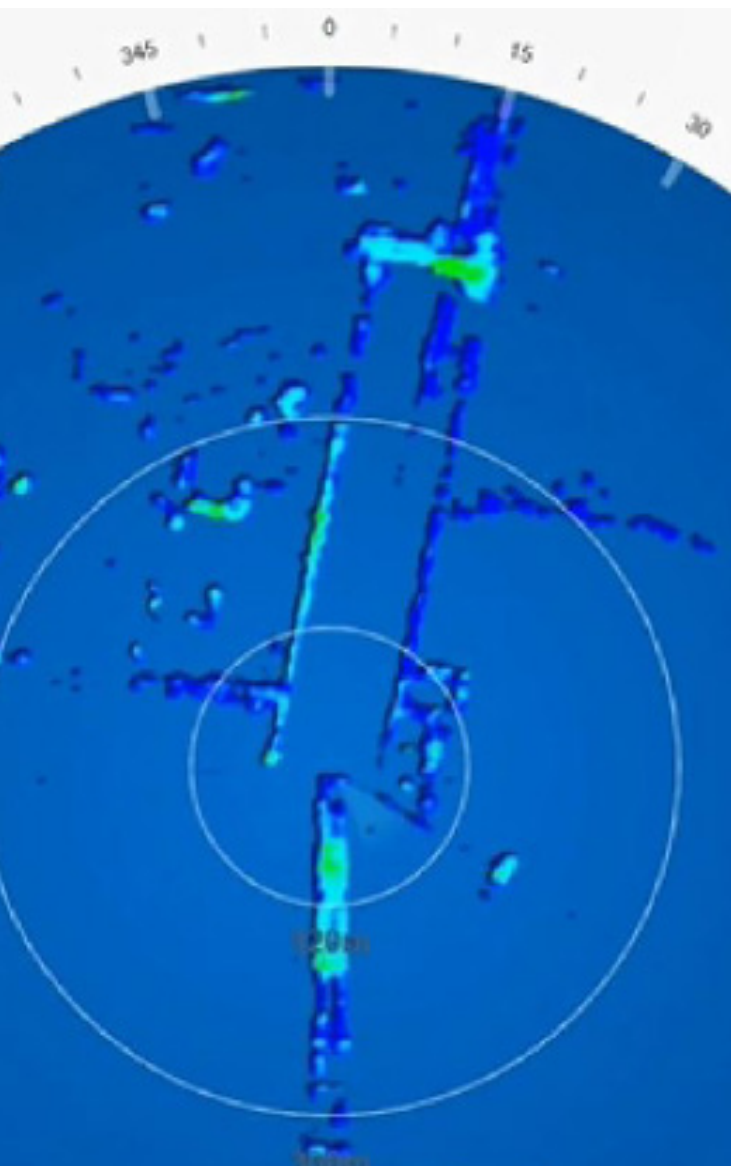# Wärtsilä RS24

High resolution short range radar

The RS24 sensor provided by Guidance Marine is a high speed, high resolution FMCW K-band dome radar. K-band (24GHz) radar has an inherently higher resolution than the S or X bands more typically used for marine radar. It can output radar images both to the RS24 Dashboard and also to third party applications which support the ASTERIX CAT-240 open data format. It is designed to provide high levels of situational awareness in densely populated marine environments.

Benefits

- High resolution situational awareness

- Navigate with greater precision through busy waterways

- Safer manoeuvring in harbours, fjords and locks

- Identify and locate small crafts or navigation buoys

- No radar blind spot

- 60 RPM

Its short range capability makes it the premier choice radar for situational awareness and hazard detection. It can output radar images both to the RS24 Dashboard and also to third party applications which support the ASTERIX CAT-240 open data format.

Main data

Sensor Details

Rotation	60rpm
Power	86-264VAC 1A RMS
Control Interface	Ethernet 100Base-T Gigabit Ethernet or faster networking equipment recommended
Image Format	ASTERIX
Operating Temperature	-25°C to +55°C
Ingress Protection	IPX6
SOLAS	System not certified for compliance with IMO SOLAS Ch. V

Radio Frequency Details

Transceiver Type	Ultra-Linear FMCW	
Frequency Band	K-band ISM 24.05-24.25GHz	
Transmit Power Nominal	100mW EIRP	
Azimuth Beam Width	≤ 1.4° (-3dB width)	
Elevation Beam Width	5° up and 40° down	
Azimuth Side Lobe Suppression (System to two way)	Inside ±10°	≥ 25dB
	Outside ±10°	≥ 40dB
Minimum Range	1m	
Maximum Range - 1000m2 Target	1500m (maximum dependent upon Radar Cross Section)	
Range Resolution	75cm	
Bearing Resolution	1.44°	

Sensor Certification

EMC	EN IEC 60945:2002
Safety	
Environmental	
Equipment Marking	CE

Sensor Weight & Dimensions

Diameter	500mm
Height	400mm
Weight	17kg

Computer Requirements

Processor	Intel 6th Gen CPU or newer / AMD equivalent
Operating System	Windows 7 or newer
RAM	4Gb RAM or greater
Hard Drive Space	250Gb or greater
Monitor Resolution	1280 * 1024 or higher (Full HD recommended)
Network Connection	Gigabit networking recommended for networking connection

WÄRTSILÄ