

C A N R I L L
SINCE 2009



IV Generation of Bi-Telecentric Lens
PTL Series

Shenzhen Can-Rill Technologies Co, Ltd

Add: Room 405, Building A, Xinlong Industrial Park, No 50.
Fengtang Ave, Bao'an, Shenzhen, Guangdong, China, 518103

Tel:86-755-36983709

Fax:0755-33232903

Web:www.canrill.com

Email:info@canrill.com





Key advantages

- ◆ Little-to-no distortion
- ◆ Extra-High Telecentricity **<0.04°**
- ◆ Better Consistency: **PV <0.3 RMS <0.07**
- ◆ Bigger Aperture **F5.5**

Features

- ◆ Support 12 kinds of image FOV from 8mm to 82mm
- ◆ Support 17 kinds of object FOV from 37mm to 390mm
- ◆ Support inner L90 Steering by all PTL series
- ◆ Separate design on front and back components so as to combine any object FOV and image FOV.



Model Number	Mag(X)	Working Distance (mm)	Object FOV(mm)	Image FOV (mm)	Telecentricity Standard Value(°)	DOF (mm)	Aperature	Resolution (um)	Image MTF30 (LP/mm)	Distortion Standard Value (%)	Mounting	If support L90
XF-PTL03708-C	0.218	110	36.7	8	0.09	12.8	F5.5	16.62	185	0.150%	C	No
XF-PTL03711-C-VI	0.3	110	36.7	11	0.09	8-26.2	F6.5-F21.3	14.3-46.82	160-49	0.100%	C	No
XF-PTL03716-C-VI	0.441	110	36.7	16.2	0.09	3.7-17.9	F6.5-F31.3	9.7-46.82	160-33	0.100%	C	No
XF-PTL03719-C-VI	0.504	110	36.7	18.5	0.09	2.8-15.6	F6.5-F35.8	8.5-46.82	160-29	0.100%	C	No
XF-PTL03723-C-VI	0.634	110	36.3	23	0.09	1.8-12.5	F6.5-F45	6.8-46.82	160-23	0.100%	C	No
XF-PTL03729-F-VI	0.793	110	36.6	29	0.09	1.2-6.6	F7-F37.5	5.8-31.22	145-27	0.100%	F	No
XF-PTL03732-F-VI	0.896	110	35.7	32	0.09	1-5.9	F7.5-F42.2	5.5-31.1	135-25	0.100%	F	No
XF-PTL03735-F-VI	0.988	110	35.4	35	0.09	0.8-5.3	F7.5-F46.7	5-31.22	140-22	0.100%	F	No
XF-PTL03738-F-VI	1.073	110	35.4	38	0.09	0.7-4.9	F8-F50.8	4.9-31.22	130-20	0.100%	F	No
XF-PTL03744-M58-11.48-VI	1.213	110	35.9	43.6	0.09	0.62-4.3	F9-F57.4	4.91-31.22	115-18	0.100%	M58	No
XF-PTL03757-M72-11.48-VI	1.618	110	35.5	57.4	0.09	0.6@F15	F6-F76.6	6.1@F15	68@F15	0.100%	M72	No
XF-PTL03762-M72-11.48-VI	1.755	110	35.3	62	0.09	0.5@F15	F6-F83	5.7@F15	68@F15	0.100%	M72	No
XF-PTL04508-C	0.178	120	44.9	8	0.1	19.3	F5.5	20.40	185	0.100%	C	No
XF-PTL04511-C	0.244	120	45.1	11	0.09	14.8	F8	21.60	130	0.100%	C	No
XF-PTL04516-C-VI	0.359	120	45.1	16.2	0.1	5.6-27	F6.5-F31.3	11.9-57.47	160-33	0.100%	C	No
XF-PTL04519-C-VI	0.411	120	45.0	18.5	0.1	4.2-23.6	F6.5-F35.8	10.4-57.47	160-29	0.100%	C	No
XF-PTL04523-C-VI	0.516	120	44.6	23	0.08	2.7-18.8	F6.5-F45	8.3-57.47	160-23	0.100%	C	No
XF-PTL04529-F-VI	0.646	120	44.9	29	0.07	1.8-10	F7-F37.5	7.2-38.32	145-27	0.065%	F	No
XF-PTL04532-F-VI	0.73	120	43.8	32	0.07	1.6-8.8	F7.5-F42.2	6.8-38.2	135-25	0.065%	F	No
XF-PTL04535-F-VI	0.805	120	43.5	35	0.07	1.3-8	F7.5-F46.7	6.2-38.32	140-22	0.065%	F	No
XF-PTL04538-F-VI	0.874	120	43.5	38	0.07	1.1-7.4	F8-F50.8	6-38.32	130-20	0.085%	F	No
XF-PTL04544-M58-11.48-VI	0.988	120	44.1	43.6	0.1	1-6.5	F9-F57.4	6-38.32	115-18	0.100%	M58	No
XF-PTL04557-M72-11.48-VI	1.319	120	43.5	57.4	0.1	0.7@F11	F6-F76.5	5.5@F11	95@F11	0.100%	M72	No
XF-PTL04562-M72-11.48-VI	1.43	120	43.4	62	0.1	0.8@F15	F6-F83	6.9@F15	68@F15	0.100%	M72	No
XF-PTL04582-M95-12-VI	1.92	120	42.7	82	0.1	0.5@F18	F8-F111.5	6.20@F18	58@F18	0.100%	M95	No
XF-PTL05508-C	0.146	138	54.8	8	0.1	28.9	F5.5	24.93	185	0.100%	C	No
XF-PTL05511-C	0.2	138	55.0	11	0.1	22.0	F8	26.40	130	0.100%	C	No
XF-PTL05516-C	0.294	138	55.1	16.2	0.09	8.3	F6.5	14.60	160	0.095%	C	No
XF-PTL05519-C-VI	0.336	138	55.1	18.5	0.09	6.3-35.2	F6.5-F35.8	12.8-70.23	160-29	0.095%	C	No
XF-PTL05523-C-VI	0.422	138	54.5	23	0.08	4-28	F6.5-F45	10.2-70.23	160-23	0.075%	C	No
XF-PTL05529-F-VI	0.528	138	54.9	29	0.06	2.7-15	F7-F37.5	8.7-46.82	145-27	0.058%	F	No
XF-PTL05532-F-VI	0.597	138	53.6	32	0.06	1.9-13.2	F7.5-F42.2	8.3-46.7	135-25	0.100%	F	No
XF-PTL05535-F-VI	0.658	138	53.2	35	0.06	1.9-12	F7.5-F46.7	7.5-46.82	140-22	0.058%	F	No
XF-PTL05538-F-VI	0.715	138	53.1	38	0.06	1.7-11	F8-F50.8	7.4-46.82	130-20	0.058%	F	No
XF-PTL05544-M58-11.48-VI	0.809	138	53.9	43.6	0.07	1.5-9.8	F9-F57.4	7.4-46.82	115-18	0.100%	M58	No
XF-PTL05557-M72-11.48-VI	1.079	138	53.2	57.4	0.08	1@F11	F6-F76.5	6.7@F11	95@F11	0.100%	M72	No
XF-PTL05562-M72-11.48-VI	1.17	138	53.0	62	0.08	1.2@F15	F6-F83	8.5@F15	68@F15	0.100%	M72	No

Model Number	Mag(X)	Working Distance (mm)	Object FOV(mm)	Image FOV (mm)	Telecentricity Standard Value(°)	DOF (mm)	Aperature	Resolution (um)	Image MTF30 (LP/mm)	Distortion Standard Value (%)	Mounting	If support L90
XF-PTL05582-M95-12-VI	1.571	138	52.2	82	0.08	0.8@F18	F8-F111.5	7.6@F18	58@F18	0.100%	M95	No
XF-PTL06508-C	0.123	160	65.0	8	0.09	40.4	F5.5	29.50	185	0.100%	C	No
XF-PTL06511-C	0.169	160	65.1	11	0.07	30.8	F8	31.24	130	0.100%	C	No
XF-PTL06516-C	0.248	160	65.3	16.2	0.09	11.6	F6.5	17.27	160	0.080%	C	No
XF-PTL06519-C	0.284	160	65.1	18.5	0.09	8.8	F6.5	15.10	160	0.080%	C	No
XF-PTL06523-C-VI	0.357	160	64.4	23	0.09	5.6-39.2	F6.5-F45	12-83.11	160-23	0.070%	C	No
XF-PTL06529-F-VI	0.447	160	64.9	29	0.08	3.8-20.9	F7-F37.5	10.4-55.41	145-27	0.060%	F	No
XF-PTL06532-F-VI	0.505	160	63.4	32	0.08	3.3-18.5	F7.5-F42.2	9.8-55.2	135-25	0.060%	F	No
XF-PTL06535-F-VI	0.556	160	62.9	35	0.08	2.7-16.8	F7.5-F46.7	8.9-55.41	140-22	0.060%	F	No
XF-PTL06538-F-VI	0.605	160	62.8	38	0.08	2.4-15.5	F8-F50.8	8.7-55.41	130-20	0.082%	F	No
XF-PTL06544-M58-11.48-VI	0.684	160	63.7	43.6	0.09	2.1-13.7	F9-F57.4	8.7-55.41	115-18	0.100%	M58	No
XF-PTL06557-M72-11.48-VI	0.912	160	62.9	57.4	0.09	1.5@F11	F6-F76.5	8@F11	95@F11	0.100%	M72	No
XF-PTL06562-M72-11.48-VI	0.989	160	62.7	62	0.09	1.2@F11	F6-F83	7.4@F11	95@F11	0.100%	M72	No
XF-PTL06582-M95-12-VI	1.328	160	61.7	82	0.1	0.8@F13.5	F8-F111.5	6.7@F13.5	75@F13.5	0.100%	M95	No
XF-PTL08008-C	0.1	180	80.0	8	0.07	61.0	F5.5	36.26	185	0.163%	C	Yes
XF-PTL08011-C	0.138	180	79.7	11	0.06	46.5	F8	38.39	130	0.100%	C	Yes
XF-PTL08016-C	0.202	180	80.2	16.2	0.06	17.6	F6.5	21.22	160	0.037%	C	Yes
XF-PTL08019-C	0.231	180	80.1	18.5	0.06	13.4	F6.5	18.55	160	0.037%	C	Yes
XF-PTL08023-C	0.29	180	79.3	23	0.06	10.5	F8	18.18	130	0.089%	C	Yes
XF-PTL08029-F-VI	0.363	180	79.9	29	0.06	5.8-31.6	F7-F37.5	12.72-68.1	145-27	0.080%	F	Yes
XF-PTL08032-F-VI	0.411	180	77.9	32	0.06	5-28	F7.5-F42.2	12.1-67.9	135-25	0.080%	F	Yes
XF-PTL08035-F-VI	0.453	180	77.3	35	0.06	4-25.4	F7.5-F47	10.94-68.1	140-22	0.080%	F	Yes
XF-PTL08038-F-VI	0.492	180	77.2	38	0.06	3.6-23.3	F8-F51	10.74-68.1	130-20	0.100%	F	Yes
XF-PTL08044-M58-11.48-VI	0.556	180	78.4	43.6	0.06	3.2-20.7	F9-F57	10.69-68.1	115-18	0.100%	M58	Yes
XF-PTL08057-M72-11.48-VI	0.742	180	77.4	57.4	0.06	2.2@F11	F6-F76.5	9.8@F11	95@F11	0.100%	M72	Yes
XF-PTL08062-M72-11.48-VI	0.805	180	77.0	62	0.06	1.8@F11	F6-F83	9.0@F11	95@F11	0.100%	M72	Yes
XF-PTL08082-M95-12-VI	1.08	180	75.9	82	0.06	1.2@F13.5	F8-F111	8.3@F13.5	75@F13.5	0.100%	M95	Yes
XF-PTL09208-C	0.0874	250	91.5	8	0.07	79.8	F5.5	41.53	185	0.163%	C	Yes
XF-PTL09211-C	0.12	250	91.7	11	0.06	60.9	F8	43.97	130	0.100%	C	Yes
XF-PTL09216-C	0.177	250	91.5	16.2	0.06	23.1	F6.5	24.31	160	0.037%	C	Yes
XF-PTL09219-C	0.202	250	91.6	18.5	0.06	17.5	F6.5	21.25	160	0.037%	C	Yes
XF-PTL09223-C	0.254	250	90.6	23	0.06	13.7	F8	20.82	130	0.089%	C	Yes
XF-PTL09229-F-VI	0.317	250	91.5	29	0.06	7.6-41.1	F7-F37.5	14.57-78	145-27	0.080%	F	Yes
XF-PTL09232-F-VI	0.359	250	89.1	32	0.06	6.4-36.5	F7.5-F42.2	13.8-77.7	135-25	0.080%	F	Yes
XF-PTL09235-F-VI	0.395	250	88.6	35	0.06	5.2-33	F7.5-F46.5	12.53-77.72	140-22	0.080%	F	Yes
XF-PTL09238-F-VI	0.43	250	88.4	38	0.06	4.7-30.6	F8-F51	12.3-78	130-20	0.100%	F	Yes
XF-PTL09244-M58-11.48-VI	0.486	250	89.7	43.6	0.06	4.1-27.1	F9-F57	12.24-77.72	115-18	0.100%	M58	Yes

Model Number	Mag(X)	Working Distance (mm)	Object FOV(mm)	Image FOV (mm)	Telecentricity Standard Value(°)	DOF (mm)	Aperature	Resolution (um)	Image MTF30 (LP/mm)	Distortion Standard Value (%)	Mounting	If support L90
XF-PTL09257-M72-11.48-VI	0.648	250	88.6	57.4	0.06	2.9@F11	F6-F76	11.2@F11	95@F11	0.100%	M72	Yes
XF-PTL09262-M72-11.48-VI	0.702	250	88.3	62	0.06	2.4@F11	F6-F83	10.3@F11	95@F11	0.100%	M72	Yes
XF-PTL09282-M95-12-VI	0.943	250	87.0	82	0.06	1.5@F13.5	F8-F111	9.5@F13.5	75@F13.5	0.100%	M95	Yes
XF-PTL11008-C	0.0727	250	110.0	8	0.06	115.9	F5.5	50.00	185	0.127%	C	Yes
XF-PTL11011-C	0.1	250	110.0	11	0.06	88.2	F8	52.88	130	0.100%	C	Yes
XF-PTL11016-C	0.147	250	110.2	16.2	0.06	33.5	F6.5	29.22	160	0.052%	C	Yes
XF-PTL11019-C	0.168	250	110.1	18.5	0.06	25.4	F6.5	25.58	160	0.052%	C	Yes
XF-PTL11023-C	0.211	250	109.0	23	0.06	19.8	F8	25.04	130	0.085%	C	Yes
XF-PTL11029-F	0.264	250	109.8	29	0.06	11.0	F7	17.50	145	0.060%	F	Yes
XF-PTL11032-F	0.298	250	107.4	32	0.06	9.3	F7.5	16.59	135	0.060%	F	Yes
XF-PTL11035-F-VI	0.329	250	106.4	35	0.06	7.6-48	F7.5-F46.5	15.05-93.41	140-22	0.060%	F	Yes
XF-PTL11038-F-VI	0.357	250	106.4	38	0.06	6.9-44.1	F8-F50.5	14.8-93.41	130-20	0.100%	F	Yes
XF-PTL11044-M58-11.48-VI	0.404	250	107.9	43.6	0.06	6-39	F9-F57	14.73-93.41	115-18	0.100%	M58	Yes
XF-PTL11057-M72-11.48-VI	0.539	250	106.5	57.4	0.06	4.2@F11	F6-F76	13.5@F11	95@F11	0.063%	M72	Yes
XF-PTL11062-M72-11.48-VI	0.584	250	106.2	62	0.06	3.5@F11	F6-F83	12.4@F11	95@F11	0.063%	M72	Yes
XF-PTL11082-M95-12-VI	0.785	250	104.5	82	0.06	2.2@F13.5	F8-F111	11.3@F13.5	75@F13.5	0.050%	M95	Yes
XF-PTL12208-C	0.0656	260	122.0	8	0.06	142.1	F5.5	55.37	185	0.143%	C	Yes
XF-PTL12211-C	0.09	260	122.2	11	0.06	108.1	F8	58.61	130	0.080%	C	Yes
XF-PTL12216-C	0.133	260	121.8	16.2	0.06	41.1	F6.5	32.38	160	0.054%	C	Yes
XF-PTL12219-C	0.152	260	121.7	18.5	0.06	31.2	F6.5	28.28	160	0.054%	C	Yes
XF-PTL12223-C	0.19	260	121.1	23	0.06	24.4	F8	27.73	130	0.043%	C	Yes
XF-PTL12229-F	0.238	260	121.8	29	0.06	13.5	F7	19.39	145	0.055%	F	Yes
XF-PTL12232-F	0.269	260	119.0	32	0.06	9.3	F7.5	18.39	135	0.055%	F	Yes
XF-PTL12235-F	0.297	260	117.8	35	0.06	9.3	F7.5	16.75	140	0.055%	F	Yes
XF-PTL12238-F-VI	0.323	260	117.6	38	0.06	8.4-53.6	F8-F50.5	16.34-103.13	130-20	0.080%	F	Yes
XF-PTL12244-M58-11.48-VI	0.365	260	119.5	43.6	0.06	7.3-47.4	F9-F57	16.26-103.13	115-18	0.083%	M58	Yes
XF-PTL12257-M72-11.48-VI	0.486	260	118.1	57.4	0.06	5.1@F11	F6-F76	15@F11	95@F11	0.081%	M72	Yes
XF-PTL12262-M72-11.48-VI	0.527	260	117.6	62	0.06	4.2@F11	F6-F83	13.8@F11	95@F11	0.081%	M72	Yes
XF-PTL12282-M95-12-VI	0.708	260	115.8	82	0.06	2.7@F13.5	F8-F111	12.6@F13.5	75@F13.5	0.063%	M95	Yes
XF-PTL13708-C	0.0585	280	136.8	8	0.06	179.9	F5.5	62.15	185	0.153%	C	Yes
XF-PTL13711-C	0.08	280	137.5	11	0.06	136.2	F8	66.00	130	0.090%	C	Yes
XF-PTL13716-C	0.118	280	137.3	16.2	0.06	52.4	F6.5	36.35	160	0.071%	C	Yes
XF-PTL13719-C	0.135	280	137.0	18.5	0.06	39.4	F6.5	31.73	160	0.071%	C	Yes
XF-PTL13723-C	0.17	280	135.3	23	0.06	30.8	F8	31.13	130	0.061%	C	Yes
XF-PTL13729-F	0.212	280	136.8	29	0.06	17.1	F7	21.78	145	0.063%	F	Yes
XF-PTL13732-F	0.24	280	133.3	32	0.06	14.4	F7.5	20.65	135	0.063%	F	Yes
XF-PTL13735-F	0.264	280	132.6	35	0.06	11.7	F7.5	18.75	140	0.063%	F	Yes

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XF-PTL13738-F	0.287	280	132.4	38	0.06	10.6	F8	18.44	130	0.090%	F	Yes
XF-PTL13744-M58-11.48-VI	0.325	280	134.2	43.6	0.06	9.2-59.4	F9-F57	18.33-117.86	115-18	0.088%	M58	Yes
XF-PTL13757-M72-11.48-VI	0.433	280	132.6	57.4	0.06	6.4@F11	F6-F76	16.8@F11	95@F11	0.067%	M72	Yes
XF-PTL13762-M72-11.48-VI	0.47	280	131.9	62	0.06	5.3@F11	F6-F83	15.5@F11	95@F11	0.067%	M72	Yes
XF-PTL13782-M95-12-VI	0.631	280	130.0	82	0.06	3.4@F13.5	F8-F111	14.1@F13.5	75@F13.5	0.091%	M95	Yes
XF-PTL15208-C	0.0528	320	151.5	8	0.07	218.8	F5.5	68.56	185	0.122%	C	Yes
XF-PTL15211-C	0.0725	320	151.7	11	0.06	166.7	F8	72.78	130	0.100%	C	Yes
XF-PTL15216-C	0.107	320	151.4	16.2	0.06	63.4	F6.5	40.23	160	0.087%	C	Yes
XF-PTL15219-C	0.122	320	151.6	18.5	0.06	48.2	F6.5	35.17	160	0.087%	C	Yes
XF-PTL15223-C	0.153	320	150.3	23	0.06	37.6	F8	34.46	130	0.057%	C	Yes
XF-PTL15229-F	0.192	320	151.0	29	0.06	20.9	F7	24.10	145	0.072%	F	Yes
XF-PTL15232-F	0.217	320	147.5	32	0.06	17.7	F7.5	22.85	135	0.072%	F	Yes
XF-PTL15235-F	0.239	320	146.4	35	0.06	14.4	F7.5	20.73	140	0.072%	F	Yes
XF-PTL15238-F	0.26	320	146.2	38	0.06	13.0	F8	20.35	130	0.100%	F	Yes
XF-PTL15244-M58-11.48	0.293	320	148.8	43.6	0.06	11.3	F9	20.25	115	0.100%	M58	Yes
XF-PTL15257-M72-11.48-VI	0.391	320	146.8	57.4	0.06	7.9@F11	F6-F76	18.6@F11	95@F11	0.090%	M72	Yes
XF-PTL15262-M72-11.48-VI	0.424	320	146.2	62	0.06	6.6@F11	F6-F83	17.1@F11	95@F11	0.090%	M72	Yes
XF-PTL15282-M95-12-VI	0.57	320	143.9	82	0.06	4.3@F13.5	F8-F111	15.6@F13.5	75@F13.5	0.100%	M95	Yes
XF-PTL18208-C	0.044	398	181.8	8	0.06	314.3	F5.5	82.71	185	0.116%	C	Yes
XF-PTL18211-C	0.06	398	183.3	11	0.06	238.9	F8	87.53	130	0.100%	C	Yes
XF-PTL18216-C	0.0888	398	182.4	16.2	0.06	91.2	F6.5	48.31	160	0.077%	C	Yes
XF-PTL18219-C	0.102	398	181.4	18.5	0.06	69.5	F6.5	42.20	160	0.077%	C	Yes
XF-PTL18223-C	0.128	398	179.7	23	0.06	54.1	F8	41.41	130	0.062%	C	Yes
XF-PTL18229-F	0.16	398	181.3	29	0.06	30.1	F7	28.94	145	0.057%	F	Yes
XF-PTL18232-F	0.18	398	177.8	32	0.06	25.4	F7.5	27.43	135	0.100%	F	Yes
XF-PTL18235-F	0.199	398	175.9	35	0.06	20.8	F7.5	25.00	140	0.057%	F	Yes
XF-PTL18238-F	0.216	398	175.9	38	0.06	18.9	F8	24.44	130	0.100%	F	Yes
XF-PTL18244-M58-11.48	0.244	398	178.7	43.6	0.06	16.3	F9	24.44	115	0.070%	M58	Yes
XF-PTL18257-M72-11.48-VI	0.326	398	176.1	57.4	0.06	11.4@F11	F6-F76	22.3@F11	95@F11	0.075%	M72	Yes
XF-PTL18262-M72-11.48-VI	0.353	398	175.6	62	0.06	9.6@F11	F6-F83	20.5@F11	95@F11	0.075%	M72	Yes
XF-PTL18282-M95-12-VI	0.475	398	172.6	82	0.06	6.2@F13.5	F8-F111	18.8@F13.5	75@F13.5	0.069%	M95	Yes
XF-PTL19508-C	0.0411	400	194.6	8	0.06	358.7	F5.5	88.29	185	0.121%	C	Yes
XF-PTL19511-C	0.0565	400	194.7	11	0.06	273.0	F8	93.46	130	0.100%	C	Yes
XF-PTL19516-C	0.083	400	195.2	16.2	0.06	104.3	F6.5	51.66	160	0.062%	C	Yes
XF-PTL19519-C	0.095	400	194.7	18.5	0.06	79.4	F6.5	45.16	160	0.061%	C	Yes
XF-PTL19523-C	0.119	400	193.3	23	0.06	61.9	F8	44.25	130	0.099%	C	Yes
XF-PTL19529-F	0.149	400	194.6	29	0.06	34.5	F7	30.95	145	0.071%	F	Yes

Model Number	Mag(X)	Working Distance (mm)	Object FOV(mm)	Image FOV (mm)	Telecentricity Standard Value(°)	DOF (mm)	Aperature	Resolution (um)	Image MTF30 (LP/mm)	Distortion Standard Value (%)	Mounting	If support L90
XF-PTL19532-F	0.169	400	189.3	32	0.06	29.1	F7.5	29.34	135	0.071%	F	Yes
XF-PTL19535-F	0.186	400	188.2	35	0.06	23.8	F7.5	26.62	140	0.071%	F	Yes
XF-PTL19538-F	0.202	400	188.1	38	0.06	21.6	F8	26.13	130	0.068%	F	Yes
XF-PTL19544-M58-11.48	0.229	400	190.4	43.6	0.06	18.7	F9	26.00	115	0.100%	M58	Yes
XF-PTL19557-M72-11.48-VI	0.305	400	188.2	57.4	0.06	13.1@F11	F6-F76	23.8@F11	95@F11	0.060%	M72	Yes
XF-PTL19562-M72-11.48-VI	0.331	400	187.3	62	0.06	11.1@F11	F6-F83	22@F11	95@F11	0.060%	M72	Yes
XF-PTL19582-M95-12-VI	0.444	400	184.7	82	0.06	7.3@F13.5	F8-F111	20.1@F13.5	75@F13.5	0.061%	M95	Yes
XF-PTL23808-C	0.0336	410	238.1	8	0.07	512.8	F5.5	107.89	185	0.113%	C	Yes
XF-PTL23811-C	0.0462	410	238.1	11	0.06	392.8	F8	114.24	130	0.083%	C	Yes
XF-PTL23816-C	0.0679	410	238.6	16.2	0.06	153.9	F6.5	63.15	160	0.071%	C	Yes
XF-PTL23819-C	0.0777	410	238.1	18.5	0.06	116.9	F6.5	55.21	160	0.071%	C	Yes
XF-PTL23823-C	0.0976	410	235.7	23	0.06	91.5	F8	54.10	130	0.055%	C	Yes
XF-PTL23829-F	0.122	410	237.7	29	0.06	51.0	F7	37.84	145	0.053%	F	Yes
XF-PTL23832-F	0.138	410	231.9	32	0.06	43.3	F7.5	#REF!	135	0.053%	F	Yes
XF-PTL23835-F	0.152	410	230.3	35	0.06	35.4	F7.5	32.54	140	0.053%	F	Yes
XF-PTL23838-F	0.165	410	230.3	38	0.06	32.2	F8	31.94	130	0.083%	F	Yes
XF-PTL23844-M58-11.48	0.187	410	233.2	43.6	0.06	28.0	F9	31.78	115	0.097%	M58	Yes
XF-PTL23857-M72-11.48-VI	0.249	410	230.5	57.4	0.06	19.3@F11	F6-F76	29.1@F11	95@F11	0.064%	M72	Yes
XF-PTL23862-M72-11.48-VI	0.27	410	229.6	62	0.06	16.5@F11	F6-F83	26.9@F11	95@F11	0.097%	M72	Yes
XF-PTL23882-M95-12-VI	0.363	410	225.9	82	0.06	11.3@F13.5	F8-F111	24.5@F13.5	75@F13.5	0.088%	M95	Yes
XF-PTL26808-C	0.0299	410	267.6	8	0.06	634.2	F5.5	121.34	185	0.113%	C	Yes
XF-PTL26811-C	0.0411	410	267.6	11	0.07	484.6	F8	128.48	130	0.091%	C	Yes
XF-PTL26816-C	0.0604	410	268.2	16.2	0.06	193.6	F6.5	71.03	160	0.084%	C	Yes
XF-PTL26819-C	0.0691	410	267.7	18.5	0.06	147.4	F6.5	62.09	160	0.084%	C	Yes
XF-PTL26823-C	0.0868	410	265.0	23	0.08	115.5	F8	60.85	130	0.055%	C	Yes
XF-PTL26829-F	0.109	410	266.1	29	0.06	64.6	F7	42.55	145	0.051%	F	Yes
XF-PTL26832-F	0.123	410	260.2	32	0.06	54.9	F7.5	40.34	135	0.100%	F	Yes
XF-PTL26835-F	0.135	410	259.3	35	0.06	44.9	F7.5	36.60	140	0.051%	F	Yes
XF-PTL26838-F	0.147	410	258.5	38	0.06	40.9	F8	35.93	130	0.091%	F	Yes
XF-PTL26844-M58-11.48	0.166	410	262.7	43.6	0.06	35.5	F9	35.75	115	0.078%	M58	Yes
XF-PTL26857-M72-11.48-VI	0.222	410	258.6	57.4	0.06	24.4@F11	F6-F76	32.8@F11	95@F11	0.071%	M72	Yes
XF-PTL26862-M72-11.48-VI	0.24	410	258.3	62	0.06	20.8@F11	F6-F83	30.2@F11	90@F11	0.071%	M72	Yes
XF-PTL26882-M95-12-VI	0.323	410	253.9	82	0.06	14@F13.5	F8-F111	27.6@F13.5	75@F13.5	0.098%	M95	Yes
XF-PTL31008-C	0.0258	500	310.1	8	0.06	872.5	F5.5	140.49	185	0.128%	C	Yes
XF-PTL31011-C	0.0355	500	309.9	11	0.06	666.1	F8	148.73	130	0.100%	C	Yes
XF-PTL31016-C	0.0522	500	310.3	16.2	0.06	261.0	F6.5	82.21	160	0.062%	C	Yes
XF-PTL31019-C	0.0597	500	309.9	18.5	0.06	199.6	F6.5	71.86	160	0.062%	C	Yes

Model Number	Mag(X)	Working Distance (mm)	Object FOV(mm)	Image FOV (mm)	Telecentricity Standard Value(°)	DOF (mm)	Aperature	Resolution (um)	Image MTF30 (LP/mm)	Distortion Standard Value (%)	Mounting	If support L90
XF-PTL31023-C	0.075	500	306.7	23	0.06	155.4	F8	70.42	130	0.074%	C	Yes
XF-PTL31029-F	0.0938	500	309.2	29	0.06	86.8	F7	49.25	145	0.066%	F	Yes
XF-PTL31032-F	0.106	500	301.9	32	0.06	73.2	F7.5	46.68	135	0.066%	F	Yes
XF-PTL31035-F	0.117	500	299.1	35	0.06	60.1	F7.5	42.35	140	0.066%	F	Yes
XF-PTL31038-F	0.127	500	299.2	38	0.06	54.6	F8	41.57	128	0.100%	F	Yes
XF-PTL31044-M58-11.48	0.144	500	302.8	43.6	0.07	47.5	F9	41.37	115	0.100%	M58	Yes
XF-PTL31057-M72-11.48-VI	0.192	500	299.0	57.4	0.06	32.9@F11	F6-F76	37.9@F11	95@F11	0.052%	M72	Yes
XF-PTL31062-M72-11.48-VI	0.208	500	298.1	62	0.06	28.2@F11	F6-F83	35@F11	93@F11	0.052%	M72	Yes
XF-PTL31082-M95-12-VI	0.279	500	293.9	82	0.08	19.2@F13.5	F8-F111	31.9@F13.5	75@F13.5	0.061%	M95	Yes
XF-PTL35008-C	0.0229	540	349.3	8	0.06	1072.5	F5.5	158.55	185	0.128%	C	Yes
XF-PTL35011-C	0.0315	540	349.2	11	0.06	817.6	F8	167.84	130	0.100%	C	Yes
XF-PTL35016-C	0.0462	540	350.6	16.2	0.06	329.4	F6.5	92.78	160	0.062%	C	Yes
XF-PTL35019-C	0.0529	540	349.7	18.5	0.06	252.7	F6.5	81.10	160	0.062%	C	Yes
XF-PTL35023-C	0.0664	540	346.4	23	0.06	196.8	F8	79.47	130	0.074%	C	Yes
XF-PTL35029-F	0.0831	540	349.0	29	0.06	110.4	F7	55.58	145	0.066%	F	Yes
XF-PTL35032-F	0.094	540	340.4	32	0.06	93.1	F7.5	52.68	135	0.066%	F	Yes
XF-PTL35035-F	0.104	540	336.5	35	0.06	76.6	F7.5	47.80	140	0.066%	F	Yes
XF-PTL35038-F	0.113	540	336.3	38	0.06	69.6	F8	46.92	130	0.100%	F	Yes
XF-PTL35044-M58-11.48	0.127	540	343.3	43.6	0.06	60.4	F9	46.68	115	0.100%	M58	Yes
XF-PTL35057-M72-11.48-VI	0.17	540	337.6	57.4	0.06	41.7@F11	F6-F76	42.8@F11	95@F11	0.052%	M72	Yes
XF-PTL35062-M72-11.48-VI	0.184	540	337.0	62	0.06	35.7@F11	F6-F83	39.4@F11	95@F11	0.052%	M72	Yes
XF-PTL35082-M95-12-VI	0.247	540	332.0	82	0.08	24.3@F13.5	F8-F111	36.1@F13.5	75@F13.5	0.061%	M95	Yes
XF-PTL39008-C	0.0205	700	390.2	8	0.06	1348.7	F5.5	177.42	185	0.128%	C	Yes
XF-PTL39011-C	0.0282	700	390.1	11	0.06	1028.8	F8	187.50	130	0.100%	C	Yes
XF-PTL39016-C	0.0415	700	390.4	16.2	0.06	410.1	F6.5	103.43	160	0.062%	C	Yes
XF-PTL39019-C	0.0475	700	389.5	18.5	0.06	313.6	F6.5	90.41	160	0.062%	C	Yes
XF-PTL39023-C	0.0596	700	385.9	23	0.06	244.7	F8	88.71	130	0.074%	C	Yes
XF-PTL39029-F	0.0746	700	388.7	29	0.06	137.5	F6.5	61.96	145	0.066%	F	Yes
XF-PTL39032-F	0.084	700	381.0	32	0.06	115.9	F7.5	58.73	135	0.066%	F	Yes
XF-PTL39035-F	0.0929	700	376.7	35	0.06	95.1	F7.5	53.31	140	0.066%	F	Yes
XF-PTL39038-F	0.101	700	376.2	38	0.06	86.2	F8	52.38	130	0.066%	F	Yes
XF-PTL39044-M58-11.48	0.114	700	382.5	43.6	0.07	74.8	F9	52.05	115	0.100%	M58	Yes
XF-PTL39057-M72-11.48-VI	0.152	700	377.6	57.4	0.06	52.1@F11	F6-F76	47.7@F11	95@F11	0.052%	M72	Yes
XF-PTL39062-M72-11.48-VI	0.165	700	375.8	62	0.06	44.4@F11	F6-F83	44@F11	95@F11	0.052%	M72	Yes
XF-PTL39082-M95-12-VI	0.222	700	369.4	82	0.08	29.3@F13.5	F8-F111	40.2@F13.5	75@F13.5	0.061%	M95	Yes