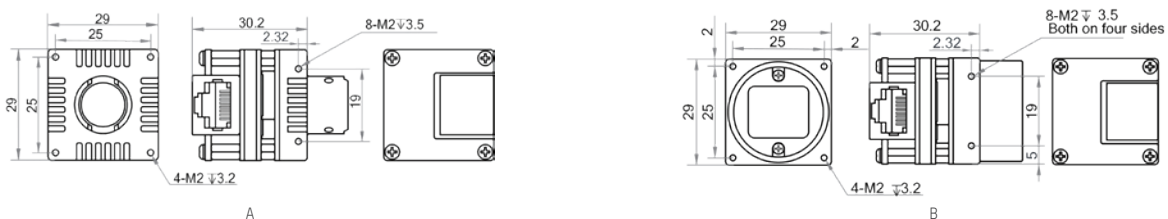


### Specifications

Model	Sensor model	Sensor size	Pixel size	Shutter mode	Resolution	Max. frame rate	Exposure time	Power consumption	Label
MV-CB004-10GM-S	IMX297	1/2.9"	6.9 μm	Global	720 × 540	125.2 fps	USE: 1 μs-14 μs NE: 15 μs-10 sec	2.5 W@12 VDC	B
MV-CB004-10GC-S	IMX297	1/2.9"	6.9 μm	Global	720 × 540	125.2 fps	USE: 1 μs - 14 μs NE: 15 μs - 10 sec	2.6 W@12 VDC	B
MV-CB016-10GM-S	IMX296	1/2.9"	3.45 μm	Global	1440 × 1080	65.2 fps	USE: 1 μs-14 μs NE: 15 μs-10 sec	2.6 W@12 VDC	B
MV-CB016-10GC-C	IMX296	1/2.9"	3.45 μm	Global	1440 × 1080	65.2 fps	USE: 1 μs-14 μs NE: 15 μs-10 sec	2.7 W@12 VDC	A
MV-CB016-10GC-S	IMX296	1/2.9"	3.45 μm	Global	1440 × 1080	65.2 fps	USE: 1 μs - 14 μs NE: 15 μs - 10 sec	2.7 W@12 VDC	B
MV-CB060-10GM-S	IMX178	1/1.8"	2.4 μm	Rolling	3072 × 2048	30.7 fps	25 μs-2.5 sec	2.3 W@12 VDC	B
MV-CB060-10GC-S	IMX178	1/1.8"	2.4 μm	Rolling	3072 × 2048	30.7 fps	25 μs-2.5 sec	2.6 W@12 VDC	B
MV-CB120-10GM-S *	IMX226	1/1.7"	1.85 μm	Rolling	4024 × 3036	9.7 fps	34 μs - 2 sec	2.6 W@12 VDC	B
MV-CB120-10GM-C *	IMX226	1/1.7"	1.85 μm	Rolling	4024 × 3036	9.7 fps	34 μs - 2 sec	1.9 W@12 VDC	A

Notice: \* New release. USE: Ultra-short exposure mode. NE: Normal exposure mode

### Dimension



Unit:mm

# CB Series USB3.0 Board Level Camera

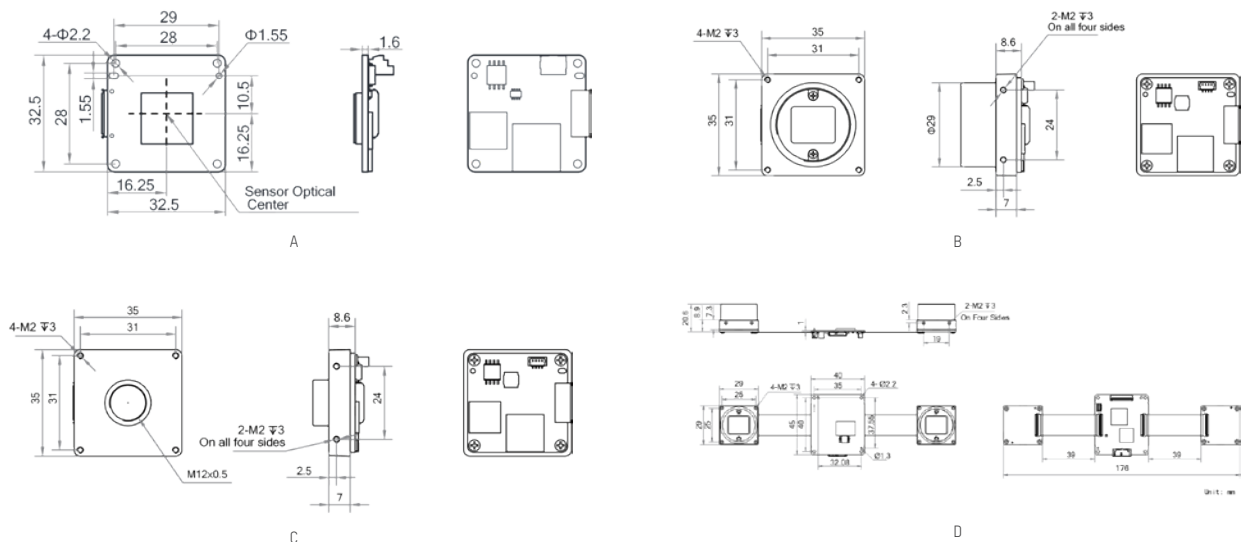


## Specifications

Model	Sensor model	Sensor size	Pixel size	Shutter mode	Resolution	Max. frame rate	Exposure time	Power supply	Label
MV-CB013-AOUM-B	HK	1/2"	4.8 μm	Global	1280 × 1024	201 fps	NE: 9 μs-10 sec	1.6 W@5 VDC	A
MV-CB013-AOUM-C	HK	1/2"	4.8 μm	Global	1280 × 1024	201 fps	NE: 9 μs-10 sec	1.6 W@5 VDC	B
MV-CB013-AOUM-S	HK	1/2"	4.8 μm	Global	1280 × 1024	201 fps	NE: 9 μs-10 sec	1.6 W@5 VDC	C
MV-CB013-AOUC-C	HK	1/2"	4.8 μm	Global	1280 × 1024	201 fps	NE: 9 μs-10 sec	2.8 W@5 VDC	B
MV-CB013-AOUC-S	HK	1/2"	4.8 μm	Global	1280 × 1024	201 fps	NE: 9 μs-10 sec	2.8 W@5 VDC	C
MV-CB016-10UM-B	IMX273	1/2.9"	3.45 μm	Global	1440*1080	249fps	USE: 1 μs ~ 14 μs NE: 15 μs ~ 10 sec	1.5 W@5 VDC	A
MV-CB016-10UM-C	IMX273	1/2.9"	3.45 μm	Global	1440*1080	249fps	USE: 1 μs ~ 14 μs NE: 15 μs ~ 10 sec	1.5 W@5 VDC	B
MV-CB016-10UM-S	IMX273	1/2.9"	3.45 μm	Global	1440*1080	249fps	USE: 1 μs ~ 14 μs NE: 15 μs ~ 10 sec	1.5 W@5 VDC	C
MV-CB016-10UC-B	IMX273	1/2.9"	3.45 μm	Global	1440*1080	249fps	USE: 1 μs ~ 14 μs NE: 15 μs ~ 10 sec	1.5 W@5 VDC	A
MV-CB016-10UC-C	IMX273	1/2.9"	3.45 μm	Global	1440*1080	249fps	USE: 1 μs ~ 14 μs NE: 15 μs ~ 10 sec	1.5 W@5 VDC	B
MV-CB016-10UC-S	IMX273	1/2.9"	3.45 μm	Global	1440*1080	249fps	USE: 1 μs ~ 14 μs NE: 15 μs ~ 10 sec	1.5 W@5 VDC	C
MV-CB020-61UM *	Stacked BSI	1/2.53"	3.45 μm	Global	1632 × 1264	180 fps	LCG: 45 μs ~ 10 μs HCG: 5 μs ~ 10 sec	2 W@5 VDC	D
MV-CB020-61UC *	Stacked BSI	1/2.53"	3.45 μm	Global	1632 × 1264	180 fps	LCG: 45 μs ~ 10 μs HCG: 5 μs ~ 10 sec	2 W@5 VDC	D
MV-CB050-60UM-C *	Stacked BSI	2/3"	3.45 μm	Global	2448 × 2048	80 fps	LCG: 30 μs ~ 10 μs HCG: 5 μs ~ 10 sec	1.5 W@5 VDC	D
MV-CB050-60UC-C *	Stacked BSI	2/3"	3.45 μm	Global	2448 × 2048	80 fps	LCG: 30 μs ~ 10 μs HCG: 5 μs ~ 10 sec	1.5 W@5 VDC	D
MV-CB050-11UC-C	IMX264	2/3"	3.45 μm	Rolling	2448 × 2048	60 fps	USE: 1 μs ~ 14 μs NE: 15 μs ~ 10 sec	2.8 W@5 VDC	D
MV-CB060-10UM-B	IMX178	1/1.8"	2.4 μm	Rolling	3072 × 2048	60.9 fps	NE: 8 μs-1 sec	1.5 W@5 VDC	A
MV-CB060-10UM-S	IMX178	1/1.8"	2.4 μm	Rolling	3072 × 2048	60.9 fps	NE: 8 μs-1 sec	1.5 W@5 VDC	B
MV-CB060-10UM-C	IMX178	1/1.8"	2.4 μm	Rolling	3072 × 2048	60.9 fps	NE: 8 μs-1 sec	1.5 W@5 VDC	C
MV-CB060-10UC-B	IMX178	1/1.8"	2.4 μm	Rolling	3072 × 2048	60.9 fps	NE: 8 μs-1 sec	1.8 W@5 VDC	A
MV-CB060-10UC-C	IMX178	1/1.8"	2.4 μm	Rolling	3072 × 2048	60.9 fps	NE: 8 μs-1 sec	1.8 W@5 VDC	B
MV-CB060-10UC-S	IMX178	1/1.8"	2.4 μm	Rolling	3072 × 2048	60.9 fps	NE: 8 μs-1 sec	1.8 W@5 VDC	C
MV-CB120-10UM-B	IMX226	1/1.7"	1.85 μm	Rolling	4032 × 3036	28 fps	NE: 11 μs-2 sec	2.45 W@5 VDC	A
MV-CB120-10UM-C	IMX226	1/1.7"	1.85 μm	Rolling	4032 × 3036	28 fps	NE: 11 μs-2 sec	2.45 W@5 VDC	B
MV-CB120-10UM-S	IMX226	1/1.7"	1.85 μm	Rolling	4032 × 3036	28 fps	NE: 11 μs-2 sec	2.45 W@5 VDC	C
MV-CB120-10UC-B	IMX226	1/1.7"	1.85 μm	Rolling	4032 × 3036	21 fps	NE: 23 μs-2 sec	2.45 W@5 VDC	A
MV-CB120-10UC-C	IMX226	1/1.7"	1.85 μm	Rolling	4032 × 3036	21 fps	NE: 23 μs-2 sec	2.45 W@5 VDC	B
MV-CB120-10UC-S	IMX226	1/1.7"	1.85 μm	Rolling	4032 × 3036	21 fps	NE: 23 μs-2 sec	2.45 W@5 VDC	C

Notice: \* New release  
USE: Ultra-short exposure mode. NE: Normal exposure mode

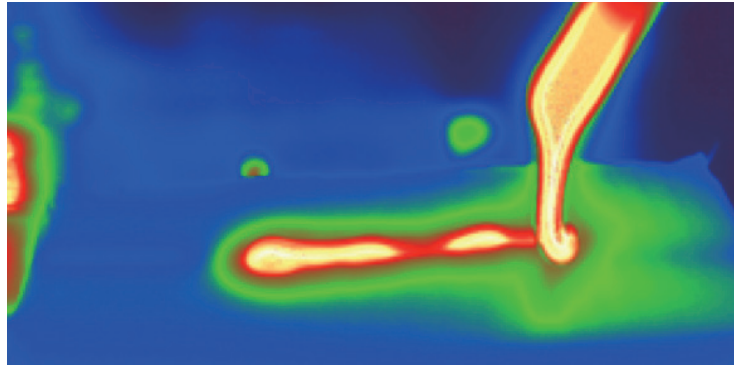
## Dimension



Unit:mm

# Industrial Infrared Camera

The CI series is a high-performance infrared camera for industrial applications. Long wave products use high-sensitivity Vanadium Oxide uncooled detector, which can present temperature information and measure the temperature characteristics of objects. Short wave product is equipped with InGaAs sensors, covering visible light to shortwave bands, and has built-in image preprocessing. Suitable for applications in industries such as new energy, semiconductors, and agriculture.



Rich functions, suitable for industrial scenarios



Compatible with GigE Vision standard, support GenCam protocol

## CI Series GigE Industrial Infrared Camera



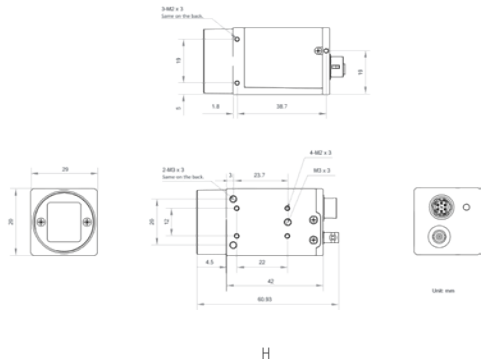
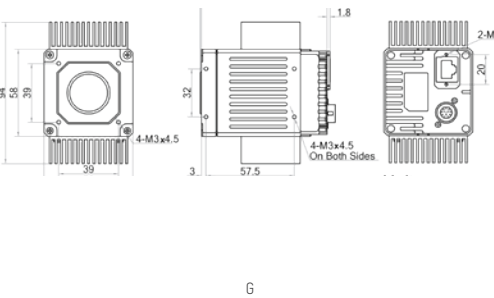
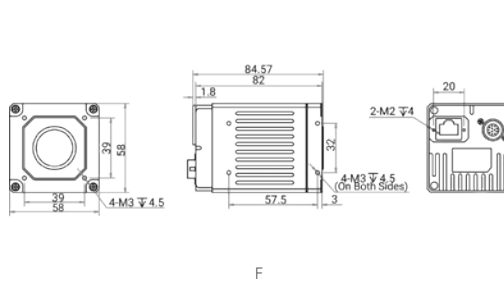
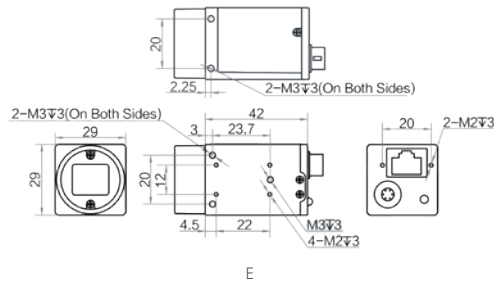
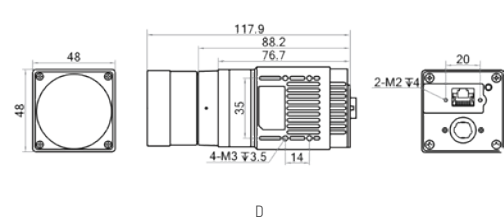
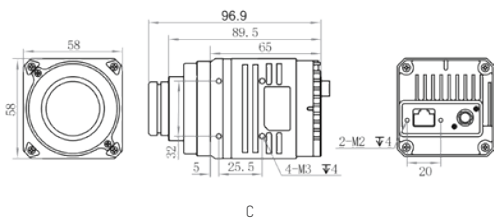
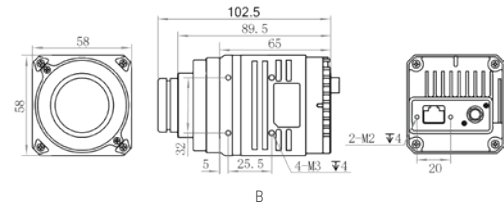
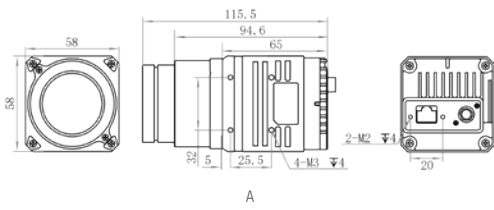
### Specifications

Model	Type	Observation/ Thermometry	Temperature measurement range	Spectral range	Resolution	Max. frame rate	NETD	Label
MV-CI003-GL-N6	LWIR	Observation	/	8-14 μm	640 × 512	50 fps	< 35 mk (F1.0, 25°C)	A
MV-CI003-GL-N15	LWIR	Observation	/	8-14 μm	640 × 512	50 fps	< 35 mk (F1.0, 25°C)	B
MV-CI003-GL-N25	LWIR	Observation	/	8-14 μm	640 × 512	50 fps	< 35 mk (F1.0, 25°C)	C
MV-CI003-GL-N35	LWIR	Observation	/	8-14 μm	640 × 512	50 fps	< 35 mk (F1.0, 25°C)	A
MV-CI003-GL-T6 *	LWIR	Thermometry	-20°C -150°C / 0°C -550°C	8-14 μm	640 × 512	50 fps	< 50 mk (F1.0, 30°C)	D
MV-CI013-GS-NN	SWIR	/	/	/	1280 × 1024	91 fps	/	E
MV-CI013-GS-TF *	SWIR	/	/	/	1280 × 1024	91 fps	/	F
MV-CI013-GS-TH *	SWIR	/	/	0.4-1.7μm	1280 × 1024	91 fps	/	G
MV-CI050-Y1S-NN *	SWIR	/	/	0.4-1.7μm	2560 × 2048	131.9 fps	/	H

Notice: \* New release. LWIR series do not support lens replacement.



## Dimension



Unit:mm

# Frame Grabber

Frame grabber is one of the core accessories in the machine vision system. It can provide customers with 1-stop solutions and product selection.



Rich interfaces to meet different protocol applications



Full technical support system

## Specifications



Camera type supported	Model	Interconnect	Delivery bandwidth	Interface (Optical module equipped additionally)	Camera connection speed	Power consumption
GigE Industrial Frame Grabber	MV-GE1004	PCI-E gen2 × 4	1720 MB/s (max. transmission bandwidth), 1600 MB/s (sustained transmission bandwidth)	4 × RJ45	1 Gbps	10 W (without PoE)
	MV-GE1104	PCI-E gen2 × 4	1720 MB/s (max. transmission bandwidth), 1600 MB/s (sustained transmission bandwidth)	4 × RJ45	1 Gbps	10 W (without PoE)
	MV-GE1104P	PCI-E gen2 × 4 PCI-E gen2 x 2link	860 MB/s (max. transmission bandwidth), 800 MB/s (sustained transmission bandwidth)	4 × RJ45	1 Gbps	10 W (without PoE)
	MV-GE2002	PCI-E gen2 × 4 PCI-E gen2 x 2link	860 MB/s (max. transmission bandwidth), 800 MB/s (sustained transmission bandwidth)	2 × RJ45	10/100/1000 Mbps	4.3 W
	MV-GE2002P	PCI-E gen2 × 4 PCI-E gen2 x 2 link	860 MB/s (max. transmission bandwidth), 800 MB/s (sustained transmission bandwidth)	2 × RJ45	10/100/1000 Mbps	7.5 W (without PoE)
	MV-GE2004	PCI-E gen2 × 4 PCI-E gen2 x 2link	860 MB/s (max. transmission bandwidth), 800 MB/s (sustained transmission bandwidth)	4 × RJ45	10/100/1000 Mbps	5.5 W
	MV-GE2004P	PCI-E gen2 × 4 PCI-E gen2 x 2 link	860 MB/s (max. transmission bandwidth), 800 MB/s (sustained transmission bandwidth)	4 × RJ45	10/100/1000 Mbps	9 W (without PoE)
	MV-GE2202	PCI-E gen2 × 4	860 MB/s (max. transmission bandwidth), 800 MB/s (sustained transmission bandwidth)	2 × RJ45	10/100/1000 Mbps	2 W
	MV-GE2202P	PCI-E gen2 × 4	860 MB/s (max. transmission bandwidth), 800 MB/s (sustained transmission bandwidth)	2 × RJ45	10/100/1000 Mbps	2 W (without PoE)
	MV-GE2204	PCI-E gen2 × 4	860 MB/s (max. transmission bandwidth), 800 MB/s (sustained transmission bandwidth)	4 × RJ45	10/100/1000 Mbps	3 W
	MV-GE2204P	PCI-E gen2 × 4	860 MB/s (max. transmission bandwidth), 800 MB/s (sustained transmission bandwidth)	4 × RJ45	10/100/1000 Mbps	3 W (without PoE)



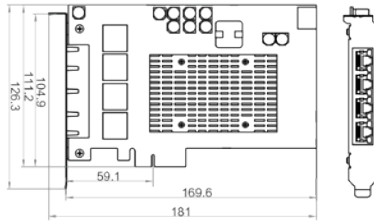
Camera type supported	Model	Interconnect	Delivery bandwidth	Interface (Optical module equipped additionally)	Camera connection speed	Power consumption
2.5 GigE Industrial Frame Grabber	MV-GE4002	PCI-E gen2 x 4	2000 MB/s (max. transmission bandwidth)	4 x RJ45	10/100/1000/2500 Mbps	4 W
	MV-GE4004	PCI-E gen2 x 4	2000 MB/s (max. transmission bandwidth)	4 x RJ45	10/100/1000/2500 Mbps	4W (without PoE)
	MV-GE4002P	PCI-E gen2 x 4	2000 MB/s (max. transmission bandwidth)	4 x RJ45	10/100/1000/2500 Mbps	6.3 W
	MV-GE4004P	PCI-E gen2 x 4	2000 MB/s (max. transmission bandwidth)	4 x RJ45	10/100/1000/2500 Mbps	6.1W (without PoE)
10 GigE Industrial Frame Grabber	MV-GT1002	PCI-E gen2 x 8	3900 MB/s (max. transmission bandwidth), 3350 MB/s (sustained transmission bandwidth)	2 x RJ45	10 Gbps	19.2 W
	MV-GT1004	PCI-E gen2 x 8	3900 MB/s (max. transmission bandwidth), 3350 MB/s (sustained transmission bandwidth)	4 x RJ45	10 Gbps	24 W
	MV-GT1102P	PCI-E gen3 x 4	4000 MB/s (max. transmission bandwidth), 3200 MB/s (sustained transmission bandwidth)	2 x RJ45	10 Gbps	20W (without PoE)
	MV-GT1104P	PCI-E gen3 x 8	7800 MB/s (max. transmission bandwidth), 6700 MB/s (sustained transmission bandwidth)	4 x RJ45	10 Gbps	25W (without PoE)
	MV-GT2001	PCI-E gen3 x 4	31.5 Gbps (max. transmission bandwidth), 20 Gbps (sustained transmission bandwidth)	RJ45 x1	1000/10000 Mbps	7 W
	MV-GT2002	PCI-E gen3 x 4	31.5 Gbps (max. transmission bandwidth), 20 Gbps(max. transmission bandwidth)	RJ45 x 2	1000/10000 Mbps	12 W
10 GigE Fiber Industrial Frame Grabber	MV-GS1004	PCI-E gen2 x 8	3900 MB/s (max. transmission bandwidth), 3350 MB/s (sustained transmission bandwidth)	4 x SFP	10 Gbps	20 W
XoFLink Industrial Frame Grabber	MV-GS1002F V3.0	PCI-E gen3 x 4	4000 MB/s (max. transmission bandwidth), 3200 MB/s (sustained transmission bandwidth)	2 x SFP	10 Gbps	9.8 W
	MV-GS1004F V3.0	PCI-E gen3 x 4	4000 MB/s (max. transmission bandwidth), 3200 MB/s (sustained transmission bandwidth)	4 x SFP	10 Gbps	12.8 W
	MV-GS1104F	PCI-E gen2 x 8	7800 MB/s (max. transmission bandwidth), 6700 MB/s (sustained transmission bandwidth)	4 x SFP	10 Gbps	20 W
XoFLink 50/100G Industrial Frame Grabber	MV-GQ1001	PCI-E gen3 x 8	7800 MB/s (max. transmission bandwidth), 6700 MB/s (sustained transmission bandwidth)	1 x QSFP 28	100 Gbps	20 W
Camera Link Industrial Frame Grabber	MV-GC1102IOL	PCI-E gen2 x 4	1720 MB/s (max. transmission bandwidth), 1600 MB/s (sustained transmission bandwidth)	2 x SDR	6.8 Gbps	10 W (without PoCL)
	MV-GC1002-V2	PCI-E gen2 x 4	1720 MB/s (max. transmission bandwidth), 1600 MB/s (sustained transmission bandwidth)	2 x SDR		10 W (without PoCL)
CXP-6 Interface Industrial Frame Grabber	MV-GX1002	PCI-E gen2 x 8	3900 MB/s (max. transmission bandwidth), 3350 MB/s (sustained transmission bandwidth)	2 x DIN 1.0/2.3	1.25/2.5/ 3.125/5/6.25Gbps (CXP-1/2/3/5/6)	13.7 W (without PoCXP)
	MV-GX1004	PCI-E gen2 x 8	3900 MB/s (max. transmission bandwidth), 3350 MB/s (sustained transmission bandwidth)	4 x DIN 1.0/2.3		14.4 W (without PoCXP)
	MV-GX1008	PCI-E gen3 x 8	7800 MB/s (max. transmission bandwidth), 6700 MB/s (sustained transmission bandwidth)	8 x DIN 1.0/2.3		13.1 W (without PoCXP)
	MV-GX1102	PCI-E gen3 x 4	3900 MB/s (max. transmission bandwidth), 3350 MB/s (sustained transmission bandwidth)	2 x DIN 1.0/2.3		8.8 W (without PoCXP)
	MV-GX1104	PCI-E gen3 x 4	3900 MB/s (max. transmission bandwidth), 3350 MB/s (sustained transmission bandwidth)	4 x DIN 1.0/2.3		11.1 W (without PoCXP)
CXP-12 Interface Industrial Frame Grabber	MV-GY1002 V2.0	PCI-E gen3 x 4	4000 MB/s (max. transmission bandwidth), 3200 MB/s (sustained transmission bandwidth)	2 x HD-BNC	1.25/2.5/3.12 5/5/6.25/10/1 2.5Gbps (CXP- 1/2/3/5/6/10/12)	15.7 W (without PoCXP)
	MV-GY1004 V2.0	PCI-E gen3 x 8	7800 MB/s (max. transmission bandwidth), 6700 MB/s (sustained transmission bandwidth)	4 x HD-BNC		16.8 W (without PoCXP)
USB Industrial Frame Grabber	MV-GU2104	PCI-E gen2 x 4	1720 MB/s (max. transmission bandwidth), 1600 MB/s (sustained transmission bandwidth)	USB3.0 type-A	Max. 5 Gbps	6 W (without USB power supply) 24 W (with USB power supply)
	MV-GU2204	PCI-E gen2 x 4	1720 MB/s (max. transmission bandwidth), 1600 MB/s (sustained transmission bandwidth)	USB3.0 type-A	Max. 5 Gbps	5.5 W (without USB power supply) 23.5 W (with USB power supply)

## Dimension

### 1. GigE Industrial Frame Grabber:

#### Full-height Type:

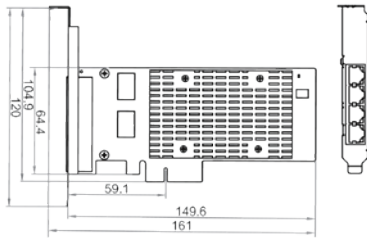
Compatible with 3U and 4U chassis



Example: MV-GE2004P

#### Half-height Type:

Compatible with 2U chassis

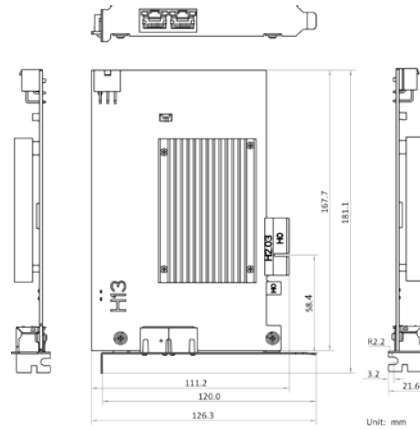


Example: MV-GE2004

### 2. 2.5 GigE Industrial Frame Grabber:

#### Full-height Type:

Compatible with 3U and 4U chassis



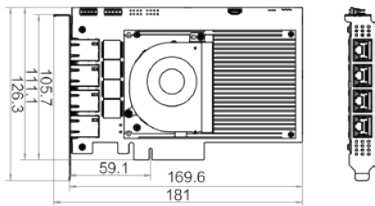
Example: MV-GE4002

Unit: mm

### 3. 10 GigE Industrial Frame Grabber:

#### Full-height Type:

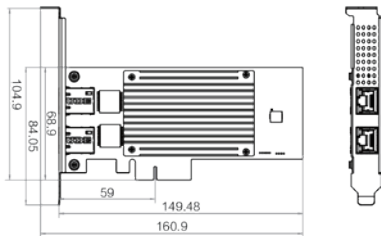
Compatible with 3U and 4U chassis



Example: MV-GT1004

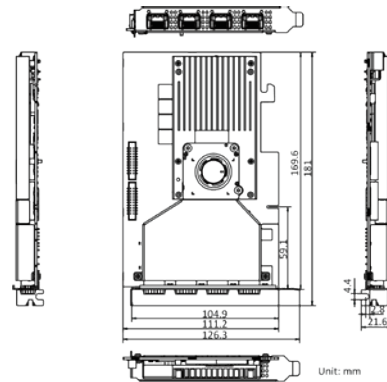
#### Half-height Type:

Compatible with 2U chassis



Example: MV-GT2002

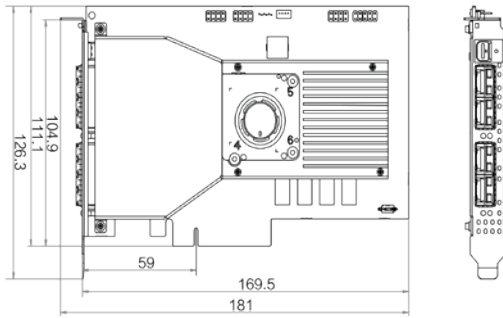
### 4. 10 GigE Fiber Industrial Frame Grabber:



Example: MV-GS1004

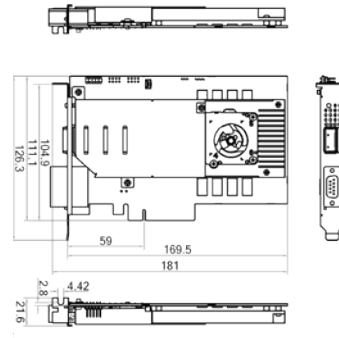
Unit: mm

**5. XoFLink Industrial Frame Grabber:**



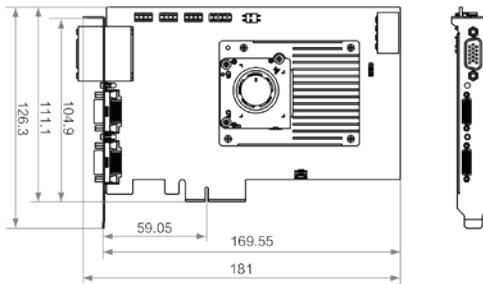
Example: MV-GS1104F

**6. XoFLink 50/100G Industrial Frame Grabber:**



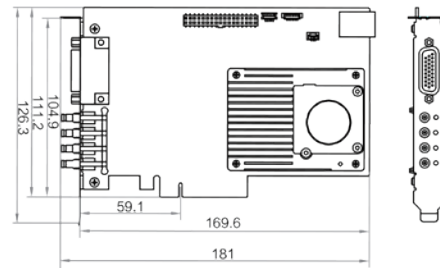
Example: MV-GQ1001

**7. Camera Link Industrial Frame Grabber:**



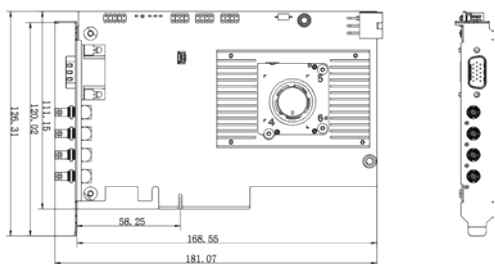
Example: MV-GC1002-V2

**8. CXP-6 Interface Industrial Frame Grabber:**



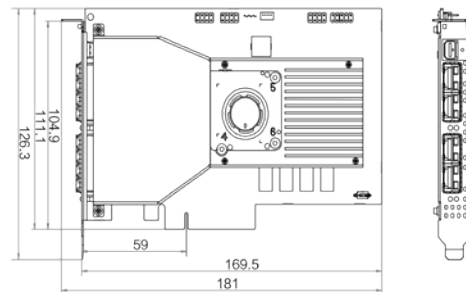
Example: MV-GX1004

**9. CXP-12 Interface Industrial Frame Grabber:**



Example: MV-GY1004

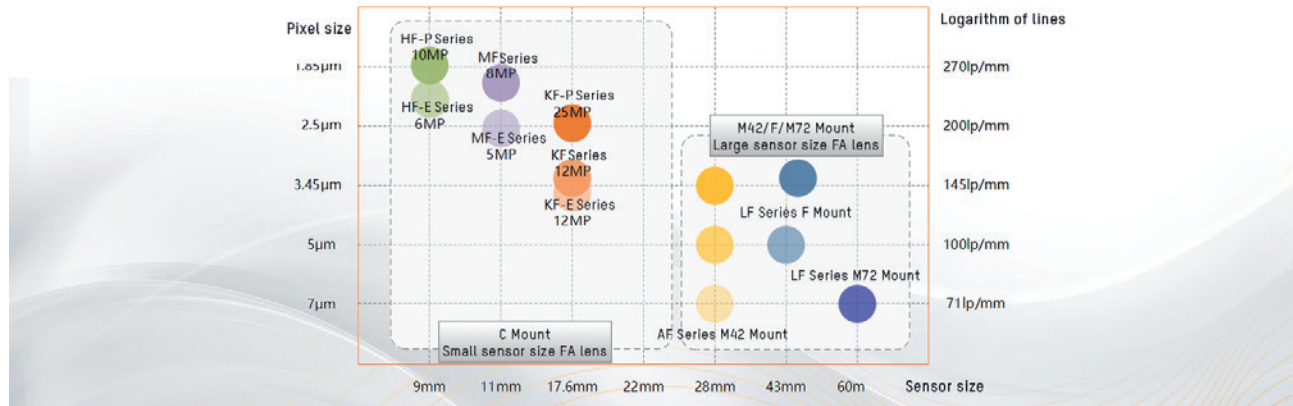
**10. USB Industrial Frame Grabber:**



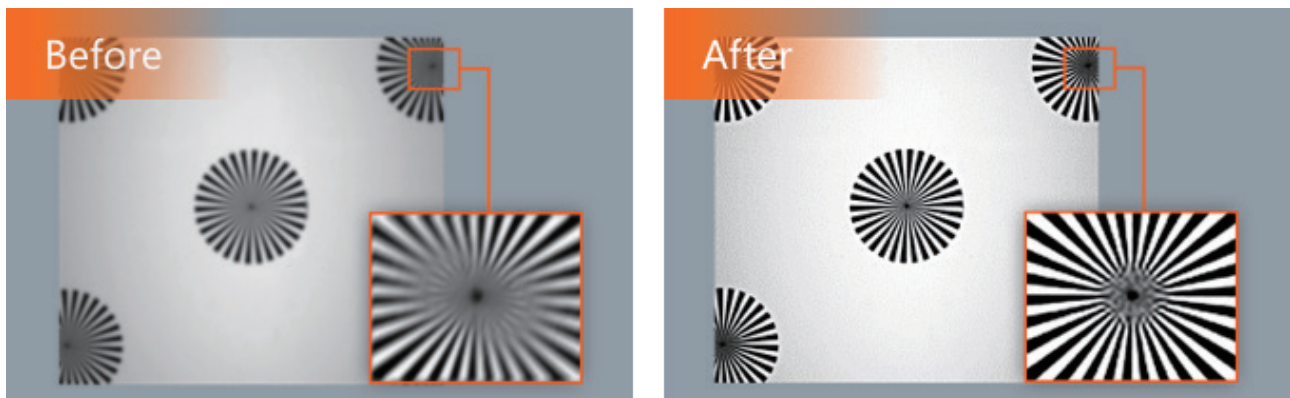
Example: MV-GU2104

# Lens

Self-developed FA series lens especially for vision application characteristics, has the design concept of high performance and low cost. The product features high definition, better image center-edge definition consistency, and higher relative illumination to provide better choices.



Wide sensor size coverage



High resolution with great imaging consistency

## HF-E Series (1/1.8" 6MP)

**RoHS**

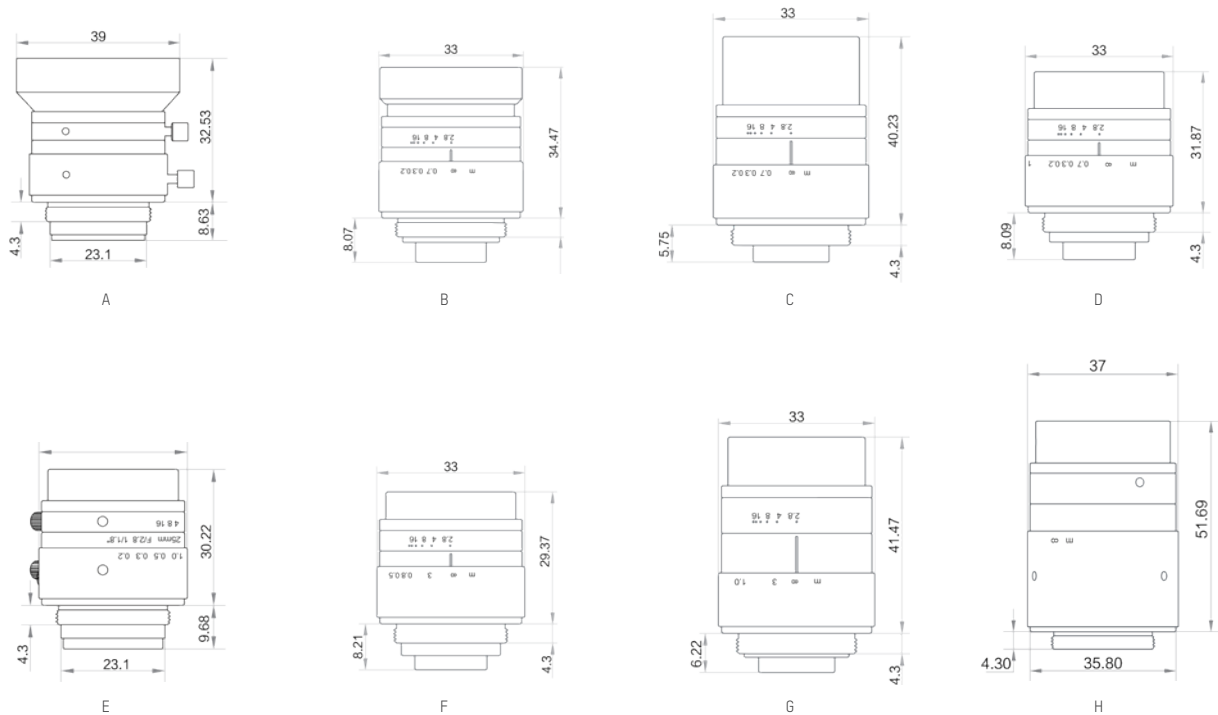
### Specifications

Model	Focal Length	F No.	Distortion	Field of View			M.O.D (m)	Filter Thread	Mount	Label
				D	H	V				
MVL-HF0628M-6MPE	6 mm	F2.8-F16	-0.103%	73.49°	63.11°	44.59°	0.1	M37.5 × P0.5	C	A
MVL-HF0828M-6MPE	8 mm	F2.8-F16	0.049%	58.50°	49.46°	34.19°	0.1	M30.5 × P0.5	C	B
MVL-HF1228M-6MPE	12 mm	F2.8-F16	-0.005%	40.94°	34.14°	23.17°	0.1	M27 × P0.5	C	C
MVL-HF1628M-6MPE	16 mm	F2.8-F16	-0.018%	31.28°	25.94°	17.48°	0.1	M27 × P0.5	C	D
MVL-HF2528M-6MPE	25 mm	F2.8-F16	-0.028%	20.32°	16.77°	11.24°	0.2	M27 × P0.5	C	E
MVL-HF3028M-6MPE	30 mm	F2.8-F16	-0.031%	16.99°	14.01°	9.38°	0.2	M27 × P0.5	C	F
MVL-HF4028M-6MPE	40 mm	F2.8-F16	-0.024%	12.78°	10.53°	7.04°	0.25	M27 × P0.5	C	G
MVL-HF5028M-6MPE	50 mm	F2.8-F16	0.03%	9.72°	7.84°	5.24°	0.25	M30.5 × 0.5	C	H

1/1.8" 2/3" 1.1" 4/3" ...



## Dimension



Unit:mm

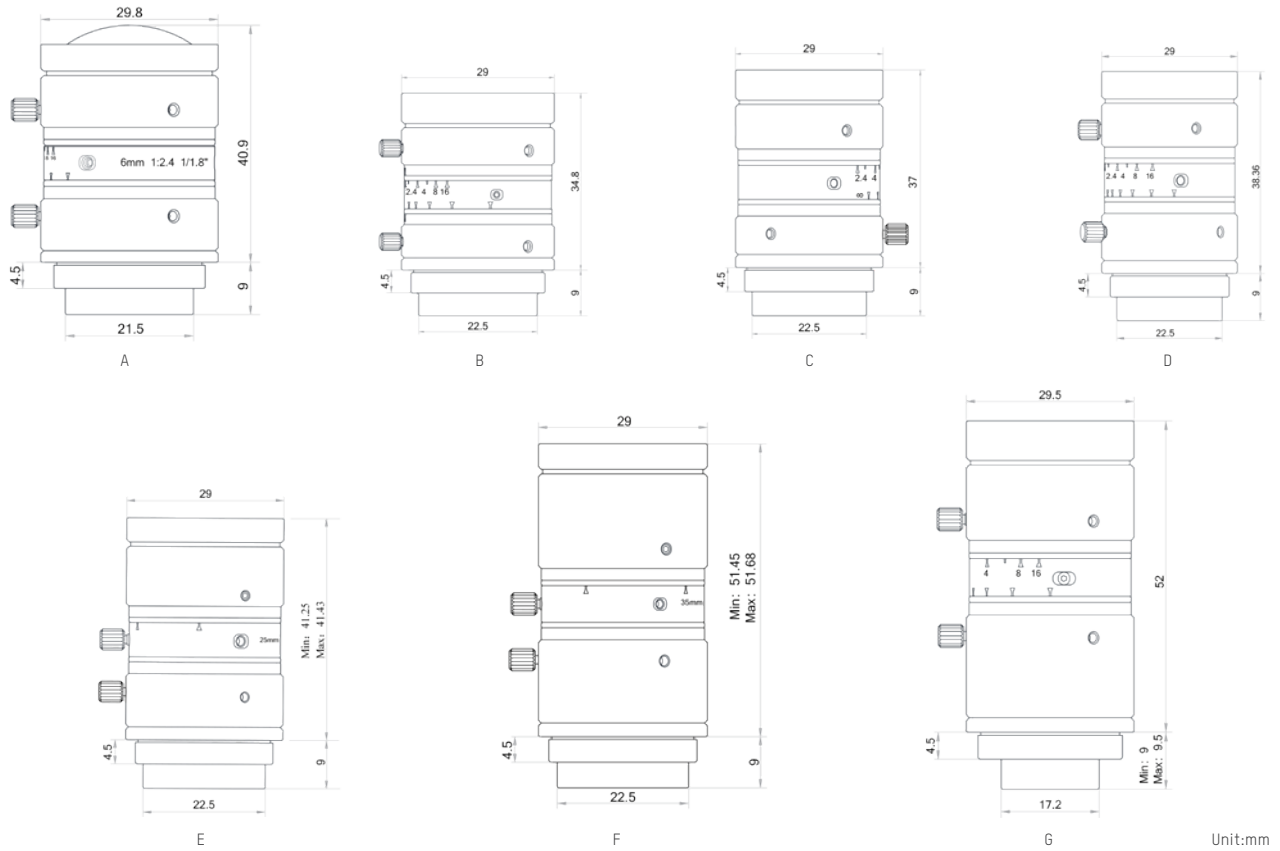
## HF-P Series (1/1.8" 10MP)

RoHS

### Specifications

Model	Focal Length	F No.	Distortion	Field of View			M.O.D (m)	Filter Thread	Mount	Label
				D	H	V				
MVL-HF0624M-10MP	6 mm	F2.4-F16	0.37%	72.96°	62.46°	44.05°	0.1	/	C	A
MVL-HF0824M-10MP	8 mm	F2.4-F16	-0.67%	58.81°	49.56°	34.04°	0.1	M27 × 0.5	C	B
MVL-HF1224M-10MP	12 mm	F2.4-F16	0.15%	40.2°	33.6°	22.9°	0.1	M27 × 0.5	C	C
MVL-HF1624M-10MP	16 mm	F2.4-F16	-0.02%	30.17°	25.07°	16.92°	0.1	M27 × 0.5	C	D
MVL-HF2524M-10MP	25 mm	F2.4-F16	-0.01%	19.67°	16.19°	10.85°	0.1	M27 × 0.5	C	E
MVL-HF3524M-10MP	35 mm	F2.4-F16	0.01%	13.47°	11.03°	7.34°	0.15	M27 × 0.5	C	F
MVL-HF5024M-10MP	50 mm	F2.4-F16	0.03%	9.10°	7.48°	5.00°	0.3	M27 × 0.5	C	G

## Dimension



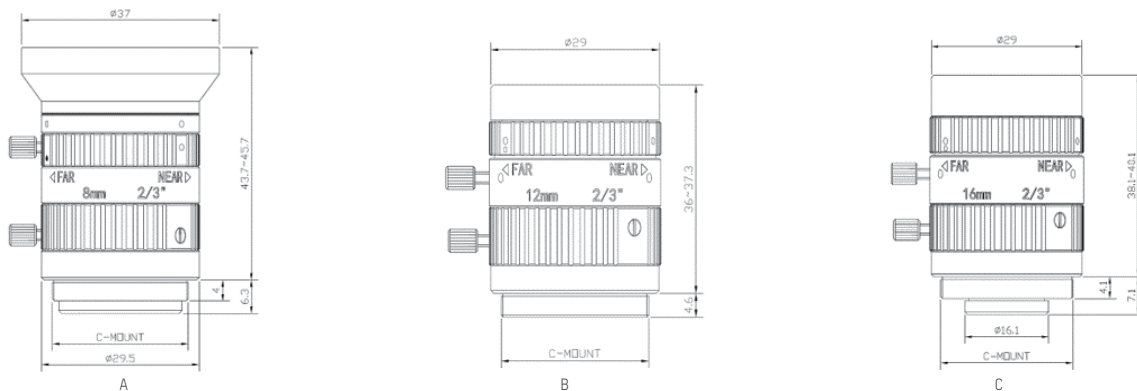
## MF-E Series (2/3" 5MP)

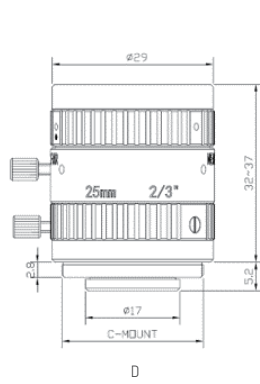
**RoHS**

### Specifications

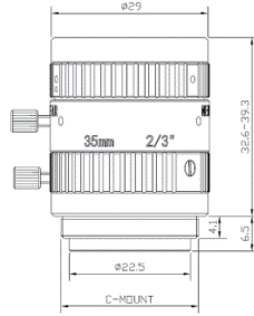
Model	Focal Length	F No.	Distortion	Field of View			M.O.D (m)	Filter Thread	Mount	Label
				D	H	V				
MVL-MF0824M-5MPE	8 mm	F2.4-F16	2.03%	69.46°	55.57°	41.68°	0.10m	M35.5×0.5	C-Mount	A
MVL-MF1224M-5MPE	12 mm	F2.4-F16	-0.16%	49.67°	39.09°	33.08°	0.25m	M27×0.5	C-Mount	B
MVL-MF1618M-5MPE	16 mm	F1.8-F16	0.98%	38.98°	30.75°	25.08°	0.20m	M27×0.5	C-Mount	C
MVL-MF2518M-5MPE	25 mm	F1.8-F16	0.77%	24.26°	18.78°	15.63°	0.20m	M27×0.5	C-Mount	D
MVL-MF3518M-5MPE	35 mm	F1.8-F16	0.02%	17.46°	13.43°	11.26°	0.25m	M27×0.5	C-Mount	E
MVL-MF5028M-5MPE	50 mm	F2.8-F16	0.08%	12.83°	9.86°	8.26°	0.40m	M27×0.5	C-Mount	F

## Dimension

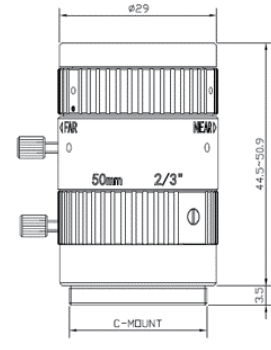




D



E



F

Unit:mm

# MF Series (2/3" 8MP)

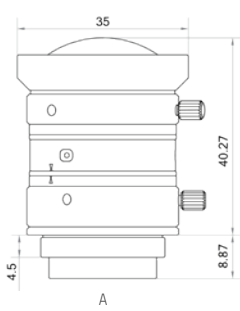
## Specifications

**RoHS**

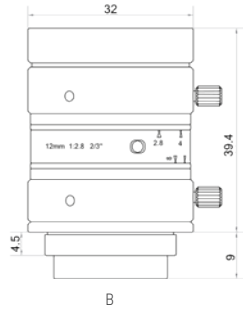
Model	Focal Length	F No.	Distortion	Field of View			M.O.D (m)	Filter Thread	Mount	Label
				D	H	V				
MVL-MF0828M-8MP	8 mm	F2.8-F16	0.28%	68.46°	54.97°	47.06°	0.1	/	C	A
MVL-MF1228M-8MP	12 mm	F2.8-F16	0.28%	48.57°	37.88°	32.04°	0.1	M30.5 × 0.5	C	B
MVL-MF1628M-8MP	16 mm	F2.8-F16	0.33%	37.39°	28.9°	24.33°	0.1	M27 × 0.5	C	C
MVL-MF2528M-8MP	25 mm	F2.8-F16	0.01%	23.23°	17.78°	14.91°	0.1	M27 × 0.5	C	D
MVL-MF3528M-8MP	35 mm	F2.8-F16	0.02%	15.26°	11.65°	9.76°	0.15	M30.5 × 0.5	C	E
MVL-MF7538-ML*	75 mm	F3.8-F12	0.02%	6.48°	4.97°	4.16°	0.25	/	C	G

Notice: \* New release.

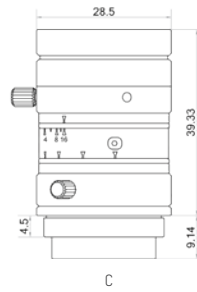
## Dimension



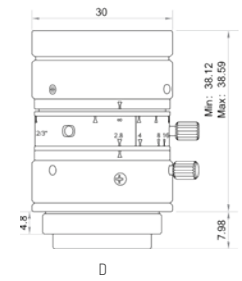
A



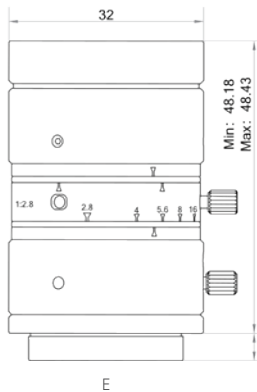
B



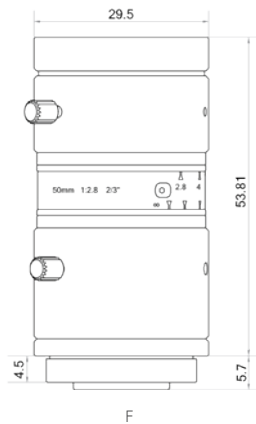
C



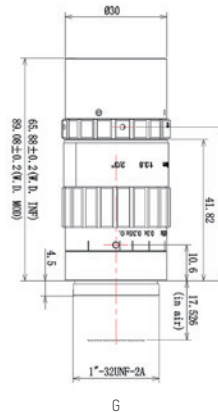
D



E



F



G

Unit:mm

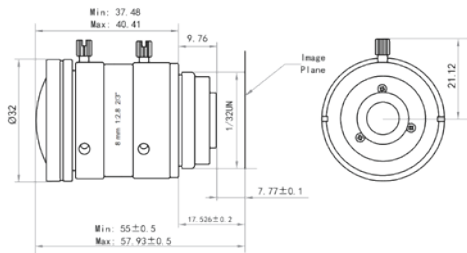
# MF Series (2/3" 10MP)

RoHS

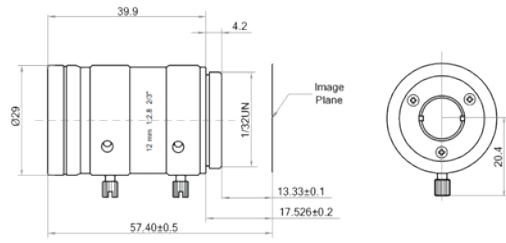
## Specifications

Model	Focal Length	F No.	Distortion	Field of View			M.O.D (m)	Filter Thread	Mount	Label
				D	H	V				
MVL-MF0828M-10MPE	8 mm	F2.8-F16	-0.42%	67.07°	54.06°	46.21°	0.1	/	C-Mount	A
MVL-MF1228M-10MPE	12 mm	F2.8-F16	-0.19%	47.66°	37.47°	31.67°	0.1	M25.5 × P0.5	C-Mount	B
MVL-MF1628M-10MPE	16mm	F2.8-F16	-0.09%	37.42°	29.1°	24.5°	0.1	M25.5 × P0.5	C-Mount	C
MVL-MF2528M-10MPE	25 mm	F2.8-F16	-0.48%	22.81°	17.12°	14.14°	0.15	M27 × P0.5	C-Mount	D
MVL-MF3528M-10MPE	35 mm	F2.8-F16	-0.24%	15.25°	11.23°	9.12°	0.15	M27 × P0.5	C-Mount	E
MVL-MF5028M-10MPE	50 mm	F2.8-F16	0.14%	11.01°	8.58°	7.21°	0.237	M27 × P0.5	C-Mount	F

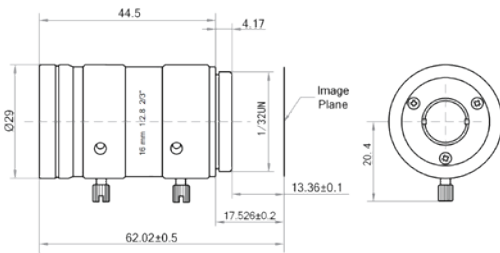
## Dimension



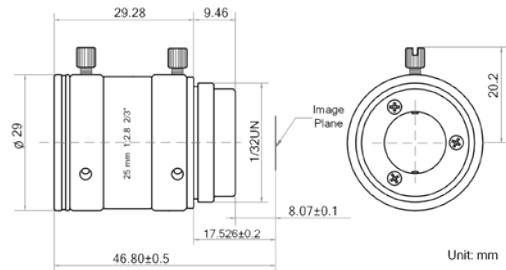
A



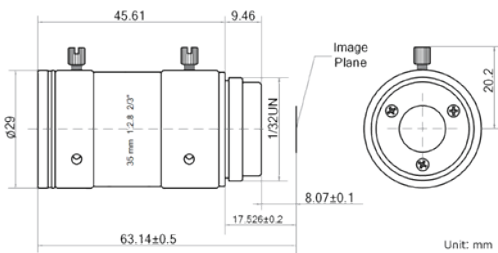
B



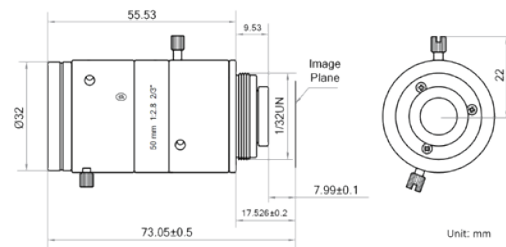
C



D



E



F

Unit:mm



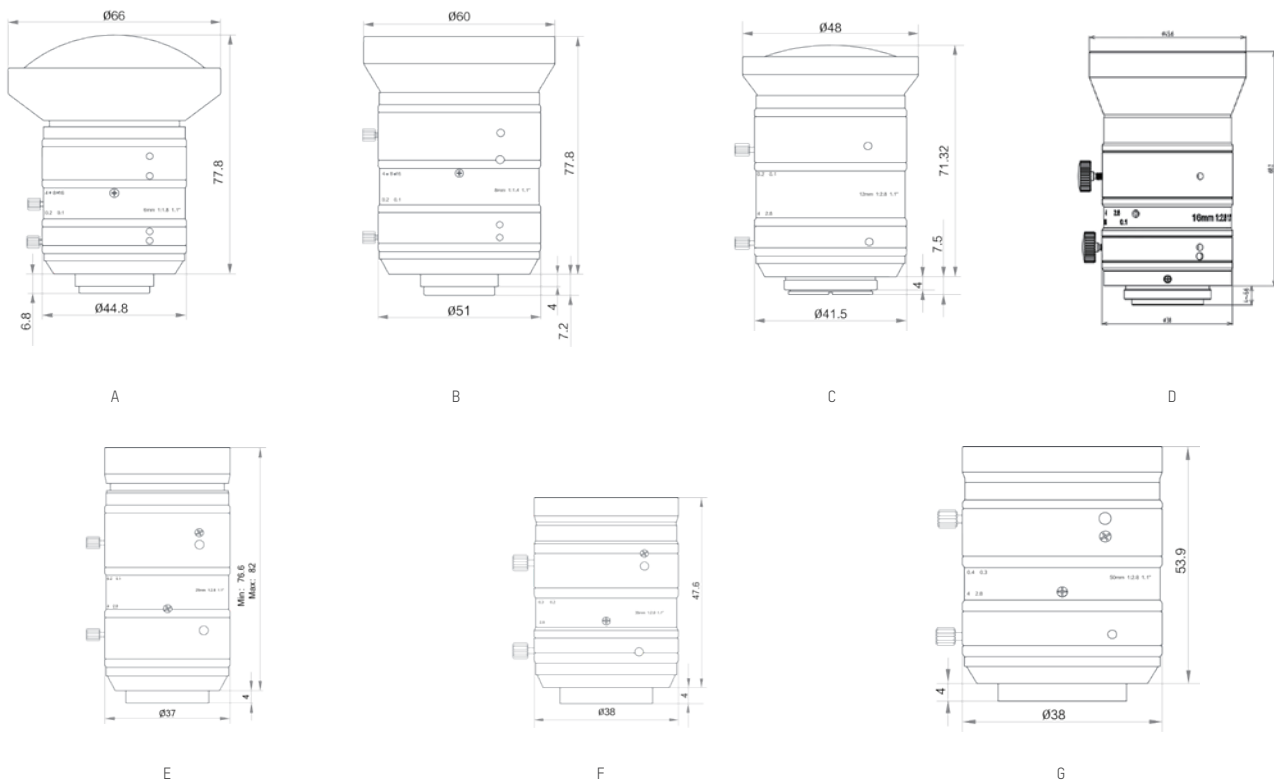
# KF-E Series (1.1" 12MP)

RoHS

## Specifications

Model	Focal Length	F No.	Distortion	Field of View			M.O.D (m)	Filter Thread	Mount	Label
				D	H	V				
MVL-KF0618M-12MPE	6 mm	F1.8-F16	2.50%	118.2°	104.9°	86.2°	0.1	/	C	A
MVL-KF0814M-12MPE	8 mm	F1.4-F16	5.50%	98.4°	84.8°	68°	0.1	M58 × 0.75	C	B
MVL-KF1228M-12MPE	12 mm	F2.8-F22	1.50%	66.7°	57°	45°	0.1	/	C	C
MVL-KF1628M-12MPE	16 mm	F2.8-F16	0.15%	55.6°	45.8°	35.3°	0.1	M43 × 0.75	C	D
MVL-KF2528M-12MPE	25 mm	F2.8-F22	0.10%	37.6°	30.4°	23°	0.1	M35.5 × 0.5	C	E
MVL-KF3528M-12MPE	35 mm	F2.8-F22	0.02%	28.3°	22.6°	17°	0.2	M35.5 × 0.5	C	F
MVL-KF5028M-12MPE	50 mm	F2.8-F22	0.04%	19.9°	15.9°	11.9°	0.3	M35.5 × 0.5	C	G

## Dimension



Unit:mm

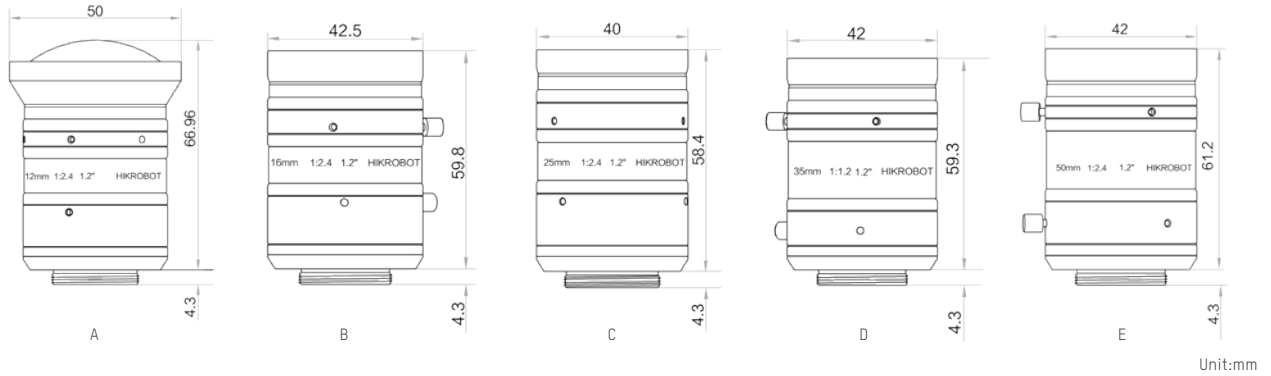
# KF-P Series (1.2" 25MP)

RoHS

## Specifications

Model	Focal Length	F No.	Distortion	Field of View			M.O.D (m)	Filter Thread	Mount	Label
				D	H	V				
MVL-KF1224M-25MP	12 mm	F2.4-F16	0.39%	76.37°	62.32°	55.34°	0.1	/	C	A
MVL-KF1624M-25MP	16 mm	F2.4-F16	0.07%	61.61°	48.82°	42.89°	0.1	M40.5 × 0.5	C	B
MVL-KF2524M-25MP	25 mm	F2.4-F16	-0.04%	40.80°	31.42°	27.34°	0.15	M37 × 0.5	C	C
MVL-KF3524M-25MP	35 mm	F2.4-F16	0.02%	29.48°	22.51°	19.54°	0.15	M40.5 × 0.5	C	D
MVL-KF5024M-25MP	50 mm	F2.4-F16	0.01%	20.60°	15.66°	13.57°	0.25	M40.5 × 0.5	C	E

## Dimension



Unit:mm

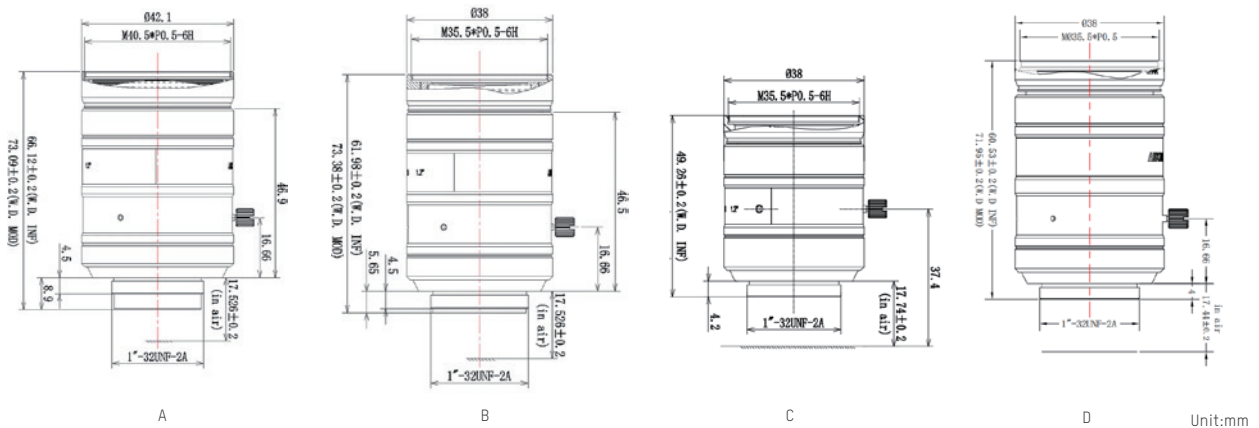
## KF-P Anti Vibration Series (1.2" 25MP)

RoHS

### Specifications

Model	Focal Length	F No.	Distortion	Field of View			M.O.D (m)	Filter Thread	Mount	Label
				D	H	V				
MVL-KF1640-25MP	16 mm	F4	-0.54%	61.7°	48.77°	42.83°	0.179x-0.001x	M40.5 × 0.5	C	A
MVL-KF2540-25MP	25 mm	F4	-0.54%	41.6°	32.04°	27.88°	0.285x-0.001x	M35.5 × 0.5	C	B
MVL-KF3540-25MP	35 mm	F4	-0.03%	29.3°	22.4°	19.5°	0.12 m	M35.5 × P0.5	C-Mount	C
MVL-KF5040-25MP	50 mm	F4	0.05%	20.6°	15.7°	13.6°	0.15 m	M35.5 × P0.5	C-Mount	D

## Dimension



Unit:mm

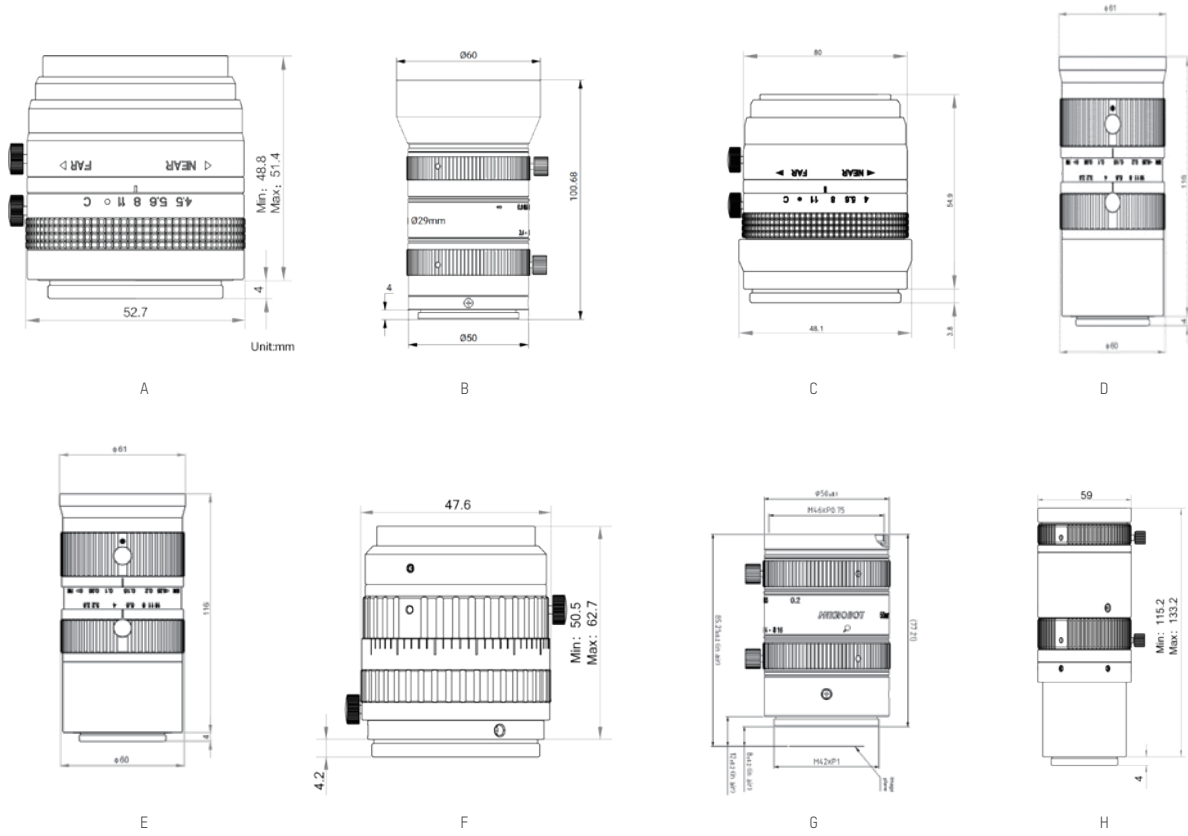
## AF Series (Half Frame Lens)

RoHS

### Specifications

Model	Focal Length	F No.	Distortion	Field of View	Magnification Range	Filter Thread	Mount	Label
MVL-AF2045M-M42	20 mm	F4.5 - C	0.20%	H (4K7μm, 28.7mm): 71°	0.1x ~ 0.02x	M43×0.75	M42×P1	A
MVL-AF2524M-M42	25 mm	F2.4 - F16	-0.34%	H (4K7μm, 28.7mm): 56°	0.143x ~ 0.001x	M58 × 0.75	M42 × P1	B
MVL-AF2840M-M42	28 mm	F4.0 - C	0.1%	H (4K7μm, 28.7mm): 53°	0.3x ~ 0.05x	M35 × 0.5	M42 × P1	C
MVL-AF3528M-M42	35 mm	F2.8 - F16	0.40%	H (4K7μm, 28.7mm): 44°	0.2x ~ 0.001x	M58×0.75	M42×P1	D
MVL-AF3528M-M42A	35 mm	F2.8 - F16	-0.16%	H (4K7μm, 28.7mm): 42°	0.164x ~ 0.001x	M52 × 0.75	M42 × P1	E
MVL-AF4028M-M42	40 mm	F2.8 - F22	0.62%	H (4K7μm, 28.7mm): 39°	0.22x ~ 0.04x	M37×0.75	M42×P1	F
MVL-AF5028M-M42A	50 mm	F2.8 - F16	0.52%	H (4K7μm, 28.7mm): 31°	0.26x ~ 0.001x	M46 × 0.75	M42 × P1	G
MVL-AF5040M-M42	50 mm	F4 - F22	0.21%	H (4K7μm, 28.7mm): 32°	0.33x ~ 0.01x	M52×0.75	M42×P1	H

## Dimension



Unit:mm

## LF Series (Large Image Circle Lens)

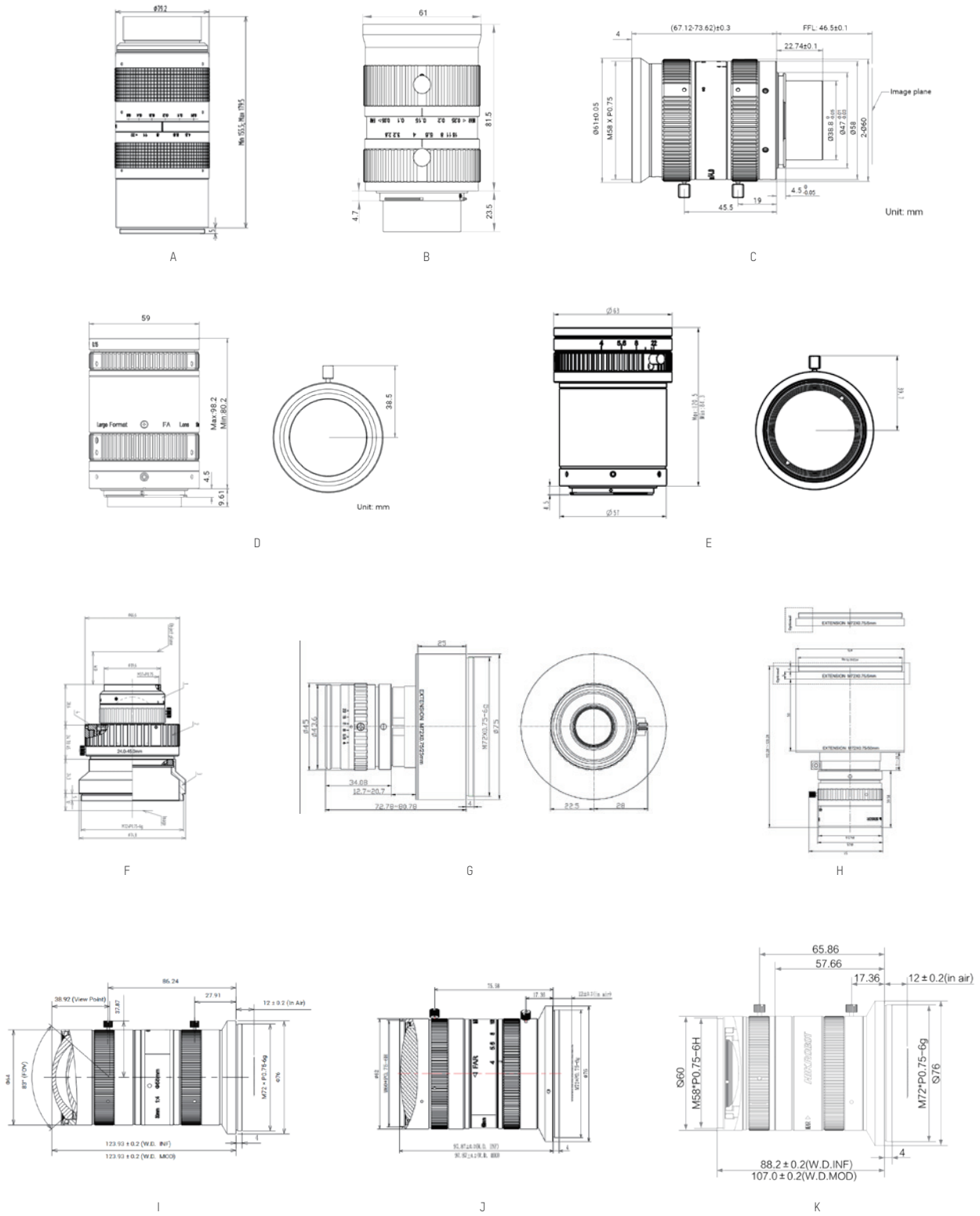
**RoHS**

### Specifications

Model	Focal Length	F No.	Distortion	Field of View			Magnification Range	Filter Thread	Mount	Label
				D	H	V				
LF5545M-M72*	55 mm	F4.5 ~ F22	0.05%	57.36°	47.37°	36.38°	0.5x ~ 0.01x	/	M72 × P0.75	A
MVL-LF3528M-F	35 mm	F2.8 ~ F16	0.4%	65.41°	56.32°	39.20°	0.25x ~ 0.05x	M58×0.75	F	B
MVL-LF3540M-F*	35 mm	F4.0 ~ F16	0.46%	61.6°	52.92°	36.72°	0.05x ~ 0.001x	M52× P0.75	F	C
MVL-LF6040M-0167V-M72	60 mm	F4.0 ~ F32	0.19%	H (8K7μm, 57.3mm): 44.51°			0.33x ~ 0.167x ~ 0.117x	M37 × P0.75	M72 × P0.75	D
MVL-LF6040M-0168V-M72	60 mm	F4.0 ~ F22	0.14%	H (8K7μm, 57.3mm): 44.47°			0.067x ~ 0.168x ~ 0.2x	M39 × P0.5	M72 × P0.75	E
MVL-LF8040M-021V-M72	80 mm	F4.0 ~ F22	-0.11%	H (8K7μm, 57.3mm): 32.97°			0.12x ~ 0.21x ~ 0.31x	M39 × 0.5	M72 × P0.75	F
MVL-LF3040M-005-M72 *	30mm	F4.0 ~ F16	-0.84%	H (8k7u, 57.3mm): 82.96°			0.14x ~ 0.05x ~ 0.03x	/	M72 × P0.75	G
MVL-LF4040M-01-M72	40 mm	F4 ~ F16	-0.42%	H (8K7μm, 57.4mm): 66.50°			0.29x~0.001x	M60 x 0.75	M72 x P0.75	H
MVL-LF6040M-013-M72	60 mm	F4 ~ F16	-0.45%	H (8K7μm, 57.4mm): 46.38°			0.28x~0.001x	M60 x 0.75	M72 x P0.75	I

Notice: \* New release. Horizontal FOV: Calculated with a line scan camera (4K 7μm, chip horizontal size: 28.7mm)

# Dimension



Unit:mm

## ■ M12 Lens

For embedded vision applications, M12 series lens adopts metal lens barrel and glass lens design under the premise of ensuring imaging performance, which improves product stability and adapts to harsh industrial environment.



High resolution and low distortion

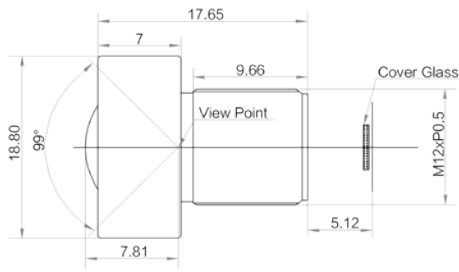
## I M12 Series Lens

**RoHS**

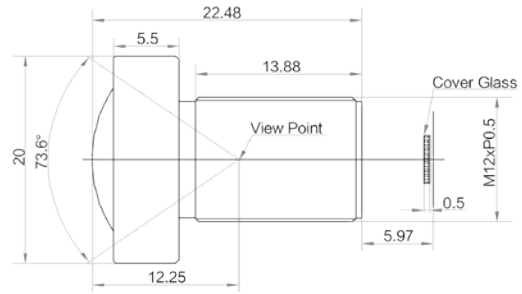
### Specifications

Model	Focal Length	F No	Distortion	Magnification Range	Field of View			Mount	Label
					D	H	V		
MVL-HF0328-05S	3.37 mm	F2.8	<1%	100 ~ 850 mm	100°	86°	70°	S-Mount	A
MVL-HF0628-05S	6 mm	F2.8	0.50%	100 ~ 850 mm	73°	63°	45°	S-Mount	B
MVL-HF0828-05S	8 mm	F2.8	<0.3%	120 ~ 900 mm	58°	50°	34°	S-Mount	C
MVL-HF1228-05S	12 mm	F2.8	<0.2%	100 ~ 850 mm	41°	34°	23°	S-Mount	D
MVL-HF1628-05S	16 mm	F2.8	<0.1%	100~850 mm	31°	26°	17°	S-Mount	E
MVL-HF2528-05S	25 mm	F2.8	<0.05%	200 ~ 950 mm	20°	17°	11°	S-Mount	F

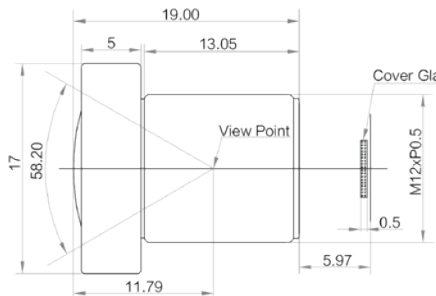
## Dimension



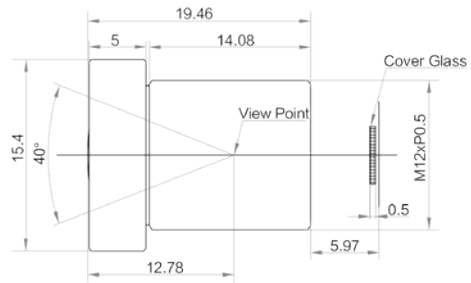
A



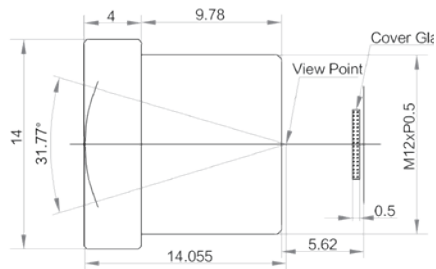
B



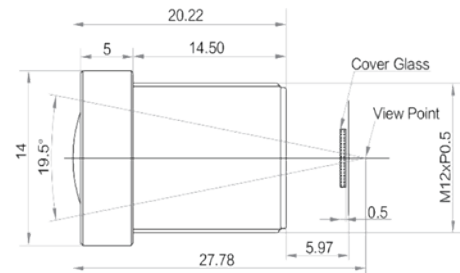
C



D



E



F

Unit:mm

## Lens Selector

Please select or enter the related application parameters to find a suitable lens model. The lens selector supports multiple camera models, and automatically gives the related data to improve the efficiency of selection. If you have any questions, please contact technical support for services.

### 1 Sensor Size Confirmation

- Option 1: Choose Hikrobot's camera series and model  Option 2: Manually input sensor size

Camera Series

CS Area Scan Camera

Camera Model

MV-CS050-10GM-PRO, 5MP Area Scan Camera,GigE,IMX264,Mono,PRO

## 2 Input Working Conditions

Please enter as much data as possible, the system will automatically calculate the default value

[Clear](#)

Target Width(mm) 101

Target Height(mm) 84

Horizontal Viewing Angle (°) 19.1

Vertical Viewing Angle (°) 16.0

Working Distance(mm) 300

Magnification 0.083620

Focal Length(mm) 25.1

※ Approximate calculation result, for reference only

## 3 Selection Result Output

[Show Selection Result](#)

Lens Model	Focal Length	Working Dist...	Magnification	Extensio...	Target W...	Target H...	Image Size	Interface Type
MVL-MF2518M-5MPE	25	300	0.084	0	100.1	83.8	Φ11mm(2/3" )	C Mount
MVL-MF3518M-5MPE	35	300	0.125	0	67.3	56.3	Φ11mm(2/3" )	C Mount
MVL-MF2528M-8MP	25	300	0.086	0	97.8	81.8	Φ11mm(2/3" )	C Mount
MVL-MF3528M-8MP	35	300	0.129	0	65.2	54.6	Φ11mm(2/3" )	C Mount
MVL-KF2528M-12MPE	25	300	0.08	0	106	88.7	Φ17.6mm(1.1 ")	C Mount
MVL-KF2528M-12MP	25	300	0.079	0	106.6	89.2	Φ17.6mm(1.1 ")	C Mount
MVL-KF3528M-12MP	35	300	0.117	0	72.4	60.6	Φ17.6mm(1.1 ")	C Mount
MVL-KF3528M-12MPE	35	300	0.116	0	72.9	61	Φ17.6mm(1.1 ")	C Mount
MVL-KF2524M-25MP	25	300	0.08	0	106.1	88.7	Φ19.3mm(1.2 ")	C Mount
MVL-KF2540-25MP	25	300	0.08	0	105.8	88.5	Φ19.3mm(1.2 ")	C Mount



◀ Scan now, experience instantly

# Cables

To help industrial cameras work more stable, Hikrobot provides high-quality cable products including power line, I/O control line, data transmission line to fulfill diverse application needs.



**Multiple types, diversified interface**

The power cables covers various aviation connector cables such as P7 6pin/P10 12pin and M12. Data cable includes GigE/10GigE/USB3.0/Camera Link/ CoaXPRESS and other interfaces to match with different types of industrial cameras.

GigE

6pin P7      Camera Link      CoaXPRESS

Multiple types, diversified interface



Comprehensive performance, adapt to diverse scenarios

## Data Cable

**RoHS** 

### Specifications

Interface type	Wire type	Model	End A connector	End B connector	Length
USB3.0 Cables	Standard	MV-ACU3-MBMs-AM-ST	Micro-B male (with screw)	A male	0.5m/1m/2m/3m
	Standard (angled)	MV-ACU3-MBMs(down)-AM-ST	Micro-B male (with screw) , Angle (down)	A male	0.5m/1m/2m/3m
	Flexible	MV-ACU3-MBMs-AM-FL	Micro-B male (with screw)	A male	3m
	Flexible(high shield)	MV-ACU3-MBMs-AM-FL(EMC)	Micro-B male (with screw)	A male	1m/3m
	Super flexible long distance (AOC)	MV-ACU3-MBMs-AM-SF	Micro-B male (with screw)	A male	3m/5m/7m/10m/15m/20m
	Super flexible long distance (angled) (AOC)	MV-ACU3-MBMs(down)-AM-SF	Micro-B male (with screw) , Angle (down)	A male	3m/5m/7m/10m/15m/20m

Interface type	Wire type	Model	End A connector	End B connector	Length
GigE Cables	Standard	MV-ACG-RJ45s-RJ45-ST	RJ45 (with locking stud)	RJ45	1m/3m/5m/7m/10m/15m/30m/60m
	High flexible	MV-ACG-RJ45s-RJ45-HF	RJ45 (with locking stud)	RJ45	3m/5m/7m/10m/15m/30m
	Super flexible	MV-ACG-RJ45s-RJ45-SF	RJ45 (with locking stud)	RJ45	3m/5m/7m/10/15m
	Standard (angled)	MV-ACG-RJ45s(up)-RJ45-ST	RJ45 (with locking stud), Bend(up)	RJ45	3m/5m/15m
	High flexible (angled)	MV-ACG-RJ45s(up)-RJ45-HF	RJ45 (with locking stud), Bend(up)	RJ45	3m/5m/15m
10GigE Cables	Standard	MV-AC10G-RJ45s-RJ45-ST	RJ45 (with locking stud)	RJ45	3m/5m/10m
	High flexible	MV-AC10G-RJ45s-RJ45-HF	RJ45 (with locking stud)	RJ45	3m/5m/10m
GigE Cables for CT Series Camera	Standard	MV-ACG-M12X8M-RJ45-ST *	M12X-code, male	RJ45	1m/3m/5m/7m/10m/15m/20m/30m
	High flexible	MV-ACG-M12X8M-RJ45-HF *	M12X-code, male	RJ45	1m/3m/5m/7m/10m/15m/20m/30m
	Super flexible	MV-ACG-M12X8M-RJ45-SF *	M12X-code, male	RJ45	1m/3m/5m/7m/10m/15m/20m/30m
	Standard (waterproof)	MV-ACG-M12X8M-RJ45-ST (WP) *	M12X-code, male	RJ45	3m/5m/10m/15m
	High flexible (waterproof)	MV-ACG-M12X8M-RJ45-HF (WP) *	M12X-code, male	RJ45	3m/5m/10m/15m
	Super flexible (waterproof)	MV-ACG-M12X8M-RJ45-SF (WP) *	M12X-code, male	RJ45	3m/5m/10m/15m
10GigE Optical Fiber Jumper Cables	Standard	MV-AC10G-2LC-2LC-ST	2LC	2LC	3m/5m/7m/10m/15m/20m/30m/40m/50m
	High flexible	MV-AC10G-2LC-2LC-HF	2LC	2LC	3m/5m/7m/10m/15m/20m/30m/40m/50m
10GigE Optical Fiber Module	Standard SPF+ module	MV-AC10G-SFP-850-LC	2LC	-	-
100G Optical Fiber Jumper	QSFP28 jumper	MV-AC100G-MP0-MP0-ST	MP0	MP0	3m/5m/10m
100G Optical Fiber Module	QSFP28 module	MV-AC100G-QSFP28-850	MP0	-	-
Camera Link Cables	Standard	MV-ACCL-SDR-SDR-ST	SDR	SDR	3m/5m/7m
	High flexible	MV-ACCL-SDR-SDR-HF	SDR26	SDR26	3m/5m/7m
	High flexible	MV-ACCL-SDR-MDR-HF	SDR26	MDR26	3m/5m/7m
	High flexible	MV-ACCL-MDR-MDR-HF	MDR26	MDR26	3m/5m/7m
	Super flexible (AOC)	MV-ACCL-SDR-SDR-AOC	SDR	SDR	8m/10m/15m/20m
	Super flexible (AOC)	MV-ACCL-SDR-MDR-AOC	SDR	MDR	8m/15m
CoaXPress Cables	Standard CXP-6	MV-ACXP6-DIN-DIN-ST	Din 1.0/2.3	Din 1.0/2.3	3m/5m/10m
	Standard CXP-6	MV-ACXP6-DIN-BNC-ST	Din 1.0/2.3	BNC	3m/5m/10m
	High flexible CXP-6	MV-ACXP6-DIN-DIN-HF	Din 1.0/2.3	Din 1.0/2.3	3m/5m/10m
	High flexible CXP-6	MV-ACXP6-DIN-BNC-HF	Din 1.0/2.3	BNC	3m/5m/10m
	High flexible CXP-6	MV-ACXP6-DIN-HDBNC-HF	Din 1.0/2.3	HD-BNC	3m/5m/10m
	High flexible CXP-6(angled)	MV-ACXP6-DIN(up)-DIN-HF	Din 1.0/2.3(up)	Din 1.0/2.3	1.5m/3m/5m/8m/10m
	Standard CXP-12	MV-ACXP12-HDBNC-HDBNC-ST	HD-BNC	HD-BNC	3m/5m/10m
	High flexible CXP-12	MV-ACXP12-HDBNC-HDBNC-HF	HD-BNC	HD-BNC	3m/4m/5m/7m/10m
	High flexible CXP-12(angled)	MV-ACXP12-HDBNC(up)-HDBNC-HF	HD-BNC(up)	HD-BNC	3m/4m/10m

Notice: \* New release

## Camera Power Supply & IO Line



### Specifications

Interface type	Wire type	Model	End A connector	End B connector	Length
P7 6pin I/O & Power Cables	Standard	MV-ACP-H6p-open-ST	6pin P7 female	open	1m/3m/5m/7m/10m/15m/30m/60m
	High flexible	MV-ACP-H6p-open-HF	6pin P7 female	open	3m/5m/7m/10m/15m/30m
	Super flexible	MV-ACP-H6p-open-SF	6pin P7 female	open	3m/5m/7m/10m/15m
	Standard (angled)	MV-ACP-H6p(left)-open-ST	6pin P7 female(left)	open	3m/5m/15m
	High flexible (angled)	MV-ACP-H6p(left)-open-HF	6pin P7 female(left)	open	3m/5m/15m
	Super flexible	MV-ACP-H6p-open-SF	6pin P7 female	open	3m/5m/7m/10m/15m

Interface type	Wire type	Model	End A connector	End B connector	Length
P10 12pin I/O & Power Cables	Standard	MV-ACP-H12p-open-ST	12pin P10 female	open	3m/5m/7m/10m/20m
	High flexible	MV-ACP-H12p-open-HF	12pin P10 female	open	3m/5m/7m/10m
	Standard	MV-ACP-M8A8M-open-ST *	M8 A-code, male	open	1m/3m/5m/7m/10m/15m/20m/30m
	High flexible	MV-ACP-M8A8M-open-HF *	M8 A-code, male	open	1m/3m/5m/7m/10m/15m/20m/30m
	Super flexible	MV-ACP-M8A8M-open-SF *	M8 A-code, male	open	1m/3m/5m/7m/10m/15m/20m/30m
	Standard (waterproof)	MV-ACP-M8A8M-open-ST (WP) *	M8 A-code, male	open	3m/5m/10m/15m
	High flexible (waterproof)	MV-ACP-M8A8M-open-HF (WP) *	M8 A-code, male	open	3m/5m/10m/15m
	Super flexible (waterproof)	MV-ACP-M8A8M-open-SF (WP) *	M8 A-code, male	open	3m/5m/10m/15m
Frame Grabber I/O Trigger Line	Standard(high shield)	MV-ACP-DB9F-open-ST(EMC)	DB9F	open	3m/5m/7m/10m
		MV-ACP-DB15F-open-ST(EMC)	DB15F	open	3m/5m/7m/10m
Frame Grabber Internal I/O Cascade Line	Standard	MV-ACP-TJC8x7-FL-0.6m	TJC8 9pin female(7 ports)		0.6m

Notice: \* New release

# I Power Cables



## Specifications

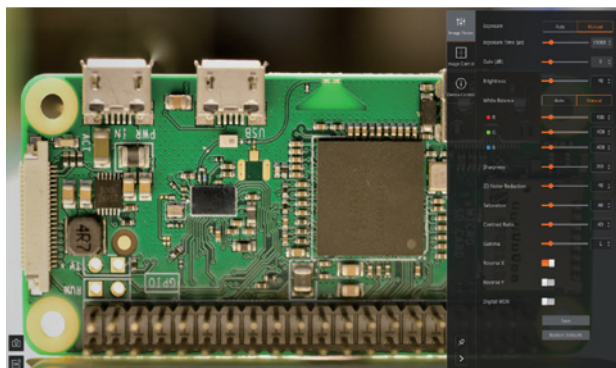
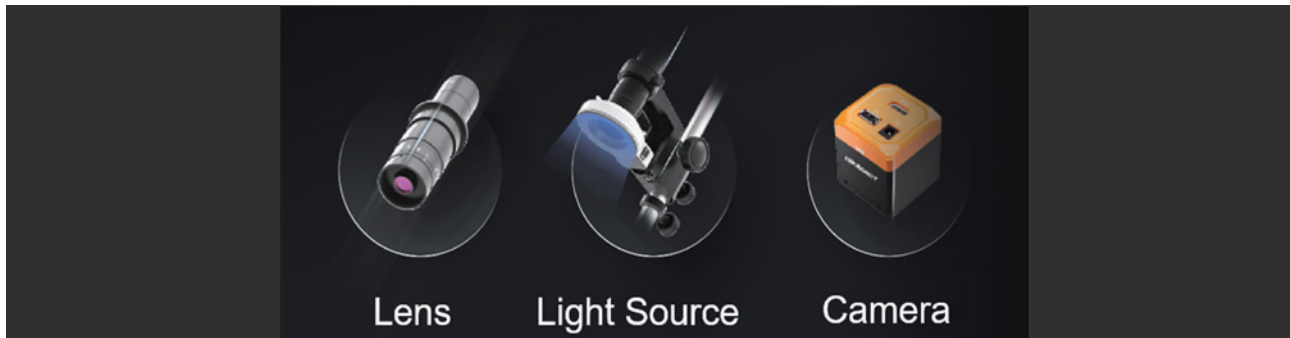
Interface type	Model	End A connector	End B connector	Length	
Power Adapter	Power Adapter,ADS-26FSG-12 12024EPCN	Two-prong AC plug (CCC standard)	Open(2-pin)	1200 mm	
	Power Adapter,ADS-12FG-12N 12012EPCN	Two-prong AC plug (CCC standard)	Open(2-pin)	1500 mm	
	Power Adapter,ADS-12IM-12-4 12012E-H(DC Connector)	Two-prong AC plug (CCC standard)	DC connector (Ø5.5mmxØ2.1mm x10mm)	1200 mm	
	Power Adapter,ADS-26FSG-12 12024EPCN(DC Connector)	Two-prong AC plug (CCC standard)	DC connector (Ø5.5mmxØ2.1mm x10mm)	1200 mm	
	Power Adapter,KPL-060F-VI		C14 Plug	Open(2-pin)	800 mm
	Power Adapter,KPL-060M-VI		C14 Plug	Open(2-pin)	1200 mm
All-in-one Power Adapter	MV-ACP-H6P-ADP12V2A/open-ST-4m	P7 6-pin aerospace connector (female) + open (4-pin)	Two-prong AC plug	End A: 4000 mm End B: 1000 mm	
	MV-ACP-H12P-ADP24V1A-ST-4m	P10 12-pin aerospace connector (female)	Two-prong AC plug	End A: 4000 mm End B: 1000 mm	
Switching Power Supplies	Switching Power Supply,LRS-50-12	Terminal block (220 VAC Input)	Terminal block	-	
	Switching Power Supply,LRS-50-24	Terminal block (220 VAC Input)	Terminal block	-	
	Switching Power Supply,LRS-75-48	Terminal block (220 VAC/DC Input)	Terminal block	-	
	Switching Power Supply,LRS-150F-24	Terminal block (220 VAC/DC Input)	Terminal block	-	

# Microscope System

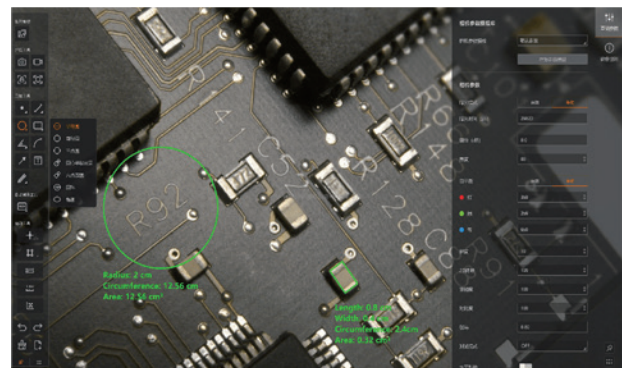
## Integrated Design, Clear Imaging

The Zoom Microscope System adopts the HD camera, lens, light source, bracket, and base.

- Delivers high-resolution imaging via HD camera.
- Provides direct HDMI connection to deliver real-time images without latency or motion blur.
- Ensures clear, distortion-free images with high-magnification objective lens across various fields of view.
- Integrates light source with adjustable intensity via knob to enhance brightness in dark areas, reduce image noise, and adapt to diverse environments.



Built-in System, Supporting Various Parameter Adjustment



Comprehensive Measurement Functions, One-Click Generation of Data Reports

## Specifications

Model	MV-MZS200H-100 *	MV-MZS300H-100 *	
Camera	Sensor type	CMOS, rolling shutter	CMOS, rolling shutter
	Pixel size	3.75 $\mu\text{m}$ $\times$ 3.75 $\mu\text{m}$	2.9 $\mu\text{m}$ $\times$ 2.9 $\mu\text{m}$
	Sensor size	1/2"	1/1.88"
	Resolution	1920 $\times$ 1080	2560 $\times$ 1440
	Max. frame rate	60 fps	30 fps
	Visual tools	<ul style="list-style-type: none"> <li>• <b>Image process:</b> White balance, brightness, sharpness, contrast, saturation, digital gain, Gamma correction, digital WDR, noise reduction.</li> <li>• <b>Auxiliary functions:</b> Image reverse, grid line</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Image process:</b> White balance, brightness, sharpness, contrast, saturation, digital gain, Gamma correction, digital WDR, noise reduction.</li> <li>• <b>Auxiliary functions:</b> Image reverse, cross line, grid line, ruler, scale, image freezing, capture, recording, storage.</li> <li>• <b>Measurement:</b> Report export, calibration, point measurement, line measurement, circle measurement, angle measurement, polygon measurement, polyline measurement, curve measurement, line/circle auto measurement.</li> </ul>
	Transmission interface	HDMI	HDMI
Console interface	USB2.0	USB 2.0 $\times$ 2, USB 3.0 $\times$ 1, micro SD card interface $\times$ 1	
Light source	Color	White	White
	Brightness level	0 ~ 100%	0 ~ 100%

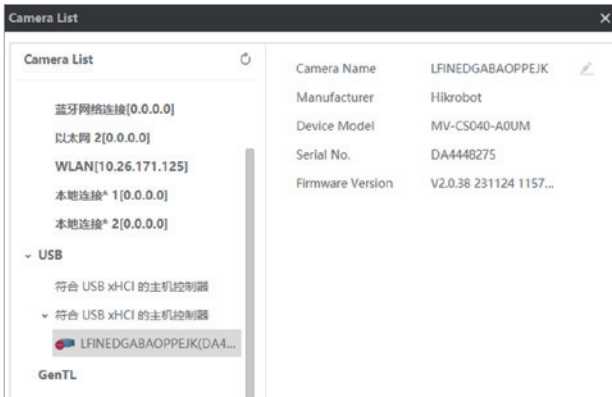
Model	MV-MZS200H-100 *	MV-MZS300H-100 *	
Lens	Ocular lens	0.5 x	0.5 x
	Objective lens	0.6 x ~ 4.5 x	0.6 x ~ 4.5 x
	Optical magnification	0.3 x ~ 2.25 x	0.3 x ~ 2.25 x
	Digital magnification	20 x ~ 148 x (with a 21.5" monitor)	20 x ~ 144 x (with a 21.5" monitor)
	Field of view (range)	3.2 × 1.8 mm ~ 24 × 13.5 mm	3.3 × 1.9 mm ~ 24.7 × 13.9 mm
	Working distance	100±5 mm	100±5 mm

## MicroMaster

MicroMaster client software is a specialized image analysis tool designed for microscopic applications. Equipped with over 30 geometric measurement tools, it enables precise measurement of targets within microscopic scenes. Offering camera/local dual working modes, it supports measurement analysis of real-time or local images. Integrated with advanced image processing algorithms, the MicroMaster achieves wide-field-of-view panorama stitching and multi-focus fusion imaging. As supporting software for microscope cameras, it has been extensively used in industrial inspection, education and research, material testing, and other microscopic measurement fields.

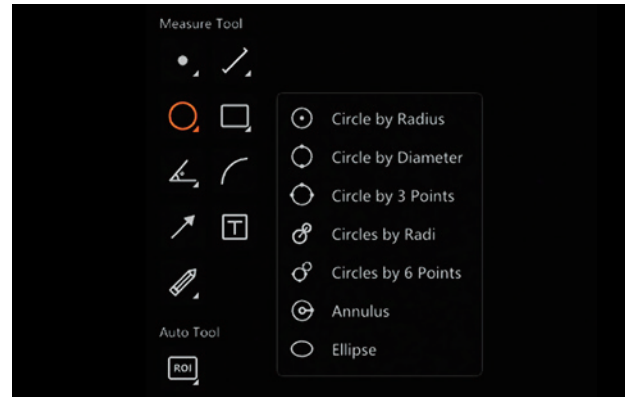
### Camera/Local Dual Working Modes

The software can connect to cameras through the device list to acquire images and analyze images in real time. It also supports importing local images for offline analysis.



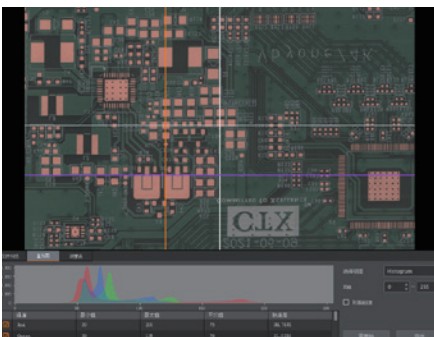
### Rich Measurement Tools

The software is equipped with over 30 geometric tools for point, line, circle, polygon, angle, arc, etc. It can also automatically recognize and measure the circles and lines within microscopic scenes.



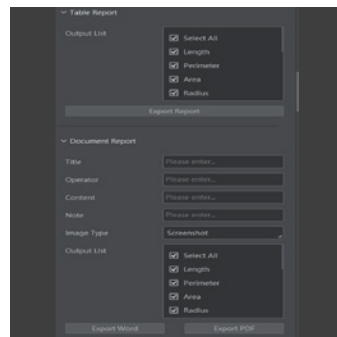
### Numerous Auxiliary Tools

The software offers various auxiliary tools such as cross lines and grids to aid alignment. It also enables image histograms for quick color adjustments.



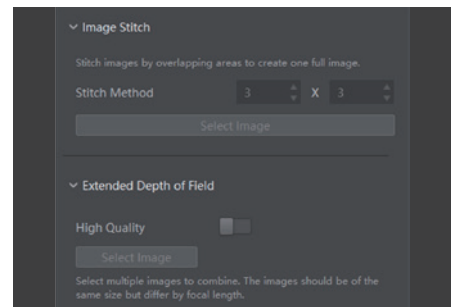
### Report Export

It supports exporting reports containing measurement graphics and results, facilitating subsequent archiving.



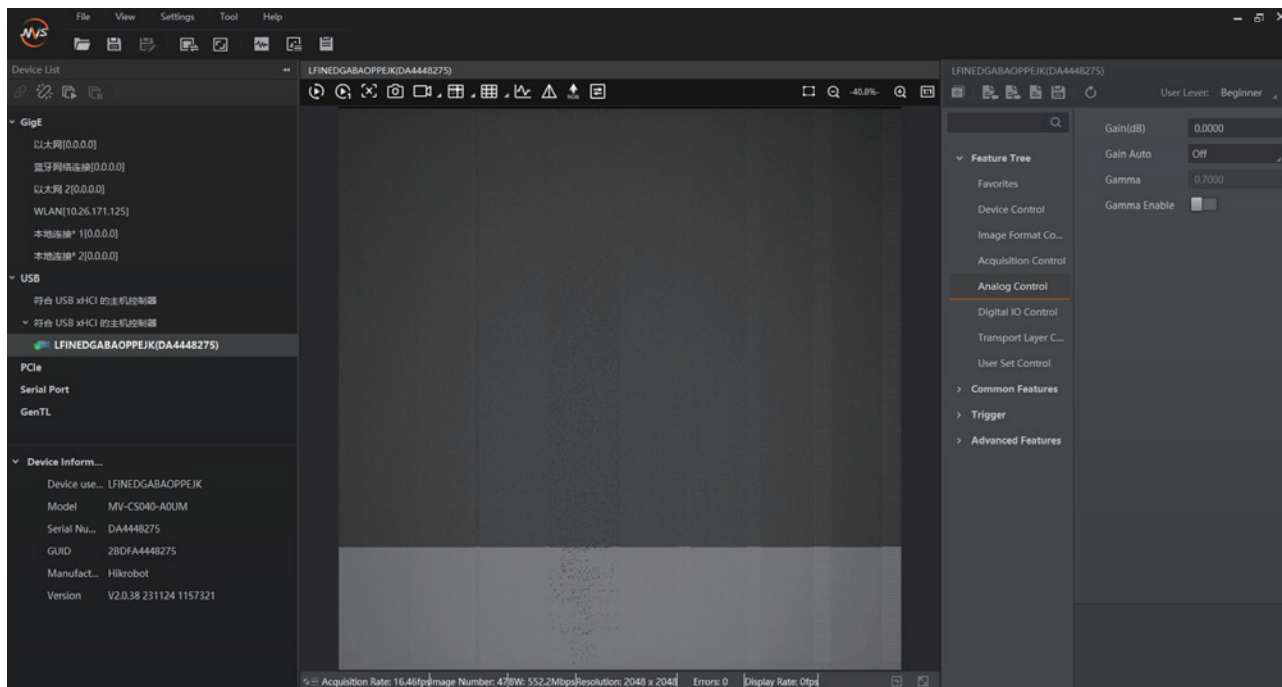
### Advanced Functions

Its advanced functions include depth of field fusion and image stitching, accommodating scenarios with significant height differences in the measured objects or with limited field-of-view coverage.



# Industrial Camera Client and SDK

MVS is a software application developed to support Hikrobot machine vision products, compatible with all Hikrobot area scan and line scan cameras.



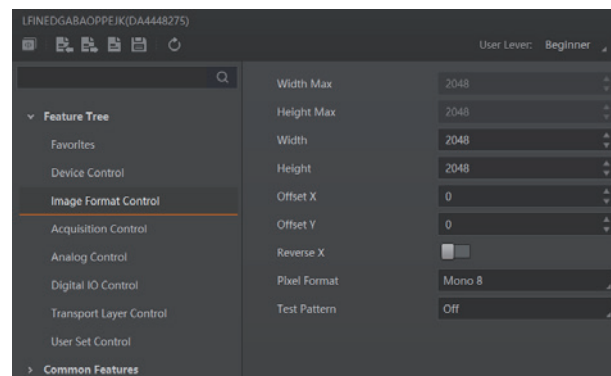
## Camera and Frame Grabber Management

The device list allows you to manage cameras and frame grabbers. It supports adding remote camera adding, editing network IP and gateway, configuring main and sub camera, adding and deleting virtual cameras, etc.



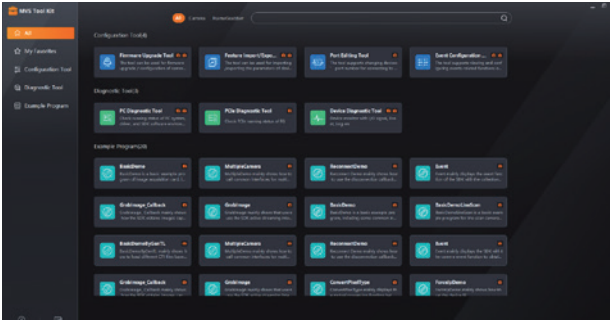
## Multilevel Feature Tree for Easy Operations

Device feature nodes such as camera, frame grabber, and light source can be presented and controlled through the Client, and the feature tree has a two-level display structure, facilitating quick node searching and locating. This allows for one-stop debugging of cameras and related devices.



## MVS Tool Kit

Multiple configuration and device diagnostic tools are integrated within the MVS tool kit, including Firmware Upgrade Tool, Feature Import/Export Tool, Serial Port Configuration Tool, Bad Pixel Correction Tool, and PC Diagnostic Tool, which help you complete equipment debugging and troubleshooting more efficiently in the field.



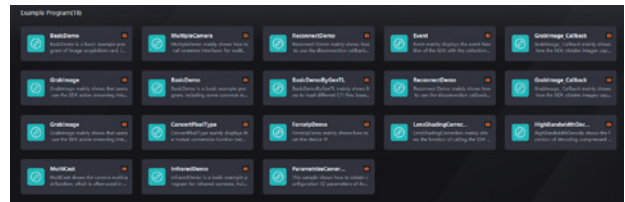
## ISP Tool Imaging Debugging Tool

The ISP Tool is used in conjunction with the Industrial Camera SDK to generate calibration files and configuration parameters for various algorithms. The SDK implements image ISP algorithm processing within image acquisition APIs based on the configuration file generated by the ISP Tool.



## Rick SDK and Demos

MVS has built-in a wide variety of sample programs, supporting SDK integration in most common environments and programming languages on the market. It also provides complete source codes and documentation to help you start quickly and become familiar with development operations.



# ■ Parameter Interpretation

## Sensor size

The diagonal size of CMOS, pixel size and resolution together determine the sensor size of camera.

---

## Pixel size

The size of 1 pixel which is the smallest unit that makes up an image.

---

## Shutter mode

Divided into global shutter and rolling shutter: the former starts and ends exposure for each line at the same time, and after the exposure is completed, the data is read out line by line; the latter reads out the data immediately after the end of a line of exposure, and the next line starts after it is completely read out.

---

## Resolution

Determines the fineness of the image. In general, the higher the resolution of the image, the more pixels it contains, and the clearer the image will be.

---

## Frame rate

The number of frames transmitted per second, in unit of fps.

---

## Exposure time

The time that light hits the photosensitive chip from the time the shutter is open to the time it is closed. The brightness of the image can be changed by adjusting the exposure time.

---

## Line rate

The number of horizontal scans per second, in unit of Hz.

---

## Spectral range

responsive wavelength range of infrared camera.

---

## NETD

The minimum temperature difference that the infrared camera can distinguish, in unit of mk.

---

## Interconnect

The interface between the frame grabber and the industrial computer, commonly used interfaces include PCI, PCI-E.

## Delivery bandwidth

The data transmission performance between the frame grabber and the industrial computer, the indicators include bus width, bus clock, and maximum transmission rate. The wider the bus width, the greater the clock frequency, and the faster the transmission rate, the more data transmitted per unit time.

---

## Camera connection speed

Data transmission speed between camera and industrial computer or frame grabber.

---

## Focal length

The distance from the rear principal plane of the optical system to the imaging plane, indicating the ability of the optical system to gather light.

---

## F No.

The aperture on the camera lens is opened to the maximum and minimum range.

Aperture is a device used to control the amount of light that passes through the lens and enters the photosensitive surface of the camera.

---

## Distortion

The degree of distortion of the image formed by the optical system on the object relative to the object itself.

---

## Field of View(FOV)

Taking the lens as the vertex, the angle formed by the two edges of the maximum range where the object image of the measured target can pass through the lens.

---

## M.O.D (m)

The closest acquisition distance of the lens.

---

## Filter thread

The type of thread used to mount the filter on the front of the lens.

---

## Lens mount

The type of mechanical interface the camera uses to connect the lens.







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