



SPS-730 LPI NAVIGATION/SURVEILLANCE RADAR

The SPS-730 is an X-Band Low Probability of Intercept (LPI) multifunction Doppler radar suitable for surface and air surveillance and as a navigation mapping aid. SPS-730 can be supplied in various configurations and is adaptable for various types of ship.

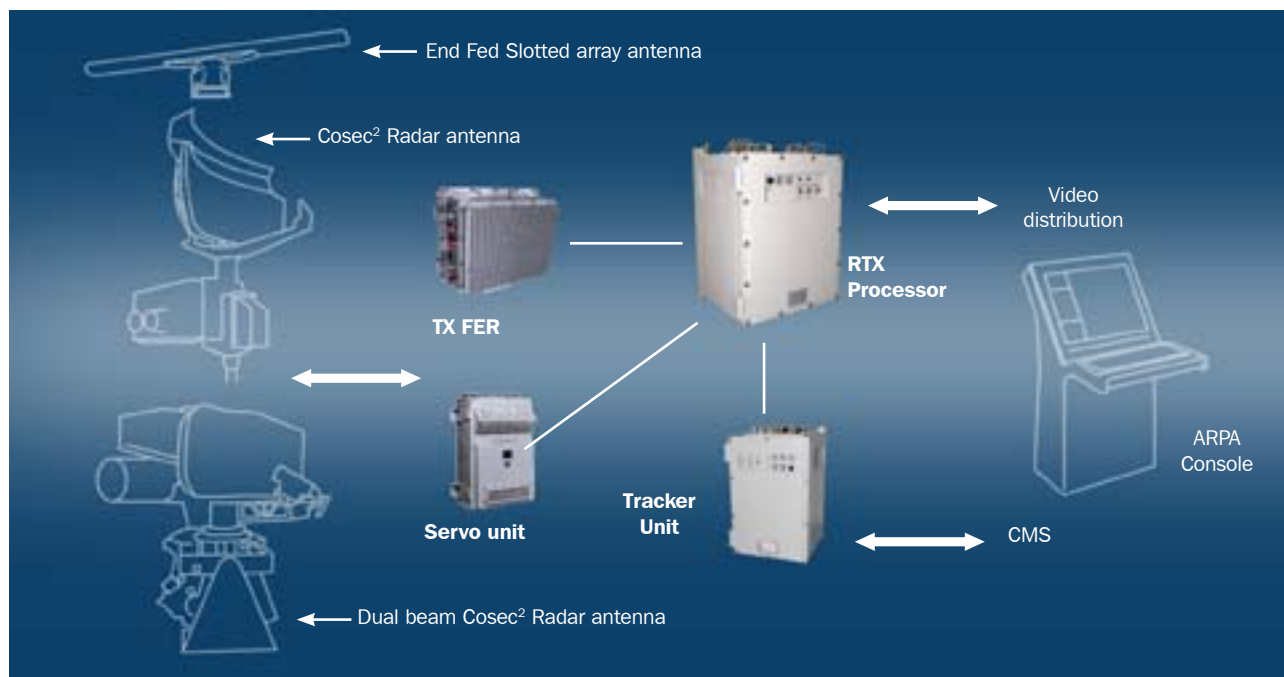
GENERAL DESCRIPTION

SPS-730 utilises state-of-the-art coded pulse LPI techniques developed for widely used SPN-730 navigation radars. Solid state and low power consumption, it uses an advanced digital receiver and waveform generator to allow simultaneous long range detection and minimum range coverage. Doppler modes for low false alarm air target detection are implemented through fully coherent radar features, inherent within our LPI architecture.

SPS-730 configuration has been used for SPS-702 existing radar upgrade. The upgraded radar, named SPS-702LE (Life Extension) use the SPS-730 sensor units and is on-board of renewed Italian Navy Maestrale and Ammiragli class.

KEY FEATURES

- LPI pulsed radar with Power Management
- Solid state transmitter, fully coherent architecture
- Digital compressed pulses
- No blind zones
- Frequency agility, PRF Jittered
- High resistance to ECM
- High resolution modes
- Surface and air surveillance modes
- Advanced signal processing
- Scalable architecture using a wide range of antenna and options
- Powerful automatic tracking (TWS) both on naval and air targets
- Air target low/ medium altitude coverage due to Cossec² antenna and high dynamic Doppler processing
- Powerful interfacing with on-board ESM devices without systems performance degradation
- Navigation modes with standard IMO range scales.



CONFIGURATION UNITS

- Transceiver TX-FER
- Digital Receiver- Processor RTX-PRO
- Tracker Unit
- Antenna Servo
- Operator Local Console
- Antenna Group

OPTIONS

- FDDI Interface
- Ethernet Video Interface
- Zoom on window, 6m resolution
- Zoom on window, up to 1m resolution
- Range profile/Imaging resolution 1m (require upgrade of Servo units for pointing)
- Increased output power

ANTENNA GROUP OPTIONS:

- Lightweight with optional line-of-sight stabilised end fed slot array antenna making it suitable for light to medium sized ships and fast patrol boats
- 300 Kg cosec² overhanging on mast, fully stabilised 2.4x0.6 m Reflector High Gain antenna
- 600 Kg dual beam (cosec² and OTH pencil beam), horizontally mounted and fully stabilised 2.2x0.9 m Reflector High Gain Antenna.

MAIN FEATURES

- Range scales from less than 1 nmi Up to 72 nmi for OTH surveillance
- 6m High resolution on lower range scales
- 4 W average power reduced further with power management
- Digital advanced processing with adaptive proprietary integrated IF sampling and pulse compression, platform motion compensation, FFT and adaptive bi-dimensional CFAR
- Specialised high performance tracking units suitable for tracking high manoeuvring surface and air targets
- Surface standard ARPA equipment interfaced through standard raw video interface
- Coastline recognition with the C-MAP world map permanently installed on the radar and an adaptive coastline map position improved by the use of signal processing.