



M7 Camera Lens Module for 1/4" Sensor

Key Properties

Image Diameter $\Phi 4.0\text{mm}$ for 1/4" Sensor

Resolution: $2\mu\text{m}/2\text{MP}$ or pixel size $> 2\mu\text{m}$ Sensor

Focal Length:

1.3mm/1.4mm/1.6mm/1.7mm/1.8mm/2.1mm

/2.5mm/2.7mm/2.85mm/ 3.0mm

Lens Mount for M7 x 0.35P

IR Cut Filter Built in, Others Optical Filter Optional



Application

Camera Module/ Image Sensor Module / Laser Sensing Application

Video Surveillance / Camcorder / Car Camcorder / Machine Vision

Feature

- ◆ Different view angle option and glass lens material with good reliability.
- ◆ Image diameter 4.0mm can be used for 1/4" or smaller dimension size sensors.
 - Pixel size resolution: $2\mu\text{m}$ pixel or bigger pixel size sensors can be suitable.
 - The sensor pixel resolution suitable around 2MP or below.
- ◆ M7 x 0.35P is convenient for standard S-Mount M7 holder.
- ◆ IR cut filter built-in to cut the infrared light for the outdoor environment.
 - The other optical filters optional as your requirement like IR pass filter for IR sensing system or special wavelength and customized.

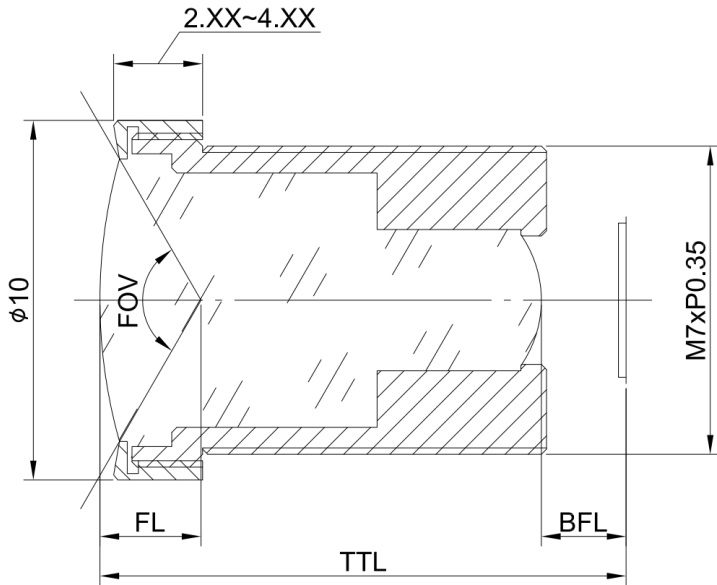
Introduction

CL7P2I4 series is a 3G to 4G(Glass) elements lens designed for image circle $\Phi 4.0\text{mm}$ sensor size suitable to 1/4", 1/5" or smaller size image sensors. The optical design resolution for $2\mu\text{m}$ pixel size, it can match to 2MP or below resolution also can be used for bigger pixel size sensors. The wide view angle range from 40 degree to 170 degree FOV options for M7 standard S-Mount holder is convenient to find the suitable lens you need.

The glass lens has good reliability advantages for outdoor, wide temperature range performance, good material life time, and good for scratch and chemical material. The M7 designed convenient for the standard S-Mount holder of camera module. CL7P2I4 camera lenses are the most cost effective and good choice for surveillance, security, car camcorder, out door etc. applications.



Specifications

Lens Mount Type		M7 x P3.5																																																																												
Dimension(mm)		Φ10 x TTL																																																																												
Element		3G/4G + IR																																																																												
Image Circle(mm)		Φ4~Φ4.2mm																																																																												
For Sensor Size		1/4", 1/5"																																																																												
Focal Length (EFL)		±3%																																																																												
Back Focal Length (BFL)		±3%																																																																												
F/No. (Infinite)		as Table.1																																																																												
Field of View (FOV)	D	as Table.1																																																																												
	H	as Table.1																																																																												
	V	as Table.1																																																																												
Optical Distortion		as Table.1																																																																												
Resolution	Pixel	2MP / 1080p	<table><tr><th colspan="6">Table.1</th></tr><tr><th>FL (mm)</th><th>F/no.</th><th>TTL (mm)</th><th>BFL (mm)</th><th>Dist. (%)</th><th>FOV(1/4") D / H / V</th></tr><tr><td>1.3</td><td>2.5</td><td>-</td><td>-</td><td>-</td><td>114 / 102 / 85</td></tr><tr><td>1.4</td><td>2.5</td><td>-</td><td>-</td><td>-</td><td>110 / 97/ 80</td></tr><tr><td>1.6</td><td>2.4</td><td>-</td><td>-</td><td>-</td><td>102 / 90 / 73</td></tr><tr><td>1.7</td><td>2.5</td><td>9.5</td><td>1.46</td><td>8.5</td><td>125 / 98 / 75</td></tr><tr><td>1.8</td><td>2.8</td><td>9.0</td><td>1.55</td><td>15</td><td>96 / 84 / 68</td></tr><tr><td>2.1</td><td>2.7</td><td>11.45</td><td>1.35</td><td>-30</td><td>87 / 74 / 59</td></tr><tr><td>2.5</td><td>2.5</td><td>12.25</td><td>2.7</td><td>-20</td><td>77 / 65 / 51</td></tr><tr><td>2.7</td><td>2.5</td><td>9.1</td><td>2.04</td><td>-28</td><td>73 / 61 / 48</td></tr><tr><td>2.85</td><td>2.4</td><td>11.75</td><td>2.64</td><td>-19</td><td>70 / 58 / 45</td></tr><tr><td>3.0</td><td>2.4</td><td>14.66</td><td>3.89</td><td>-25</td><td>67 / 56 / 43</td></tr></table>				Table.1						FL (mm)	F/no.	TTL (mm)	BFL (mm)	Dist. (%)	FOV(1/4") D / H / V	1.3	2.5	-	-	-	114 / 102 / 85	1.4	2.5	-	-	-	110 / 97/ 80	1.6	2.4	-	-	-	102 / 90 / 73	1.7	2.5	9.5	1.46	8.5	125 / 98 / 75	1.8	2.8	9.0	1.55	15	96 / 84 / 68	2.1	2.7	11.45	1.35	-30	87 / 74 / 59	2.5	2.5	12.25	2.7	-20	77 / 65 / 51	2.7	2.5	9.1	2.04	-28	73 / 61 / 48	2.85	2.4	11.75	2.64	-19	70 / 58 / 45	3.0	2.4	14.66	3.89	-25	67 / 56 / 43
	Table.1																																																																													
	FL (mm)	F/no.					TTL (mm)	BFL (mm)	Dist. (%)	FOV(1/4") D / H / V																																																																				
1.3	2.5	-					-	-	114 / 102 / 85																																																																					
1.4	2.5	-					-	-	110 / 97/ 80																																																																					
1.6	2.4	-					-	-	102 / 90 / 73																																																																					
1.7	2.5	9.5					1.46	8.5	125 / 98 / 75																																																																					
1.8	2.8	9.0					1.55	15	96 / 84 / 68																																																																					
2.1	2.7	11.45					1.35	-30	87 / 74 / 59																																																																					
2.5	2.5	12.25					2.7	-20	77 / 65 / 51																																																																					
2.7	2.5	9.1					2.04	-28	73 / 61 / 48																																																																					
2.85	2.4	11.75					2.64	-19	70 / 58 / 45																																																																					
3.0	2.4	14.66	3.89	-25	67 / 56 / 43																																																																									
Center	160 lp/mm																																																																													
Edge	120 lp/mm																																																																													
Chief Ray Angle (CRA)		—																																																																												
Relative Illumination		—																																																																												
IR Filter Spec. (Others available)																																																																														
Tavg≥88% @440nm-620nm, T=50% @650nm Tavg≤3% @700nm-1000nm, T<5% @1050nm																																																																														
Working Temperature		-25 °C ~ +85 °C																																																																												

Specifications are subject to change without notice.

