

List of Single FOV IR Lenses for LWIR Thermal Cameras

Introductions:

- Aspherical and binary optical technology adopted in design
- Various types of IR materials are used
- Some stocked modules available in fast delivery and low cost

Shalom EO offers the single field of view lenses used in long wavelength infrared range (LWIR) uncooled thermal imaging cameras, with manual or motorized mechanism and in a large focus range of 3mm to 400mm, matched to a variety of uncooled FPA detectors. A variety of modules are listed for your selection and the custom lens modules is available upon customer's request.



Modules or Types:

Designed for detectors:

640x512, 640x480, 384x288, 320x240, 160x120

No.	Module	Focal Length (mm)	F#	FOV (H x V)	Focus Mechanism	Flange Back Dist (mm)	Mechanical Connector	More Info
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1	L4.8F1.0-man	4.8	1.0	97.2°x69.4°	manual	13	M34x0.75	More>>
2	L4.8F1.0-mot	4.8	1.0	97.2°x69.4°	motorized	13	M34x0.75	More>>
3	L7.5F1.0-man	7.5	1.0	80.1°x56.3°	manual	13	M34x0.75	More>>
4	L8F0.8-man	8	0.8	60°x50.4°	Manual	13	M34x0.75	More>>
5	L8F0.8-mot	8	0.8	68°x50.4°	Motorized	13	M34x0.75	More>>
6	L8F0.8-fix	8	0.8	61.9°x48.5°	Fixed	20	M34x0.75	More>>
7	L12F1.0-man	12	1.0	50°x37.7°	Manual	13	M34x0.75	More>>
8	L12F1.0-man	12	1.0	50°x37.7°	Motorized	13	M34x0.75	More>>
9	L15F1.0-mot	15	1.0	35.5°x27°	Motorized	13	M34x0.75	More>>
10	L19F1.0-man	19	1.0	33.1°x26.3°	Manual	13	M34x0.75	More>>
11	L20F1.0-man	20	1.0	27°x20.4°	Manual	13	M34x0.75	More>>
12	L25F0.8-man	25	0.8	24.6°x18.6°	Manual	25	M54x1	More>>
13	L25F1.0-man	25	1.0	24.5°x18.5°	Manual	13.3	M34x0.75	More>>
14	L25F1.0-mot	25	1.0	24.6°x18.5°	Motorized	13	M34x0.75	More>>
15	L35F1.0-man	35	1.0	17.6°x13.3°	Manual	16.8	M44x0.75	More>>
16	L35F1.0-mot	35	1.0	17.6°x13.3°	Motorized	13	M34x0.75	More>>
17	L35F1.0-mot-XGA	35	1.0	19.9°x15°	Motorized	20.6	/	More>>
18	L40F0.68-mot	40	0.68	13.7°x10.3°	Motorized	14.62	M45x1	More>>
19	L40F1.0-mot	40	1.0	14.15°x11.65°	Motorized	20.6	/	More>>
20	L50F1.0-man	50	1.0	12.3°x3.9°	Manual	20	M45x1	More>>

21	L50F1.0-man-XGA	50	1.0	19.7°x14.8°	Manual	20.6	/	More>>
22	L50F1.0-mot	50	1.0	12.3°x9.3°	Motorized	20	M45x1	More>>
23	L55F1.0-man	55	1.0	7.99°x6.39°	Manual	16.56	M34x0.5	More>>
24	L55F1.0-mot	55	1.0	7.99°x6.39°	Motorized	16.56	M34x0.5	More>>
25	L55F1.0-mot	55	1.0	11.3°x8.45°	Motorized	20.6	/	More>>
26	L60F1.0-mot	60	1.0	10.3°x7.7°	Motorized	20.6	/	More>>
27	L75F1.0-man	75	1.0	8.3°x6.2°	Manual	20	M45x1	More>>
28	L75F1.0-mot	75	1.0	8.3°x6.2°	Motorized	20	M54x1	More>>
29	L75F1.0-light	75	1.0	8.3°x6.2°	/	13.9	M45x1	More>>
30	L75F1.4-man	75	1.4	5.86°x4.69°	Manual	16.8	M34x0.5	More>>
31	L100F1.0-man	100	1.0	6.2°x4.7°	Manual	20	M54x1	More>>
32	L100F1.0-mot	100	1.0	6.2°x5.0°	Motorized	20	M54x1	More>>
33	L100F1.2-man	100	1.2	6.2°x4.6°	Manual	20	M45x1	More>>
34	L100F1.3-mot	100	1.3	6.2°x4.7°	Motorized	13	M45x1	More>>
35	L100F1.4-man	100	1.4	7.03°x5.28°	Manual	20	M45x1	More>>
36	L100F1.4-mot	100	1.4	6.2°x5.0°	Motorized	16.5	M34x0.5	More>>
37	L100F1.4-light	100	1.4	6.2°x4.7°	Fixed	15	M45x1	More>>
38	L100F2.0-man	100	2.0	5.5°x4.4°	Manual	52.245	M80x1	More>>
39	L125F1.0-mot	125	1.0	5.0°x3.7°	Motorized	20	M54x1	More>>
40	L130F1.2-mot	130	1.2	4.79°x3.6°	Motorized	13	M34x0.75	More>>

41	L150F1.2-mot	150	1.2	8.2°x6.15°	Motorized	20	M54x1	More>>
42	L180F2.0-mot	180	2.0	3°x2.4°	Motorized	/	/	More>>
43	L210F1.3-mot	210	1.3	2.97°x2.33°	Motorized	20.6	/	More>>
44	L260F1.3-mot	260	1.3	2.4°x1.8°	Motorized	20.6	/	More>>
45	L275F2.0-man	275	2.0	2°x1.6°	Manual	/	/	More>>
46	L300F1.3-mot	300	1.3	2.35°x1.76°	Motorized	20.6	/	More>>

Note 1: The FOV(H) means the horizontal field of view, FOV(V) means the vertical field of view, the FOV(H) and FOV(V) value in above list are calculated by 384x288-25μm FPA detectors.

Note 2: The mechanical connector and flange back distance can be changed upon customer's request.

Features:

1. Aspheric Technology and Binary Optics Technology are used in design, which effectively reduce the spherical aberration, distortion and other various aberrations, achieve athermalization design and reduce the number of needed lens elements, lower the cost.
2. Various type of the infrared materials (like Ge, ZnSe, ZnS, AMTIR ect.) are used in the lenses, which would successfully eliminate the aberration of the image and improve the quality of imaging, especially for the large diameter telephoto lenses.
3. Advanced equipment and machines are used to process the infrared materials optics: ultra-precision single point diamond processing machine to achieve the precision aspheric in 3nm, diffractive surface processing equipment to process the Ge, ZnSe, ZnS and AMTIR materials.
4. Different types of coating are made on the lens optics: high-efficiency anti-reflection coating (or high-efficiency AR), durable antireflection coating (or Durable AR) and diamond-like hard carbon coating (or DLC coating).
5. Complete quality assurance system Within our quality system, we works out a series of specific craftworks and develops a strict test procedure to guarantee the quality of products.