

## IR ZOOM LENS PORTFOLIO FOR LONG-RANGE SURVEILLANCE & COUNTER-UAS

**MWIR • LWIR • SWIR CONTINUOUS ZOOM LENSES**



## WIDE PORTFOLIO. MULTIPLE CRITICAL MISSIONS.

Modern border security, defense, and force-protection operations require optical systems capable of detecting, classifying, and tracking threats across land, sea, and air. The same lenses that enable long-range ISR operations are also core components of today's advanced Counter-UAS systems.

The Ophir® IR continuous zoom lenses deliver the extended range, thru-zoom line of sight (LOS) stability, and high-precision boresight performance required to:

- Detect human, vehicle, and drone targets at long distances
- Maintain image clarity across the entire zoom range

- Track fast-moving sUAS without losing line-of-sight
- Operate reliably in harsh environmental conditions

With deployments worldwide and deep collaboration with leading defense OEMs, we provide proven IR optics that ensure mission success.

### Core Advantages

- High-precision optics with MTF near the diffraction limit
- Continuous zoom with fixed F# maintained through the full range for stable image brightness
- Focus stability and accurate thru-zoom boresight retention
- Sharp, clear imagery for long-range identification and fast-moving targets
- Adequate pixels-on-target for early and accurate threat classification
- Extended DRI performance across human, vehicle, and drone targets
- Rugged, athermalized design for stability across temperature extremes
- Up to ×30 zoom with fast field-of-view transition for dynamic operational scenarios
- Wide coating options: Hard Carbon, High Durability, Low Reflection, Aquashield™ hydrophobic coating
- Folded-optics designs optimized for payload integration
- Broad detector compatibility including SXGA formats for MWIR and SWIR
- Comprehensive catalog across MWIR, LWIR, and SWIR continuous-zoom lenses
- Designed to meet U.S. and European military standards for durability and environmental resilience

## Zoom Lenses Detection, Recognition & Identification (DRI) Performance

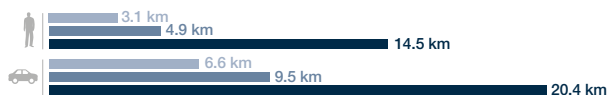
MWIR

10-135mm f/1.8

Cooled MWIR,  
5µm pixel size detector



30-450mm f/3.4



16-180mm f/3.6



18-225mm f/3.6



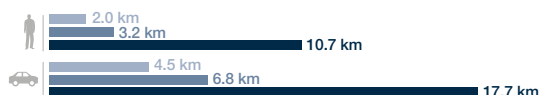
40-450mm f/3.6



18-225mm f/4.0



15-300mm f/4.0



21-420mm f/4.0



30-600mm f/4.0



35-690mm f/4.0



45-900mm f/4.0



60-1200mm f/4.0



SWIR

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



50-1000mm f/9.5 (NFOV)  
f/5.5 (WFOV)



■ Identification  
■ Recognition  
■ Detection

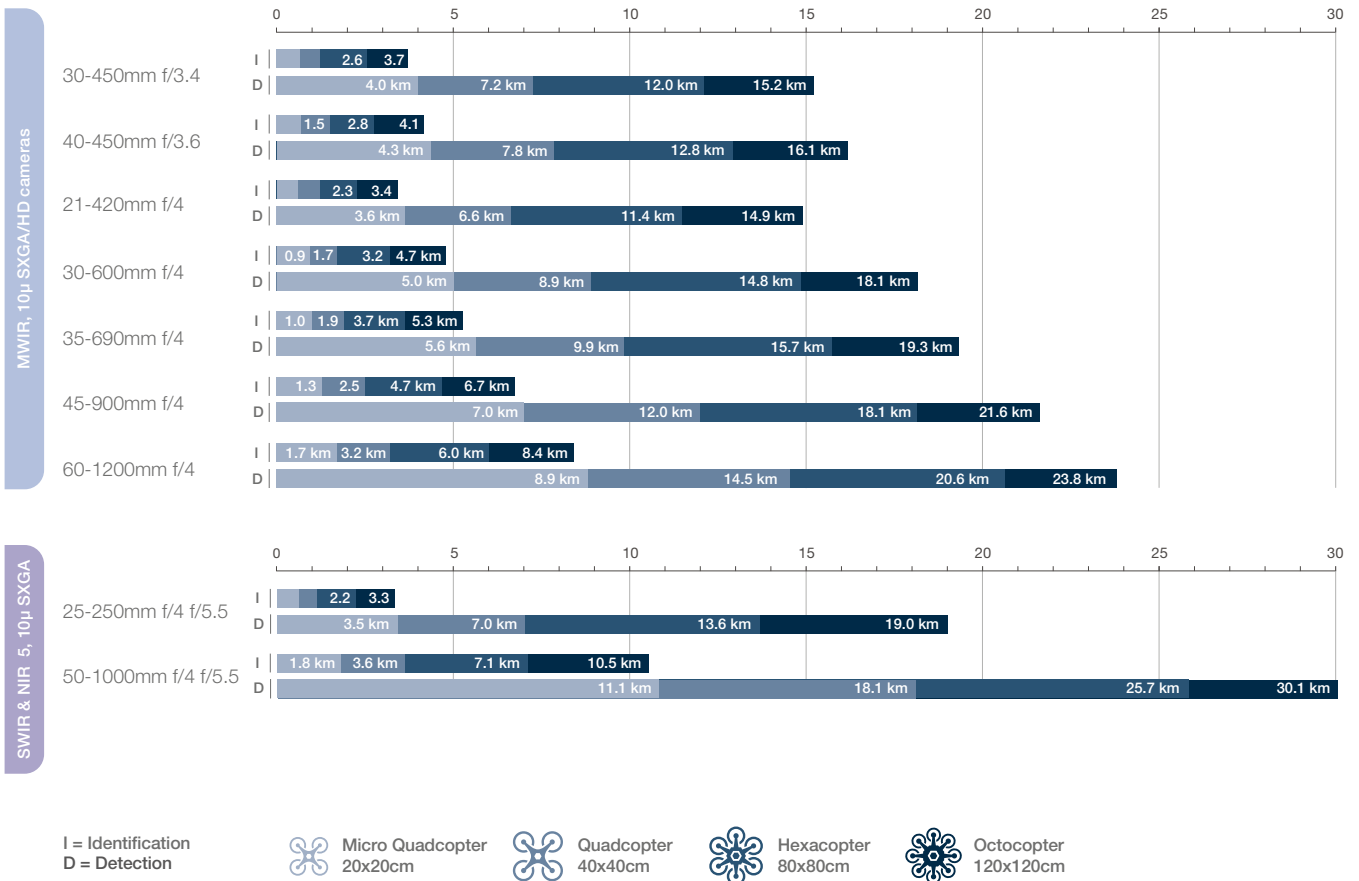
Vehicle size 2.3m x 2.3m      Human size 1.7m x 0.5m

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

\* **DRI assumptions:** Johnson Criteria; 50% Pd; 0.2km<sup>-1</sup> attenuation. MWIR/LWIR: 30Hz, ΔT human/vehicle 5°C/2°C; MWIR 23–49mK (f/1.8–f/5.5); LWIR (uncooled) 32–50mK (f/1.0–f/3.6).

\*\* **SWIR assumptions:** 1280, TRM4, day (0.7–1.7µm), 25Hz, overcast, path radiance 0.2, reflectivity 50% target / 15% background. Performance may vary.

## UAVs Detection and Identification Ranges (km)



Assumptions: NETD LWIR f/1.5 50mK | NETD MWIR 35.5mK (f/3.4); 32mK (f/3.6); 32mK (f/4, f/5.5) | 2°C target ΔT | 30Hz frame rate LWIR MWIR | 25Hz frame rate SWIR at 0.7μm to 1.7μm spectral range, day mode TRM4 model, 10μm pitch Cardinal 1280 detector, overcast daylight irradiance | 0.2km<sup>-1</sup> atmospheric attenuation coefficient | 50% detection probability | 0.2 path radiance factor | 250m drone altitude (above ground) | 50% drone reflectivity | 15% background reflectivity



Image 2: Visible vs. SWIR imagery taken simultaneously from >20km distance.

# SupIR 10-135mm f/1.8, Motorized Continuous Zoom 680540

MWIR  
f/1.8

NEW



HD  
FORMAT

## WFOV (10mm)

| HFOV | 1280x1024 |
|------|-----------|
| 5μ   | 37.7°     |

## NFOV (135mm)

| HFOV | 1280x1024 |
|------|-----------|
| 5μ   | 2.67°     |

| Property                        | Value                      |      |
|---------------------------------|----------------------------|------|
| Optical                         | WFOV                       | NFOV |
| F/#                             | 1.8                        |      |
| Minimum Focus Range             | 5m                         | 50m  |
| Mechanical                      |                            |      |
| Focus Mechanism                 | Motorized, Adjustable      |      |
| Focus Time (minimum range to ∞) | ≤1 sec.                    |      |
| Zoom Mechanism                  | Motorized                  |      |
| Zoom Time (NFOV to WFOV)        | ≤5 sec.                    |      |
| Weight                          | 780gr                      |      |
| Max. Dimensions                 | Ø90mm x 129mm              |      |
| Electrical                      |                            |      |
| Lens Control                    | Designated lens controller |      |
| Drive voltage                   | 12VDC                      |      |
| Communication Protocol          | RS485, RS232               |      |

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

MWIR  
f/3.4



HD  
FORMAT

## WFOV (30mm)

| HFOV | 640x480 | 1280x720 | 1280x1024 |
|------|---------|----------|-----------|
| 15μ  | 19.3°   |          |           |
| 10μ  | 12.5°   | 26.9°    | 26.9°     |

## NFOV (450mm)

| HFOV | 640x480 | 1280x720 | 1280x1024 |
|------|---------|----------|-----------|
| 15μ  | 1.3°    |          |           |
| 10μ  | 0.8°    | 1.7°     | 1.7°      |

| Property                        | Value                      |      |
|---------------------------------|----------------------------|------|
| Optical                         | WFOV                       | NFOV |
| F/#                             | 3.4                        |      |
| Minimum Focus Range             | 20m                        | 50m  |
| Mechanical                      |                            |      |
| Focus Mechanism                 | Motorized                  |      |
| Focus Time (minimum range to ∞) | ≤1 sec.                    |      |
| Zoom Time (NFOV to WFOV)        | ≤5 sec.                    |      |
| Weight                          | 2kg                        |      |
| Max. Dimensions                 | Ø146mm x 247mm             |      |
| Electrical                      |                            |      |
| Lens Control                    | Designated lens controller |      |
| Supply voltage                  | 12V                        |      |
| Current consumption             | 0.5A average, 1.0A peak    |      |
| Communication Protocol          | RS422, RS232               |      |

\* Requires export license

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

MWIR  
f/3.6



## WFOV (16mm)

|      |         |
|------|---------|
| HFOV | 640x480 |
| 10μ  | 22.6°   |

## NFOV (180mm)

|      |         |
|------|---------|
| HFOV | 640x480 |
| 10μ  | 2°      |

| Property                        | Value                                  |             |
|---------------------------------|----------------------------------------|-------------|
| <b>Optical</b>                  | <b>WFOV</b>                            | <b>NFOV</b> |
| F/#                             | 3.6                                    |             |
| Minimum Focus Range             | 5m                                     | 50m         |
| <b>Mechanical</b>               |                                        |             |
| Focus Mechanism                 | Motorized. Adjustable                  |             |
| Focus Time (minimum range to ∞) | ≤5.5 sec.                              |             |
| Zoom Time (NFOV to WFOV)        | ≤1 sec.                                |             |
| Weight                          | 465gr                                  |             |
| Max. Dimensions                 | Length 121mm; Width 70mm; height 102mm |             |
| <b>Electrical</b>               |                                        |             |
| Lens Control                    | Designated lens controller             |             |
| Supply voltage                  | 12V                                    |             |
| Current consumption             | <0.5A average, 1.0A peak               |             |
| Communication Protocol          | RS422, RS232                           |             |

\* Requires export license

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

MWIR  
f/3.6



## WFOV (18mm)

|      |         |
|------|---------|
| HFOV | 640x512 |
| 10μ  | 20°     |

## NFOV (225mm)

|      |         |
|------|---------|
| HFOV | 640x512 |
| 10μ  | 1.6°    |

| Property                        | Value                      |             |
|---------------------------------|----------------------------|-------------|
| <b>Optical</b>                  | <b>WFOV</b>                | <b>NFOV</b> |
| F/#                             | 3.6                        |             |
| Minimum Focus Range             | 5m                         | 50m         |
| <b>Mechanical</b>               |                            |             |
| Focus Mechanism                 | Motorized. Adjustable      |             |
| Focus Time (minimum range to ∞) | <2 sec.                    |             |
| Zoom Time (NFOV to WFOV)        | <5 sec.                    |             |
| Weight                          | 305gr                      |             |
| Max. Dimensions                 | Ø63mm x 84.6mm             |             |
| <b>Electrical</b>               |                            |             |
| Lens Control                    | Designated lens controller |             |
| Drive voltage                   | 12V                        |             |
| Current consumption             | <0.5A average, 1.0A peak   |             |
| Communication Protocol          | RS422                      |             |

## FoldIR 40-450mm f/3.6, Motorized Continuous Zoom 680533\*

MWIR  
f/3.6



### WFOV (40mm)

|      |         |
|------|---------|
| HFOV | 640x480 |
| 10μ  | 8.9°    |

### NFOV (450mm)

|      |         |
|------|---------|
| HFOV | 640x480 |
| 10μ  | 0.85°   |

| Property                        | Value                      |      |
|---------------------------------|----------------------------|------|
| Optical                         | WFOV                       | NFOV |
| F/#                             | 3.6                        |      |
| Minimum Focus Range             | 50m                        | 5m   |
| Mechanical                      |                            |      |
| Focus Mechanism                 | Motorized                  |      |
| Focus Time (minimum range to ∞) | ≤5.5 sec.                  |      |
| Zoom mechanism                  | Motorized                  |      |
| Zoom Time (NFOV to WFOV)        | ≤1 sec.                    |      |
| Weight                          | 1.85kg                     |      |
| Max. Dimensions                 | Ø165 x length 222mm        |      |
| Electrical                      |                            |      |
| Lens Control                    | Designated lens controller |      |
| Drive voltage                   | 12VDC                      |      |
| Current consumption             | <0.5A average, 1.0A peak   |      |
| Communication Protocol          | RS422                      |      |

\* Requires export license

## SupIR 18-225mm f/4.0, Motorized Continuous Zoom 680473

MWIR  
f/4.0



HD  
FORMAT

### WFOV (18mm)

|      |         |          |           |
|------|---------|----------|-----------|
| HFOV | 640x512 | 1280x720 | 1280x1024 |
| 15μ  | 29.9°   |          |           |
| 10μ  | 20.2°   | 39.1°    | 39.1°     |

### NFOV (225mm)

|      |         |          |           |
|------|---------|----------|-----------|
| HFOV | 640x512 | 1280x720 | 1280x1024 |
| 15μ  | 2.4°    |          |           |
| 10μ  | 1.6°    | 3.3°     | 3.3°      |

| Property                        | Value                      |      |
|---------------------------------|----------------------------|------|
| Optical                         | WFOV                       | NFOV |
| Minimum Focus Range             | 5m                         | 50m  |
| Mechanical                      |                            |      |
| Focus Mechanism                 | Motorized. Adjustable      |      |
| Focus Time (minimum range to ∞) | <2 sec.                    |      |
| Zoom Time (NFOV to WFOV)        | <5 sec.                    |      |
| Weight                          | 324gr                      |      |
| Max. Dimensions                 | Ø61.4mm x 84mm             |      |
| Electrical                      |                            |      |
| Lens Control                    | Designated lens controller |      |
| Supply voltage                  | 12V                        |      |
| Current consumption             | <0.5A average, 1.0A peak   |      |
| Communication Protocol          | RS422                      |      |



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

MWIR  
f/4.0



HD  
FORMAT

## WFOV (15mm)

| HFOV | 640x512 | 1280x720 | 1280x1024 |
|------|---------|----------|-----------|
| 15μ  | 35.1°   |          |           |
| 10μ  |         | 45.0°    | 45.0°     |

## NFOV (300mm)

| HFOV | 640x512 | 1280x720 | 1280x1024 |
|------|---------|----------|-----------|
| 15μ  | 1.8°    |          |           |
| 10μ  |         | 2.4°     | 2.4°      |

| Property                        | Value                                                                   |      |
|---------------------------------|-------------------------------------------------------------------------|------|
| Optical                         | WFOV                                                                    | NFOV |
| F/#                             | 4.0                                                                     |      |
| Minimum Focus Range             | 5m                                                                      | 50m  |
| Mechanical                      |                                                                         |      |
| Focus Mechanism                 | Motorized                                                               |      |
| Focus Time (minimum range to ∞) | ≤1 sec.                                                                 |      |
|                                 | Motorized                                                               |      |
| Zoom Time (NFOV to WFOV)        | ≤5 sec. at -32°C; ≤4 sec. at T≥ 20°C (at max. speed)                    |      |
| Weight                          | 990gr                                                                   |      |
| Max. Dimensions                 | Ø96mm x 130mm                                                           |      |
| Electrical                      |                                                                         |      |
| Lens Control                    | Designated lens controller                                              |      |
| Supply 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                                                                   |      |

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

MWIR  
f/4.0



HD  
FORMAT

## WFOV

| HFOV | 640x512 | 1280x720 | 1280x1024 |
|------|---------|----------|-----------|
|      | 21mm    | 22mm     | 33mm      |
| 15μ  | 25.1°   |          |           |
| 10μ  |         | 29.0°    | 20.0°     |

## NFOV (420mm)

| HFOV | 640x512 | 1280x720 | 1280x1024 |
|------|---------|----------|-----------|
| 15μ  | 1.3°    |          |           |
| 10μ  |         | 1.7°     | 1.7°      |

| Property                        | Value                                              |      |
|---------------------------------|----------------------------------------------------|------|
| Optical                         | WFOV                                               | NFOV |
| F/#                             | 4.0                                                |      |
| Minimum Focus Range             | 10m                                                | 100m |
| Mechanical                      |                                                    |      |
| Focus Mechanism                 | Motorized                                          |      |
| Focus Time (minimum range to ∞) | ≤1 sec. at maximum speed                           |      |
| Zoom mechanism                  | Motorized                                          |      |
| Zoom Time (NFOV to WFOV)        | ≤8 sec. at -32°C; ≤5 sec. at T≥20°C (at max speed) |      |
| Weight                          | 1.6kg                                              |      |
| Max. Dimensions                 | Ø132x200.5mm                                       |      |
| Electrical                      |                                                    |      |
| Lens Control                    | Designated lens controller                         |      |
| Supply voltage                  | 12V                                                |      |
| Current consumption             | 0.5A average, 1.0A peak                            |      |
| Communication Protocol          | RS422                                              |      |



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

MWIR  
f/4.0



HD  
FORMAT

## WFOV

| HFOV | 640x512 | 1280x720 | 1280x1024 |
|------|---------|----------|-----------|
|      | 30mm    | 46mm     | 60mm      |
| 15μ  | 17.2°   |          |           |
| 10μ  |         | 14.6°    | 11.4°     |

## NFOV (600mm)

| HFOV | 640x512 | 1280x720 | 1280x1024 |
|------|---------|----------|-----------|
| 15μ  | 0.9°    |          |           |
| 10μ  |         | 1.2°     | 1.2°      |

| Property                        | Value                               |      |
|---------------------------------|-------------------------------------|------|
| Optical                         | WFOV                                | NFOV |
| F/#                             | 4.0                                 |      |
| Minimum Focus Range             | 5m                                  | 200m |
| Mechanical                      |                                     |      |
| Focus Mechanism                 | Motorized                           |      |
| Focus Time (minimum range to ∞) | ≤1 sec.                             |      |
| Zoom mechanism                  | Motorized                           |      |
| Zoom Time (NFOV to WFOV)        | ≤7 sec. at -32°C; ≤5 sec. at T≥ 0°C |      |
| Weight                          | 3.1kg                               |      |
| Max. Dimensions                 | Ø173mmx251.9mm                      |      |
| Electrical                      |                                     |      |
| Lens Control                    | Designated lens controller          |      |
| Supply voltage                  | 12V                                 |      |
| Current consumption             | 0.5A average, 1.0A peak             |      |
| Communication Protocol          | RS422                               |      |

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

MWIR  
f/4.0



HD  
FORMAT

## WFOV

| HFOV | 640x512 | 1280x720 | 1280x1024 |
|------|---------|----------|-----------|
|      | 35mm    | 46mm     | 60mm      |
| 15μ  | 15.2°   |          |           |
| 10μ  |         | 14.8°    | 11.5°     |

## NFOV (690mm)

| HFOV | 640x512 | 1280x720 | 1280x1024 |
|------|---------|----------|-----------|
| 15μ  | 0.8°    |          |           |
| 10μ  |         | 1.0°     | 1.0°      |

| Property                        | Value                               |      |
|---------------------------------|-------------------------------------|------|
| Optical                         | WFOV                                | NFOV |
| F/#                             | 4.0                                 |      |
| Minimum Focus Range             | 5m                                  | 200m |
| Mechanical                      |                                     |      |
| Focus Mechanism                 | Motorized                           |      |
| Focus Time (minimum range to ∞) | ≤1 sec.                             |      |
| Zoom mechanism                  | Motorized                           |      |
| Zoom Time (NFOV to WFOV)        | ≤7 sec. at -32°C; ≤5 sec. at T≥ 0°C |      |
| Weight                          | 4kg                                 |      |
| Max. Dimensions                 | Ø210mm x 264mm                      |      |
| Electrical                      |                                     |      |
| Lens Control                    | Designated lens controller          |      |
| Supply voltage                  | 12V                                 |      |
| Current consumption             | 0.5A average, 1.0A peak             |      |
| Communication Protocol          | RS422                               |      |

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

MWIR  
f/4.0



**HD**  
FORMAT

## WFOV

| HFOV | 640x512 | 1280x720 | 1280x1024 |
|------|---------|----------|-----------|
|      | 45mm    | 63mm     | 72mm      |
| 15μ  | 11.4°   |          |           |
| 10μ  |         | 10.6°    | 9.3°      |

## NFOV (900mm)

| HFOV | 640x512 | 1280x720 | 1280x1024 |
|------|---------|----------|-----------|
| 15μ  | 0.6°    |          |           |
| 10μ  |         | 0.8°     | 0.8°      |

| Property                        | Value                                |      |
|---------------------------------|--------------------------------------|------|
| Optical                         | WFOV                                 | NFOV |
| F/#                             | 4.0                                  |      |
| Minimum Focus Range             | 5m                                   | 200m |
| Mechanical                      |                                      |      |
| Focus Mechanism                 | Motorized                            |      |
| Focus Time (minimum range to ∞) | ≤1 sec.                              |      |
| Zoom mechanism                  | Motorized                            |      |
| Zoom Time (NFOV to WFOV)        | ≤7 sec. at -32°C; ≤5 sec. at T ≥ 0°C |      |
| Weight                          | 7kg                                  |      |
| Max. Dimensions                 | Ø286 x 343.6mm                       |      |
| Electrical                      |                                      |      |
| Lens Control                    | Designated lens controller           |      |
| Supply voltage                  | 12V                                  |      |
| Current consumption             | 0.5A average, 1.0A peak              |      |
| Communication Protocol          | RS422                                |      |

# SuplR 60-1200mm f/4.0, Motorized Continuous Zoom 680475/6

MWIR  
f/4.0



**HD**  
FORMAT

## WFOV

| HFOV | 640x512 | 1280x720 | 1280x1024 |
|------|---------|----------|-----------|
|      | 60mm    | 87mm     | 100mm     |
| 15μ  | 8.6°    |          |           |
| 10μ  |         | 7.6°     | 6.8°      |

## NFOV (1200mm)

| HFOV | 640x512 | 1280x720 | 1280x1024 |
|------|---------|----------|-----------|
| 15μ  | 0.5°    |          |           |
| 10μ  |         | 0.6°     | 0.6°      |

| Property                        | Value                                                                     |       |
|---------------------------------|---------------------------------------------------------------------------|-------|
| Optical                         | WFOV                                                                      | NFOV  |
| F/#                             | 4.0                                                                       |       |
| Minimum Focus Range             | <5m                                                                       | <200m |
| Mechanical                      |                                                                           |       |
| Focus Mechanism                 | Motorized                                                                 |       |
| Focus Time (minimum range to ∞) | ≤1 sec.                                                                   |       |
| Zoom mechanism                  | Motorized                                                                 |       |
| Zoom Time (NFOV to WFOV)        | ≤ 8 sec at -32°C; ≤ 5 sec. at T ≥ 20°C (at max. speed)                    |       |
| Weight                          | 14.6kg                                                                    |       |
| Max. Dimensions                 | Ø388mm x 409.2mm                                                          |       |
| Electrical                      |                                                                           |       |
| Lens Control                    | Designated lens controller                                                |       |
| 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                                                                     |       |

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

SWIR



**HD**  
FORMAT

## 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 |
| F/#                             | 4.0                        | 5.5  |
| Minimum focus range             | 2m                         | 20m  |
| Mechanical                      |                            |      |
| Focus Mechanism                 | Motorized. Adjustable      |      |
| Focus Time (minimum range to ∞) | ≤1 sec.                    |      |
| Zoom Time (NFOV to WFOV)        | ≤5 sec.                    |      |
| Weight                          | 840g                       |      |
| Max. Dimensions                 | Ø65mm x 214mm              |      |
| Electrical                      |                            |      |
| Lens Control                    | Designated lens controller |      |
| Supply voltage                  | 12V                        |      |
| Current consumption             | <0.5A (max)                |      |
| Communication interface         | RS422                      |      |

# SWIR 50-1000mm f/9.5 (NFOV) f/5.5 (WFOV) Motorized Continuous Zoom 680471

SWIR



**HD**  
FORMAT

## WFOV (50mm)

| HFOV | 640x512 | 1280x1024 |
|------|---------|-----------|
| 15μ  | 10.9°   |           |
| 10μ  |         | 14.5°     |

## NFOV (1000mm)

| HFOV | 640x512 | 1280x1024 |
|------|---------|-----------|
| 15μ  | 0.6°    |           |
| 10μ  |         | 0.7°      |

| Property                        | Value                      |      |
|---------------------------------|----------------------------|------|
| Optical                         | WFOV                       | NFOV |
| F/#                             | 5.5                        | 9.5  |
| Minimum focus range             | 5m                         | 50m  |
| Mechanical                      |                            |      |
| Focus Mechanism                 | Motorized. Adjustable      |      |
| Focus Time (minimum range to ∞) | ≤1 sec.                    |      |
| Zoom Time (NFOV to WFOV)        | ≤4.4 sec.                  |      |
| Weight                          | ≤3.6kg                     |      |
| Max. Dimensions                 | Ø146mm x 391mm             |      |
| Electrical                      |                            |      |
| Lens Control                    | Designated lens controller |      |
| Supply voltage                  | 12V                        |      |
| Current consumption             | <0.5A (max)                |      |
| Communication protocol          | RS422, RS422               |      |



### About Ophir an MKS Inc. Brand

With five decades worth of knowledge and experience, MKS's Ophir Infrared Optics product line is a world leading designer and manufacturer of high-performance IR thermal imaging systems and optics for SWIR, MWIR & LWIR imaging. Using advanced technologies and innovative engineering we provide a global solution for homeland security, surveillance, defense and commercial applications: infrared thermal imaging cameras, complex lens assemblies and components.

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#### INDIA MKS Instruments Atotech Products

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