

# Manually Adjustable Thermal Lens

## WLS-LTA Series



WLS-LTA05



WLS-LTA08



WLS-LTA19



WLS-LTA25



WLS-LTA40



WLS-LTA50



WLS-LTA75

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WLS-LTA Specification				
TA05				
FOV	160*120	320*240	384*288	640*512
17μ	37.5	71	83	12.38
12μ	26.7	52	61.4	96.5
Optical Feature				
Focal Length	5.1mm			
F/#	1.2			
Average Transmission	≥88%			
Back Focal Lens	9.98mm			
Focus Type	Athermalized			
FOV	102°*89°			
Coating	DLC			
Other Features				
Weight	100G			
Outer Size	L45.5mm, Φ40.5mm			
Operating Temp	-40~+60°C			
Spectral Range	8~12μm			
IP	IP66			
LTA08				
FOV	160*120	320*240	384*288	640*512
17μ	24.1	47.2	56	89
12μ	17.1	33.8	40.3	66.3
Optical Feature				
Focal Length	8mm			
F/#	1.0			
Average Transmission	≥90%			
Back Focal Lens	9.07mm			
Focus Type	Athermalized			
FOV	76°*62°			
Other Features				
Weight	100G			
Outer Size	L38.3mm, Φ36.5mm			
Operating Temp	-40~+60°C			
Spectral Range	8~12μm			
IP	IP66			

WLS-LTA Specification				
LTA19				
FOV	160*120	320*240	384*288	640*512
17μ	10.3	20.5	24.5	41.1
12μ	7.3	14.5	17.3	30
Optical Feature				
Focal Length	19mm			
F/#	1.0			
Average Transmission	≥94%			
Back Focal Lens	10.2mm			
Focus Type	Athermalized			
FOV	32.8°*26.2°			
Coating	AR			
Other Features				
Weight	56G			
Outer Size	L27mm, Φ36mm			
Operating Temp	-40~+60°C			
Spectral Range	8~12μm			
IP	IP66			
LTA25				
FOV	160*120	320*240	384*288	640*512
17μ	7,8	15.5	18.6	31.5
12μ	5.5	11	13.2	22.4
Optical Feature				
Focal Length	25mm			
F/#	1.0			
Average Transmission	≥94%			
Back Focal Lens	15.09mm			
Focus Type	Athermalized			
FOV	24.6°*18.5°			
Coating	DLC			
Other Features				
Weight	20G			
Outer Size	L27mm, Φ31mm			
Operating Temp	-40~+60°C			
Spectral Range	8~12μm			
IP	IP66			

WLS-LTA Specification				
LTA40				
FOV	160*120	320*240	384*288	640*512
17μ	4.9	9.7	11.7	19.8
12μ	3.4	6.9	8.2	14.1
Optical Feature				
Focal Length	40mm			
F/#	1.0			
Average Transmission	≥90%			
Back Focal Lens	12.09mm			
Focus Type	Athermalized			
FOV	15.5°*12.4°			
Other Features				
Weight	130G			
Outer Size	L42.7mm, Φ50mm			
Operating Temp	-40~+60°C			
Spectral Range	8~12μm			
IP	IP66			
LTA50				
FOV	160*120	320*240	384*288	640*512
17μ	3.9	3.9	9.3	16
12μ	2.7	2.7	6.6	11.3
Optical Feature				
Focal Length	50mm			
F/#	1.0			
Average Transmission	≥94%			
Back Focal Lens	16.76mm			
Focus Type	Athermalized			
FOV	12.42°*9.94°			
Coating	AR			
Other Features				
Weight	190G			
Outer Size	L56.2mm, Φ65mm			
Operating Temp	-40~+60°C			
Spectral Range	8~12μm			
IP	IP66			

WLS-TA Specification				
LTA75				
FOV	160*120	320*240	384*288	640*512
17μ	2.6	5.2	6.3	10.6
12μ	1.9	3.7	4.4	7.5
Optical Feature				
Focal Length	75mm			
F/#	1.1			
Average Transmission	≥90%			
Back Focal Lens	15.07mm			
Focus Type	Athermalized			
FOV	8.3°*6.64°			
Other Features				
Weight	425G			
Outer Size	L85.5mm, Φ80mm			
Operating Temp	-40~+60°C			
Spectral Range	8~12μm			
IP	IP66			

# Manually Adjustable Thermal Lens

## WLS-LTH Series

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WLS-LTH35



WLS-LTH38



WLS-LTH50



WLS-LTH75

WLS-LTH Specification				
LTH35				
FOV	160*120	320*240	384*288	640*512
17μ	5.6	11.1	13.3	22.7
12μ	4	7.9	9.4	16.1
Optical Feature				
Focal Length	35mm			
F/#	1.0			
Average Transmission	≥80%			
Back Focal Lens	10.6mm			
Focus Type	Manually Adjustable			
FOV	17.8°*13.4°			
Coating	DLC			
Other Features				
Weight	142G			
Outer Size	L50.15mm, Φ41mm			
Operating Temp	-40~+60°C			
Spectral Range	8~12μm			
IP	IP66			
LTA38				
FOV	160*120	320*240	384*288	640*512
17μ	5.1	5.1	12.3	20.9
12μ	3.6	3.6	8.7	14.7
Optical Feature				
Focal Length	38mm			
F/#	1.0			
Average Transmission	≥91%			
Back Focal Lens	14.83mm			
Focus Type	Manually Adjustable			
FOV	76°*62°			
Coating	DLC			
Other Features				
Weight	43G			
Outer Size	L38.2mm, Φ43mm			
Operating Temp	-40~+60°C			
Spectral Range	8~12μm			
IP	IP66			

WLS-LTA Specification				
LTA50				
FOV	160*120	320*240	384*288	640*512
17μ	3.9	7.8	9.3	16
12μ	2.7	5.5	6.6	11.3
Optical Feature				
Focal Length	50mm			
F/#	1.0			
Average Transmission	≥94%			
Back Focal Lens	25.74mm			
Focus Type	Manually Adjustable			
FOV	12.41°*9.95°			
Coating	DLC			
Other Features				
Weight	340G			
Outer Size	L62.1mm, Φ66mm			
Operating Temp	-40~+60°C			
Spectral Range	8~12μm			
IP	IP66			
LTH75				
FOV	160*120	320*240	384*288	640*512
17μ	2.6	5.2	6.2	10.6
12μ	1.8	3.7	4.4	7.5
Optical Feature				
Focal Length	75mm			
F/#	1.2			
Average Transmission	≥90%			
Back Focal Lens	13.95mm			
Focus Type	Manually Adjustable			
FOV	8.3°*6.64°			
Coating	DLC			
Other Features				
Weight	330G			
Outer Size	L97.4mm, Φ73mm			
Operating Temp	-40~+60°C			
Spectral Range	8~12μm			
IP	IP66			



# Motorized Adjustable Thermal Lens

## WLS-LTM Series



WLS-LTM25



WLS-LTM40



WLS-LTM50



WLS-LTM52



WLS-LTM75



WLS-LTM100



WLS-LTM150

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WLS-LTM Specification				
LTM25				
FOV	160*120	320*240	384*288	640*512
17μ	7.8	15.5	18.7	30.7
12μ	5.5	11	13.2	21.9
Optical Feature				
Focal Length	25mm			
F/#	1.0			
Average Transmission	≥94%			
Back Focal Lens	15.903mm			
Focus Type	Motorized Adjustable			
FOV	24.5°*18.5°			
Coating	DLC			
Other Features				
Weight	300G			
Outer Size	L50.7mm, Φ57mm			
Operating Temp	-40~+60°C			
Spectral Range	8~12μm			
IP	IP67			
LTM40				
FOV	160*120	320*240	384*288	640*512
17μ	4.9	9.7	11.7	19.8
12μ	3.4	6.9	8.2	14.1
Optical Feature				
Focal Length	40mm			
F/#	1.0			
Average Transmission	≥90%			
Back Focal Lens	19.5mm			
Focus Type	Motorized Adjustable			
FOV	76°*62°			
Coating	DLC			
Other Features				
Weight	275G			
Outer Size	L59.7mm, Φ72mm			
Operating Temp	-40~+60°C			
Spectral Range	8~12μm			
IP	IP67			

WLS-LTM Specification				
LTM50				
FOV	160*120	320*240	384*288	640*512
17μ	3.9	3.9	3.9	15.9
12μ	2.7	2.7	2.7	11.25
Optical Feature				
Focal Length	50mm			
F/#	1.0			
Average Transmission	≥94%			
Back Focal Lens	11.06mm			
Focus Type	Motorized Adjustable			
FOV	12.41°*9.95°			
Coating	DLC			
Other Features				
Weight	275G			
Outer Size	L59.7mm, Φ72mm			
Operating Temp	-40~+60°C			
Spectral Range	8~12μm			
IP	IP67			
LTM52				
FOV	160*120	320*240	384*288	640*512
17μ	7,8	15.5	18.6	31.5
12μ	5.5	11	13.2	22.4
Optical Feature				
Focal Length	52mm			
F/#	1.0			
Average Transmission	≥94%			
Back Focal Lens	12.06mm			
Focus Type	Motorized Adjustable			
FOV	12°*9.6°			
Coating	DLC			
Other Features				
Weight	300G			
Outer Size	L85.56mm, Φ75.5mm			
Operating Temp	-40~+60°C			
Spectral Range	8~12μm			
IP	IP67			

WLS-LTM Specification				
LTM75				
FOV	160*120	320*240	384*288	640*512
17μ	2.6	5.2	6.2	10.5
12μ	1.8	3.7	4.5	7.5
Optical Feature				
Focal Length	75mm			
F/#	1.0			
Average Transmission	≥90%			
Back Focal Lens	10.45mm			
Focus Type	Motorized Adjustable			
FOV	8.2°*6.6°			
Other Features				
Weight	400G			
Outer Size	L112mm, Φ101mm			
Operating Temp	-40~+60°C			
Spectral Range	8~12μm			
IP	IP67			
LTM100				
FOV	160*120	320*240	384*288	640*512
17μ	2	4	4.7	8
12μ	1.4	2.7	3.3	5.6
Optical Feature				
Focal Length	100mm			
F/#	1.0			
Average Transmission	≥88%			
Back Focal Lens	12.95mm			
Focus Type	Motorized Adjustable			
FOV	6.22°*4.98°			
Coating	DLC			
Other Features				
Weight	903G			
Outer Size	L119.1mm, Φ108mm			
Operating Temp	-40~+60°C			
Spectral Range	8~12μm			
IP	IP67			

WLS-LTM Specification				
LTM150				
FOV	160*120	320*240	384*288	640*512
17μ	1.3	2.6	3.2	5.3
12μ	1	2	2.2	3.7
Optical Feature				
Focal Length	150mm			
F/#	1.0			
Average Transmission	≥88%			
Back Focal Lens	30mm			
Focus Type	Motorized Adjustable			
FOV	4.15°*3.32°			
Coating	DLC			
Other Features				
Weight	978G			
Outer Size	L180mm, Φ176mm			
Operating Temp	-40~+60°C			
Spectral Range	8~12μm			
IP	IP67			

# Motorized Adjustable Zoom Thermal Lens WLS-LTZ Series



WLS-LTZ75



WLS-LTZ100



WLS-LTZ135



WLS-LTZ150



WLS-LTZ200



WLS-LTZ225

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WLS-LTZ Specification				
LTZ75				
FOV		320*240	640*480	640*512
17μ	Width	15.5	23.7	4.7
	Narrow	5.2	8	10.6
12μ	Width	11	16.8	3.3
	Narrow	3.7	5.6	7.5
Optical Feature				
Focal Length	25~75mm			
F/#	1.0			
Average Transmission	≥80%			
Back Focal Lens	18.54mm			
Focus Type	Motorized Adjustable Zoom			
FOV	24.55°*19.75°~8.29°*6.64°			
Coating	DLC			
Other Features				
Weight	1.2kg			
Outer Size	L124mm, Φ115mm			
Operating Temp	-40~+60°C			
Spectral Range	8~12μm			
IP	IP67			
LTZ100				
FOV		320*240	640*480	640*512
17μ	Width	15.5	30.8	31.5
	Narrow	3.9	7.8	8
12μ	Width	11	21.9	22.4
	Narrow	2.7	5.5	5.6
Optical Feature				
Focal Length	25~100mm			
F/#	1.0			
Average Transmission	≥80%			
Back Focal Lens	17.41mm			
Focus Type	Motorized Adjustable Zoom			
FOV	24.55°*18.54°~6.23°*4.67°			
Coating	DLC			
Other Features				
Weight	2.3kg			
Outer Size	L154.6mm, Φ152mm			
Operating Temp	-40~+60°C			
Spectral Range	8~12μm			
IP	IP67			

WLS-LTZ Specification				
LTZ135				
FOV		320*240	640*480	640*512
17μ	Width	13	20	25.7
	Narrow	9.2	14.1	18.3
12μ	Width	11	16.8	3.3
	Narrow	2	3.1	4.2
Optical Feature				
Focal Length	30~135mm			
F/#	0.95			
Average Transmission	≥80%			
Back Focal Lens	18.24mm			
Focus Type	Motorized Adjustable Zoom			
FOV	20.56°*16.5°~4.61°*3.69°			
Coating	DLC			
Other Features				
Weight	3.2kg			
Outer Size	L196.4mm, Φ172mm			
Operating Temp	-40~+60°C			
Spectral Range	8~12μm			
IP	IP67			
LTZ150				
FOV		320*240	640*480	640*512
17μ	Width	13	20	26
	Narrow	2.6	4	5.3
12μ	Width	9.2	14	18.7
	Narrow	1.8	2.8	3.8
Optical Feature				
Focal Length	30~150mm			
F/#	1.0			
Average Transmission	≥80%			
Back Focal Lens	17.69mm			
Focus Type	Motorized Adjustable Zoom			
FOV	20.56°*15.48°~4.15°*3.11°			
Coating	DLC			
Other Features				
Weight	3.8kg			
Outer Size	L212.1mm, Φ183mm			
Operating Temp	-40~+60°C			
Spectral Range	8~12μm			
IP	IP67			



WLS-LTZ Specification				
LTZ200				
FOV		320*240	640*480	640*512
17μ	Width	9.7	19.4	19.9
	Narrow	1.9	3.9	4
12μ	Width	6.9	13.7	14.1
	Narrow	1.4	2.7	2.8
Optical Feature				
Focal Length	40~200mm			
F/#	1.2			
Average Transmission	≥80%			
Back Focal Lens	12.71mm			
Focus Type	Motorized Adjustable Zoom			
FOV	21.55°*18.54°~4.98°*3.74°			
Coating	DLC			
Other Features				
Weight	6.6kg			
Outer Size	L276mm, Φ192mm			
Operating Temp	-40~+60°C			
Spectral Range	8~12μm			
IP	IP67			
LTZ75				
FOV		320*240	640*480	640*512
17μ	Width	15.5	30.8	31.5
	Narrow	10.9	21.8	22.4
12μ	Width	1.7	3.5	3.6
	Narrow	1.2	2.4	2.5
Optical Feature				
Focal Length	25~225mm			
F/#	1.2			
Average Transmission	≥80%			
Back Focal Lens	15.55mm			
Focus Type	Motorized Adjustable Zoom			
FOV	24.55°*19.75°~2.77°*2.21°			
Coating	DLC			
Other Features				
Weight	5.9kg			
Outer Size	L247.5mm, Φ200mm			
Operating Temp	-40~+60°C			
Spectral Range	8~12μm			
IP	IP67			

