

Non Distortion Lens

- High definition, low distortion lens (<-4%)
- High resolution compatible with 2 -10 Mega-pixel cameras ,designed for 1/4~4/3 format sensors.
- Broad band confocal design suitable for both Visible and NIR applications
- Compact design ideal for integration
- Suitable for face/eyes recognition ,barcode scanner, 3D.Tracking,sorting inspection applications



Model No.	M43B2560M14	N118B04518IRM12	N118B05518IR	N118B0818IRM12	N12B03524IRM12	N123B02723M12	N123B05425IRR1	N123B07224IRM12
Image Size (inch)	4/3"	1/1.8"	1/1.8"	1/1.8"	1/2"	1/2.3"	1/2.3"	1/2.3"
Focal Length (mm)	25	4.5	5.5	8	3.5	2.7	5.4	7.2
Optical Distortion	-2.0%	-2.8%	-2.2%	-2.0%	-2.0%	-2.0%	-2.0%	-1.5%
Aperture Ratio	1:6.0	1:1.8	1:1.8	1:1.8	1:2.4	1:2.3	1:2.5	1:2.4
Mount	M14 x 0.5	M12 x 0.5	M12 x 0.5	M12 x 0.5	M12 x 0.5	M12 x 0.5	M12 x 0.5	M12 x 0.5
4/3"	40.7							
1"	29.3							
Horizontal	16.5	78	64.5	47	91.2	18x23.8		
Angle of	1/2"	72	59.3	45.5	87			
View (")	1/2.3"	70.2	57.5	45.6	82.8	95	60	47.2
1/2.5"		66.5	55.3	42.8	78.8	91	56	44.6
1/3"		57.1	47	36.1	68.7	79.5	48	37.6
Back Focal Length (mm)	28.03	6.4	6.87	7.1	6.29	3.81	6.6	7.23
Dimensions (ΦxL)mm	15 x 17.08	26 x 25	24 x 23.3	22 x 28.02	30 x 31.46	19 x 22	14 x 18.74	19 x 26.14
Iris	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
Weight (g)			15.7				6.5	12.6

Model No.	N125B03518IR	N125B04518IR	N125F06218IR	M125B07528WASGM8	N13B03516IRM12	N13B04516IR	N13B0620IR	N14B0228IRM12
Image Size (inch)	1/2.5"	1/2.5"	1/2.5"	1/2.5"	1/3"	1/3"	1/3"	1/4"
Focal Length (mm)	3.5	4.5	6.2	7.5	3.5	4.5	6	2
Optical Distortion	-1.5%	-1.9%	-1.0%	-1.7%	-2.2%	-1.9%	-2.5%	-3.2%
Aperture Ratio	1:1.8	1:1.8	1:1.8	1:2.8	1:1.6	1:1.6	1:2.0	1:2.8
Mount	M12 x 0.5	M12 x 0.5	C5	M8 x 0.35	M12 x 0.5	M12 x 0.5	M12 x 0.5	M12 x 0.5
Horizontal	1/2.5"	84	66	47	40.6			
Angle of	1/3"	68	57	41	34.7	68	57	50
View (")	1/4"							83.1
Back Focal Length (mm)	5.99	6.14	7.02	5	5.99	6.14	6.34	3.75
Dimensions (ΦxL)mm	24 x 19	24 x 22.8	30 x 19.6	7 x 7.9	22 x 20.91	22 x 22	15 x 17	12 x 12.6
Iris	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
Weight (g)	13.5	16.1	14.4			12.7	6.1	

Machine Vision Lens

- Image format of 1/1.8", 2/3" and 1" ; focal length from 6mm to 75mm
- High resolution of 3-5 mega-pixel
- Super-low distortion
- Precise iris and focus scales for adjustment
- Locking sets for focus and iris to prevent movement caused by vibration or shock



Model No.	MV118FM06CR3	MV118FM08CR3	MV23FM12CR3	MV23FM16CR1	MV23FM25CR1	MV23FM35CR1	MV23FM50CR1	MV11FM75CR1
Image Size (inch)	1/1.8"	1/1.8"	2/3"	2/3"	2/3"	2/3"	2/3"	1"
Optical Distortion	-2%	-1%	-1%	-1%	-0.50%	-0.50%	0.10%	0.20%
Focal Length (mm)	6	8	12	16	25	35	50	75
Aperture Ratio	1.6-16C	1.4-16C	1.6-16C	1.6-16C	1.8-16C	2.0-16C	2.6-15C	2.8-16C
Mount	C	C	C	C	C	C	C	C
M.O.D.	0.1	0.1	0.1	0.2	0.3	0.35	0.5	0.6
Operation	Focus Iris 1"	Manual Manual	Manual Manual	Manual Manual	Manual Manual	Manual Manual	Manual Manual	Manual Manual
FOV (HxV)	2/3"	2/3"	2/3"	2/3"	2/3"	2/3"	2/3"	2/3"
1/1.8"	60.1x46.6	46x35.5	32.2x24.4	24.5x18	15.4x11.6	11.5x8.7	7.9x5.9	5.2x3.9
1/2"	54.6x42.1	41.5x31.7	29x22	21.7x16.5	13.8x10.4	10.3x7.7	7x5.3	4.6x3.5
Back Focal Length (mm)	7.94	8.91	8.06	10.07	9.46	10.14	16.36	14.31
Filter Thread Size	34X0.5	27X0.5	27X0.5	27X0.5	27X0.5	27X0.5	30.5X0.5	34X0.5
Dimensions (ΦxL)mm	36x44.77	29x37.94	29.5X37.31	29X40.22	29X35.84	29X35.2	32.5X55.67	36x59.97
Weight (g)	104.6	90	95.3	103.6	81.6	80.2	108.6	143

ITS Lens

- Ultra-high resolution of 5 Mega-pixel
- Low distortion image quality with good corner brightness
- Large image format for ITS and standard surveillance applications
- Precise iris scales for aperture adjustment
- Popular for ANPR(LPR) applications
- Motorized Focus & Zoom(MFZ) type, manual iris and DC auto iris types for option



XX•7456X

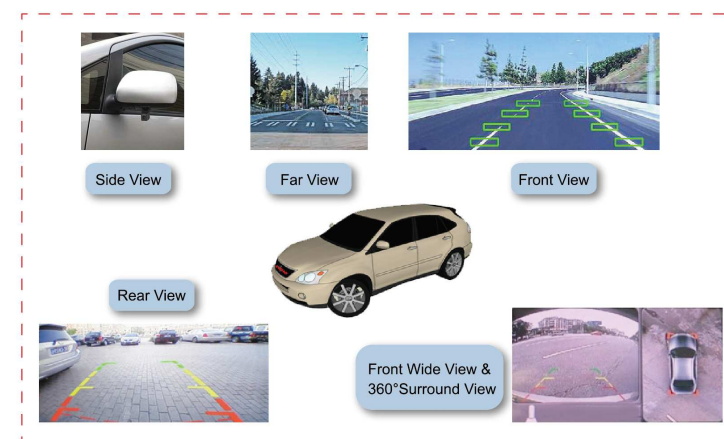
XA•BKB7X

XX•A383X

Model No.	M23FM0616IRC	M11FM0816C	M11FM1214C	M11FM1218IRC	M11FM1614C	M11FM2514C	M43FM3520C	M43FM5025C
Image Size (inch)	2/3"	1"	1"	1"	1"	1"	4/3"	4/3"
Optical Distortion	-2.9%	-3.5%	-1.7%	-1%	-1%	-1.5%	-0.5%	0.50%
Focal Length (mm)	6mm	8mm	12mm	12mm	16mm	25mm	35mm	50mm
Aperture Ratio	1:1.6	1:1.6	1:1.4	1:1.8	1:1.4	1:1.4	1:2.0	1:2.0
Mount	C	C	C	C	C	C	C	C
M.O.D.	0.25mm	0.5m	0.5m	0.25mm	0.5m	0.8m	0.8m	1.5m
Operation	Focus Manual	Manual	Manual	Manual	Manual	Manual	Manual	Manual
	Iris Manual	Manual	Manual	Manual	Manual	Manual	Manual	Manual
	4/3"							
FOV (HxV)	1"	77 × 62	56 × 43	57.3 × 44.6	44 × 33.5	29 × 21.5	20.5 × 16	14.5 × 11
	2/3"	70 × 54.8	57 × 44	40 × 30	41.2 × 31.4	31 × 23.5	20 × 15	10.1 × 7.5
	1/1.8"	59 × 45.6	47.5 × 36	33 × 25	33.9 × 25.7	25.4 × 19.2	16.4 × 12.4	8.2 × 6.1
	1/2"	53.6 × 41	42.5 × 32.5	30 × 22	30.5 × 23.1	22.8 × 17.2	14.4 × 11	7.3 × 5.5
Back Focal Length (mm)	9.27	11.79	11.2	9.61	12.03	10.76	17.35	25.16
Filter Thread Size								
Dimensions (Φ×L)mm	51 × 62.5	84 × 80.98	60 × 83.86	51 × 85.47	47 × 69.88	47 × 67.51	47 × 75.97	51.5 × 91.01
Weight (g)								

Automotive Lens

- Super wide angle ideal for surrounded view.
- Sharp image quality with IR-correction, support up to 5MP sensors.
- Compact design with aspherical technology.
- TS16949 certified.
- Various image formats, i.e., 1/4", 1/3", 1/2.7" with customized service.
- IR cut off for option



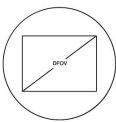
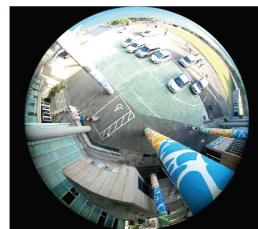
Model No.	M148019324W/M12	M148012122RM12R1	F14801271RM12	F148014231RM12	F1288012520RM12	M13802118R	M1278027221RM12	M1278028220RR1	M1278028220RM12
Image Size (inch)	1/4"	1/4"	1/4"	1/4"	1/2.8"	1/3"	1/2.7"	1/2.7"	1/2.7"
Focal Length (mm)	1.93	2.1	1.27	1.4	1.25	2.1	2.7	2.8	2.6
Aperture Ratio	2.4	2.2	2.1	2.3	2.0	1.8	2.2	2.0	2.0
TTL	14.52	13.6	16.85	11.55	11.55	24.5	14.86	22.86	20.9
Mount	M12 x 0.5	M12 x 0.5	M12 x 0.5	M12 x 0.5	M12 x 0.5	M12 x 0.5	M12 x 0.5	M12 x 0.5	M12 x 0.5
FOV (HxV)	1/2.5"								
	1/3"								
	1/4"								
Back Focal Length (mm)	117 × 81	111 × 79	185 × 155	156 × 113	171.3 × 125	96 × 71.5	78.5 × 58	73 × 54	73.5 × 55
Dimensions (Φ×L)mm	16 × 12.24	14 × 10.38	12 × 13.32	14 × 9.8	14 × 9.77	16 × 18.7	14 × 10	15.5 × 17	15 × 17.4
Water Proof	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No

Fisheye Lens

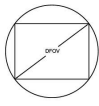
- Super-wide angle with FOV up to 202° for panoramic surveillance
- Sharp image quality for multi-mega pixels cameras
- Suitable for various imager frame
- IR cut option



Model No.	Focal Length (mm)	Image Circle (mm)	F-theta Distortion	F No.	Mount	Dimension (φ x L)	Back Focal Length (mm)	DFOV @ Image Circle	FOV (HxV)							
									1/4"	1/3.2"	1/3"	1/2.5"	1/2.3"	1/2"	1/1.8"	2/3"
F1480127IRM12	1.27	2.816	-23.70%	2.1	M12x0.5	12x13.2	3.98	185	185x155	185x185	185x185	185x185	185x185	185x185	185x185	185x185
F13280119IRR1	1.19	3.24	-5.10%	2.0	M12x0.5	25x26.2	6.44	185	185x140	185x185	185x185	185x185	185x185	185x185	185x185	185x185
F1380125IR	1.25	3.44	-12.80%	2.0	M12x0.5	25x28.6	6.44	185	185x130	185x185	185x185	185x185	185x185	185x185	185x185	185x185
F1380105IRM12	1.05	3.5	-7.71%	2.6	M12x0.5	26x21.94	3.2	202	202x149	202x197	202x202	202x202	202x202	202x202	202x202	202x202
F1288012520IRM12	1.25	3.93	-6.00%	2.0	M12x0.5	14x9.77	2.5	190	171.3x125	190x161	190x171.3	190x190	190x190	190x190	190x190	190x190
F12580158IRM12	1.58	4.1	-18.20%	2.8	M12x0.5	20x24.7	5.65	180	145x102	180x135	180x145	180x180	180x180	180x180	180x180	180x180
F12580137IR	1.37	4.15	-3.88%	2.0	M12x0.5	28x28.6	6.11	183	183x114	183x145	180x154	183x183	183x183	183x183	183x183	183x183
F14801423IRM12	1.4	4.2	-10.59%	2.3	M12x0.5	14x9.8	2.89	190	156x113	190x147	190x156	190x190	190x190	190x190	190x190	190x190
F1238015IRM12	1.5	4.3	-8.19%	2.8	M12x0.5	22.3x24	4.15	180	145x106	180x137	180x145	180x180	180x180	180x180	180x180	180x180
F12FM014IRR2	1.4	4.6	-2.60%	1.4-C	CS	44.5x47.0	6.82	182	145x109	182x137	182x145	182x170	182x182	182x182	182x182	182x182
F12380145IRM12	1.45	4.6	-4.75%	2.2	M12x0.5	26x24.5	4.62	190	145x106	190x135	190x145	190x175	190x190	190x190	190x190	190x190
F13802122IRM12	2.1	4.8	-27.89%	2.2	M12x0.5	14x10.38	3.57	184	111x79	156x104	184x111	184x142	184x160	184x184	184x184	184x184
F11880198IRM12	1.98	5.6	-14.80%	2.8	M12x0.5	26x24.28	6.21	180	102x75	122x96	142x101	180x124	180x135	180x143	180x180	180x180
F23802IRR1	2	6.7	-1.87%	2.0	M12x0.5	30.5x25.2	6.2	195	102x76	130x97	137x102	166x122	175x131	195x137	195x152	195x192
F118FM0229IR	2.29	7.19	-3.50%	1.4-C	CS	66x68.4	7.21	185	90x68	114x86	121x90	146x108	157x117	164x121	185x135	185x169



Full Frame "Overfill" (OF)



Full Frame (FF)



Full Horizontal (FH)



Partial Frame (PF)



Circular Fisheye (CF)

Model Name Coding Rule

	①	②	③	④	⑤	⑥	⑦	⑧	⑨
V13VM358	V	13	V	M	358				
V13VD2812	V	13	V	D	2812				
V13BF409	V	13	B	F	409				
V13B03620	V	13	B		036	20			
M12VM4510IR	M	12	V	M	4510		IR		
N125B03516IR	N	125	B		035	16	IR		
MZ125BP3410ICRD14	MZ	125	B	P	3410		ICR	D14	
MV118FM08C	MV	118	F	M	08			C	
P13B03718R1	P	13	B		037	18			R1

① Feature

Sign	Meaning
V	VGA Lens
M	Mega Pixel Lens
N	Non Distortion Lens
F	Fisheye Lens
MV	Machine Vision Lens
MZ	Motorized Zoom and Focus Lens
P	Pin-hole Lens
A	Accessory, glass or part
R	Other Lens

② Image Size

Sign	Meaning
14	1/4"
13	1/3"
125	1/2.5"
12	1/2"
118	1/1.8"
23	2/3"
11	1"

③ Lens Type

Sign	Meaning
V	Vari Focal
B	Board Mount
F	Fixed Focal
Z	Zoom Lens
AF	Auto Focusing

④ Iris Type

Sign	Meaning
M	Manual Iris
D	DC Drive Auto Iris
A	Video Drive Auto Iris
F	Fixed Iris Vari Focal Board Mount
P	Precision Iris

⑤ Focal Length

Fixed Focal Length

Sign	Meaning
035	3.5mm
4	4.0mm
35	35mm

Vari Focal Length

Sign	Meaning
358	3.5-8.0mm
308	3.0-8.0mm
5100	5.0-100mm

⑥ F No.

Sign	Meaning
95	F 0.95
16	F 1.6
20	F 2.0

⑦ IR Performance

Sign	Meaning
IR	IR Correction Lens
W	IR Cut Filter/Coating
ICR	IR Cut Filter Removable

⑧ Mount

Sign	Meaning
CS	CS Mount
C	C Mount
M12	M12x0.5
M14	M14x0.5
D14	φ14
D19	φ19

⑨ Additional

Sign	Meaning
R1/2	Version One/Two
ASG	Aspherical
L	LED