

Presented by  **MSTARVISION**

HIGH COST PERFORMANCE CAMERAS REDUCE YOUR PROJECT COST

CU Series

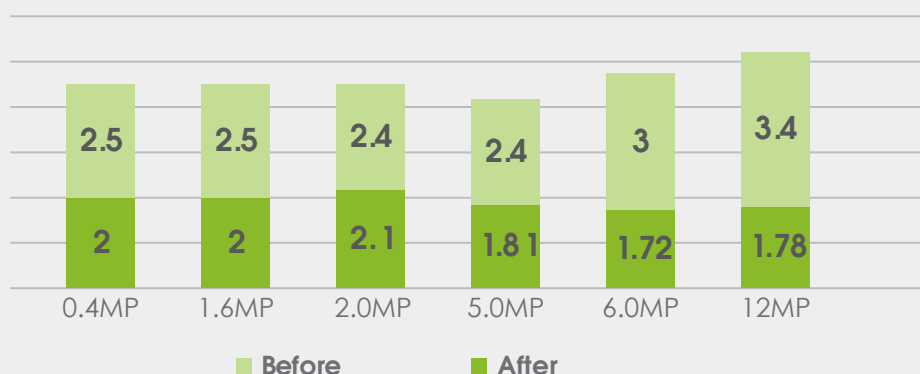




LOWER POWER CONSUMPTION

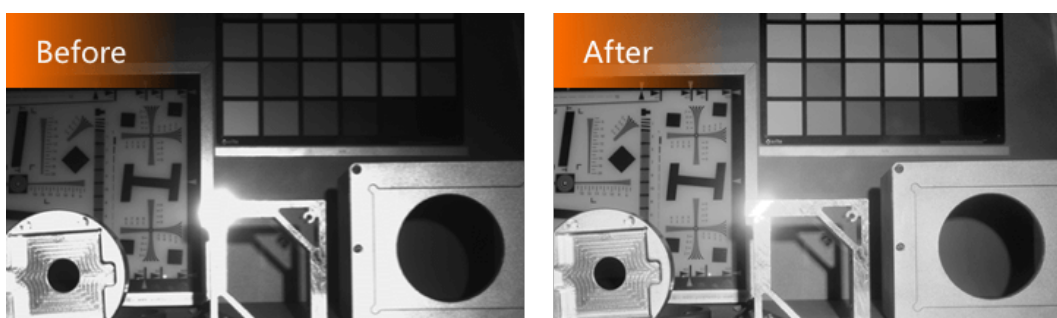
The CU series is designed with low power-consuming platform and stable performance, which creates a universal industrial camera product that satisfies the requirements for stability and necessary functions, helping users to obtain vision applications more easily.

Power consumption comparison



BUILT-IN IMAGE PREPROCESSING

With the built-in ISP algorithms like wide dynamic range, noise reduction and sharpness, it can be flexibly adjusted according to the user's actual scenarios, so as to minimize external interference, stabilize imaging, and reduce the burden on the back-end algorithm.





WIDE RANGE OF RESOLUTIONS

Covers a wide range of resolutions, 0.4MP, 1.3MP, 1.6MP, 2MP, 5MP, 6MP, 12MP, and 20MP.

ON Semiconductor®



Gpixel

SONY

STARVIS

SMARTSENS

... ..

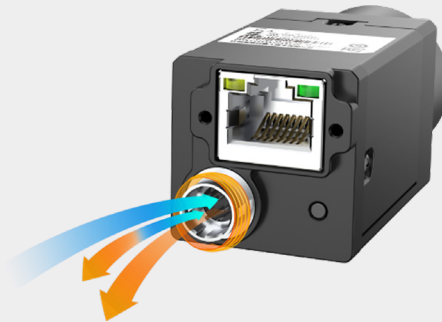


OPTIONAL WITH POE FUNCTION

DC 9V-24V wide power input range and optional with PoE function to reduce camera cost.

DC9-24V power input

1 line Non-isolated Input
1 line Non-isolated Output
1 line GPIO

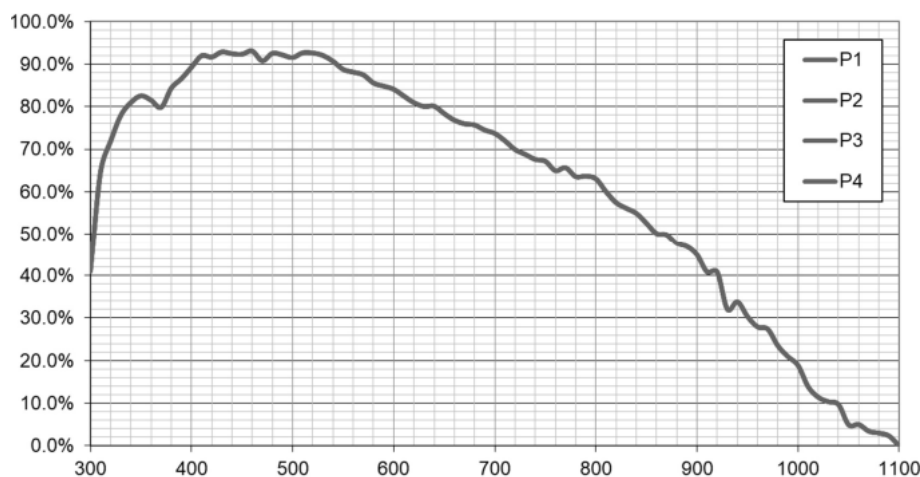


Optional with PoE,
to reduce cost



BETTER SPECTRAL RESPONSE ON NIR BAND

The response efficiency in the near infrared band is significantly improved.



NIR spectral band quantum efficiency (dB)



MV-CU060-60GM

200%



Other cameras with similar resolution

improved



SPECIFICATION | CU Series GigE Area Scan Cameras



High NIR spectral band quantum efficiency



Adopts low consumption design with stable performance.



Supports auto or manual adjustment of gain, exposure time, and manual adjustment of LUT, Gamma correction, etc.



Adopts GigE interface and max. transmission distance up to 100 meters without relay.



Supports hard trigger, software trigger, free run, etc.



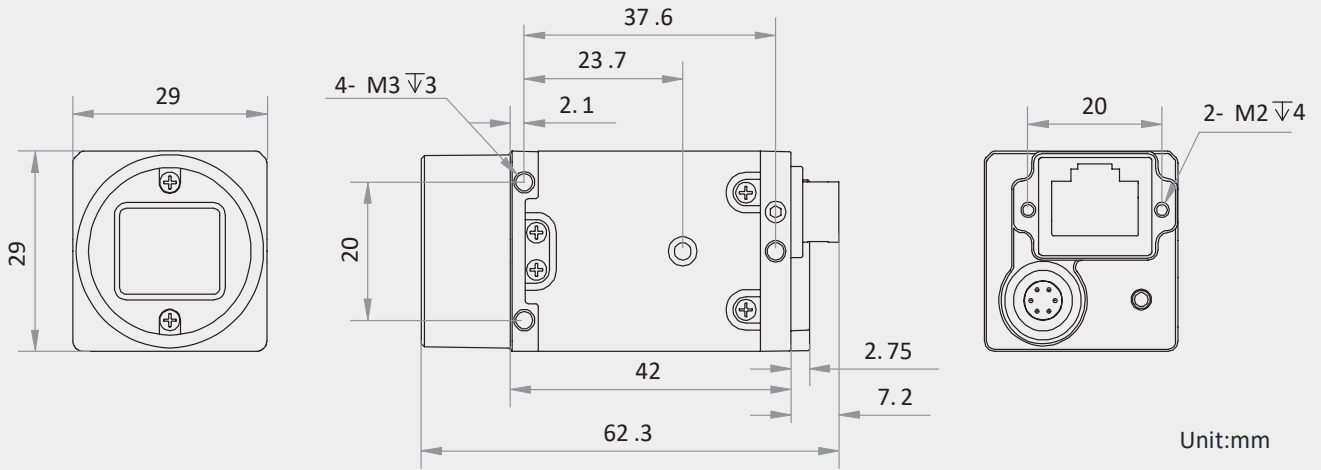
Compatible with GigE Vision V2.0 Protocol, GenICam Standard, and third-party software based on the protocol.



Model Name	Sensor	Sensor Size	Pixel Size	Shutter Mode	Resolution	Max. Frame Rate	Mono/color	Interface
MV-CU004-10GM	IMX297	1/2.9"	6.9 μm	Global	720×540	126.5 fps	Mono	GigE
MV-CU004-10GC	IMX297	1/2.9"	6.9 μm	Global	720×540	126.5 fps	Color	GigE
MV-CU013-80GM	SS	1/2.7"	4 μm	Global	1280×1024	89.9 fps	Mono	GigE
MV-CU013-80GC	SS	1/2.7"	4 μm	Global	1280×1024	89.9 fps	Color	GigE
MV-CU013-A0GM	HK	1/2"	4.8 μm	Global	1280×1024	91.3 fps	Mono	GigE
MV-CU013-A0GC	HK	1/2"	4.8 μm	Global	1280×1024	91.3 fps	Color	GigE
MV-CU016-10GM	IMX296	1/2.9"	3.45 μm	Global	1440×1080	65.8 fps	Mono	GigE
MV-CU016-10GC	IMX296	1/2.9"	3.45 μm	Global	1440×1080	65.8 fps	Color	GigE
MV-CU020-19GM	IMX290	1/2.8"	2.9 μm	Rolling	1920×1080	56 fps	Mono	GigE
MV-CU020-19GC	IMX290	1/2.8"	2.9 μm	Rolling	1920×1080	56 fps	Color	GigE
MV-CU020-80GM	SC235	1/2.6"	3.45 μm	Global	1600×1200	51 fps	Mono	GigE
MV-CU020-80GC	SC235	1/2.6"	3.45 μm	Global	1600×1200	51 fps	Color	GigE
MV-CU020-90GM	GMAX4002	1/1.7"	4 μm	Global	2048×1200	49 fps	Mono	GigE
MV-CU020-90GC	GMAX4002	1/1.7"	4 μm	Global	2048×1200	49 fps	Color	GigE
MV-CU050-30GM	AR0521	1/2.5"	2.2 μm	Rolling	2592×1944	24 fps	Mono	GigE
MV-CU050-30GC	AR0521	1/2.5"	2.2 μm	Rolling	2592×1944	24 fps	Color	GigE
MV-CU050-90GM	GMAX2505	1/2"	2.5 μm	Global	2600×2160	21 fps	Mono	GigE
MV-CU050-90GC	GMAX2505	1/2"	2.5 μm	Global	2600×2160	21 fps	Color	GigE
MV-CU060-10GM	IMX178	1/1.8"	2.4 μm	Rolling	3072×2048	19.1 fps	Mono	GigE
MV-CU060-10GC	IMX178	1/1.8"	2.4 μm	Rolling	3072×2048	19.1 fps	Color	GigE
MV-CU060-60GM	BSI	1/2.4"	2.2 μm	Rolling	3200×1944	19 fps	Mono	GigE
MV-CU060-60GC	BSI	1/2.4"	2.2 μm	Rolling	3200×1944	19 fps	Color	GigE
MV-CU120-10GM	IMX226	1/1.7"	1.85 μm	Rolling	4024×3036	9.7 fps	Mono	GigE
MV-CU120-10GC	IMX226	1/1.7"	1.85 μm	Rolling	4024×3036	9.7 fps	Color	GigE
MV-CU200-20GM	AR2020	1/1.8"	1.4 μm	Rolling	5120×3840	5.9 fps	Mono	GigE
MV-CU200-20GC	AR2020	1/1.8"	1.4 μm	Rolling	5120×3840	5.9 fps	Color	GigE

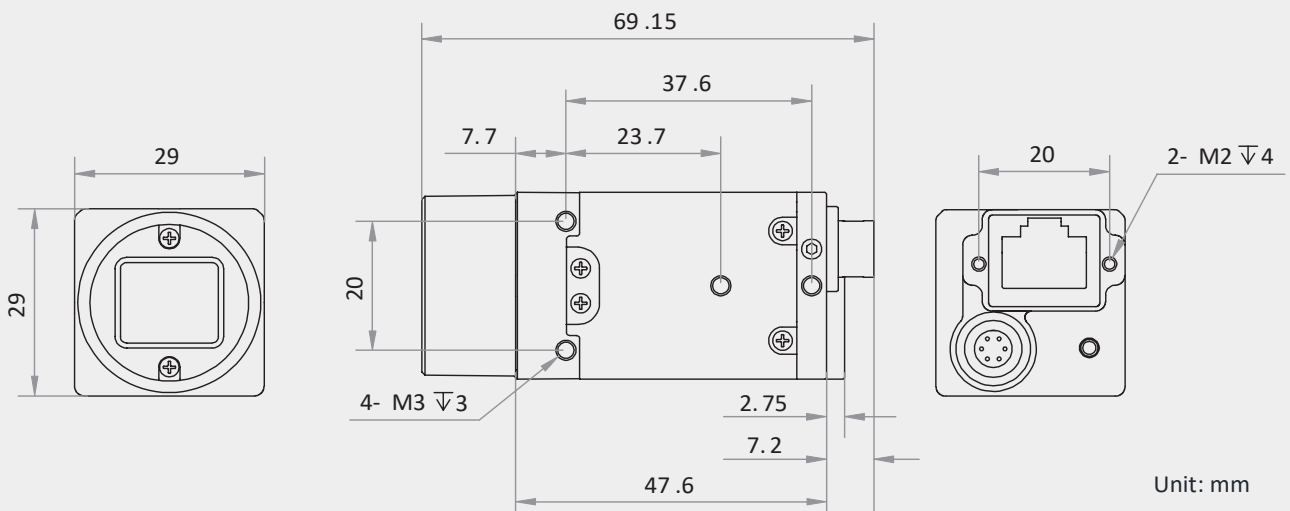


Type-1



Type-2

MV-CU050-90GM/MV-CU050-90GC





SPECIFICATION | CU Series USB3.0 Area Scan Cameras



High NIR spectral band quantum efficiency



Adopts low consumption design with stable performance.



Supports auto or manual adjustment of gain, exposure time, and manual adjustment of LUT, Gamma correction, etc.



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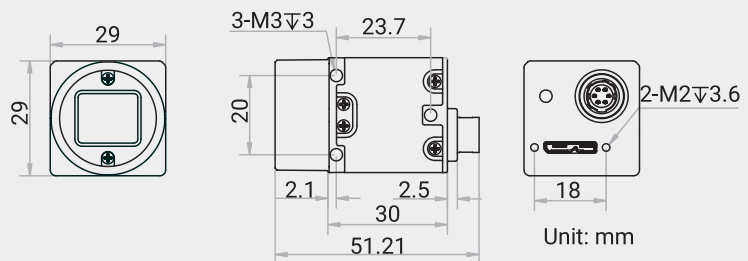


Model Name	Sensor	Sensor Size	Pixel Size	Shutter Mode	Resolution	Max. Frame Rate	Mono/color	Interface
MV-CU013-80UM	SS	1/2.7"	4.0μm	Global	1280×1024	240fps	Mono	USB3.0
MV-CU013-80UC	SS	1/2.7"	4.0μm	Global	1280×1024	240fps	Color	USB3.0
MV-CU013-A0UM	HK	1/2"	4.8μm	Global	1280×1024	201.4fps	Mono	USB3.0
MV-CU013-A0UC	HK	1/2"	4.8μm	Global	1280×1024	201.4fps	Color	USB3.0
MV-CU050-60UM	HK	1/2.5"	2.2μm	Rolling	2592×1944	48.2fps	Mono	USB3.0
MV-CU050-90UM	GMAX2505	1/2"	2.5μm	Global	2600×2160	58.8fps	Mono	USB3.0
MV-CU050-90UC	GMAX2505	1/2"	2.5μm	Global	2600×2160	58.8fps	Color	USB3.0
MV-CU060-10UM	IMX178	1/1.8"	2.4μm	Rolling	3072×2048	59.6fps	Mono	USB3.0
MV-CU060-10UC	IMX178	1/1.8"	2.4μm	Rolling	3072×2048	59.6fps	Color	USB3.0
MV-CU120-10UM	IMX226	1/1.7"	1.85μm	Rolling	4024×3036	29.2fps	Mono	USB3.0
MV-CU120-10UC	IMX226	1/1.7"	1.85μm	Rolling	4024×3036	29.2fps	Color	USB3.0



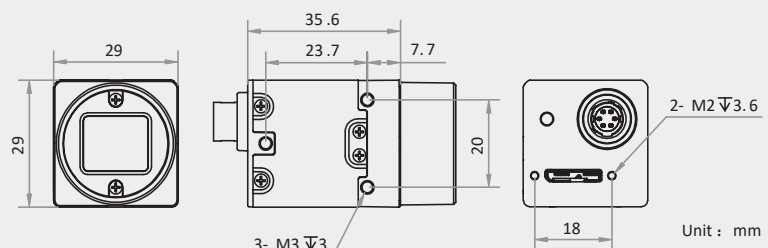
DRAWINGS | CU Series USB3.0 Area Scan Cameras

Type-1



Type-2

MV-CU050-90UM/MV-CU050-90UC





The industrial camera client and software development kit is based on the GenICam standard and follows the GigE Vision, USB3 Vision, Camera Link, CoaXPress and XoFLink protocols. The user can connect the industrial camera through the client or SDK, collect the camera image, and obtain and set the camera parameters. The software development kit contains SDK and sample programs, which can meet the diverse needs of users for secondary development.

Performance characteristics

- High-performance GEV and U3V drivers improve image data transmission and processing capabilities.
- Provide GenTL standard library to access to industrial cameras, greatly reducing the development workload.
- Abundant API interfaces are convenient for users to carry out secondary development quickly and effectively.
Provide deep customization of API interfaces and UI interfaces at the same time.
- Integrate a variety of ISP algorithms to help users get the most appropriate image through image preprocessing
- Support the matching access of third-party software and provide DirectShow development kit
- Diverse sample programs, source code, and development documentation for quick access.
- Provide frame grabber SDK interface library and sample programs to support the control and image collection of self-developed frame grabber.



MULTIPLE SYSTEM SUPPORTED

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



Windows



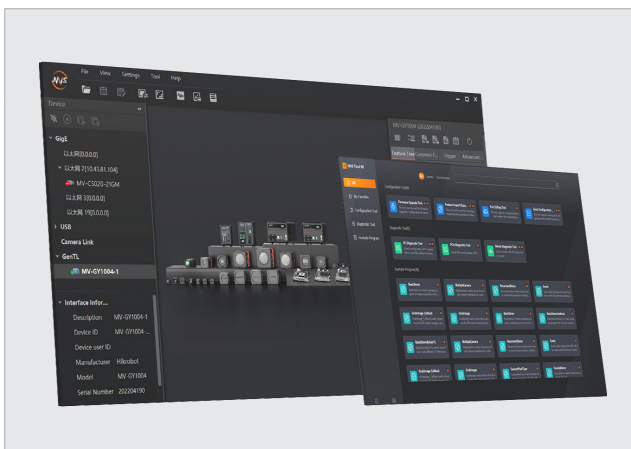
Linux



MacOS



Android



Supported Platforms

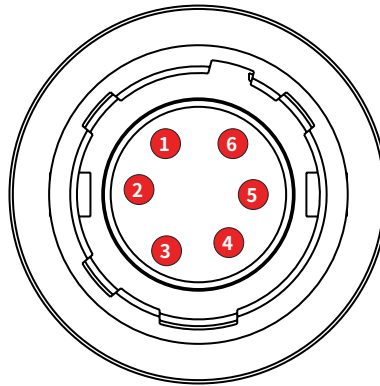
Windows 32/64bits
X86/ARM Linux 32/64bits
MacOS 64bits
Android

Supported Programming Languages

C
C++
C#
VB.NET
PYTHON3
Delphi
JAVA



6pin power & I/O port



Pin	Signal	Description
1	Power	DC 9V-24V input
2	Line0+	Opto-isolated input
3	Line2+	Configurable IO input/output
4	Line1+	Opto-isolated output
5	Line0-/1-	Opto-isolated ground
6	Line2-	Camera power ground

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