iRAYPLE

MACHINE VISION

Turning Vision Into Productivity

Zhejiang HuaRay Technology Co., Ltd.

COMPANY INTRODUCTION

Zhejiang HuaRay Technology Co., Ltd. is a company dedicated in research & development, manufacturing, and sales & marketing of machine vision and autonomous mobile robot (AMR) products. With focus in smart manufacturing technologies and logistics innovation, we are committed to creating and delivering value for our customers by enabling a smart factory transformation.

As a national high-tech enterprise, HuaRay aims to bring the latest technological innovations to our valuable customers. More than 60% of its employees are dedicated in R&D, and the company has filed over 300 patent applications. With its investment in R&D, HuaRay has developed deep know-how in its embedded software, image optimization, recognition algorithms, network transmission, navigation, positioning, scheduling, motion control, and other technical fields.

HuaRay' s products and solutions are widely applied in various industries such as logistics, automotive, 3C, lithium battery, photovoltaic, semiconductor, pharmaceutical, and so on. Our machine vision products include industrial area scan cameras, line scan cameras, smart industrial cameras, vision sensors, 3D industrial cameras, and lenses. These products have been used for code recognition, OCR, vision measurement, positioning, defect detection, etc. In addition, our autonomous mobile robot (AMR) products include latent lift, towing, forklifts, and sorting robots are widely used for warehouses and material handling applications.

Utilizing its years of technical experience in AI, image optimization, recognition algorithms, and other technologies, HuaRay is committed to providing global customers with reliable products, solutions and related services in order to enable a smart factory transformation.

For more information, visit our official company website: http://www.irayple.com/en

CONTEXT

1/ Cameras

2/ Lens

3000 Series Area Scan Cameras

Superior cost efficiency

29mm×29mm×29mm

GiGE VISION USB3 VISION

Model	Resolution	FPS	Bit depth	Interface	Sensor						Dimension (mm)	Recommended lens
					Model	Type	Pixel size (μm)	Size	Shutter	Mono/ Color		
A3051MG100E	800x600	120	10	GigE	PYTHON480	CMOS	4.8x4.8	1/3.6"	Global	M	29x29x29	A9-6MP
A3051M/CG000E	800x600	120	10	GigE,POE	PYTHON480	CMOS	4.8x4.8	1/3.6"	Global	M/C	29x29x42	A9-6MP
A3135M/CG000E	1280x960	30	14	GigE,POE	RJ33J4/3CA0DT	CCD	3.75x3.75	1/3"	Global	M/C	29x29x42	A9-6MP
A3124M/CG100E	1280x960	54	12	GigE	AR0135	CMOS	3.75x3.75	1/3"	Global	M/C	29x29x29	A9-6MP
A3131MG100E	1280x1024	60	10	GigE	PHYON1300	CMOS	4.8x4.8	1/2"	Global	M	29x29x29	A9-6MP
A3131M/CG000E	1280x1024	60	10	GigE,POE	PHYON1300	CMOS	4.8x4.8	1/2"	Global	M/C	29x29x42	A9-6MP
A3138M/CG000E	1280x1024	86.5	10	GigE,POE	SS	CMOS	4.0x4.0	1/2.7	Global	M/C	29x29x42	A9-6MP
A3200MG004E	1920x1080	22	10	GigE,POE	IMX290	CMOS	2.9x2.9	1/2.8"	Rolling	M	29x29x42	A9-6MP
A3200CG000E	1920x1080	22	10	GigE,POE	IMX290	CMOS	2.9x2.9	1/2.8"	Rolling	C	29x29x42	A9-6MP
A3504M/CG100E	2592x1944	23	12	GigE	ARO521	CMOS	2.2x2.2	1/2.5"	Rolling	M/C	29x29x29	A9-6MP
A3600MG100E	3072x2048	18	12	GigE	IMX178	CMOS	2.4x2.4	1/1.8"	Rolling	M	29x29x29	A9-6MP
A3600M/CG18E	3072x2048	18	12	GigE,POE	IMX178	CMOS	2.4x2.4	1/1.8"	Rolling	M/C	29x29x42	A9-6MP
A3A20M/CG8E	4000x3000	9	12	GigE,POE	IMX226	CMOS	1.85x1.85	1/1.7"	Rolling	M/C	29x29x42	A9-6MP
A3B00M/CG000E	5472x3648	5.8	10	GigE,POE	IMX183	CMOS	2.4x2.4	1"	Rolling	M/C	29x29x42	MH-X/MT-X
A3135M/CU000E	1280x960	33	14	USB3.0	RJ33J4/3CA0DT	CCD	3.75x3.75	1/3"	Global	M/C	29x29x29	A9-6MP
A3138M/CU000E	1280x1024	201	10	USB3.0	SS	CMOS	4.0X4.0	1/2.7	Global	M/C	29x29x29	A9-6MP
A3200CU000E	1920x1080	120	10	USB3.0	IMX290	CMOS	2.9x2.9	1/2.8"	Rolling	C	29x29x29	A9-6MP
A3600M/CU60E	3072x2048	60	10	USB3.0	IMX178	CMOS	2.4x2.4	1/1.8"	Rolling	M/C	29x29x29	A9-6MP
A3A20M/CU24E	4000x3000	30	10	USB3.0	IMX226	CMOS	1.85x1.85	1/1.7"	Rolling	M/C	29x29x29	A9-6MP
A3B00M/CU000E	5472x3648	19.2	10	USB3.0	IMX183	CMOS	2.4x2.4	1"	Rolling	M/C	29x29x29	MH-X/MT-X

29mm×29mm×42mm

- Support wide resolution range, covering 0.5MP~20MP
- Apply CMOS, CCD sensor. Support global/rolling shutter
- Support powerful ISP algorithms
- Support FPN, SPC
- Compatible with GigE Vision protocol, USB3.0 Vision protocol and GenICam standard
- Conform to CE, FCC and RoHS
- Superior cost efficiency

29mm×29mm×42mm

29mm×29mm×29mm

5000 Series Area Scan Cameras

Outstanding image quality

29mm×29mm×42mm

Model	Resolution	FPS	Bit depth	Interface	Sensor						Dimension (mm)	Recommended lens
					Model	Type	Pixel size (μm)	Size	Shutter	Mono /Color		
A5031M/CG300E	640x480	300	10	GigE,POE	PYTHON300	CMOS	4.8x4.8	1/4"	Global	M/C	29x29x42	A9-6M
A5051M/CG200E	800x600	200	10	GigE,POE	PYTHON500	CMOS	4.8x4.8	1/3.6"	Global	M/C	29x29x42	A9-6M
A5131M/CG75E	1280x1024	90	10	GigE,POE	PYTHON1300	CMOS	4.8x4.8	1/2"	Global	M/C	29x29x42	A9-6M
*A5200MG000E	1624X1240	56	10	GigE,POE	IMX430	CMOS	4.5x4.5	1/1.7"	Global	M	29X29X42	A9-6M
A5201M/CG50E	1920x1200	50	10	GigE,POE	PYTHON2000	CMOS	4.8x4.8	2/3"	Global	M/C	29x29x42	MK-M
A5501M/CG20E	2592x2048	20	10	GigE,POE	PYTHON5000	CMOS	4.8x4.8	1"	Global	M/C	29x29x42	MH-X
A5907MG200E	2592x2048	13	12	GigE,POE	GMAX2509	CMOS	2.5x2.5	2/3"	Global	M/C	29x44x58	MK-M
A5B57M/CG200E	5120x5120	4	12	GigE,POE	GMAX0505	CMOS	2.5x2.5	1.1"	Global	M/C	29x44x58	MT-X/MH-X
A5031M/CU815E	640x480	815	10	USB 3.0	PYTHON300	CMOS	4.8x4.8	1/4"	Global	M/C	29x29x29	A9-6M
A5051M/CU545E	800x600	545	10	USB 3.0	PYTHON500	CMOS	4.8x4.8	1/3.6"	Global	M/C	29x29x29	A9-6M
A5131MU001E	1280x1024	90	10	USB 3.0	PYTHON1300	CMOS	4.8x4.8	1/2"	Global	M	29x29x29	A9-6M
A5131M/CU210E	1280x1024	208	10	USB 3.0	PYTHON1300	CMOS	4.8x4.8	1/2"	Global	M/C	29x29x29	A9-6M
*A5200M/CU000E	1624x1240	89	12	USB 3.0	IMX430	CMOS	4.5x4.5	1/1.7"	Global	M/C	29x29x29	A9-6M
A5201M/CU150E	1920x1200	150	10	USB 3.0	PYTHON2000	CMOS	4.8x4.8	2/3"	Global	M/C	29x29x29	MK-M
A5501M/CU60E	2592x2048	60	10	USB 3.0	PYTHON5000	CMOS	4.8x4.8	1"	Global	M/C	29x29x29	MH-X
A5B57M/CU200E	5120x5120	14	12	USB 3.0	GMAX0505	CMOS	2.5x2.5	1.1"	Global	M/C	29x44x58	MH-X/MT-X
A5201M/CK402E	1920x1200	37.8	10	CameraLink	PYTHON2000	CMOS	4.8x4.8	2/3"	Global	M/C	29x29x43.8	MK-M
*A5B57MK2000E	5120x5120	30	10	CameraLink	GMAX0505	CMOS	2.5x2.5	1.1"	Global	M	29x44x58	MT-X

Note: Models with Symbol "*" are latest-released products.

29mm×44mm×58mm

- Support wide resolution range, covering 0.3MP~25MP
- Apply CMOS sensor with global shutter and high frame rate
- Support powerful ISP algorithms
- Support FPN, SPC
- Support GigE Vision protocol, USB3.0 Vision protocol, CameraLink protocol and GenICam
- Conform to CE, FCC and RoHS
- Excellent image quality

29mm×29mm×42mm

29mm×29mm×29mm

7000 Series Area Scan Cameras

Extraordinary image quality and preformance

29mm×29mm×42mm

Model	Resolution	FPS	Bit depth	Interface	Sensor						Dimension (mm)	Recommended lens
					Model	Type	Pixel Size (μm)	Size	Shutter	Mono/ Color		
A7040M/CG000E	720x540	300	12	GigE,POE	IMX287	CMOS	6.9x6.9	1/2.9"	Global	M/C	29x29x42	A9-6M
A7160M/CG000E	1440x1080	77	12	GigE,POE	IMX273	CMOS	3.45x3.45	1/2.9"	Global	M/C	29x29x42	A9-6M
A7170M/CG200E	1604x1100	66	12	GigE,POE	IMX432	CMOS	9.0x9.0	1.1"	Global	M/C	29x44x58	MH-X
A7200M/CG30E	1920x1200	38.7	12	GigE,POE	IMX249	CMOS	5.86x5.86	1/1.2"	Global	M/C	29x29x42	MH-X
A7300M/CG30E	2048x1536	36	12	GigE,POE	IMX265	CMOS	3.45x3.45	1/1.8"	Global	M/C	29x29x42	A9-6M
A7500M/CG20E	2448x2048	23	12	GigE,POE	IMX264	CMOS	3.45x3.45	2/3"	Global	M/C	29x29x42	MK-M
A7500PG400E	2448x2048	24	12	GigE,POE	IMX250MZR	CMOS	3.45x3.45	2/3"	Global	P	29x29x42	MK-M
A7501M/CG010E	2592x2048	21	12	GigE,POE	XGS5000	CMOS	3.2x3.2	2/3"	Global	M/C	29x29x42	MK-M
A7710M/CG200E	3208x2200	17	12	GigE,POE	IMX428	CMOS	4.5x4.5	1.1"	Global	M/C	29x44x58	MH-X
A7801MG400E	4096x2160	13	12	GigE,POE	XGS8000	CMOS	3.2x3.2	1/1.1"	Global	M	29x29x42	MH-X/MT-X
A7900M/CG13E	4096x2160	13	12	GigE,POE	IMX267	CMOS	3.45x3.45	1"	Global	M/C	29x44x58	MH-X
A7A20M/CG9E	4096x3000	9	12	GigE,POE	IMX304	CMOS	3.45x3.45	1.1"	Global	M/C	29x44x58	MH-X
A7A21MG400E	4096x3072	9	12	GigE,POE	XGS12000	CMOS	3.2x3.2	1"	Global	M	29x29x42	MH-X/MT-X
A7A21M/CG200E	4096x3072	9	12	GigE,POE	XGS12000	CMOS	3.2x3.2	1"	Global	M	29x44x58	MH-X/MT-X
A7040M/CK402E	720x540	349	10	CameraLink	IMX287	CMOS	6.9x6.9	1/2.9"	Global	M/C	29x29x43.8	A9-6M
A7300MK200E	2048x1536	188	10	CameraLink	IMX252	CMOS	3.45x3.45	1/1.8"	Global	M	29x44x58	A9-6M
A7500M/CK200E	2448x2048	150	10	CameraLink	IMX250	CMOS	3.45x3.45	2/3"	Global	M/C	29x44x58	MK-M
A7500MK402E	2448x2048	37.2	12	CameraLink	IMX264	CMOS	3.45x3.45	2/3"	Global	M	29x29x43.8	MK-M
*A7900CK401E	4096x2160	27	8	CameraLink	IMX267	CMOS	3.45x3.45	1"	Global	C	29x29x43.8	MH-X/MT-X
A7A20M/CK401E	4096x3000	20	12	CameraLink	IMX304	CMOS	3.45x3.45	1.1"	Global	M/C	29x29x43.8	MH-X/MT-X
*A7A21MK401E	4096x3072	18	12	CameraLink	XGS12000	CMOS	3.2x3.2	1"	Global	M	29x29x43.8	MH-X/MT-X
A7A21MK200E	4096x3072	56	12	CameraLink	XGS12000	CMOS	3.2x3.2	1"	Global	M	29x44x58	MH-X/MT-X

Note: Models with Symbol “*” are latest-released products.

Model	Resolution	FPS	Bit depth	Interface	Sensor						Dimension (mm)	Recommended lens
					Model	Type	Pixel size (μm)	Size	Shutter	Mono /Color		
A7040M/CU000E	720x540	438	10	USB 3.0	IMX287	CMOS	6.9 x 6.9	1/2.9"	Global	M/C	29x29x29	A9-6MP
*A7160M/CU000E	1440x1080	249	12	USB 3.0	IMX273	CMOS	3.45x3.45	1/2.9"	Global	M/C	29x29x29	A9-6MP
A7200MU001E	1920x1200	38.7	12	USB 3.0	IMX249	CMOS	5.86x5.86	1/1.2"	Global	M	29x29x29	MH-X
A7200M/CU130E	1920x1200	164	10	USB 3.0	IMX174	CMOS	5.86x5.86	1/1.2"	Global	M/C	29x29x29	MH-X
*A7201M/CU000E	1920 X1200	72	12	USB 3.0	XGS2000	CMOS	3.2x3.2	1/2.2"	Global	M/C	29x29x29	A9-6MP
A7300M/CU90E	2048x1536	120	10	USB 3.0	IMX252	CMOS	3.45x3.45	1/1.8"	Global	M/C	29x29x29	A9-6MP
A7500M/CU35E	2448x2048	35	12	USB 3.0	IMX264	CMOS	3.45x3.45	2/3"	Global	M/C	29x29x29	MK-M
A7500M/CU75E	2448x2048	75	10	USB 3.0	IMX250	CMOS	3.45x3.45	2/3"	Global	M/C	29x29x29	MK-M
*A7501M/CU000E	2592x2048	43	12	USB 3.0	XGS5000	CMOS	3.2x3.2	2/3"	Global	M/C	29x29x29	MK-M
A7900M/CU200E	4096x2160	40	10	USB 3.0	IMX255	CMOS	3.45x3.45	1"	Global	M/C	29x44x58	MH-X/MT-X
A7900M/CU201E	4096x2160	32	12	USB 3.0	IMX267	CMOS	3.45x3.45	1"	Global	M/C	29x44x58	MH-X/MT-X
A7A20M/CU30E	4096x3000	30	10	USB 3.0	IMX253	CMOS	3.45x3.45	1.1"	Global	M/C	29x44x58	MH-X/MT-X
A7A20M/CU201E	4096x3000	23	12	USB 3.0	IMX304	CMOS	3.45x3.45	1.1"	Global	M/C	29x44x58	MH-X/MT-X
*A7A21M/CU200E	4096x3072	28.6	12	USB 3.0	XGS12000	CMOS	3.2x3.2	1"	Global	M/C	29x44x58	MH-X/MT-X

- Support wide resolution range covering 0.4MP~12MP
- Apply Sony CMOS sensor with global shutter and high frame rate
- Support powerful ISP algorithms
- Support SPC
- Compatible with GigE Vision protocol, USB3.0 Vision protocol, CameraLink and GenICam standard
- Conform to CE, FCC and RoHS
- Extraordinary image quality

29mm×29mm×29mm

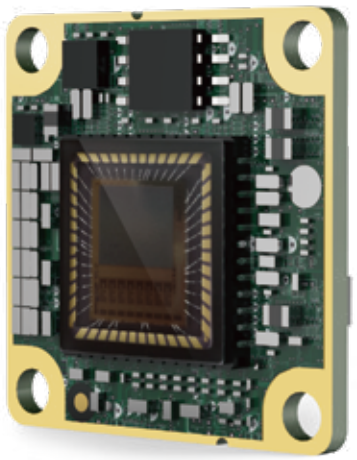
29mm×44mm×58mm

Board-level Industrial Cameras

Compact design enables easy integration

Board-level HCON Industrial Camera

- Complete functions are avaliable on one compact-deisgn board
- Suitable for embedded product development
- Superior cost efficiency
- Apply CMOS sensor with global shutter and rolling shutter
- Easy installation, one FPC cable supports power supply & data transmission
- Provide source code for HCON interface drivers
- Provide full suite of development documents
- Support SPC



Model	Resolution	FPS	Bit depth	Interface	Sensor						Dimension (mm)
					Model	Type	Pixel size (μm)	Size	Shutter	Mono /Color	
AB5131MH080E	1280x1024	60	10	HCON	PYTHON1300	CMOS	4.8x4.8	1/2"	Global	M	27x27
AB3600MH080E	3072x2048	25	12	HCON	IMX178	CMOS	2.4x2.4	1/1.8"	Rolling	M	27x27
AB7500MH080E	2448x2048	30	12	HCON	IMX264	CMOS	3.45x3.45	2/3"	Global	M	26x40
AB7500CH080E	2448x2048	30	12	HCON	IMX264	CMOS	3.45x3.45	2/3"	Global	C	26x40

Board-level GigE Industrial Camera

- Compact design, 45x45mm (without fixing structure) or 55mmx55mmx14mm(with fixing structure)
- Support C/CS/M12 mount
- Support 4-side Mounting
- Support powerful ISP algorithms
- Support FPN and SPC
- Compatible with GigE Vision protocol and GenICam standard
- Conform to CE, FCC and RoHS
- Superior cost efficiency

USB3.0 Board-level camera

- Compact structure, integrated in 35x35x19 dimension (not including lens mount and rear case connector)
- Support C/M12 lens
- Support 4-side mount
- Support strong ISP algorithms
- Support FPN and SPC
- Compatible with USB3.0 Vision protocol and GenICam standard
- Conform to CE, FCC and RoHS
- Superior cost performance

GiGE VISION USB3 VISION

Model	Resolution	FPS	Bit depth	Interface	Sensor						Dimension (mm)
					Model	Type	Pixel size (μm)	Size	Shutter	Mono/ Color	
AB3051MG020E	800x600	120	10	GigE	PYTHON480	CMOS	4.8x4.8	1/3.6"	Global	M	55x55x14
AB3600MG000E	3072x2048	18	12	GigE	IMX178	CMOS	2.4x2.4	1/1.8"	Rolling	M	55x55x14
AB3131MG023E	1280x1024	60	10	GigE	PYTHON1300	CMOS	4.8 x 4.8	1/2"	Global	M	55x55x14
AB3600M/CU000E	3072 x 2048	60	10	USB3.0	IMX 178	COMS	2.4x2.4	1/1.8"	Rolling	M/C	35x35x19
AB3600CU010E	3072 x 2048	60	10	USB3.0	IMX 178	COMS	2.4x2.4	1/1.8"	Rolling	C	35x35x19
*AB3138MU000E	1280x1024	201	10	USB3.0	SS	COMS	4.0x4.0	1/2.7"	Global	M	35x35x19
AB5131M/CU000E	1280x1024	208	10	USB3.0	PYTHON1300	COMS	4.8x4.8	1/2"	Global	M/C	35x35x19
*AB3A20M/CU000E	4000x3000	30	10	USB3.0	IMX226	CMOS	1.85x1.85	1/3.6"	Global	M/C	35x15x19
*AB7200M/CU102E	1920x1200	164	10	USB3.0	IMX174	CMOS	5.86x5.86	1/1.2"	Global	M/C	35x35x19
*AB7A20M/CU102E	4096X3000	23.4	12	USB3.0	IMX304	CMOS	3.45x3.45	1.1"	Global	M/C	35x35x19

Note: Models with Symbol "*" are latest-released products.

Large Area Scan Cameras

High resolution & High frame rate

100mm×100mm×66mm

Model	Resolution	FPS	Bit depth	Interface	Model	Type	Sensor Pixel size (μm)	Size	Shutter	Mono /Color	Dimension (mm)	Lens mount	Recommended lens
A5B51M/CG4E	5120x5120	4	10	GigE	PYTHON25K	CMOS	4.5x4.5	23.0x23.0	Global	M/C	76x76x46	M58(FBL 12.3)	F32-5035-M43
AX7C10M/CG250E	6464x4852	3.6	12	GigE	IMX342	CMOS	3.45x3.45	22.3x16.7	Global	M/C	72x72x64	M58(FBL 12)	F32-5035-M43
AX5E07M/CG250E	9344x5000	2.6	12	GigE	Customize	CMOS	3.2x3.2	29.9x16.0	Global	M/C	72x72x65	M58(FBL 12)	F46-6035-M58
AX5F57M/CG250E	9344x7000	1.7	12	GigE	GMAX3265	CMOS	3.2x3.2	29.9x22.4	Global	M/C	72x72x65	M58(FBL 12)	F46-6035-M58
*AX7A20M/CT250E	4096x3000	68	10	10GigE	IMX253	CMOS	3.45x3.45	1.1"	Global	M/C	72x72x78	M58(FBL 12)	MH-X/MT-X
AX5B51M/CT250E	5120x5120	43	10	10GigE	PYTHON 25K	CMOS	4.5x4.5	23.0x23.0	Global	M/C	72x72x78	M58(FBL 12)	F32-5035-M43
*AX5B57M/CT250E	5120x5120	41	12	10GigE	GMAX0505	CMOS	2.5x2.5	1.1"	Global	M/C	72x72x79	M58(FBL 12)	MT-X
*AX5F57M/CT250E	9344 x 7000	17.4	12	10GigE	GMAX3265	CMOS	3.2x3.2	29.9 x 22.4	Global	M/C	72x72x80	M58(FBL 12)	F46-6035-M58
AX7C10M/CK250E	6240x4848	24.8	10	CameraLink	IMX342	CMOS	3.45x3.45	22.3x16.6	Global	M/C	72x72x64	M58(FBL 12)	F32-5035-M43
AX5E07M/CK250E	9280x4992	17.5	12	CameraLink	Customize	CMOS	3.2x3.2	29.9x16.0	Global	M/C	72x72x65	M58(FBL 12)	F46-6035-M58
AX5F57M/CK250E	9280x6992	12.5	12	CameraLink	GMAX3265	CMOS	3.2x3.2	29.9x22.4	Global	M/C	72x72x65	M58(FBL 12)	F46-6035-M58
AX7Q00MK470E	14160x10640	5.1	12	CameraLink	IMX411	CMOS	3.76x3.76	53.4x40.0	Rolling	M	100x100x66	M72(FBL 19.55)	F67-5545-M72
AX5A22M/CX050E	4096x3072	188	12	CoaXPress-6	CMV12000	CMOS	5.5x5.5	22.5x16.9	Global	M/C	72x72x72	M58(FBL 12)	F32-5035-M43
AX5A22M/CX060E	4096x3072	188	12	CoaXPress-6	CMV12000	CMOS	5.5x5.5	22.5x16.9	Global	M/C	72x72x72	F	F32-5035-M43
AX5A22M/CX340E	4096x3072	188	12	CoaXPress-6	CMV12000	CMOS	5.5x5.5	22.5x16.9	Global	M/C	80x80x47	M42(FBL 12)	F32-5035-M43
A9B57M/CX250E	5120x5120	90	12	CoaXPress-6	GMAX0505	CMOS	2.5x2.5	1.1"	Global	M/C	72x72x70	M58(FBL 12)	MT-X
AX5E02M/CX150E	7920x6004	30	12	CoaXPress-6	CMV50000	CMOS	4.6x4.6	36.4x27.6	Global	M/C	72x72x91	M58(FBL 12)	F46-6035-M58
AX5E02M/CX160E	7920x6004	30	12	CoaXPress-6	CMV50000	CMOS	4.6x4.6	36.4x27.6	Global	M/C	72x72x91	F	F46-6035-M58
AX5E07M/CX250E	9344x5000	44	12	CoaXPress-6	Customize	CMOS	3.2x3.2	29.9x16.0	Global	M/C	72x72x70	M58(FBL 12)	F46-6035-M58
*AX5F57M/CX250E	9344x7000	31	12	CoaXPress-6	GMAX3265	CMOS	3.2x3.2	29.9x22.4	Global	M/C	72x72x70	M58(FBL 12)	F46-6035-M58
*AX7Q10M/CX470E	14160x10640	6.1	12	CoaXPress-6	IMX411	CMOS	3.76 x3.76	53.4x40.0	Rolling	M/C	100x100x66	M72(FBL 19.55)	F67-5455-M72
*AX7Q10M/CX770E	14160x10640	6.1	12	CoaXPress-6	IMX411	CMOS	3.76 x3.76	53.4x40.0	Rolling	M/C	110x110x90	M72(FBL 19.55)	F67-5545-M72
*AX5A22M/CP050E	4096X3072	330	8	CoaXPress-12	CMV12000	CMOS	5.5X5.5	22.5X16.9	Global	M/C	80X80X72	M58(FBL 12)	F32-5035-M43
*AX5B17MP050E	5120x4096	219	12	CoaXPress-12	GOSPRINT4521	CMOS	4.5 x4.5	23.0x18.4	Global	M	80X80X75	M58(FBL 12)	F32-5035-M43
A9B57M/CP050E	5120x5120	150	12	CoaXPress-12	GMAX0505	CMOS	2.5x2.5	1.1"	Global	M/C	80x80x72	M58(FBL 12)	MT-X
A9B57MP340E	5120x5120	150	12	CoaXPress-12	GMAX0505	CMOS	2.5x2.5	1.1"	Global	M	80x80x65	M42(FBL 12)	MT-X
AX5F57M/CP050E	9344x7000	71	12	CoaXPress-12	GMAX3265	CMOS	3.2x3.2	29.9x22.4	Global	M/C	80x80x72	M58(FBL 12)	F46-6035-M58

Note: Models with Symbol “*” are latest-released products.

76mm×76mm×46mm

72mm×72mm×91mm

- Compatible with GigE Vision protocol, CameraLink protocol, CoaXPress protocol and GenICam standard
- Support wide resolution range, covering 12MP~151MP
- Support Base, Medium and Full modes on CameraLink interface
- Support 4-channel CXP-6 or CXP-12 data output
- Apply high frame rate CMOS sensor with global shutter
- Support FFC/SPC, defect pixel import
- Support wide range of power supply

72mm×72mm×64mm

72mm×72mm×64mm

Line Scan Cameras

High resolution & High line rate

62mm×62mm×35.5mm

Model	Resolution	Line rate (Hz)	Bit depth	Interface	Sensor			Dimension (mm)	Lens mount	Recommended lens
					Type	Pixel size (μm)	Mono /Color			
L5022MG141E	2048x1	49K	12	GigE	CMOS	14x14	M	62x62x35.3	M42 (FBL12)	F32-5035-M43
L5027MG140E	2048x1	49K	12	GigE	CMOS	14x14	M	62x62x43.5	M42 (FBL 12)	F32-5035-M43
L5022CG141E	2048x2	49K	12	GigE	CMOS	14x14	C	62x62x35.3	M42 (FBL 12)	F32-5035-M43
L5027CG140E	2048x2	49K	12	GigE	CMOS	14x14	C	62x62x43.5	M42 (FBL 12)	F32-5035-M43
L5042MG141E	4096x1	28K	12	GigE	CMOS	7x7	M	62x62x35.3	M42 (FBL 12)	F32-5035-M43
L5047MG140E	4096x1	28K	12	GigE	CMOS	7x7	M	62x62x43.5	M42 (FBL 12)	F32-5035-M43
L5082MG170E	8192x1	13K	12	GigE	CMOS	7x7	M	80x80x48	M72 (FBL 12)	8K line scan lens
L5042CG141E	4096x2	28K	12	GigE	CMOS	7x7	C	62x62x35.3	M42 (FBL 12)	F32-5035-M43
L5047CG140E	4096x2	28K	12	GigE	CMOS	7x7	C	62x62x43.5	M42 (FBL 12)	F32-5035-M43
*L5047CK140E	4096x2	62K	12	Camera Link	CMOS	7x7	C	62x62x33.68	M42 (FBL 12)	F32-5035-M43
*L5047MK140E	4096x2	120K	12	Camera Link	CMOS	7x7	M	62x62x33.68	M42 (FBL 12)	F32-5035-M43
L5082MK170E	8192x1	74K	12	Camera Link	CMOS	7x7	M	80x80x48	M72 (FBL 12)	8K line scan lens
*L5087MK470E	8192x4	100K	10	CameraLink	CMOS	5x5	M	80x80x57.8	M72 (FBL 12)	8K line scan lens
*L5087CK670E	8192x6	34K	10	Camera Link	CMOS	5x5	C	80x80x57.8	M72 (FBL 12)	8K line scan lens
*L5162MK170E	16384x1	50K	12	CameraLink	CMOS	3.5x3.5	M	80x80x39.5	M72 (FBL 12)	8K line scan lens

Note: Models with Symbol “*” are latest-released products.

80mm×80mm×48mm

- Compatible with GigE Vision protocol, CameraLink protocol and GenICam standard
- Support wide resolution range, covering 2K~16K
- Support Base, Medium, Full and Deca modes on CameraLink interface
- Apply CMOS sensor with & high line rate & multiple lines
- Support FFC
- Support wide range of power supply

80mm×80mm×57.8mm

3000 Series Code Readers

Small size code reader, suitable for 3C industry

- Red / White built-in illumination
- Support IP65 protection level
- Abundant IO interfaces, Ethernet, RS232, GPIO interface
- 5 ~ 24V DC power supply, low power consumption,less than 2.5W
- Abundant code reading types, Code128 / EAN , DM / QR, etc
- Support one click auto training, multi-parameter polling and other functions
- Support a wide selection of accessories suitable to reflection, bending and other scenarios

3000 Series Code Readers

Small code reader, suitable for 3C industry

Model	RH3124MG011E	RH3124MG011-111E	RH3124MG011-112E	RH3124MG111E
Resolution	1280x960	1280x960	1280x960	1280x960
Working Distance	70mm	40mm	110mm	35~150mm, manual control
FOV	42 x 32mm	26 x 20mm	65 x 50mm	26x20mm - 84x64mm
Max. Decoding Speed	20pcs/S	20pcs/S	20pcs/S	20pcs/S
Min. Resolution	1D 0.05mm/2D 0.13mm	1D 0.03mm/2D 0.09mm	1D 0.08mm/2D 0.2mm	1D 0.03mm/2D 0.09mm
Light	Red /White integrated light source			
Trigger Mode	Support software trigger / external trigger / free running and other trigger modes			
Connector	Industrial grade M12 connectors are Ethernet and GPIO interfaces			
Net Port	100M Ethernet			
GPIO	RS232, 1 isolated input, 1 isolated output, 1 configurable input and output			
Communication Port	RS232, Ethernet			
Protocols	SDK，Serial，TCPServer，TCPClient，Profinet，Modbus TCP			
LED Indicators	Power indicator, network indicator, result display indicator			
Power Supply	Support DC24V input, suitbale to industrial environment			
Power Consumption	<2.0W			
Dimension	50mm x 50mm x 28mm(Cable not included)			
Weight	<150g			
Protection Level	IP65			
Cover Material	Aluminum alloy + front cover			
Operation Temperature	-20°C～+50°C			
Operation Humidity	20%～95%，Non condensing			
Storage Temperature	-30°C～+70°C			
Software	EasyID			
Certification	CE/FCC			
Decoding	Code 128 / Code39 / Code93 / EAN, etc.; QR / DM / DPM, etc.			

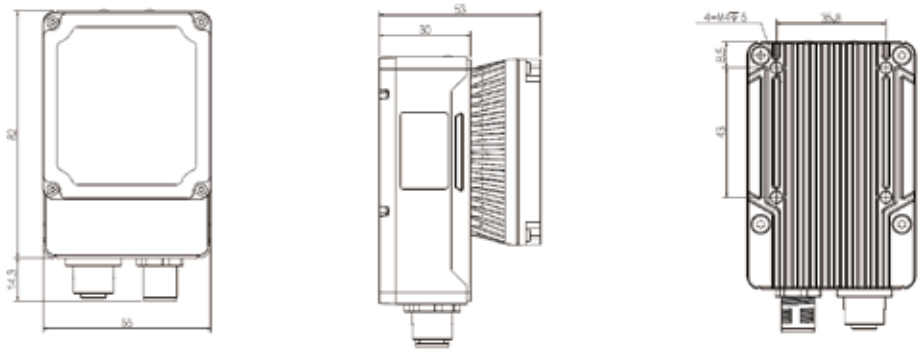
5000 Series Code Readers

Deep Learning，Auto Focus，High Speed , Complex Application Decoding

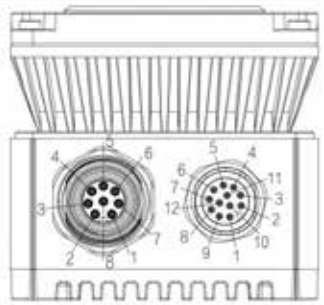
- Light-integrated design makes red/white/blue illumination optional, support control separately
- Support different focal lengths, electrical auto focus and one-click auto training
- GigE interface, IP65 protection level
- Abundant IO interfaces such as Ethernet, RS232, GPIO, support multiple communication protocols
- Support various code formats and evaluations of code quality
- Built-in deep-learning algorithms and multi-parameters polling to ensure effects of complex applications

Model	R5016MG-06M-RGG01E	R5016MG-12M-RGG01E	R5016MG-25M-RGG01E
Resolution	1440x1080	1440x1080	1440x1080
Frame Rate	60fps	60fps	60fps
Max. Decoding Speed	90codes/S	90 codes/S	90 codes/S
Focal	6mm	12mm	25mm
Focusing	Electrical auto focus, support one-click auto training		
Light	Integrated design makes red/white/blue illumination optional(red by default), support control separately		
Trigger Mode	Software trigger/External trigger/Free run modes		
Connector	2 Industrial connectors support GigE and GPIO		
Net Port	GigE		
GPIO	RS232, 2 Opto-isolated inputs and 3 Opto-isolated outputs		
Communication Port	RS232, Ethernet		
Protocols	SDK, TCP Client, FTP, TCP Server, RS232, Profinet, Modbus		
LED Indicators	Power supply; Network; Status; Result		
Power Supply	DC 12/24V ±10%, 1.5A input, suitable for industrial environment		
Power Consumption	<9.8W(light included)		
Dimension	82mmx55mmx53mm(not including connector)		
Weight	<350g		
Protection Level	IP65		
Cover Material	Aluminum alloy + Front cover		
Operation Temperature	-20°C～+50°C		
Operation Humidity	20%～95%(no condensation)		
Storage Temperature	-30°C～+70°C		
Software	EasyID		
Decoding	1D: code 128, code 39, code 93, EAN and etc.;2D: QR/DM/DPM		
Quality Evaluation	ISO/IEC 29158(AIM-DPM), ISO/IEC 15415, ISO/IEC 15416)		

Structure(unit:mm)



I/O Connector



12 pin: Power + IO + RS232
8 pin: GigE

Pin	Color	Signal	Description
1	Brown white	OPT_OUT2	Opto output 2
2	Grey	TXD_RS232	Serial send
3	Purple	RXD_RS232	Serial receive
4	White black	SIGANL_GND	Serial GND
5	Yellow	OPT_IN1	Opto input 1
6	Purple white	OPT_IN_GND	Opto input GND
7	Red	POWER	Power
8	Black	POWER_GND	Power GND
9	Green	OPT_OUT_GND	Opto output GND
10	Oringe	OPT_IN0	Opto input 0
11	Blue	OPT_OUT0	Opto output 0
12	Brown	OPT_OUT1	Opto output 1

7000 Series Code Reader

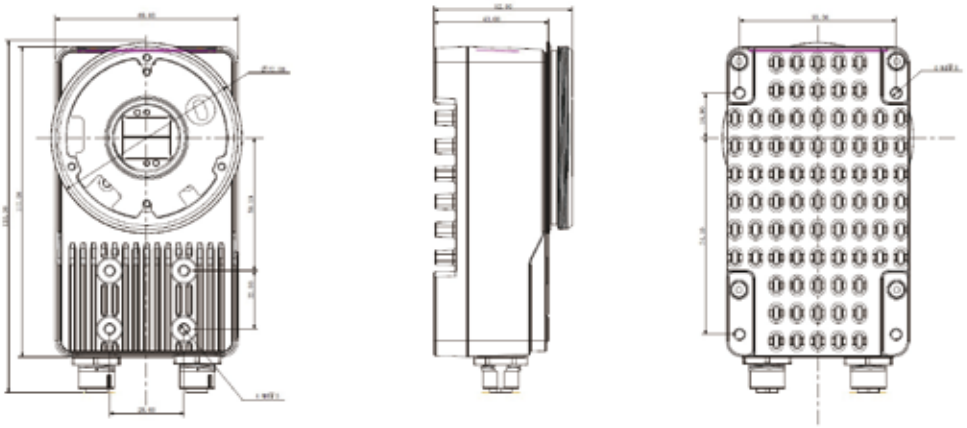
High-rate decoding, Large FOV

- Built-in deep learning algorithm, efficient and powerful algorithm performances
- Support software trigger/hardware trigger/free run mode etc.
- Support RS232/RS485 and 1 Opto-isolated inputs, 3 Opto-isolated outputs
- Industrial-grade M12 Connector, IP67 protection level with lens cover
- Support DC 24V power supply
- Up to 96 pcs of barcodes can be decoded in one FOV

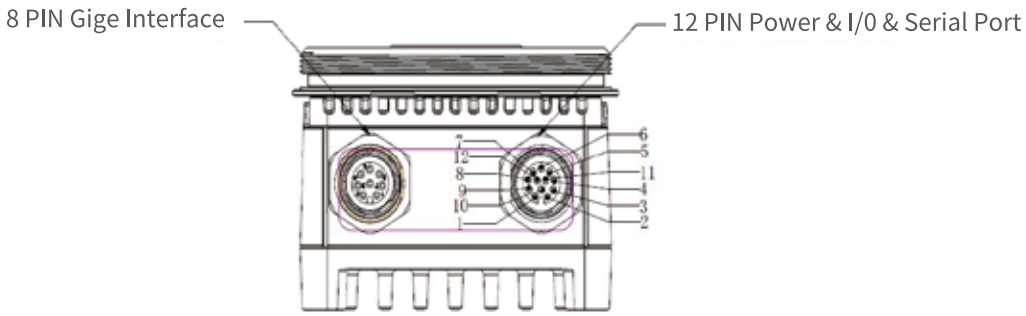
Model	Sensor	Type	Shutter	Resolution	FPS	Port	M/C	Pixel size	Size
R7200MG-00C-NGG01E	IMX183	Global	Rolling	5440 x 3648	15	C-mount	Mono	2.4 x 2.4	1"

Model	R7200MG-00C-NGG01E
Resolution	20MP
RAM	4GB DDR4
ROM	4GB NAND
Trigger Mode	Software trigger/external trigger/free run multi-mode
Connector	2 industrial M12 connector, Ethernet & GPIO port
Net Port	Code-A, GigE
GPIO	12pin IO, RS232/485, 3 Opto inputs, 3 Opto outputs
Serial	RS232/485(optional)
LED Indicators	System,Network, Trigger
Lens Type	C-mount & M12-mount(optional)
Power Supply	DC24V input, suitable for industrial environment
Power Consumption	<8.0W@DC24V(light not included)
Dimension	117mm x 69mm x 43mm(not including connector)
Weight	<550g
Temperature	Working Temperature -20°C～+50°C, Storage Temperature -30°C～+70°C
Humidity	20%～95%, no condensation
Software	EasyID
Protection Level	IP67(with lens cover)
Certification	CE/FCC
Decoding	1D: Code128/Code39/Code93/EAN etc.; 2D: QR/DM/DPM

Structure(unit:mm)



I/O Connector



Pin	Signal	Description
1	OPT_IN1	Opto input 1
2	OPT_IN2	Opto input 2
3	OPT_OUT1	Opto output 1
4	OPT_OUT2	Opto output 2
5	RXD_RS232	Serial revceive
6	OPT_IN_GND	Opto input GND
7	Power	Power
8	Power Ground	Power GND
9	OPT_OUT_GND	Opto output GND
10	OPT_IN0	Opto input 0
11	OPT_OUT0	Opto output 0
12	TXD_RS232	Serial send

AMR Code Reader

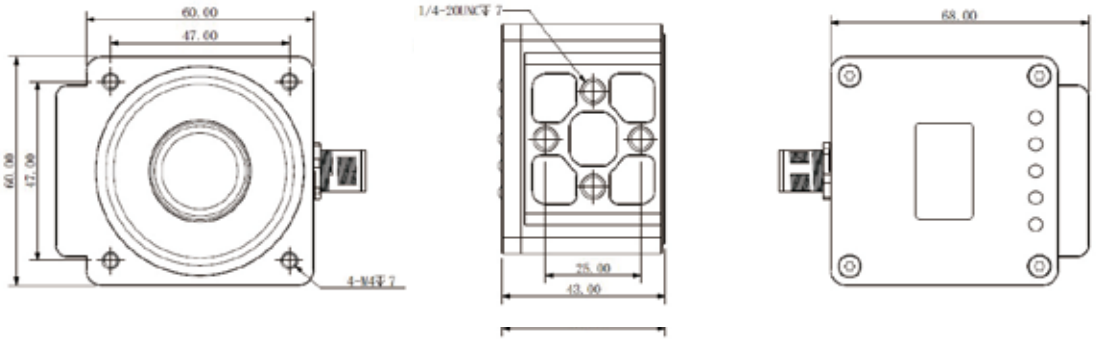
Efficient code reading performance & High frame rate

- Efficient code reading performance & High frame rate
- Embedded code reading algorithm perform with high decoding rate and high accuracy
- Support 2D code including DM-12&DM-14 etc.
- Embedded aviation plug, abundant I/O interfaces
- 5 LED indicators for debugging and status monitoring
- Support multiple UserSets to save/load or switch
- M12 lens helps code reading in large FOV
- Excellent built-in illumination design enables uniformed lighting environment

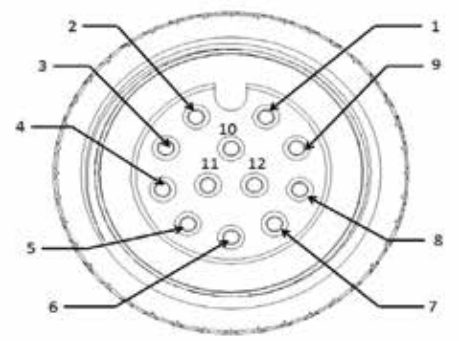
Model	Shutter	Resolution	FPS	Interface	M/C	Pixel size	Size
R3138MG010E	Global	1280×1080	100	M12	Mono	2.7 x 2.7	1/4"

Model	R3138MG010E
Trigger Mode	Free run
Focal	3.37mm
Working Distance	100mm±20mm
Field of View	110mm x95mm
Field of Angle	60°x45°
Max. Moving Speed	3m/s
Connector	1 industrial M12 connector, Ethernet & GPIO port
Net Port	100 Ethernet
Communication Port	100 Ethernet, RS485
Protocols	SDK, Serial, TCPServer, TCPClient
LED Indicators	Power, network, trigger, status
Power Supply	DC24V±10%
Power Consumption	Strobe off: 2.65W@24VDC/ Strobe on：3.2W@24VDC/Strobe constant：5.4W@24VDC
Dimension	60mm x 60mm x 43mm (without connector)
Package Size	164mm x 122mm x 91mm
Net Weight	<225g
Gross Weight	<350g
Protection Level	IP64
Cover Material	Aluminum alloy
Operation Temperature	-20°C ~+50°C
Operation Humidity	20%~95%, no condensation
Storage Temperature	-30°C ~+80°C
Software	SVStudio
Certification	CE, FCC

Structure(unit:mm)



I/O Connector



Pin	Signal	Description
1	DC24V	DC power
2	GND	Power GND
3	OPTO_OUT	Opto output
4	OUT_COM	Opto output GND
5	OPTO_IN	Opto input
6	IN_COM	Opto input GND
7	MDI1+	Ethernet signal MDI1+
8	MDI1-	Ethernet signal MDI1-
9	MDI0+	Ethernet signal MDI0+
10	MDI0-	Ethernet signal MDI0-
11	RS485+/CAN+	RS485 + / CAN+
12	RS485-/CAN-	RS485 - / CAN -

X86 Smart Cameras

High expensibility & practical performance

- Support Win10 OS, support secondary development
- Support VGA/USB interface and extended keyboard/mouse connection
- CMOS series product covering 1.3MP~20.0MP resolution
- 4G RAM& 64G SSD
- Support software trigger/hardware trigger/free run mode
- Support RS232 or RS485, 3 Opto-isolated inputs and 3 Opto-isolated outputs
- Support C mount and optional built-in illumination
- Industrial-grade M12 connector, IP67 protection level
- DC 12~26V wide range of power supply which is suitable for DC12V/24V industrial environment
- Embedded iRAYPLE self-developed algorithm platform to support different application scenarios

Model	Resolution	FPS	Interface	Sensor					Dimension (mm)	Recommended lens
				Type	Pixel size (μm)	Size	Shutter	Mono /Color		
SI5131MG002E	1280X1024	190	GigE	CMOS	4.8X4.8	1/2"	Global	M	62X69X132.2	A9-6M
SI5201MG002E	1920X1200	150	GigE	CMOS	4.8X4.8	2/3"	Global	M	62X69X132.2	MK-M
SI5501MG002E	2592X2046	20	GigE	CMOS	4.8X4.8	1"	Global	M	62X69X132.2	MH-X
SI5500MG002E	2448X2048	35	GigE	CMOS	3.45X3.45	2/3"	Global	M	62X69X132.2	MK-M
SI5600MG002E	3072X2048	30	GigE	CMOS	2.4X2.4	1/1.8"	Rolling	M	62X69X132.2	A9-6M
SI5A20MG002E	4000X3000	20	GigE	CMOS	1.85X1.85	1/1.7"	Rolling	M	62X69X132.2	MK-M
SI5B00MG002E	5472X3648	21	GigE	CMOS	2.4X2.4	1"	Rolling	M	62X69X1322	MT-X

3D Industrial Camera Series

Large FOV & High speed

- Pre-calibration during production and support high speed output 3D measurement in mm-level
- Configurable working distance and FOV
- Integrated with 3D calibration kits
- Maximum scale: 1000mmx1000mmx2000mm(WxHxL)
- High accurate 3D measurement: 5mmx5mmx5mm
- Output point cloud image and volume measurement data
- Abundant interfaces including GigE/Input&Output/Encoder
- Industrial level M12 connector，IP65 protection level
- Support wide-range power supply
- Directly output volume data without PC

Model	Near FOV (mm)	Far Fov (mm)	Z-Precision (mm^3)	Working distance (mm)	Scale (mm)	Laser grade	Dimension (mm)
D5201MG100E	1000	2200	1m@±2mm	1000 ~1800	1000	CLASS 1	370x65.6x150

3D Stereo Camera

Built-in algorithm, excellent performance

13

- Built-in high-precision measurement algorithm, high measurement accuracy
- Small installation space, highly integrated, cost-effective
- Uniform and reliable speckle laser module
- Superior optical filter design, strong resistance to ambient light
- Built-in aviation plug, abundant I/O interfaces
- 4 indicator lights for debugging and status monitoring
- Industrial level M12 connector, IP65 protection level
- Support multi-camera cascade

Model	Near FOV (mm)	Far Fov (mm)	Z-Precision (mm^3)	Working distance (mm)	Laser grade	Interface
*DS5131MG30CE	590 ×540	3880×3960	1m@±2mm	600 ~3500	CLASS 1	GigE

Note: Models with symbol “*” are latest released products

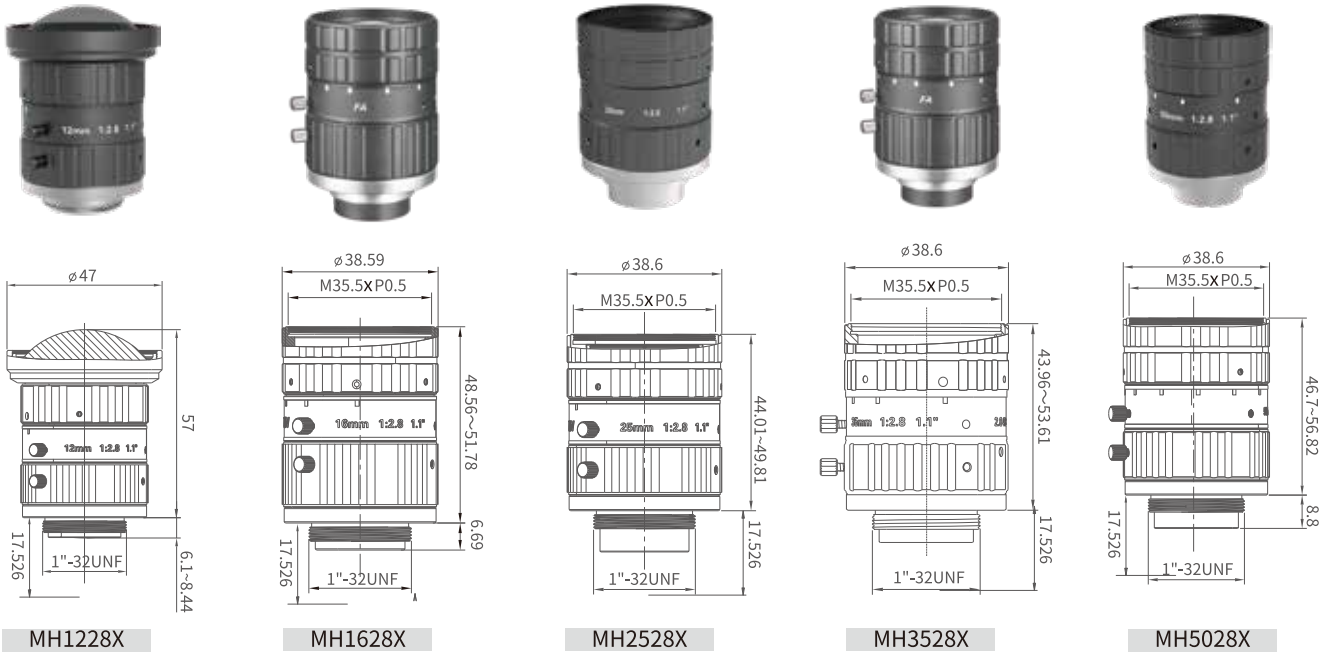
3D Stereo Camera

Built-in algorithm, excellent performance

	Specification
Near FOV	590mmx540mm
Far FOV	3880 mm x 3960 mm
Working Distance	600mm-3500mm
Z Precision	1m@±2mm
Data Format	Color images, Depth map, Point cloud, Dimension
Laser Type	Speckle laser module
Laser Grade	CLASS 1
Connector	2 industrial M12 connector, Ethernet, GPIO port
Net Port	Code-A, GigE
GPIO	2 Opto outputs
Communication Port	Ethernet
Protocols	SDK, Serial, TCP Server, TCP Client
LED Indicators	Power, Ethernet, Trigger, Laser
Power Supply	DC12V～24V wide range power supply, meet DC 12V/24V application
Power Consumption	<10.0W
Dimension	150 mmX 120 mm X50.5 mm (connector not included)
Package Size	369 mm x 257 mm x 148 mm
Net Weight	<1500g
Gross Weight	<3200g
Protection Level	IP65
Cover Material	Aluminum alloy
Operation Temperature	-20°C~+50°C
Operation Humidity	20%～95% non condensation
Storage Temperature	-30°C ～+80°C
Software	SCV
Certification	CE, FCC

MH-X series （1.1''12MP）

- Support up to 1.1 " camera sensors , (Φ17.6mm) ;
- 5 models , focal length covering from 12mm to 50mm ;
- High resolution for 12 MP camera in full of view , matching 3.45μm pixel size ;
- Ultra low distorion , TV distortion less than 0.5% ;
- Stable sharpness quality when temperature varies from -20°C ~ 50°C ;

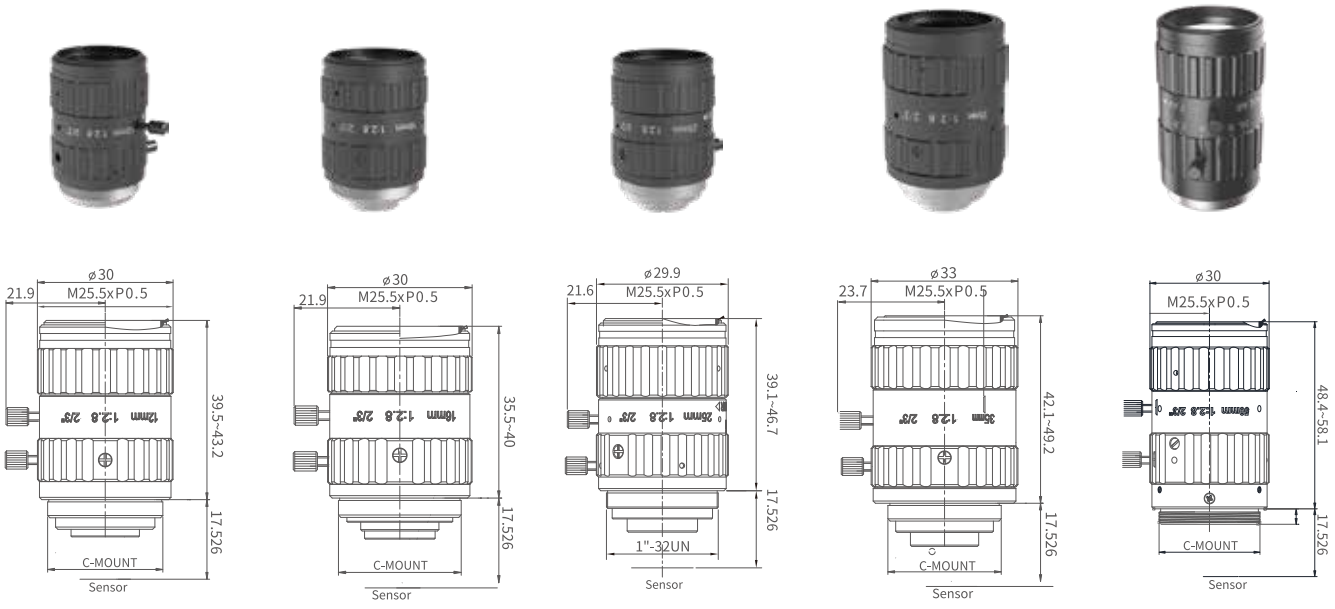


MH1228X　MH1628X　MH2528X　MH3528X　MH5028X

Model		MH1228X	MH1628X	MH2528X	MH3528X	MH5028X
Focal Length		12.4mm	16mm	25mm	35mm	50mm
Image Circle		Φ17.6mm	Φ17.6mm	Φ17.6mm	Φ17.6mm	Φ17.6mm
F#		F2.8- F16	F2.8 - 16	F2.8 - F16	F2.8 - 16	F2.8 - F16
Angle of View	1.1''(14.08mmx10.56mm)	70.5°x59.8°x46.3°	57.8°x47.6°x36.5°	37.3°x30.4°x23°	26.7°x21.4°x15.9°	18.4°x14.8°x11.2°
	1''(12.44mmx9.83mm)	65.7°x53.5°x43.3°	52.8°x42.5°x34.1°	33.9°x26.9°x21.4°	24.1°x18.9°x15.1°	16.7°x13.2°x10.5°
Working Distance		0.1m to inf	0.1m to inf	0.15m to inf	0.2m to inf	0.3m to inf
TV Distortion		- 0.22%	- 0.18%	- 0.20%	- 0.02%	- 0.02%
Relative Illumination	Aperture	65%	70%	60%	80%	70%
	F4.0	81%	80%	90%	90%	95%
Mount		C- Mount	C- Mount	C- Mount	C- Mount	C- Mount
Dimensions		56.99mmxΦ47mm	51.78mmxΦ38.59mm	49.81mmxΦ38.6mm	53.61mmxΦ38.6mm	56.82mmxΦ38.6mm
Filter Thread		No	M35.5xP0.5	M35.5xP0.5	M35.5xP0.5	M35.5xP0.5
Weight		186g	180g	133g	136g	134g
Working Temperature		-20°C～50°C	-20°C～50°C	-20°C～50°C	- 20°C～50°C	-20°C～50°C

MK-M series (2/3''10MP)

- Support up to 2/3 " camera sensors ;
- High resolution for 10 MP camera in full of view ;
- Ultra low distorion ;
- Small size structure suitable for system integration and installation ;
- Stable sharpness quality when temperature varies from -20°C ~ 50°C ;

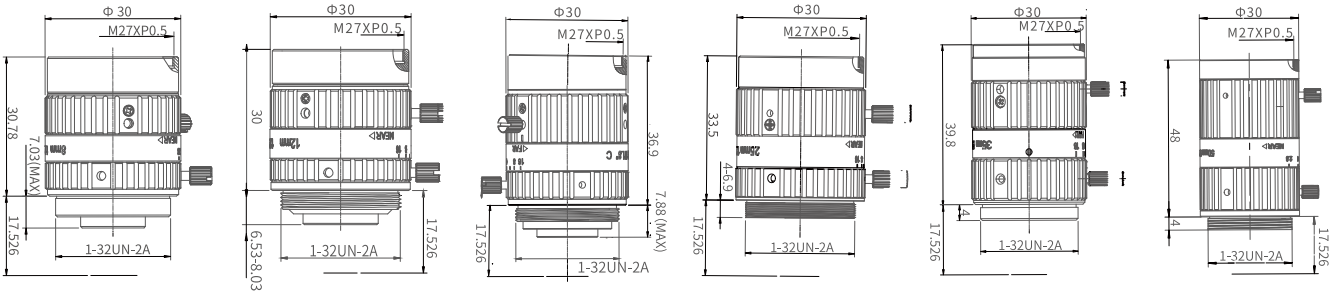


MK1228M | MK1628M | MK2528M | MK3528M | MK5028M

Model		MK1228M	MK1628M	MK2528M	MK3528M	MK5028M
Focal Length		12mm	16mm	25mm	35mm	50mm
Image Circle		Φ11.4mm	Φ11.4mm	Φ11.4mm	Φ11.4mm	Φ11.4mm
F#		F2.8 - 16	F2.8 - 16	F2.8 - 16	F2.8 - 16	F2.8 - 16
Angle of View	2/3''Φ11mm)	49.2°x40.2°x30.8°	37.9°x30.8°x23.3°	24.8°x20.0°x15.0°	17.9°x14.3°x10.8°	11.01°x8.5°x6.4°
	1/2''(Φ8mm)	36.9°x29.9°x22.6°	31.2°x25.3°x18.9°	18.2°x14.6°xx11.0°	13.0°x10.4°x7.8°	7.8°x6.4°x4.3°
Working Distance		0.1m to inf	0.1m to inf	0.15m to inf	0.2m to inf	0.2m to inf
TV Distortion		- 0.20%	- 0.20%	- 0.30%	0.07%	-0.08%
Relative Illumination	F2.8	64%	63%	75%	73%	89%
	F4.0	84%	88%	95%	96%	97%
Mount		C- Mount	C- Mount	C- Mount	C- Mount	C- Mount
Dimensions		43.2mmxΦ30mm	40mmxΦ30mm	46.7mmxΦ30mm	49.2mmxΦ33mm	60mmxΦ30mm
Filter Thread		M25.5xP0.5	M25.5xP0.5	M25.5xP0.5	M25.5xP0.5	M25.5xP0.5
Weight		70g	58g	66g	99g	98g
Working Temperature		- 20°C～50°C	- 20°C～50°C	- 20°C～50°C	- 20°C～50°C	- 20°C～50°C

A9- 6MP Series (1/1.8'' 6MP)

- Support up to 1/1.8'' camera sensors
- 6 models, focal lens covering from8mm-50mm
- Ultra high resolution for full 6MP camera in full of view, matching 2.4μm pixel size
- Ultra low distortion, chromatic color aberration design
- Compact design, easy for integration and installation
- Stable sharpness quality when temperature varies from -20° C ~ 50°C

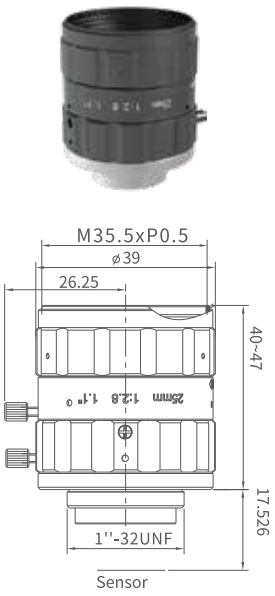


A9-0828-6MP | A9-1228-6MP | A9-1628-6MP | A9-2528-6MP | A9-3528-6MP | A9-5028-6MP

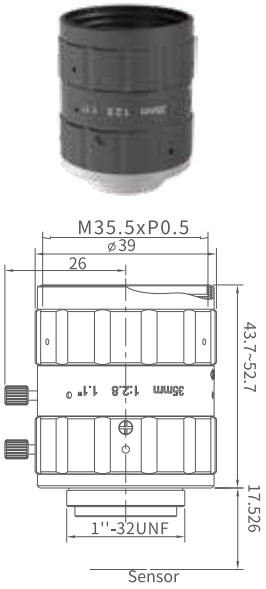
Model		A9-0828-6MP	A9-1228-6MP	A9-1628-6MP	A9-2528-6MP	A9-3528-6MP	A9-5028-6MP
Effective Length		8mm	12mm	16mm	25mm	35mm	50mm
Image Circle		Φ9.4mm	Φ9.4mm	Φ9.4mm	Φ9.4mm	Φ9.4mm	Φ9.4mm
No.		F2.8 - 16	F2.8 - 16	F2.8 - 16	F2.8 - 16	F2.8 - 16	F2.8 - 16
Angle of View	1/1.8''(7.37x4.9mm)	58.94°x50.37°x34.81°	42.9°x35.5°x23.7°	31.3°x25.9°x17.2°	20.7°x17.25°x11.55°	15.2°x12.6°x8.3°	10.05°x8.37°x5.58°
	1/2''(6.4mmx4.8mm)	54.06°x44.4°x34.04°	37.13°x30.08°x22.8°	28.05°x22.6°x17.05°	18.7°x15°x11.28°	13.46°x10.78°x8.1°	9.07°x7.27°x5.45°
Working Distance		0.1m to inf	0.1m to inf	0.1m to inf	0.15m to inf	0.2m to inf	0.25m to inf
OP Distortion		- 0.28%	- 0.10%	-0.08%	-0.02%	-0.10%	0.12%
Relative Illumination	F2.8	80%	78%	85%	92%	95%	90%
	F4.0	90%	92%	95%	92%	95%	95%
Mount		C- Mount	C- Mount	C- Mount	C- Mount	C- Mount	C- Mount
Dimensions		35.4mm×Φ30mm	30mm×Φ30mm	36.9mm×Φ30mm	33.5xΦ30mm	39.8 x Φ30mm	48mm×Φ30mm
Filter Thread		M27×P0.5	M27×P0.5	M27×P0.5	M27×P0.5	M27×P0.5	M27×P0.5
Weight		45g	48g	56g	47g	60g	67g
Working Temperature		- 20°C~50°C	- 20°C~50°C	- 20°C~50°C	- 20°C~50°C	- 20°C~50°C	- 20°C~50°C

MT- X series（1.1''20MP）

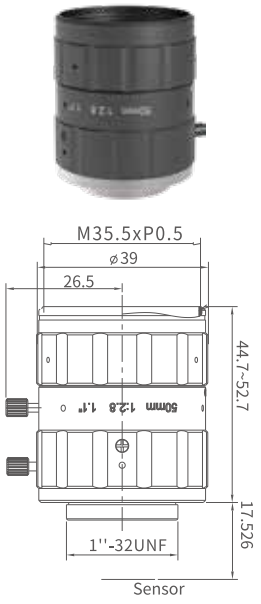
- Support up to 1.1 " camera sensors (Φ17.6mm);
- High resolution for 20 MP camera in full of view , matching 2.4μm pixel size ;
- Ultra low distorion , TV distortion less than 0.1% ;
- Stable sharpness quality when temperature varies from -20°C ~ 50°C ;



MT2528X



MT3528X

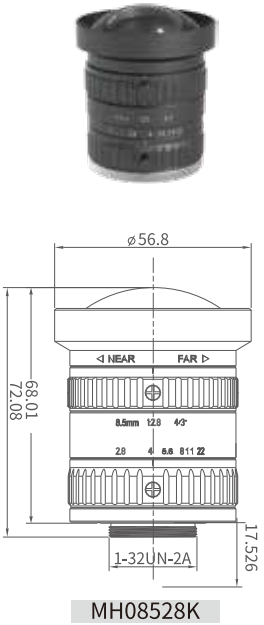


MT5028X

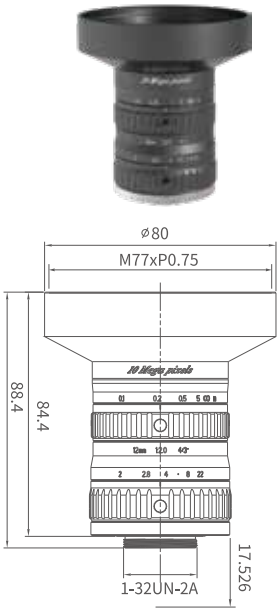
Model		MT2528X	MT3528X	MT5028X
Focal Length		25mm	35mm	50mm
Image Circle		Φ17.6mm	Φ17.6mm	Φ17.6mm
F#		F2.8 - F16	F2.8 - 16	F2.8 - F16
Angle of View	1.1''(14.08mmx10.56mm)	38.8°x34.7°x23.5°	28.2°x22.9°x16.9°	20.0°x16.2°x11.9°
	1''(12.44mmx9.83mm)	35.5°x28.7°x21.7°	25.8°x20.7°x15.6°	18.2°x14.6°x11.0°
Working Distance		0.15m to inf	0.2m to inf	0.25m to inf
TV Distortion		- 0.02%	- 0.07%	0.07%
Relative Illumination	F2.8	82%	93%	92%
	F4.0	82%	92%	98%
Mount		C- Mount	C- Mount	C- Mount
Dimension		47mmxΦ39mm	52.7mmxΦ39mm	52.7mmxΦ39mm
Filter Thread		M35.5xP0.5	M35.5xP0.5	M35.5xP0.5
Weight		124g	125g	117g
Working Temperature		- 20℃～50℃	- 20℃～50℃	- 20℃～50℃

MH-K series（4/3''10MP）

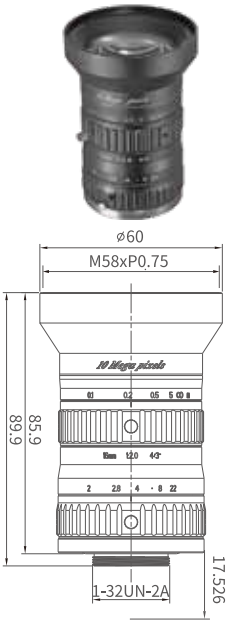
- Support up to 4/3 " camera sensors;
- 6 models , focal length covering from 8.5mm to 50mm ;
- High resolution for 10 MP camera in full of view , matching 4.5μm pixel size ;
- Low distorion , F2.0 large aperture ;
- Stable sharpness quality when temperature varies from -20°C ~ 50°C ;



MH08528K

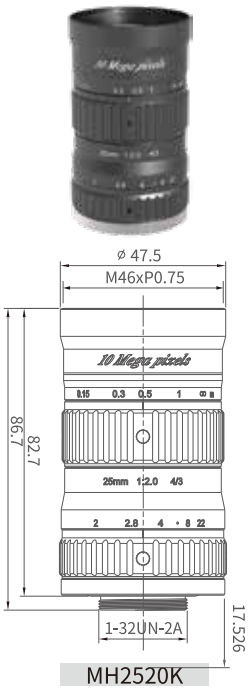


MH1220K

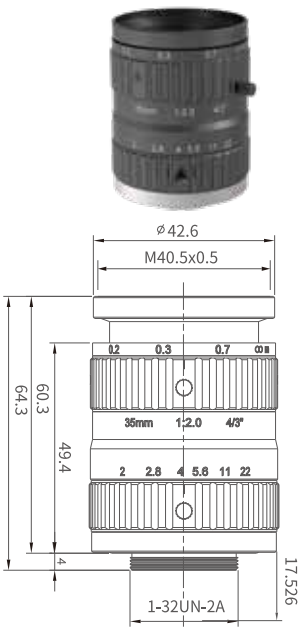


MH1620K

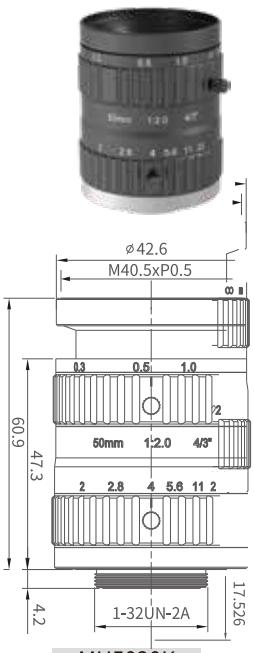
Model		MH08528K	MH1220K	MH1620K
Focal Length		8.5mm	12mm	16mm
Image Circle		Φ23mm	Φ23mm	Φ23mm
F#		F2.8 - F22	F2.0 - F22	F2.0 - F22
Angle of View	4/3''(Φ23mm)	107.4°x94.9°x80.1°	89.0°x75.5°x61.1°	72.9°x60.9°x47.3°
	1''(Φ16mm)	86.6°x73.6°x58.1°	68.9°x57.3°x44.2°	54°x44.2°x33.6°
Working Distance		0.5m to inf	0.15m to inf	0.1m to inf
TV Distortion		-0.94%	0.04%	-1.27%
Relative Illumination	Aperture	38%	43%	43%
	F4.0	43%	71%	75%
Mount		C- Mount	C- Mount	C- Mount
Dimensions		72.1mmxΦ56.8mm	84.4mm x Φ80mm	85.9mm x Φ60mm
Filter Thread		No	M77xP0.75	M58xP0.75
Weight		317g	447g	338g
Working Temperature		- 20℃～50℃	- 20℃～50℃	- 20℃～50℃



MH2520K



MH3520K

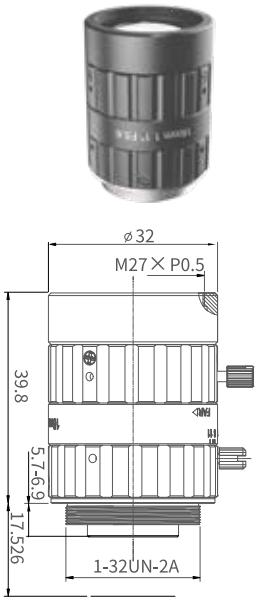


MH5020K

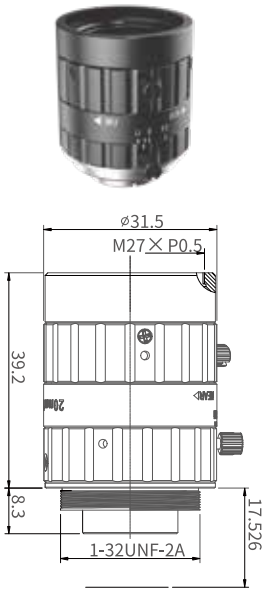
Model		MH2520K	MH3520K	MH5020K
Focal Length		25mm	35mm	50mm
Image Circle		Φ23mm	Φ23mm	Φ23mm
F#		F2.0 - F22	F2.0 - F22	F2.0 - F22
Angle of View	4/3''(Φ23mm)	49.7°x40.6°x31°	36.6°x29.6°x22.4°	25.9°x20.9°x15.7°
	1''(Φ16mm)	35.7°x28.8°x21.8°	25.9°x20.8°x15.7°	18.2°x14.6°x11.0°
Working Distance		0.15m to inf	0.2m to inf	0.3m to inf
TV Distortion		-0.25%	-0.22%	-0.11%
Relative Illumination	F2.0	38%	45%	50%
	F4.0	75%	76%	90%
Mount		C- Mount	C- Mount	C- Mount
Dimensions		82.7mm x Φ47.5mm	64.3mm x Φ44.6mm	60.9mm x Φ42.6mm
Filter Thread		M46xP0.75	M40.5 x P0.5	M40.5xP0.5
Weight		251g	173g	170g
Working Temperature		- 20℃～50℃	- 20℃～50℃	- 20℃～50℃

Industry lenses

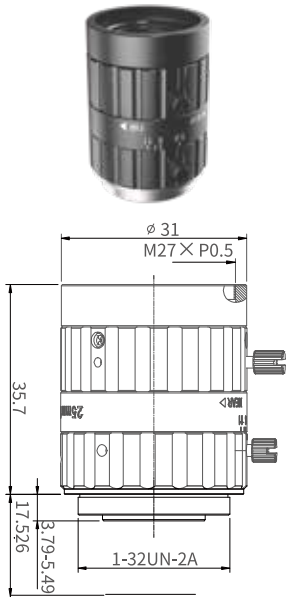
- Customized lens for code reading in logistics, cost effective
- High resolution , matching up to 1.85μm pixel size
- Low distorion , TV distortion less than 1%
- Small size structure suitable for system integration and installation
- Stable sharpness quality when temperature varies from -20°C ~ 50°C



MH1656XR



MH2056XR

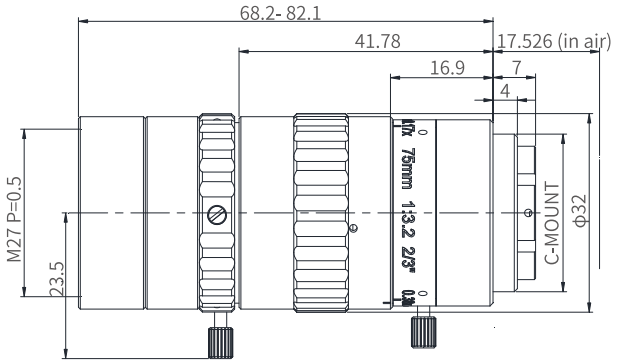


MH2556XR

Model		MH1656XR	MH2056XR	MH2556XR
Effective Length		16mm	20mm	25mm
Image Circle		1''(ϕ16)	1''(ϕ16)	1''(ϕ16)
F#		F5.6 - 11	F5.6 - 11	F5.6 - 11
Angle of View	1''(13.12mmx8.76mm)	52.5°x44.6°x30.6°	43.25°x36.3°x24.5°	34.9°x29.2°x19.6°
	2/3''(8.5mmx7.12mm)	38.94°x30.33°x25.58°	31.09°x24.07°x20.25°	25.2°x19.45°x16.34°
Working Distance		0.5m to inf	0.5m to inf	0.5m to inf
TV Distortion		-2%	-1.7%	-1.4%
Relative Illumination	F5.6	85%	85%	92%
	F8.0	86%	88%	92%
Mount		C- Mount	C- Mount	C- Mount
Dimensions		39.8 x Φ32mm	39.2 x Φ31.5mm	35.7 x Φ31mm
Filter Thread		M27×P0.5	M27×P0.5	M27×P0.5
Weight		50g	56g	60g
Working Temperature		- 20°C～50°C	- 20°C～50°C	- 20°C～50°C

MH7532M (2/3'' -75mm short WD lens)

- Support up to 2/3'' camera sensors
- Ultra high resolution, 8MP resolution in full of view, matching up to 2.4μm pixel size
- Magnification coverage 0.17~1
- Ultra low distortion, optimized chromatic aberration design
- Anti-seismic rate 3M7, meet precision position andent measurem application
- Stable sharpness quality when temperature varies from -20°C ~ 50°C

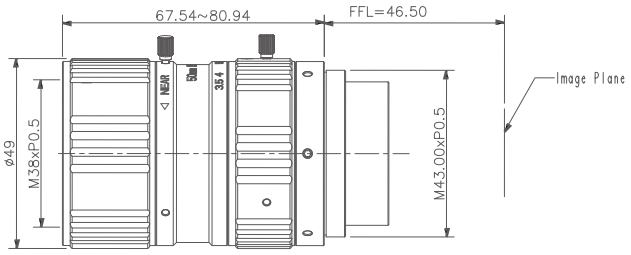


MH7532M

Model		MH7532M
Effective Length		75mm
Image Circle		Φ11.4mm(2/3")
FNo		F3.2 - F16
Angle of View	2/3", 0.18x	47.2x39.4mm
	2/3", 0.38x	22.4x18.6mm
Working Distance		0.15m to 0.5m
TV Distortion		0.07%
Relative Illumination	F3.2	85%
	F4.0	95%
Mount		C-Mount
Dimensions		82.1mm×Φ32mm
Filter Thread		M27×P0.5
Weight		120g
Working Temperature		- 20°C~50°C

31 MP full frame

- Support up to Φ32mm camera sensors ;
- Ultra-high resolution , full-frame resolution of 31 MP camera , matching 3.45μm pixel size ;
- Ultra low distorion , TV distortion less than 0.1% ;
- Stable sharpness quality when temperature varies from -20°C ~ 50°C ;

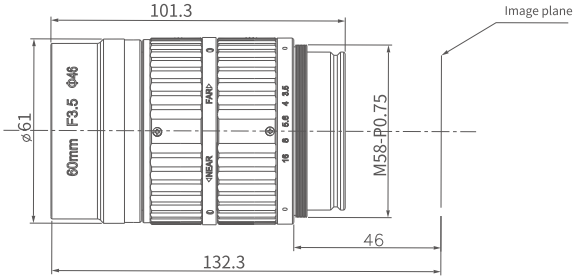


F32-5035-M43

Model		F32-5035-M43
Focal Length		50mm
Image Circle		2'' (Φ32mm)
F#		F3.5 - F11
Angle of View	2''(Φ32mm)	34.5°x28.4°x22.1°
	Φ28.6mm(4K- 7um)	30.8°
FBL		46.5mm
Working Distance		0.2m to inf
TV Distortion		0.07%
Relative Illumination	F3.5	58%
	F4.0	63%
Mount		M43xP0.5
Dimensions		80.94mmxΦ49mm
Filter Thread		M38xP0.5
Weight		406g
Working Temperature		- 20℃～50℃

65 MP full frame

- Support up to Φ46mm camera sensors ;
- Ultra-high resolution , full-frame resolution of 65 MP camera , matching 3.2μm pixel size ;
- Ultra low distorion , TV distortion less than 0.1% ;
- Stable sharpness quality when temperature varies from -20°C ~ 50°C ;



F46-6035-M58

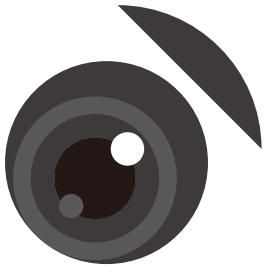
Model		F46-6035-M58
Focal Length		60mm
Image Circle		Φ46mm
F#		F3.5 - F16
Angle of View	Φ46mm	34.9°x26.7°x23.1°
	Φ34.7mm (65MP)	28.4°x21.9°x18.8°
FBL		46mm
Working Distance		0.32m to inf
TV Distortion		- 0.03%
Relative Illumination	F3.5	62%
Mount		M58xP0.75
Dimensions		101.3mmxΦ61mm
Filter Thread		No
Weight		503g
Working Temperature		- 20°C～50°C

Line Scan Series Lens

- Support up to ϕ32、ϕ60 camera sensors
- Various magnification lens are available
- Match 4K/8K/16K line scan cameras
- Low distortion design

Focal	Magnification	Iris	Mount	Sensor Size	Match Camera
20mm	0.02~0.1x	F4.5-C	M42	ϕ30mm	
25mm	0.03-0.2x	F2.8-16	M42	ϕ30mm	2K-14um 4K-7um line scan
28mm	0.05-0.3X	F4.0-C	M42	ϕ30mm	
35mm	0.01-0.5X	F4.0-16	M42	ϕ30mm	
40mm	0.04-0.33X	F2.8-11	M42	ϕ43mm	
50mm	0-0.25X	F3.5-11	M43	ϕ32mm	
80mm	0.04-0.33X	F4.0-22	M42	ϕ80mm	
40mm	0.02-0.16X	F4.0-22	M72	ϕ60mm	
60mm	0-0.07X	F5.6	F	ϕ60mm	
60mm	0.04-0.33X	F4.0-32	M72	ϕ60mm	8K-7um line scar
80mm	0.04-0.33X	F4.0-22	M72	ϕ80mm	
90mm	0.08-0.14X	F4.0-16	M72	ϕ64mm	
95mm	0.03-0.08X	F4.0-16	M72	ϕ62mm	
116mm	0.31-0.36X	F4.2-16	M72	ϕ60mm	8K/16K line scan
116mm	0.46-0.54X	F3.8-16	M72	ϕ60mm	
116mm	0.66-0.75X	F3.8-16	M72	ϕ60mm	

iRAYPLE Camera SDK



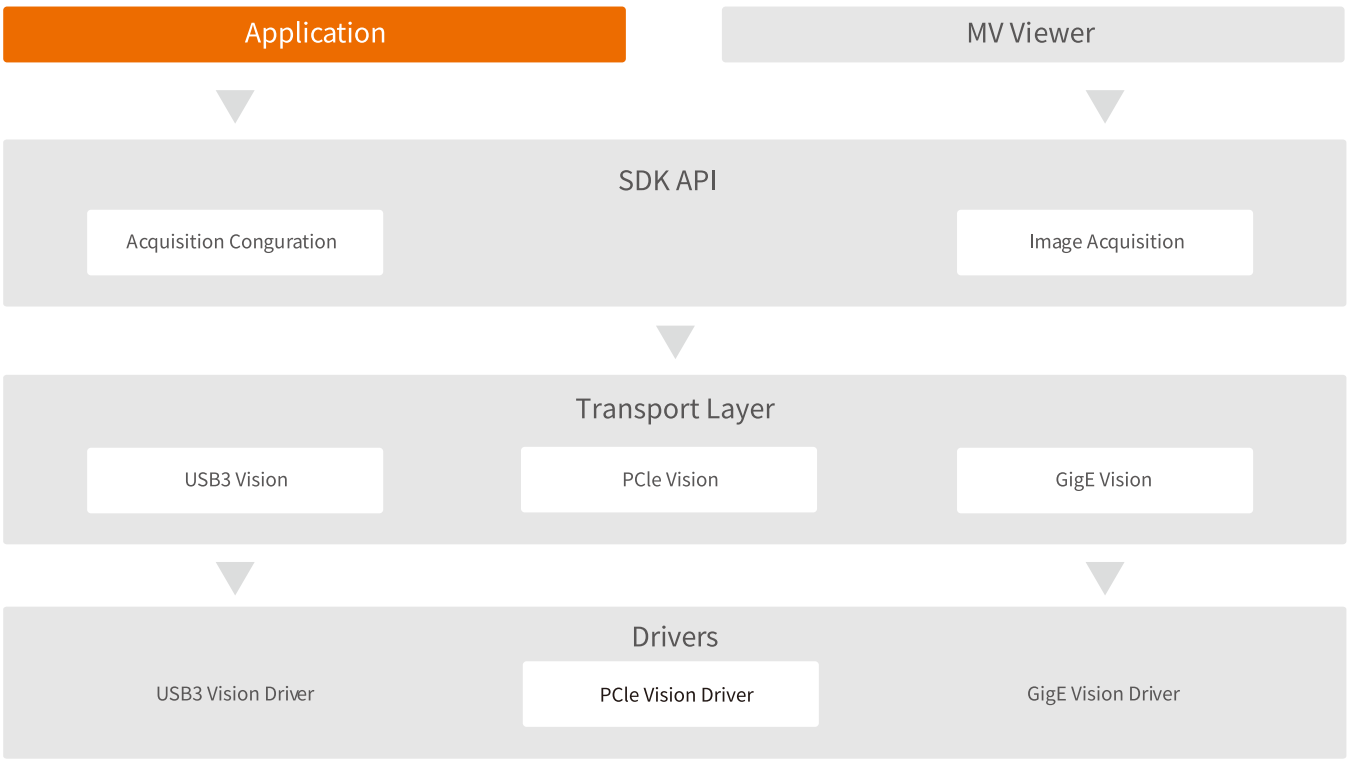
MACHINE VISION

- iRAYPLE SDK fully conforms to GenICam standards
- Transport layer is provided in manner of plug-ins, which is not visible to the applications, and more scalable
- Adequate API interfaces support secondary development with high efficiency
- Support Halcon, Sherlock, Labview and some other 3rd-party platforms
- GigE Vision high-performance driver improves the capability of integrating and processing of image data packet while reducing the CPU usage of computer
- USB3 Vision driver supports USB3.0 Vision standards, and enables high-speed image data transmission at USB3.0 bandwidth
- Users can use the MV Viewer to configure the camera parameters, grab, display and save the images

Camera Software Development Kit supports all iRAYPLE Area/Line Scan Industrial Cameras. It enables achieving stable and reliable data exchange between the industrial camera and computer, facilitating rapid secondary development for users.

iRAYPLE SDK supports Windows/Linux 32bit/64bit platforms and includes the following modules:

- GigE Vision high-performance driver;
- USB3 Vision high-performance driver;
- SDK(Support C, C++, C#, VB.NET, Python, Delphi, Java and etc)
- MV Viewer



MAKE FACTORY SMARTER

※ This manual will provide accurate information as far as possible, but there may still be errors,for reference only.
Product information is subject to update without prior notice, and our company is not responsible for the resulting liability.

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