



**CANRILL**

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**SINCE  
2009**

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2020 V1

# SINCE 2009

## About us

Established in 2009, Canrill Optics is the first one to focus on design, manufacturing & marketing of telecentric lens in China, and the only one with complete supply chain from optical parts to mechanical parts in industry lens all over the world.

Over the years, Canrill Optics has kept upgrading with advanced technology and performance, have accumulated extensive experience in the implementation of projects, have earned the trust of customers in all regions and countries, and also high partner status in the precision machine vision industry.

Our objective is to produce the top level lens and be one of the leaders in telecentric technology.

We are on the way.



# 11

Years' R&D Experience

Since 2009 Canrill Optics have kept focusing on the research and development of telecentric solutions for various applications.

# 1

um Accuracy

Measurement accuracy as high as 1um

# 20

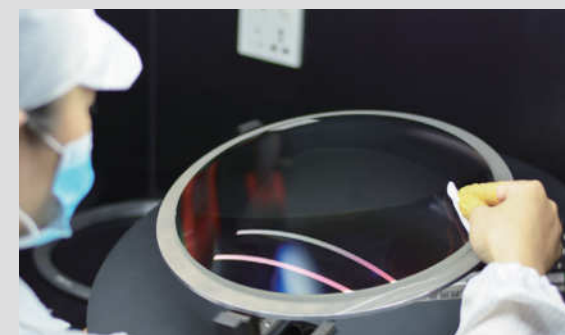
+ Senior Researchers

More than 20 senior researchers in both optical and mechanical field ensures the upgrading of new series and unmatched technical service.

# 1700

+ Models

Canrill Optics' existing product line has included more than 1700 models of telecentric lens and other lens, this number is still increasing while more customized solutions is finished.







# TELECENTRIC LENS



01

High telecentricity and little-to-no distortion for accurate measurements

02

Good consistency for better imaging performance

03

Extensive range of products covering sensor size from 4.8mm to 82mm and supporting object FOV from 0.7mm to 390mm.

04

Considerable inventory offers the quickest leading time in industry

05

Quick customization service, break the customization record by producing a new lens within 12 days from design to finished product

# P01



## 16K Line Scan(82mm)Telecentric Lens

Model	Mag (X)	WD (mm)	Object FOV (mm)	Image FOV (mm)	Telecentricity (°)	DOF (mm)	Aperture	Resolution (μm)	MTF30 (LP/mm)	Distortion (%)	Mount	O/I	Generation	8k x 5μm 40.96mm	35mm Full 36x24mm	16k x 5μm 81.92mm
XF-PTL04582-M95-12-VI	1.92	120	42.7	82	0.03	0.5@F18	F8-F111.5	6.20@F18	58@F18	0.034%	M95	604.4	IV	21.33	18.75X12.5	42.67
XF-PTL05582-M95-12-VI	1.571	138	52.2	82	0.04	0.8@F18	F8-F111.5	7.57@F18	58@F18	0.054%	M95	665.4	IV	26.07	22.92X15.28	52.15
XF-PTL06582-M95-12-VI	1.328	160	61.7	82	0.03	0.8@F13.5	F8-F111.5	6.7@F13.5	75@F13.5	0.028%	M95	703	IV	30.84	27.11X18.07	61.69
XF-PTL08082-M95-12-VI	1.08	180	75.9	82	0.03	1.2@F13.5	F8-F111	8.3@F13.5	75@F13.5	0.031%	M95	757.7	IV	37.93	33.33X22.22	75.85
XF-PTL09282-M95-12-VI	0.943	250	87.0	82	0.04	1.5@F13.5	F8-F111	9.5@F13.5	75@F13.5	0.032%	M95	852.4	IV	43.44	38.18X25.45	86.87
XF-PTL11082-M95-12-VI	0.785	250	104.5	82	0.04	2.2@F13.5	F8-F111	11.3@F13.5	75@F13.5	0.030%	M95	901.6	IV	52.18	45.86X30.57	104.36
XF-PTL12282-M95-12-VI	0.708	260	115.8	82	0.04	2.7@F13.5	F8-F111	12.6@F13.5	75@F13.5	0.035%	M95	950.3	IV	57.85	50.85X33.9	115.71
XF-PTL13782-M95-12-VI	0.631	280	130.0	82	0.04	3.4@F13.5	F8-F111	14.1@F13.5	75@F13.5	0.039%	M95	978.3	IV	64.91	57.05X38.03	129.83
XF-PTL15282-M95-12-VI	0.57	320	143.9	82	0.04	4.3@F13.5	F8-F111	15.6@F13.5	75@F13.5	0.040%	M95	1057.4	IV	71.86	63.16X42.11	143.72
XF-PTL18282-M95-12-VI	0.475	398	172.6	82	0.04	6.2@F13.5	F8-F111	18.8@F13.5	75@F13.5	0.043%	M95	1183.3	IV	86.23	75.79X50.53	172.46
XF-PTL19582-M95-12-VI	0.444	400	184.7	82	0.04	7.3@F13.5	F8-F111	20.1@F13.5	75@F13.5	0.042%	M95	1211.8	IV	92.25	81.08X54.05	184.5
XF-PTL23882-M95-12-VI	0.363	410	225.9	82	0.04	11.3@F13.5	F8-F111	24.5@F13.5	75@F13.5	0.034%	M95	1369.8	IV	112.84	99.17X66.12	225.67
XF-PTL26882-M95-12-VI	0.323	410	253.9	82	0.04	14@F13.5	F8-F111	27.6@F13.5	75@F13.5	0.040%	M95	1428.4	IV	126.81	111.46X74.3	253.62
XF-PTL31082-M95-12-VI	0.279	500	293.9	82	0.04	19.2@F13.5	F8-F111	31.9@F13.5	75@F13.5	0.041%	M95	1584.7	IV	146.81	129.03X86.02	293.62
XF-PTL35082-M95-12-VI	0.247	540	332.0	82	0.05	24.3@F13.5	F8-F111	36.1@F13.5	75@F13.5	0.043%	M95	1697	IV	165.83	145.75X97.17	331.66
XF-PTL39082-M95-12-VI	0.222	700	369.4	82	0.04	29.3@F13.5	F8-F111	40.2@F13.5	75@F13.5	0.045%	M95	2077.3	IV	184.5	162.16X108.11	369.01

# P02



## 12K Line Scan (62mm) Telecentric Lens

Model	Mag (X)	WD (mm)	Object FOV (mm)	Image FOV (mm)	Telecentricity (°)	DOF (mm)	Aperture	Resolution (μm)	MTF30 (LP/mm)	Distortion (%)	Mount	O/I	Generation	8k x 5μm 40.96 mm	35mm Full 36x24 mm	12k x 5μm 61.44mm
XF-PTL03762-M72-11.48-VI	1.755	110	35.3	62	0.03	0.5@F15	F6-F83	5.7@F15	68@F15	0.036%	M72	471.2	IV	23.34	20.51X13.68	35.01
XF-PTL04562-M72-11.48-VI	1.43	120	43.4	62	0.03	0.8@F15	F6-F83	6.9@F15	68@F15	0.029%	M72	513.3	IV	28.64	25.17X16.78	42.97
XF-PTL05562-M72-11.48-VI	1.17	138	53.0	62	0.04	1.2@F15	F6-F83	8.5@F15	68@F15	0.012%	M72	574.3	IV	35.01	30.77X20.51	52.51
XF-PTL06562-M72-11.48-VI	0.989	160	62.7	62	0.03	1.2@F11	F6-F83	7.4@F11	95@F11	0.037%	M72	611.9	IV	41.42	36.4X24.27	62.12
XF-PTL08062-M72-11.48-VI	0.805	180	77.0	62	0.03	1.8@F11	F6-F83	9.0@F11	95@F11	0.028%	M72	666.3	IV	50.88	44.72X29.81	76.32
XF-PTL09262-M72-11.48-VI	0.702	250	88.3	62	0.04	2.4@F11	F6-F83	10.3@F11	95@F11	0.043%	M72	761.3	IV	58.35	51.28X34.19	87.52
XF-PTL11062-M72-11.48-VI	0.584	250	106.2	62	0.04	3.5@F11	F6-F83	12.4@F11	95@F11	0.038%	M72	810.5	IV	70.14	61.64X41.1	105.21
XF-PTL12262-M72-11.48-VI	0.527	260	117.6	62	0.04	4.2@F11	F6-F83	13.8@F11	95@F11	0.022%	M72	859.2	IV	77.72	68.31X45.54	116.58
XF-PTL13762-M72-11.48-VI	0.47	280	131.9	62	0.04	5.3@F11	F6-F83	15.5@F11	95@F11	0.025%	M72	887.2	IV	87.15	76.6X51.06	130.72
XF-PTL15262-M72-11.48-VI	0.424	320	146.2	62	0.04	6.6@F11	F6-F83	17.1@F11	95@F11	0.022%	M72	966.3	IV	96.6	84.91X56.6	144.91
XF-PTL18262-M72-11.48-VI	0.353	398	175.6	62	0.04	9.6@F11	F6-F83	20.5@F11	95@F11	0.025%	M72	1092.2	IV	116.03	101.98X67.99	174.05
XF-PTL19562-M72-11.48-VI	0.331	400	187.3	62	0.04	11.1@F11	F6-F83	22@F11	95@F11	0.023%	M72	1120.6	IV	123.75	108.76X72.51	185.62
XF-PTL23862-M72-11.48-VI	0.27	410	229.6	62	0.04	16.5@F11	F6-F83	26.9@F11	95@F11	0.018%	M72	1278.7	IV	151.7	133.33X88.89	227.56
XF-PTL26862-M72-11.48-VI	0.24	410	258.3	62	0.04	20.8@F11	F6-F83	30.2@F11	90@F11	0.023%	M72	1337.3	IV	170.67	150X100	256
XF-PTL31062-M72-11.48-VI	0.208	500	298.1	62	0.04	28.2@F11	F6-F83	35@F11	93@F11	0.018%	M72	1493.6	IV	196.92	173.08X115.38	295.38
XF-PTL35062-M72-11.48-VI	0.184	540	337.0	62	0.05	35.7@F11	F6-F83	39.4@F11	95@F11	0.016%	M72	1605.8	IV	222.61	195.65X130.43	333.91
XF-PTL39062-M72-11.48-VI	0.165	700	375.8	62	0.04	44.4@F11	F6-F83	44@F11	95@F11	0.020%	M72	1986.2	IV	248.24	218.18X145.45	372.36

# P03



## 8K Line Scan (57.4mm) Telecentric Lens

Model	Mag (X)	WD (mm)	Object FOV (mm)	Image FOV (mm)	Telecentricity (°)	DOF (mm)	Aperture	Resolution (μm)	MTF30 (LP/mm)	Distortion (%)	Mount	O/I	Generation	2' 23x23mm	8k x 5μm 40.96mm	35mm Full 36x24mm
XF-PTL03757-M72-11.48-VI	1.618	110	35.5	57.4	0.03	0.6@F15	F6-F76.6	6.13@F15	68@F15	0.045%	M72	460.3	IV	14.22X14.22	25.32	22.25X14.83
XF-PTL04557-M72-11.48-VI	1.319	120	43.5	57.4	0.03	0.7@F11	F6-F76.5	5.5@F11	95@F11	0.037%	M72	502.4	IV	17.44X17.44	31.05	27.29X18.2
XF-PTL05557-M72-11.48-VI	1.079	138	53.2	57.4	0.04	1@F11	F6-F76.5	6.7@F11	95@F11	0.017%	M72	563.4	IV	21.32X21.32	37.96	33.36X22.24
XF-PTL06557-M72-11.48-VI	0.912	160	62.9	57.4	0.03	1.5@F11	F6-F76.5	8@F11	95@F11	0.044%	M72	601	IV	25.22X25.22	44.91	39.47X26.32
XF-PTL08057-M72-11.48-VI	0.742	180	77.4	57.4	0.03	2.2@F11	F6-F76.5	9.8@F11	95@F11	0.035%	M72	655.7	IV	31X31	55.2	48.52X32.35
XF-PTL09257-M72-11.48-VI	0.648	250	88.6	57.4	0.04	2.9@F11	F6-F76	11.2@F11	95@F11	0.048%	M72	750.4	IV	35.49X35.49	63.21	55.56X37.04
XF-PTL11057-M72-11.48-VI	0.539	250	106.5	57.4	0.04	4.2@F11	F6-F76	13.5@F11	95@F11	0.043%	M72	799.6	IV	42.67X42.67	75.99	66.79X44.53
XF-PTL12257-M72-11.48-VI	0.486	260	118.1	57.4	0.04	5.1@F11	F6-F76	15@F11	95@F11	0.030%	M72	848.3	IV	47.33X47.33	84.28	74.07X49.38
XF-PTL13757-M72-11.48-VI	0.433	280	132.6	57.4	0.04	6.4@F11	F6-F76	16.8@F11	95@F11	0.034%	M72	876.3	IV	53.12X53.12	94.6	83.14X55.43
XF-PTL15257-M72-11.48-VI	0.391	320	146.8	57.4	0.04	7.9@F11	F6-F76	18.6@F11	95@F11	0.032%	M72	955.4	IV	58.82X58.82	104.76	92.07X61.38
XF-PTL18257-M72-11.48-VI	0.326	398	176.1	57.4	0.04	11.4@F11	F6-F76	22.3@F11	95@F11	0.033%	M72	1081.3	IV	70.55X70.55	125.64	110.43X73.62
XF-PTL19557-M72-11.48-VI	0.305	400	188.2	57.4	0.04	13.1@F11	F6-F76	23.8@F11	95@F11	0.032%	M72	1109.7	IV	75.41X75.41	134.3	118.03X78.69
XF-PTL23857-M72-11.48-VI	0.249	410	230.5	57.4	0.04	19.3@F11	F6-F76	29.1@F11	95@F11	0.028%	M72	1267.8	IV	92.37X92.37	164.5	144.58X96.39
XF-PTL26857-M72-11.48-VI	0.222	410	258.6	57.4	0.04	24.4@F11	F6-F76	32.8@F11	90@F11	0.032%	M72	1326.4	IV	103.6X103.6	184.5	162.16X108.11
XF-PTL31057-M72-11.48-VI	0.192	500	299.0	57.4	0.04	32.9@F11	F6-F76	37.9@F11	93@F11	0.027%	M72	1482.7	IV	119.79X119.79	213.33	187.5X125
XF-PTL35057-M72-11.48-VI	0.17	540	337.6	57.4	0.05	41.7@F11	F6-F76	42.8@F11	95@F11	0.026%	M72	1594.9	IV	135.29X135.29	240.94	211.76X141.18
XF-PTL39057-M72-11.48-VI	0.152	700	377.6	57.4	0.04	52.1@F11	F6-F76	47.7@F11	95@F11	0.028%	M72	1975.2	IV	151.32X151.32	269.47	236.84X157.89

# P04



## High Mag Full Frame Telecentric Lens(44mm) Bi-Telecentric Lens

Model	Mag (X)	WD (mm)	Object FOV (mm)	Image FOV (mm)	Telecentricity (°)	DOF (mm)	Aperture	Resolution (μm)	MTF30 (LP/mm)	Distortion (%)	Mount	O/I	Generation	71M 31x22mm	8k x 5μm 40.96mm	35mm Full 36x24mm
XF-MDT1.5X110-D35-VI	1.5	110	29.3	44.0	0.11	0.59-7.2	F12-143.8	5.3-63.2	85-7	0.090%	F	397.8	III	20.67X14.67	27.31	24X16
XF-MDT1.5X110D-D35-VI	1.5	110	29.3	44.0	0.11	0.59-7.2	F12-143.8	5.3-63.2	85-7	0.090%	F	397.8	III	20.67X14.67	27.31	24X16
XF-MDT2X110-D35-VI	2	110	22.0	44.0	0.11	0.33-4.9	F12-173.8	4.0-57.2	80-6	0.075%	F	408.8	III	15.5X11	20.48	18X12
XF-MDT2X110D-D35-VI	2	110	22.0	44.0	0.11	0.33-4.9	F12-173.8	4.0-57.2	80-6	0.075%	F	408.8	III	15.5X11	20.48	18X12
XF-MDT3X110-D35-VI	3	110	14.7	44.0	0.11	0.17-2.8	F13.6-227.1	3.0-49.7	75-4.5	0.075%	F	435.8	III	10.33X7.33	13.65	12X8
XF-MDT3X110D-D35-VI	3	110	14.7	44.0	0.11	0.17-2.8	F13.6-227.1	3.0-49.7	75-4.5	0.075%	F	435.8	III	10.33X7.33	13.65	12X8
XF-MDT4X110-D35-VI	4	110	11.0	44.0	0.08	0.12-2.1	F17-301.6	2.8-49.7	60-3.5	0.075%	F	476.4	III	7.75X5.5	10.24	9X6
XF-MDT4X110D-D35-VI	4	110	11.0	44.0	0.08	0.12-2.1	F17-301.6	2.8-49.7	60-3.5	0.075%	F	476.4	III	7.75X5.5	10.24	9X6



# P05



## 43.6mm Sensor Telecentric Lens

Model	Mag (X)	WD (mm)	Object FOV (mm)	Image FOV (mm)	Telecentricity (°)	DOF (mm)	Aperture	Resolution (μm)	MTF30 (LP/mm)	Distortion (%)	Mount	O/I	Generation	4k x 7μm 28.67mm	8k x 5μm 40.96mm	35mm Full 36x24mm
XF-PTL03744-M58-11.48-VI	1.213	110	35.9	43.6	0.03	1.0-4.3	F13.5-F57.4	7.35-31.22	75-18	0.058%	M58	404.4	IV	23.64	33.77	29.68X19.79
XF-PTL04544-M58-11.48-VI	0.988	120	44.1	43.6	0.03	1-6.5	F9-F57.4	6-38.32	115-18	0.050%	M58	446.5	IV	29.02	41.46	36.44X24.29
XF-PTL05544-M58-11.48-VI	0.809	138	53.9	43.6	0.04	1.5-9.8	F9-F57.4	7.4-46.82	115-18	0.019%	M58	507.5	IV	35.44	50.63	44.5X29.67
XF-PTL06544-M58-11.48-VI	0.684	160	63.7	43.6	0.03	2.1-13.7	F9-F57.4	8.7-55.41	115-18	0.048%	M58	545.1	IV	41.92	59.88	52.63X35.09
XF-PTL08044-M58-11.48-VI	0.556	180	78.4	43.6	0.03	3.2-20.7	F9-F57	10.7-68.1	115-18	0.045%	M58	599.7	IV	51.56	73.67	64.75X43.17
XF-PTL09244-M58-11.48-VI	0.486	250	89.7	43.6	0.04	4.1-27.1	F9-F57	12.2-77.7	115-18	0.050%	M58	694.5	IV	58.99	84.28	74.07X49.38
XF-PTL11044-M58-11.48-VI	0.404	250	107.9	43.6	0.04	6-39	F9-F57	14.7-93.4	115-18	0.050%	M58	743.7	IV	70.97	101.39	89.11X59.41
XF-PTL12244-M58-11.48-VI	0.365	260	119.5	43.6	0.04	7.3-47.4	F9-F57	16.3-103.1	115-18	0.042%	M58	792.4	IV	78.55	112.22	98.63X65.75
XF-PTL13744-M58-11.48-VI	0.325	280	134.2	43.6	0.04	9.2-59.4	F9-F57	18.3-117.9	115-18	0.048%	M58	820.4	IV	88.22	126.03	110.77X73.85
XF-PTL15244-M58-11.48	0.293	320	148.8	43.6	0.04	11.3	F9	20.25	115	0.045%	M58	899.5	IV	97.85	139.8	122.87X81.91
XF-PTL18244-M58-11.48	0.244	398	178.7	43.6	0.04	16.3	F9	24.44	115	0.047%	M58	1025.4	IV	117.5	167.87	147.54X98.36
XF-PTL19544-M58-11.48	0.229	400	190.4	43.6	0.04	18.7	F9	26.00	115	0.046%	M58	1054.1	IV	125.2	178.86	157.21X104.8
XF-PTL23844-M58-11.48	0.187	410	233.2	43.6	0.04	28.0	F9	31.8	115	0.040%	M58	1211.9	IV	153.32	219.04	192.51X128.34
XF-PTL26844-M58-11.48	0.166	410	262.7	43.6	0.04	35.5	F9	35.8	115	0.050%	M58	1270.5	IV	172.71	246.75	216.87X144.58
XF-PTL31044-M58-11.48	0.144	500	302.8	43.6	0.04	47.5	F9	41.4	115	0.043%	M58	1426.8	IV	199.1	284.44	250X166.67
XF-PTL35044-M58-11.48	0.127	540	343.3	43.6	0.05	60.4	F9	46.7	115	0.040%	M58	1539	IV	225.75	322.52	283.46X188.98
XF-PTL39044-M58-11.48	0.114	700	382.5	43.6	0.04	74.8	F9	52.1	115	0.045%	M58	1919.3	IV	251.49	359.3	315.79X210.53

# P06



## 38mm Sensor Telecentric Lens

Model	Mag (X)	WD (mm)	Object FOV (mm)	Image FOV (mm)	Telecentricity (°)	DOF (mm)	Aperture	Resolution (μm)	MTF30 (LP/mm)	Distortion (%)	Mount	O/I	Generation	4k x 7μm 28.67mm	2' 23x23mm	71M 31x22mm
XF-PTL03738-F-VI	1.073	110	35.4	38	0.03	0.7-4.9	F8-F50.8	4.9-31.22	130-20	0.071%	F	383.8	IV	26.72	21.44X21.44	28.89X20.5
XF-PTL04538-F-VI	0.874	120	43.5	38	0.03	1.1-7.4	F8-F50.8	6-38.32	130-20	0.065%	F	425.9	IV	32.8	26.32X26.32	35.47X25.17
XF-PTL05538-F-VI	0.715	138	53.1	38	0.04	1.7-11	F8-F50.8	7.4-46.82	130-20	0.035%	F	486.9	IV	40.1	32.17X32.17	43.36X30.77
XF-PTL06538-F-VI	0.605	160	62.8	38	0.03	2.4-15.5	F8-F50.8	8.7-55.41	130-20	0.062%	F	524.5	IV	47.39	38.02X38.02	51.24X36.36
XF-PTL08038-F-VI	0.492	180	77.2	38	0.03	3.6-23.3	F8-F51	10.7-68.1	130-20	0.060%	F	579.2	IV	58.27	46.75X46.75	63.01X44.72
XF-PTL09238-F-VI	0.43	250	88.4	38	0.04	4.7-30.6	F8-F51	12.3-78	130-20	0.065%	F	675	IV	66.67	53.49X53.49	72.09X51.16
XF-PTL11038-F-VI	0.357	250	106.4	38	0.04	6.9-44.1	F8-F50.5	14.8-93.4	130-20	0.065%	F	723.1	IV	80.31	64.43X64.43	86.83X61.62
XF-PTL12238-F-VI	0.323	260	117.6	38	0.04	8.4-53.6	F8-F50.5	16.3-103.1	130-20	0.058%	F	771.8	IV	88.76	71.21X71.21	95.98X68.11
XF-PTL13738-F	0.287	280	132.4	38	0.04	10.6	F8	18.4	130	0.062%	F	799.8	IV	99.9	80.14X80.14	108.01X76.66
XF-PTL15238-F	0.26	320	146.2	38	0.04	13.0	F8	20.35	130	0.060%	F	878.9	IV	110.27	88.46X88.46	119.23X84.62
XF-PTL18238-F	0.216	398	175.9	38	0.04	18.9	F8	24.44	130	0.062%	F	1004.8	IV	132.73	106.48X106.48	143.52X101.85
XF-PTL19538-F	0.202	400	188.1	38	0.04	21.6	F8	26.13	130	0.060%	F	1033.2	IV	141.93	113.86X113.86	153.47X108.91
XF-PTL23838-F	0.165	410	230.3	38	0.04	32.2	F8	32	130	0.055%	F	1191.3	IV	173.76	139.39X139.39	187.88X133.33
XF-PTL26838-F	0.147	410	258.5	38	0.04	40.9	F8	35.9	130	0.060%	F	1249.9	IV	195.03	156.46X156.46	210.88X149.66
XF-PTL31038-F	0.127	500	299.2	38	0.04	54.6	F8	41.6	128	0.055%	F	1406.2	IV	225.75	181.1X181.1	244.09X173.23
XF-PTL35038-F	0.113	540	336.3	38	0.05	69.6	F8	46.9	130	0.052%	F	1518.4	IV	253.72	203.54X203.54	274.34X194.69
XF-PTL39038-F	0.101	700	376.2	38	0.04	86.2	F8	52.4	130	0.060%	F	1898.8	IV	283.86	227.72X227.72	306.93X217.82

# P07



## 35mm Sensor Telecentric Lens

Model	Mag (X)	WD (mm)	Object FOV (mm)	Image FOV (mm)	Telecentricity (°)	DOF (mm)	Aperture	Resolution (μm)	MTF30 (LP/mm)	Distortion (%)	Mount	O/I	Generation	1' 2.8"×9.6mm	1' 13.1"×8.8mm	1' 14.2"×10.4mm
XF-PTL03735-F-VI	0.988	110	35.4	35	0.03	0.8-5.3	F7.5-F46.7	5-31.22	140-22	0.048%	F	374.7	IV	18.22X13.66	29.02	23.28X23.28
XF-PTL04535-F-VI	0.805	120	43.5	35	0.03	1.3-8	F7.5-F46.7	6.2-38.32	140-22	0.041%	F	416.8	IV	22.36X16.77	35.61	28.57X28.57
XF-PTL05535-F-VI	0.658	138	53.2	35	0.04	1.9-12	F7.5-F46.7	7.5-46.82	140-22	0.011%	F	477.8	IV	27.36X20.52	43.57	34.95X34.95
XF-PTL06535-F-VI	0.556	160	62.9	35	0.03	2.7-16.8	F7.5-F46.7	8.9-55.41	140-22	0.040%	F	515.5	IV	32.37X24.28	51.56	41.37X41.37
XF-PTL08035-F-VI	0.453	180	77.3	35	0.03	4-25.4	F7.5-F47	10.9-68.1	140-22	0.036%	F	570.1	IV	39.74X29.8	63.29	50.77X50.77
XF-PTL09235-F-VI	0.395	250	88.6	35	0.04	5.2-33	F7.5-F46.5	12.5-77.7	140-22	0.042%	F	664.8	IV	45.57X34.18	72.58	58.23X58.23
XF-PTL11035-F-VI	0.329	250	106.4	35	0.04	7.6-48	F7.5-F46.5	15.1-93.4	140-22	0.040%	F	714.1	IV	54.71X41.03	87.14	69.91X69.91
XF-PTL12235-F	0.297	260	117.8	35	0.04	9.3	F7.5	16.8	140	0.033%	F	762.7	IV	60.61X45.45	96.53	77.44X77.44
XF-PTL13735-F	0.264	280	132.6	35	0.04	11.7	F7.5	18.8	140	0.038%	F	790.7	IV	68.18X51.14	108.6	87.12X87.12
XF-PTL15235-F	0.239	320	146.4	35	0.04	14.4	F7.5	20.73	140	0.035%	F	869.8	IV	75.31X56.49	119.96	96.23X96.23
XF-PTL18235-F	0.199	398	175.9	35	0.04	20.8	F7.5	25.00	140	0.037%	F	995.7	IV	90.45X67.84	144.07	115.58X115.58
XF-PTL19535-F	0.186	400	188.2	35	0.04	23.8	F7.5	26.62	140	0.037%	F	1024.2	IV	96.77X72.58	154.14	123.66X123.66
XF-PTL23835-F	0.152	410	230.3	35	0.04	35.4	F7.5	32.5	140	0.030%	F	1182.2	IV	118.42X88.82	188.62	151.32X151.32
XF-PTL26835-F	0.135	410	259.3	35	0.04	44.9	F7.5	36.60	140	0.038%	F	1240.8	IV	133.33X100	212.37	170.37X170.37
XF-PTL31035-F	0.117	500	299.1	35	0.04	60.1	F7.5	42.4	140	0.031%	F	1397.1	IV	153.85X115.38	245.04	196.58X196.58
XF-PTL35035-F	0.104	540	336.5	35	0.05	76.6	F7.5	47.8	140	0.031%	F	1509.4	IV	173.08X129.81	275.67	221.15X221.15
XF-PTL39035-F	0.0929	700	376.7	35	0.04	95.1	F7.5	53.3	140	0.033%	F	1889.7	IV	193.76X145.32	308.61	247.58X247.58

# P08



## 2' (32mm) Sensor Telecentric Lens

Model	Mag (X)	WD (mm)	Object FOV (mm)	Image FOV (mm)	Telecentricity (°)	DOF (mm)	Aperture	Resolution (μm)	MTF30 (LP/mm)	Distortion (%)	Mount	O/I	Generation	7/4' 22.5x16.9mm	4k x 7μm 28.67mm	2' 23x23mm
XF-PTL03732-F-VI	0.896	110	36.3	32.5	0.03	1-5.9	F7.5-F42.2	5.5-31.1	135-25	0.040%	F	359.8	IV	25.11X18.86	32	25.67X25.67
XF-PTL04532-F-VI	0.73	120	44.5	32.5	0.03	1.6-8.8	F7.5-F42.2	6.8-38.2	135-25	0.039%	F	401.9	IV	30.82X23.15	39.27	31.51X31.51
XF-PTL05532-F-VI	0.597	138	54.4	32.5	0.04	1.9-13.2	F7.5-F42.2	8.3-46.7	135-25	0.060%	F	462.8	IV	37.69X28.31	48.02	38.53X38.53
XF-PTL06532-F-VI	0.505	160	64.4	32.5	0.03	3.3-18.5	F7.5-F42.2	9.8-55.2	135-25	0.034%	F	500.5	IV	44.55X33.47	56.77	45.54X45.54
XF-PTL08032-F-VI	0.411	180	79.1	32.5	0.03	5-28	F7.5-F42.2	12.1-67.9	135-25	0.037%	F	555.1	IV	54.74X41.12	69.76	55.96X55.96
XF-PTL09232-F-VI	0.359	250	90.5	32.5	0.04	6.4-36.5	F7.5-F42.2	13.8-77.7	135-25	0.038%	F	649.9	IV	62.67X47.08	79.86	64.07X64.07
XF-PTL11032-F	0.298	250	109.1	32.5	0.04	9.3	F7.5	16.6	135	0.036%	F	699.1	IV	75.5X56.71	96.21	77.18X77.18
XF-PTL12232-F	0.269	260	120.8	32.5	0.04	9.3	F7.5	18.4	135	0.042%	F	747.8	IV	83.64X62.83	106.58	85.5X85.5
XF-PTL13732-F	0.24	280	135.4	32.5	0.04	14.4	F7.5	20.7	135	0.051%	F	775.8	IV	93.75X70.42	119.46	95.83X95.83
XF-PTL15232-F	0.217	320	149.8	32.5	0.04	17.7	F7.5	22.85	135	0.053%	F	854.9	IV	103.69X77.88	132.12	105.99X105.99
XF-PTL18232-F	0.18	398	180.6	32.5	0.04	25.4	F7.5	27.43	135	0.057%	F	980.8	IV	125X93.89	159.28	127.78X127.78
XF-PTL19532-F	0.169	400	192.3	32.5	0.04	29.1	F7.5	29.34	135	0.057%	F	1009.2	IV	133.14X100	169.64	136.09X136.09
XF-PTL23832-F	0.138	410	235.5	32.5	0.04	43.3	F7.5	35.9	135	0.040%	F	1166.4	IV	163.04X122.46	207.75	166.67X166.67
XF-PTL26832-F	0.123	410	264.2	32.5	0.04	54.9	F7.5	40.34	135	0.053%	F	1225.8	IV	182.93X137.4	233.09	186.99X186.99
XF-PTL31032-F	0.106	500	306.6	32.5	0.04	73.2	F7.5	46.7	135	0.055%	F	1382.2	IV	212.26X159.43	270.47	216.98X216.98
XF-PTL35032-F	0.094	540	345.7	32.5	0.05	93.1	F7.5	52.7	135	0.055%	F	1494.4	IV	239.36X179.79	305	244.68X244.68
XF-PTL39032-F	0.084	700	386.9	32.5	0.04	115.9	F7.5	58.7	135	0.058%	F	1874.7	IV	267.86X201.19	341.31	273.81X273.81



# P09



## 7/4' (28mm) Sensor Telecentric Lens

Model	Mag (X)	WD (mm)	Object FOV (mm)	Image FOV (mm)	Telecentricity (°)	DOF (mm)	Aperture	Resolution (μm)	MTF30 (LP/mm)	Distortion (%)	Mount	O/I	Generation	4/3' 18x13.5mm	7/4' 22.5x16.9mm	4k x 7μm 28.67mm
XF-PTL03729-F-VI	0.793	110	36.6	29	0.03	1.2-6.6	F7-F37.5	5.8-31.22	145-27	0.052%	F	335.7	IV	22.7X17.02	28.37X21.31	36.15
XF-PTL04529-F-VI	0.646	120	44.9	29	0.03	1.8-10	F7-F37.5	7.2-38.32	145-27	0.046%	F	377.8	IV	27.86X20.9	34.83X26.16	44.38
XF-PTL05529-F-VI	0.528	138	54.9	29	0.04	2.7-15	F7-F37.5	8.7-46.82	145-27	0.012%	F	438.7	IV	34.09X25.57	42.61X32.01	54.3
XF-PTL06529-F-VI	0.447	160	64.9	29	0.03	3.8-20.9	F7-F37.5	10.4-55.41	145-27	0.040%	F	476.4	IV	40.27X30.2	50.34X37.81	64.14
XF-PTL08029-F-VI	0.363	180	79.9	29	0.04	5.8-31.6	F7-F37.5	12.7-68.1	145-27	0.039%	F	531	IV	49.59X37.19	61.98X46.56	78.98
XF-PTL09229-F-VI	0.317	250	91.5	29	0.04	7.6-41.1	F7-F37.5	14.6-78	145-27	0.041%	F	625.8	IV	56.78X42.59	70.98X53.31	90.44
XF-PTL11029-F	0.264	250	109.8	29	0.04	11.0	F7	17.50	145	0.043%	F	675	IV	68.18X51.14	85.23X64.02	108.6
XF-PTL12229-F	0.238	260	121.8	29	0.04	13.5	F7	19.4	145	0.038%	F	723.7	IV	75.63X56.72	94.54X71.01	120.46
XF-PTL13729-F	0.212	280	136.8	29	0.04	17.1	F7	21.8	145	0.045%	F	751.7	IV	84.91X63.68	106.13X79.72	135.24
XF-PTL15229-F	0.192	320	151.0	29	0.04	20.9	F7	24.1	145	0.042%	F	830.8	IV	93.75X70.31	117.19X88.02	149.32
XF-PTL18229-F	0.16	398	181.3	29	0.04	30.1	F7	28.94	145	0.044%	F	956.7	IV	112.5X84.38	140.63X105.63	179.19
XF-PTL19529-F	0.149	400	194.6	29	0.04	34.5	F7	30.95	145	0.043%	F	985.1	IV	120.81X90.6	151.01X113.42	192.42
XF-PTL23829-F	0.122	410	237.7	29	0.04	51.0	F7	37.8	145	0.037%	F	1143.2	IV	147.54X110.66	184.43X138.52	235
XF-PTL26829-F	0.109	410	266.1	29	0.04	64.6	F7	42.6	145	0.048%	F	1201.8	IV	165.14X123.85	206.42X155.05	263.03
XF-PTL31029-F	0.0938	500	309.2	29	0.04	86.8	F7	49.3	145	0.040%	F	1358.1	IV	191.9X143.92	239.87X180.17	305.65
XF-PTL35029-F	0.0831	540	349.0	29	0.05	110.4	F7	55.6	145	0.039%	F	1470.3	IV	216.61X162.45	270.76X203.37	345.01
XF-PTL39029-F	0.0746	700	388.7	29	0.04	137.5	F6.5	62.0	145	0.041%	F	1850.6	IV	241.29X180.97	301.61X226.54	384.32

# P10



## 4/3' (23mm) Sensor Telecentric Lens

Model	Mag (X)	WD (mm)	Object FOV (mm)	Image FOV (mm)	Telecentricity (°)	DOF (mm)	Aperture	Resolution (μm)	MTF30 (LP/mm)	Distortion (%)	Mount	O/I	Generation	1.1' 14.2x10.4mm	2k x 10μm 20.48mm	4/3' 18x13.5mm
XF-PTL03723-C-VI	0.634	110	36.3	23	0.03	1.8-12.5	F6.5-F45	6.8-46.82	160-23	0.023%	C	309.5	IV	22.4X16.4	32.3	28.39X21.29
XF-PTL04523-C-VI	0.516	120	44.6	23	0.03	2.7-18.8	F6.5-F45	8.3-57.47	160-23	0.017%	C	351.6	IV	27.52X20.16	39.69	34.88X26.16
XF-PTL05523-C-VI	0.422	138	54.5	23	0.04	4-28	F6.5-F45	10.2-70.23	160-23	0.026%	C	412.6	IV	33.65X24.64	48.53	42.65X31.99
XF-PTL06523-C-VI	0.357	160	64.4	23	0.03	5.6-39.2	F6.5-F45	12-83.11	160-23	0.013%	C	450.3	IV	39.78X29.13	57.37	50.42X37.82
XF-PTL08023-C	0.29	180	79.3	23	0.03	10.5	F8	18.18	130	0.013%	C	504.9	IV	48.97X35.86	70.62	62.07X46.55
XF-PTL09223-C	0.254	250	90.6	23	0.04	13.7	F8	20.8	130	0.017%	C	599.6	IV	55.91X40.94	80.63	70.87X53.15
XF-PTL11023-C	0.211	250	109.0	23	0.04	19.8	F8	25.0	130	0.015%	C	648.9	IV	67.3X49.29	97.06	85.31X63.98
XF-PTL12223-C	0.19	260	121.1	23	0.04	24.4	F8	27.7	130	0.019%	C	697.5	IV	74.74X54.74	107.79	94.74X71.05
XF-PTL13723-C	0.17	280	135.3	23	0.04	30.8	F8	31.1	130	0.031%	C	725.6	IV	83.53X61.18	120.47	105.88X79.41
XF-PTL15223-C	0.153	320	150.3	23	0.04	37.6	F8	34.46	130	0.033%	C	804.6	IV	92.81X67.97	133.86	117.65X88.24
XF-PTL18223-C	0.128	398	179.7	23	0.04	54.1	F8	41.41	130	0.038%	C	930.5	IV	110.94X81.25	160	140.63X105.47
XF-PTL19523-C	0.119	400	193.3	23	0.04	61.9	F8	44.25	130	0.038%	C	959	IV	119.33X87.39	172.1	151.26X113.45
XF-PTL23823-C	0.0976	410	235.7	23	0.04	91.5	F8	54.10	130	0.019%	C	1117	IV	145.49X106.56	209.84	184.43X138.32
XF-PTL26823-C	0.0868	410	265.0	23	0.04	115.5	F8	60.9	130	0.035%	C	1175.6	IV	163.59X119.82	235.94	207.37X155.53
XF-PTL31023-C	0.075	500	306.7	23	0.04	155.4	F8	70.4	130	0.035%	C	1332	IV	189.33X138.67	273.07	240X180
XF-PTL35023-C	0.0664	540	346.4	23	0.05	196.8	F8	79.5	130	0.036%	C	1444.2	IV	213.86X156.63	308.43	271.08X203.31
XF-PTL39023-C	0.0596	700	385.9	23	0.04	244.7	F8	88.7	130	0.037%	C	1824.5	IV	238.26X174.5	343.62	302.01X226.51

# P11



## 1.1' (18.5mm) Sensor Telecentric Lens

Model	Mag (X)	WD (mm)	Object FOV (mm)	Image FOV (mm)	Telecentricity (°)	DOF (mm)	Aperture	Resolution (µm)	MTF30 (LP/mm)	Distortion (%)	Mount	O/I	1' 12.8x9.6mm	1' 13.1x8.8mm	1.1' 14.2x10.4mm
XF-PTL03719-C-VI	0.504	110	36.7	18.5	0.03	2.8-15.6	F6.5-F35.8	8.5-46.82	160-29	0.026%	C	282.3	25.4X19.05	25.99X17.46	28.17X20.63
XF-PTL04519-C-VI	0.411	120	45.0	18.5	0.03	4.2-23.6	F6.5-F35.8	10.4-57.47	160-29	0.020%	C	324.5	31.14X23.36	31.87X21.41	34.55X25.3
XF-PTL05519-C-VI	0.336	138	55.1	18.5	0.04	6.3-35.2	F6.5-F35.8	12.8-70.23	160-29	0.035%	C	385.4	38.1X28.57	38.99X26.19	42.26X30.95
XF-PTL06519-C	0.284	160	65.1	18.5	0.03	8.8	F6.5	15.10	160	0.014%	C	423.1	45.07X33.8	46.13X30.99	50X36.62
XF-PTL08019-C	0.231	180	80.1	18.5	0.03	13.4	F6.5	18.55	160	0.020%	C	477.7	55.41X41.56	56.71X38.1	61.47X45.02
XF-PTL09219-C	0.202	250	91.6	18.5	0.04	17.5	F6.5	21.3	160	0.017%	C	572.5	63.37X47.52	64.85X43.56	70.3X51.49
XF-PTL11019-C	0.168	250	110.1	18.5	0.04	25.4	F6.5	25.6	160	0.017%	C	621.7	76.19X57.14	77.98X52.38	84.52X61.9
XF-PTL12219-C	0.152	260	121.7	18.5	0.04	31.2	F6.5	28.3	160	0.027%	C	670.4	84.21X63.16	86.18X57.89	93.42X68.42
XF-PTL13719-C	0.135	280	137.0	18.5	0.04	39.4	F6.5	31.73	160	0.038%	C	698.4	94.81X71.11	97.04X65.19	105.19X77.04
XF-PTL15219-C	0.122	320	151.6	18.5	0.04	48.2	F6.5	35.17	160	0.040%	C	777.5	104.92X78.69	107.38X72.13	116.39X85.25
XF-PTL18219-C	0.102	398	181.4	18.5	0.04	69.5	F6.5	42.20	160	0.045%	C	903.3	125.49X94.12	128.43X86.27	139.22X101.96
XF-PTL19519-C	0.095	400	194.7	18.5	0.04	79.4	F6.5	45.16	160	0.045%	C	931.8	134.74X101.05	137.89X92.63	149.47X109.47
XF-PTL23819-C	0.0777	410	238.1	18.5	0.04	116.9	F6.5	55.2	160	0.026%	C	1089.9	164.74X123.55	168.6X113.26	182.75X133.85
XF-PTL26819-C	0.0691	410	267.7	18.5	0.04	147.4	F6.5	62.1	160	0.042%	C	1148.5	185.24X138.93	189.58X127.35	205.5X150.51
XF-PTL31019-C	0.0597	500	309.9	18.5	0.04	199.6	F6.5	71.9	160	0.043%	C	1304.8	214.41X160.8	219.43X147.4	237.86X174.2
XF-PTL35019-C	0.0529	540	349.7	18.5	0.05	252.7	F6.5	81.1	160	0.042%	C	1417	241.97X181.47	247.64X166.35	268.43X196.6
XF-PTL39019-C	0.0475	700	389.5	18.5	0.04	313.6	F6.5	90.4	160	0.045%	C	1797.3	269.47X202.11	275.79X185.26	298.95X218.95

# P12



## High Mag 1/1.1' Sensor Telecentric Lens

Model	Mag (X)	WD (mm)	Object FOV (mm)	Image FOV (mm)	Telecentricity (°)	DOF (mm)	Aperture	Resolution (µm)	MTF30 (LP/mm)	Distortion (%)	Mount	O/I	1' 12.8x9.6mm	1' 13.1x8.8mm	1.1' 14.2x10.4mm
XF-10MDT1X65-1C	1	65	17.6	17.6	0.21	0.79	F7	4.6	145	0.007%	C	207.9	12.8X9.6	13.1X8.8	14.2X10.4
XF-10MDT1X65D-1C	1	65	17.6	17.6	0.19	0.79	F7	4.6	145	0.008%	C	212.1	12.8X9.6	13.1X8.8	14.2X10.4
XF-10MDT1X110-1C	1	110	17.6	17.6	0.08	1.1	F10	6.5	100	0.080%	C	279	12.8X9.6	13.1X8.8	14.2X10.4
XF-10MDT1X110D-1C	1	110	17.6	17.6	0.08	1.1	F10	6.5	100	0.080%	C	279	12.8X9.6	13.1X8.8	14.2X10.4
XF-10MDT1X178-1C	1	178	17.6	17.6	0.13	1.2	F11.1	7.3	90	0.066%	C	366.5	12.8X9.6	13.1X8.8	14.2X10.4
XF-10MDT1X178D-1C	1	178	17.6	17.6	0.13	1.2	F11.1	7.3	90	0.066%	C	366.5	12.8X9.6	13.1X8.8	14.2X10.4
XF-10MDT1.5X110-1C	1.5	110	11.7	17.6	0.10	0.57	F11.5	5.1	85	0.082%	C	310	8.53X6.4	8.73X5.87	9.47X6.93
XF-10MDT1.5X110D-1C	1.5	110	11.7	17.6	0.10	0.57	F11.5	5.1	85	0.082%	C	310	8.53X6.4	8.73X5.87	9.47X6.93
XF-10MDT2X65-1C-VI	2	65	8.8	17.6	0.21	0.20-2.8	F7.1-98.9	2.4-32.6	135-10.5	0.100%	C	232.9	6.4X4.8	6.55X4.4	7.1X5.2
XF-10MDT2X65D-1C-VI	2	65	8.8	17.6	0.21	0.20-2.8	F7.1-98.9	2.4-32.6	135-10.5	0.100%	C	232.9	6.4X4.8	6.55X4.4	7.1X5.2
XF-10MDT3X65-1C-VI	3	65	5.9	17.6	0.21	0.12-1.8	F9.5-147.3	2.1-32.3	105-7	0.085%	C	240.9	4.27X3.2	4.37X2.93	4.73X3.47
XF-10MDT3X65D-1C-VI	3	65	5.9	17.6	0.21	0.12-1.8	F9.5-147.3	2.1-32.3	105-7	0.085%	C	240.9	4.27X3.2	4.37X2.93	4.73X3.47
XF-10MDT4X65-1C-VI	4	65	4.4	17.6	0.16	0.08-1.4	F11.8-194.9	2.0-32.3	85-5	0.090%	C	256.9	3.2X2.4	3.28X2.2	3.55X2.6
XF-10MDT4X65D-1C-VI	4	65	4.4	17.6	0.16	0.08-1.4	F11.8-194.9	2.0-32.3	85-5	0.090%	C	256.9	3.2X2.4	3.28X2.2	3.55X2.6

# P13



## 1' (16.2mm) Sensor Telecentric Lens

Model	Mag (X)	WD (mm)	Object FOV (mm)	Image FOV (mm)	Telecentricity (°)	DOF (mm)	Aperture	Resolution (µm)	MTF30 (LP/mm)	Distortion (%)	Mount	O/I	Generation product	2/3' 8.45x7.07mm	1' 12.8x9.6mm	1' 13.1x8.8mm
XF-PTL03716-C-VI	0.441	110	36.7	16.2	0.03	3.7-17.9	F6.5-F31.3	9.7-46.82	160-33	0.03%	C	272.4	IV	19.16x16.03	29.02x21.77	29.71x19.95
XF-PTL04516-C-VI	0.359	120	45.1	16.2	0.03	5.6-27	F6.5-F31.3	11.9-57.47	160-33	0.024%	C	314.6	IV	23.54x19.69	35.65x26.74	36.49x24.51
XF-PTL05516-C	0.294	138	55.1	16.2	0.04	8.3	F6.5	14.6	160	0.031%	C	375.5	IV	28.74x24.05	43.54x32.65	44.56x29.93
XF-PTL06516-C	0.248	160	65.3	16.2	0.03	11.6	F6.5	17.3	160	0.017%	C	413.2	IV	34.07x28.51	51.61x38.71	52.82x35.48
XF-PTL08016-C	0.202	180	80.2	16.2	0.03	17.6	F6.5	21.22	160	0.019%	C	467.8	IV	41.83x35	63.37x47.52	64.85x43.56
XF-PTL09216-C	0.177	250	91.5	16.2	0.04	23.1	F6.5	24.3	160	0.019%	C	562.6	IV	47.74x39.94	72.32x54.24	74.01x49.72
XF-PTL11016-C	0.147	250	110.2	16.2	0.04	33.5	F6.5	29.2	160	0.020%	C	611.8	IV	57.48x48.1	87.07x65.31	89.12x59.86
XF-PTL12216-C	0.133	260	121.8	16.2	0.04	41.1	F6.5	32.4	160	0.026%	C	660.5	IV	63.53x53.16	96.24x72.18	98.5X66.17
XF-PTL13716-C	0.118	280	137.3	16.2	0.04	52.4	F6.5	36.4	160	0.038%	C	688.5	IV	71.61x59.92	108.47x81.36	111.02x74.58
XF-PTL15216-C	0.107	320	151.4	16.2	0.04	63.4	F6.5	40.23	160	0.039%	C	767.6	IV	78.97x66.07	119.63x89.72	122.43x82.24
XF-PTL18216-C	0.0888	398	182.4	16.2	0.04	91.2	F6.5	48.31	160	0.044%	C	893.5	IV	95.16x79.62	144.14x108.11	147.52x99.1
XF-PTL19516-C	0.083	400	195.2	16.2	0.04	104.3	F6.5	51.66	160	0.044%	C	921.9	IV	101.81x85.18	154.22x115.66	157.83x106.02
XF-PTL23816-C	0.0679	410	238.6	16.2	0.04	153.9	F6.5	63.2	160	0.025%	C	1080	IV	124.45x104.12	188.51x141.38	192.93x129.6
XF-PTL26816-C	0.0604	410	268.2	16.2	0.04	193.6	F6.5	71.0	160	0.050%	C	1138.6	IV	139.9X117.05	211.92x158.94	216.89x145.7
XF-PTL31016-C	0.0522	500	310.3	16.2	0.04	261.0	F6.5	82.2	160	0.041%	C	1294.9	IV	161.88x135.44	245.21x183.91	250.96x168.58
XF-PTL35016-C	0.0462	540	350.6	16.2	0.05	329.4	F6.5	92.8	160	0.041%	C	1407.1	IV	182.9X153.03	277.06x207.79	283.55x190.48
XF-PTL39016-C	0.0415	700	390.4	16.2	0.04	410.1	F6.5	103.4	160	0.044%	C	1787.4	IV	203.61x170.36	308.43x231.33	315.66x212.05
XF-10MDT08X178-1C	0.8	178	22.0	17.6	0.15	1.7	F10	8.3	100	0.100%	C	351.2	III	10.56x8.84	16x12	16.38x11
XF-10MDT08X178D-1C	0.8	178	22.0	17.6	0.15	1.7	F10	8.3	100	0.100%	C	351.2	III	10.56x8.84	16x12	16.38x11
XF-10MDT074X65-1C	0.74	65	23.8	17.6	0.26	1.7	F8.5	7.6	120	0.055%	C	217.1	III	11.42x9.55	17.3x12.97	17.7x11.89
XF-10MDT074X65D-1C	0.74	65	23.8	17.6	0.28	1.7	F8.5	7.6	120	0.060%	C	220.1	III	11.42x9.55	17.3x12.97	17.7x11.89
XF-10MDT06X80-1C	0.6	80	29.3	17.6	0.10	2.5	F8	8.8	125	0.021%	C	265.3	III	14.08x11.78	21.33x16	21.83x14.67
XF-10MDT06X80D-1C	0.6	80	29.3	17.6	0.10	2.5	F8	8.8	125	0.079%	C	268.1	III	14.08x11.78	21.33x16	21.83x14.67
XF-10MDT05X220-1C	0.55	220	32.0	17.6	0.09	2.9	F8	9.6	125	0.112%	C	455.2	III	15.36x12.85	23.27x17.45	23.82x16
XF-10MDT05X110-1C	0.5	110	35.2	17.6	0.06	3.5	F8	10.5	125	0.162%	C	240	III	16.9X14.14	25.6X19.2	26.2X17.6
XF-10MDT05X65-1C	0.5	65	35.2	17.6	0.38	2.7	F6	7.9	170	0.006%	C	216.1	III	16.9X14.14	25.6X19.2	26.2X17.6
XF-10MDT05X65D-1C	0.5	65	35.2	17.6	0.39	2.7	F6	8	170	0.005%	C	218.9	III	16.9X14.14	25.6X19.2	26.2X17.6
XF-10MDT05X220-1C	0.5	220	35.2	17.6	0.13	3.5	F8	10.6	125	0.095%	C	448	III	16.9X14.14	25.6X19.2	26.2X17.6

# P14



## 2/3' (11mm) Sensor Telecentric Lens

Model	Mag (X)	WD (mm)	Object FOV (mm)	Image FOV (mm)	Telecentricity (°)	DOF (mm)	Aperture	Resolution (µm)	MTF30 (LP/mm)	Distortion (%)	Mount	O/I	Generation	1/2' 6.4x4.8mm	1/1.8' 7.2x5.3mm	2/3' 8.45x7.07mm
XF-PTL03711-C-VI	0.3	110	36.7	11	0.03	8-26.2	F6.5-F21.3	14.3-46.82	160-49	0.076%	C	249.2	IV	21.33x16	24x17.67	28.17x23.57
XF-PTL04511-C	0.244	120	45.1	11	0.03	14.8	F8	21.60	130	0.070%	C	291.4	IV	26.23x19.67	29.51x21.72	34.63x28.98
XF-PTL05511-C	0.2	138	55.0	11	0.04	22.0	F8	26.40	130	0.036%	C	352.3	IV	32x24	36x26.5	42.25x35.35
XF-PTL06511-C	0.169	160	65.1	11	0.03	30.8	F8	31.2	130	0.062%	C	390	IV	37.87x28.4	42.6x31.36	50x41.83
XF-PTL08011-C	0.138	180	79.7	11	0.03	46.5	F8	38.39	130	0.062%	C	444.6	IV	46.38x34.78	52.17x38.41	61.23x51.23
XF-PTL09211-C	0.12	250	91.7	11	0.04	60.9	F8	44.0	130	0.065%	C	539.4	IV	53.33x40	60x44.17	70.42x58.92
XF-PTL11011-C	0.1	250	110.0	11	0.04	88.2	F8	52.9	130	0.065%	C	588.6	IV	64x48	72x53	84.5X70.7
XF-PTL12211-C	0.09	260	122.2	11	0.04	108.1	F8	58.6	130	0.060%	C	637.3	IV	71.11x53.33	80x58.89	93.89x78.56
XF-PTL13711-C	0.08	280	137.5	11	0.04	136.2	F8	66.00	130	0.070%	C	665.3	IV	80x60	90x66.25	105.63x88.38
XF-PTL15211-C	0.0725	320	151.7	11	0.04	166.7	F8	72.78	130	0.066%	C	744.4	IV	88.28x66.21	99.31x73.1	116.55x97.52
XF-PTL18211-C	0.06	398	183.3	11	0.04	238.9	F8	87.53	130	0.068%	C	870.3	IV	106.67x80	120x88.33	140.83x117.83
XF-PTL19511-C	0.0565	400	194.7	11	0.04	273.0	F8	93.46	130	0.070%	C	898.7	IV	113.27x84.96	127.43x93.81	149.56x125.13
XF-PTL23811-C	0.0462	410	238.1	11	0.04	392.8	F8	114.2	130	0.060%	C	1056.8	IV	138.53x103.9	155.84x114.72	182.9X153.03
XF-PTL26811-C	0.0411	410	267.6	11	0.04	484.6	F8	128.5	130	0.072%	C	1115.4	IV	155.72x116.79	175.18x128.95	205.6x172.02
XF-PTL31011-C	0.0355	500	309.9	11	0.04	666.1	F8	148.7	130	0.065%	C	1271.7	IV	180.28x135.21	202.82x149.3	238.03x199.15
XF-PTL35011-C	0.0315	540	349.2	11	0.05	817.6	F8	167.8	130	0.065%	C	1383.9	IV	203.17x152.38	228.57x168.25	268.25x224.44
XF-PTL39011-C	0.0282	700	390.1	11	0.04	1028.8	F8	187.5	130	0.065%	C	1764.2	IV	226.95x170.21	255.32x187.94	299.65x250.71
XF-SMDT05X65D	0.5	65	22	11	0.25	2.7	F6	8	175	0.008%	C	187.6	II	12.8X9.6	14.4X10.6	16.9X14.14
XF-SMDT05X65	0.5	65	22	11	0.26	2.7	F6	7.9	175	0.001%	C	184.6	II	12.8X9.6	14.4X10.6	16.9X14.14
XF-SMDT05X178D	0.5	178	22	11	0.12	3.1	F7	9.3	150	0.043%	C	414.1	III	12.8X9.6	14.4X10.6	16.9X14.14
XF-SMDT05X178	0.5	178	22	11	0.12	3.1	F7	9.2	150	0.042%	C	411.5	III	12.8X9.6	14.4X10.6	16.9X14.14
XF-SMDTE04X110B	0.4	110	27.5	11	0.1	6.8	F10	16.5	100	0.019%	C	266.6	III	16x12	18x13.25	21.13x17.68
XF-SMDTE03X65	0.3	65	36.7	11	0.05	12.5	F10	22.0	105	0.043%	C	196.9	III	21.33x16	24x17.67	28.17x23.57

# P15



## 1/2' (8mm) Sensor Telecentric Lens

Model	Mag (X)	WD (mm)	Object FOV (mm)	Image FOV (mm)	Telecentricity (°)	DOF (mm)	Aperture	Resolution (μm)	MTF30 (LP/mm)	Distortion (%)	Mount	O/I	Generation	1/2.5' 5.8x4.3mm	1/2.3' 6.2x4.6mm	1/2' 6.4x4.8mm
XF-PTL03708-C	0.218	110	36.7	8	0.03	12.8	F5.5	16.6	185	0.110%	C	235.2	IV	26.61X19.72	28.44X21.1	29.36X22.02
XF-PTL04508-C	0.178	120	44.9	8	0.03	19.3	F5.5	20.4	185	0.099%	C	277.3	IV	32.58X24.16	34.83X25.84	35.96X26.97
XF-PTL05508-C	0.146	138	54.8	8	0.04	28.9	F5.5	24.9	185	0.065%	C	338.3	IV	39.73X29.45	42.47X31.51	43.84X32.88
XF-PTL06508-C	0.123	160	65.0	8	0.03	40.4	F5.5	29.5	185	0.095%	C	376	IV	47.15X34.96	50.41X37.4	52.03X39.02
XF-PTL08008-C	0.1	180	80.0	8	0.03	61.0	F5.5	36.26	185	0.092%	C	430.6	IV	58X43	62X46	64X48
XF-PTL09208-C	0.0874	250	91.5	8	0.04	79.8	F5.5	41.5	185	0.098%	C	525.3	IV	66.36X49.2	70.94X52.63	73.23X54.92
XF-PTL11008-C	0.0727	250	110.0	8	0.04	115.9	F5.5	50.00	185	0.095%	C	574.6	IV	79.78X59.15	85.28X63.27	88.03X66.02
XF-PTL12208-C	0.0656	260	122.0	8	0.04	142.1	F5.5	55.4	185	0.090%	C	623.2	IV	88.41X65.55	94.51X70.12	97.56X73.17
XF-PTL13708-C	0.0585	280	136.8	8	0.04	179.9	F5.5	62.2	185	0.095%	C	651.2	IV	99.15X73.5	105.98X78.63	109.4X82.05
XF-PTL15208-C	0.0528	320	151.5	8	0.04	218.8	F5.5	68.56	185	0.096%	C	730.3	IV	109.85X81.44	117.42X87.12	121.21X90.91
XF-PTL18208-C	0.044	398	181.8	8	0.04	314.3	F5.5	82.71	185	0.096%	C	856.2	IV	131.82X97.73	140.91X104.55	145.45X109.09
XF-PTL19508-C	0.0411	400	194.6	8	0.04	358.7	F5.5	88.29	185	0.097%	C	884.7	IV	141.12X104.62	150.85X111.92	155.72X116.79
XF-PTL23808-C	0.0336	410	238.1	8	0.04	512.8	F5.5	107.9	185	0.090%	C	1042.7	IV	172.62X127.98	184.52X136.9	190.48X142.86
XF-PTL26808-C	0.0299	410	267.6	8	0.04	634.2	F5.5	121.34	185	0.100%	C	1101.3	IV	193.98X143.81	207.36X153.85	214.05X160.54
XF-PTL31008-C	0.0258	500	310.1	8	0.04	872.5	F5.5	140.5	185	0.095%	C	1257.6	IV	224.81X166.67	240.31X178.29	248.06X186.05
XF-PTL35008-C	0.0229	540	349.3	8	0.05	1072.5	F5.5	158.6	185	0.095%	C	1369.9	IV	253.28X187.77	270.74X200.87	279.48X209.61
XF-PTL39008-C	0.0205	700	390.2	8	0.04	1348.7	F5.5	177.4	185	0.095%	C	1750.3	IV	282.93X209.76	302.44X224.39	312.2X234.15

# P16



## High Mag Telecentric Lens (WD:65mm)

Model	Mag (X)	WD (mm)	Object FOV (mm)	Image FOV (mm)	Telecentricity (°)	DOF (mm)	Aperture	Resolution (μm)	MTF30 (LP/mm)	Distortion (%)	Mount	O/I	Generation	1/3' 4.8x3.6mm	1/2' 6.4x4.8mm	2/3' 8.45x7.07mm
XF-MT05X65D	0.5	65	22	11	0.25	4.3	F9.6	12.8	110	0.008%	C	187.6	II	9.6X7.2	12.8X9.6	16.9X14.14
XF-MT05X65	0.5	65	22	11	0.26	4.2	F9.6	12.7	110	0.001%	C	184.6	II	9.6X7.2	12.8X9.6	16.9X14.14
XF-MT08X65	0.8	65	13.8	11	0.08	1.7	F10	8.3	100	0.086%	C	180.8	II	6X4.5	8X6	10.56X8.84
XF-MT08X65D	0.8	65	13.8	11	0.07	1.7	F10	8.3	100	0.083%	C	183.9	II	6X4.5	8X6	10.56X8.84
XF-MT1X65	1	65	11	11	0.06	1.2	F11.1	7.3	90	0.038%	C	190.1	II	4.8X3.6	6.4X4.8	8.45X7.07
XF-MT1X65D	1	65	11	11	0.06	1.2	F11.1	7.3	90	0.039%	C	193.1	II	4.8X3.6	6.4X4.8	8.45X7.07
XF-MT1.5X65D	1.5	65	7.3	11	0.15	0.55	F11.9	5.2	85	0.105%	C	168.6	III	3.2X2.4	4.27X3.2	5.63X4.71
XF-MT1.5X65	1.5	65	7.3	11	0.15	0.55	F11.9	5.2	85	0.105%	C	168.6	III	3.2X2.4	4.27X3.2	5.63X4.71
XF-MT2X65D	2.14	65	5.1	11	0.11	0.35	F14.4	4.5	70	0.041%	C	170.7	III	2.24X1.68	2.99X2.24	3.95X3.3
XF-MT2X65	2.14	65	5.1	11	0.11	0.35	F14.4	4.5	70	0.041%	C	170.7	III	2.24X1.68	2.99X2.24	3.95X3.3
XF-MT3X65D	3	65	3.7	11	0.15	0.19	F15.7	3.5	65	0.038%	C	182	III	1.6X1.2	2.13X1.6	2.82X2.36
XF-MT3X65	3	65	3.7	11	0.15	0.19	F15.7	3.5	65	0.038%	C	182	III	1.6X1.2	2.13X1.6	2.82X2.36
XF-MT4X65D	4	65	2.8	11	0.11	0.11	F17.8	2.9	55	0.064%	C	185.6	III	1.2X0.9	1.6X1.2	2.11X1.77
XF-MT4X65	4	65	2.8	11	0.11	0.11	F17.8	2.9	55	0.064%	C	185.6	III	1.2X0.9	1.6X1.2	2.11X1.77
XF-MT6X65	6	65	1.8	11	0.15	0.08	F26.6	2.9	35	0.028%	C	211.8	III	0.8X0.6	1.07X0.8	1.41X1.18
XF-MT6X65D	6	65	1.8	11	0.15	0.08	F26.6	2.9	35	0.028%	C	211.8	III	0.8X0.6	1.07X0.8	1.41X1.18



# P17

## High Mag Telecentric Lens (WD:110mm)



Model	Mag (X)	WD (mm)	Object FOV (mm)	Image FOV (mm)	Telecentricity (°)	DOF (mm)	Aperture	Resolution (μm)	MTF30 (LP/mm)	Distortion (%)	Mount	O/I	Generation	1/3' 4.8x3.6mm	1/2' 6.4x4.8mm	2/3' 8.45x7.07mm
XF-MT05X110	0.5	110	22	11	0.06	4.3	F9.6	12.7	110	0.110%	C	254.4	II	9.6X7.2	12.8X9.6	16.9X14.14
XF-MT05X110D	0.5	110	22	11	0.06	4.3	F9.6	12.7	110	0.092%	C	257	II	9.6X7.2	12.8X9.6	16.9X14.14
XF-MT08X110	0.8	110	13.8	11	0.08	1.7	F10	8.3	100	0.012%	C	244.8	II	6X4.5	8X6	10.56X8.84
XF-MT08X110D	0.8	110	13.8	11	0.08	1.7	F10	8.3	100	0.012%	C	247.6	II	6X4.5	8X6	10.56X8.84
XF-MT1X110	1	110	11	11	0.07	1.2	F11.1	7.3	90	0.030%	C	254.3	II	4.8X3.6	6.4X4.8	8.45X7.07
XF-MT1X110D	1	110	11	11	0.07	1.2	F11.1	7.3	90	0.032%	C	257	II	4.8X3.6	6.4X4.8	8.45X7.07
XF-MT1.5X110B	1.5	110	7.3	11	0.15	0.59	F11.8	5.2	85	0.023%	C	249.1	III	3.2X2.4	4.27X3.2	5.63X4.71
XF-MT1.5X110DB	1.5	110	7.3	11	0.15	0.59	F11.8	5.2	85	0.023%	C	249.1	III	3.2X2.4	4.27X3.2	5.63X4.71
XF-MT2X110DB	2	110	5.5	11	0.15	0.37	F13.5	4.5	75	0.036%	C	257.1	III	2.4X1.8	3.2X2.4	4.23X3.54
XF-MT2X110B	2	110	5.5	11	0.15	0.37	F13.5	4.5	75	0.036%	C	257.1	III	2.4X1.8	3.2X2.4	4.23X3.54
XF-MT3X110D	3	110	3.7	11	0.15	0.22	F18.2	4.0	55	0.037%	C	259.7	III	1.6X1.2	2.13X1.6	2.82X2.36
XF-MT3X110	3	110	3.7	11	0.15	0.22	F18.2	4	55	0.037%	C	259.7	III	1.6X1.2	2.13X1.6	2.82X2.36
XF-MT4X110D	4	110	2.8	11	0.04	0.13	F22.1	3.7	45	0.055%	C	262.7	III	1.2X0.9	1.6X1.2	2.11X1.77
XF-MT4X110	4	110	2.8	11	0.04	0.13	F22.1	3.7	45	0.055%	C	262.7	III	1.2X0.9	1.6X1.2	2.11X1.77
XF-MT6X110	6	110	1.8	11	0.03	0.09	F33.2	3.7	30	0.030%	C	297	III	0.8X0.6	1.07X0.8	1.41X1.18
XF-MT6X110D	6	110	1.8	11	0.03	0.09	F33.2	3.7	30	0.030%	C	297	III	0.8X0.6	1.07X0.8	1.41X1.18

# P18

## Standard Resolution Telecentric Lens (WD:65mm)



Model	Mag (X)	WD (mm)	Object FOV (mm)	Image FOV (mm)	Telecentricity (°)	DOF (mm)	Aperture	Resolution (μm)	MTF30 (LP/mm)	Distortion (%)	Mount	O/I	Generation	1/3' 4.8x3.6mm	1/2' 6.4x4.8mm	2/3' 8.45x7.07mm
XF-T2X40	2	40	4	8	0.21	0.91	F33.2	11	32	0.090%	C	111.8	I	2.4X1.8	3.2X2.4	/
XF-T2X40D	2	40	4	8	0.11	0.89	F33.3	11	32	0.190%	C	115.5	I	2.4X1.8	3.2X2.4	/
XF-T03X65	0.3	65	20	6	0.2	14.8	F15	33	70	0.240%	C	170.9	/	16X12	/	/
XF-T03X65D	0.3	65	20	6	0.20	14.8	F15	33	70	0.240%	C	173.4	/	16X12	/	/
XF-T05X65	0.5	65	22	11	0.26	7.2	F16.7	22	60	0.001%	C	184.6	II	9.6X7.2	12.8X9.6	16.9X14.14
XF-T05X65D	0.5	65	22	11	0.25	7.3	F16.5	22	60	0.008%	C	187.6	II	9.6X7.2	12.8X9.6	16.9X14.14
XF-T08X65-Y11	0.8	65	10	8	0.2	2.6	F16	13.2	65	0.230%	C	175.8	/	6X4.5	8X6	/
XF-T08X65	0.8	65	13.8	11	0.08	2.5	F14.8	12.2	70	0.085%	C	180.8	II	6X4.5	8X6	10.56X8.84
XF-T08X65D	0.8	65	13.8	11	0.07	2.5	F14.8	12.2	70	0.085%	C	183.9	II	6X4.5	8X6	10.56X8.84
XF-T1X65D-Y11	1	65	8	8	0.5	1.8	F16.7	11	60	0.086%	C	177.7	I	4.8X3.6	6.4X4.8	/
XF-T1X65-Y11	1	65	8	8	0.22	1.8	F16.7	11	60	0.085%	C	174.6	I	4.8X3.6	6.4X4.8	/
XF-T1X65	1	65	11	11	0.06	1.8	F16.6	11	60	0.040%	C	190.1	II	4.8X3.6	6.4X4.8	8.45X7.07
XF-T1X65D	1	65	11	11	0.06	1.8	F16.6	11	60	0.040%	C	193.1	II	4.8X3.6	6.4X4.8	8.45X7.07
XF-T2X65	2	65	4	8	0.08	0.47	F17.4	5.8	55	0.025%	C	150.4	I	2.4X1.8	3.2X2.4	/
XF-T2X65D	2	65	4	8	0.08	0.47	F17.4	5.8	50	0.035%	C	153.6	I	2.4X1.8	3.2X2.4	/
XF-T3X65	3	65	2.7	8	0.16	0.28	F24.9	5.5	40	0.130%	C	150.4	I	1.6X1.2	2.13X1.6	/
XF-T3X65D	3	65	2.7	8	0.04	0.27	F24.9	5.5	40	0.130%	C	153.6	I	1.6X1.2	2.13X1.6	/
XF-T4X65	4	65	2	8	0.02	0.13	F26.2	4.3	35	0.122%	C	185.2	I	1.2X0.9	1.6X1.2	/
XF-T4X65D	4	65	2	8	0.02	0.15	F27.3	4.5	35	0.053%	C	188.4	I	1.2X0.9	1.6X1.2	/
XF-T6X65	6	65	1.3	8	0.02	/	F39.3	4.3	23	0.040%	C	203.9	I	0.8X0.6	1.07X0.8	/
XF-T6X65D	6	65	1.3	8	0.02	0.06	F39.4	4.3	23	0.039%	C	207.3	I	0.8X0.6	1.07X0.8	/
XF-T8X65	8	65	1	8	0.01	/	F52.4	4.3	18	0.028%	C	223.8	I	0.6X0.45	0.8X0.6	/
XF-T8X65D	8	65	1	8	0.01	/	F52.4	4.3	17	0.026%	C	227.7	I	0.6X0.45	0.8X0.6	/

# P19

## Standard Resolution Telecentric Lens (WD:110mm)



Model	Mag (X)	WD (mm)	Object FOV (mm)	Image FOV (mm)	Telecentricity (°)	DOF (mm)	Aperture	Resolution (μm)	MTF30 (LP/mm)	Distortion (%)	Mount	O/I	Generation	1/3' 4.8x3.6mm	1/2' 6.4x4.8mm	2/3' 8.45x7.07mm
XF-T03X110	0.3	110	26.7	8	0.03	18.1	F15	33	65	0.310%	C	261.5	I	16X12	21.33X16	/
XF-T03X110D	0.3	110	26.7	8	0.03	18.1	F15	33	65	0.800%	C	264.6	I	16X12	21.33X16	/
XF-T05X110	0.5	110	16	8	0.12	7.0	F16.6	22	60	0.170%	C	233.8	I	9.6X7.2	12.8X9.6	/
XF-T05X110D	0.5	110	16	8	0.17	7.1	F16.7	22	60	0.140%	C	237.1	I	9.6X7.2	12.8X9.6	/
XF-T08X110-Y11	0.8	110	10	8	0.53	3.4	F20	16.5	50	0.077%	C	232.5	I	6X4.5	8X6	/
XF-T08X110D-Y11	0.8	110	10	8	0.73	3.3	F20	16.5	50	0.061%	C	235	I	6X4.5	8X6	/
XF-T08X110	0.8	110	13.8	11	0.08	2.9	F16.7	13.8	60	0.012%	C	244.7	II	6X4.5	8X6	10.56X8.84
XF-T08X110D	0.8	110	13.8	11	0.08	2.9	F16.7	13.8	60	0.012%	C	247.6	II	6X4.5	8X6	10.56X8.84
XF-T1X110-Y11	1	110	8	8	0.6	2.3	F20.8	13.8	50	0.063%	C	229.8	I	4.8X3.6	6.4X4.8	/
XF-T1X110D-Y11	1	110	8	8	0.6	2.3	F20.8	13.8	50	0.054%	C	233.1	I	4.8X3.6	6.4X4.8	/
XF-T1X110	1	110	11	11	0.07	2.3	F20.8	13.8	50	0.030%	C	254.3	II	4.8X3.6	6.4X4.8	8.45X7.07
XF-T1X110D	1	110	11	11	0.07	2.3	F20.8	13.8	50	0.032%	C	257	II	4.8X3.6	6.4X4.8	8.45X7.07
XF-T2X110	2	110	4	8	0.16	0.52	F22.1	7.3	40	0.300%	C	209.5	I	2.4X1.8	3.2X2.4	/
XF-T2X110D	2	110	4	8	0.16	0.50	F22.2	7.3	40	0.300%	C	212.8	I	2.4X1.8	3.2X2.4	/
XF-T3X110	3	110	2.7	8	0.11	0.24	F27.1	6	30	0.130%	C	235.1	I	1.6X1.2	2.13X1.6	/
XF-T3X110D	3	110	2.7	8	0.11	0.25	F27.2	6	30	0.130%	C	237.8	I	1.6X1.2	2.13X1.6	/
XF-T4X110	4	110	2	8	0.08	0.23	F44.3	7.3	22	0.330%	C	216.4	I	1.2X0.9	1.6X1.2	/
XF-T4X110D	4	110	2	8	0.001	0.22	F44.1	7.3	22	0.300%	C	219.6	I	1.2X0.9	1.6X1.2	/
XF-T6X110	6	110	1.3	8	0.05	0.15	F66.1	7.3	15	0.070%	C	233.1	I	0.8X0.6	1.07X0.8	/
XF-T6X110D	6	110	1.3	8	0.001	0.13	F66.1	7.3	15	0.064%	C	236.7	I	0.8X0.6	1.07X0.8	/

# P20

## Long Working Distance Telecentric Lens



Model	Mag (X)	WD (mm)	Object FOV (mm)	Image FOV (mm)	Telecentricity (°)	DOF (mm)	Aperture	Resolution (μm)	MTF30 (LP/mm)	Distortion (%)	Mount	O/I	Generation	1/3' 4.8x3.6mm	1/2' 6.4x4.8mm	2/3' 8.45x7.07mm
XF-T05X150	0.5	150	16	8	0.12	7.4	F17.9	23.6	55	0.200%	C	271.9	I	9.6X7.2	12.8X9.6	/
XF-T05X150D	0.5	150	16	8	0.16	7.4	F17.9	23.6	55	0.160%	C	275	I	9.6X7.2	12.8X9.6	/
XF-T05X200	0.5	200	16	8	0.11	7.2	F19.3	25.4	45	0.360%	C	309.4	I	9.6X7.2	12.8X9.6	/
XF-T05X200D	0.5	200	16	8	0.16	7.2	F19.3	25.4	45	0.300%	C	312.5	I	9.6X7.2	12.8X9.6	/
XF-T1X150	1	150	8	8	0.1	2.1	F20.8	13.8	45	0.140%	C	307.7	I	4.8X3.6	6.4X4.8	/
XF-T1X150D	1	150	8	8	0.1	2.1	F20.8	13.8	45	0.140%	C	310.8	I	4.8X3.6	6.4X4.8	/
XF-T1X250	1	250	8	8	0.05	2.3	F21.3	14.3	40	0.120%	C	414.8	I	4.8X3.6	6.4X4.8	/
XF-T1X250D	1	250	8	8	0.05	2.3	F21.3	14.3	40	0.110%	C	417.3	I	4.8X3.6	6.4X4.8	/
XF-T1X300	1	300	8	8	0.1	2.3	F20.8	13.8	50	0.100%	C	538.2	I	4.8X3.6	6.4X4.8	/
XF-T1X300D	1	300	8	8	0.1	2.3	F20.6	13.8	50	0.110%	C	540.7	/	4.8X3.6	6.4X4.8	/
XF-T1X420	1	420	6	6	0.1	2.6	F27	18.3	30	0.200%	C	647.2	I	4.8X3.6	/	/
XF-T1X420D	1	420	6	6	0.0001	2.6	F27.3	18.3	30	0.04%	C	648.2	I	4.8X3.6	/	/
XF-T2X150B	2	150	4	8	0.2	0.66	F29	9.4	35	0.035%	C	270.3	/	2.4X1.8	3.2X2.4	/
XF-T2X150BD	2	150	4	8	0.2	0.66	F29	9.4	35	0.035%	C	270.3	/	2.4X1.8	3.2X2.4	/
XF-T2X200B	2	200	4	8	0.2	0.68	F29.2	9.4	35	0.033%	C	340.1	/	2.4X1.8	3.2X2.4	/
XF-T2X200BD	2	200	4	8	0.2	0.68	F29.2	9.4	35	0.033%	C	340.1	/	2.4X1.8	3.2X2.4	/
XF-T2X250	2	250	4.5	9	0.05	0.72	F28.6	9.4	35	0.200%	C	456.6	I	2.4X1.8	3.2X2.4	/
XF-T2X250D	2	250	4.5	9	0.05	0.71	F28.4	9.4	35	0.200%	C	459.2	I	2.4X1.8	3.2X2.4	/
XF-T2X300	2	300	4	8	0.1	0.78	F33.2	11.0	30	0.160%	C	507.2	I	2.4X1.8	3.2X2.4	/
XF-T2X300D	2	300	4	8	0.1	0.78	F33.2	11	30	0.160%	C	511.6	I	2.4X1.8	3.2X2.4	/
XF-MT1X200	1	200	11	11	0.2	1.6	F14.3	9.4	65	0.070%	C	406.2	II	4.8X3.6	6.4X4.8	8.45X7.07
XF-MT1X200D	1	200	11	11	0.19	1.6	F14.3	9.4	65	0.070%	C	409.4	II	4.8X3.6	6.4X4.8	8.45X7.07

# Non-Telecentric Lens MH Series



- 01 With a mag from 0.1X to 1X, WD range from 49mm to 1405mm, MH series can be applied in diverse applications
- 02 Low optical distortion and high resolution
- 03 Fixed magnification will be more useful to be applied in precise measurement applications.
- 04 Compact size and rigid design are suitable for flying machines which requires stability in fast movement.
- 05 Cost-effective lens with lower price than telecentric lens but better performance than FA lens
- 06 Support to 2/3' sensor size

# P23

## Non-telecentric Lens MH Series

Model	Mag (X)	WD (mm)	Object FOV (mm)	Image FOV (mm)	DOF (mm)	Aperture	Resolution (μm)	MTF30 (LP/mm)	Distortion(%)	Mount	O/I	1/3' 4.8x3.6mm	1/1.8' 7.2x5.3mm	2/3' 8.45x7.07mm
XF-MH01X190	0.1	190	110.0	11	64.3	F6	39.2	165	0.106%	C	230.9	48X36	72X53	84.5X70.7
XF-MH01X280	0.1	280	110.0	11	62.2	F6	39.2	160	0.085%	C	320.4	48X36	72X53	84.5X70.7
XF-MH01X445	0.1	445	110.0	11	63.4	F6.5	42.5	140	0.017%	C	505.5	48X36	72X53	84.5X70.7
XF-MH01X518	0.1	518	110.0	11	63.2	F6.5	42.5	120	0.049%	C	584.7	48X36	72X53	84.5X70.7
XF-MH01X647	0.1	647	110.0	11	58.4	F6	39.6	145	0.018%	C	735.8	48X36	72X53	84.5X70.7
XF-MH01X799	0.1	799	110.0	11	58.5	F6	39.2	135	0.010%	C	903	48X36	72X53	84.5X70.7
XF-MH01X1023	0.1	1023	110.0	11	59.1	F6	39.2	145	0.014%	C	1167.3	48X36	72X53	84.5X70.7
XF-MH01X1213	0.1	1213	110.0	11	76.4	F7	45.7	130	0.009%	C	1374.9	48X36	72X53	84.5X70.7
XF-MH01X1405	0.1	1405	110.0	11	70.6	F7	46.2	135	0.011%	C	1592.2	48X36	72X53	84.5X70.7
XF-MH02X96	0.2	96	55.0	11	16.3	F6	19.8	165	0.026%	C	138.7	24X18	36X26.5	42.25X35.35
XF-MH02X149	0.2	149	55.0	11	14.6	F5.5	18.2	165	0.016%	C	192.1	24X18	36X26.5	42.25X35.35
XF-MH02X236	0.2	236	55.0	11	17.6	F7	23.0	135	0.020%	C	300.8	24X18	36X26.5	42.25X35.35
XF-MH02X276	0.2	276	55.0	11	17.6	F7	23.0	130	0.011%	C	347.6	24X18	36X26.5	42.25X35.35
XF-MH02X341	0.2	341	55.0	11	15.8	F6.5	21.3	140	0.021%	C	436	24X18	36X26.5	42.25X35.35
XF-MH02X425	0.2	425	55.0	11	16.2	F6.5	21.3	135	0.015%	C	536.5	24X18	36X26.5	42.25X35.35
XF-MH02X541	0.2	541	55.0	11	16.2	F6.5	21.3	145	0.016%	C	694.9	24X18	36X26.5	42.25X35.35
XF-MH02X644	0.2	644	55.0	11	19.2	F7.5	24.6	130	0.011%	C	817.4	24X18	36X26.5	42.25X35.35
XF-MH02X746	0.2	746	55.0	11	19.1	F7.5	24.8	130	0.010%	C	945.9	24X18	36X26.5	42.25X35.35
XF-MH02X932	0.2	932	55.0	11	18.6	F7.5	24.6	120	0.007%	C	1070.5	24X18	36X26.5	42.25X35.35
XF-MH02X1184	0.2	1184	55.0	11	19.9	F7.5	24.6	130	0.004%	C	1367.1	24X18	36X26.5	42.25X35.35
XF-MH03X65	0.3	65	36.7	11	7.3	F6	13.2	165	0.064%	C	109.6	16X12	24X17.67	28.17X23.57
XF-MH03X105	0.3	105	36.7	11	7.2	F6	13.2	160	0.045%	C	150.7	16X12	24X17.67	28.17X23.57
XF-MH03X166	0.3	166	36.7	11	7.2	F6.5	14.3	140	0.040%	C	235	16X12	24X17.67	28.17X23.57
XF-MH03X195	0.3	195	36.7	11	6.6	F6	13.2	145	0.014%	C	271.5	16X12	24X17.67	28.17X23.57
XF-MH03X240	0.3	240	36.7	11	7.7	F7	15.4	130	0.023%	C	341	16X12	24X17.67	28.17X23.57
XF-MH03X301	0.3	301	36.7	11	7.9	F7	15.4	130	0.020%	C	420	16X12	24X17.67	28.17X23.57
XF-MH03X380	0.3	380	36.7	11	7.9	F7	15.4	130	0.016%	C	543.8	16X12	24X17.67	28.17X23.57
XF-MH03X454	0.3	454	36.7	11	7.3	F6.5	14.3	145	0.012%	C	638.3	16X12	24X17.67	28.17X23.57
XF-MH03X526	0.3	526	36.7	11	7.2	F6.5	14.3	130	0.010%	C	739.7	16X12	24X17.67	28.17X23.57
XF-MH03X664	0.3	664	36.7	11	8.9	F8	17.5	120	0.007%	C	819	16X12	24X17.67	28.17X23.57
XF-MH03X846	0.3	846	36.7	11	9.5	F8	17.5	125	0.0003%	C	1049.6	16X12	24X17.67	28.17X23.57
XF-MH04X49	0.4	49	27.5	11	4.1	F6	9.9	150	0.085%	C	95.5	12X9	18X13.25	21.13X17.68
XF-MH04X82	0.4	82	27.5	11	4.1	F6	9.9	155	0.071%	C	130.4	12X9	18X13.25	21.13X17.68
XF-MH04X131	0.4	131	27.5	11	4.4	F7	11.5	135	0.053%	C	204.2	12X9	18X13.25	21.13X17.68
XF-MH04X155	0.4	155	27.5	11	4.1	F6.5	10.7	145	0.029%	C	236.4	12X9	18X13.25	21.13X17.68
XF-MH04X190	0.4	190	27.5	11	3.7	F6	9.9	130	0.023%	C	297	12X9	18X13.25	21.13X17.68
XF-MH04X238	0.4	238	27.5	11	4.1	F6.5	10.7	135	0.020%	C	364.5	12X9	18X13.25	21.13X17.68
XF-MH04X299	0.4	299	27.5	11	4.1	F6.5	10.7	145	0.016%	C	472.8	12X9	18X13.25	21.13X17.68
XF-MH04X358	0.4	358	27.5	11	4.5	F7	11.6	140	0.012%	C	554.4	12X9	18X13.25	21.13X17.68
XF-MH04X416	0.4	416	27.5	11	4.4	F7	11.6	125	0.009%	C	552.9	12X9	18X13.25	21.13X17.68
XF-MH04X531	0.4	531	27.5	11	4.7	F7.5	12.4	115	0.006%	C	701.5	12X9	18X13.25	21.13X17.68
XF-MH04X681	0.4	681	27.5	11	5.0	F7.5	12.4	130	0.0002%	C	845.1	12X9	18X13.25	21.13X17.68
XF-MH05X69	0.5	69	22.0	11	2.8	F6.5	8.6	145	0.085%	C	120.1	9.6X7.2	14.4X10.6	16.9X14.14
XF-MH05X110	0.5	110	22.0	11	2.6	F6.5	8.6	135	0.060%	C	187.5	9.6X7.2	14.4X10.6	16.9X14.14
XF-MH05X130	0.5	130	22.0	11	2.9	F7	9.2	135	0.038%	C	216.3	9.6X7.2	14.4X10.6	16.9X14.14
XF-MH05X160	0.5	160	22.0	11	2.6	F6.5	8.6	130	0.023%	C	273	9.6X7.2	14.4X10.6	16.9X14.14
XF-MH05X200	0.5	200	22.0	11	2.8	F7	9.2	130	0.021%	C	334.5	9.6X7.2	14.4X10.6	16.9X14.14
XF-MH05X250	0.5	250	22.0	11	2.8	F7	9.2	130	0.016%	C	433.4	9.6X7.2	14.4X10.6	16.9X14.14
XF-MH05X300	0.5	300	22.0	11	3.1	F7.5	9.9	135	0.012%	C	507.4	9.6X7.2	14.4X10.6	16.9X14.14
XF-MH05X350	0.5	350	22.0	11	3.0	F7.5	9.9	120	0.009%	C	498.9	9.6X7.2	14.4X10.6	16.9X14.14
XF-MH05X450	0.5	450	22.0	11	3.2	F8	10.6	110	0.005%	C	636.5	9.6X7.2	14.4X10.6	16.9X14.14
XF-MH05X580	0.5	580	22.0	11	3.5	F8	10.6	125	0.0002%	C	764.1	9.6X7.2	14.4X10.6	16.9X14.14

# P24

## Non-telecentric Lens MH Series

Model	Mag (X)	WD (mm)	Object FOV (mm)	Image FOV (mm)	DOF (mm)	Aperture	Resolution (μm)	MTF30 (LP/mm)	Distortion(%)	Mount	O/I	1/3' 4.8x3.6mm	1/1.8' 7.2x5.3mm	2/3' 8.45x7.07mm
XF-MH06X60	0.6	60	18.3	11	2.1	F7	7.7	135	0.094%	C	113.7	8X6	12X8.83	14.08X11.78
XF-MH06X96	0.6	96	18.3	11	2.0	F7	7.7	135	0.064%	C	177.6	8X6	12X8.83	14.08X11.78
XF-MH06X114	0.6	114	18.3	11	2.2	F7.5	8.3	130	0.044%	C	205.2	8X6	12X8.83	14.08X11.78
XF-MH06X140	0.6	140	18.3	11	1.9	F7	7.7	130	0.022%	C	259	8X6	12X8.83	14.08X11.78
XF-MH06X175	0.6	175	18.3	11	2.1	F7.5	8.3	125	0.021%	C	317	8X6	12X8.83	14.08X11.78
XF-MH06X218	0.6	218	18.3	11	2.1	F7.5	8.3	125	0.015%	C	411.4	8X6	12X8.83	14.08X11.78
XF-MH06X261	0.6	261	18.3	11	2.3	F8	8.8	130	0.012%	C	480.4	8X6	12X8.83	14.08X11.78
XF-MH06X306	0.6	306	18.3	11	2.3	F8	8.8	120	0.008%	C	468.4	8X6	12X8.83	14.08X11.78
XF-MH06X396	0.6	396	18.3	11	2.4	F8.5	9.4	110	0.005%	C	598.5	8X6	12X8.83	14.08X11.78
XF-MH06X513	0.6	513	18.3	11	2.6	F8.5	9.4	120	0.0002%	C	717.6	8X6	12X8.83	14.08X11.78
XF-MH07X86	0.7	86	15.7	11	1.4	F7	6.6	135	0.065%	C	171.9	6.86X5.14	10.29X7.57	12.07X10.1
XF-MH07X102	0.7	102	15.7	11	1.5	F7	6.6	130	0.047%	C	198.1	6.86X5.14	10.29X7.57	12.07X10.1
XF-MH07X125	0.7	125	15.7	11	1.4	F7	6.6	130	0.021%	C	250	6.86X5.14	10.29X7.57	12.07X10.1
XF-MH07X157	0.7	157	15.7	11	1.4	F7	6.6	125	0.021%	C	306.5	6.86X5.14	10.29X7.57	12.07X10.1
XF-MH07X194	0.7	194	15.7	11	1.5	F7.5	7.1	125	0.014%	C	397.4	6.86X5.14	10.29X7.57	12.07X10.1
XF-MH07X234	0.7	234	15.7	11	1.5	F7.5	7.1	130	0.012%	C	374.3	6.86X5.14	10.29X7.57	12.07X10.1
XF-MH07X275	0.7	275	15.7	11	1.5	F7.5	7.1	110	0.008%	C	450.9	6.86X5.14	10.29X7.57	12.07X10.1
XF-MH07X358	0.7	358	15.7	11	1.6	F8	7.5	105	0.004%	C	517.5	6.86X5.14	10.29X7.57	12.07X10.1
XF-MH07X465	0.7	465	15.7	11	1.8	F8	7.5	120	0.0002%	C	689.6	6.86X5.14	10.29X7.57	12.07X10.1
XF-MH08X78	0.8	78	13.8	11	1.2	F7.5	6.2	125	0.065%	C	168.1	6X4.5	9X6.63	10.56X8.84
XF-MH08X93	0.8	93	13.8	11	1.2	F7.5	6.2	120	0.048%	C	194	6X4.5	9X6.63	10.56X8.84
XF-MH08X114	0.8	114	13.8	11	1.2	F7.5	6.2	125	0.020%	C	245.5	6X4.5	9X6.63	10.56X8.84
XF-MH08X143	0.8	143	13.8	11	1.2	F7.5	6.2	120	0.021%	C	300	6X4.5	9X6.63	10.56X8.84
XF-MH08X177	0.8	177	13.8	11	1.2	F7.5	6.2	120	0.014%	C	389.9	6X4.5	9X6.63	10.56X8.84
XF-MH08X213	0.8	213	13.8	11	1.3	F8	6.6	115	0.011%	C	365.3	6X4.5	9X6.63	10.56X8.84
XF-MH08X251	0.8	251	13.8	11	1.3	F8	6.6	105	0.007%	C	439.9	6X4.5	9X6.63	10.56X8.84
XF-MH08X329	0.8	329	13.8	11	1.3	F8.5	7.0	105	0.004%	C	504.5	6X4.5	9X6.63	10.56X8.84
XF-MH08X429	0.8	429	13.8	11	1.4	F8.5	7.0	115	0.0001%	C	606.5	6X4.5	9X6.63	10.56X8.84
XF-MH09X72	0.9	72	12.2	11	1.1	F8.5	6.2	115	0.0					



# P25



## Instant Measurement Lens

Model		Optical structure	WD (mm)	Mag (X)	Object FOV Φ(mm)	Image FOV Φ(mm)	Telecentricity (°)	Aperture	MTF30 (LP/mm)	Distortion (%)	Depth of field (mm)
XF-10MDT01090436X120DSS-D-L90 (Coaxial)	Small FOV	Bi Telecentric Lens	120	0.436	25.2	11	0.03	8	125	0.007%	±2.35
	Big FOV	Bi Telecentric Lens	120	0.109	100.9	11	0.01	8	130	0.066%	±37.3
XF-10MDT01090436X120DSSB-L90 (Non-coaxial)	Small FOV	Bi Telecentric Lens	120	0.436	25.2	11	0.01	8	130	0.085%	±2.35
	Big FOV	Bi Telecentric Lens	120	0.109	100.9	11	0.02	8	130	0.100%	±37.7
XF-10MDT051.5X110-1C	Big FOV	Object Telecentric Lens	110	0.5	32	16	0.06	8	125	0.080%	3.3
	Small FOV	Object Telecentric Lens	110	1.5	10.7	16	0.1	11.5	85	0.075%	0.52
XF-10MDT0109X120-L90		Bi Telecentric Lens	120	0.109	100.9	11	0.01	8	130	0.066%	74.6

# P26



## Telecentric Illuminator PTI Series

Focal Distance (mm)	Model	Rated Power (W)	Rated Voltage (V)	Max current (mA)	Output Light Diameter Φ (mm)	WD (mm)	WD Tolerance (±mm)	Suggested Qualified Collimation (°)	Suggested Qualified Parallelism (°)
100.000	XF-PTI020-(C)	3W	3V	1000mA	20	110	50	0.52	0.060
79.300	XF-PTI037-(C)	5W	24V	208mA	37	56	40	1.73	3.480
131.400	XF-PTI060-(C)	5W	24V	208mA	60	90	66	1.05	2.556
160.300	XF-PTI080-(C)	5W	24V	208mA	80	120	80	0.86	1.800
160.300	XF-PTI080-L90-(C)	5W	24V	208mA	80	120	80	0.86	1.800
220.700	XF-PTI100-L90-(C)	5W	24V	208mA	100	165	110	0.62	1.740
418.992	XF-PTI152-L90-(C)	5W	24V	208mA	152	419	209	0.33	0.144
508.382	XF-PTI195-L90-(C)	5W	24V	208mA	195	508	254	0.27	0.173
753.723	XF-PTI238-L90-(C)	5W	24V	208mA	238	751	377	0.18	0.079

# P27



## Microscopy Lens VM Series



Model	Objective Magnification	CCD Max size	Objective Aperture Diameter	Image Path Spectrum	Light Path Spectrum	Laser Path Spectrum	Lighting Path Mount	Objective Lens Mount	Customized Mag for Imaging Path
XF-VM3-1X-C	1X	4/3"	φ12mm	Visible light	Visible light	/	8mm standard point light source	M26×0.706	0.96X、0.7X、0.63X
XF-VM3-1X-N	1X	4/3"	φ12mm	Visible light	/	/	/	M26×0.706	0.96X、0.7X、0.63X
XF-VM3-05X-C	0.5X	2/3"	φ12mm	Visible light	Visible light	/	8mm standard point light source	M26×0.706	0.96X、0.7X、0.63X
XF-VM3-1X-DIC	1X	4/3"	φ12mm	Visible light	Visible light	/	30W blue LED	M26×0.706	0.96X、0.7X、0.63X
XF-VM3-1X-CL	1X	4/3"	φ12mm	Visible light	Visible light	/	8mm standard point light source	Support objective lens converter with equivalent thickness below 45mm	0.96X、0.7X、0.63X
XF-VM3-05X-CL	0.5X	2/3"	φ12mm	Visible light	Visible light	/	8mm standard point light source	Support objective lens converter with equivalent thickness below 45mm	0.96X、0.7X、0.63X
XF-VM3-D0510	Vertical 0.5X/ Horizontal 1X	Vertical 2/3"/ Horizontal 1.1"	φ12mm	Visible light	/	/	8mm standard point light source	M26×0.706	0.96X、0.7X、0.63X
XF-VM3-LA1X-C1-NIR	1X	1.1"	φ12mm	Visible light	Visible light	800-1200nm	8mm standard point light source	M26×0.706	0.96X、0.7X、0.63X
XF-VM3-LA1X-C2-NIR-CL	1X	1.1"	φ12mm	Visible light	Visible light	800-1200nm	8mm standard point light source	Support objective lens converter with equivalent thickness below 45mm	0.96X、0.7X、0.63X

### Referable Objective Lens

Model	Magnification	NA	WD(mm)	Resolution (um)	DOF(±um)	CCD Max Size	Parfocal Distance (mm)	Mount
M Plan APO L 2X	2X	0.055	34.3	5	91	4/3'(24mm)	95	M26x0.706
M Plan APO HL 5X	5X	0.13	45	2	14	4/3'(24mm)	95	M26x0.706
M Plan APO L 10X	10X	0.28	33.8	1	3.5	4/3'(24mm)	95	M26x0.706
M Plan APO SL 20X	20X	0.29	31.1	1	3.3	4/3'(24mm)	95	M26x0.706
M Plan APO SL 50X	50X	0.42	20.2	0.7	1.6	4/3'(24mm)	95	M26x0.706

# P28

## DMD Lithography Imaging Module

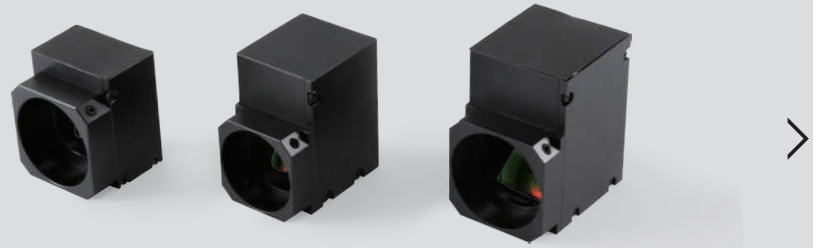
Canrill has been in close cooperation with LDI (Laser Direct Imaging) manufacturers, to research and produce LDI lens.

Our dual-waveband and tri-waveband LDI lens optimize the image quality completely and the transmittance, which is better than 80% during waveband from 360nm to 400nm while ensuring the image quality in the same time.

Welcome to contact us for customized solution.



# P29



## Prism

	Model	Support Lens Diameter (mm)	Internal Optical Path (mm)	Optical Axis Distance (mm)
L Type Prism	XF-ADL90-16D-1.5	16	23.7	1.5
	XF-ADL90-16D-3S	16	23.5	3
	XF-ADL90-20D-3.2	20	42	3.2
	XF-ADL90-22D-3.2	22	21	3.2
	XF-ADL90-25D-13	25	30.9	13
	XF-ADL90-27D-14.3	27	31.1	14.3
	XF-ADL90-29D-12.6	29	32.7	12.6
	XF-ADL90-34D-12.2	34	31.9	12.2
	XF-ADL90-43D-23.5B	43	48.5	23.5
	XF-ADL90-30D-5	30	26.5	5
Z Type Prism	XF-ADZ-16D-1.5	16	39.5	1.5
	XF-ADZ-16D-3	16	36.4	3
	XF-ADZ-22D-3B	22	38	3
	XF-ADZ-29D-5	29	37	5
	XF-ADZ-30D-4	30	63.3	4
ZL Type Prism	XF-ADZL-16D-1L	16	31	1
	XF-ADZL-16D-1R	16	31	1
	XF-ADZL-16D-1.5L	16	31	1.5
	XF-ADZL-16D-1.5R	16	31	1.5
	XF-ADZL-16D-3B-L	16	29.5	3
	XF-ADZL-16D-3B-R	16	29.5	3

# P30



## Point Illumination

Model	Light Color	Main Wavelength(nm)	Forward Voltage (V)	Forward Current (mA)
XF-ADLED1W-Mini	White	/	3.2	350
XF-ADLED1R-Mini	Red	630	2.2	350
XF-ADLED1B-Mini	Blue	460	3.2	350
XF-ADLED1G-Mini	Green	520	3.2	350
XF-ADLED1W	White	/	3.2	350
XF-ADLED1R	Red	630	2.2	350
XF-ADLED1G	Green	520	3.2	350
XF-ADLED1B	Blue	460	3.2	350
XF-ADLED3W	White	/	3.5	700
XF-ADLED3R	Red	630	2.5	700
XF-ADLED3G	Green	520	3.5	700
XF-ADLED3B	Blue	460	3.5	700