



HENSOLDT SBS-900 Coherent Sensor System

The Kelvin Hughes Surveillance radar solutions for shore based applications have been specifically developed to meet the stringent operational requirements of port, harbour and river traffic operators as well as government agencies responsible for the protection of the coastal and littoral zones.

SBS-900 SharpEye™

The SBS-900 family is configured to provide a mast mounted environmentally sealed enclosure. The ultra-high reliability system is designed to provide a complete radar sensor package to system integrators that meet the requirements of a coastal surveillance system or a Vessel Traffic Service (VTS) system as defined in IALA Guidelines.

Features

- Solid State Transceiver
- Fully Coherent Doppler radar
- Self-contained upmast solution
- Industry standard digital Open Architecture
- Multiple Antenna Choices
- Low maintenance

Benefits

- High Reliability and MTBF
- Advance clutter processing and small target detection
- Ease of installation, and reduced upmast weight, no air conditioning
- Ease of integration and future capability increments. Full BITE capability
- Flexible to meet various customer requirements
- Low through life costs

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Description

The SBS-900 systems SharpEye™ transceiver(s) are housed in a separate dedicated enclosure designed to be installed outdoors, close to the antenna turning unit and do not require an air-conditioned enclosure. This solution contributes to a significant reduction of system integration and infrastructure costs.

SharpEye™ transceivers are fully coherent providing greater capability and situational awareness through

digital pulse compression, pulse Doppler processing and frequency diversity. The availability of multiple frequency channels provides excellent interoperability with other radars located in the vicinity of the installation.

The SBS-900-3 dual redundant configuration provides switch over from one transceiver to the pre-powered second transceiver in approximately 1 second in the event of a failure.

Applications			
Vessel Traffic Services	Ports	Harbours	
Coastlines	Oil and LNG Terminals	Oil & Gas Platforms	
Offshore Wind Farms	Security & Surveillance	Estuary & Riverine Trade Routes	
Our Services			
Project Management	Radars Trials Delivery	Integrated Logistics Support	
Spares & Support	Training	Incremental Capability	
Specification			
	SBS-900-2	SBS-900-3	SBS-900-4
Band	X-Band	X-Band	X & S-Band
Operating Frequency	9.21 - 9.49 GHz	9.21 - 9.49 GHz	X-Band 9.21 - 9.49 GHz S-Band 2.90 – 3.21 GHz
Channels Peak Power	300 Watts	300 Watts	X-Band 300 Watts S-Band 200 Watts
Dual Redundant TX	No	Yes – 2 transceivers	Yes – 2 transceivers
Maximum Instrumented Range	48NM (Optional 96NM)	48NM (Optional 96NM)	48NM
Minimum Range	≤50m	≤50m	≤50m
Range Cell Size	3.75m, 7.5m & 15m	3.75m, 7.5m & 15m	3.75m, 7.5m & 15m
Blanking Sectors	Up to 4 sectors	Up to 4 sectors	Up to 4 sectors
Antenna Size	3.7m (12') to 6.4m (21') dependant on customer requirements	3.7m (12') to 6.4m (21') dependant on customer requirements	X-Band 5.5m (18') S-Band 3.9m (12')
Antenna Gain	32 to 44 dB dependant on customer requirements	32 to 44 dB dependant on customer requirements	X-Band 34.5 dB S-Band 28 dB
Upmast Cabinet Weight	125kgs	145kgs	140kgs
Output data & Control	Asterix CAT240 & CAT253	Asterix CAT240 & CAT253	Asterix CAT240 & CAT253

All parameters are nominal and indicative based on a typical radar configuration.