

# JAEGAR SEARCHER

## COOLED MWIR THERMAL ZOOM LENS CAMERAS

- 16.6mm to 300mm
- 30.5mm to 550mm
- 43.6mm to 785mm



Above: Typical Jaegar Searcher.  
Models will vary.

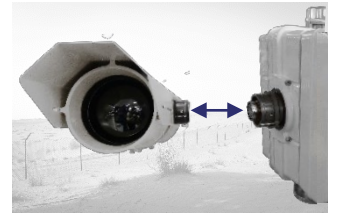
The Jaegar Searcher is a high performance, multi sensor platform which utilises long range cooled MWIR thermal sensors with a range of zoom lens options up to 43.6 to 785mm, alongside the latest low light HD visible sensor with zoom lens options up to 20-2400mm . The Searcher employs the latest 15µm thermal technology which has push autofocus capabilities as standard.

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.

The Jaegar's ruggedised design allows a high level of environment protection which is suitable for the most extreme and challenging environments.

## KEY FEATURES

- Thermal camera detection\* ranges up to 24.3km (human) and 38.8km (vehicle)
- Cooled 15µm MWIR HD thermal sensors with zoom lens options up to 43.6-785mm
- Push autofocus as standard on the thermal sensors
- HD visible sensors with zoom lens options up to 20-2400mm
- 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
- System configuration and sensors can be chosen to suit the specific requirements
- 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



**MOBILE DEPLOYMENTS**  
Suitable for mobile and vehicle mounted applications

\* Ranges are based upon 50% probability. Detailed NVIPM calculation notes available upon request.  
Based on the JPT-SEARCHER-785-W.

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COOLED MWIR THERMAL ZOOM LENS CAMERAS



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THERMAL SENSORS	JPT-SEARCHER-300-W	JPT-SEARCHER-550-W	JPT-SEARCHER-785-W
Focal Length	16mm to 300mm	30.5mm to 550mm	43.6mm to 785mm
Horizontal FOV	32.0°(W) to 1.8°(T)	18.0°(W) to 1.0°(T)	12.6°(W) to 0.7°(T)
F Number	F4.0	F4.0	F4.0
Optical Zoom (Continuous)	18x, Motorised	18x, Motorised	18x, Motorised
Digital Zoom		8x	
Focus		Push autofocus, manual	
Detector Type	XBn, 20mK (NETd) @ room temperature, <30mK (Temporal NETd) @ room temperature, 30Hz, 15µm, 640 x 512 {extended 50,000 hour (MTBF) cooler is a cost option}		
Spectral Band	3 to 5µm (MWIR)		
Image Stabilisation	Yes, electronic image stabilisation (cost option)		
Image Processing	Adaptive histogram equalization, linear AGC, manual gain and offset, sharpness control, edge enhancement, 7x colour palette options including monochrome		
Housing Weight (Typical)	6.5kg / 14lb	7kg / 15.5lb	14.5kg / 32lb
Housing Size (Typical)	L391mm (excluding bracket)	L645mm (excluding bracket)	L622mm (excluding bracket)

HD VISIBLE SENSORS		
Focal Length	15.2mm to 500mm	16.7mm to 1000mm {to 2000mm with (x2) extender}
Horizontal FOV	23.42° (W) to 0.78° (T)	21.2° (W) to 0.45° (T) {to 0.23° (T) with (x2) extender}
F-Number	F3.0 to F32	F3.5 to F16 {to F32 with (x2) extender}
Optical Zoom (Continuous)	33x, Motorised	60x, Motorised {120x with (x2) extender}
Digital Zoom		
Focus		Push autofocus, manual
Image Sensor	1/1.9" CMOS Sensor (2.38MP), full HD 1080p (1920 x 1080)	
Min. Sensitivity	Colour 0.05 lux F1.2 gain of up to 60dB / 0.005 lux F1.2 / AGC @ 42dB Mono 0.002 lux F1.2 gain of up to 60dB / 0.0002 lux F1.2 / AGC @ 42dB (accumulation 25 times)	
Image Stabilisation	Yes, electronic image stabilisation (cost option)	Yes, electronic image stabilisation or optical image stabilisation (cost options)
Other Features	Defog, digital noise reduction	
Housing Weight (Typical)	14Kg / 30.9lb	17Kg / 37.4lb
Housing Size (Typical)	L572 x W258 x H231mm	L800 x W258 x H231mm

JAEGAR PAN AND TILT UNIT (PTU)	
Pan Range / Velocity	360° continuous / 0.002° up to 100° per second
Tilt Range / Velocity	-90° to +90° / 0.002° up to 100° per second
Accuracy	0.0002° / 0.0035 mRad
Repeatability	0.0002° / 0.0035 mRad
Actuation	Custom stepper motors
Speed Control	Zoom dependent speed control
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
Through Shaft	Yes
PTU Weight (Typical)	28kg / 61.8lb (excluding mounts, through shaft, payloads) (payload capacity 50kg)
PTU Size (Typical)	H434 x W343x D343mm (excluding mounts, through shaft and payloads)

ELECTRICAL AND MECHANICAL	
Video Output	IP, ONVIF, RTSP {Composite (PAL / NTSC) cost option}
Video over IP	Integrated IP encoders provide simultaneous H.264 RSTP (H.265 cost option)
Ethernet	Command and control of all functions including streaming of H.264 streams
RS485	Command and control of all functions and firmware upgrade
Input Voltage	Nominal 48VDC (36-72VDC)
System Power Consumption	Typical: 60W Peak: 170W (including thermal and visible sensor payloads)
Housing Material	Anodised aluminum, white powder marine grade paint finish (other colours are available upon request) (Cooled camera housing is cromate conversion coated aluminum, dry nitrogen backfilled)
IP Rating	IP67
Temperature Range	-30°C (-22°F) up to 65°C (149°F) (-40°C with optional heaters)

OPTIONALLY AVAILABLE	
HD Low Light Visible Sensor	4.3mm to 129mm (63.7° W to 2.32° T) 1/2.8" CMOS Sensor (2.13MP), full HD (1920 x 1080), colour 0.01 lux and mono 0.0008 lux (in high sensitivity mode)
HD Ultra Low Light Visible Sensor	15.2mm to 500mm (32.39° W to 1.0° T) or 20mm to 2400mm (24.87° W to 0.23° T) (with x2 extender on) 2/3" CMOS Sensor (2.2MP), full HD (1920 x 1080), colour 0.005 lux at F1.4 / 50IRE, mono 0.00000001 lux at F1.4 / 50IRE
4K Visible Sensor	4.4mm to 88.4mm (70.2° W to 4.1° T) 1/2.5" CMOS Sensor (8.51MP), 4K/QFHD (3840 x 2160), colour 0.4 lux (colour 0.06 lux with slow shutter on)
Technologies	Hardware based target acquisition and tracking capability, long range white light or infra-red illuminators (up to 3.5km), long range acoustic hailer (up to 2km), digital magnetic compass, GPS, SWIR sensors, LRF (laser range finders) up to 20km
Storage	Up to 64GB in total via SD/MMC (32GB available per channel when using thermal and visible / 2x cameras)
Aux Connectors (4 slots)	Power outputs - 12vDC, 6A / 24vDC, 15A / 48vDC, 10A Network output - Cat5e, 10/100 Base T Antenna connections - cellular, GPS, Wi-Fi, IP radio, GPS compass
Top Mount	Top mount extension / plate (for RADAR or top mount payload)

PLEASE CONTACT US FOR A SPECIFIC CONFIGURATION

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Specifications may be subject to change without notice  
24/10/23 V4.8

