

The **HEKLEO-2XSR Racon** is a frequency agile dual band radar beacon operating on marine dual band frequencies. A solution for fixed shore beacons and large floating buoys.

Key Features:

- Operates on S and X band frequencies
- Side lobe suppression systems
- Low power use and power saving functional periods
- User programmable Morse code and flash characters to IMO A530
- Light weight and corrosion resistant
- Compliant to IMO/IALA regulations



Standard



Dual Band Frequency

Highly responsive, the HEKLEO-2XSR transmits to the more common X-band (10GHz) and/or S-band (3GHz) frequencies for more specialized applications.

Side Lobe Suppression

Differentiates the difference between the ships main and side lobe antennas by measuring the power pulses at the same frequency. This allows the racon to respond only to the ships main lobe antenna.

Operating Modes

The racon can operate in standby, active and listening modes. When in standby, the unit only wakes up when a radar pulse is received, saving energy. The unit reverts to listening mode when no radar pulse has been detected for four cycles. Active mode, the racon is ready to receive.

Automatic Self-monitoring and Calibration

The racon has self-monitoring and performs a self-calibration test every hour.

Visibility on Radar

The racon signal appears alongside other radar signals on the bridge of the ship, further assisting mariners to make navigational decisions.

Racon Range

Line-of-sight can be greater than 15NM.

User Programmable Morse Code and Numerical Characters

Compliant to IALA recommendations and IMO regulations.

Transmission

Frequency	X band (9300-9500 MHz) S band (2900-3100 MHz)
Response Delay	<700 ns typical
Response Encoding	Programmable A-Z, 0-9, SW-SE-NE-NW of Morse code
Emitted Power	1 W, typical

Reception

Detected Pulse Width	50 to 2000 ns
Receiver Sensitivity	-50 dBm

Antennas

Polarisation in S Band	Horizontal and vertical
Polarisation in X Band	Horizontal
Horizontal Diagram	2dB in X+S bands over 360°
Vertical Diagram	+/-3dB X+S bands over +/-15°

Power

Nominal Voltage	12 VDC / 24 VDC
Voltage Range	9 - 36 VDC
Standby Current	8 mA @12 VDC
Listening Current	120 mA @ 12 VDC
Operating Current	700 mA @12 VDC

Physical Characteristics

Height (mm/inches)	740 / 29.13"
Width (mm/inches)	280 / 11.02"
Mass (kg/lbs)	8.2 / 18
Gross Mass (kg/lbs)	22 / 48

Communications

User Port	RS232 for programming and testing
Logical Outputs	3 dry contacts

Mechanical Characteristics

Environmental Temperature Range (°C / °F)	-40°C to +70°C / -40°F to 158°F
Material	Polyethylene, UV resistant

Compliance

Immunity	EN 55016-4-2, EN 60950-1, EN62311:2008, EN 62479:2010, ITU-R M.824-2
Emission	IEC 60945 Fourth ed. 2002-08
IALA	Recommendation R101r1
IMO	IMO A530
Ingress Protection	IP67

Intellectual Property

Trademarks	SEALITE® is a registered trademark of Sealite Pty Ltd HEKLEO is a trademark of AMG Microwave
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· Specifications subject to change or variation without notice
 * Subject to standard terms and conditions
 † Intensity setting subject to solar availability
 ^ Refer to the Sealite website under the warranty section

Technical Illustrations

