



ENKI-100 submarine radar

ENKI-100 is a new generation radar for submarine application based on solid state radar technology and on new design planar array antenna.

The radar sensor is a pulse compressed X-band transceiver with LPI capability: transmitting power is user selectable from less than 1 watt (peak) up to 200 watt (peak). Lower power selections together with special waveform combination allow the radar to see without being seen. Moreover a sophisticated anti clutter rejection achieved by using video and Doppler processing is an embedded feature for the detection of small targets.

The antenna is a cosec² planar array: it is specially designed for air and surface surveillance; its large bandwidth allows frequency agility and efficient doppler processing. Frequency agility is also an important feature as ESM counter measure.

General Features

- Fully Coherent, Software Defined Functionality, Pulse Compression Radar
- Doppler processing
- Adaptive STC
- Fully solid state transmitter
- Integrated BITE system
- Frequency agility

ENKI-100

Operating Characteristics

Solid State Transceiver

• Frequencies	programmable within 9300÷9500 MHz
• Transmission Power	200W (Peak)
• LPI Functionality	Radar Power can be lowered up to less 1 Watt by user command
• Sector Transmission	User selectable

Receiver

• Sensitivity	< -122dbm
• OverAll Noise Figure	< 5.5dB
• Dynamic Range	120dB
• Receiver Bandwidth	20MHz
• 16 bit A/D Conversion on IF	

Tracker

• Surface and Air targets	> 1000 tracks
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Antenna Systems

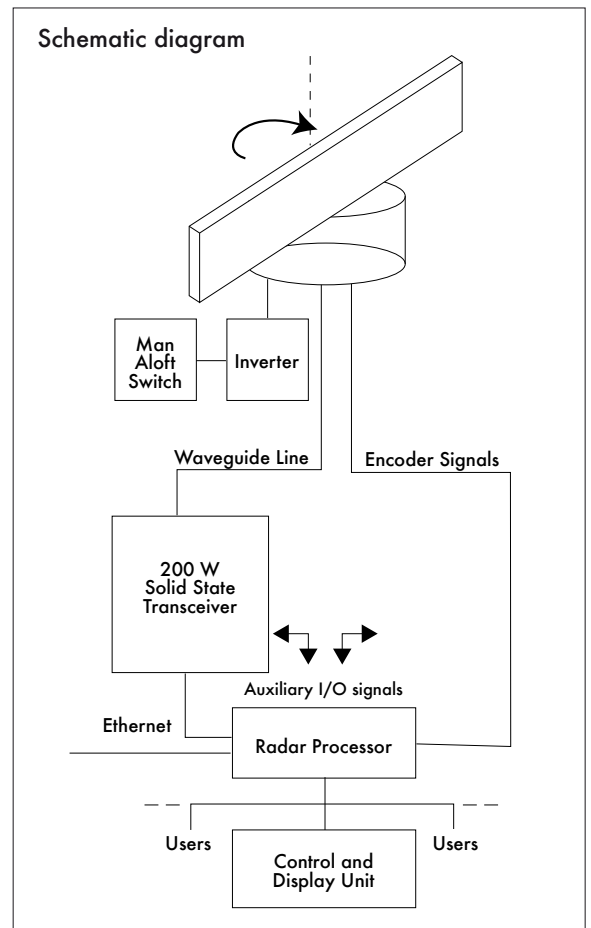
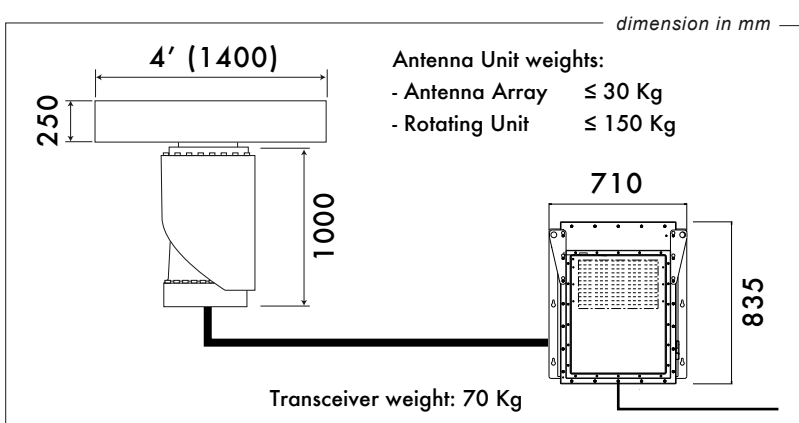
• 4' Squintless planar array, Cossec ²	
• Azimuth Main Beam	≤ 2°
• Elevation Main Beam	≤ 15° with Cossec ² pattern up to 40°
• Rotating rate	10 - 40 RPM

Interfaces

• Ethernet, RS232, RS422
• ASCII, NMEA

Design

• Air cooled racks



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