

## MULTI-MODE COMPACT RADAR

SPS-732 is a compact X-band air/surface surveillance naval radar with fully coherent solid state technology and Low Probability of Intercept (LPI) capability.

SPS-732 is built upon experience in designing and delivering naval surveillance radars to the most demanding Navies. It performs bi-dimensional surface and air target detection in all weather conditions and features track-while-scan with automatic track initialisation. Short reaction time combined with small target detection allow sea-skimmer threat detection and designation.

Radar coverage and coherent processing provide detection of jet aircraft up to 16 nautical miles and 7000 feet of altitude. SPS-732 provides excellent resolution, coherent detection performances and a no-blind-zone feature for Helicopter control and navigation in compliance with IMO regulations.

SPS-732 is based on a modern architecture design, delivering state-of-the-art processing of new waveform generations to provide super-resolution modes, zoom and Range Profile Imaging While Scan.

Several types of antenna group and configuration options ensure versatility and flexibility. The radar can be installed on various type of ships, ranging from small 30-40m fast ships to major surface combatants.

### Status

SPS-732 is designed in compliance with military standards, combining a well proven history in delivering multi-role radars as the RAN-30X and the SPS-702 with the need to provide compact and reliable solutions based on state-of-the-art technologies.

### TECHNICAL FEATURES

SPS-732 features five different operating modes. The operator can select the mode most appropriate to the operational mission.

#### Air/Surface Surveillance mode

Dual-channel processing to optimise performance in littoral warfare (over ground) or in heavy clutter conditions, as well as in the sea environment.

#### Short Range mode

High resolution and fast rotating, to track very small targets such as fast ships and aircraft in formation.

# SPS-732

## OTH (Over-The-Horizon) Surveillance mode

Optimised over-the-horizon performance in presence of anomalous propagation and to detect clutter free air target at very long distances.

## Weapon Designation and Anti-Missile mode

Dual-channel mode to track very small and fast attack craft and low flying missiles in heavy clutter conditions.

## High Resolution Navigation mode

Special waveform signal processing provides surveillance capabilities for IMO compliant navigation and improved range resolution against very small/fast attack craft as well as small buoys and floating mines.

## Instrumental Range

Mode 1 (15RPM)	Air & Surface Surveillance	>100km
Mode 2 (30RPM)	Short Range	>40km
Mode 3 (3RPM)	OTH Surveillance	>185km
Mode 4 (30RPM)	Weapon Designation and Anti missile	>25km
Mode 5 (30RPM)	High Resolution Navigation	>11km

## Zoom On Window

The Zoom On Window function is available in all modes. High range resolution enables tracking discrimination of two or more very close targets.

## Range Profile

The modern architecture and large instantaneous bandwidth provide super-resolution imaging of a target. Optionally, the SPS-732 can provide the operator with Range Profile on an operator selected target to allow for Radar Target recognition.

## ANTENNA GROUP

Different antenna groups are available to fit with different ships' requirements and operating roles.

### Antenna Group 1

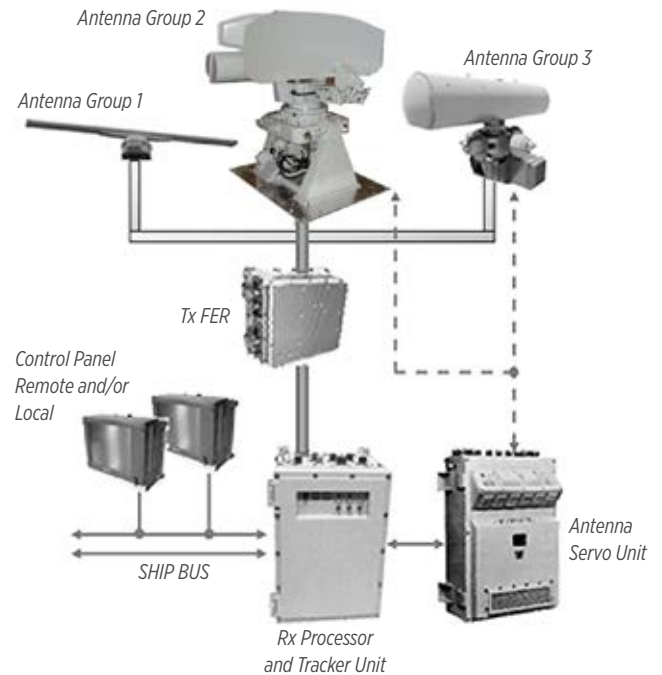
- Slotted array end-fed antenna
- 6, 9 12 feet dimension available
- 22° vertical beamwidth

### Antenna Group 2

- Reflector type large bandwidth high gain antenna
- Selectable dual beam
- (Cosec2 or very high gain pencil beam)
- Linear and circular selectable polarisation
- Horizontal on a sponson fitting

### Antenna Group 3

- Compact, lightweight, fully stabilised
- Flat array high gain compact cosec2 antenna
- Linear and circular selectable polarisation
- Overhanging on mast or horizontal on a sponson
  - All Antenna Groups can be integrated with a, co-rotating L-Band IFF antenna



## Antenna Servo Unit

The Antenna Servo Unit provides antenna azimuth rotation and two axis stabilisation to compensate movement of rolling and pitching of the ship. The maximum Roll and Pitch stabilisation angle is equal to  $\pm 27^\circ$  and  $\pm 11^\circ$  respectively.

## Transmitter/Front End Receiver (Tx-FER)

High MTBF fully solid state transmitter and Front end receiver with very small dimensions and weight, designed to be installed up-mast even in very severe environments.

## Receiver Processor (RTX-PRO)

Two processing channels optimised for detection of medium size air targets over ground or in heavy clutter conditions (Doppler processing) and to guarantee surface and stationary targets surveillance besides air targets surveillance in clutter-free conditions. Compact dimension allow for easy installation on existing ships. Automatic target tracking function integrated in the processor unit.

## Installation Data

UNIT	(MM) WIDTH/	(MM) HEIGHT	(MM) DEPTH	(KG) WEIGHT
Tx-FER	475	500	390	45
RTX-PRO	450	625	400	37
Local Control P.	613	442	330	22
<b>ANTENNA GROUP 1</b>				
Antenna Group	2700	696	550	50
<b>ANTENNA GROUP 2</b>				
Antenna Group	3500	2300	2000	600
Ant. Servo Unit	700	1875	550	50
<b>ANTENNA GROUP 3</b>				
Antenna Group	2500	1600	1200	340
Ant. Servo Unit	640	1400	720	200