



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

SBS-900 Coherent Sensor System

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.