



## **ENKI-50** submarine radar

ENKI-50 belongs to a new generation of solid state radar specially designed for submarine applications. The radar sensor is a pulse compressed X-band transceiver with LPI capability: transmitting power is user selectable from less than 5 watt (peak) up to 50 watt (peak). Lower power selections together with special waveform combination allow the radar to see without being seen. Moreover a proprietary clutter rejection filter based on doppler and video signal processing allow the detection of very small targets. The radar signal is radiated through a lightweight resonant slotted waveguide antenna to obtain the maximum gain; its low weight and its reduced dimensions allow to be easily installed on submarine mast. It is watertight and does not require any waveguide for connection with data distribution box and display, but just a low size cable for signals and power supply is necessary.

### **General Features**

- Fully Coherent
- Software Defined Functionality
- Pulse Compression Radar
- Doppler processing
- Adaptive STC
- Fully Solid State transmitter
- Integrated BITE system

# ENKI-50

## FULLY SOLID STATE RADAR

• Frequencies	Programmable within 9300÷9500 MHz
• Transmission Power	50 W (Peak)
• LPI Functionality	Radar Power can be lowered up to less 5 Watt by user command
• Sector Blanking	User defined – up to 10
• Periodic Maintenance	Not necessary due to absence of limited life parts (e.g. magnetron)

## RECEIVER

• Sensitivity	< -122dbm
• Overall Noise Figure	< 5dB
• Dynamic Range	100 dB
• Receiver Bandwidth	20 MHz
• Converter (at IF)	Dual 16 bit ADC

## TRACKER

• ARPA targets	Up to 200
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## ANTENNA SYSTEMS

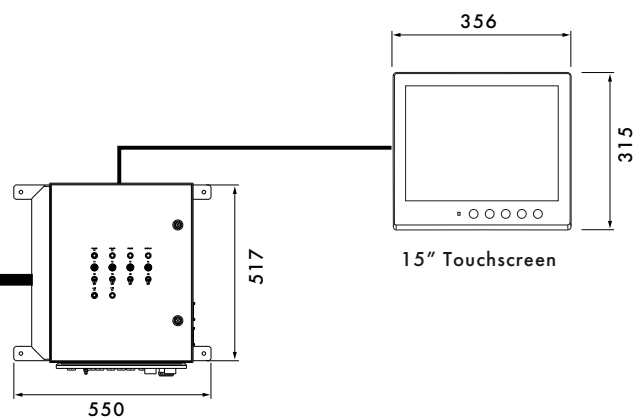
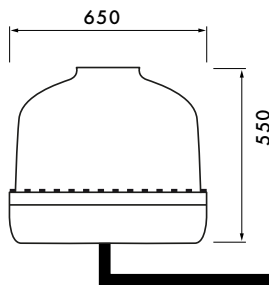
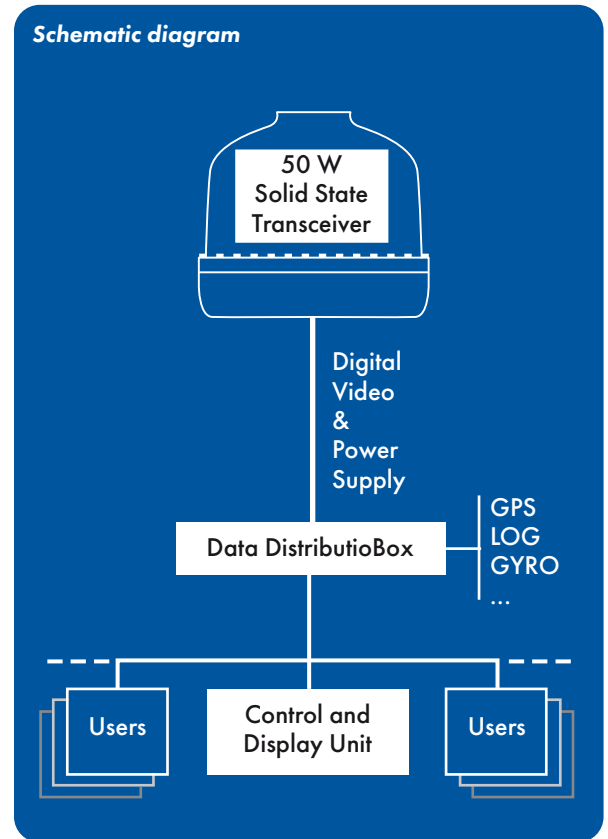
• Type	Resonant Slotted Waveguide
• Azimuth Main Beam	≤ 4°
• Elevation Main Beam	≤ 25°
• Rotating Rate	22 RPM
• Pressure Tight	60 bar (more details provided in the technical spec.)

## INTERFACES

• Ethernet, RS422
• NMEA
• Radar video distribution via Wi-Fi link (optional)

## ENVIRONMENTAL FEATURES

• Operating temperature	-25° C ÷ +55° C
• Storage temperature	-30° C ÷ +70° C
• Damp heat	93% relative humidity @ 40°C
• Salt Fog	According to MIL-STD-810G (meth. 509.5)
• Vibrations	According to MIL-STD-167-1A, type I
• Shock	30g – 11ms According to MIL-STD-810G (meth. 516.6)
• EMC / EMI	According to MIL-STD-461



dimension in mm

Surveillance & Security
Guidance, Navigation & Positioning
Military & Defence
Marine Electronics

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