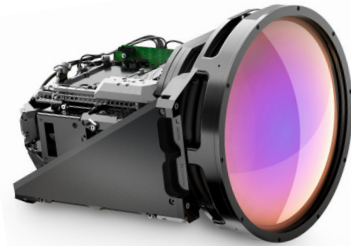


IR LONG RANGE ZOOM LENSES THE COMPLETE COLLECTION



SupIR 80-1200mm f/5.5
> 26km detection range
* For 15 μ m pixel pitch



SupIR 50-1350mm f/5.5
> 26.5km detection range
* For 15 μ m pixel pitch



SupIR 60-1200mm f/4
> 28km detection range
* For 10 μ m pixel pitch



Your long distance needs, met.

Delivering highest performance, and exceptional detection, recognition, identification (DRI) ranges, our comprehensive collection of infrared thermal imaging long-range zoom lenses is designed for security and surveillance observation systems, as well as defense air-sea-land systems. This ensures optimal performance across various scenarios.

Key features

- LWIR, MWIR, SWIR solutions
- Extended detection, recognition, identification (DRI) ranges
- Accurate thru-zoom boresight
- Continuous zoom, with fixed F# maintained through the full zoom range
- Rugged design for harsh environment operability in low temperatures and the toughest environments
- Folded optics technology
- Zoom up to X30
- Wide range of coatings available: Hard Carbon, High Durability, Low Reflection Hard Carbon
- Fast FOV change
- Compatible with SXGA 10 μ m and 15 μ m pixel pitch detectors
- Diffraction-limited optical design
- Pre-set, discrete optical zoom positions



Image 1: IR thermal image taken with SuplR 28-850mm f/5.5 SXGA format continuous zoom lens from 3.6km distance, integrated by IR Cameras infrared imaging system.

Long Range Zoom Lens Index

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	Cooled MWIR, 15µm	20-275 mm f/5.5	680314		
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50-700mm f/5.5		680472	NEW		p.14
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SWIR	25-250mm f/5.5 (NFOV) f/4.0 (WFOV)	680471	NEW		p.15

Zoom lens Detection, Recognition & Identification (DRI) performance

Uncooled LWIR

| 12 μm pixel size detector*

| 17 μm pixel size detector*

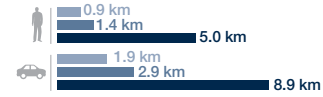
15-75mm f/1.2



15-100mm f/1.4



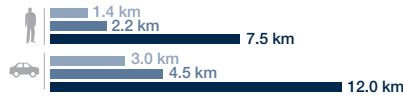
26-105mm f/1.6



25-150mm f/1.4



25-225mm f/1.5



40-300mm f/1.5

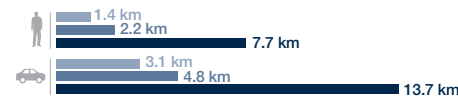


Cooled MWIR, 10 μm pixel size detector*

30-450mm f/3.4



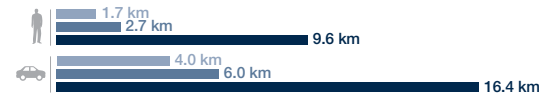
16-180mm f/3.6



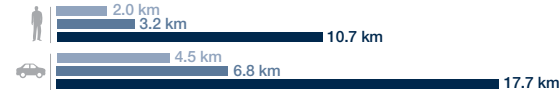
18-225mm f/3.6



18-225mm f/4.0



15-300mm f/4.0



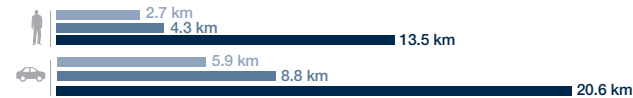
25/80/320mm f/4.0



21-420mm f/4.0



35/110/450mm f/4.0

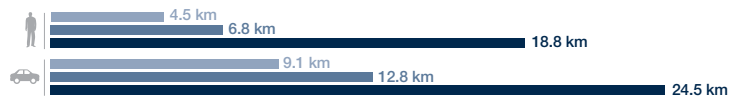


30-600mm f/4.0



Cooled MWIR, 10µm*

35-690mm f/4.0



45-900mm f/4.0



60-1200mm f/4.0



Cooled MWIR, 15µm pixel size detector**

20-275mm f/5.5



15-300mm f/5.5



30-385mm f/5.5



50-700mm f/5.5



28-850mm f/5.5



80-1200mm f/5.5



50-1350mm f/5.5



SWIR

25-250mm f/5.5 (NFOV)
f/4 (WFOV)



■ Identification
■ Recognition
■ Detection

Vehicle size 2.3m x 2.3m Human size 1.7m X 0.5m

Note: Calculations used are based on “Johnson Criteria” | Real world performance may vary depending on the weather conditions

* Assumptions: 23mK NETD (f/4 & f/5.5) for MWIR cooled detectors | 35.5mK NETD (f/3.4) | 32mK NETD (f/3.6) | 50mK NETD (f/1.0) for LWIR uncooled detectors | 30Hz frame rate | 50% detection probability | 0.2km⁻¹ atmospheric attenuation coefficient | human ΔT = 5°C | vehicle ΔT = 2°C

** SWIR assumptions: 1280 detector | TRM4 model | Day mode | 0.7µm to 1.7µm spectral range | 25Hz frame rate | Overcast daylight irradiance | 0.2 path radiance factor | 0.2km⁻¹ atmospheric attenuation coefficient | 50% detection probability | Human and vehicle target 50% reflectivity | 15% background reflectivity

SupIR 25-150mm f/1.4, Motorized Continuous Zoom 680119

Uncooled
LWIR



HD
FORMAT

WFOV (25mm)

HFOV	320x240	640x480	1024x768	1280x1024
25μ	18.5°	37.9°		
17μ	12.5°	25.3°	41.5°	
12μ	9.4°	18.9°	28.7°	36.3°

NFOV (150mm)

HFOV	320x240	640x480	1024x768	1280x1024
25μ	3.0°	6.1°		
17μ	2.1°	4.1°	6.6°	
12μ	1.5°	2.9°	4.7°	5.8°

Property	Value	
Optical	WFOV	
	NFOV	
	Back focal length	≥28mm in air
	Minimum focusing range	1.2m 45m
Mechanical	Ø141mm X 132.9mm, 1.9kg	
Electrical	0.3A average, 0.8A peak @12V, RS422	

SupIR 25-225mm f/1.5, Motorized Continuous Zoom 680157

Uncooled
LWIR



HD
FORMAT

WFOV (25mm)

HFOV	320x240	640x480	1024x768	1280x1024
25μ	18.4°	37.6°		
17μ	12.5°	25.2°	41.1°	
12μ	8.8°	17.7°	28.6°	35.9°

NFOV (225mm)

HFOV	320x240	640x480	1024x768	1280x1024
25μ	2.0°	4.1°		
17μ	1.4°	2.8°	4.4°	
12μ	1.0°	1.9°	3.1°	3.9°

Property	Value	
Optical	WFOV	
	NFOV	
	Back focal length	30.7mm in air
	Minimum focusing range	1m >90m
Mechanical	Ø178mm X 226.5mm, 4.1kg	
Electrical	0.5A average, 3.5A peak @12V, RS422	

SupIR 40-300mm f/1.5, Motorized Continuous Zoom 680264

Uncooled
LWIR



HD
FORMAT

WFOV (40mm)

HFOV	320x240	640x480	1024x768	1280x1024
25μ	12.2°	24.5°		
17μ	8.3°	16.6°	26.8°	
12μ	5.8°	11.7°	18.8°	23.5°

NFOV (300mm)

HFOV	320x240	640x480	1024x768	1280x1024
25μ	1.5°	3.0°		
17μ	1.0°	2.1°	3.3°	
12μ	0.7°	1.5°	2.3°	2.9°

Property	Value	
Optical	WFOV	
	NFOV	
	Back focal length	56 mm in air
	Minimum focusing range	2m 10m
Mechanical	Ø222mm X 299.5mm, 9.5kg	
Electrical	<0.8A average, 1.5A peak @12V, RS422	

FoldIR 30-450mm f/3.4, Motorized Continuous Zoom 680465

Cooled
MWIR

HD
FORMAT



NEW

WFOV (30mm)

HFOV	640x480	1280x1024
15μ	19.3°	
10μ	12.5°	26.9°

NFOV (450mm)

HFOV	640x480	1280x1024
15μ	1.3°	
10μ	0.8°	1.7°

Property	Value	
Optical	WFOV	NFOV
Focal length	30mm	450mm
Cold stop to FPA distance	19.4mm	
Minimum focusing range	20m	50m
Nuc	By integrated shutter or defocus	
Mechanical		
Max. Dimensions	Ø146mm X 247mm	
Weight	2kg	
Electrical		
Drive voltage	12V	
Current consumption	<0.5A average, 1.0A peak	
Communication interface	RS422, RS232	

FoldIR 16-180mm f/3.6, Motorized Continuous Zoom 680389

Cooled
MWIR



WFOV (16mm)

HFOV	640x480
10μ	22.6°

NFOV (180mm)

HFOV	640x480
10μ	2°

Property	Value	
Optical	WFOV	NFOV
Focal length	16mm	180mm
Cold stop to FPA distance	12mm	
Minimum focusing range	5m	50m
Mechanical		
Max. Dimensions	Length 121mm; Width 70mm; Height 102mm	
Weight	460gr	
Electrical		
Drive voltage	12V	
Current consumption	<0.5A average, 1.0A peak	
Communication interface	RS422, RS232	

LightIR 18-225mm f/3.6, Motorized Continuous Zoom 680442

Cooled
MWIR



NEW

WFOV (18mm)

HFOV	640x512
10μ	20°

NFOV (225mm)

HFOV	640x512
10μ	1.6°

Property	Value	
Optical	WFOV	NFOV
Focal length	18mm	225mm
Cold stop to FPA distance	12mm	
Minimum focusing range	5m	50m
Mechanical		
Max. Dimensions	Ø63mm X 84.6mm	
Weight	<300gr	
Electrical		
Drive voltage	6-12VDC	
Current consumption	<0.5A average, 1.0A peak	
Communication interface	RS422	

SupIR 18-225mm f/4, Motorized Continuous Zoom 680473

Cooled
MWIR



NEW

HD
FORMAT

WFOV (18mm)

HFOV	640x512	1280x1024
15μ	29.9°	
10μ	20.2°	39.1°

NFOV (225mm)

HFOV	640x512	1280x1024
15μ	2.4°	
10μ	1.6°	3.3°

Property	Value	
Optical	WFOV	NFOV
Focal length	18mm	225mm
Cold stop to FPA distance	19.4-20.5mm	
Minimum focusing range	5m	50m
Mechanical		
Max. Dimensions	Ø61.4mm X 84mm	
Weight	326gr	
Electrical		
Drive voltage	12V	
Current consumption	<0.5A average, 1.0A peak	
Communication interface	RS422	

SupIR 15-300mm f/4.0, Motorized Continuous Zoom 680084/680204

Cooled
MWIR

HD
FORMAT



WFOV (15mm)

HFOV	640x512	1280x1024
15μ	35.1°	
10μ	24.0°	44.9°

NFOV (300mm)

HFOV	640x512	1280x1024
15μ	1.8°	
10μ	1.2°	2.4°

Property	Value	
Optical	WFOV	NFOV
Back focal length	23.3mm in air (680084) / 26.2mm in air (680204)	
Cold stop to FPA distance	19.4mm (680084)/ 20.5mm (680204)	
Minimum focusing range	5m	50m
Mechanical		
Max. Dimensions	Ø96mm X 130mm	
Weight	965gr	
Electrical		
Drive voltage	12V	
Current consumption	0.5A average, 1.0A peak	
Communication interface	RS422	

SupIR 25/80/320mm f/4.0, Motorized Focus 680024

Cooled
MWIR

HD
FORMAT



WFOV (25mm)

HFOV	640x512	1280x1024
15μ	21.6°	
10μ	14.5°	28.4°

MFOV (80mm)

HFOV	640x512	1280x1024
15μ	6.8°	
10μ	4.6°	9.0°

NFOV (320mm)

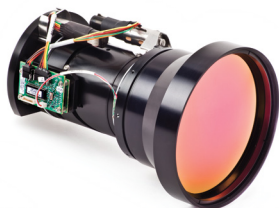
HFOV	640x512	1280x1024
15μ	1.7°	
10μ	1.1°	2.2°

Property	Value		
Optical	WFOV	MFOV	NFOV
Focal length	25mm	80mm	320mm
Back focal length	26.5mm in air		
Cold stop to FPA Distance	19.4mm		
Minimum focusing range	5m	10m	50m
Mechanical			
Max. Dimensions	Ø134mm X 165.5mm		
Weight	1.52kg		
Electrical			
Focus Motor	6VDC I _{max} < 0.06A (Contin. Current 0.05A)		
FOV Motor	6VDC I _{max} < 0.06A (Contin. Current 0.05A)		

SupIR 21-420mm f/4.0, Motorized Continuous Zoom 680160

Cooled
MWIR

HD
FORMAT



WFOV (21mm)

HFOV	640x512
15μ	25.1°
10μ	17.1°

WFOV (33mm)

HFOV	1280x1024
10μ	20.0°

NFOV (420mm)

HFOV	640x512	1280x1024
15μ	1.3°	
10μ	1.2°	1.7°

Property	Value	
Optical	WFOV	NFOV
Back focal length	≥ 23.3mm in air	
Cold stop to FPA distance	19.4mm / 20.5mm for config. 005/006/011/012	
Minimum focus range	10m	100m
Mechanical		
Max. Dimensions	Ø132mm X200.5mm	
Weight	1.6kg	
Electrical		
Drive voltage	12V	
Current consumption	0.5A average, 1.0A peak	
Communication interface	RS422	

SupIR 35/110/450mm f/4.0, Motorized Focus 680374

Cooled
MWIR

HD
FORMAT



WFOV (35mm)

HFOV	640x512	1280x1024
15μ	15.2°	
10μ	10.3°	20.0°

MFOV (110mm)

HFOV	640x512	1280x1024
15μ	4.9°	
10μ	3.3°	6.4°

NFOV (450mm)

HFOV	640x512	1280x1024
15μ	1.2°	
10μ	0.8°	1.6°

Property	Value		
Optical	WFOV	MFOV	NFOV
Back focal length	26.53mm in air		
Cold stop to FPA distance	19.4mm		
Minimum focus range	5m	10m	50m
Mechanical			
Max. Dimensions	Ø136mm X218.6mm		
Weight	2.42kg		
Electrical			
Drive voltage	7.5V – 12V		
Current consumption	0.05A average, 0.06A peak		
Communication interface	RS422		

*Product does not include back upper cover as in picture

SupIR 30-600mm f/4.0, Motorized Continuous Zoom 680384/5

Cooled
MWIR

HD
FORMAT



WFOV (30mm)

HFOV	640x512
15μ	17.2°
10μ	11.9°

WFOV (60mm)

HFOV	1280x1024
10μ	11.4°

NFOV (600mm)

HFOV	640x512	1280x1024
15μ	0.9°	
10μ	0.6°	1.2°

Property	Value	
Optical	WFOV	NFOV
Back focal length	23.3mm in air (680384) / 26.2mm in air (680385)	
Cold stop to FPA distance	19.4mm (680384) / 20.5mm (680385)	
Minimum focus range	5m	200m
Mechanical		
Max. Dimensions	Ø173mm X251.9mm	
Weight	3.1kg	
Electrical		
Drive voltage	12V	
Current consumption	0.5A average, 1.0A peak	
Communication interface	RS422	

SupIR 35-690mm f/4.0, Motorized Continuous Zoom 680294/5

Cooled
MWIR

HD
FORMAT



WFOV (35mm)

HFOV	640x512
15μ	15.2°
10μ	10.4°

WFOV (60mm)

HFOV	1280x1024
10μ	11.5°

NFOV (690mm)

HFOV	640x512	1280x1024
15μ	0.9°	
10μ	0.5°	1.0°

Property	Value	
Optical	WFOV	NFOV
Back focal length	23.3mm in air (680294) / 26.2mm in air (680295)	
Cold stop to FPA distance	19.4mm (680294) / 20.5mm (680295)	
Minimum focus range	5m	200m
Mechanical		
Max. Dimensions	Ø210mm X264mm	
Weight	4.0kg	
Electrical		
Drive voltage	12V	
Current consumption	0.5A average, 1.0A peak	
Communication interface	RS422	

SupIR 45-900mm f/4.0, Motorized Continuous Zoom 680425/6

Cooled
MWIR

HD
FORMAT



WFOV (45mm)
for configuration 680425-001/2
& 680426-001/2

HFOV	640x512
15μ	11.4°
10μ	7.9°

WFOV (72mm)
for configuration 680425-003/4 &
680426-003/4

HFOV	640x512	1280x1024
15μ	7.3°	
10μ	5.0°	9.3°

NFOV (900mm) all configurations

HFOV	640x512	1280x1024
15μ	0.6°	
10μ	0.4°	0.8°

Property	Value
Optical	WFOV
Back focal length	23.3mm in air (680425) / 26.2mm in air (680426)
Cold stop to FPA distance	19.4mm (680425) / 20.5mm (680426)
Minimum focus range	5m
Mechanical	NFOV
Max. Dimensions	Ø286mm X 343.6mm
Weight	6.6kg
Electrical	
Drive voltage	12V
Current consumption	0.5A average, 1.0A peak
Communication interface	RS422

SupIR 60-1200mm f/4 Motorized Continuous Zoom 680475/6

Cooled
MWIR

HD
FORMAT



NEW

WFOV (60mm)

HFOV	640x512
15μ	8.6°
10μ	5.9°

WFOV (100mm)

HFOV	640x512	1280x1024
15μ	5.3°	
10μ	3.6°	6.8°

NFOV (1200mm)

HFOV	640x512	1280x1024
15μ	0.5°	
10μ	0.3°	0.6°

Property	Value
Optical	WFOV
Back Focal Length	23.3mm in air (680475) / 26.2mm in air (680476)
Cold stop to FPA Distance	19.4mm (680475) / 20.5mm (680476)
Minimum Focusing Range	<5m
Mechanical	NFOV
Max. Dimensions	Ø388mm x 409.2mm
Weight	14.6kg
Electrical	
Drive Voltage	12V
Current Consumption	0.5A average, 1.0A peak at T = -32°C; 0.2A average, 1.0A peak at T ≥ 20°C
Communication Protocol	RS422

LightIR 20-275mm f/5.5, Motorized Continuous Zoom 680314

Cooled
MWIR



WFOV (20mm)

HFOV	640x512
15μ	28.0°

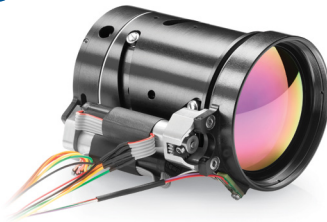
NFOV (275mm)

HFOV	640x512
15μ	1.9°

Property	Value	
	WFOV	NFOV
Optical	Back Focal Length	23.52mm in air
	Cold stop to FPA distance	19.7mm
	Minimum Focusing Range	5m 50mm
Mechanical	Max. Dimensions	Ø58mm x 67.1mm
	Weight	264gr

SupIR 15-300mm f/5.5, Motorized Continuous Zoom 680313

Cooled
MWIR



WFOV (15mm)

HFOV	640x512
15μ	36.4°

NFOV (300mm)

HFOV	640x512
15μ	1.8°

Property	Value	
	WFOV	NFOV
Optical	Back Focal Length	25.33mm in air
	Cold stop to FPA distance	19.9mm-19.1mm
	Minimum Focusing Range	5m 50mm
Mechanical	Max. Dimensions	Ø67mm x 93mm
	Weight	560gr

SupIR 30-385mm f/5.5, Motorized Continuous Zoom 680459

Cooled
MWIR



NEW

WFOV (30mm)

HFOV	640x512
15μ	18.6°

NFOV (385mm)

HFOV	640x512
15μ	1.4°

Property	Value	
	WFOV	NFOV
Optical	Back Focal Length	23.7mm in air
	Cold stop to FPA distance	19.7mm
	Minimum Focusing Range	5m 70mm
Mechanical	Max. Dimensions	Ø98mm x 137.9mm
	Weight	740gr

SupIR 50-700mm f/5.5, Motorized Continuous Zoom 680472

Cooled
MWIR



NEW

WFOV (50mm)

HFOV	640x512
15μ	11.4°

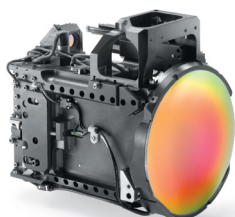
NFOV (700mm)

HFOV	640x512
15μ	0.8°

	Property	Value	
Optical		WFOV	NFOV
	Back Focal Length	23.52mm in air	
	Cold stop to FPA distance	19.7mm	
	Minimum Focusing Range	1m	33mm
Mechanical	Max. Dimensions	Ø156.2mm X 176.7mm	
	Weight	1.64kg	

SupIR 28-850mm f/5.5, Motorized Continuous Zoom 680072*

Cooled
MWIR



HD
FORMAT

WFOV (28mm)

HFOV	640x512	1280x1024
15μ	19.8°	39.8°

NFOV (850mm)

HFOV	640x512	1280x1024
15μ	0.6°	1.3°

	Property	Value	
Optical		WFOV	NFOV
	Back Focal Length	≥ 37.6mm in air	
	Cold stop to FPA distance	28mm	
	Minimum Focusing Range	3m	50m
Mechanical	Max. Dimensions	Length 256mm; Height 257.5mm	
	Weight	4.6Kg	

* Requires export license

SupIR 80-1200mm f/5.5 Motorized Continuous Zoom 680478

Cooled
MWIR



NEW

WFOV (80mm)

HFOV	640x512
15μ	7.1°

NFOV (1200mm)

HFOV	640x512
15μ	0.5°

	Property	Value	
Optical		WFOV	NFOV
	Cold stop to FPA Distance	19.7mm	
	Back Focal Length	23.52mm in air	
	Minimum Focusing Range	5m	220m
Mechanical	Max. Dimensions	Ø268mm x 325.5mm	
	Weight	7.4kg	

SupIR 50-1350mm f/5.5, Motorized Continuous Zoom 680356*

Cooled
MWIR

HD
FORMAT



WFOV (50mm)

HFOV	640x512	1280x1024
15μ	10.8°	20.5°

NFOV (1350mm)

HFOV	640x512	1280x1024
15μ	0.4°	0.8°

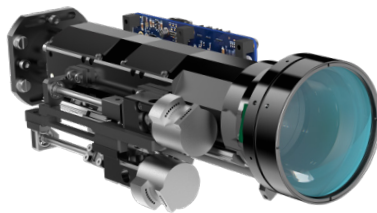
Property	Value	
Optical	WFOV	NFOV
Back focal length	37.6mm in air	
Cold stop to FPA distance	28mm	
Minimum focus range	5m	200m
Mechanical		
Max. Dimensions	Length 376mm; Ø247mm; height 293mm	
Weight	15.6kg	
Electrical		
Drive voltage	28VDC	
Current consumption	1.25A average, 2.5A peak	
Communication interface	RS422	

* Requires export license

SWIR & NIR 25-250mm f/5.5 (NFOV) f/4.0 (WFOV) Motorized Continuous Zoom 680471

SWIR

HD
FORMAT



NEW

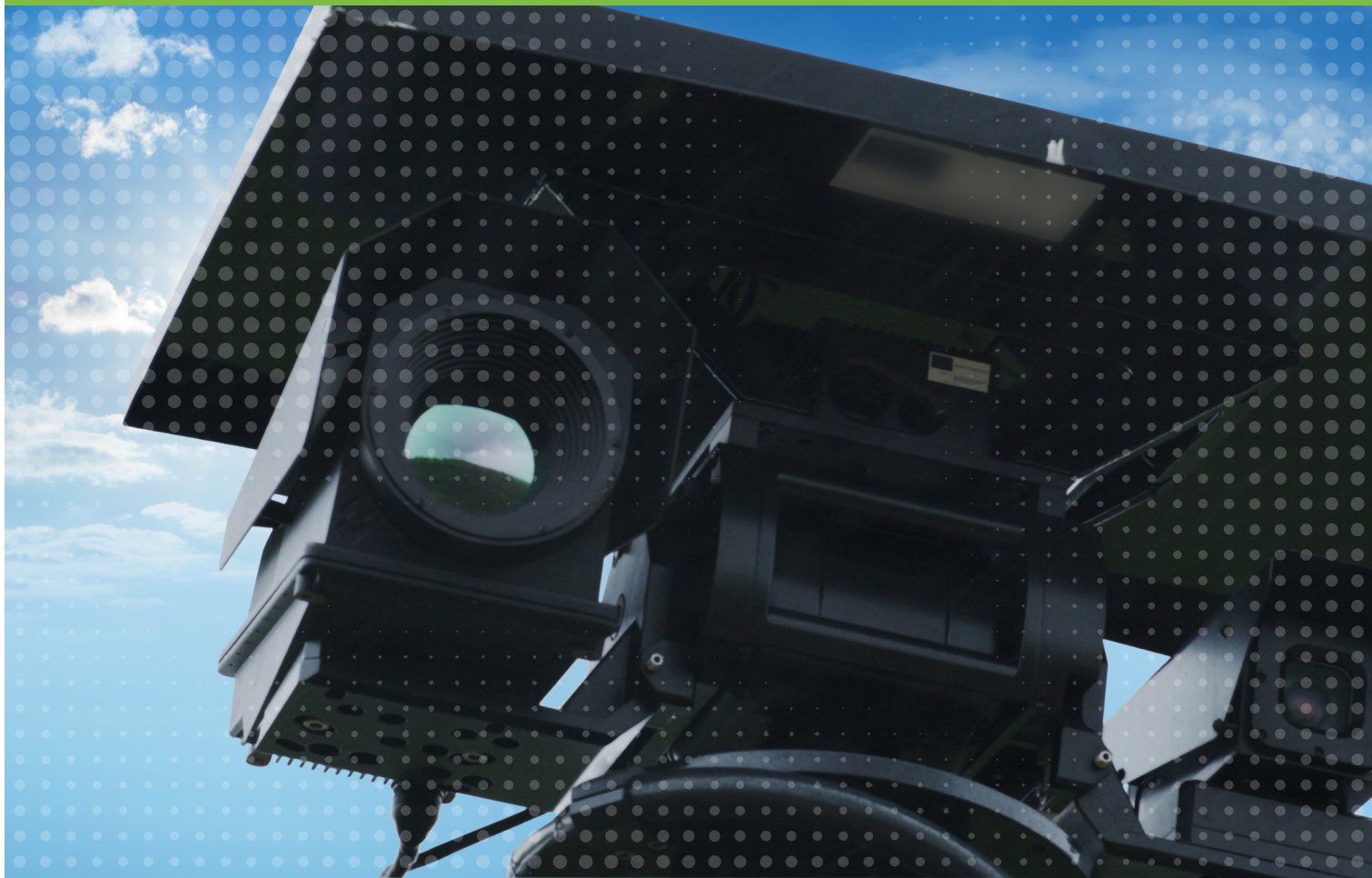
WFOV (25mm)

HFOV	640x512	1280x1024
15μ	21.7°	
10μ	14.7°	28.7°
5μ	7.3°	14.6°

NFOV (250mm)

HFOV	640x512	1280x1024
15μ	2.2°	
10μ	1.5°	2.9°
5μ	0.7°	1.5°

Property	Value	
Optical	WFOV	NFOV
Focal length	25mm	250mm
Back Focal Length	34.47mm in air (±0.1)	
Minimum focus range	2m	20m
Mechanical		
Max. Dimensions	Ø65mm x 244.1mm	
Weight	840gr	
Electrical		
Drive voltage	12V	
Current consumption	<0.5A (max)	
Communication interface	RS422 or RS232	



About Ophir IR Optics

With decades worth of knowledge and experience, Ophir Optronics Solutions LTD., Infrared Optics, an MKS Company (NASDAQ: MKSI), is a world-leading designer and manufacturer of high performance IR thermal lenses and optical elements for SWIR, MWIR & LWIR imaging. Using advanced technologies, innovative engineering, and design configurations, Ophir provides a global solution for homeland security, surveillance, commercial and defense applications: IR Components and complex lens assemblies with fixed or motorized focus and zoom lenses.

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