

JAEGAR ULR

**HD COOLED MWIR THERMAL ZOOM LENS:
80mm to 960mm**



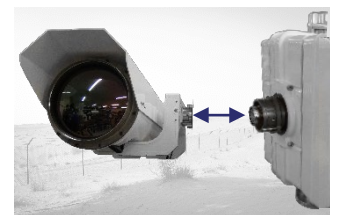
The Jaegar Ultra Long Range (ULR) camera is a high performance, HD multi sensor platform which utilises a long range cooled MWIR HD thermal sensor (1280 x 720 resolution) with a 80-960mm zoom lens alongside a HD visible sensor with a 16.7-2000mm lens (2000mm with 2x extender on).

Combining advanced motor drive technology along with harmonic drive gears, all Jaegar camera platforms are able to position our longest range sensors accurately and quickly. The Jaegar benefits from a fixed through shaft, which can enable payloads such as a RADAR to be mounted directly above the PT director.

With an IP67 level of environmental protection and hard anodised housings, the Jaegar is suitable for the most harsh and challenging applications.

KEY FEATURES

- Thermal camera detection* ranges up to 30.3km (human) and 50.0km (vehicle)
- Cooled MWIR thermal sensor with 80-960mm zoom lens
- HD visible sensor with a 16.7-1000mm zoom lens (up to 2000mm /120x zoom with 2x extender on)
- Through shaft enabling fixed payloads to be mounted above the PT director
- 360° continuous rotation with pan and tilt speeds between 0.002° and 100° per second
- High level of camera positioning accuracy: 0.0002°
- Absolute feedback, virtually zero backlash with automatic self position correction
- Unique cable managed, rapid release mechanism and bore sighting allows cameras to be quickly installed and changed in the field
- Ruggedised for extreme and challenging environments
- IP67 rating
- Ideally suited for single mast deployments such as mobile, border and maritime applications



RAPID RELEASE MECHANISM
Allows quick changing of payloads



THROUGH SHAFT
Enables fixed payloads to be mounted above the PT Director



HD THERMAL
Providing HD thermal images with a 1280 x 720 resolution

*Ranges are based upon the NVThermIP model and associated DRI criteria of 2.7, 14.5 and 18.8 cycles at 50% probability on a MODTRAN standard atmosphere.

JAEGAR ULR

HD COOLED MWIR THERMAL ZOOM LENS CAMERA



THERMAL SENSOR – HD, 1280 x 720, 12µm PIXEL PITCH

| | |
|---------------------------|--|
| Focal Length | 80mm to 960mm |
| Horizontal Field of View | 11.0° (W) to 0.9° (T) |
| Optical Zoom (Continuous) | 12x, Motorised |
| F Number | F4.0 |
| Sensitivity | 27.5 mK (NETd) typical |
| Detector Type | CMT; long life linear (50,000 hours). Cool down 3-4 minutes typical. |
| Resolution | 12µm, 1280 x 720 |
| Spectral Band | 3.7 to 4.95 µm (MWIR) |
| Frequency | 60Hz |
| Focus | Push autofocus, manual |
| Digital Zoom | 8x |
| Image Stabilisation | Yes, electronic |
| Image Processing | Linear, lace, edge enhancement |
| Image Control | Palettes: White-hot / black-hot |
| Housing Weight | Typically 23Kg / 50.7lb |
| Housing Size (mm) | L597 x W299 x H299 |

HD VISIBLE SENSOR

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|---------------------|--|
| Focal Length | 16.7mm to 1000mm (up to 2000mm with (x2) extender on) |
| Image Sensor | 1/1.9" CMOS Sensor (2.38 MP), full HD 1080p (1920 x 1080) |
| F Number | F3.5 to F16, (up to F32 with (x2) extender on) |
| Horizontal FOV | 21.2° (W) to 0.45° (T) (up to 0.23° (T) with (x2) extender on) |
| Optical Zoom | 60x motorized (up to 120x with (x2) extender on) |
| Digital Zoom | - |
| Focus | Push autofocus, manual |
| Image Stabilisation | Yes (cost options) (optical image stabilisation or electronic image stabilisation) |
| Min. Sensitivity | Colour 0.05 lux F1.2 gain of up to 60dB / 0.005 lux F1.2 / AGC @ 42dB (accumulation 25 times) Mono 0.002 lux F1.2 gain of up to 60dB / 0.0002 lux F1.2 / AGC @ 42dB (accumulation 25 times) |
| Housing Weight | Typically 17Kg / 37.4lb |
| Housing Size (mm) | L800 x W258x H231 |

JAEGAR PAN AND TILT UNIT (PTU)

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|----------------------|---|
| Part Number | JPT-MK2-136080W |
| Pan Range; Velocity | 360° continuous / 0.002° - 100.0° per second |
| Tilt Range; Velocity | -90° to +90° / 0.002° - 100.0° per second |
| Accuracy | 0.0002° / 0.0035 mRad |
| Repeatability | 0.0002° / 0.0035 mRad |
| Actuation | Custom stepper motors |
| Speed Control | Zoom dependent speed control (subject to payload) |
| PTU Weight | 22kg / 48.5lb (excl. mounts, through shaft and payloads) payload capacity 50kg |
| PTU Size (mm) | H434 x W343 x D343 (excluding mounts, through shaft and payloads) |

PART CODES

| | |
|----------------------|---|
| JPT-H-ULTRALRC-960-W | Jaegar Ultra LRC - High powered PT, with a HD 1280 x 720, 80-960mm thermal camera and a HD, 16.7mm to 1000mm video camera |
| Options | All cable, ancillary and optional part numbers are available upon request |

IMAGE PRESENTATION

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|---------------|---|
| Video Output | IP, ONVIF, RTSP |
| Video over IP | Integrated IP encoders provide simultaneous H.264 RSTP (H.265 optional) and ONVIF Profile-S |

TELEMETRY

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|-------------|--|
| Presets | 127x Preset positions, 16x preset tours |
| Protocols | Pelco D, Pelco D Extended, ONVIF Profile S |
| Interface | RS485, ONVIF Profile-S, Serial <-> IP |
| Positioning | Absolute positioning feedback |

INTERFACES

| | |
|----------|---|
| Ethernet | Command and control of all functions incl. streaming of H.264 Video (ONVIF) |
| RS485 | Command and control of all functions and firmware upgrade |

ELECTRICAL AND MECHANICAL

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|-------------------|--|
| Input Voltage | Nominal 48VDC (36-72VDC) |
| Power Consumption | Typical: 60W, Peak: 170W (including thermal and visible sensor payloads) |
| Housing Material | Anodised aluminium, white powder marine grade paint finish |
| System Weight | 62kg / 137lb (Including payloads) |

ENVIRONMENTAL

| | |
|-------------------|----------------------------------|
| IP Rating | IP67 |
| Temperature Range | -32°C (-25°F) up to 55°C (131°F) |

OPTIONS

| | |
|----------------------------|--|
| Automatic Tracking | Hardware based target acquisition and tracking capability |
| Ultra Low Light HD Sensor | 2/3" CMOS sensor (2.2MP) Colour 0.005 lux at F1.4, mono 0.000000001 lux at F1.4 |
| 4K Visible Sensor | 4K colour sensor, 4.4-88.4mm Lens Colour 0.4 lux (colour 0.06 lux with slow shutter on) |
| Laser Range Finders | Up to 20km |
| Illuminators (White + IR) | Up to 2km |
| Long Range Acoustic Hailer | Up to 2km |
| Digital Magnetic Compass | Optionally available |
| GPS | Optionally available |
| Laser Dazzlers | 1W and 5W Laser dazzler module |
| Long Range Acoustic Hailer | Up to 1700m |
| Aux Connectors (4 slots) | Optionally available for a selection of the following: Power outputs - 12vDC, 6A / 24vDC, 15A / 48vDC, 10A Network output - Cat5e, 10/100 Base T Antenna connections - Cellular, GPS, WiFi, IP Radio, GPS Compass |
| Top Mount | Top mount extension / plate (for RADAR or top mount payload) |
| Storage | Up to 64GB in total via SD/MMC (32GB available per channel if using thermal and video / 2x cameras) |