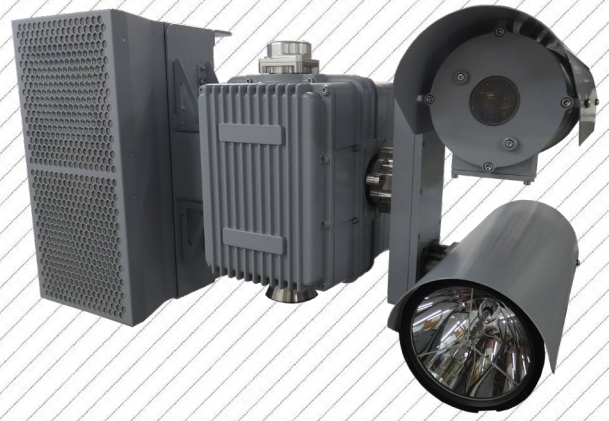


JAEGAR SONUS

ACOUSTIC HAILING PLATFORM



Above: Jaegar Sonus 215X
Other models will vary.

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 night time operation and can add to the deterrent effect of the system.

Utilising the latest audio technology, the Jaegar Sonus is available with two hailing options and is capable of delivering 154db of sound pressure, which can provide clear, directional and intelligible speech at ranges up to 2.5km.

By 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 fixed through shaft that enable payloads such as a RADAR to be mounted directly above the PT director allowing 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 long range zoomable spotlight with IR laser module
- Through-shaft allowing for top payload such as radar
- HD visible sensor or thermal sensor for visual verification

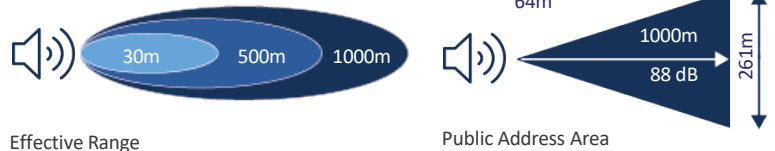
APPLICATIONS

- Maritime Security
- Unamended oil and gas platforms
- Remote security
- Law enforcement
- Perimeter and border protection
- Remote wildlife management and control

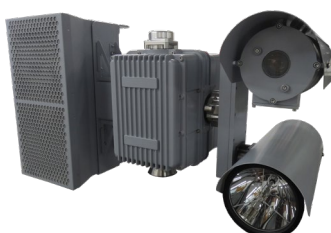
JPT-H-SONUS115X



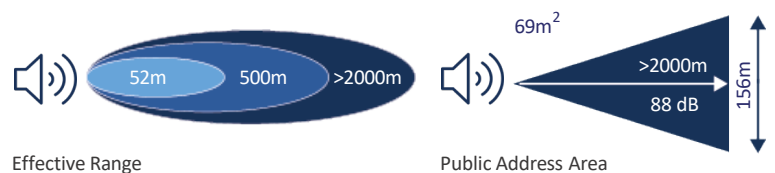
S-115X



JPT-H-SONUS215X



S-215X

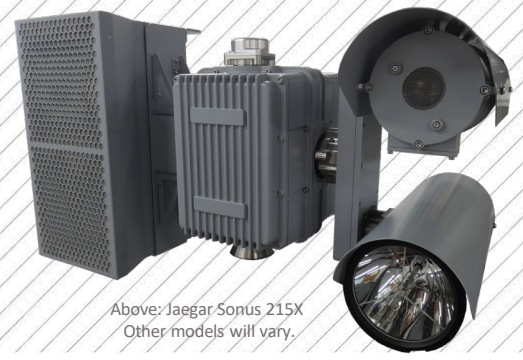


Specifications may be subject to change without notice.
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JAEGAR SONUS

ACOUSTIC HAILING PLATFORM



Above: Jaegar Sonus 215X
Other models will vary.

ACOUSTIC HAILER

Model	S-115X	S-215X
Freq. Response	± 3 dB 250 Hz to 8 kHz	
Coverage	Nominal 25° x 25° (hor. x vert.)	Nominal 25°x25°@ 1 KHz (hor. x vert.) Total 12°-15° (av. over the freq. range)
Power Handling	180 W / RMS	360 W / RMS
SPL Max	1 m 139 dB SPL	1 m 145 dB SPL (158 dB by two)
SPL Peak	1 m 148 dB SPL	1 m 154* dB SPL (160 dB by two)
Effective Range at Opening Angle With 85 Db	1000 m @ 88 dB / opening angle 25°	>2000 m @ 88 dB / opening angle 25°
Hailer Weight (Typical)	6.8kg	14.5kg
Hailer Size (Typical)	H248 x W245 x D275mm	H483 x W245 x D350mm

THERMAL SENSOR – 640 x 480, 17µM PIXEL PITCH

Focal length	35mm	26-105mm
Field of View	17.6°	25.3° (W) to 5.9° (T)
Optical Zoom	-	4x, motorised
F Number	F1.2	F1.6
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	Fixed	Manual (push autofocus cost option)
Digital Zoom	4x	
Image Stabilisation	Yes, electronic (cost option)	
Image Processing	Polarity: White hot / black hot. Orientation: Invert / revert	
Housing Weight	4kg / 8.8lb	
Housing Size (mm)	L460 x W184 x H156mm	

HD VISIBLE SENSOR

Focal Length	4.3mm to 129mm	
Image Sensor	1/2.8" CMOS Exmor (2.13MP), full HD 1080p (1920 x 1080)	
F-Number	F1.6 to F4.7	
Horizontal FOV	63.7° (W) to 2.32° (T)	
Optical Zoom	30x	
Digital Zoom	12x	
Focus	Automatic, manual	
Min. Sensitivity	Colour 0.01 lux, mono 0.0008 lux (high sensitivity mode)	
Other Features	De-fog, digital noise reduction	
Housing Weight (Typical)	4kg / 8.8lb	
Housing Size (Typical)	L460 x W184 x H156mm	

PART CODES (CUSTOMISED CONFIGURATIONS AVAILABLE UPON REQUEST)

115X	Sonus acoustic hailing device, 1000m effective range
215X	Sonus acoustic hailing device, 2000m effective range
JPT-H-SONUS115X	Jaegar Sonus – High powered PT, with an HD, 4.3-129mm (30x optical zoom lens) video camera, long range illuminator, and S-115X acoustic hailing device
JPT-H-SONUS215X	Jaegar Sonus – High powered PT, with an HD, 4.3-129mm (30x optical zoom lens) video camera, long range illuminator, and S-215X acoustic hailing device
JPT-H-SONUS115X-T35	Jaegar Sonus – High powered PT, with a 640 x 480, 17µm, 25Hz, 35mm, F1.2 thermal camera, long range illuminator, and S-115X acoustic hailing device
JPT-H-SONUS215X-T35	Jaegar Sonus – High powered PT, with a 640 x 480, 17µm, 25Hz, 35mm, F1.2 thermal camera, long range illuminator, and S-215X acoustic hailing device
JPT-H-SONUS115X-T105	Jaegar Sonus – High powered PT, with a 640x480, 17µm, 25Hz, 26-105mm, F1.6 thermal camera, long range illuminator and S-115X acoustic hailing device
JPT-H-SONUS215X-T105	Jaegar Sonus – High powered PT, with a 640x480, 17µm, 25Hz, 26-105mm, F1.6 thermal camera, long range illuminator, and S-215X acoustic hailing device

LONG RANGE ILLUMINATOR

Output	12,000,000 CandlePower (no max. threshold; -10% min. threshold)
Range	0,25 LUX @ 5274 m, 1 lux at 3,500m, 12 lux at 1,000m
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

JAEGAR PAN & TILT UNIT (PTU)

Pan Range;	360° continuous; 0.002° to 100.0° per second
Pan Velocity	
Tilt Range;	-90° -to +90°; 0.002° to 100.0° per second
Tilt Velocity	
Accuracy	0.0002° / 0.0035 mRad
Repeatability	0.0002° / 0.0035 mRad
Actuation	Custom stepper motors
PTU Weight (Typical)	28kg / 61.8lb (excl. mounts, through shaft and payloads, payload capacity 50kg)
PTU Size (Typical)	H434 x W343 x H343mm (excluding mounts, payloads and through shaft)

IMAGE PRESENTATION

Video Output	IP, ONVIF, RTSP (Composite (PAL / NTSC) are cost options)
Video over IP	Integrated IP encoders provide simultaneous H.264 RSTP (H.265 optional) 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

INTERFACES

Ethernet	Command and control of all functions including streaming of H.264 Video
RS485	Command and control of all functions and firmware upgrade

ELECTRICAL AND MECHANICAL

Input Voltage	Nominal 48VDC (36-72VDC)
Power Consumption	Typical: 60W, peak: 170W (excluding payloads). Full system: Typical: 100W. Peak (Speaker + Illuminator) 550W
Housing Material	Anodised aluminium, white powder marine grade paint finish (other colours are available upon request)

ENVIRONMENTAL

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

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