

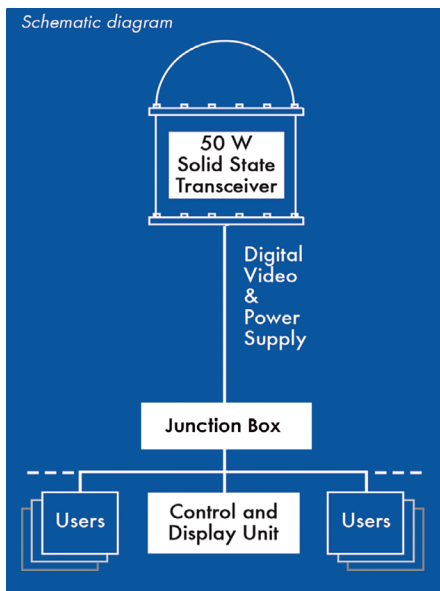
NR-50

Navigation Radar For Submarines

The NR-50 is a new-generation solid-state radar for navigation, specifically designed for cost-effective, easy installation during submarine retrofit and new submarine construction.

EASY INTEGRATION

Featuring a customizable mast interface slot, the NR-50 is designed to be integrated on existing or new submarine platforms. It allows the elimination of an in-hull passage typically needed for radar installation, increasing the overall integrity and soundness of the hull of the submarine. The radar's newly designed robust and pressure-proof radome protects the sensor from the harshest external environmental conditions.



The NR-50 sensor is a pulse-compressed X-band transceiver. Transmission power can be selected by the user, from less than 1 watt (peak) up to 50 watts. The antenna is a planar array specially designed for navigation and surface applications. Its low weight and reduced dimensions allow for easy installation on submarine masts.

NR-50 Radar is developed in partnership with GEM Elettronica.



FULLY SOLID STATE RADAR MAIN SPECIFICATIONS

Frequencies	Programmable within 9300 - 9500 MHz
Transmission power	50 watts (peak)
Sector blanking	Up to 10
Maintenance	Not necessary
Optional	Triggering of SARTs
Tracker ARPA targets	Up to 200
Blanking signal	Available for ESM

ANTENNA SYSTEMS

Type	Planar array
Azimuth main beam	$\leq 4^\circ$
Elevation main beam	$\leq 25^\circ$
Rotating Rate	22 rpm
Pressure Tight	more details provided in the technical specifications

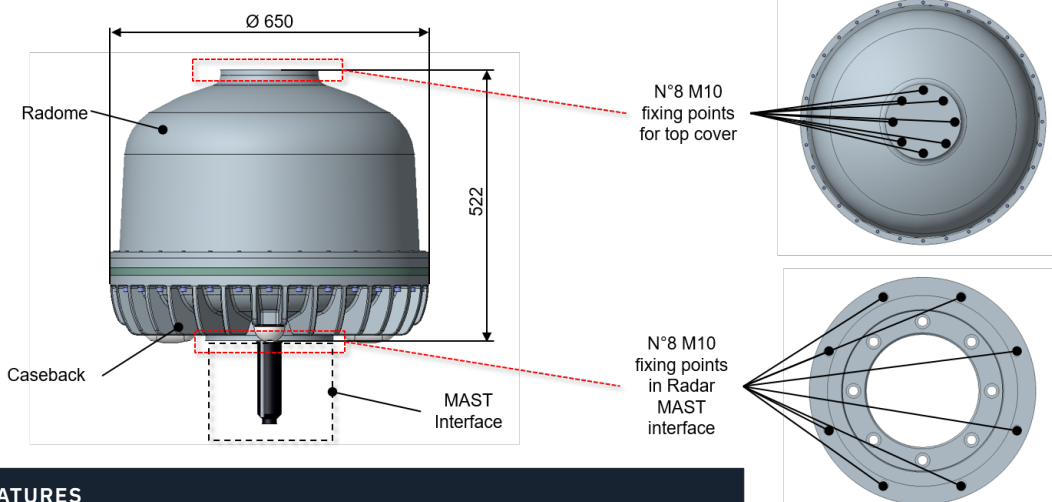
INTERFACES

Ethernet, optional (RS-232, RS-485, RS-422)

ASCII, NMEA, ASTERIX (optional)

Radar video distribution via WiFi link (optional)

Redundant RJ45 Ethernet or LC multimode optical fiber (optional)



ENVIRONMENTAL FEATURES

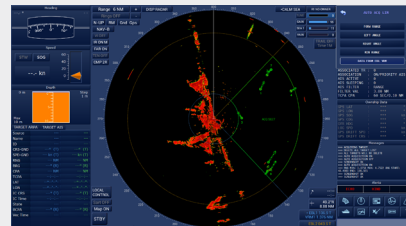
Operating temperature	-25° C to +55° C	According to MIL-STD-810G
Storage temperature	-30° C to +70° C	According to MIL-STD-810G
Damp heat	93% relative humidity @ 40° C	According to MIL-STD-810G
Shock	30 g 11 ms	According to MIL-STD-810G
Salt fog	According to MIL-STD-810G	
Vibration	According to MIL-STD-167-1A. Type I	
EMC/EMI	According to MIL-STD-461G	

RECEIVER

Sensitivity	< -122 dBm
Azimuth Main Beam	< 5.5.dB
Elevation Main Beam	100 dB
Rotating Rate	20 MHz
Converter (at IF)	16-bit ADC



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This document consists of general capabilities information that is not defined as controlled technical data under ITAR Part 120.10 or EAR Part 772.

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