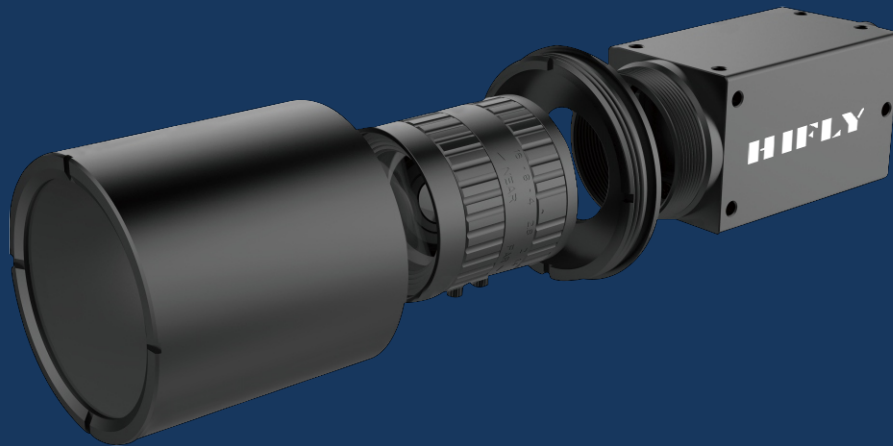


HIFLY

Industrial Camera



Shenzhen HIFLY Technology Co., Ltd
Address: 6A, 168 Smart buildings, Heng GangTou industrial park of Xin'ancommunity, Chang AnTown, Dong Guan, China.
Tel: +86 13926593066 +86 13688897003
E-mail: sally@zhifly.com

About HIFLY

HIFLY Technology company Limited was established in 2006 located in Shenzhen Guangdong China which is a high-tech enterprise focusing on machine vision light source, industrial camera lenses and vision system solutions.

As a global leader in machine vision solutions, we have 15 years of expertise in management, R&D, software engineers, imaging engineers and sales teams.

we are equipped with state-of-the-art production facilities, adhering to ISO 9001: 2015 quality system management standard. At the same time, we have more than 30 invention patents and Certifications, serving more than 2,500 customers in 30 countries all over the world.

we eagerly await your communication, anticipating a fruitful partnership in the near future.



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GigE Area Scan Camera

This series of cameras are compatible with GigE vision and genicam standards. It includes various of color and monochrome CMOS and CCD, global shutter and rolling shutter photosensitive chip ,Frontend chips for area and line arrays are also included. The pixel support ranges from 0.3MP to 65MP. It is fully compatible with LabVIEW, Halcon and visionpro And other mainstream visual software. It widely used in electronic semiconductors, factory automation, food and beverage, pharmaceutical packaging, image measurement.



GE Series with CMOS sensor



F Series with Large Format Size



C Series



D Series with CCD sensor

Features

- Unique packet retransmission technology to ensure the data reliable transmission
- The built-in hardware accelerates image processing and reduces CPU utilization on the host side
- Support simultaneous operation of multiple cameras, unlimited number, and arbitrary networking
- Pixels from 0.3MP to 65MP, CCD and CMOS are optional
- Excellent SDK design, as simple as using a USB camera, plug and play
- Support external trigger and flash synchronization, up to seven channels of GPIO, all photoelectric isolation
- Compatible with the vision standard, drive free and directly support Halcon, visionpro and other software
- Gigabit network interface, 100m long-distance stable transmission, supporting Poe power supply (optional)

Product Selection Table

Model Number	Effective Pixels	Sensor type	Shutter method	Max resolution	Pixel size	Frame rate(FPS)	Target size	Mini exposure	Sensor Model	Color
MV-33GC-GE/M	0.3MP	CMOS	Global	640×480	8.0μm	160	1/2.7"	0.0060m	SmartSens	Color/Mono
MV-31GC-GE/M	0.3MP	CMOS	Global	640×480	4.8μm	392.25	1/4"	0.004ms	PYTHON	Color/Mono
MV-40GC-GE/M	0.4MP	CMOS	Global	720×540	6.9μm	299	1/2.9"	0.005ms	IMX287	Color/Mono
MV-130RM-GE	1.3MP	CMOS	Rolling	1280×1024	5.2μm	30	1/2"	0.032ms	MT9M001	Mono
MV-122GC-GE	1.2MP	CMOS	Global	1280×960	3.75μm	72.25	1/3"	0.014ms	AR0134	Color
MV-123GM-GE	1.2MP	CMOS	Global	1280×960	3.75μm	60.75	1/3"	0.016ms	AR0135	Mono
MV-130RC-GE	1.2MP	CMOS	Rolling	1280×960	3.75μm	60.5	1/3"	0.016ms	AR0130	Color
MV-133GC-GE/M	1.3MP	CMOS	Global	1280×1024	4μm	91	1/2.7"	0.0061ms	SC130GS	Color/Mono
MV-134GC-GE/M	1.3MP	CMOS	Global	1280×1024	4.8μm	91.5	1/2"	0.008ms	PYTHON	Color/Mono
MV-200RC-GE	2MP	CMOS	Rolling	1920×1080	2.9μm	30	1/2.8"	0.02ms	SONY	Color
MV-200GC-GE/M	2MP	CMOS	Global	1600×1200	4.5μm	60	1/1.8"	0.015ms	EV76C570	Color/Mono
MV-230GC-GE/M	2MP	CMOS	Global	1920×1200	4.8μm	51	2/3"	0.005ms	PYTHON2000	Color/Mono
MV-203GC-GE (NEW)	2MP	CMOS	Global	1600×1200	4.5μm	61	1/1.7"	0.008727ms	SONY	Color
MV-231GC-GE/M	2.3MP	CMOS	Global	1920×1200	5.86μm	40.25	1/1.2"	0.02ms	IMX249	Color/Mono
MV-232GC-GE/M	2.3MP	CMOS	Global	1920×1200	3.0μm	52	1/2.6"	0.014ms	AR0234	Color/Mono
MV-300GC-GE/M	3MP	CMOS	Global	2048×1536	3.45μm	38	1/1.8"	0.016ms	IMX265	Color/Mono
MV-501GC-GE/M	5MP	CMOS	Global	2448×2048	3.45μm	24	2/3"	0.019ms	IMX264	Color/Mono
MV-502RC-GE/M	5MP	Ar0522	Rolling	2592×1944	2.2μm	24	1/2.5"	0.02ms	AR0522	Color/Mono

Product Selection Table

Model Number	Effective Pixels	Sensor type	Shutter method	Maximum resolution	Pixel size	Frame rate (FPS)	Target size	Minimum exposure	Sensor Model	Color
MV-502GC-GE/M	5MP	CMOS	Global	2592×2048	4.8μm	23	1"	0.005ms	PYTHON5000	Color/Mono
MV-505GC-GE/M	5MP	CMOS	Global	2592×2048	3.2μm	22	2/3"	0.042ms	XGS5000	Color/Mono
MV-508RC-GE <small>(NEW)</small>	5MP	CMOS	Rolling	2744×1836	4.8μm	5	1"	0.057ms	OEM	Mono
MV-630RC-GE/M	6.3MP	CMOS	Rolling	3088×2064	2.4μm	18.75	1/1.8"	0.025ms	IMX178	Color/Mono
MV-800RC-GE/M	8MP	CMOS	Rolling	3840×2160	2.0μm	14.25	1/1.8"	0.062ms	OEM	Color/Mono
MV-1000RC-GE/M	10MP	CMOS	Rolling	3664×2748	1.67μm	8	1/2.3"	0.043ms	MT9J003	Color/Mono
MV-1201RC-GE/M	12MP	CMOS	Rolling	4000×3000	1.85μm	9.75	1/1.7"	0.01ms	IMX226	Color/Mono
MV-1202RC-GE/M	12MP	CMOS	Rolling	4000×3000	1.6μm	9.75	1/2"	0.034ms	AR1202	Color/Mono
MV-1600RC-GE/M	16MP	CMOS	Rolling	4608×3546	1.34μm	7	1/2.3"	0.039ms	IMX206	Color/Mono
MV-2000RC-GE/M	20MP	CMOS	Rolling	5488×3672	2.4μm	6	1"	0.044ms	IMX183	Color/Mono
MV-D32C-GE/M	0.3MP	CCD	Global	640×480	7.4μm	164.75	1/3"	0.0001ms	SHARP	Color/Mono
MV-D125C-GE/M	1.3MP	CCD	Global	1280×960	3.75μm	43.5	1/3"	0.0001ms	SHARP	Color/Mono
MV-D200C-GE/M	2MP	CCD	Global	1600×1200	4.4μm	27.5	1/1.8"	0.0001ms	SHARP	Color/Mono
MV-D500C-GE/M	5MP	CCD	Global	2448×2048	3.45μm	9.25	2/3"	0.0001ms	SHARP	Color/Mono
MV-C404RC-GE/M <small>(NEW)</small>	4MP	CMOS	Rolling	2048×2048	5.94μm	30	1.1"	0.0327ms	OEM	Color/Mono
MV-C501RM-GE	5MP	CMOS	Rolling	2640×1968	6.6μm	21.5	4/3"	0.011ms	OEM	Mono
MV-C1206C-GE/M <small>(NEW)</small>	12MP	CMOS	Global	4112×3088	3.5μm	9.25	1.1"	0.0327ms	OEM	Color/Mono
MV-C1606C-GE/M <small>(NEW)</small>	16MP	CMOS	Global	4112×4112	3.5μm	7.25	4/3"	0.0327ms	OEM	Color/Mono
MV-S202C-GE/M <small>(NEW)</small>	2MP	CMOS	Global	1920×1200	4.8μm	51	2/3"	0.005ms	PYTHON2000	Color/Mono
MV-S507C-GE/M <small>(NEW)</small>	5MP	CMOS	Global	2448×2048	3.4μm	24	2/3"	0.0201ms	GMAX3405	Color/Mono
MV-F401C-GE/M	4MP	CMOS	Global	2040×2048	5.5μm	29	1"	0.016ms	OEM	Color/Mono
MV-F890C-GE/M	8.9MP	CMOS	Global	4096×2160	3.45μm	13.5	1"	0.034ms	IMX267	Color/Mono
MV-F1200C-GE/M	12MP	CMOS	Global	4090×3000	3.45μm	9.5	1.1"	0.034ms	IMX304	Color/Mono
MV-F1205C-GE/M	12MP	CMOS	Global	4096×3072	3.2μm	9.5	1"	0.031ms	XGS12000	Color/Mono

Technical parameters

Parameter \ Model	MV-33GC-GE/M	MV-31GC-GE/M	MV-40GC-GE/M
Resolution@frame rate	640×480@160FPS	640×480@392.25FPS	720×540@299FPS
Pixel size	8.0μm×8.0μm	4.8μm×4.8μm	6.9μm×6.9μm
Pixel bit depth	8bit	10bit	12bit
Sensitivity	8V/lux·s	7.3V/lux·s@540nm	3660mV 1/30s
Acquisition mode	Continuous/soft trigger/hard trigger		
Maximum gain (multiple)	16	16.5	256
Exposure time range (ms)	0.0060~49.1	0.004~524.3	0.005~2999.7
Frame buffer	128M Bytes		
User -defined data area	2K Bytes		
Video output format	Color: Bayer RG 8bit Mono: Mono 8bit	Color: Bayer GR 8bit Mono: Mono 8bit	Color: Bayer GR 8/12bit Mono: Mono 8/12bit
GPIO	1 optical isolation input, 1 optical isolation output; optional 3 inputs and 4 outputs		
Lens Mount	C/CS-Mount, Adapter Ring Provided		
Power supply	12~24V/POE, 48~57V(POE is optional)		
Power	< 2.5W		
Dimensions	29×29×40mm (Without lens mount and rear shell interface)		
Net Weight	< 75g		

Parameter \ Model	MV-130RM-GE	MV-122GC-GE	MV-123GM-GE	MV-130RM-GE
Resolution@frame rate	1280×1024@30FPS	1280×960@72.25FPS	1280×960@60.75FPS	1280×960@60.5FPS
Pixel size	5.2μm×5.2μm	3.75μm×3.75μm	3.75μm×3.75μm	3.75μm×3.75μm
Pixel bit depth	10bit	12bit	12bit	12bit
Sensitivity	2.1V/lux-sec	5.3V/lux·s 550nm	6.1V/lux-sec	5.5V/lux-sec@550nm
Acquisition mode	Continuous/soft trigger/hard trigger			
Maximum gain (multiple)	15	4	4	8
Exposure time range (ms)	0.032~524.3	0.014~53.8	0.016~30.7	0.016~1048.6
Frame buffer	128M Bytes			
User -defined data area	2K Bytes			
Video output format	Mono: Mono 8/12bit	Color: Bayer GR 8/12bit	Mono: Mono 8/12bit	Color: Bayer GR 8/12bit
GPIO	1 optical isolation input, 1 optical isolation output; optional 3 inputs and 4 outputs			
Lens Mount	C/CS-Mount, Adapter Ring Provided			
Power supply	12~24V/POE, 48~57V(POE is optional)			
Power	< 2.5W			
Dimensions	29×29×40mm (Without lens mount and rear shell interface)			
Net Weight	< 75g			

Technical Parameters

Parameter \ Model	MV-133GC-GE/M	MV-134GC-GE/M	MV-200RC-GE	MV-200GC-GE/M
Resolution@ frame rate	1280×1024@91 FPS	1280×1024@91.5FPS	1920×1080@30FPS	1600×1200@60FPS
Pixel size	4μm×4μm BSI	4.8μm×4.8μm	2.9μm×2.9μm	4.5μm×4.5μm
Pixel bit depth	8bit	10bit	8bit	10bit
Sensitivity	8 V/Lux.s	7.3V/lux-s@540nm	1300mV 1/30s	7.4V/lux-s
Acquisition mode	Continuous/soft trigger/hard trigger			
Maximum gain (multiple)	32	16.5	8	8
Exposure time range (ms)	0.0061~50	0.008~1048.6	0.02~121.9	0.015~95.7
Frame buffer	128M Bytes			
User -defined data area	2K Bytes			
Video output format	Color: Bayer RG 8bit Mono: Mono 8bit	Color: Bayer GR 8/12bit Mono: Mono 8bit	Color: Bayer RG 8bit Mono: Mono 8bit	Color: Bayer BG 8/12bit Mono: Mono 8/12bit
GPIO	1 optical isolation input, 1 optical isolation output; optional 3 inputs and 4 outputs			
Lens Mount	C-Mount(CS port for option)			
Power supply	12~24V/POE,48~57V(POE is optional)			
Power	< 2.5W			
Dimensions	29×29×40mm (Without lens mount and rear shell interface)			
Net Weight	< 75g			

Parameter \ Model	MV-202GC-GE/M	MV-203GC-GE	MV-231GC-GE/M	MV-232GC-GE/M
Resolution@ frame rate	1920×1200@51FPS	1600×1200@61FPS	1920×1200@40.25FPS	1920×1200@52FPS
Pixel size	4.8μm×4.8μm	4.5μm×4.5μm	5.86μm×5.86μm	3.0μm×3.0μm
Pixel bit depth	10bit	12bit	12bit	8bit
Sensitivity	7.5V/lux.s@550nm	2058mV 1/30s	Color: 1016mV 1/30s Mono: 825mV 1/30s	Color: 3.1V/lux*s Mono: 3.6V/lux*s
Acquisition mode	Continuous/soft trigger/hard trigger			
Maximum gain (multiple)	8	16	64	16
Exposure time range (ms)	0.005~327.7	0.008727~146.419	0.02~41943	0.014~917.5
Frame buffer	128M Bytes			
User -defined data area	2K Bytes			
Video output format	Color: Bayer RG 8/10bit Mono: Mono 8/10bit	Bayer RG 8/12bit	Color: Bayer GR 8/12bit Mono: Mono 8/12bit	Color: Bayer RG 8bit Mono: Mono 8bit
GPIO	1 optical isolation input, 1 optical isolation output; optional 3 inputs and 4 outputs			
Lens Mount	C-Mount(CS port for option)			
Power supply	12~24V/POE,48~57V(POE is optional)			
Power	< 2.5W			
Dimensions	29×29×40mm (Without lens mount and rear shell interface)			
Net Weight	< 75g			

Technical Parameters

Parameter \ Model	MV-300GC-GE/M	MV-501GC-GE/M	MV-502RC-GE/M	MV-502GC-GE/M
Resolution@ frame rate	2048×1536@38FPS	2448×2048@24FPS	2592×1944@24FPS	2592×2048@23FPS
Pixel size	3.45μm×3.45μm	3.45μm×3.45μm	2.2μm×2.2μm	4.8μm×4.8μm
Pixel bit depth	12bit	12bit	12bit	10bit
Sensitivity	1146mV 1/30s	Color: 1146mV 1/30s Mono: 915mV 1/30s	Color: 18.8 ke-/lux*sec Mono: 36 ke-/lux*sec	7.5 V/lux.s @550nm
Acquisition mode	Continuous/soft trigger/hard trigger			
Maximum gain (multiple)	64	64	15	8
Exposure time range (ms)	0.016~16777	0.019~19922.7	0.02~155.5	0.005~327
Frame buffer	128M Bytes			
User -defined data area	2K Bytes			
Video output format	Color: Bayer GR 8/12bit Mono: Mono 8/12bit			Color: Bayer RG 8/10bit Mono: Mono 8/10bit
GPIO	1 optical isolation input, 1 optical isolation output; optional 3 inputs and 4 outputs			
Lens Mount	C-Mount(CS port for option)			
Power supply	12~24V/POE,48~57V(POE is optional)			
Power	< 2.5W			
Dimensions	29×29×40mm (Without lens mount and rear shell interface)			
Net Weight	< 75g			

Parameter \ Model	MV-505GC-GE/M	MV-508RC-GE	MV-630RC-GE/M	MV-800RC-GE/M
Resolution@ frame rate	2592×2048@22FPS	2744×1836@5FPS	3088×2064@18.75FPS	3840×2160@14.25FPS
Pixel size	3.2μm×3.2μm	4.8μm×4.8μm	2.4μm×2.4μm	2μm×2μm
Pixel bit depth	12bit	10bit	12bit	12bit
Sensitivity	/	388mV 1/30s	425mV 1/30s	2200mV/lux.s
Acquisition mode	Continuous/soft trigger/hard trigger			
Maximum gain (multiple)	8	22	32	15
Exposure time range (ms)	0.042~1376.2	0.057~14942.2	0.025~14448	0.062~2031.6
Frame buffer	128M Bytes			
User -defined data area	2K Bytes			
Video output format	Color: Bayer 8bit Mono: Mono 8bit	Mono: Mono 8bit	Mono: Bayer GR 8/12bit Mono: Mono 8/12bit	
GPIO	1 optical isolation input, 1 optical isolation output; optional 3 inputs and 4 outputs			
Lens Mount	C-Mount(CS port for option)			
Power supply	12~24V/POE,48~57V(POE is optional)			
Power	< 2.5W			
Dimensions	29×29×40mm (Without lens mount and rear shell interface)			
Net Weight	< 75g			

Technical Parameters

Parameter \ Model	MV-1000RC-GE/M	MV-1201RC-GE/M	MV-1202RC-GE/M	MV-1600RC-GE/M
Resolution@ frame rate	3664×2748@8FPS	4000×3000@9.75FPS	4000×3000@9.75FPS	4608×3546@7FPS
Pixel size	1.67μm×1.67μm	1.85μm×1.85μm	0.8μm×0.8μm	1.34μm×1.34μm
Pixel bit depth	12bit	10bit	8bit	12bit
Sensitivity	0.31V/lux-sec (550nm)	Color: 1119mV@1/30s Mono: 1000mV@1/30s	Color: 1146mV Mono: 915mV	142mV 1/30s
Acquisition mode	Continuous/soft trigger/hard trigger			
Maximum gain (multiple)	8	22	64	16
Exposure time range (ms)	0.043~950	0.01~1310.7	0.034~9792	0.039~12939.3
Frame buffer	128M Bytes			
User-defined data area	2K Bytes			
Video output format	Color: Bayer GR 8/12bit Mono: Mono 8/12bit	Color: Bayer RG 8bit Mono: Mono 8bit	Color: Bayer RG 8bit Mono: Mono 8bit	Color: Bayer RG 8/12bit Mono: Mono 8bit
GPIO	1 optical isolation input, 1 optical isolation output; optional 3 inputs and 4 outputs			
Lens Mount	C/CS-Mount, Adapter Ring Provided			
Power supply	12~24V/POE,48~57V(POE is optional)			
Power	< 2.5W			
Dimensions	29×29×40mm (Without lens mount and rear shell interface)			
Weight	< 75g			

Parameter \ Model	MV-2000RC-GE/M	MV-D32C-GE/M	MV-D125C-GE/M	MV-D200C-GE/M
Resolution@ frame rate	5488×3672@6FPS	640×480@164.75FPS	1280×960@43.5FPS	Color: 1600×1200@15.25FPS Mono: 1600×1200@27.5FPS
Pixel size	2.4μm×2.4μm	7.4μm×7.4μm	3.75μm× 3.75μm	4.4μm×4.4μm
Pixel bit depth	12bit	12bit	12bit	12bit
Sensitivity	Color: 462mV 1/30s Mono: 388mV 1/30s	Color: 3000mV 1/30s Mono: 4500mV 1/30s	Color: 950mV 1/30s Mono: 1430mV 1/30s	Color: 1100mV 1/30s Mono: 1650mV 1/30s
Acquisition mode	Continuous/soft trigger/hard trigger			
Maximum gain (multiple)	22	Color: 100 Mono: 125	32	32
Exposure time range (ms)	0.044~11534.3	0.0001~6500	0.0001~24000	Color: 0.0001~48000 Mono: 0.001~24000
Frame buffer	128M Bytes			
User-defined data area	2K Bytes			
Video output format	Color: Bayer GR 8/12bit Mono: Mono 8/12bit	Color: Bayer 8/12bit Mono: Mono 8/12bit	Color: Bayer 8/12bit Mono: Mono 8/12bit	Color: Bayer RG 8/12bit Mono: Mono 8/12bit
GPIO	1 optical isolation input, 1 optical isolation output; optional 3 inputs and 4 outputs			
Lens Mount	C/CS-Mount, Adapter Ring Provided			
Power supply	12~24V/POE,48~57V(POE is optional)			
Power	< 2.5W			
Dimensions	29×29×40mm (Without lens mount and rear shell interface)			
Weight	< 75g			

Technical Parameters

Model Parameter	MV-D500C-GE/M	MV-C501RM-GE	MV-C1206C-GE/M	MV-C1606C-GE/M
Resolution@ frame rate	2448x2048@9.25FPS	2640x1968@21.5FPS	4112x3088@9.25FPS	4112x4112@9.25FPS
Pixel size	3.45μm×3.45μm	6.6μm×6.6μm	3.5μm×3.5μm	3.5μm×3.5μm
Pixel bit depth	12bit	12bit	12bit	12bit
Sensitivity	Color: 530mV 1/30s Mono: 800mV 1/30s	389mV 1/30s	3.9V/lux·s	3.9V/lux·s
Acquisition mode	Continuous/soft trigger/hard trigger			
Maximum gain (multiple)	32	160	16	16
Exposure time range (ms)	0.0001~24000	0.011~5767.2	0.0327~548614.9	0.0327~548614.9
Frame buffer	128M Bytes	256M Bytes		
User-defined data area	2K Bytes			
Video output format	Color: Bayer 8/12bit Mono: Mono 8/12bit	Mono: Mono 8/12bit	Color: Bayer GR 8/12bit	Mono: Mono 8/12bit
GPIO	1optoisolated input, 1optoisolated output; 3inputs and4outputs optional	1-channel trigger input, 1-channel flash output; 1-channel GPI input, 1-way GPI output, 1-way non-isolated bidirectional IO		
Lens Mount	C/CS-Mount, Adapter Ring Provided	C-Mount		
Power supply	12~24V/POE, 48~57V(POE is optional)	12V		
Power	< 2.5W	< 12W	< 12W	< 12W
Dimensions	29×29×40mm (Without lens mount and rear shell interface)	59.5×59.5×35.5mm (Without lens mount and rear shell interface)		
Weight	< 75g	< 250g		

Model Parameter	MV-C404RC-GE/M	MV-S202C-GE/M	MV-S507C-GE/M
Resolution@ frame rate	2048x2048@30FPS	1920x1200@51FPS	2448x2048@24FPS
Pixel size	5.94μm×5.94μm	4.8μm×4.8μm	3.4μm×3.4μm
Pixel bit depth	12bit	10bit	12bit
Sensitivity	>40V/lux*s@HCG	7.5 V/lux.s @550nm	2.36 x107 e-/(W/m2)·s@ 540nm
Acquisition mode	Continuous/soft trigger/hard trigger		
Maximum gain (multiple)	16	8	16
Exposure time range (ms)	0.0327~548614.9	0.005~327.7	0.0201~337222
Frame buffer	256M Bytes	128M Bytes	
User-defined data area	2K Bytes		
Video output format	Color: Bayer 8/12bit Mono: Mono 8/12bit	Color: Bayer RG 8/10bit Mono: Mono 8/10bit	Color: Bayer 8/12bit Mono: Mono 8/12bit
GPIO	1x Trigger Input/GPI Input, 1x Flash Output, 1x Optical Coupled Isolated GPO Output	1 optoisolated input, 1 optoisolated output; 3 inputs and 4 outputs optional	1 optical coupler isolated input, 1 optical coupler isolated output, 1 non-isolated IO
Lens Mount	C-Mount	C/CS-Mount, Adapter Ring Provided	C-Mount
Power supply	12V	12~24V/POE, 48~57V(POE is optional)	
Power	< 12W	< 2.5W	
Dimensions	59.5×59.5×35.5mm (Without lens mount and rear shell interface)	29×29×40.9mm(Without lens mount and rear shell interface)	29×29×36.9mm(Without lens mount and rear shell interface)
Weight	< 250g	< 550g	

Technical Parameters

Parameter	Model	MV-F401C-GE/M	MV-F890C-GE/M	MV-F1200C-GE/M	MV-F1205C-GE/M
Resolution@ frame rate		2040×2048@29FPS	4096×2160@13.5FPS	4090×3000@9.5FPS	4096×3072@9.5FPS
Pixel size		5.5μm×5.5μm	3.45μm×3.45μm	3.45μm×3.45μm	3.2μm×3.2μm
Pixel bit depth		12bit	12bit	12bit	12bit
Sensitivity		7V/lux*s	Color: 1146mV Mono: 915mV	Color: 1146mV Mono: 915mV	/
Acquisition mode		Continuous/soft trigger/hard trigger			
Maximum gain (multiple)		16.5	250	250	8
Exposure time range (ms)		0.016~11534.3	0.034~71303.1	0.034~71303.1	0.031~2031.6
Frame buffer		128M Bytes			
User -defined data area		2K Bytes			
Video output format		Color: Bayer GB 8/12bit Mono: Mono 8/12bit			Color: Bayer RG 8bit Mono: Mono 8bit
GPIO		1 optical isolation input, 1 optical isolation output; optional 3 inputs and 4 outputs			
Lens Mount		C-Mount(CS port Optional)			
Power supply		12~24V/POE, 48~57(POE is optional)			
Power		< 2.5W	< 2.5W	< 2.5W	< 2.5W
Dimensions		29×29×40mm (Without lens mount and rear shell interface)			
Weight		< 75g			

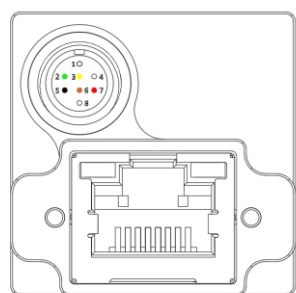
General Parameters

Vision Standard Agreement	GigE Vision V1.2、GenIcam
Data interface	Rj45 Gigabit Ethernet interface, backward compatible with 100M network standard
Operating system	WIINXP, WIN7/8/10 32@64 bit system, Linux and ARM Linux driver, Android platform driver, MAC OS system
Driver	Directshow component Halcon special component Labview special driver OCX component TWAIN component
Programming language pack	C/C++/C#/VB6/VB.NET/Delphi/BCB/Python/Java
Working temperature @humidity	0~50°C @ 20%~80%(No condensation)
Storage temperature @humidity	-30~60°C @ 20%~95%(No condensation)
Other functions	Support any size ROI custom resolution, contrast and gamma adjustment, saturation adjustment, white balance correction, black level correction, custom dead point coordinate correction,ISP image processing acceleration, 3D noise reduction, custom LUT table, frame rate adjustment, custom camera name, etc.

GE/F/D/C Camera Suffix Selection Table

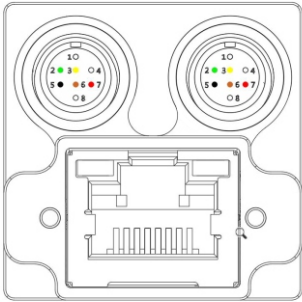
Function Suffix	Aircraft head line sequence Definition diagram	POE Power supply	Dual air bearextend IO	Shrapnel typeAircraft head interface	Threaded typeAircraft head interface	Lens interface C-mount	Lens interface CS-mount	State
-T-CL	1				●	●		Recommend
-T-L	1				●		●	Book
-TPO-CL	2	●	●		●	●		Book
-T1-C	3			●		●		Recommend
-T1P-C	3	●		●		●		Book
-T	4			●			●	Planned shutdown
-TPO	5	●	●	●			●	Planned shutdown
-TPO-C	5	●	●	●		●		Planned shutdown

-T-CL、-T-L Line sequence definition 1



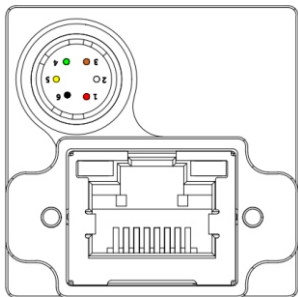
Port	Pin number	Line color	Signal name	Signal description	Remarks
Port A	1	White	GPI1+/TRIG_IN+	GPI1 Positive end/Trigger input positive end	The default is trigger
	2	Green	GPO1+/STRB_OUT+	GPO1 Positive end / Flash output positive end	The default is flash output
	3	Yellow	GPO1-/STRB_OUT-	GPO1 Negative terminal / flash output positive terminal	The default is flash output
	4	Empty foot			
	5	Black	PWRGND	Camera power input positive terminal	
	6	Brown (high soft blue)	GPI1-/TRIG_IN-	GPI1 Negative end / trigger input positive end	The default is trigger input
	7	Red	PWR+	Camera power input positive terminal	12~24V
	8	Empty foot			

-TPO-CL Line sequence definition 2



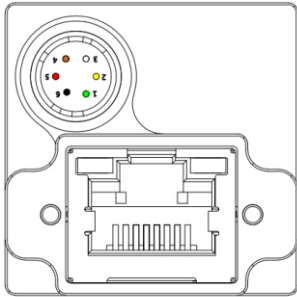
Port	Pin Number	Line Color	Signal Name	Signal Description	Remarks
Port A	1	White	GPI1+/TRIG_IN+	GPI1 positive end/Trigger input positive end	Default to trigger input
	2	Green	GPO1+/STRB_OUT +	GPO1 positive end/Positive end of flash output	Default to flash output
	3	Yellow	GPO1-/STRB_OUT-	GPO1 negative end/Flash output negative terminal	Default to flash output
	4	Empty foot			
	5	Black	PWRGND	Camera power input negative terminal	
	6	Brown (High soft blue)	GPI1-/TRIG_IN-	GPI1 negative end/Trigger input negative terminal	Default to trigger input
	7	Red	PWR+	Camera power input positive terminal	12~24V
	8	Empty foot			
Port B	1	White	GPO4+	GPO4 positive end output	
	2	Green	GPO2+	GPO2 positive end output	
	3	Yellow	GPO3+	GPO3 positive end output	
	4	Empty foot			
	5	Black	GPIO_COM	GPIO common negative terminal	
	6	Brown	GPI2+	GPI2 positive end output	
	7	Red	GPI3+	GPI3 positive end output	
	8	Empty foot			

-T1-C、-T1P-C Line sequence definition 3



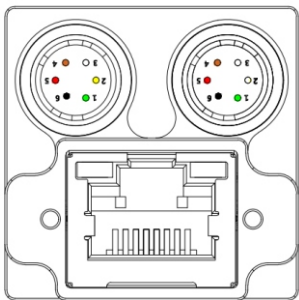
Port	Pin Number	Line Color	Signal Name	Signal Description	Remarks
Port A	1	Red	PWR+	Camera power input positive terminal	12~24V
	2	White	GPI1+/TRIG_IN+	GPI1 positive end/Trigger input positive end	Default to trigger input
	3	Brown	GPO2+	GPO2 output positive end	
	4	Green	GPO1+/STRB_OUT+	GPO1 positive end/Positive end of flash output	Default to flash output
	5	Yellow	GPO1-/STRB_OUT- /TRIG_IN-	GPO1 negative end/Flash output negative terminal/Trigger input negative terminal	GPIO common negative terminal
	6	Black	PWRGND	Camera power input negative terminal	

-T Line sequence definition 4



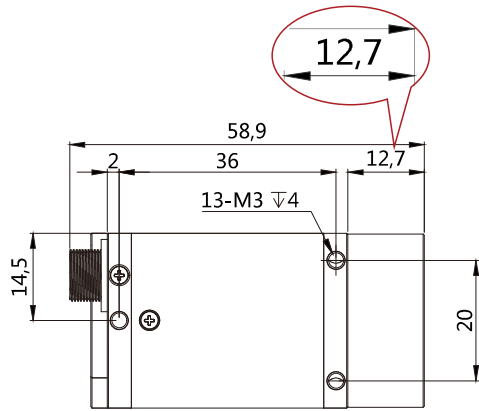
Port	Pin number	Line color	Signal name	Signal description	Remarks
Port A	1	Green	GPO1+/STRB_OUT+	GPO1 positive end/Positive end of flash	Default to flash output
	2	Yellow	GPO1-/STRB_OUT-	GPO1 negative end/trigger input	Default to flash output
	3	White	GPI1+/TRIG_IN+	GPI1 positive end/Trigger input positive end	Default to trigger input
	4	Brown	GPI1-/TRIG_IN-	GPI1 Negative end/Trigger input negative terminal	Default to trigger input
	5	Red	PWR+	Camera power input positive terminal	12~24V
	6	Black	PWRGND	Camera power input negative terminal	

-TPO、-TPO-C Line sequence definition 5

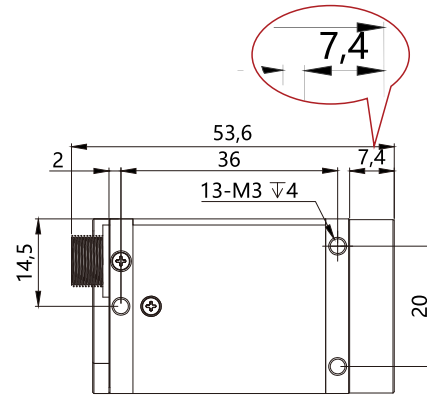


Port	Pin number	Line color	Signal name	Signal description	Remarks
Port A	1	Green	GPO1+/STRB_OUT+	GPO1 positive end/ Positive end of flash output	Default to flash output
	2	Yellow	GPO1-/STRB_OUT-	positive terminalGPO1 positive end/Flash output	Default to flash output
	3	White	GPI1+/TRIG_IN+	GPI1 positive end/Trigger input positive end	Default to trigger input
	4	Brown	GPI1-/TRIG_IN-	GPI1 negative end/Trigger input positive terminal	Default to trigger input
	5	Red	PWR+	Camera power input positive terminal	12~24V
	6	Black	PWRGND	Camera power input negative terminal	
Port B	1	Green	GPO2+	GPO2 positive end output	
	2	Yellow	GPO3+	GPO3 positive end output	
	3	White	GPO4+	GPO4 positive end output	
	4	Brown	GPI2+	GPI2 positive input	
	5	Red	GPI3+	GPI3 positive input	
	6	Black	GPIO_COM	GPIO common positive terminal	

C-Mount/CS-Mount Camera Drawing



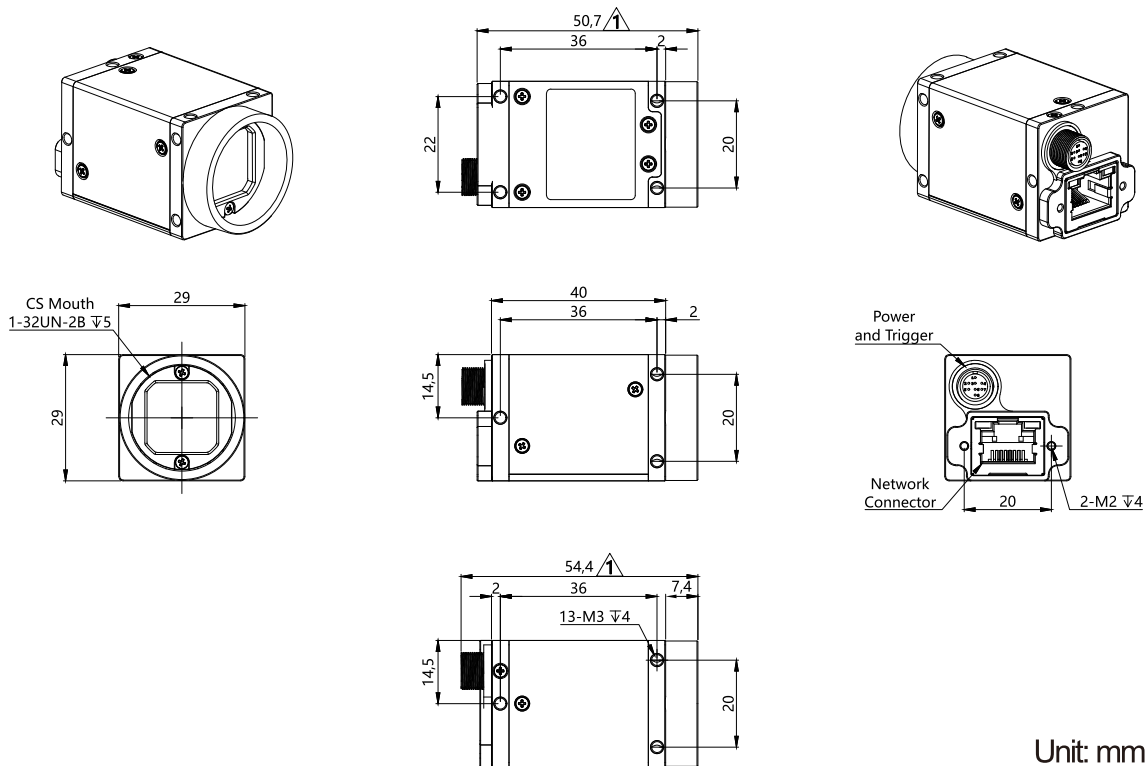
C-mount lens



CS-mount lens

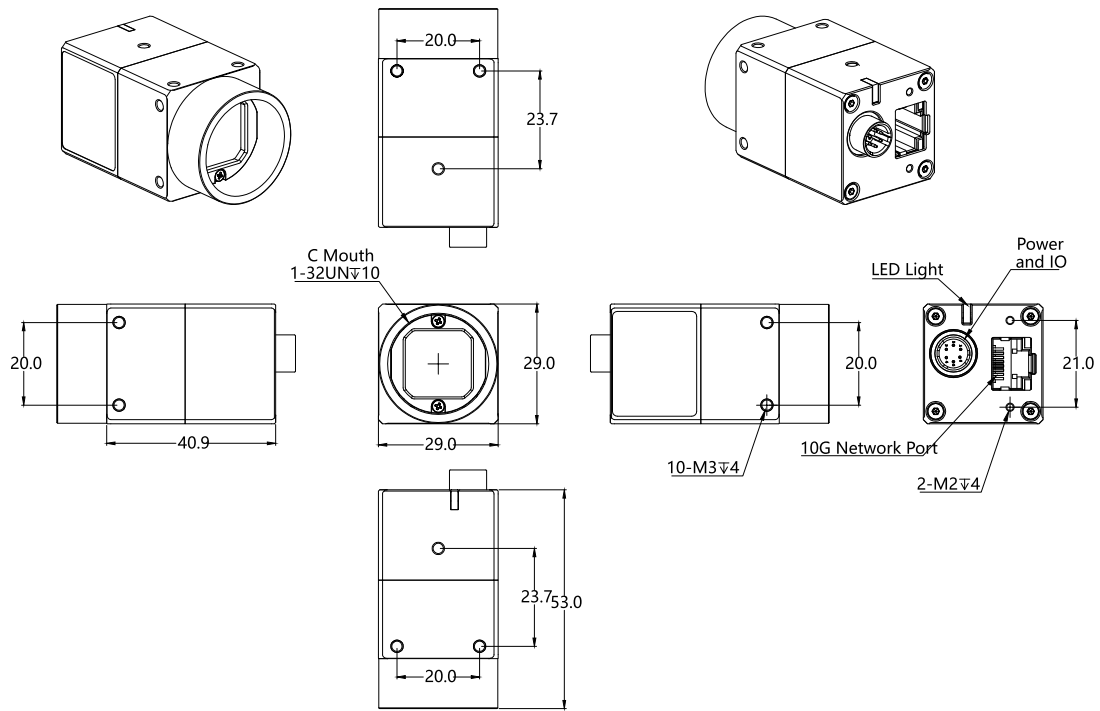
Unit: mm

GE Series Dimension Drawing



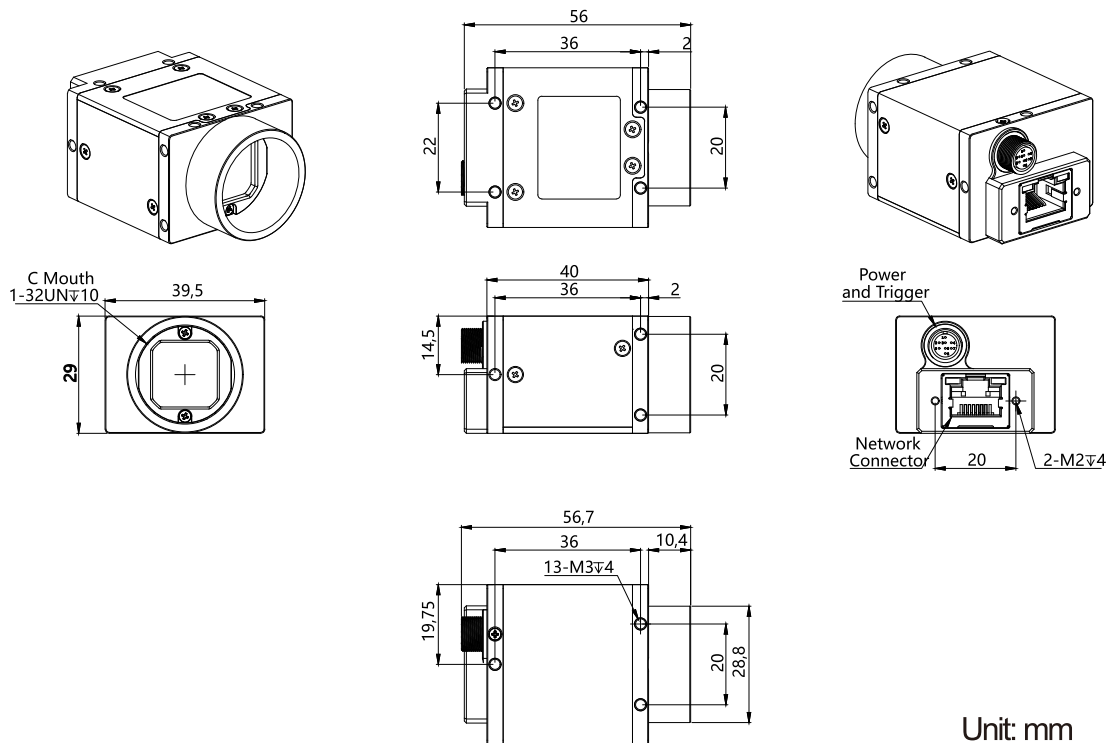
Unit: mm

MV-S202C-GE/M Dimension Drawing



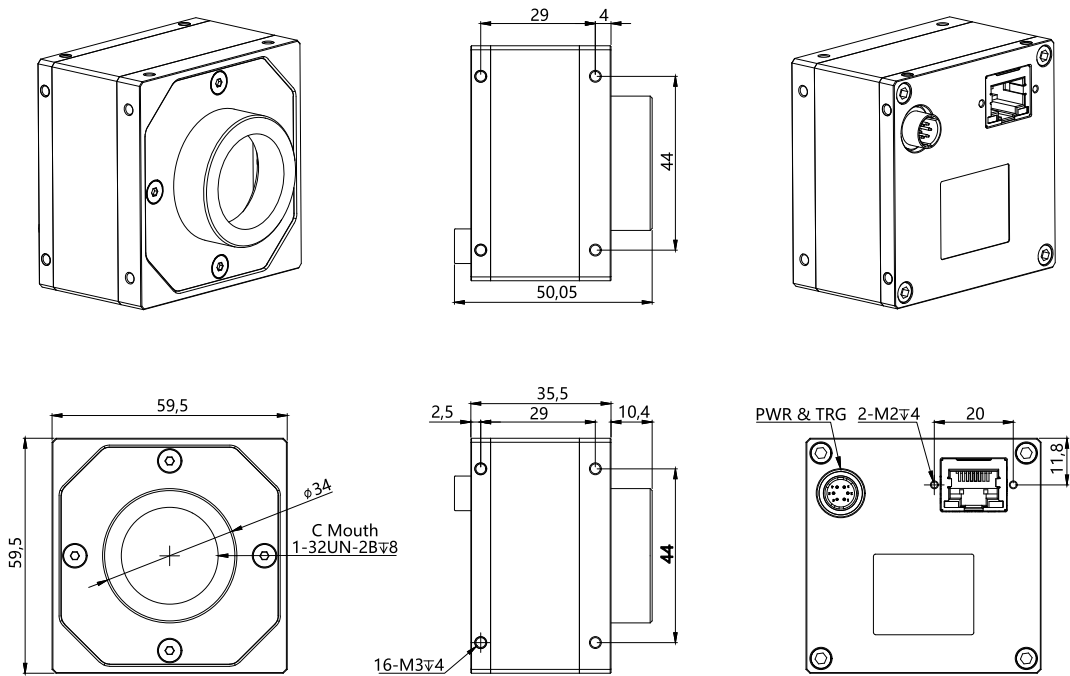
Unit: mm

F Series Dimension Drawing



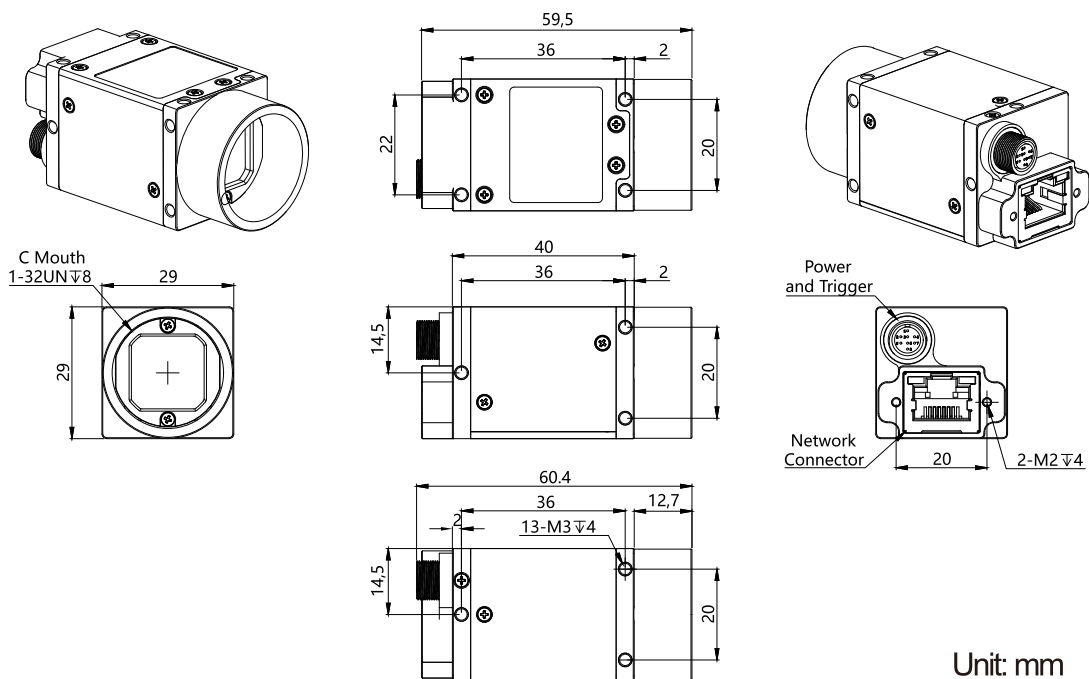
Unit: mm

C Series Dimension Drawing



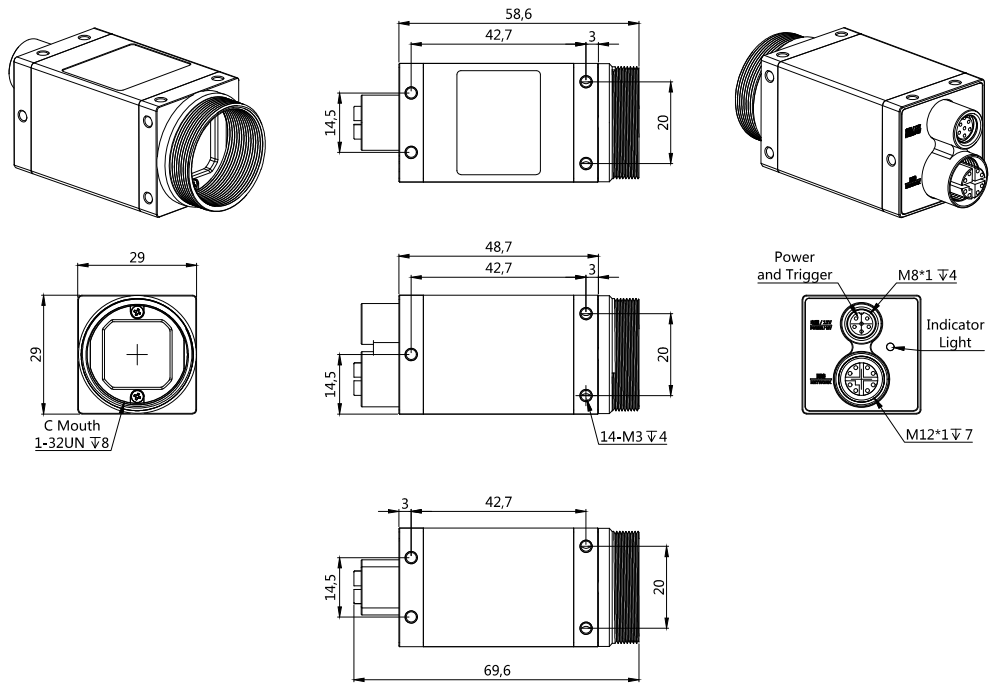
Unit: mm

D Series Dimension Drawing



Unit: mm

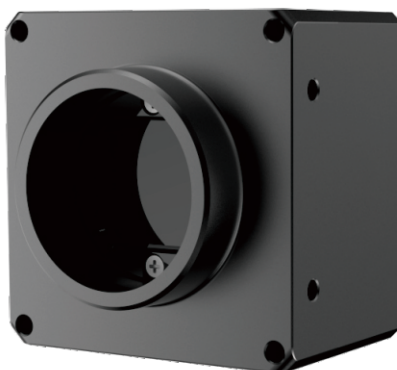
Waterproof Series Dimension Drawing



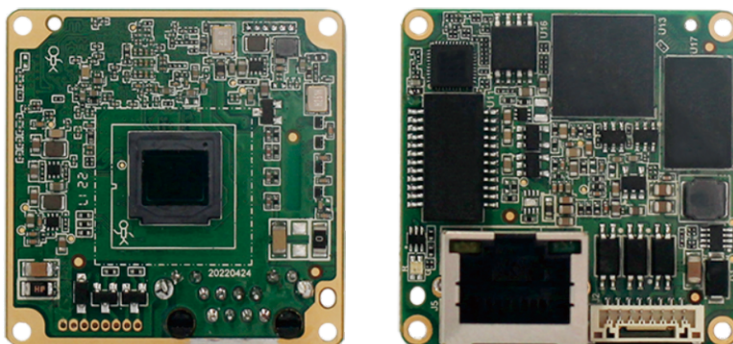
Unit: mm

GigE Board Camera/Module

This series of single-board Gigabit Ethernet camera modules is designed to be compatible with GigE Vision and GenICam standards. Fully compatible with mainstream vision software such as Labview, Halcon, and VisionPro. It is suitable for electronic semiconductor, factory automation, food and beverage, pharmaceutical packaging, and image measurement.



Camera picture

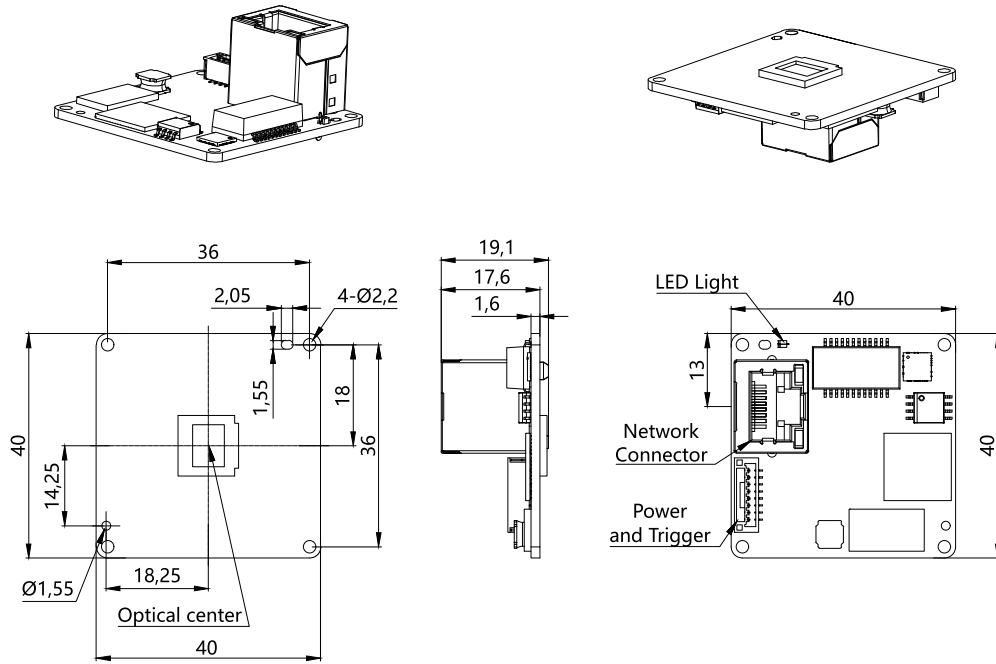


Camera module diagram

Features

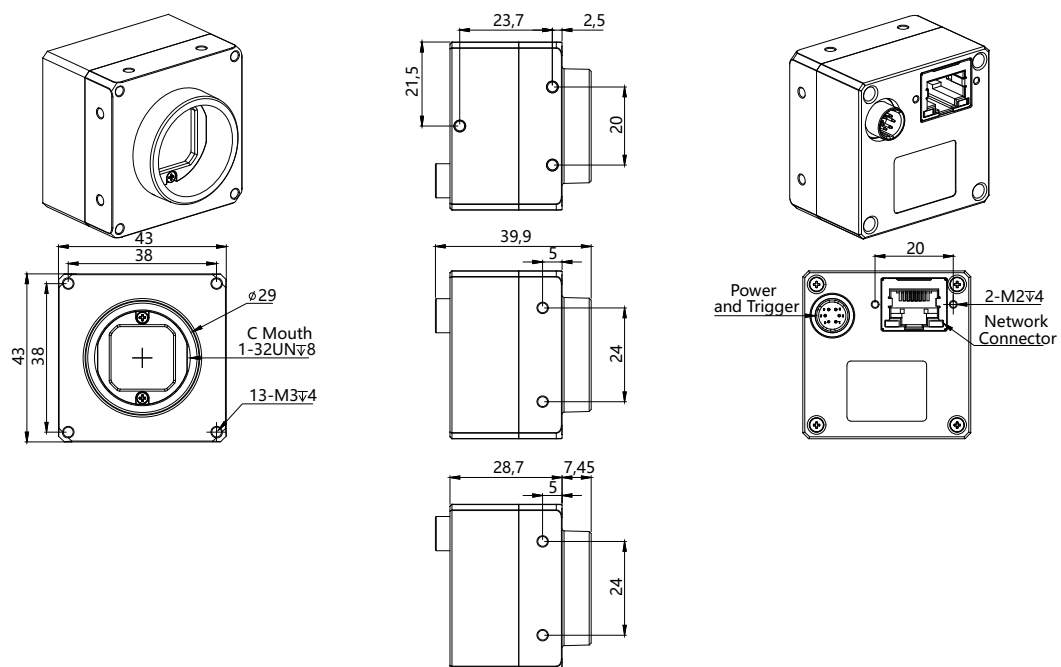
- Single board design, small size, ultra-thin size
- Embedded system integration is more convenient and integrated
- Support 16bit gray and 48bit color lossless format output
- Multiple options are available: single board /c interface /m12 interface
- The camera has its own programmable IO, which supports external trigger flash synchronous photography
- Support PC Linux system and arm Linux system, which can be integrated into embedded devices
- Compatible with vision protocol, seamlessly compatible with Halcon, visionpro and LabVIEW Other visual software

Single Board Module Dimension Drawing



Unit: mm

Dimension Drawing Of The Whole Camera



Unit: mm

Technical Parameters

Parameter \ Model	BL-134GC/M-GE	BL-2000RC/M-GE
Resolution@ frame rate	1280×1024@91.5FPS	5488×3672@6FPS
Shutter mode	Global Shutter	Rolling Shutter
Effective pixe	1.3MP	20MP
Pixel size	4.8μm×4.8μm	2.4μm×2.4μm
Sensor	1/2"CMOS PYTHON	1 "CMOSIMX183
Dynamic range	60dB	72dB
Ad Width	12bit	12bit
Video output format	Color:Bayer GB 8/12bit Mono:Mono 8/12bit	Color:Bayer GR 8/12bit Mono:Mono 8/12bit
Maximum gain (multiple)	16.5	22
Exposure time range (ms)	0.008~1048.6	0.044~11534.3
Pixel bit depth	10bit	12bit

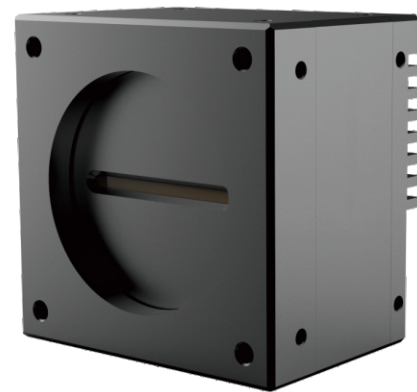
Parameter \ Model	BL-506RC/M-GE	BL-1201RC/M-GE	BL-1202RC/M-GE
Resolution @frame rate	2608×1958@24FPS	4000×3000@9.75FPS	4000×3000@9.75FPS
Shutter mode	Rolling Shutter	Rolling Shutter	Rolling Shutter
Effective pixel	5MP	12MP	12MP
Pixel size	2μm×2μm	1.85μm×1.85μm	1.6μm×1.6μm
Sensor	1/2.7"CMOS	1/1.7"CMOS IMX226	1/2"CMOS AR1202
Dynamic range	74dB@AG16x (Analog gain)	66dB	/
Ad Width	12bit	12bit	10bit
Video output format	Color:Bayer GR 8bit Mono:Mono 8bit	Color:Bayer 8bit Mono:Mono 8bit	Color:Bayer 8bit Mono:Mono 8bit
Maximum gain (multiple)	15.75	22	64
Exposure time range (ms)	0.021~1376.2	Color:0.031~4063.2 Mono:0.001~1310.7	0.034~9792
Pixel bit depth	10bit	10bit	8bit

GigE Line Scan Camera

Modes such as line trigger and frame trigger, MV-L021M-GE. In response to the needs of line scan cameras for large-format inspection and high-speed assembly line inspection in industrial production, the industrial line scan camera MV-L021M-GE, independently developed by HIFLY, MV-L041M-GE, MV-L044C/M-GE, using domestic chips, GigE interface, 4K high resolution, up to 28KHz line frequency, greatly improving the work production efficiency and detection accuracy in the field of industrial detection, integrating a variety of ISP image algorithms and functions, supporting external trigger MV-L041M-GE, MV-L044C/M-GE are economical products, high performance and low cost, to enhance product competitiveness for customers! Logistics, metallurgy, food, pharmaceutical, material sorting, etc.

Product Features

- The line rate can reach up to 48K, the software can be set freely, and the color line scan camera supports RGB three-line true color output
- Support Sensor hardware 2-line SUM, multiply the brightness, and reduce the requirements for the light source
- It supports a variety of trigger modes such as encoder synchronous triggering, photoelectric sensor and encoder combination synchronous triggering
- It supports the frequency division and frequency doubling of the encoder signal, and accurately matches the motion platform
- Hardware ISPs support Gamma, contrast, lens shadow correction, and more
- Gigabit Ethernet port, maximum transmission distance of 100 meters



Product Selection Table

Product Selection table	Effective Pixel	Sensor Type	Shutter Mode	Pixel Size	Line Frequency	Target size	TDI	Minimum Exposure	Sensor Model	Color
MV-L041M-GE	4096×2	CMOS	Global	7μm	27.5k	28.6mm	/	0.003ms	HIFLY	Mono
MV-L083BC-GE (NEW)	8192×4	CMOS	Global	7μm	30k	57.344mm	4	0.004ms	HIFLY	Mono
MV-LM041M-GE	4096×2	CMOS	Global	7μm	27.5k	28.6mm	/	0.003ms	HIFLY	Mono
MV-LM044C-GE	4096×6	CMOS	Global	7μm	27.5K	28.6mm	/	0.003ms	HIFLY	Color
MV-LM044M-GE	4096×8	CMOS	Global	7μm	27.5k	28.6mm	4	0.003ms	HIFLY	Mono

General parameters

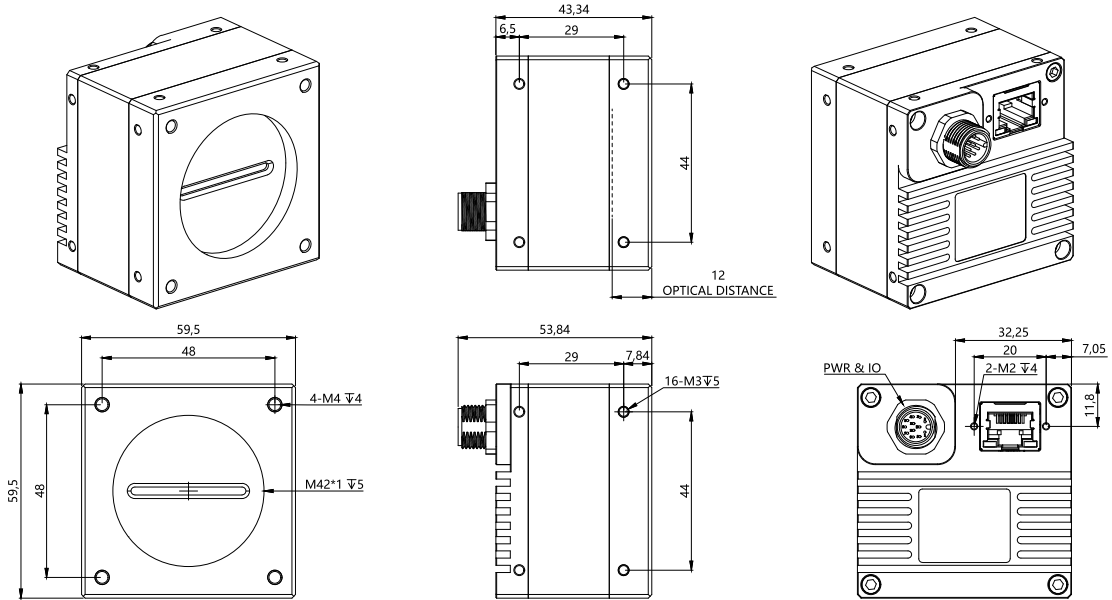
Programming language pack	C/C++/C#/VB6/VB.NET/Delphi/BCB/Python/Java
Operating system	WIINXP, WIN7/8/10 32@64 bit system, Linux and ARM Linux driver, Android platform driver, MAC OS system
Driver	Directshow component Halcon special component Labview special driver OCX component TWAIN component
Data interface	10G copper cable 10GBase-T, compatible with 100M/1G/2.5G/5G
Vision Standard Agreement	GigE Vision V1.2、GenIcam
Filter	The black-and-white camera is equipped with double-sided anti-reflection film as standard, and the color camera is equipped with 650nm infrared cut-off filter as standard
Working temperature @humidity	0~50°C @ 20%~80%(No condensation)
Storage temperature @humidity	-30~60°C @ 20%~95%(No condensation)
Other functions	Support any size ROI custom resolution, contrast and gamma adjustment, saturation adjustment, white balance correction, black level correction, custom dead point coordinate correction, ISP image processing acceleration, 3D noise reduction, custom LUT table, frame rate adjustment, custom camera name, etc.

Technical parameters

Parameter	Model	MV-L041M-GE	MV-L083BC-GE
Resolution		4096x2	8192X4
Frame rate		27.5K	30K
Pixel size		7μm×7μm	7μm×7μm
Pixel bit depth		8bit	10bit
Acquisition mode		Continuous/Software Trigger/Frame Trigger/Line Trigger/Conditional Line Trigger	
Maximum gain (multiple)		8	16
Exposure time range(ms)		0.003~5	0.004~50
Frame buffer		128M Bytes	512M Bytes
User -defined data area		2K Bytes	
Video output format		Mono 8bit	
TDI		/	4
Sensor Size		28.6mm	57.344mm
Lens Mount		M42x1.0, optical back focus 12 mm	M72, optical back focus 12 mm
Power supply		12~24V	
Power		<6W	
Dimensions		59.5×59.5×43.34mm (Without lens mount and rear shell interface)	80x80x52.9mm (Without lens mount and rear shell interface)
Weight		<500g	<800g

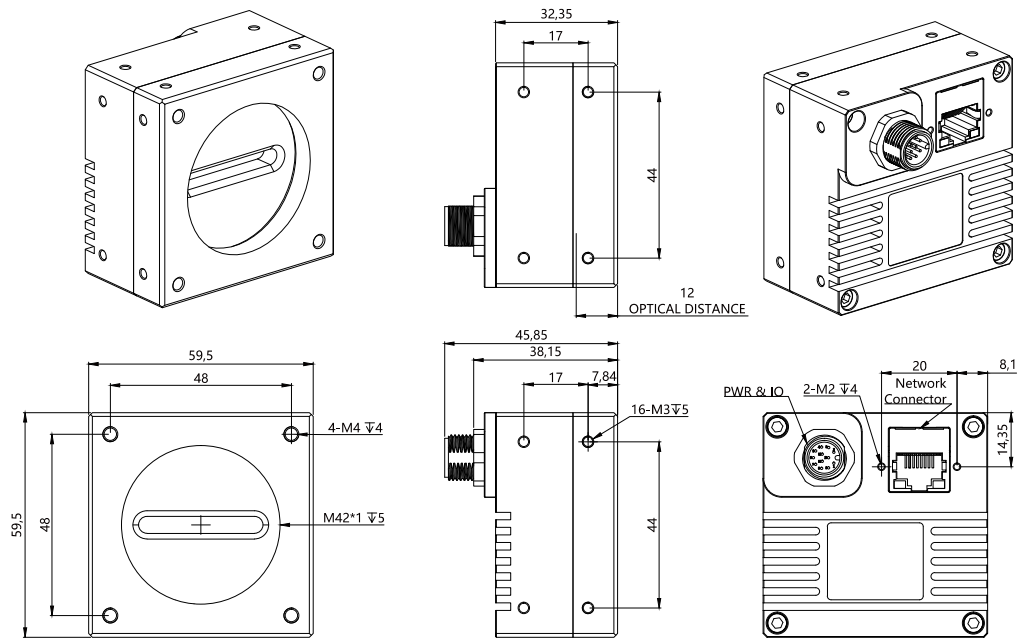
Parameter	Model	MV-LM041M-GE	MV-LM044C/M-GE
Resolution		4096x2	Color:4096x6 Mono:4096x8
Frame rate		27.5K	Color: 9.2K,27.5K Mono:27.5K
Pixel size		7μm×7μm	
Color		Mono	Color / Mono
Data format		Mono 8bit	Color: Bayer RG 8bit、RGB 8bit Mono: Mono 8bit
Sensor size		28.6mm (Photosensitive region)	
Lens Moun		M42x1.0, optical back focus 12 mm	
TDI		/	4
Exposure time range(ms)		0.003~5	
Dimensions		59.5×59.5×32.35mm (Without lens mount and rear shell interface)	
Data bit width		8bits (camera output to the user data width)	
Transmission mode		GigE Visionv1.2、Genlcam	
Transmission interface		Gigabit network	
Power		<6W	
Power supply		9~24V	
Weight		<500g	

LDimension Drawing



Unit: mm

LM Dimension Drawing



Unit: mm

10 GigE Line Scan Camera-General Series

With the widely application of machine vision in industries, high-speed and high-precision visual inspection has a higher requirements on the resolution and frame rate of industrial cameras. In order to meet the market demand, HIFLY launched 10GigE 8K line scan industrial camera to adapt to various line scan cameras scenario application requirements. It is widely used in printing, textile, railway, logistics, metallurgy, food, pharmaceutical, material sorting, etc.

Product Features

- Flat field correction function is supported
- With multi-exposure automatic switching function
- Support Gain and Offset programmable settings
- Reserved fan connector to effectively control the camera temperature
- Compared to the CameraLink interface, the cost is significantly reduced with a frame grabber
- Using the standard 10 Gigabit network interface design, the super six network cable can achieve stable communication
- The maximum transmission distance can reach 100 meters, and the industrial field wiring is no longer constrained, and it is backward compatible with gigabit networks
- The effective bandwidth is 1200MByte, which is 10 times that of Gigabit network, which greatly shortens the image transmission time and latency
- Support for GigEvision. The GenICam standard and the same SDK as Gigabit Ethernet cameras shorten the development cycle for customers



Product Selection Table

Product Selection table	Effective Pixel	Sensor Type	Shutter Mode	Pixel Size	Line Frequency	Target size	TDI	Minimum Exposure	Sensor Model	Color
MV-L083C-10G	8192×3(RGB)	CMOS	Global	7μm	50KHz	57.344mm	/	0.004ms	HIFLY	Color
MV-L083M-10G	8192×2	CMOS	Global	7μm	106KHz	57.344mm	2	0.004ms	HIFLY	Mono
MV-L163C-10G	16384×2(Bayer)	CMOS	Global	3.5μm	72KHz	57.344mm	/	0.004ms	HIFLY	Color
MV-L163M-10G	16384×2	CMOS	Global	3.5μm	72KHz	57.344mm	2	0.004ms	HIFLY	Mono
MV-LC83C-10G	8192×3(RGB)	CMOS	Global	7μm	50KHz	57.344mm	/	0.004ms	HIFLY	Color
MV-LC83M-10G	8192×2	CMOS	Global	7μm	105KHz	57.344mm	2	0.004ms	HIFLY	Mono
MV-LC83BM-10G	8192×4	CMOS	Global	7μm	109.89KHz	57.344mm	4	0.004ms	HIFLY	Mono
MV-L164C-10G	16384×6	CMOS	Global	5μm	25KHz	81.92mm	2	0.004ms	HIFLY	Color
MV-L164M-10G	16384 ×1	CMOS	Global	5μm	75KHz	81.92mm	/	0.004ms	HIFLY	Mono

Technical parameters

Parameter \ Model	MV-L083M/C-10G	MV-L163M/C-10G	MV-L164M/C-10G
Color specification	Mono /Color	Mono/Color	Mono /Color
Data format	Mono/RGB	Mono/Bayer	Mono/RGB
Line frequency	Color:50k Mono:106k (8bit)/70k(12bit)	Color: 72KHz(8bit) Mono: 72k(8bit)48k(12bit)	Color:8bit(25K) Mono:8bit(75K)
Resolution ratio	Mono:8192×2 Color:8192×3(RGB)	Mono:16384×2 Color:16384×2(Bayer)	Mono:16384×1 Color:16384×6
Sensor size	57.344mm(photosensitive area)	57.344mm(photosensitive area)	81.92mm (photosensitive area)
TDI	Mono: 2TDI		Color: 2TDI
Lens interface	M72×0.75, flangedistance 12mm		M90,flangedistance12mm
Exterior dimensions	80×80×69.29mm (excluding lens holder and rear shell interface)		110×110×69.26mm (excluding lens holder and rear shell interface)
Adwidth	12bit(refers to the width supported by sensor)		
Pixel size	7μm×7μm	3.5μm×3.5μm	5μm×5μm
Data bit width	10bit(width of data output by camera to user)		
Dynamic range	65dB		63.5dB
Transmission mode	GigE Vision v1.2、GenIcam		
Transmission interface	10 Gigabit network port (10 gigabit copper cable 10GBase-T, compatible with 100M/1G/25/5G)		
power consumpyion	Color<15W Mono<10W	<11W	<15W
Working temperature	0~50°C		
Working humidity	20~80% (without condensation)		
Storage temperature	-30~60°C		
Storage humidity	20~95% (without condensation)		
Power supply	12V± 10%		
Weight	<1000g	<1000g	<1500g

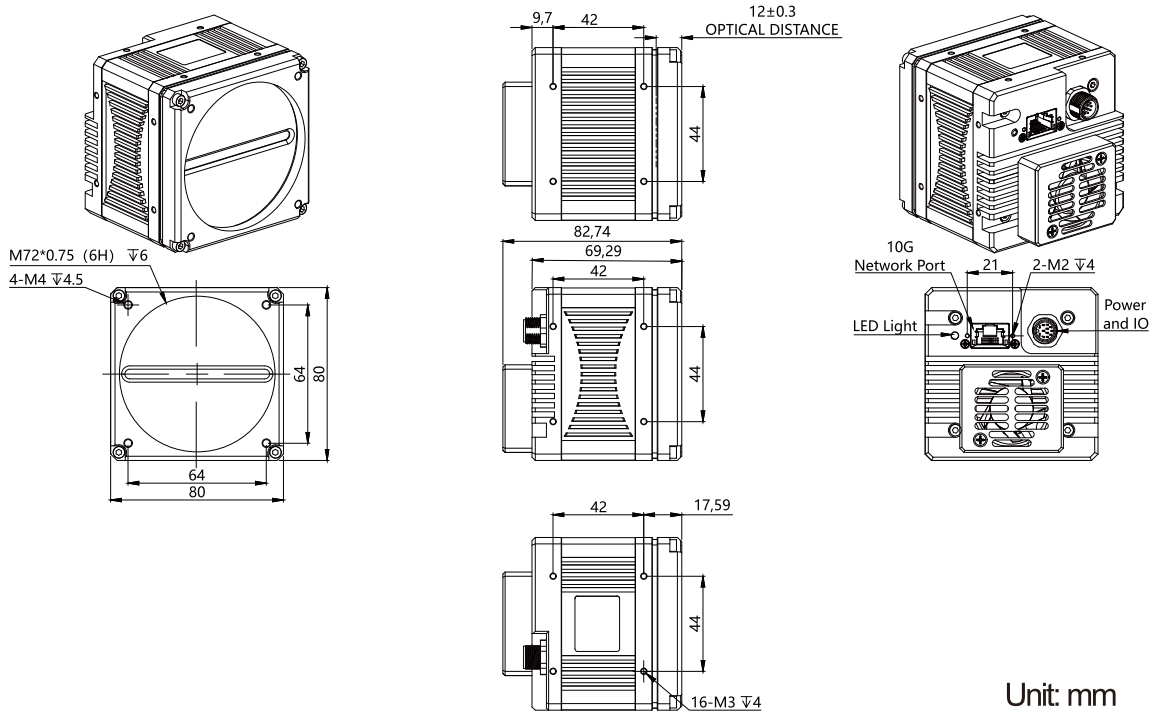
Technical parameters

Parameter	Model	MV-LC83C-10G	MV-LC83BM-10G
Pixel size		7μm×7μm	
Pixel bit depth		10bit	
Line frequency		50KHz	109.89KHz(8bit) 87.7KHz(12bit)
Resolution		8192×3(RGB)	8192×4
Maximum gain (multiple)		16	
Exposure time range (ms)		0.004~50	0.004~50
Frame buffer		1GB	
Video output format		Bayer 8bit	Mono 8/12bit
Lens mount		M72, Flange distance 12mm	
Power supply		12V~24V(±10%)	
Power		<10W	
Dimensions		80×80×52.9mm (Without lens mount and rear shell interface)	
Weight		<550g	

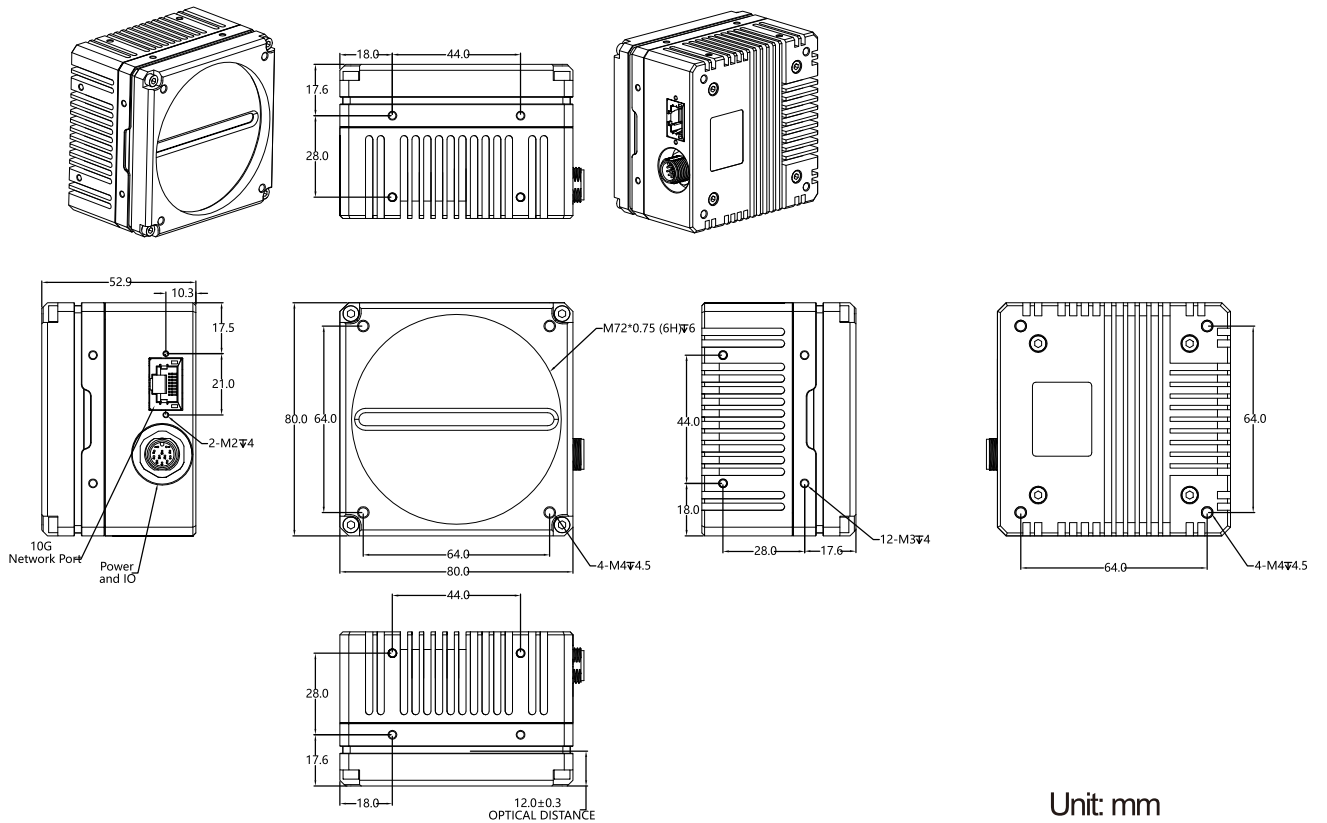
General parameters

Programming language pack	C/C++/C#/VB6/VB.NET/Delphi/BCB/Python/Java
Operating system	WIINXP, WIN7/8/10 32@64 bit system, Linux and ARM Linux driver, Android platform driver, MAC OS system
Driver	Directshow component Halcon special component Labview special driver OCX component TWAIN component
Data interface	10G copper cable 10GBase-T, compatible with 100M/1G/2.5G/5G
Vision Standard Agreement	GigE Vision V1.2、Genlcam
Filter	Black and white cameras come standard with double-sided AR antireflection film, and color cameras come standard with 650nm infrared cut filter
Working temperature	0~50°C @ 20%~80%(No condensation)
Storage temperature	-30~60°C @ 20%~95%(No condensation)
Other functions	Support any size ROI custom resolution, contrast and gamma adjustment, saturation adjustment, white balance correction, black level correction, custom dead point coordinate correction,ISP image processing acceleration, 3D noise reduction, custom LUT table, frame rate adjustment, custom camera name, etc.

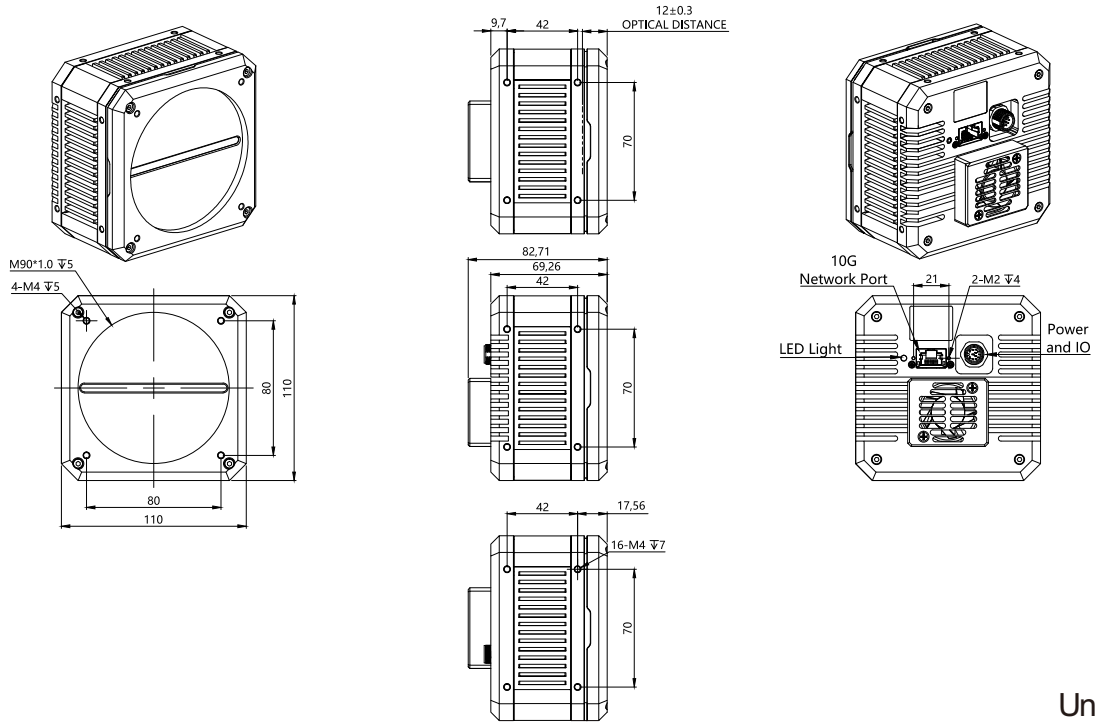
MV-L083-10G & MV-L163-10G Dimensional Drawing



MV-LC Dimensional Drawing



MV-L164-10G Dimensional Drawing



Unit: mm

10 GigE Line Scan Camera-256 MT Series

At the end of 2022, HIFLY was the first in China to launch a 256-class MT 10 GigE Line Scan Camera-256 To Series, which made up for the domestic gap. This series adopts domestic linear array chips. At present, there are altogether three specifications in this series: MV-L042MT-10G/MV-L082MT-10G/MV-L162MT-10G. The line pixels are 4096/8192/16384 respectively, and the highest line frequency can reach 250K/144K/72K, meeting the requirements of customers for high speed and stability.



MV-L042MT-10G



MV-L082MT-10G



MV-L162MT-10G

Product Features

- 5um pixel, 10 GigE interface
- 26-grade MT, reducing the demand of light source
- Sensor line frequency up to 250k/200k(sensor output pixel width 10bits/12bits)
- Support 256-line area array focusing mode
- Gain and Offset programmable settings are supported, and flat-field correction is supported.
- Support encoder synchronous trigger, photoelectric sensor and encoder combination multiple trigger modes

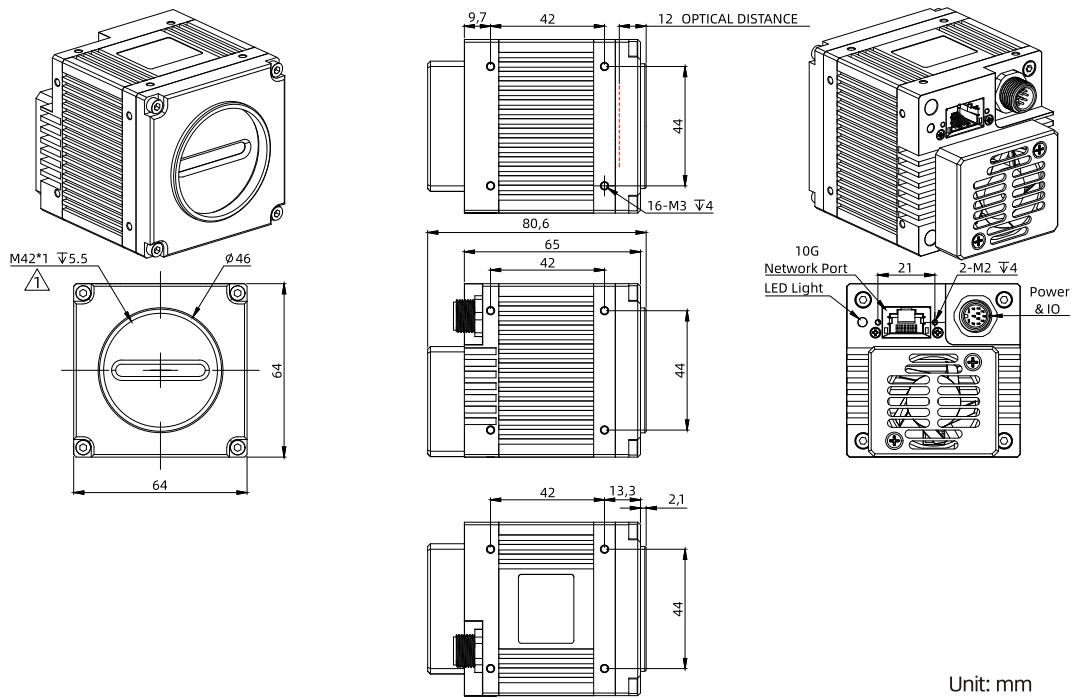
Product Selection Table

Model Number	Resolution	Sensor type	Shutter method	Pixel size	Line frequency	Target size	Minimal exposure	TDI	Sensor model	Colour
MV-L042MT-10G	4096×256	CMOS-TDI	Global	5μm	250/200KHZ	21.177mm	0.004ms	256	HIFLY	Mono
MV-L082MT-10G	8192×256	CMOS-TDI	Global	5μm	145/96KHZ	41.673mm	0.004ms	256	HIFLY	Mono
MV-L162MT-10G	16384×256	CMOS-TDI	Global	5μm	72/48KHZ	82.666mm	0.004ms	256	HIFLY	Mono

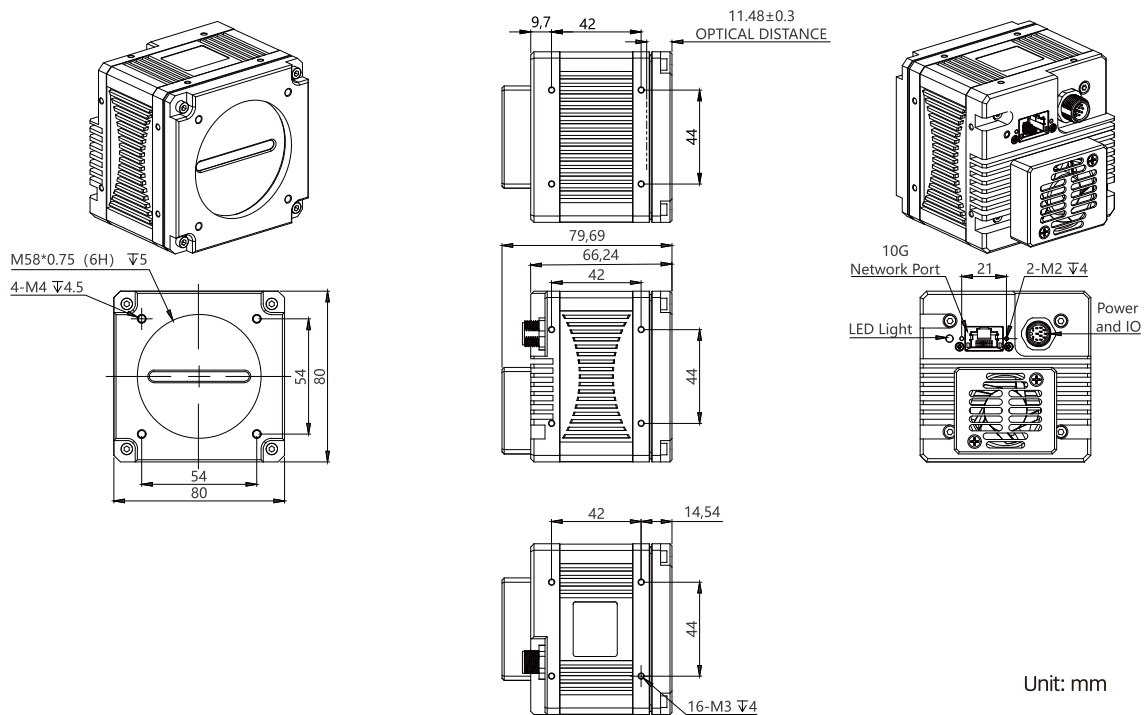
Technical Parameter

Parameter	Model	MV-L042MT-10G	MV-L082MT-10G	MV-L162MT-10G
Resolution		4096×256	8192×256	16384×256
Sensor size		21.177mm (photosensitive area)	41.673 mm (photosensitive area)	82.666mm (photosensitive area)
Lens interface		M42,flange distance12mm	M58,flange distance12mm	M90,flange distance12mm
Exterior dimensions		64×64×65mm(excluding lens holder and rear shell interface)	80×80×66.24mm (excluding lens holder and rear shell interface)	110×110×66.81mm(excluding lens holder and rear shell interface)
weight		<550g	<1000g	<1500g
Camera line frequency		250k(8bit)/200k(12bit)	145k(8bit)/96k(12bit)	72k(8bit)/48k(12bit)
Sensor line frequency		250k/200k(sensor output pixel width 10bit)		
Ad width		12bit (refers to the width supported by sensor)		
Pixel size		5μm×5μm		
Data bit width		8/12bits (camera output data width to user)		
Data format		Mono		
Color specification		Mono		
TDI		256TDI		
Dynamic range		low sensitivity mode:65dB High sensitivity mode:67dB		
Sensitivity		Low sensitivity mode:80 DN/nj/cm2 @530nm High sensitivity mode:340 DN/nj/cm2 @530nm		
Transmission mode		GigE Vision V1.2、GenIcam		
Transmission interface		10 gigabit network port (10 gigabit copper cable 10GBase-T, compatible with 100M/1G/2.5/5G)		
Power		<12W		<14W
Working temperature		0-50℃		
Working humidity		20-80% (without condensation)		
Storage temperature		-30-60℃		
Storage humidity		20-95% (without condensation)		
Power supply		12V± 10%		

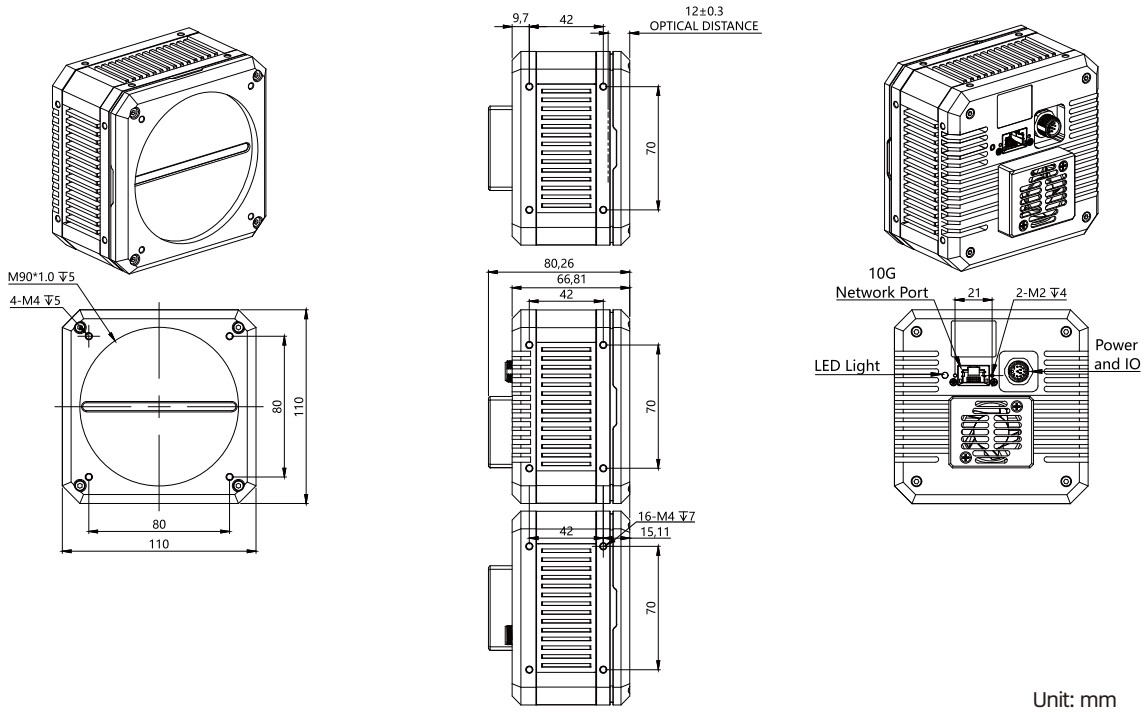
MV-L083-10G & MV-L163-10G Dimension Drawing



MV-L082MT-10G Dimension Drawing



MV-L162MT-10G Dimension Drawing



10 GigE Area Scan Camera

With the widely application of machine vision in industries, high-speed and high-precision visual inspection has a higher requirements on the resolution and frame rate of industrial cameras. HIFLY launched a number of new products, includes 10Gigabit network camera with 0.5MP-65MP pixels, to meet customers' requirements for high frame rate, high resolution requirements. It is widely used in PCB, screen detection, lithium battery and railway.

Product Features

- Reserve a fan interface to effectively control the camera temperature
- 0.5MP to 100 MP pixels with a maximum frequency of 1594FPS
- Adopting standard 10 Gigabit network interface design, and stable communication can be realized by super six network cables
- Compared with the CameraLink interface with a capture card, the cost is greatly reduced
- The farthest transmission distance can reach 100 meters, and the industrial field wiring is no longer restricted and backward compatible with Gigabit Ethernet
- The effective bandwidth is 1200MByte, which is 10 times that of the gigabit network, which greatly reduces the image transmission time and delay
- Support GigEVision, GenICam standard and the same SDK as the dry network camera, shorten the customer development cycle



Product Selection Table

Model Number	Pixel	Sensor type	Shutter method	Maximum resolution	Pixel size	Frame rate (FPS)	Target size	Minimum exposure	Sensor model	Colour
MV-51C/M-10G	0.51MP	CMOS	Global	816×624	9.0μm	1594	1/1.7"	0.0008ms	IMX426	Color/Mono
MV-170C/M-10G	1.7MP	CMOS	Global	1600×1100	9.0μm	650	1.1"	0.0011ms	IMX425	Color/Mono
MV-280C/M-10G	2.8MP	CMOS	Global	1936×1464	4.5μm	408	2/3"	0.0015ms	IMX421	Color/Mono
MV-402C/M	4MP	CMOS	Global	2048×2048	5.5μm	172	1"	0.0026ms	CMV4000	Color/Mono
MV-503C/M-10G	5MP	CMOS	Global	2592×2160	2.5μm	120	1/2"	0.003ms	GMAX2505	Color/Mono
MV-903C/M-10G	9MP	CMOS	Global	4208×2160	2.5μm	120	2/3"	0.003ms	GMAX2509	Color/Mono
MV-1205C/M-10G	12MP	CMOS	Global	4096×3072	3.2μm	90	1"	0.003ms	XGS12000	Color/Mono
MV-1803C/M-10G	18MP	CMOS	Global	4512×4096	2.5μm	63	1"	0.003ms	GMAX2518	Color/Mono
MV-2500C/M-10G	25MP	CMOS	Global	5120×5120	2.5μm	42	1.1"	0.004ms	GMAX0505	Color/Mono
MV-2600C-10G	26MP	CMOS	Rolling	6240×4168	3.76μm	45	1.8"	0.005ms	IMX571	Color
MV-3100C/M-10G	31MP	CMOS	Global	6480×4860	3.45μm	35	27.9mm (APS-C)	0.0056ms	IMX342	Color/Mono
MV-4701C/M-10G	47MP	CMOS	Rolling	8240×5628	2.315μm	24	1.4"	0.0072ms	IMX492	Color/Mono
MV-6500C/M-10G	65MP	CMOS	Global	9344×7000	3.2μm	15.5	29.9×22.4mm	0.015ms	GMAX3265	Color/Mono
MV-1606C/M-10G (NEW)	16MP	CMOS	Global	4096×4096	3.5μm	45.25	4/3"	0.0053ms	OEM	Color/Mono
MV-2500C/M-10G	25MP	CMOS	Global	5120×5120	2.5μm	41.75	1.1"	0.0046ms	GMAX0505	Color/Mono
MV-507C/M-10G (NEW)	5MP	CMOS	Global	2448 x 2048	3.4μm	164	2/3"	0.003ms	OEM	Color/Mono
MV-1207C/M-10G (NEW)	12MP	CMOS	Global	4096×3072	3.4μm	100	1.1"	0.003ms	OEM	Color/Mono
MV-2501C/M-10G (NEW)	25MP	CMOS	Global	5120×5120	2.7μm	42	1.3"	0.0053ms	OEM	Color/Mono
MV-10000C/M-10G (NEW)	100MP	CMOS	Global	11276×9200	3.2μm	11.6	36.1×29.4mm	0.001ms	OEM	Color/Mono

Technical Parameters

Parameter \ Model	MV-51C/M-10G	MV-170C/M-10G	MV-280C/M-10G	MV-420C/M-10G
Resolution@ frame rate	816×624@1594FPS	1600×1100@650FPS	1936×1464@408FPS	2048×2048@172FPS
Pixel size	9.0μm×9.0μm	9.0μm×9.0μm	4.5μm×4.5μm	5.5μm×5.5μm
Pixel bit depth	12bit	12bit	12bit	8bit
Sensitivity	4050mV 1/30s	4910mV 1/30s	1677mV 1/30s	8.5 V/lux*s
Acquisition mode	Continuous/soft trigger/hard trigger			
Maximum gain (multiple)	125	125	125	16.5
Exposure time range (ms)	0.0008~838.9	0.0011~1153.4	0.0015~1572.9	0.0026~1874.3
Frame buffer	1GB			
User-defined data area	2K Bytes			
Video output format	Color: Bayer 8/12bit Mono : Mono 8/12bit			
GPIO	2 inputs and 2 outputs, 1 configurable input and output, support trigger and flash sync mode			
Lens Mount	C-Mount			
Power supply	12V			
Power	< 12W			
Dimensions	64×64×61.7mm (Without lens mount and rear shell interface)			
Weight	< 550g			

Parameter \ Model	MV-503C/M-10G	MV-903C/M-10G	MV-1205C/M-10G	MV-1803C/M-10G
Resolution@ frame rate	2592×2160@120FPS	4208×2160@120FPS	4096×3072@90FPS	4512×4096@63FPS
Pixel size	2.5μm×2.5μm	2.5μm×2.5μm	3.2μm×3.2μm	2.5μm×2.5μm
Pixel bit depth	8bit	8bit	8bit	8bit
Sensitivity	$1.03 \times 10^7 e^- / ((W/m^2) \cdot s) @ 500nm$	$1.03 \times 10^7 e^- / ((W/m^2) \cdot s) @ 500nm$	/	$1.05 \times 10^7 e^- / ((W/m^2) \cdot s)$
Acquisition mode	Continuous/soft trigger/hard trigger			
Maximum gain (multiple)	20	20	8	20
Exposure time range (ms)	0.003~393.2	0.003~393.2	0.003~196.6	0.003~393.2
Frame buffer	1GB			
User-defined data area	2K Bytes			
Video output format	Color: Bayer 8/12bit Mono: Mono 8/12bit		Color: Bayer 8/12bit Mono: Mono 8/12bit	Color: Bayer 8/12bit Mono: Mono 8/12bit
GPIO	2 inputs and 2 outputs, 1 configurable input and output, support trigger and flash sync mode			
Lens Mount	C-Mount			
Power supply	12V			
Power	< 12W			
Dimensions	64×64×61.7mm (Without lens mount and rear shell interface)			
Weight	< 550g			

Technical Parameters

Model Parameter	MV-2500C/M-10G	MV-2600C-10G	MV-3100C/M-10G	MV-4701C/M-10G
Resolution@ frame rate	5120×5120@42FPS	6240×4168@45FPS	6480×4860@35FPS	8240×5628@24FPS
Pixel size	2.5μm×2.5μm	3.76μm×3.76μm	3.45μm×3.45μm	2.315μm×2.315μm
Pixel bit depth	10bit	12bit	12bit	12bit
Sensitivity	1.03×10 ⁻⁷ e ⁻ /((W/m ²)·s) @500nm	5630mV 1/30s	915mV 1/30s	87.69mV 1/30s
Acquisition mode	Continuous/soft trigger/hard trigger			
Maximum gain (multiple)	16.5	64	125	22
Exposure time range (ms)	0.004~1048.6	0.005~5242	0.0056~5872	0.0072~5142.9
Frame buffer	1GB	256MB	1GB	1GB
User-defined data area	2K Bytes			
Video output format	Color: Bayer GB 8/12bit, BGR 8bit, RGB 8bit, YUV422 16bit Mono: Mono 8/12bit	Color: Bayer 8/12bit	Color: Bayer 8/12bit Mono: Mono 8/12bit	Color: Bayer 8/12bit Mono: Mono 8/12bit
GPIO	2 inputs and 2 outputs, 1 configurable input and output, support trigger and flash sync mode			
Lens Mount	C-Mount	M58 (F-port adapter ring are optional)		
Power supply	12V			
Power	< 12W			
Dimensions	64×64×61.7mm (Without lens mount and rear shell interface)	64×64×59.5mm (Without lens mount and rear shell interface)		
Weight	< 550g			

Model Parameter	MV-6500C/M-10G	MV-1606C/M-10G	MV-2500C/M-10G	MV-507C/M-10G
Resolution@ frame rate	9344×7000@15.5FPS	4096×4096@45.25FPS	5120×5120@41.75FPS	2448×2048@164FPS
Pixel size	3.2μm×3.2μm	3.5μm×3.5μm	2.5μm×2.5μm	3.4μm×3.4μm
Pixel bit depth	12bit	12bit	10bit	10bit
Sensitivity	1.03×10 ⁻⁷ e ⁻ /((W/m ²)·s) @500nm	3.9V/lux·s	1.03×10 ⁻⁷ e ⁻ /((W/m ²)·s) @500nm	- 88 dB (angular dependence)
Acquisition mode	Continuous/soft trigger/hard trigger			
Maximum gain (multiple)	6	16	16.5	20
Exposure time range (ms)	0.015-10000	0.0053~88919.2	0.0046~14470.3	0.003~393.2
Frame buffer	1GB			
User-defined data area	2K Bytes			
Video output format	Color: Bayer 8/12bit Mono: Mono 8/12bit	Color: Bayer GB 8/12bit, BGR 8bit, RGB 8bit, YUV422 8bit Mono: Mono 8/12bit	Color: Bayer 8/12bit Mono: Mono 8/12bit	
GPIO	2 inputs and 2 outputs, 1 configurable input and output, support trigger and flash sync mode			
Lens Mount	M58(F-port adapter ring are optional)	C-Mount		
Power supply	12V			
Power	< 12W			
Dimensions	64×64×61.7mm (Without lens mount and rear shell interface)	64×64×52.7mm (Without lens mount and rear shell interface)		
Weight	<500g	<500g	<500g	<500g

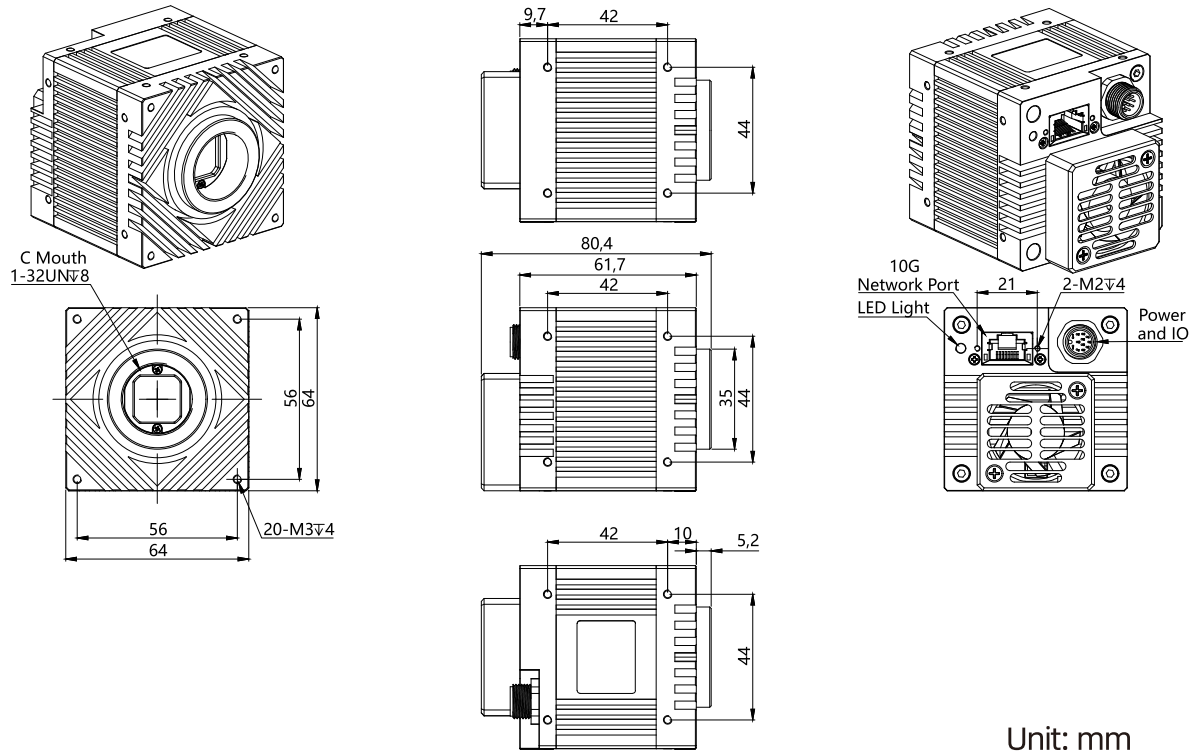
Technical Parameters

Model	MV-1207C/M-10G	MV-2501C/M-10G	MV-10000C/M-10G
Resolution@ frame rate	4096x3072@100FPS	5120x5120@42FPS	11276x9200@11.6FPS
Pixel size	3.4μm×3.4μm	2.7μm×2.7μm	3.2μm×3.2μm
Pixel bit depth	8bit	12bit	12bit
Sensitivity	- 88 dB (angular dependence)	3.9V/lux·s	-83.5dB (CRA dependent)
Acquisition mode	Continuous/soft trigger/hard trigger		
Maximum gain (multiple)	8	16	4
Exposure time range (ms)	0.003~196.6	0.0053~88919.2	0.001~60s
Frame buffer	1GB	1GB	1GB
User-defined data area	2K Bytes		
Video output format	Color: Bayer 8/12bit Mono: Mono 8/12bit	Color: Bayer GB 8/12bit, BGR 8bit, RGB 8bit, YUV422 8bit Mono: Mono 8/12bit	Color: Bayer 8/12bit Mono: Mono 8/12bit
GPIO	2 inputs and 2 outputs, 1 configurable input and output, support trigger and flash sync mode		
Lens Mount	C□		M58
Power supply	12~24V (±10%)		
Power	< 12W		
Dimensions	64×64×52.7mm (Without lens mount and rear shell interface)		
Weight	<500g		

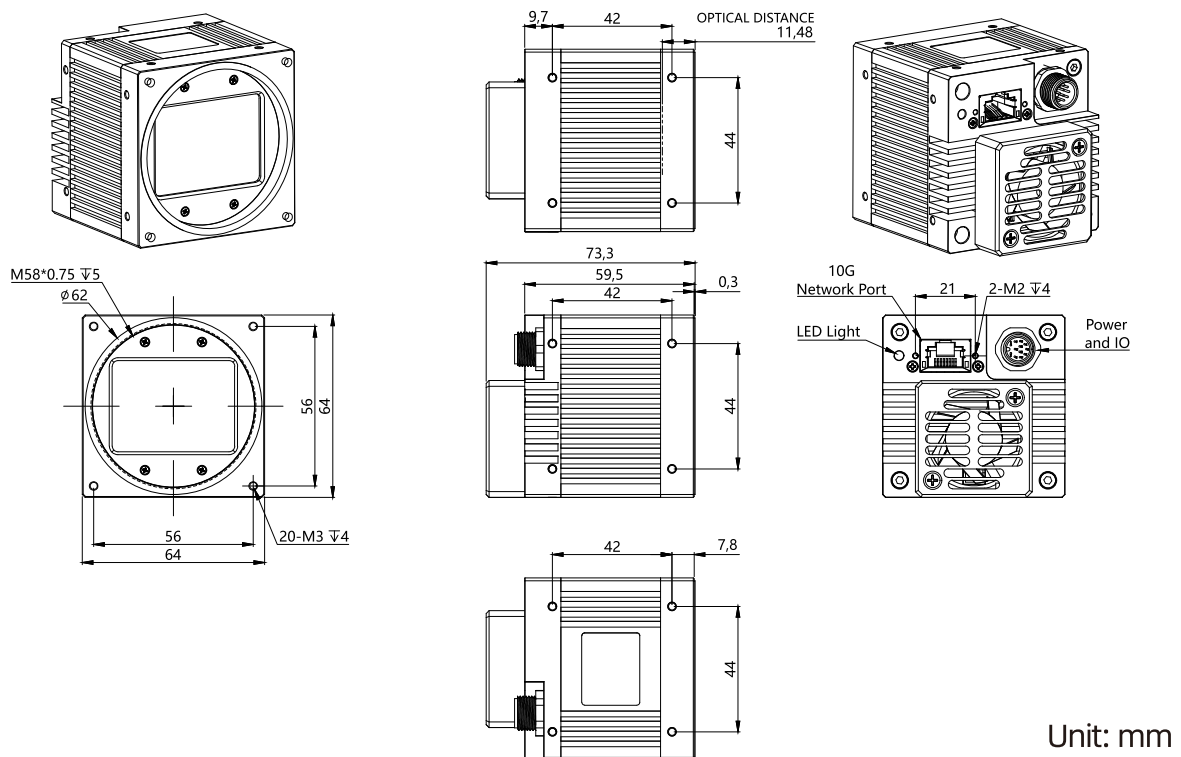
General parameters

Programming language pack	C/C++/C#/VB6/VB.NET/Delphi/BCB/Python/Java
Operating system	WIINXP, WIN7/8/10 32@64 bit system, Linux and ARM Linux driver, Android platform driver, MAC OS system
Driver	Directshow component Halcon special component Labview special driver OCX component TWAIN component
Data interface	10G copper cable 10GBase-T, compatible with 100M/1G/2.5G/5G
Vision Standard Agreement	GigE Vision V1.2、Genlcam
Filter	Black and white cameras come standard with double-sided AR antireflection film, and color cameras come standard with 650nm infrared cut filter
Working temperature @humidity	0~50°C @ 20%~80%(No condensation)
Storage temperature @humidity	-30~60°C @ 20%~95%(No condensation)
Other functions	Support any size ROI custom resolution, contrast and gamma adjustment, saturation adjustment, white balance correction, black level correction, custom dead point coordinate correction, ISP image processing acceleration, 3D noise reduction, custom LUT table, frame rate adjustment, custom camera name, etc.

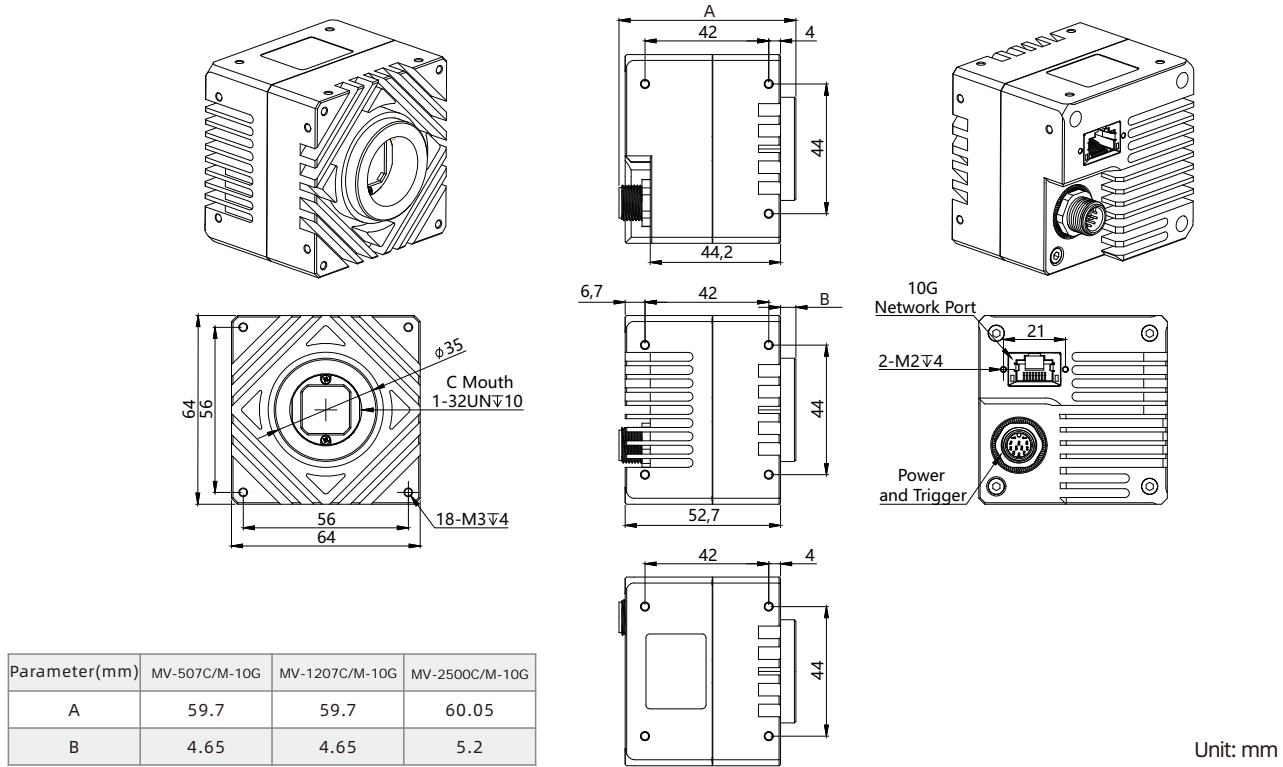
C-Mount Dimension Drawing



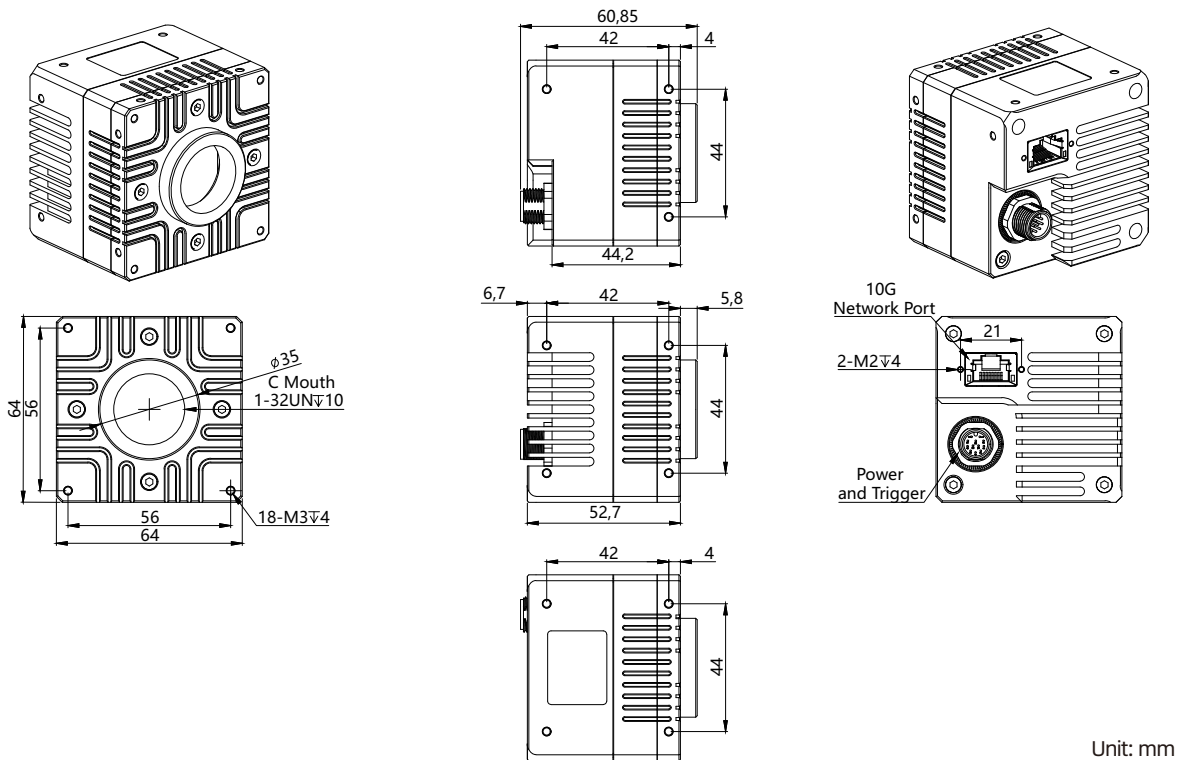
M58-Mount Dimension Drawing



MV Series Camera Dimensions



MV-1606-10G / MV-2501-10G Camera Dimension Drawing



USB3.0 Area Scan Camera

The transmission speed of USB3.0 is significantly higher than USB2.0 and GigE cameras. With 5Gbps transmission and bandwidth and high-speed sensor, The camera of 0.3MP and 800 fps can achieve a minimum transmission time of 1.2 ms, and a 20MP pixel camera can also reach 18fps; Due to the abundant transmission bandwidth, a computer can guarantee high frame rate compatible with multiple cameras; The USB3.0 series has a low CPU utilization. DMA transmission is adopted. The 5Gbps data transmission part hardly occupies CPU resources. It is widely used in electronic 3C, automatic semiconductor, logistics code scanning, intelligent transportation, biomedicine, packaging and printing, etc.



AU Series



FU Series



CU Series

Product features

- The camera has its own programmable IO, which supports external trigger flash synchronous photography
- Support 16bit gray and 48bit color lossless format output
- 0.3MP to 20MP CMOS, multiple global shutter cameras are optional
- One computer can be connected to multiple cameras, and it can work stably for a long time without dropping frames
- Fully compatible with GigE camera SDK, seamless replacement
- It supports PC Linux system and ARM Linux system , and can be integrated into embedded devices
- Support Vision protocol, seamless compatible with Halcon, Vision Pro, Labview and other vision software

General parameters

Vision Standard Agreement	USB3Vision 1.0、GenICam
Data interface	USB3.0
Operating system	WINXP、WIN7/8/10 32@64-bit system, Linux and ARM Linux driver (customizable), Android platform driver (customizable)Linux and ARM Linux driver (customizable), Android platform driver (customizable)
Driver	Directshow component Halcon special component Labview special driver OCX component TWAIN component
Programming language pack	C/C++/C#/VB6/VB.NET/Delphi/BCB/Python/Java
Working temperature @humidity	0~50°C @ 20%~80%(No condensation)
Storage temperature @humidity	-30~60°C @ 20%~95%(No condensation)
Other functions	Support any size ROI custom resolution, contrast and gamma adjustment, saturation adjustment, white balance correction, black level correction, custom dead point coordinate correction,ISP image processing acceleration, 3D noise reduction, custom LUT table, frame rate adjustment, custom camera name, etc.

Product Selection Table

Product number	Pixels	Sensor type	Shutter method	Maximum resolution	Pixel size	Frame rate(FPS)	Target size	Minimum exposure	Sensor model	Colour
MV-AU30GC/M	0.3MP	CMOS	Global	640×480	4.0µm	791	1/5.6"	0.0025ms	SmartSens	Color/Mono
MV-AU31GC/M	0.3MP	CMOS	Global	640×480	4.8µm	454	1/4"	0.0045ms	PYTHON	Color/Mono
MV-AU133GC/M	1.3MP	CMOS	Global	1280×1024	4.0µm	241.5	1/2.7"	0.004ms	SC130GS	Color/Mono
MV-AU134GC/M	1.3MP	CMOS	Global	1280×1024	4.8µm	216.25	1/2"	0.0045ms	PYTHON	Color/Mono
MV-AU40GC/M	0.4MP	CMOS	Global	720×540	6.9µm	523.75	1/2.9"	0.0032ms	IMX287	Color/Mono
MV-AU300GC/M	3MP	CMOS	Global	2048×1536	3.45µm	55.75	1/1.8"	0.0114ms	IMX265	Color/Mono
MV-AU505GC/M	5MP	CMOS	Global	2592×2048	3.2µm	42.75	2/3"	0.0113ms	XG55000	Color/Mono
MV-AU200GC/M	2MP	CMOS	Global	1600×1200	4.5µm	60	1/1.8"	0.0157ms	EV76C570	Color/Mono
MV-AU230GC/M	2MP	CMOS	Global	1920×1200	4.8µm	165.5	2/3"	0.0039ms	PYTHON2000	Color/Mono
MV-AU231GC/M	2.3MP	CMOS	Global	1920×1200	5.86µm	165.25	1/1.2"	0.0049ms	IMX174	Color/Mono
MV-AU232GC/M	2.3MP	CMOS	Global	1920×1200	5.86µm	40	1/1.2"	0.0201ms	IMX249	Color/Mono
MV-AU501GC/M	5MP	CMOS	Global	2448×2048	3.45µm	40.5	2/3"	0.0118ms	IMX264	Color/Mono
MV-AU502RC/M	5MP	CMOS	Rolling	2592×1944	2.2µm	59	1/2.5"	0.0084ms	AR0522	Color/Mono
MV-AU630RC/M	6.3MP	CMOS	Rolling	3088×2064	2.4µm	59.5	1/1.8"	0.008ms	IMX178	Color/Mono
MV-AU800RC/M	8MP	CMOS	Rolling	3840×2160	2.0µm	45.75	1/1.8"	0.02ms	OEM	Color/Mono
MV-AU1000RC/M	10MP	CMOS	Rolling	3664×2748	1.67µm	8	1/2.3"	0.0545ms	MT9J003	Color/Mono
MV-AU1201RC/M	12MP	CMOS	Rolling	4000×3000	1.85µm	32	1/1.7"	0.0102ms	IMX226	Color/Mono
MV-AU1600RC/M	16MP	CMOS	Rolling	4608×3456	1.34µm	12	1/2.3"	0.0233ms	IMX206	Color/Mono
MV-AU2000RC/M	20MP	CMOS	Rolling	5488×3672	2.4µm	19.5	1"	0.0138ms	IMX183	Color/Mono
MV-AU2002RC/M <small>(NEW)</small>	20MP	CMOS	Rolling	5488×3672	2.4µm	19	1"	0.0143ms	IMX283	Color/Mono
MV-FU401GC/M	4MP	CMOS	Global	2048×2048	5.5µm	88	1"	0.0054ms	OEM	Color/Mono
MV-FU890GC/M	8.9MP	CMOS	Global	4096×2160	3.45µm	32	1"	0.0141ms	IMX267	Color/Mono
MV-FU1200RC/M	12MP	CMOS	Rolling	4080×3072	3.1µm	30.75	1"	0.0201ms	RJ5DY1BA0LT	Color/Mono
MV-FU1200GC/M	12MP	CMOS	Global	4096×3000	3.45µm	23.5	1.1"	0.0141ms	IMX304	Color/Mono
MV-FU1205GC/M	12MP	CMOS	Global	4096×3072	3.2µm	28.5	1"	0.0113ms	XG512000	Color/Mono
MV-CU240RC/M <small>(NEW)</small>	2.4MP	CMOS	Rolling	1936×1280	9.9µm	30	1.5"	0.0107ms	OEM	Mono
MV-CU404RC/M <small>(NEW)</small>	4MP	CMOS	Rolling	2048×2048	5.94µm	85	1.1"	0.0327ms	OEM	Color/Mono
MV-CU1206GC/M <small>(NEW)</small>	12MP	CMOS	Global	4112×3088	3.5µm	30	1.1"	0.0533ms	OEM	Color/Mono
MV-CU1606GC/M <small>(NEW)</small>	16MP	CMOS	Global	4112×4112	3.5µm	22.75	4/3"	0.0533ms	OEM	Color/Mono
MV-SU240GC/M <small>(NEW)</small>	2.4MP	CMOS	Global	2048×1200	4µm	158.3	1/1.7"	0.0084ms	GMAX4002	Color/Mono
MV-SU502RM <small>(NEW)</small>	5MP	CMOS	Rolling	2592×1944	2.2µm	59	1/2.5"	0.0084ms	AR0522	Mono
MV-SU507GC/M <small>(NEW)</small>	5MP	CMOS	Global	2448×2048	3.4µm	60	2/3"	0.003ms	GMAX3405	Color/Mono

Technical Parameters

Parameter \ Model	MV-AU30GC/M	MV-AU31GC/M	MV-AU133GC / M	MV-AU134GC / M
Resolution@ frame rate	640×480@791FPS	640×480@454FPS	1280×1024@241.5FPS	1280×1024@216.25FPS
Pixel size	4.0μm×4.0μm	4.8μm×4.8μm	4.0μm×4.0μm	4.8μm×4.8μm
Pixel bit depth	8bit	10bit	8bit	10bit
Sensitivity	8 V/lux·s 540nm	7.3 V/lux·s @540nm	8 V/Lux.s	7.3 V/lux·s @540nm
Acquisition mode	Continuous/soft trigger/hard trigger			
Maximum gain (multiple)	8	16.5	6	16.5
Exposure time range (ms)	0.0025~20.4	0.0045~584.4	0.004~32.4	0.0045~584.4
Frame buffer	128M Bytes			
User-defined data area	2K Bytes			
Video output format	Color: Bayer 8bit Mono: Mono 8bit	Color: Bayer 8bit Mono: Mono 8bit	Color: Bayer 8bit Mono: Mono 8bit	Color: Bayer GB 8bit Mono: Mono 8bit
GPIO	1 optocoupler isolated input, 1 optocoupler isolated output, 1 non-isolated input and output			
Lens Mount	C-Mount (optional for CS port)			
Power supply	5V, USBbus power supply			
Power	< 3W			
Dimensions	29×29×32.7mm (Without lens mount and rear shell interface)			
Weight	< 75g			

Parameter \ Model	MV-AU40GC/M	MV-AU300GC/M	MV-AU505GC/M	MV-AU2002GC/M
Resolution@ frame rate	720×540@523.75FPS	2048×1536@55.75FPS	2592×2048@42.75FPS	5488×3672@19FPS
Pixel size	6.9μm×6.9μm	3.45μm×3.45μm	3.2μm×3.2μm	2.4μm×2.4μm
Pixel bit depth	8bit	12bit	12bit	10bit
Sensitivity	3660mV 1/30s	1146mV 1/30s	/	1847mV 1/30s
Acquisition mode	Continuous/soft trigger/hard trigger			
Maximum gain (multiple)	32	64	8	22
Exposure time range (ms)	0.0032~1955.4	0.0114~11966.6	0.0113~740.3	0.0143~3750.1
Frame buffer	128M Bytes			
User-defined data area	2K Bytes			
Video output format	Color: Bayer 8/12bit Mono: Mono 8/12bit	Color: Bayer RG 8/Bayer12bit Mono: Mono 8/12bit		Color: Bayer RG 8bit Mono: Mono 8bit
GPIO	1 optocoupler isolated input, 1 optocoupler isolated output, 1 non-isolated input and output			
Lens Mount	C-Mount (optional for CS port)			
Power supply	5V, USBbus power supply			
Power	< 3W			
Dimensions	29×29×32.7mm (Without lens mount and rear shell interface)			
Weight	< 75g			

Technical Parameters

Parameter	Model	MV-AU200GC/M	MV-AU230GC/M	MV-AU231GC/M	MV-AU232GC/M
Resolution@ frame rate		1600×1200@60FPS	1920×1200@165.5FPS	1920×1200@165.25FPS	1920×1200@40FPS
Pixel size		4.5μm×4.5μm	4.8μm×4.8μm	5.86μm×5.86μm	5.86μm×5.86μm
Pixel bit depth		10bit	10bit	8bit	12bit
Sensitivity		7.4V/lux·s 3200K	7.5 V/lux.s @550nm	Color: 1016mV 1/30s Mono: 825mV 1/30s	Color: 1016mV 1/30s Mono: 825mV 1/30s
Acquisition mode		Continuous/soft trigger/hard trigger			
Maximum gain (multiple)		8	8	250	250
Exposure time range (ms)		0.0157~95.8	0.0039~256.1	0.0049~10188.6	0.0201~42112.8
Frame buffer		128M Bytes			
User-defined data area		2K Bytes			
Video output format		Color: Bayer BG 8/Bayer 12bit Mono: Mono 8/12bit	Color: Bayer RG 8bit Mono: Mono 8bit		Color: Bayer RG 8/Bayer12bit Mono: Mono 8/12bit
GPIO		1 optocoupler isolated input, 1 optocoupler isolated output, 1 non-isolated input and output			
Lens Mount		C-Mount (optional for CS port)			
Power supply		5V, USBbus power supply			
Power		< 3W			
Dimensions		29×29×32.7mm (Without lens mount and rear shell interface)			
Weight		< 75g			

Parameter	Model	MV-AU501GC/M	MV-AU502RC/M	MV-AU630RC/M	MV-AU800RC/M
Resolution@ frame rate		2448×2048@40.5FPS	2592×1944@59FPS	3088×2064@59.5FPS	3840×2160@45.75FPS
Pixel size		3.45μm×3.45μm	2.2μm×2.2μm	2.4μm×2.4μm	2μm×2μm
Pixel bit depth		12bit	10bit	10bit	12bit
Sensitivity		Color: 1146mV 1/30s Mono: 915mV 1/30s	Color: 18.8 ke-/lux*sec Mono: 36ke-/lux*sec	425mV 1/30s	2200mV/lux.s
Acquisition mode		Continuous/soft trigger/hard trigger			
Maximum gain (multiple)		250	15	32	15
Exposure time range (ms)		0.0118~12377.1	0.0084~553.4	0.008~10284.8	0.02~655.4
Frame buffer		128M Bytes			
User-defined data area		2K Bytes			
Video output format		Color: Bayer BG 8/Bayer 12bit Mono: Mono 8/12bit	Color: Bayer RG 8bit Mono: Mono 8bit		
GPIO		1 optocoupler isolated input, 1 optocoupler isolated output, 1 non-isolated input and output			
Lens Mount		C-Mount (optional for CS port)			
Power supply		5V, USBbus power supply			
Power		< 3W			
Dimensions		29×29×32.7mm (Without lens mount and rear shell interface)			
Weight		< 75g			

Technical Parameters

Parameter \ Model	MV-AU1000RC/M	MV-AU1201RC/M	MV-AU1600RC/M	MV-AU2000RC/M
Resolution@ frame rate	3664×2748@8FPS	4000×3000@32FPS	4608×3456@12FPS	5488×3672@19.5FPS
Pixel size	1.67μm×1.67μm	1.85μm×1.85μm	1.34μm×1.34μm	2.4μm×2.4μm
Pixel bit depth	12bit	10bit	10bit	10bit
Sensitivity	0.31V/lux-sec (550nm)	250mV/l/30s	142mV/l/30s	Color: 462mV/l/30s Mono: 388mV/l/30s
Acquisition mode	Continuous/soft trigger/hard trigger			
Maximum gain (multiple)	8	22	16	22
Exposure time range (ms)	0.0545~951.7	0.0102-2665.1	0.0233~7741.4	0.0138~3608.7
Frame buffer	128M Bytes			
User-defined data area	2K Bytes			
Video output format	Color: Bayer RG 8bit/Bayer12bit Mono: Mono 8/12bit	Color: Bayer RG 8bit Mono: Mono 8bit	Color: Bayer RG 8/12bit Mono: Mono 8/12bit	Color: Bayer RG 8bit Mono: Mono 8bit
GPIO	1 optocoupler isolated input, 1 optocoupler isolated output, 1 non-isolated input and output			
Lens Mount	C-Mount (optional for CS port)			
Power supply	5V,USB bus power supply			
Power	<3W			
Dimensions	29X29X32.7mm (Without lens mount and rear shell interface)			
Weight	<75g			

Parameter \ Model	MV-FU401GC/M	MV-FU890GC/M	MV-FU1200RC/M	MV-FU1200GC/M
Resolution@ frame rate	2048×2048@88FPS	4096×2160@32FPS	4080×3072@30.75FPS	4096×3000@23.5FPS
Pixel size	5.5μm×5.5μm	3.45μm×3.45μm	3.1μm×3.1μm	3.45μm×3.45μm
Pixel bit depth	10bit	12bit	12bit	12bit
Sensitivity	7V/lux*s 540nm	Color: 1146mV Mono: 915mV	Color: 1420mV/lxs@3200k Mono: 2340mV/lxs@3200k	Color: 1146mV Mono: 915mV
Acquisition mode	Continuous/soft trigger/hard trigger			
Maximum gain (multiple)	16.5	250	64	250
Exposure time range (ms)	0.0054~704.5	0.0141~29546.9	0.0201~2635.2	0.0141~29546.9
Frame buffer	128M Bytes			
User-defined data area	2K Bytes			
Video output format	Color: Bayer 8bit Mono: Mono 8bit	Color: Bayer GB 8/12bit Mono: Mono 8/12bit	Color: Bayer GR 8bit Mono: Mono 8bit	Color: Bayer GB 8bit Mono: Mono 8bit
GPIO	1 optocoupler isolated input, 1 optocoupler isolated output, 1 non-isolated input and output			
Lens Mount	C-Mount (optional for CS port)			
Power supply	5V			
Power	<3W			
Dimensions	29×39.5×32.7mm (Without lens mount and rear shell interface)			
Weight	<100g			

Technical Parameters

Parameter \ Model	MV-FU1205GC/M	MV-CU1206GC/M	MV-CU1606GC/M	MV-CU240RM
Resolution@ frame rate	4096x3072@28.5FPS	4112x3088@30FPS	4112x4112@22.75FPS	1936x1280@30FPS
Pixel size	3.2μm×3.2μm	3.5μm×3.5μm	3.5μm×3.5μm	9.9μm×9.9μm
Pixel bit depth	8bit	12bit	12bit	12bit
Sensitivity	/	3.9V/lux·s	3.9V/lux·s	3.9V/lux·s
Acquisition mode	Continuous/soft trigger/hard trigger			
Maximum gain (multiple)	8	16	16	16
Exposure time range (ms)	0.0113~740.3	0.0533~178957	0.0533~178957	0.0107~178957
Frame buffer	128M Bytes			
User-defined data area	2K Bytes			
Video output format	Color: Bayer GR 8/12bit Mono: Mono8/12bit			Mono8/12bit
GPIO	1 optocoupler isolated input, 1 optocoupler isolated output, 1 non-isolated input and output			2 inputs, 2 outputs
Lens Mount	C-Mount (optional for CS port)	C-Mount		
Power supply	5V			
Power	<3W			<50W
Dimensions	29×29×32.7mm (Without lens mount and rear shell interface)	59.5X59.5X39.5mm (Without lens mount and rear shell interface)		120x119x121mm (Without lens mount and rear shell interface)
Weight	<100g	<200g		<500g

Parameter \ Model	MV-CU404RC/M	MV-SU240GC/M	MV-SU502RM	MV-SU507GC/M
Resolution@ frame rate	2048x2048@85FPS	2048x1200@158.3FPS	2592x1944@59FPS	2448x2048@60FPS
Pixel siz	5.94μm×5.94μm	4μm×4μm	2.2μm×2.2μm	3.4μm×3.4μm
Pixel bit depth	10bit	10bit	10bit	10bit
Sensitivity	>40V/lux*s @HCG	11.0k e- @10bit,PGA gainx1.0	36ke-/lux*sec	-88 dB (angular dependence)
Acquisition mode	Continuous/soft trigger/hard trigger			
Maximum gain (multiple)	32	8	8	8
Exposure time range (ms)	1.2~291923.5	0.0084~553.4	0.0084~553.4	0.0084~553.4
Frame buffer	128M Bytes			
User-defined data area	2K Bytes			
Video output format	Color: Bayer 8/12bit Mono: Mono 8/12bit	Color: Bayer 8/12bit Mono: Mono 8/12bit	Mono: Mono 8/12bit	Color: Bayer 8bit Mono: Mono 8bit
GPIO	1 optocoupler isolated input, 1 optocoupler isolated output, 1 non-isolated input and output			
Lens Mount	C-Mount			
Power supply	USB 5V/ Avionic head power supply 12V			
Power	<3W			
Dimensions	59.5x59.5x39.5mm (Without lens mount and rear shell interface)	29X29X32.7mm (Without lens mount and rear shell interface)		29X29X32.7mm (Without lens mount and rear shell interface)
Weight	<200g	<75g		<550g

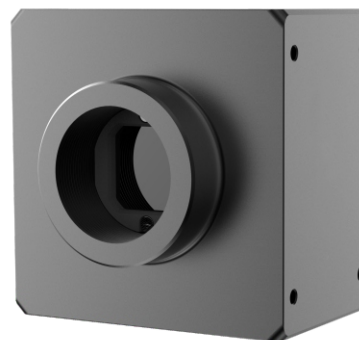
USB3.0 Area Scan Camera

MV-2SU-2500GM

Support two USB3.0 interfaces, up to 10Gbps transmission bandwidth, with high-speed sensor, the frame rate of 25MP camera can be up to 30FPS. USB3.0 series CPU occupancy is low, using DMA transmission, 10Gbps data transmission part, almost does not occupy CPU resources.

Features

- Camera comes with programmable IO
- Support dual USB3.0 output, the speed is 2 times faster than the original
- Support external trigger strobe synchronous photography
- Support 8bit raw data output
- Fully compatible with the SDK of GIGE camera, can be replaced seamlessly.
- Multiple cameras on one computer can work stably without dropping or losing frames for a long time.
- Support PC Linux system and ARM Linux system, can be integrated into embedded devices.
- Compatible with Vision protocol, seamlessly compatible with Halcon, Vision Pro, Labview and other vision software.

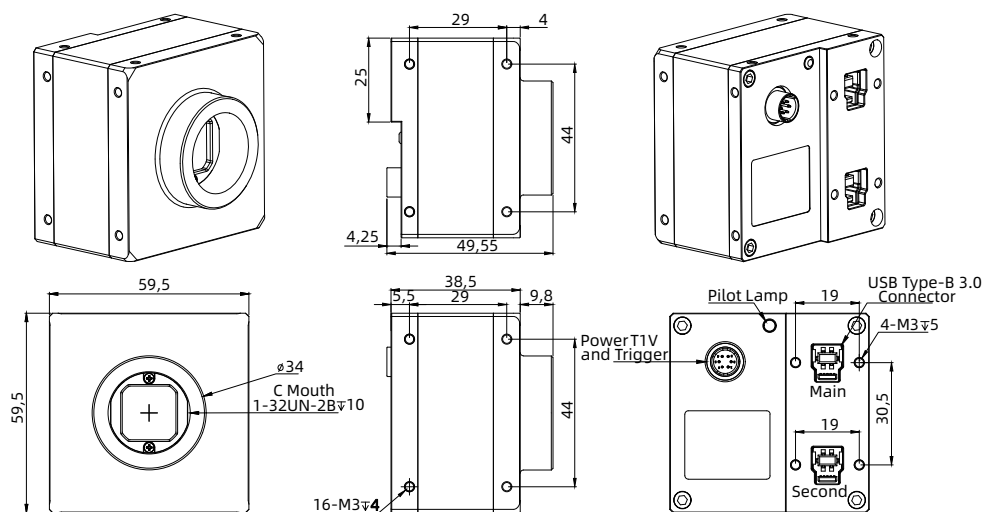


MV-2SU-2500GM

Application

It can be applied to electronic 3C, automated semiconductor, logistics code scanning, intelligent transport, biomedical, packaging and printing.

MV-2SU-2500 Camera Dimension Drawing



Unit: mm

MV-2SU-2500GM

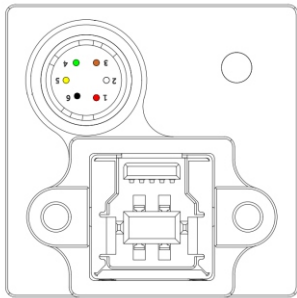
Technical Parameters

Parameter	Model	MV-2SU-2500GM
Sensor		1.1"CMOS
Sensor type		GMAX0505
Camera type		Mono
Image size		2.5μm×2.5μm
Effective pixel		25MP
Resolution@ Frame Rate		5120x5120Max@28.25FPS
Sensitivity		1.03x10 ⁷ e ⁻ /((W/m ²)·s) @500nm
GPIO		1 opto-coupler isolated input, 1 opto-coupler isolated output, 1 non-isolated input and output
Exposure method		Frame exposure
Signal-to-noise ratio		36dB
Dynamic range		>65dB
AD width		12bit
Output pixel width		12bit
Maximum gain (times)		16.5
Exposure time range (ms)		0.0068~812.5
Frame buffer		256M Byte
User-defined data		2K Byte
Video Output Format		Mono 8bit
Visual Standards Protocol		USB3Vision、GenICam
Date interface		2-channel USB3.0
Power supply		USB 5V/ Aviation head power supply 12V~24V
Power		<5W
Lens interface		C-Mount
Dimension		59.5x59.5x38.5mm (Without lens mount and rear shell interface)
Weight		<300g
Working temperature		0~50°C
Working humidity		20~80% (no condensation)
Storage humidity		-30~60°C
Device driver		Directshow components Halcon-specific components Labview-specific drivers OCX components TWAIN components
Operating system		WINXP, WIN7/8/10 32&64 bit systems, Linux and ARM Linux drivers, Android platform drivers, MAC OS systems
Programming language package		C/C++/C#/VB6/VB.NET/Delphi/BCB/Python/Java
Other functions		Support any size ROI custom resolution, contrast and gamma adjustment, saturation adjustment, white balance correction, black level correction, custom dead point coordinate correction,ISP image processing acceleration, 3D noise reduction, custom LUT table, frame rate adjustment, custom camera name, etc.

AU/FU/CU/2SU Camera Tailpiece Selection Chart

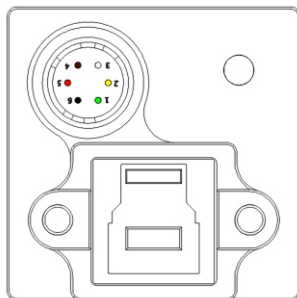
Function Suffix	Aircraft head line sequenceDefinition n diagram	12V Power supply	Power supply shrapnel typeAircraft head	Lens interface C-mount	Lens interface CS-mount	State
-T1V-C	1	●	●	●		Recommend
-T	2		●		●	Planned shutdown
-T-C	2		●	●		Planned shutdown
-TV-C	3	●	●	●		Planned shutdown

-T1V-C Line sequence definition 1



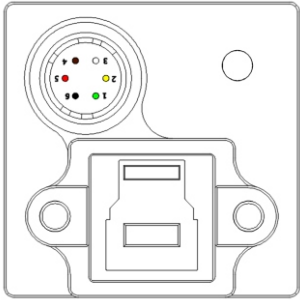
Port	Pin number	Line color	Signal name	Signal description	Remarks
Port A	1	Red	PWR+	Camera power input positive terminal	
	2	White	GPI1+/TRIG_IN+	GPI1 Positive end / trigger input positive end	Default to trigger input
	3	Brown	GPI2/GPO2	GPIO2 Input / output	Non isolated bidirectional IO
	4	Green	GPO1+/STRB_OUT+	GPO1Positive end / flash output positive end	Default to flashoutput
	5	Yellow	GPO1-/STRB-OUT- /TRIG_IN-	GPO1 Negative terminal / flash output negative terminal / trigger input negative	GPIO Common negative terminal
	6	Black	PWRGND	Camera power input negative terminal	

-T、-T-C Line sequence definition 2



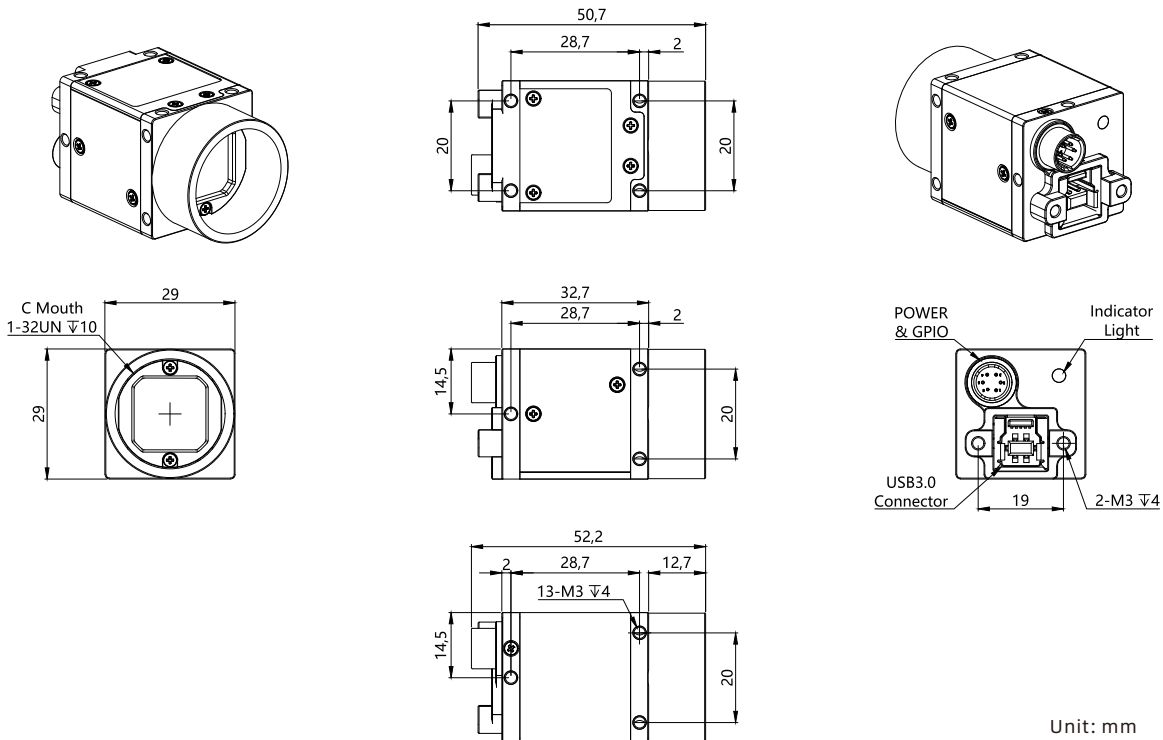
Pin number	Line color	Signal name	Signal description	Remarks
1	Green	GPO1+/STRB_OUT+	GPO1Positive end / flash output positive end	Default to flash output
2	Yellow	GPO1-/STRB_OUT-	GPO1Negative terminal / flash output negative terminal	Default to flash output
3	White	GPI1+/TRIG_IN+	GPI1Positive end / trigger input positive end	Default to trigger input
4	Brown	GPI1-/TRIG_IN-	GPI1Negative end / trigger input negative end	Default to trigger input
5	Red	GPO2+	GPO2Positive end output	
6	Black	GPO2-	GPO2Negative end output	

-TV-C Line sequence definition 3



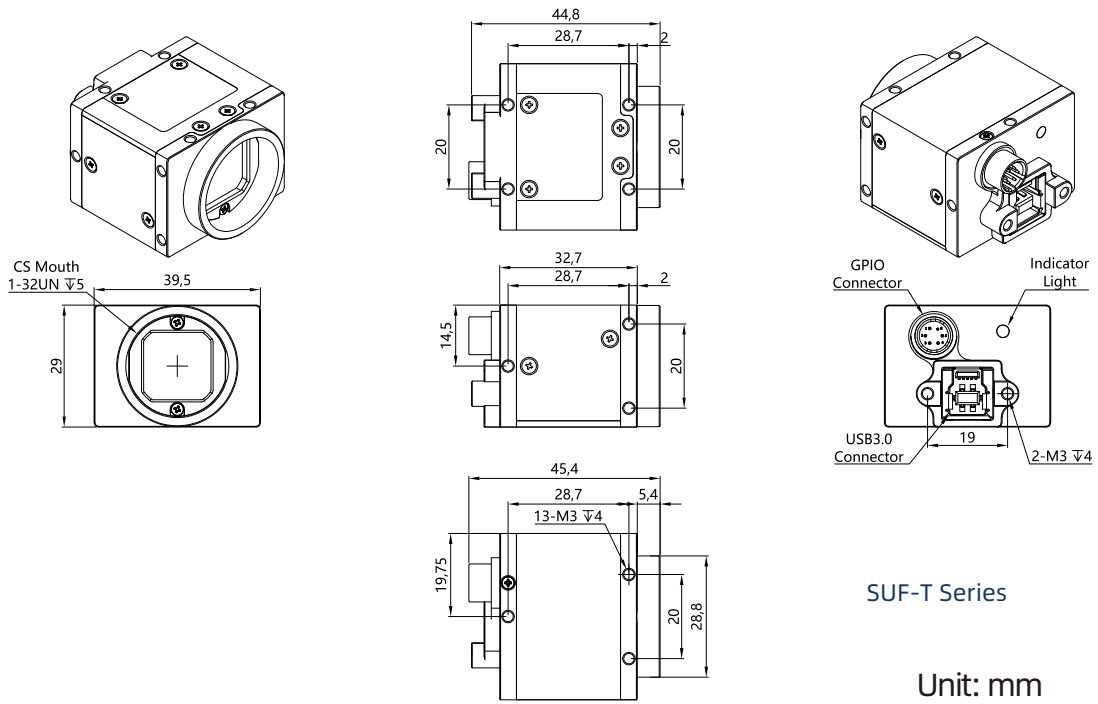
Port	Pin numbe	Line color	Signal name	Signal description	Remarks
Port A	1	Green	GPO1+/STRB_OUT+	GPO1Positive end / flash output positive end	Default to flash output
	2	Yellow	GPO1-//STRB_OUT	GPO1Negative terminal / flashoutput negative terminal	Default to flash output
	3	White	GPI1+/TRIG_IN+	GPI1Positive end / trigger input positive end	Default to trigger input
	4	Brown	GPI1-/TRIG_IN-	GPI1Negative end / trigger input negative end	Default to trigger input
	5	Red	PWR+	Camera power input positive terminal	
	6	Black	PWRGND	Camera power input negative terminal	

AU Series Dimension Drawing

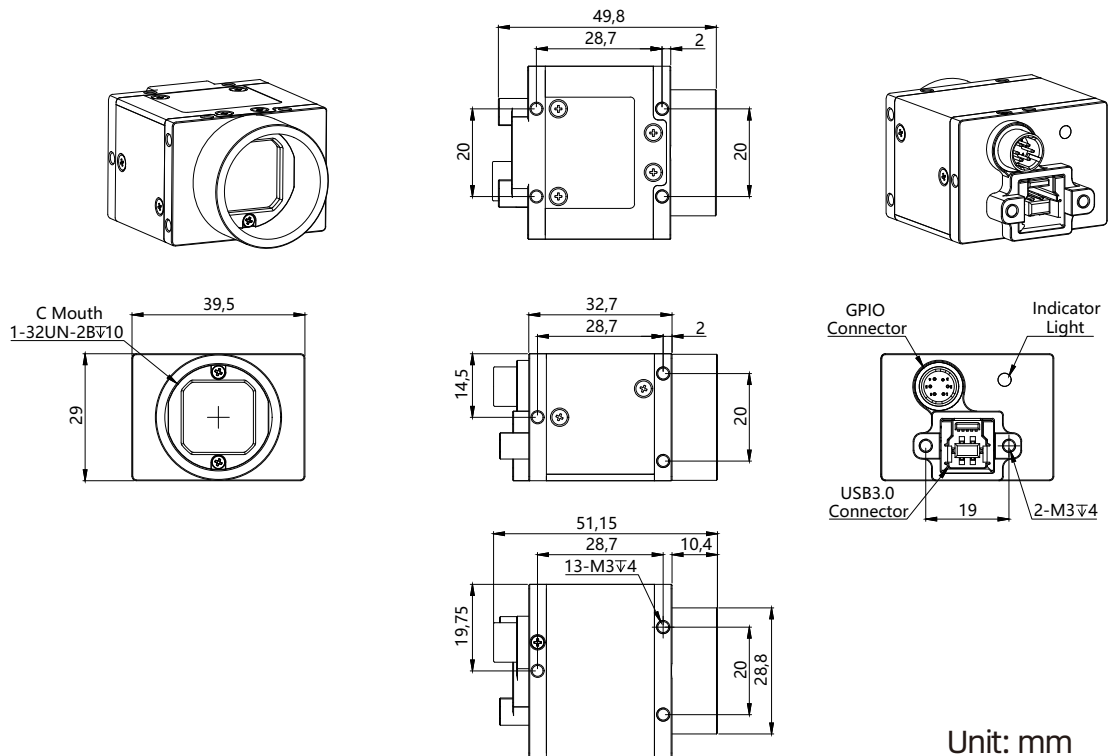


Unit: mm

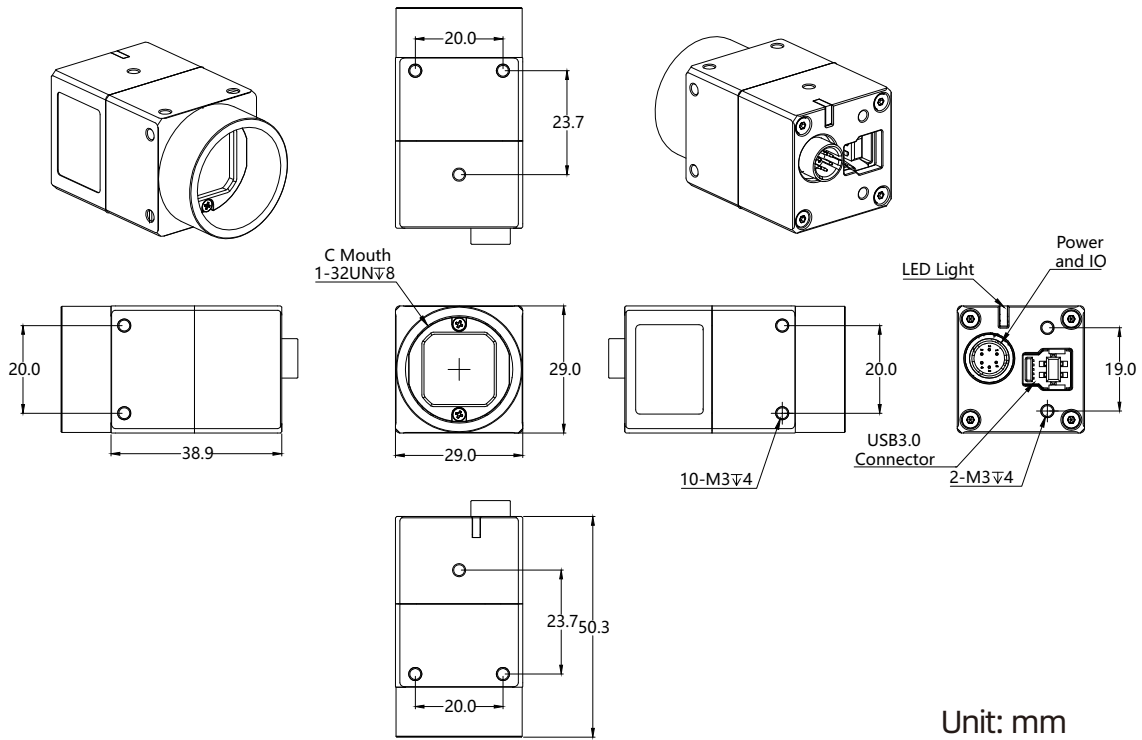
FU Series Dimension Drawing



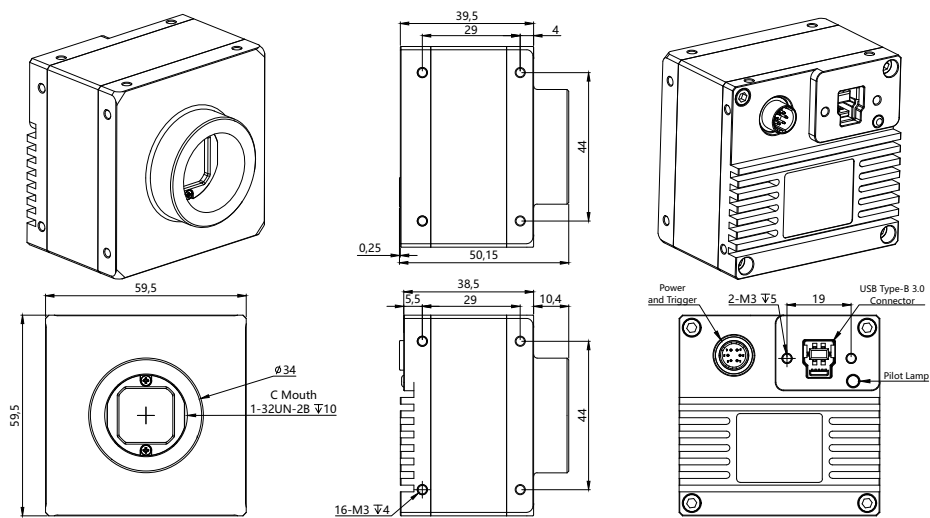
FU Series Dimension Drawing



MV-SU502RM Dimension Drawing

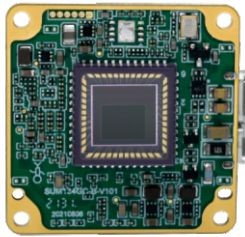


CU Series Dimension Drawing

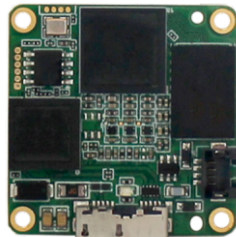


USB3.0 Board Camera/Module

The series of USB3.0 single board modules are designed to be compatible with USB3.0 Vision and GenICam Standard. Besides, L Laview, Halcon, VisionPro and other mainstream vision software fully compatible with it. It is applicable to electronics, semi-conductor, factory automation, food and beverage, medical packaging and image measurement.



Front of board module



Back of board module



C-Mount



M12-Mount

Product Features

- Single board design, small size, ultra-thin size
- Embedded system integration is more convenient and integrated
- Support 16bit gray and 48bit color lossless format output
- Multiple options are available: single board / c interface / m12 interface
- The camera has its own programmable IO, which supports external trigger flash synchronous photography
- Support PC Linux system and arm linux system, which can be integrated into embedded devices
- Compatible with vision protocol, seamlessly compatible with Halcon, visionpro and LabVIEW Other visual software

Technical Parameter

parameter \ Model	BL-AU33GC/M	BL-AU133GC/M	BL-AU134GC/M
Resolution@ frame rate	640×480@725FPS	1280×1024@221.25FPS	1280×1024@202.25FPS
Shutter method	Global	Global	Global
Pixels	0.3MP	1.3MP	1.3MP
Pixel size	4.0μm×4.0μm	4.0μm×4.0μm BSI	4.8μm×4.8μm
Sensor type	1/5.6" CMOS	1/2.7" CMOS	1/2" CMOS
Pixel bit depth	10bit	8bit	8bit
Maximum gain (multiple)	8	6	16.5
Exposure time range (ms)	0.0027~22.3	0.0043~35.2	0.0045~584.4
Sensitivity	8 V/Lux.s	8 V/Lux.s	7.3 V/1ux-s 540nm
GPIO	2 bidirectional IO, each IO has input or output function, which can be configured as input/output/trigger/flash in IO control		

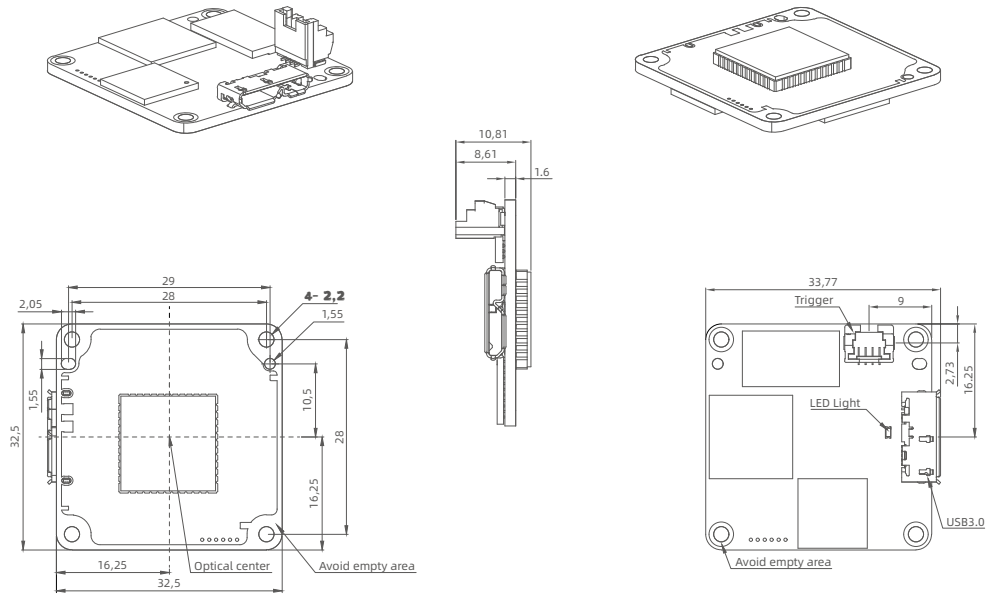
General Parameter

Acquisition mode	mode Continuous / soft trigger / hard trigger
Frame cache	128MB
User defined data	2KB
Lens interface	Veneer/C-Mount/M12
Power supply	5V
Weight	Veneer: <10g C-Mount/M12-Mount: <30g
Overall dimension	C-Mount/M12-Mount: 35x35x8.6mm (Without lens holder and external interface) Veneer: 32.5x32.5x1.6mm (Without sensor and external interface)
Visual standards protocol	USB3.0Vision、GenICam
Data interface	USB3.0 MicroB
Operating system	WIINXP、WIN7/8/10 32@64 Bit system, Linux and arm linux driver, Android platform driver, Mac OS System
Driver	DirectShow component Halcon special component LabVIEW special driver OCX component Twain component
Programming language pack	C/C++/C#/VB6/VB.NET/Delphi/BCB/Python/Java
Operating temperature @ humidity	0~50°C @ 20%~80%(No condensation)
Storage temperature @humidity	-30~60°C @ 20%~95%(No condensation)
Other functions	Support any size ROI custom resolution, contrast and gamma adjustment, saturation adjustment, white balance correction, black level correction, custom dead center coordinate correctionISP image processing acceleration, 3D noise reduction, custom LUT table, frame rate adjustment, custom camera name, etc

AU Camera Suffix Selection Table

Function Suffix	Module	M12-Mount	C-Mount	Status
-T-B	●			Recommended
-T-C			●	Recommended
-T-M		●		Recommended

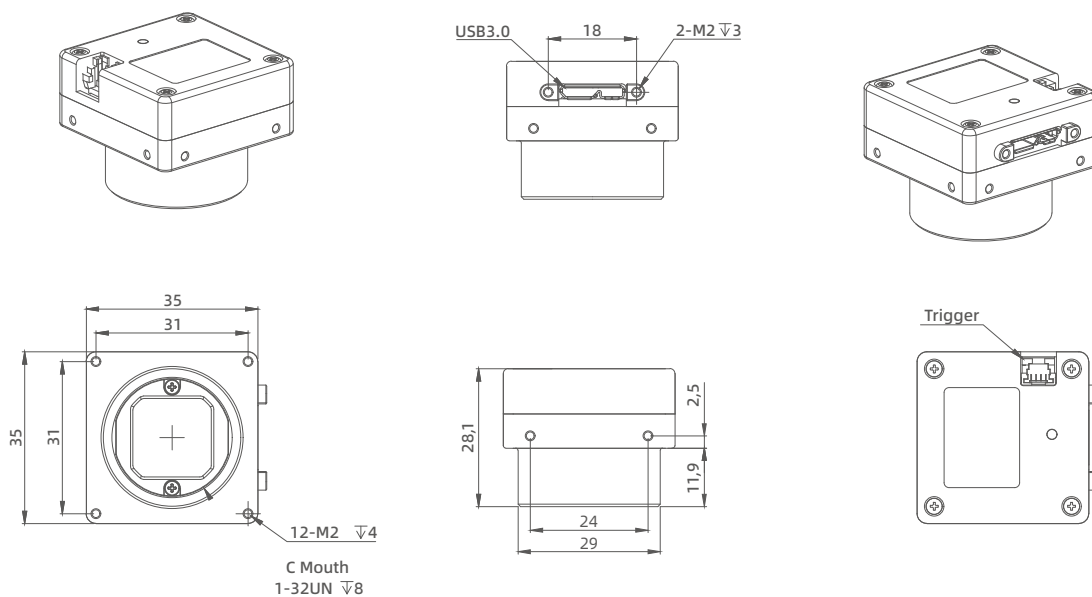
Single Board Module Dimension Drawing



T-B

Unit: mm

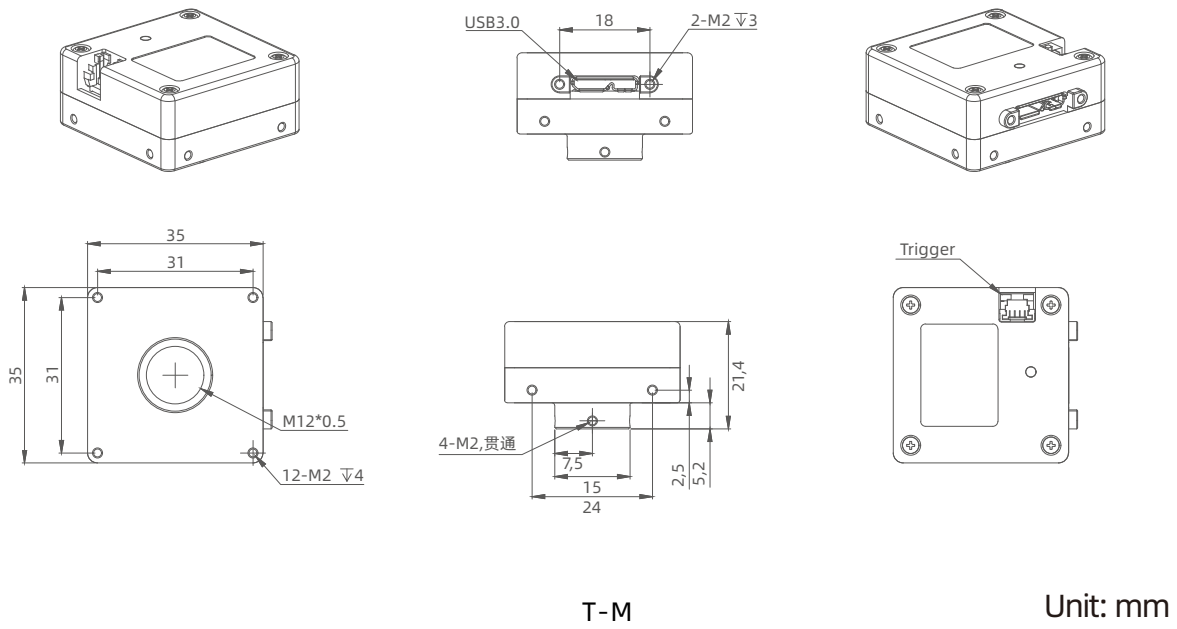
C-Mount Dimension Drawing



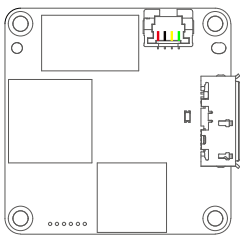
T-C

Unit: mm

M12-Mount Dimension Drawing



Line Sequence Definition



Port	Pin Numbr	Line Color	Signal Number	Signal Description	Remark
Port A	1	Red	NC		
	2	Black	GND	GPIO common port	
	3	Yellow	GPIO1+	Bidirectional IO 1	Default trigger
	4	Green	GPIO2+	Bidirectional IO 2	Default flash mode

SC Smart Camera

SC/SC(E) is a smart camera product series based on X86 platform of HIFLY (not including vision software, SDK software provided for image capturing , with pixels from 0.3 to 20 megapixels.This series not only generates low heat, but also have high integration and high cost performance. Standard Windows and Linux operating systems are built into the camera. Applications can be directly copied ro run inside the camera. It can extend mouse, keyboard and monitor, reserving USB dongle position inside, no need for external computer, very applicable to single workstation visual inspection, such as code scanning, measurement, products recognition on the assembly linepositioning and other needs.

Product Features

- SC: CPU Intel Atom Z8350 (1.44-1.92GHZ), 2G/32G 4G/64G (Memory/Disk)
- SC(E): CPU Intel N4120 (1.1-2.6GHZ), 4G/32G 4G/64G (Memory/Disk)
- Display HDMI × 1 supports 1920 × 1080 resolution, Ethernet 1000M × 1, and supports GigE Vision cameras
- SC: Supports external USB 2.0 × 2 ports; ITAE: Supports USB2.0 × 1, USB3.0 × 1, supports triggering × 1Flash × 1, supports RS232 × 1
- M12 12 core threaded aviation connector, supporting 12V/2A power input
- One input and two output interfaces can set output delay, without the need for processing in the program
- Supports Windows 10 64bit and Ubuntu 16.04 64bit systems
- Built in USB 2.0 interface for easy disassembly and can be connected to a dongle for use
- Integrated light source controller, optional LED lighting component, supporting strobe synchronization function



Product Selection Table

Product Model	Effective Pixels	Sensor Type	Shutter Method	Maximum Resolution	PixelSize	Frame Rate	Target Surface Size	Minimum Exposure	Sensor Model	Colour
MV-SC(E)33GC/M	0.3MP	CMOS	Global	640×480	4.0μm	790	1/5.6"	0.00124ms	SmartSens	Color/Mono
MV-SC(E)133GC/M	1.3MP	CMOS	Global	1280×1024	4.0μm	245	1/2.7"	0.00194ms	SC130GS	Color/Mono
MV-SC(E)134GC/M	1.3MP	CMOS	Global	1280×1024	4.8μm	211	1/2"	0.0045ms	PYTHON	Color/Mono
MV-SC(E)200GC/M	2MP	CMOS	Global	1600×1200	4.5μm	60	1/1.8"	0.015ms	EV76C570	Color/Mono
MV-SC(E)202GC/M	2.3MP	CMOS	Global	1920×1200	4.8μm	165	2/3"	0.0039ms	PYTHON2000	Color/Mono
MV-SC(E)230GC/M	2.3MP	CMOS	Global	1920×1200	5.86μm	165	1/1.2"	0.049ms	IMX174	Color/Mono
MV-SC(E)231GC/M	2.3MP	CMOS	Global	1920×1200	5.86μm	40	1/1.2"	0.0201ms	IMX249	Color/Mono
MV-SC(E)401GC/M	4MP	CMOS	Global	2048×2048	5.5μm	88	1"	0.0054ms	OEM	Color/Mono
MV-SC(E)501GC/M	5MP	CMOS	Global	2448×2048	3.45μm	40	2/3"	0.0133ms	IMX264	Color/Mono
MV-SC(E)502GC/M	5MP	CMOS	Rolling	2592×1944	2.2μm	59	1/2.5"	0.0084ms	AR0522	Color/Mono
MV-SC(E)630GC/M	6.3MP	CMOS	Rolling	3088×2064	2.4μm	60	1/1.8"	0.008ms	IMX178	Color/Mono
MV-SC(E)890GC/M	8.9MP	CMOS	Global	4096×2160	3.45μm	32	1"	0.034ms	IMX267	Color/Mono
MV-SC(E)1000GC/M	10MP	CMOS	Rolling	3664×2748	1.67μm	8	1/2.3"	0.049ms	MT9J003	Color/Mono
MV-SC(E)1201GC/M	12MP	CMOS	Rolling	4000×3000	1.85μm	32	1/1.7"	0.0102ms	IMX226	Color/Mono
MV-SC(E)1600GC/M	16MP	CMOS	Rolling	4608×3456	1.34μm	12	1/2.3"	0.0233ms	IMX206	Color/Mono
MV-SC(E)2000GC/M	20MP	CMOS	Rolling	5488×3672	2.4μm	19.5	1"	0.0138ms	IMX183	Color/Mono
MV-SCI890GC/M	8.9MP	CMOS	Global	4096×2160	3.45μm	32	1"	0.0141ms	IMX267	Color/Mono

Technical Parameter

Model Parameter	MV-SC(E)33GC/M	MV-SC(E)133GC/M	MV-SC(E)134GC/M	MV-SC(E)200GC/M
Sensor type	1/5.6" CMOS	1/2.7" CMOS	1/2" CMOS	1/1.8" CMOS
Color	Color/Mono	Color/Mono	Color/Mono	Color/Mono
Effective Pixels	0.3MP	1.3MP	1.3MP	2MP
Pixel size	4.0μm×4.0μm	4.0μm×4.0μm	4.8μm×4.8μm	4.5μm×4.5μm
Shutter Type	Global	Global	Global	Global
Sensitivity	8 V/lux-s 540nm	8 V/Lux.s	7.3 V/lux-s 540nm	7.4V/lux-s 3200K
Pixel Bit Depth	8bit	8bit	8bit	10bit
Maximum Resolution	640×480	1280×1024	1280×1024	1600×1200
Frame Rate	790FPS	245FPS	211FPS	60FPS
Maximum Gain (multiple)	8	6	16.5	8
Exposure Time Range (ms)	0.00124~20.7	0.00194~31	0.0045~584	0.015~91
Video Output Format	Color: Bayer 8bit Mono: Mono 8bit	Color: Bayer 8bit Mono: Mono 8bit	Color: Bayer 8bit Mono: Mono 8bit	Color: Bayer 8/12bit Mono: Mono 8/12bit
CPU Main Frequency	ITA: Intel Z8350 (1.44-1.92GHZ) /ITAE: Intel N4120 (1.1-2.6GHZ)			
Memory	ITA: 2G(Optional 4G) /ITAE: 4G			
Disk	32G(Optional 64G)			

Model Parameter	MV-SC(E)202GC/M	MV-SC(E)230GC/M	MV-SC(E)231GC/M	MV-SC(E)401GC/M
Sensor type	2/3" CMOS	1/1.2" CMOS	1/1.2" CMOS	1" CMOS
Color	Color/Mono	Color/Mono	Color/Mono	Color/Mono
Effective Pixels	2.3MP	2.3MP	2.3MP	4MP
Pixel size	4.8μm×4.8μm	5.86μm×5.86μm	5.86μm×5.86μm	5.5μm×5.5μm
Shutter Type	Global	Global	Global	Global
Sensitivity	7.5 V/lux.s 550nm	Color: 1016mV 1/30s Mono: 825mV 1/30s	Color: 1016mV 1/30s Mono: 825mV 1/30s	7V/lux-s 540nm
Pixel Bit Depth	10bit	8bit	12bit	8bit
Maximum Resolution	1920×1200	1920×1200	1920×1200	2048×2048
Frame Rate	165FPS	165FPS	40FPS	88FPS
Maximum Gain (multiple)	8	64	249.9	16.5
Exposure Time Range (ms)	low speed 0.0039~256.1 high speed 0.0039~5	0.049~20000	0.0201~42112	0.0054~704
Video Output Format	Color: Bayer 8/12bit Mono: Mono 8/12bit	Color: Bayer 8bit Mono: Mono 8bit	Color: Bayer 8/12bit Mono: Mono 8/12bit	Color: Bayer 8bit Mono: Mono 8bit
CPU Main Frequency	ITA: Intel Z8350 (1.44-1.92GHZ) /ITAE: Intel N4120 (1.1-2.6GHZ)			
Memory	ITA: 2G(Optional 4G) /ITAE: 4G			
Disk	32G(Optional 64G)			

Technical Parameter

Parameter \ Model	MV-SC(E)501GC/M	MV-SC(E)502GC/M	MV-SC(E)630GC/M	MV-SC(E)890GC/M
Sensor type	2/3" CMOS	1/2.5" CMOS	1/1.8" CMOS	1" CMOS
Color	Color/Mono	Color/Mono	Color/Mono	Color/Mono
Effective Pixels	5MP	5MP	6.3MP	8.9MP
Pixel size	3.45μm×3.45μm	2.2μm×2.2μm	2.4μm×2.4μm	3.45μm×3.45μm
Shutter Type	Global	Rolling	Rolling	Global
Sensitivity	Color: 1146mV 1/30s Mono: 915mV 1/30s	Color: 18.8ke-/lux*sec Mono: 36ke-lux*sec	425mV 1/30s	Color: 1146mV 1/30s Mono: 915mV 1/30s
Pixel bit Depth	12bit	10bit	8bit	12bit
Maximum Resolution	2448×2048	2592×1944	3088×2064	4096×2160
Frame Rate	40FPS	59FPS	60FPS	32FPS
Maximum Gain (multiple)	249.9	15	32	249.9
Exposure Time Range (ms)	0.0133~13924	0.0084~553.4	0.008~5000	0.034~29546.9
Video Output Format	Color: Bayer 8/12bit Mono: Mono 8/12bit	Color: Bayer 8bit Mono: Mono 8bit	Color: Bayer 8bit Mono: Mono 8bit	Color: Bayer 8/12bit Mono: Mono 8/12bit
CPU main Frequency	ITA: Intel Z8350 (1.44-1.92GHZ) /ITAE: Intel N4120 (1.1-2.6GHZ)			
Memory	ITA: 2G(Optional 4G) /ITAE: 4G			
Disk	32G(Optional 64G)			

Parameter \ Model	MV-SC(E)1000GC/M	MV-SC(E)1201GC/M	MV-SC(E)1600GC/M	MV-SC(E)2000GC/M
Sensor type	1/2.3" CMOS	1/1.7" CMOS	1/2.3" CMOS	1" CMOS
Color	Color/Mono	Color/Mono	Color/Mono	Color/Mono
Effective Pixels	10MP	12MP	16MP	20MP
Pixel size	1.67μm×1.67μm	1.85μm×1.85μm	1.34μm×1.34μm	2.4μm×2.4μm
Shutter Type	Rolling(Support GRR)	Rolling	Rolling(Support GRR)	Rolling(Support GRR)
Sensitivity	0.31V/lux-s 550nm	Color: 1119mV@1/30s Mono: 1000mV@1/30s	142mV 1/30s	Color: 462mV 1/30s Mono: 388mV 1/30s
Pixel Bit Depth	12bit	8bit	12bit	8bit
Maximum Resolution	3664×2748	4000×3000	4608×3456	5488×3672
Frame Rate	8FPS	32FPS	12FPS	19.5FPS
Maximum Gain (multiple)	8	22	16	22
Exposure Time Range (ms)	0.049~951	0.0102~2665.1	0.0233~7741	0.0138~3608
Video Output Format	Color: Bayer 8/12bit Mono: Mono 8/12bit	Color: Bayer 8bit Mono: Mono 8bit	Color: Bayer 8/12bit Mono: Mono 8/12bit	Color: Bayer 8bit Mono: Mono 8bit
CPU Main Frequency	ITA: Intel Z8350 (1.44-1.92GHZ) /ITAE: Intel N4120 (1.1-2.6GHZ)			
Memory	ITA: 2G(Optional 4G) /ITAE: 4G			
Disk	32G(Optional 64G)			

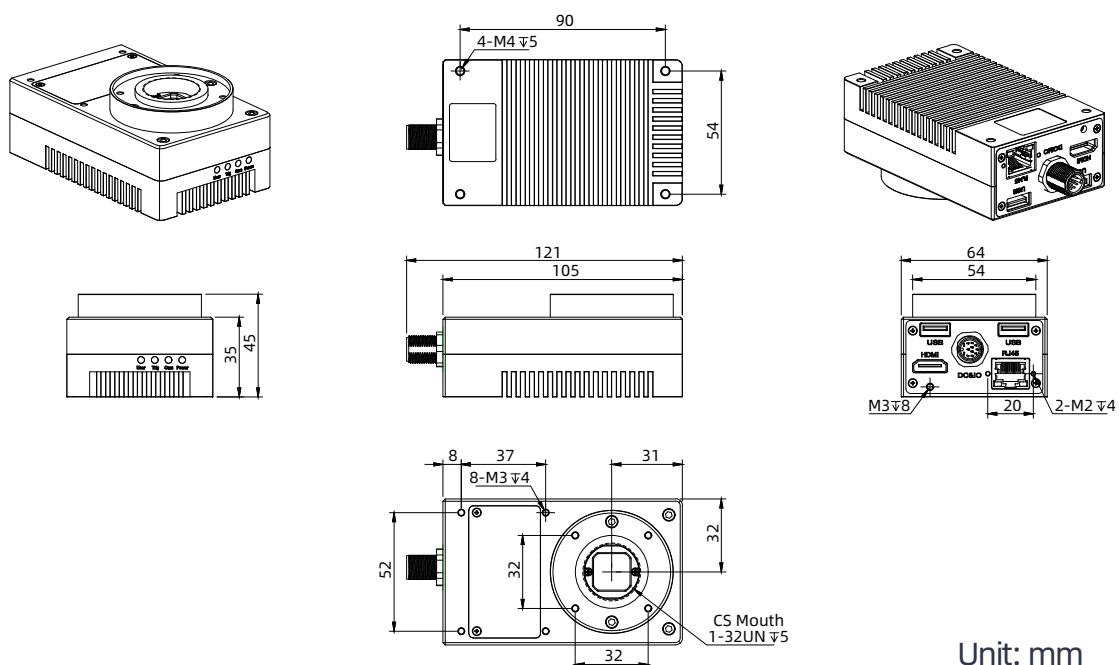
Technical Parameter

Parameter	Model	MV-SCI890GC/M
Sensor Type		1" CMOS
Colour		Color/Mono
Effective Pixels		8.9MP
Pixel Size		3.45μm×3.45μm
Shutter Type		Global shutter
Sensitivity		colour: 1146mV Mono: 915mV
Pixel bit Depth		12bit
Maximum Resolution		4096×2160
Frame Rate		32FPS
Maximum Gain (multiple)		250
Exposure Time Range(ms)		0.0141 ~ 29546.9
CPU Main Frequency		IntelN4120 (1.10-2.60GHZ)
Memory		4G
Disk		32G(Optional64G)
System		Windows10 64bit、Ubuntu 64bit
Interface		External USB 2.0x1, USB 3.0x1 ports, 1000 Ethernet port x1, HDMI interface x1, built-in USB 2.0 interface x1,support for RS232x1, RTC clock
I/O Port		1 triggering 1 flash 1 Optical isolation input 2 Optical isolation output
Power Supply		12V-24V
Power		≤18W
Lens Interface		C/CS Interface, providing adapter ring
External Dimensions		63×136×50.5mm (Excluding lens mount and rear housing interface)
Weight		<500g
working Temperature		0~50°C
Working Humidity		20-80% (No condensation)
Storage Temperature		-30~60°C
Storage Humidity		20-95% (No condensation)
Driver Program		Directshow component, Halcon specialized component, Labview special driver, OCX component and TWAIN component
Programming Language		C/C++/C#/VB6/VB.NET/Delphi/BCB/Python/Java
Other Functions		Support any size ROI custom resolution, contrast and gamma adjustment, saturation adjustment, white balance correction, black level correction, custom dead point coordinate correction,ISP image processing acceleration, 3D noise reduction, custom LUT table, frame rate adjustment, custom camera name, etc.

General Parameters

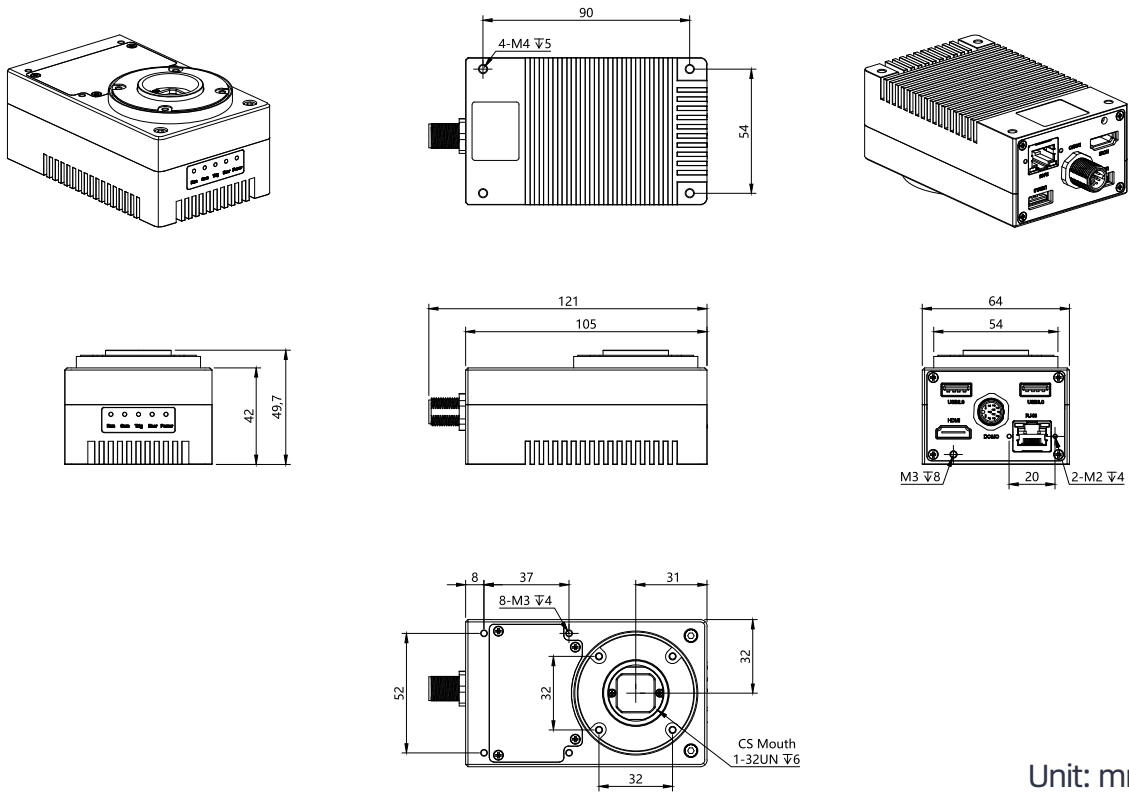
Operating System	Default pre installed Win10 64 bit system, optional to install Win10 32-bit system or Ubuntu 64 bit system
ITA Interface	External USB2.0x2 port, 1000 network port x1, HDMI interface x1, built-in USB2.0 interface x1, support for RS232x1, RTC clock
ITAE Interface	External USB 2.0x1 USB 3.0x1 port, 1000 Ethernet port x1, HDMI interface x1, built-in USB 2.0 interface x1, support for RS232x1, RTC clock
I/O Port	1 trigger, 1 flash, 1 optical isolation input, and 2 optical isolation outputs
Power Supply	12V~24V
Power	≤18W
Lens Interface	C/CS interface, providing adapter ring
External Dimensions	64×105×35mm(Excluding lens mount and rear housing interface)
weight	<500g
Working Temperature	0~50°C
Working Humidity	20~80% (No condensation)
Storage Temperature	-30~60°C
Storage Humidity	20~95% (No condensation)
Driver Program	Directshow component Halcon specialized component Labview specialized driver OCX component TWAIN component
Programming Language	C/C++/C#/VB6/VB.NET/Delphi/BCB/Python/Java
Other Functions	Support any size ROI custom resolution, contrast and gamma adjustment, saturation adjustment, white balance correction, black level correction, custom dead point coordinate correction,ISP image processing acceleration, 3D noise reduction, custom LUT table, frame rate adjustment, custom camera name, etc.

SC Dimension Drawing

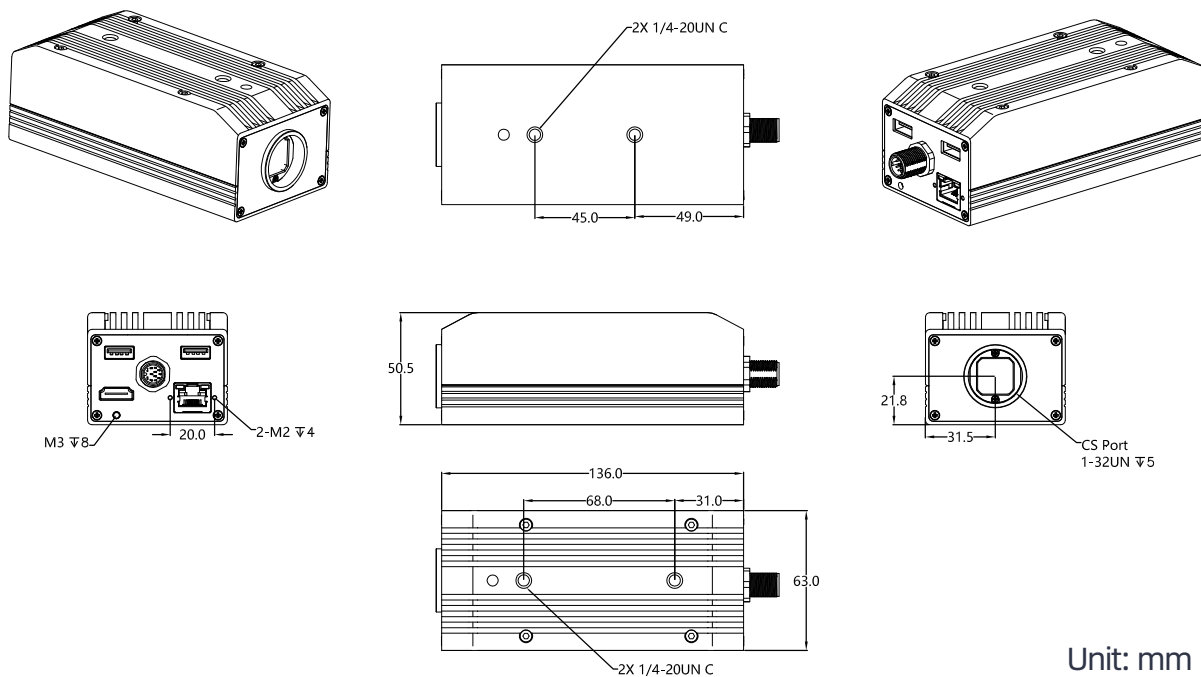


Unit: mm

SC(E) Smart Camera Dimension Drawing



SCI Dimension Drawing



Thermal Imaging Camera

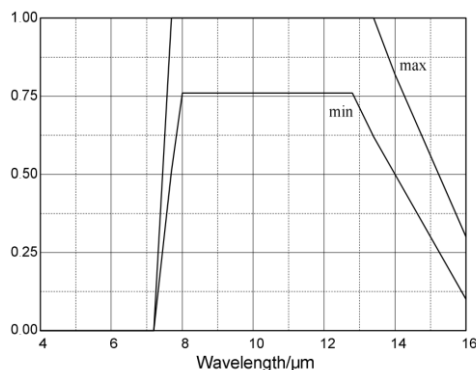
MV-GLF120/480 is an industrial far-infrared thermal imager that can measure the surface temperature of objects and display real-time thermal images, providing different ranges of temperature measurement ranges, multiple colour modes, user-settable emissivity, frame-by-frame data capture, video recording, complete secondary development SDK and DEMO routines, support for programming and development in various languages such as C/C++/VB/Delphi/Python, etc. Python and other languages, can provide emissivity settings, central temperature display, high and low temperature point temperature display, the user is interested in the area temperature display, horizontal mirror, vertical mirror, distance correction, temperature correction, user-defined temperature compensation, high and low temperature alarms, the user is interested in the temperature range, the colour temperature comparison, the image sharpening level settings, the blackbody furnace calibration and other functions and settings and 3 kinds of Format data: temperature of each point, grey value of each point, pseudo-colour of each point.

Product Features

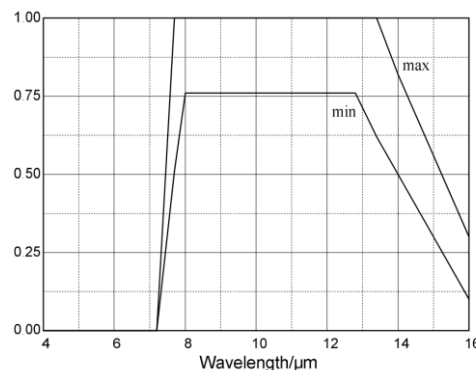
- Adopt high sensitivity and high resolution infrared detector, providing clear infrared image and temperature measurement accuracy. image and temperature measurement accuracy
- Adopt RJ45 Gigabit Ethernet interface, 100 metres long-distance stable transmission.
- Support POE power supply, plug-and-play driver design, simple and easy to use, both the stability of network communication and USB device Stability of network communication and the convenience of using USB devices.
- 400X300 resolution, up to 50HZ frame rate
- Thermal sensitivity $\leq 55\text{mK}$, thermal response time $<15\text{ms}$
- Support multiple cameras working at the same time, the number of unlimited, can be any group network, long time work No drop, no frame loss
- With hardware image processing acceleration, reduce the host side of the CPU occupancy rate
- Adopt GigE Vision1.2 vision standard protocol design, support Halcon, Vision pro and other software.



Camera Spectrogram



GF120

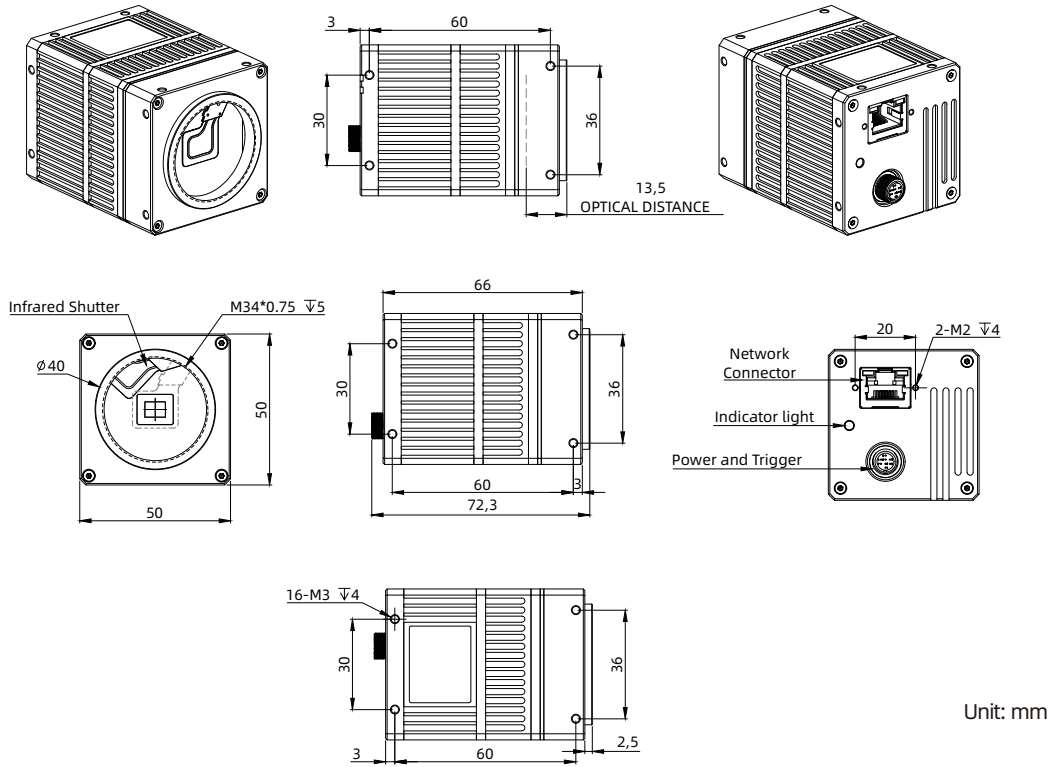


GF480

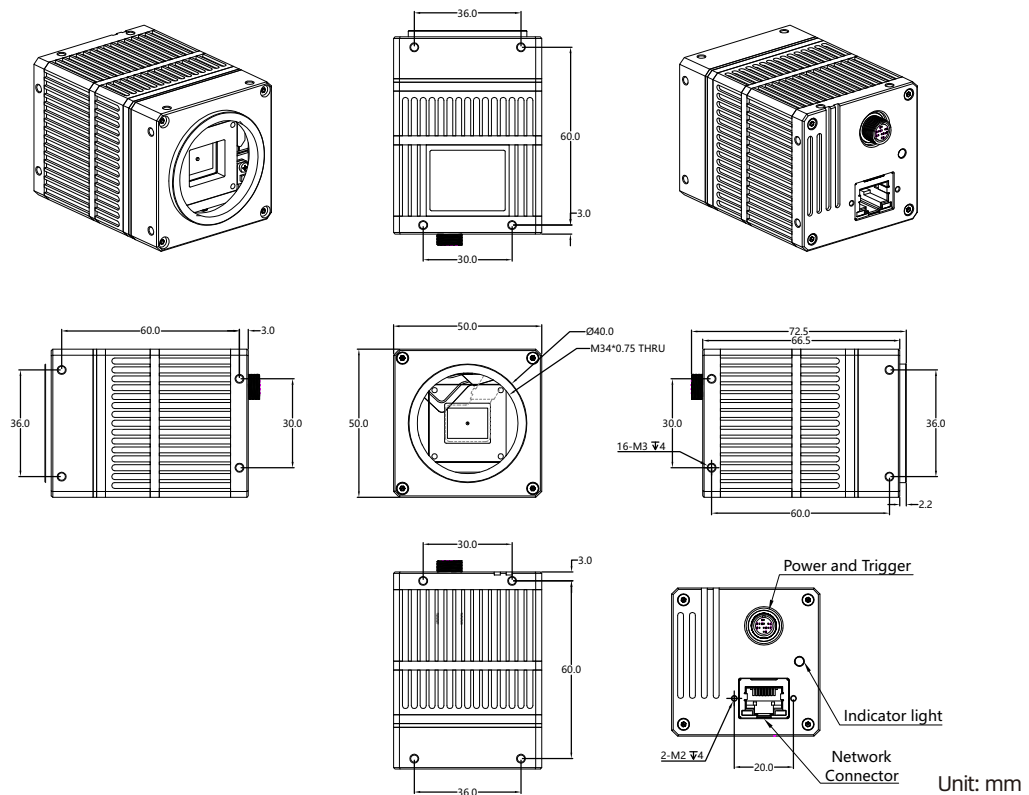
Technical Parameters

Model Parameters	MV-GLF120	MV-GLF480	Model Parameters	MV-GLF120	MV-GLF480
Optical size	6.8mm×5.1mm	1.0625"	Sensor Type	Thermal imaging	Thermal imaging
Sesor model	GST417M	GST817MC	Effective Pixels	12W	48W
Pixel size	17μm	17μm	Exposure Method	automatic	automatic
Signal to noise ratio	75dBFS	/	Dynamic Range	80dBc	1V~3V
Width AD	14bit	14bit	Thermal Sensitivity	NETD≤55mK @f/1,300K	NETD≤55mK
Output Pixel Width	14bit	14bit	Default resolution and frame rate	400x300 50Hz	800x600 50Hz
Video Output Format	RGB 24bit/Mono 16bit	RGB 24bit/Mono 16bit	Maximum gain (magnification)	0~7	0~7
Exposure Time Range (ms)	1~6	1~6	Frame buffer	128MB	128MB
Spectral Response	8μm -14μm	8μm -14μm	Focus Mode	Manual focusing	Manual focusing
Field of view	21.7°×16.4°	/	Detector Type	Uncooled vanadium oxide	Uncooled vanadium oxide
Minimum Imaging Distance	0.5m	/	Lens focal length	Optional	Optional
Power Supply	12V (8PIN Aviation Joint)	12V (8PIN Aviation Joint)	Spatial resolution	0.99mrad 0.67mrad	0.99mrad 0.67mrad
Lens interface	M34x0.75(Customizable)	M34x0.75(Customizable)	Typical Power Consumption	≤250mW (Excluding TEC)	≤250mW (Without TEC)
Image mirroring	Horizontal/Vertical	Horizontal/Vertical	Response rate non-uniformity	≤5%	≤5%
Power	3W				
Dimension	66mm×50mm×50mm(Without lens)				
Weight	<300g		<100g		
Storage temperature and humidity	-30°C~60°C , 20%~95%(No condensation)				
Working temperature and humidity	0°C-50°C , 20%~80%(No condensation)				
User -defined data area	2KB				
Data interface	Rj45 Gigabit Ethernet interface, backward compatible with 100M network standard				
Vision Standard Agreement	GigE Vision V1.2 GenICam				
Temperature range	Gear 1: -20°C~150°C Gear 2: 50°C~400°C, Temperature measurement accuracy ±1°C or ±2% (take the maximum value)				
Temperature Measurement Mode	1. Ambient temperature and human body temperature measurement (20 °C -50 °C); 2. Medium temperature mode (-40 °C -170 °C); 3. High temperature mode (-40 °C -800 °C)				
Color Mode	Rainbow colour coding (this coding mode is used by default) hot metal, white hot, black hot				
Operating system	WINXP, WIN7/8/10 32&64 bit system, Linux and ARM Linux driver, Android platform driver, MAC OS system				
Driver	Directshow component Halcon special component Labview special driver OCX component TWAIN component				
Programming language pack	C/C++/C#/VB6/VB.NET/Delphi/BCB/Python/Java				
Other functions	Support any size ROI custom resolution, contrast and gamma adjustment, saturation adjustment, white balance correction, black level correction, custom dead point coordinate correction,ISP image processing acceleration, 3D noise reduction, custom LUT table, frame rate adjustment, custom camera name, etc.				

MV-GLF120 Camera Dimension Drawing



MV-GLF480 Camera Dimension Drawing



Short-wave Infrared Area Scan Camera

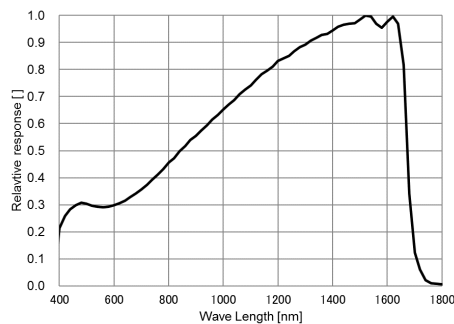
MV-IC130-GE camera is a scientific level, large target area and high-resolution InGaAs short wave imaging and microscopic imaging. It is suitable for fluorescence imaging and laser spot infrared camera, which is specifically designed for low illumination scientific research short wave infrared tracking imaging, semiconductor detection, solar cell detection, hyperspectral imaging, etc.

Product Features

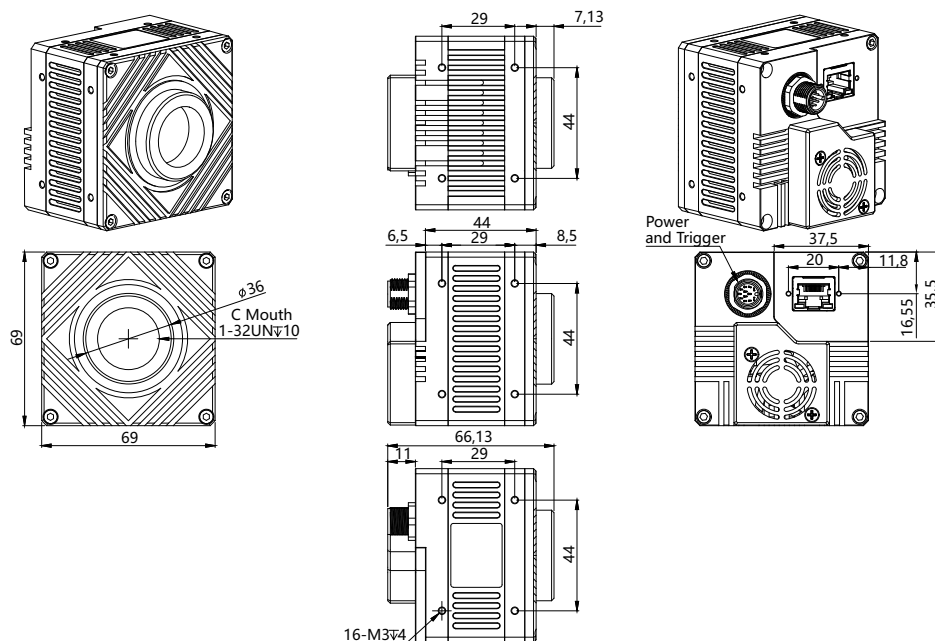
- InGaAs detector, response wavelength 0.4-1.7um
- Black level correction, good image uniformity
- Gigabit network interface, compatible with vision standard
- Designed for short wave infrared imaging and microscopic imaging for low illumination scientific research
- Drive free directly supports Halcon, visionpro and other software, which is easy for system integration and development



Camera Spectrogram



MV-IC130/30 Camera Dimension Drawing



Unit: mm

Technical Parameter

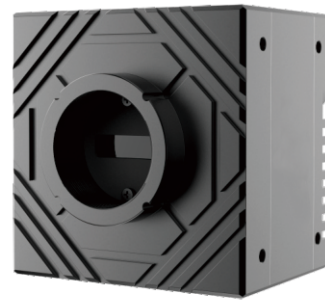
Parameter	Model	MV-IC130-GE	MV-IC30-GE	MV-IC311-GE	MV-IC500-GE
Sensor type		1/2" CMOS	1/4" CMOS	9.6x7.68mm CMOS	1/1.4" InGaAs
Camera type		Mono			
Pixel size		5.0μm×5.0μm	5.0μm×5.0μm	15μm×15μm	3.45μm×3.45μm
Shutter type		Global shutter			
Effective Pixels		1.3MP	0.3MP	0.3MP	5MP
Maximum resolution		1280×1024	640×512	640×512	2592×2056
Frame rate		72FPS	241FPS	350FPS	24FPS
Pixel bit depth		12bit	10bit	10bit	8bit
Sensitivity		30mv 1/30s	121mv 1/30s	121mv 1/30s	<-86dB
Maximum gain (multiple)		126	126	126	126
Exposure time range (ms)		0.0130~7987.2	0.007~2150.4	0.007~2150.4	0.007~2150.4
Frame buffer		256MB			
User-defined data area		2KB			
Acquisition mode		Continuous/soft trigger/hard trigger			
Video output format		Mono 8bit			Mono 10bit
Vision Standards Protocol		GigE Vision V1.2、GenICam			
Data interface		Rj45 Gigabit Network			
GPIO		1x Trigger Input, 1x Flash Output; 1x GPI Input, 1x GPO Output, 1x Non-isolated Bidirectional IO			
Power supply		12-24V (POE as standard)		12V	
Power		<12W (including refrigeration)			
Lens Mount		C-Mount			
Dimensions		69X69X44mm (Without lens mount and rear shell interface)		59.5X59.5X44mm (Without lens mount and rear shell interface)	59.5X59.5X40mm (Without lens mount and rear shell interface)
Weight		<500g		<250g	
Operating temperature		emiconductor refrigeration,coolable ambient temperature difference 20°C			
Working humidity		0~40°C			
Storage temperature		20~80% (No condensation)			
Storage humidity		-30~60°C			
Driver		20~95% (No condensation)			
Programming language pack		Directshow component Halcon dedicated component Labview dedicated driver OCX component TWAIN component			
Other functions		WINXP, WIN7/8/10 32&64 bit systems, Linux and ARM Linux drivers, Android platform drivers, MAC OS systems			
Programming language pack		C/C++/C#/VB6/VB.NET/Delphi/BCB/Python/Java			
Other functions		Support any size ROI custom resolution, contrast and gamma adjustment, saturation adjustment, white balance correction, black level correction, custom dead point coordinate correction,ISP image processing acceleration, 3D noise reduction, custom LUT table, frame rate adjustment, custom camera name, etc.			

Short-wave Infrared Line Scan Camera

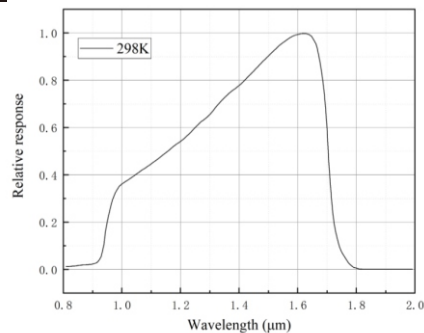
For the industrial production of large-format inspection and high-speed assembly line inspection of the line array camera needs, HIFLY independently developed industrial line array camera MV-IL10GE; the use of domestic chips, GigE interface; 1K high-resolution, up to 20KHz line frequency, significantly improve the industrial inspection field of production efficiency and detection accuracy; integration of a variety of ISP image algorithms and functions, support for line triggering, frame triggering, such as the external triggering modes; MV-IL10GE is a cost-effective, high-performance, low-cost products.

Product Features

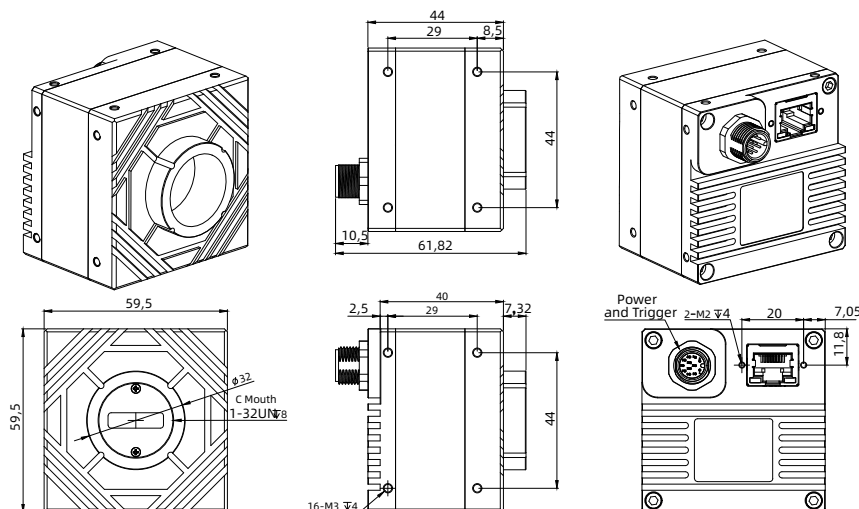
- Using InGaAs chip, support 900-1700nm band.
- Line frequency up to 20K, freely set by software.
- Support encoder signal frequency division and frequency doubling, and accurate matching with the motion platform.
- Support encoder synchronous trigger, photoelectric sensor and encoder combination synchronous trigger and other
- Various trigger modes
- Hardware support for the horizontal direction of the pixel ROI and vertical direction of any line (not exceeding the specified limit) of the automatic splicing
- Automatic splicing function in the horizontal direction and any row in the vertical direction (not exceeding the specified upper limit)



Camera Spectrogram



Camera Dimension Drawing



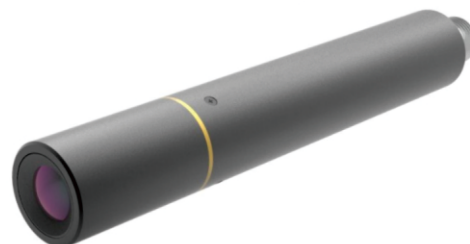
Unit: mm

Camera Dimension Drawing

Parameter	Model	MV-IL10GE	MV-IL20GE
Sensor type		InGaAs	InGaAs
Sensor size		12.8×0.025mm(photosensitive area)	12.8×0.025mm(photosensitive area)
Camera type		Mono	Mono
Pixel size		12.5μm×12.5μm	12.5μm×12.5μm
Response spectral range(um)*1		0.95±0.05~1.7±0.0	0.95±0.05~1.7±0.5
Effective pixel		1024x1	2048x1
Pixel fill ratio(%)		100	100
Line frequency		20K	40K
Data bit width		8/12bit (Camera output to user data width)	8/12bit (Camera output to user data width)
AD width		12bit	12bit
Peak quantum efficiency (%)		≥70@1.55um	≥65
Peak detection rate		≥1×10 ¹²	≥1×10 ¹²
Peak sensitivity(A/W)		≥0.8	≥0.8
Effective pixel rate(%)		>99	≥99
Response inconsistency(%)		<3	<3
Readout mode		IWR、ITR、Optional	IWR、ITR
Video output format		Mono 8bit	Mono 8bit
Visual standards protocol		GigE Vision、GenICam	
Data interface		Gigabit Ethernet port	
Power supply		12~24V	
Power		<6W	
Lens interface		C-Mount	
Dimension		59.5*59.5*43.3mm (Without lens mount and rear shell interface)	
Weight		<500g	
Working temperature		0~50°C	
Working humidity		20~80% (No condensation)	
Storage temperature		-30~60°C	
Storage humidity		20~95% (No condensation)	
Driver		Directshow component Halcon dedicated component Labview dedicated driver OCX component TWAIN component	
Operating system		WINXP, WIN7/8/10 32&64 bit systems, Linux and ARM Linux drivers, Android platform drivers, MAC OS systems	
Programming language pack		C/C++/C#/VB6/VB.NET/Delphi/BCB/Python/Java	
Other functions		Support any size ROI custom resolution, contrast and gamma adjustment, saturation adjustment, white balance correction, black level correction, custom dead point coordinate correction,ISP image processing acceleration, 3D noise reduction, custom LUT table, frame rate adjustment, custom camera name, etc.	

Pen Mini Camera

- Integrated M12 lens, small size, diameter only 20mm
- Interchangeable lens, unlimited field of vision
- Gigabit network interface, 100m long-distance stable transmission
- The built-in hardware accelerates image processing and reduces CPU utilization at the host end
- Compatible with the vision standard, drive free and directly support Halcon, Visionpro and other software



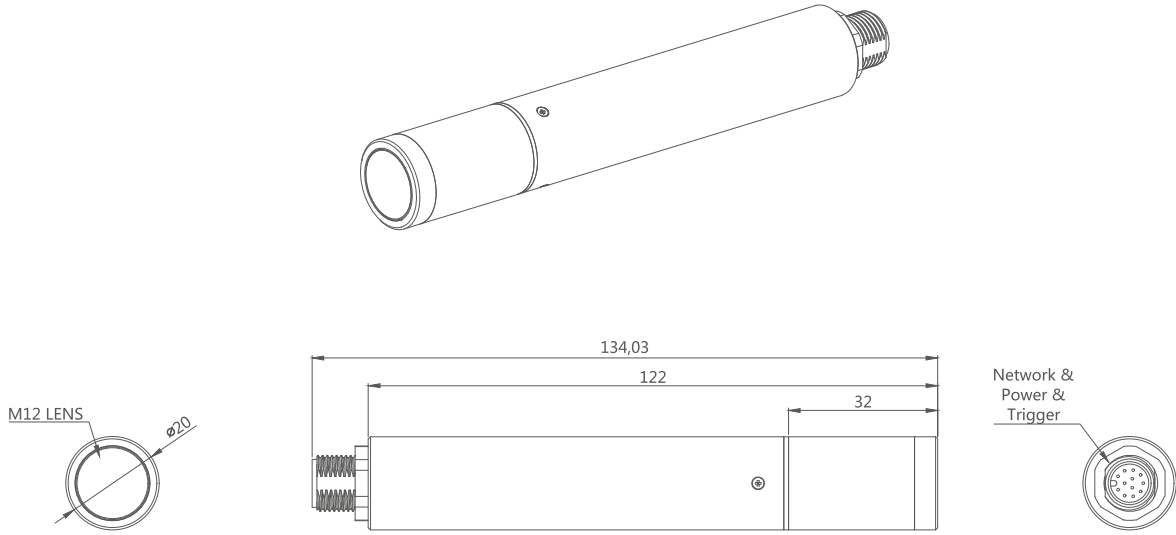
Technical Parameters

Specification	Parameter	Specification	Parameter
Model	MV-T3Y232GC/M	Acquisition mode	Continuous/soft trigger/hard trigger
Resolution@ frame rate	1920x1200@52FPS	Frame buffer	128MB
Pixel size	3.0μm×3.0μm	User-defined data area	2KB
Pixel bit depth	8bit	GPIO	1 way flash output
Field of view (standard product)	15.8x7mm	Lens Mount	M12x0.5
Object distance (standard product)	100mm	Power supply	12V
Maximum gain (multiple)	16	Power	<2.66W
Exposure time range(ms)	0.014~917.5	Dimensions	20x122mm (Excluding back-end interface size)
Sensitivity	Color: 3.1V/luxxs Mono: 3.6V/luxxs	Weight	<100g

Technical Parameters

Vision Standard Agreement	GigE Vision V1.2、GenCam
Data interface	Rj45 Gigabit Ethernet interface, backward compatible with 100M network form
Operating system	WIINXP, WIN7/8/10 32@64 bit system, Linux and ARM Linux driver, Android platform driver, MAC OS system
Driver	Directshow component Halcon dedicated component Labview dedicated driver OCX component TWAIN component
Programming language pack	C/C++/C#/VB6/VB.NET/Delphi/BCB/Python/Java
Working temperature @humidity	0~50°C @ 20%~80%(No condensation)
Storage temperature @humidity	-30~60°C @ 20%~95%(No condensation)
Other functions	Support any size of ROI custom resolution, contrast and gamma adjustment, saturation adjustment, white balance correction, black level correction, custom dead point coordinate correction,ISP image processing acceleration, 3D noise reduction, custom LUT table, frame rate adjustment, custom camera name, etc.

Mini Camera Dimension Drawing



Unit: mm

Miniature Industrial Camera

- M12 lens is supported, and the overall section size is 20x18mm
- Camera color/black and white options, lens replaceable, unlimited field
- Gigabit network interface, 100m long-distance stable transmission
- Support simultaneous operation of multiple cameras, unlimited number and arbitrary networking
- The built-in hardware accelerates image processing and reduces CPU utilization at the host end
- Compatible with the vision standard, drive free and directly support Halcon, Visionpro and other software



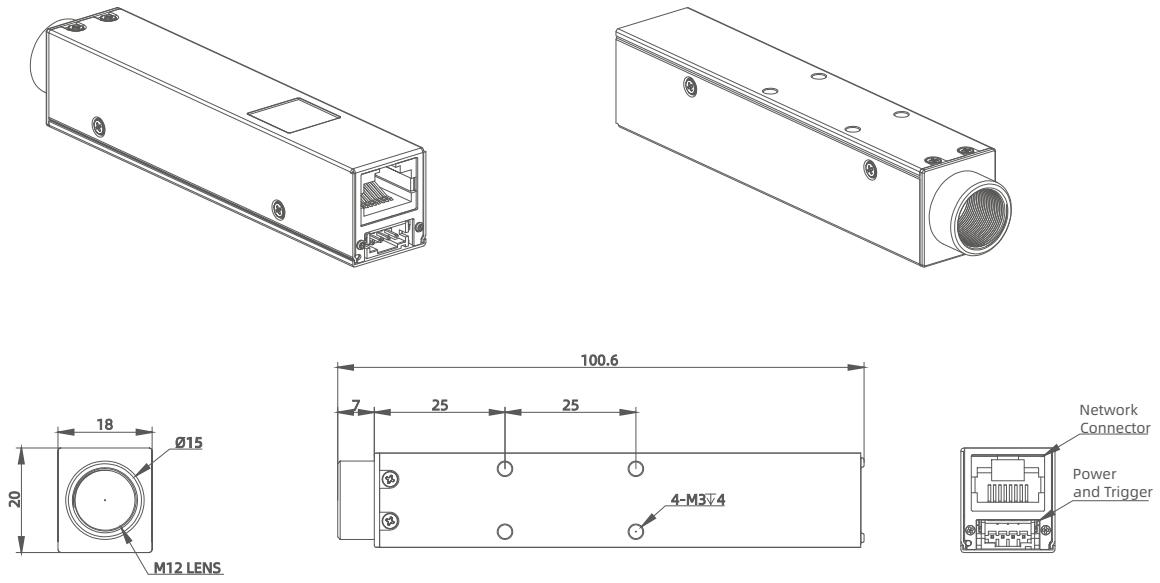
Technical Parameter

Specifications	Parameter	Specifications	Parameter
Model	MV-TF133GC/M	Acquisition mode	Continuous / soft trigger / hard trigger
Resolution @ frame rate	1280×1024@91FPS	Frame cache	128MB
Pixel size	4μm BSI	User defined data area	2KB
Pixel bit depth	8bit	GPIO	1 way flash output
Sensor	1/2.7"CMOS	Lens Mount	M12
Video output format	raw8	Power supply	12~24V
Maximum gain (multiple)	32	Power	<2.5W
Exposure time range (ms)	0.019~79	Overall dimension	18X20X100mm(Without lens holder)
Sensitivity	8 V/Lux.s	Weight	<100g

General Parameters

Visual standards protocol	GigE Vision V1.2、Genlcam
Data Interface	RJ45 Gigabit Ethernet interface, downward compatible with 100m network form
Operating System	WIINXP、WIN7/8/10 32@64 Bit system, Linux and arm linux driver, Android platform driver, Mac OS System
Driver	DirectShow component Halcon special component LabVIEW special driver OCX component Twain component
Programming language pack	C/C++/C#/VB6/VB.NET/Delphi/BCB/Python/Java
Operating temperature @ humidity	0~50°C @ 20%~80%(No condensation)
Storage temperature @ humidity	30~60°C @ 20%~95%(No condensation)
Other functions	Support any size ROI custom resolution, contrast and gamma adjustment, saturation adjustment, white balance correction, black level correction, custom dead center coordinate correctionISP image processing acceleration, 3D noise reduction, custom LUT table, frame rate adjustment, custom camera name, etc

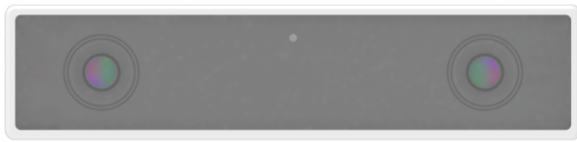
Miniature Camera Dimension Drawing



Unit: mm

Binocular Camera/Module

Binocular camera series have a higher degree of module integration compared with two ordinary cameras, automatic binocular synchronization and eliminates synchronous wiring; Reserved on board two sets of RS232 can be used for control of other components to simplify the system; Compared with the binocular module of UVC protocol on the market, this series of modules can output loss less gray scale image, omitting YUV image ,format conversion, furnishing USB3.0 interface or GigE transmission interface , and more functions are supported. Exposure, gain and other parameters can be completed manual controlled. With the special SDK, our binocular products support higher pixels, with no the constraint of the theoretical upper limit of pixels, and are more suitable for medium and advanced 3D applications.



Binocular Waterproof Camera



Binocular Module

Product Features

- FPC flexible cable length can be freely changed, and the baseline can be flexibly adjusted
- Support lossless grayscale and raw data format output, non YUV format
- Sensor board size can be customized according to customer requirements to match different structural requirements
- It supports continuous soft trigger and hard trigger working modes, and the binocular images can be synchronize automatically, and the synchronization error is at the microsecond level
- Provide special SDK and driver (non UVC), support windows, Linux and armlinux is fully compatible with Apple Mac OS and medview single camera product SDK
- 0.3MP to 65million pixels, supported by CMOS and CCD
- Support Halcon, visionpro, opencv and other visual software
- USB3.0 and GigE transmission interfaces are optional, and other interfaces can be customized
- The working temperature can support -30~60 degrees, and the IP67 protective shell can be customized
- The module reserves 2channels of RS232 interface, 1 channel of GPIO and 1 channel of flash output, 1-channel hard trigger input custom accepted.

Product Selection Table

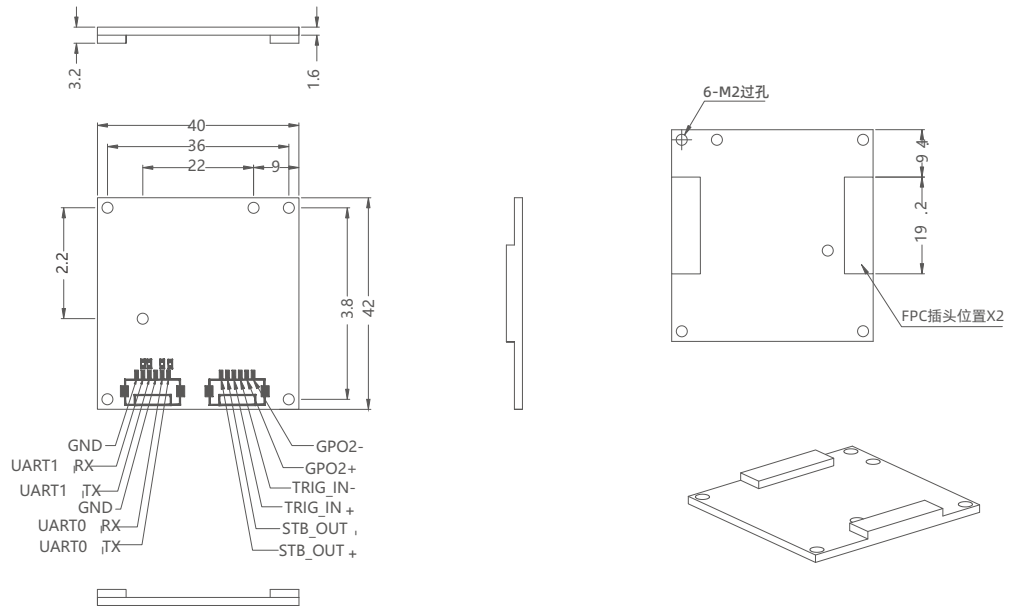
Model Number	Pixels	Sensor type	Shutter method	Maximum resolution	Pixel size	Frame rate (FPS)	Target size	Minimum exposure	Sensor model	Colour
BL-AU133GC/M-T-F	0.3MP	CMOS	Global	640×480	4.0μm	580	1/5.6"	0.00124ms	SMARTSENS	Colour/Mono
BL-SU34GC/M2-T	0.3MP	CMOS	Global	640×480	4.8μm	380	1/4"	0.0040ms	PYTHON	Colour/Mono
BL-SU133GC/M2-T	1.3MP	CMOS	Global	1280×1024	4.0μm	130	1/2.7"	0.00194ms	SMARTSENS	Colour/Mono
BL-SU134GC/M2-T	1.3MP	CMOS	Global	1280×1024	4.8μm	123	1/2"	0.0076ms	PYTHON	Colour/Mono
BL-AU34GC/M2-T	0.3MP	CMOS	Global	640×480	4.8μm	190	1/4"	0.0040ms	PYTHON	Colour/Mono
BL-AU131GC/M2-T	1.22MP	CMOS	Global	1280×960	3.75μm	42	1/3"	0.014ms	AR0134	Colour/Mono
BL-AU134GC/M2-T	1.3MP	CMOS	Global	1280×1024	4.8μm	45	1/2"	0.008ms	PYTHON	Colour/Mono

Technical Parameter

Parameter \ Model	BL-SU33GC/M2-T	BL-SU34GC/M2-T	BL-SU133GC/M2-T	BL-SU134GC/M2-T
Resolution @ frame rate	640×480@580FPS	640×480@380FPS	1280×1024@130FPS	1280×1024@123FPS
Pixel size	4.0μm×4.0μm	4.8μm×4.8μm	4.0μm×4.0μm	4.8μm×4.8μm
Pixel bit depth	8bit	10bit	8bit	8bit
Sensitivity	8 V/lux-s 540nm	7.3V/lux-s 540nm	8V/lux-s	7.3 V/lux-s 540nm
Acquisition mode	Continuous / soft trigger / hard trigger			
Maximum gain (multiple)	8	16.5	6	16.5
Exposure time range(ms)	0.00124~20.7	0.0040~524.3	0.00194~31	0.0076~1001.8
Frame cache	128M Bytes			
User defined data area	2K Bytes			
Video output format	Colour: Bayer 8bit Mono: Mono 8bit	Colour: Bayer 8/12bit Mono: Mono 8/12bit	Colour: Bayer 8bit Mono: Mono 8bit	
GPIO	1 channel trigger input, 1 channel flash control output; 2-way TTL serial port; 1 channel GPIO output			
Lens Mount	M12 lens holder can be installed			
Power supply	5V, USB Bus power supply			
Power	< 3W			
Overall dimension	Mainboard *1:42*42mm Sensor board *2:38*38mm Single side of flat cable: 200mm (adjustable as required)			
Weight	< 75g			

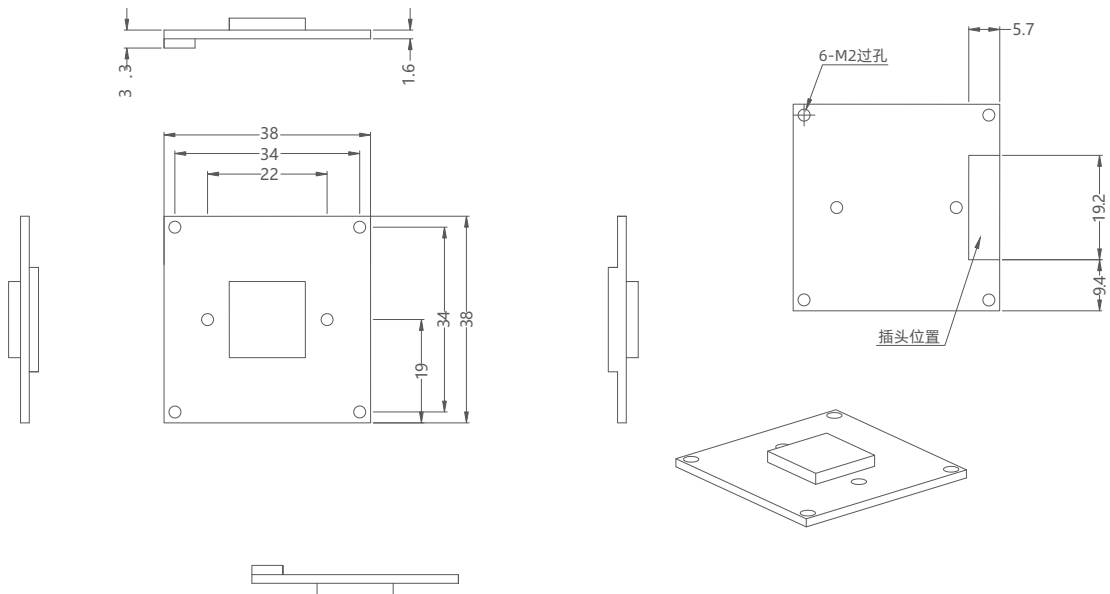
Parameter \ Model	BL-AU34GC/M2-T	BL-AU131GC/M2-T	BL-AU134GC/M2-T
Resolution @ frame rate	640×480@190FPS	1280×960@42FPS	1280×1024@45FPS
Pixel size	4.8μm×4.8μm	3.75μm×3.75μm	4.8μm×4.8μm
Pixel bit depth	10bit	12bit	10bit
Sensitivity	7.3 V/lux-s 540nm	5.3V/lux-s 550nm	7.3 V/lux-s 540nm
Acquisition mode	Continuous / soft trigger / hard trigger		
Maximum gain (multiple)	16.5	4	16.5
Exposure time range(ms)	0.0040~524.3	0.014~53	0.008~1024
Frame cache	128M Bytes		
User defined data area	2K Bytes		
Video output format	Colour: Bayer 8/12bit Mono: Mono 8/12bit		
GPIO	1 channel trigger input, 1 channel flash control output; 2-way TTL serial port; 1 channel GPIO output		
Lens Mount	M12 lens holder can be installed		
Power supply	DC9~24V		
Power	<3W		<2.5W
Overall dimension	Mainboard *1:42*42mm Sensor board *2:38*38mm Single side of flat cable: 200mm (adjustable as required)		
Weight	< 75g		

Binocular Module Dimension Drawing



Unit: mm

Senor Plate Dimension Drawing



Unit: mm

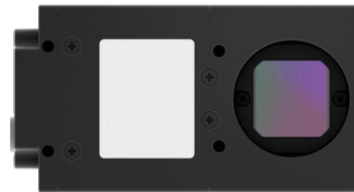
90° Angle Industrial Camera

HIFLY is the first company to launch a 90 degree angle industrial camera in China . Several standard machine series can greatly shorten the vertical upward space of the sensor surface by means of horizontal installation. The height in the vertical direction is only 29mm, which solves the problem of space limitation for equipment installation in the market. The performance and parameters of the 90 degree angle version camera are the same as standard machine, for only adjusting the structure. There is no difference between the camera software and the SDK. When selecting the product model, the suffix -90 means 90 degree angle camera.

At present, the cameras supporting 90 degree angle structure are MV, MV-F, MV-D, MV-AU and MV-FU series. If more models or series are required, please contact our sales.



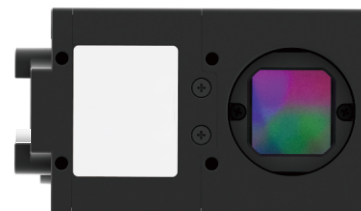
MV-90 Series



MV-F90 Series

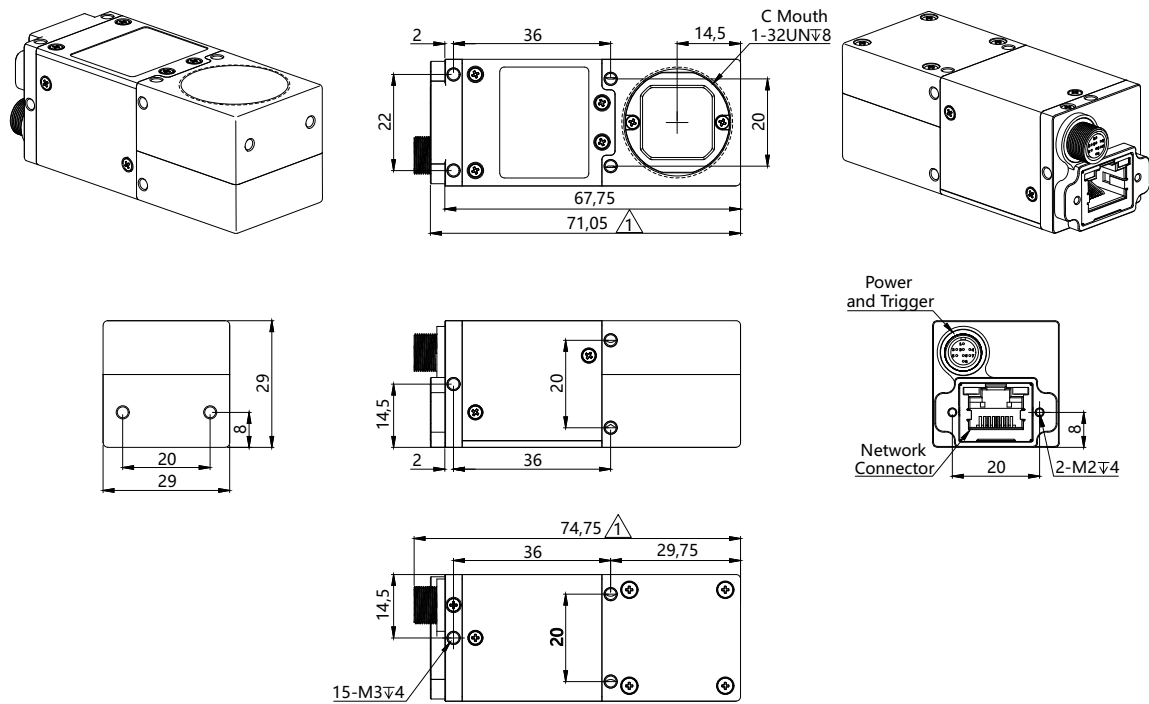


MV-AU90 Series



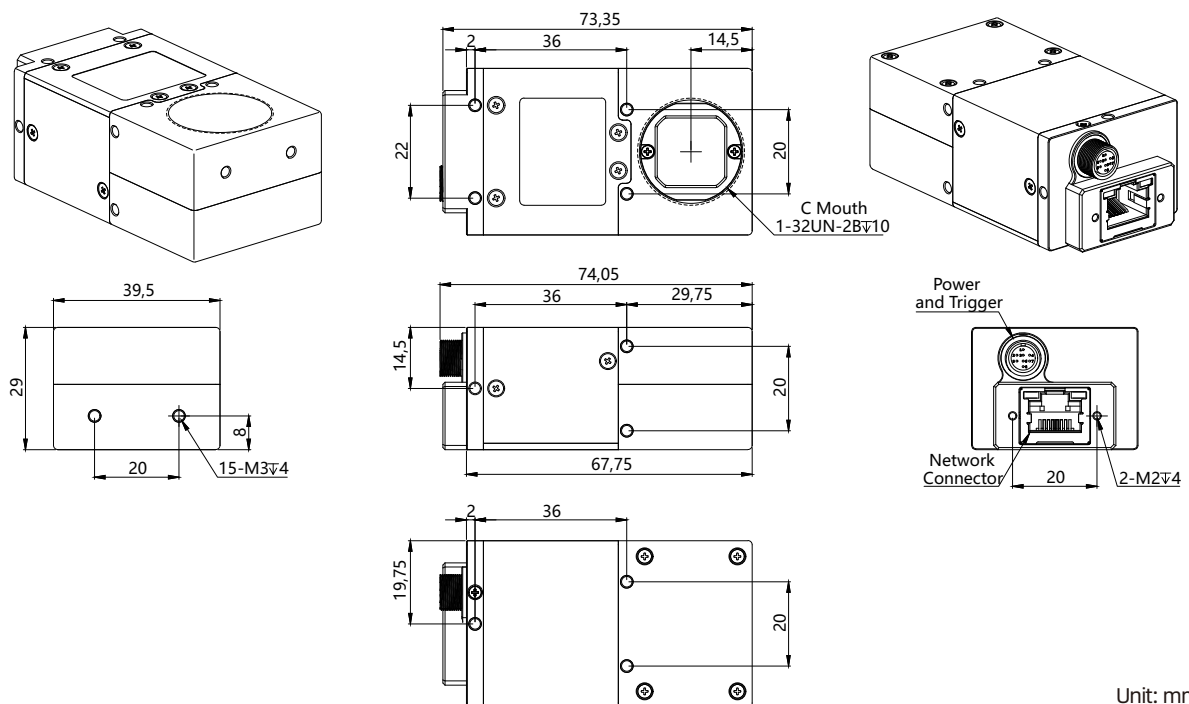
MV-FU90 Series

MV-90 Series Dimension Drawing



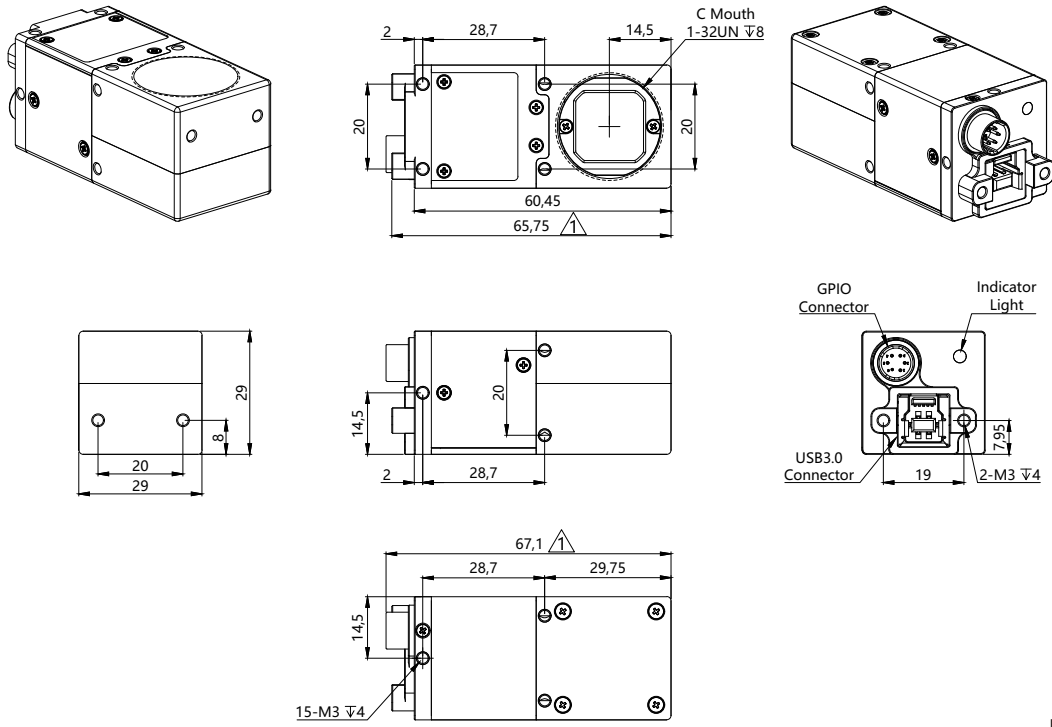
Unit: mm

MV-F90 Series Dimension Drawing



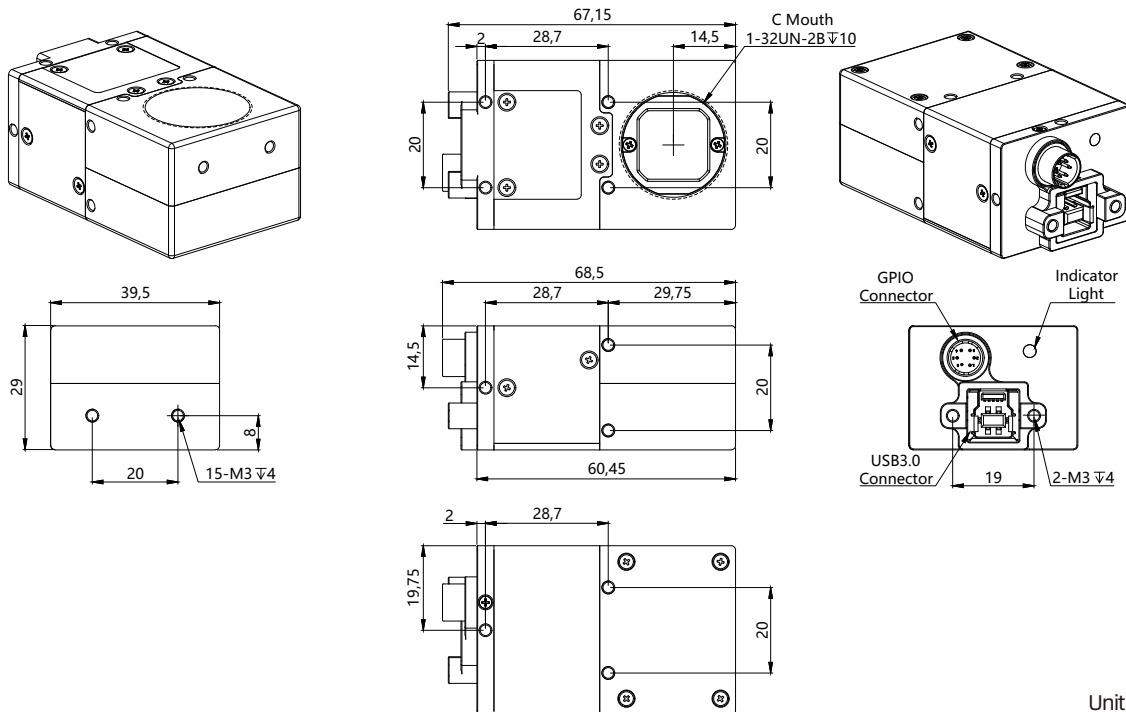
Unit: mm

MV-AU90 Series Dimension Drawing



Unit: mm

MV-FU90 Series Dimension Drawing

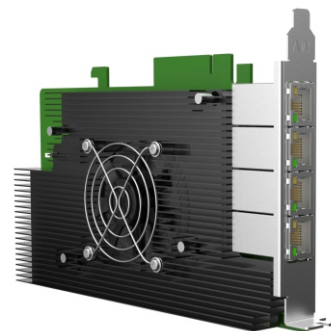


Unit: mm

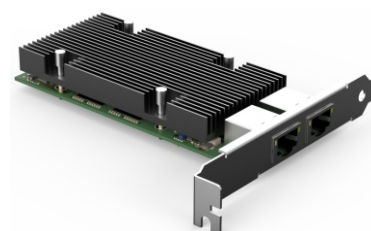
10 GigE Card

Technical Parameters

- GigE Vision standard agreement framing.
- Low latency transmission and CPU load.
- High-reliability, Data packet auto retransmission.
- PCIE 3.0x8, maximum bandwidth 40Gbps.
- It provides the standard 10gigabit network adapter function. Not connected with the camera, it can be used as a standard 10 gigabit nic network port.
- Large onboard memory allows buffering of multiple images.



MV-GB40



MV-G21

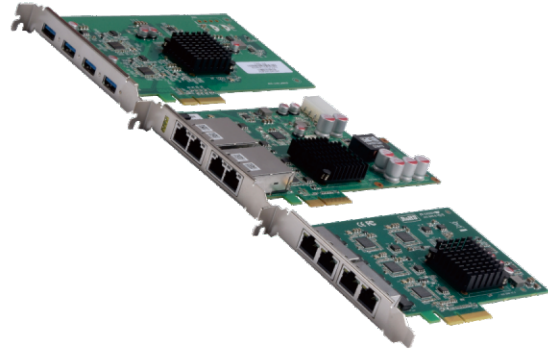
General parameters

Parameter	Model	MV-GB40	MV-G21
Interface type		10 -gigabit Ethernet	
Interface rate		10G/5G/2.5G/1G/100M	
Interface number		4 channels	2 channels
Transmission media and Interface		RJ45	
Transmission distance		100m	
Bus type		PCIE3.0x8	PCIE gen2.0x4
Frame buffer		4G byte	2G byte
Standard agreement		IEEE 802.3、IEEE 802.3u、IEEE802.3ab、IEEE802.3x、IEEE802.3af、IEEE802.3at	
Driver support		windows7/windows 10/ubuntu	
Features		GigEVision framing	
Power supply		12V PCIE/12V ATX	
power dissipation		<20W	
Heat dissipation		Air-cooling	Radiator heat dissipation
Dimensions		203.5×126.25×22.1mm Flap: 191.5×98.5mm	144.9×56.1×22.65mm
Weight		<500g	/
Working temperature		0~50degrees	
Storage temperature		20~80% (No condensation)	
Storage humidity		-30~60degrees	
Dimensions		20~95% (No condensation)	

PCIE Expansion Card

Features

- Bus interface: PCI Express X4 Gen
- Interface Quantity: 4 interfaces
- GigE network card: supports 9KB Jumbo frames and supports multiple cards and multiple cameras
- GigE network card: compatible slot PCI-E 16x/8x/4x
- USB interface: 4x USB3.0 interface, compatible with usb2.0/1.1/1.0
- USB connector: 4x USB3.0 type-A connector on the front panel (fixed with M2 screw)
- The system supports windows 7/8/10 and Linux



UBS3.0 Technical Parameter

Parameter	Model	PCIE USB3.0 4-port expansion card
Bus interface		PCI Express x4 Gen2 interface; 2.5gb/s total bandwidth, up to 600mb/s for each port
USB interface		USB interface 4x USB3.0 interface, compatible with usb2.0/ 1.1/ 1.0
USB connector		4X USB 3.0 type-A connector on the front panel (fixed with M2 screw)
USB controller		2x ASM3142 Master controller In compliance with Universal Serial Bus 3.1 specification revision 1.0 standard Accord with Intel xHCI specification revision 1.0 standard
USB per-port current limiting control		The user can select 1500mA current limiting control per port
Power demand		Users can select 1500mA current limiting control per port to obtain power from PCI Express Bus: maximum 2.0A @ 3.3V Power supply from PCI Express Bus: max. 2.8A @ 12V, for external equipment power supply
Working environment		Operating temperature: 0 °c~60 °C, with air flow; Storage temperature: -40 °c~70 °C; Relative humidity: 5%~90%, non condensing
System support		Windows 7/8/10、Linux
Product size		168 mm x 112 mm (Width x length)

Technical Parameters Of Gigabit Network Card

Parameter	Model	PCIE 4-port Poe gigabit network card
Bus interface		PCI Express x4 Gen2
Internet interface		4x 10/100/1000m BPS RJ45 network interface full duplex, half duplex intelligent detection and adaptation
Chip		Intel i210AT
Function		Ethernet power supply, compatible with IEEE 802.3af/at; Support 9KB Jumbo frames; Support multi card and multi camera; Poe power management; Poe protection
Compatible slots		PCI-E 16x/8x/4x
Network Environment		Gigabit and below network
Indicator light		ACT: the indicator flashes, and the port has data transceiver link: when the indicator is on for a long time, it indicates that the link is normal POE: when the indicator is on for a long time, it indicates that the external equipment is powered normally
Power requirements		Use 4-pin power connector, maximum 100W Poe power (+ 12V@8A) Using PCIe slots, maximum 20W Poe power (+ 12V@2.1A)
Operating environment		Operating temperature: 0 °c~70 °C; Storage temperature: -40 °c~70 °C; Relative humidity: 5%~90%, non condensing
System support		Windows XP/7/8/10、Linux
Product size		168 mm x 112 mm (Width x length)

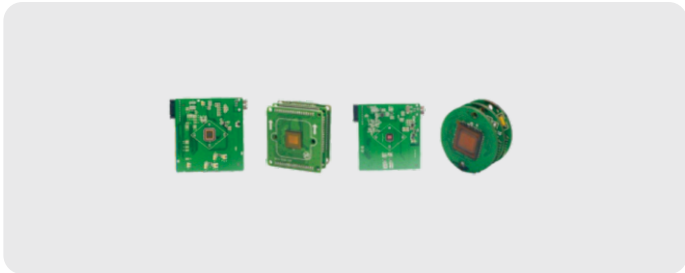
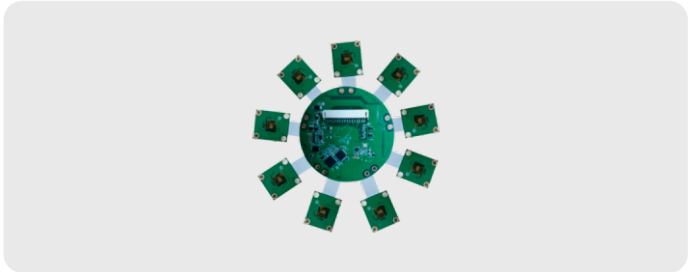
Parameter	Model	PCIE 4-port gigabit network card
Bus interface		PCI Express x4 Gen2
Internet interface		4x 10/100/1000M bps RJ45 network connection; Full duplex, half duplex intelligent detection and adaptation
Chip		Intel i210AT
Function		Compatible with IEEE 802.1p/ 802.1q/802.3 10base-t/802.3u 100base tx/802.3ab 1000BASE-T Support 9KB Jumbo frames and multi card multi camera
Compatible slots		PCI-E 16x/8x/4x (PCIe 2x/1x Support required connector rear end opening)
Network Environment		Gigabit and below network
Indicator light		ACT: the indicator flashes, and the port has data transceiver link: when the indicator is on for a long time, it indicates that the link is normal
Operating environment		Operating temperature: 0 °C~70 °C storage temperature: -40 °C~70 °C relative humidity: 5%~90%, non condensing
System support		Windows XP/7/8/10、Linux
Product size		140 mm × 100 mm (Width x length)

Customized Camera



«« Multiple Shell Colors Customization

Binocular and Multi-eye »»
Modules with Various Interfaces Customization



«« Module Shapes & Size Customization

Touch Screen Integrated Camera Customization »»
Camera ODM (Positive)



«« Touch Screen Integrated Camera Customization Camera ODM (Reverse)

- ◀ Camera Waveband Customization: Ultraviolet, visible light, near infrared, short wave infrared, far infrared, etc.
- ◀ Customization of cameras interfaces: USB2.0, USB3.0, Gigabit network, optical fiber, 10 Gigabit network, CXP, wireless, etc.
- ◀ Customization of various additional functions: programmable IO, autofocus, waterproof case, special structural matching, battery power, integrated light source and other control circuits, etc.
- ◀ Various brands and specifications of sensor Customization: SONY ONSENME OV, Centron, etc.
- ◀ We welcome the customers to phone or email to consult, let's work together for a win-win cooperation .