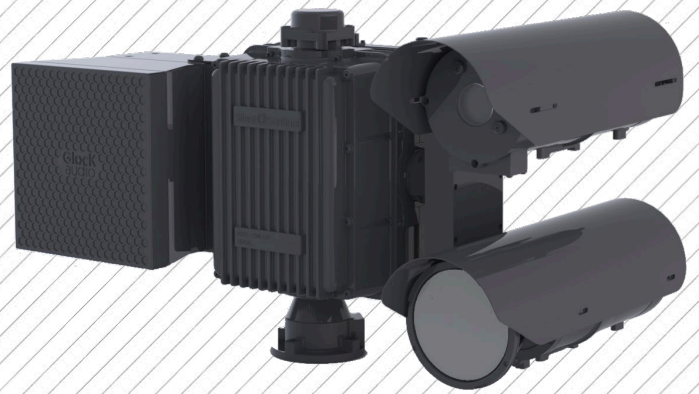


JAEGAR SONUS

ACOUSTIC HAILING DEVICE



The Jaegar Sonus is a modular, highly directional acoustic hailing device, capable of the precise delivery of both long-range sound (speech) and illumination. To aid operation the system can be paired with either a lowlight HD video camera or various thermal cameras for detection and night-time operation. The addition of a zoomable spotlight also aids nighttime operation and can add to the deterrent effect of the system.

Utilising the latest loudspeaker technology, the Jaegar Sonus is available with two hailing options and is cable of delivering 148db of sound pressure, which can provide clear and intelligible speech at ranges up to 1km.

By uniquely combining these technologies the Jaegar Sonus can be deployed and controlled remotely to deliver sound reinforcement to isolated locations. This system is partially well suited to Maritime Security, Remote Critical Infrastructure, Border and Mobile Security Applications, as well as Wildlife Control.

As with all Jaegar platforms, the Sonus features a through shaft that allows for a fixed payload (such as a radar) to be mounted directly above the camera enabling continued, uninterrupted target detection and tracking.

KEY FEATURES

- Highly directional sound positioning
- Effective deterrent
- Can provide clear audible instructions for security or safety purposes
- Can be used as part of a multi-layer security system
- Accurate zoomable spotlight with strobe effect
- Through-shaft allowing for top payload such as radar

APPLICATIONS

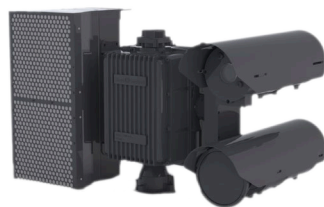
- Maritime Security
- Unamended Oil and Gas Platforms
- Remote Security
- Law Enforcement
- Perimeter and Border Protection
- Remote Wildlife Management and Control

OPTIONS

- Laser Dazzler
- Command and Control Platform
- Automatic Tracking
- Digital Magnetic Compass
- GPS



JPT-H-SONUS115



JPT-H-SONUS215



Hailer



Uncooled LWIR Thermal



Zoomable Thermal Lens



HD Camera



High Speed Accurate Positioning



Through Shaft

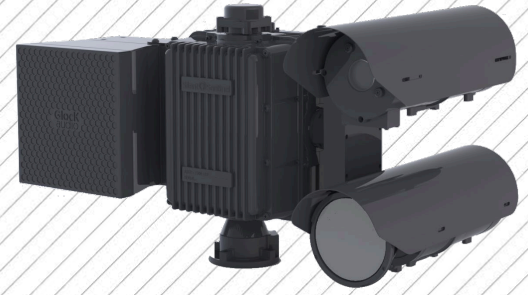


Long Range Illuminator

Specifications may be subject to change without notice.
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JAEGAR SONUS

SYSTEM SPECIFICATIONS



THERMAL IMAGER

Model	Sonus-35 35mm	Sonus-105 26-105mm
Field of View	17.6°	25.3° (W) to 5.9° (T)
Sensitivity	<50 mK (NETD) f/1.0 at room temperature	
Detector Type	Uncooled VOx Microbolometer	
Resolution	640 x 480, 17µm	
Spectral Band	8 to 14 µm (LWIR)	
Frequency	25Hz (9Hz, 30Hz options)	
Focus	Manual motorised focus with Athermalization	
Digital Zoom	4x Digital Zoom	
Image Stabilisation	Yes (cost option)	
Image Processing	White Hot / Black Hot, Orientation: Invert / Revert	

DAYLIGHT CAMERA

Image Sensor	1/2.8" CMOS Exmor (2.13MP) Full HD 1080p (1920 x 1080) PAL / NTSC analogue video
Focal Length	4.3mm to 129mm
F-Number	F1.6 to F4.7
Horizontal FOV	63.7° (W) to 2.32° (T)
Optical Zoom	30x motorized
Digital Zoom	12x (360x combined)
Focus	Auto focus and motorised manual focus
Min. Sensitivity	Colour 0.01 lux, Mono 0.0008 lux
Other Features	De-Fog, Digital Noise Reduction, Boresight Adjustment, Rapid Release Mechanism

PEAKBEAM ILLUMINATOR

Output	12,000,000 Peak Beam CandlePower (no maximum threshold; -10% minimum threshold)
Range	0.25 lux at 6,925meters, 1 lux at 3,500 meters, 12 lux at 1,000 meters
Lamp	85 Watt Xenon Short Arc, Instant hot/cold start and restrike
Beam Width	1° Spot to 40° Flood, Motorized
Beam Intensity	3 Levels: 45W (Regular), 85W (High), 35W (Low; User-Programmable)
Disorienting Strobe Function	Default frequency of 10Hz and default duty cycle of 38%. User-adjustable frequency from 1-31Hz and duty cycle from 3-63%
Mount Interface	Removeable Cradle Mount Plate
Controllable Functions	On/Off, Beam Intensity, Beam Width, Strobe, Customized Beam Settings

ACOUSTIC HAILER

Model	S-115	S-215
Frequency Response	±10dB 250 Hz bis 10 kHz ± 3 dB 300Hz bis 8 kHz	
Coverage	Nominal 25° x 25° (hor. x vert.)	Nominal 25° x 25° @ 1 KHz (hor. x vert.) Total 12° to 15° (averaged over the frequency range)
Power Handling	120 W / RMS	240 W / RMS
Rated SOL (Sound Pressure Level)	1 m 138 dB SPL (with F>140dB)	144* dB SPL (149 db by two)
SPL max	1 m 140 dB SPL (with F>142 dB)	1 m 146 dB SPL (152 dB by two)
SPL peak	1 m 142 dB SPL (with F>144 dB)	1 m 148* dB SPL (154 dB by two)
Effective range @ opening angle with 85 dB	650 m / opening angle 25° X 25°	1000 m @ 88 dB / opening angle 25°

JAEGER PAN & TILT UNIT

Model	JPT
Pan Range; Pan Velocity	360° continuous; 0.0002° - 80.0° per second
Tilt Range; Tilt Velocity	-90° -to +90°; 0.0002° - 80.0° per second
Accuracy	0.0002° / 0.0035 mRad
Repeatability	0.0002° / 0.0035 mRad
Actuation	Custom Stepper Motors

IMAGE PRESENTATION

Video Output	NTSC or PAL Composite Video
Connector Types	BNC (1) provides thermal videos
Video over IP	Integrated IP encoders provide simultaneous h.264 RSTP and ONVIF Profile-S

TELEMETRY

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

PHYSICAL CHARACTERISTICS

Input Voltage	Nominal 48VDC [36-72VDC]
Power Consumption	Typical: 53W, Peak: 170W (Excluding Payloads).
Housing Material	(Jaegar): Iridited aluminium, White powder marine grade paint finish (other colours are available upon request)
Camera Weight	TBC
Camera Size (mm)	TBC
Aux Payload Connectors	QTY4x External Connectors Allowing 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

INTERFACES

Ethernet	Command and Control of all functions including streaming of H.264 Video
RS485	Command and control of all functions and Firmware Upgrade

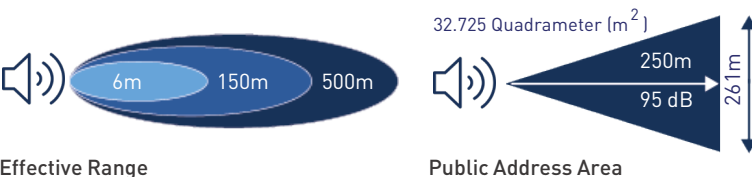
ENVIRONMENTAL

IP Rating	IP67
Temperature Range	-30°C (-22°F) up to 65°C (149°F) [-40°C with optional heater]

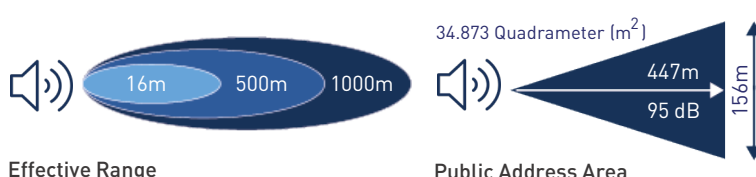
PART NUMBERS

JPT-H-SONUS115	Jaegar Sonus - 1/2.8" CMOS Exmor (2.13MP) HD, 4.3mm to 129mm visible camera, long range illuminator, and S-115
JPT-H-SONUS215	Jaegar Sonus - 1/2.8" CMOS Exmor (2.13MP) HD, 4.3mm to 129mm visible camera, long range illuminator, and S-215
JPT-H-SONUS115-T35	Jaegar Sonus - High powered PT, with 640 x 480, 35mm thermal camera, long range illuminator, and S-115
JPT-H-SONUS215-T35	Jaegar Sonus - High powered PT, with 640 x 480, 35mm thermal camera long range illuminator, and S-215
JPT-H-SONUS115-T105	Jaegar Sonus - High powered PT, with 640 x 480, 26-105mm thermal camera, long range illuminator and S-115
JPT-H-SONUS215-T105	Jaegar Sonus - High powered PT, with 640 x 480, 26-105mm thermal camera, long range illuminator, and S-215

S-115



S-215



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