ULTRA

Wideband Omni-Directional Passive Surveillance Sonobuoy (LOFAR)

SSQ-906G&H

Key features

- High performance omni-directional buoy for littoral and deep water operation
- Passive surveillance
- 'G' size
- Wideband acoustic frequency range
- Acoustic monitoring of marine mammals and maritime noise pollution
- Autonomous Function Select
- Coastal surveillance option

Overview

The Ultra SSQ-906G variant Low Frequency Analysis and Recording (LOFAR) sonobuoy combines a high-performance, wide frequency band omni-directional sensor with the proven in-buoy digital electronics of the Ultra SSQ-955 HIDAR sonobuoy. This combination takes full advantage of digital signal processing to offer a buoy that outputs distortion-free acoustic data across a high dynamic range and with superb linearity across an extended acoustic spectrum.

The SSQ-906H variant is designed primarily for shallow water operations close to the shoreline, or in the fresh water run-off environment of river estuaries. This variant will cope with all salinity conditions from fresh water to 3.6% salinity by weight. Optional GPS telemetry can be included.

The SSQ-906G&H variants offer considerable benefits to maritime patrol aircraft, especially those with limited space and weight available. Its small, lightweight size is ideal for helicopter operations.

ULTRA

Technical Specification

The SSQ-906G&H are designed for internal carriage and release from maritime patrol aircraft and maritime helicopters. All buoy setting selections are therefore simple and manual to set through the AFS selector. The buoy can also be hand-launched or fired from autonomous launchers on naval vessels.

After release from the aircraft, a parachute limits the rate of descent to approximately 30 m/s. On water entry, a surface float is deployed, containing a VHF transmitter for acoustic data telemetry.

Omni-directional acoustic sensor signals are transmitted to an airborne or ship-based acoustic processor for passive detection of narrowband, broadband and transient submarine acoustic emissions. The buoy will also detect low frequency active emissions and echoes in a multistatic or active adjunct role.

Safety mechanisms are included to prevent actuation or deployment until the parachute has deployed normally and the buoy has entered the water. These safety features protect operators from inadvertent activation, especially in emergency situations, such as aircraft ditching.

NATO STOCK NUMBER
SSQ-906G: 5845-99-616-6943
SSQ-906H: 5845-99-551-6127

Sonobuoy Characteristics	
Description	Wide frequency band omni-directional passive sonobuoy
Dimensions	**'G' Size Length:** 419.1 mm (16.5 in) **Diameter:** 123.825 mm (4.875 in) **Weight (bare buoy):** 5.6 kg (12.3 lbs)
Deployment	**Platform Speed:** 50 kts to 375 kts **Platform Altitude:** 46 m to 9200 m (150 ft to 30,000 ft)
Operating Depth	**AFS programmable settings:** **SSQ 906G** 30 m 140 m 300 m **SSQ 906H** 15 m 30 m 60 m **Time to full stabilisation:** 100 s 180 s 240 s
Operating Life	AFS programmable 1 to 7 hours in 1 hour increments (Automatic Scuttle)
RF Channel	AFS Programmable Channels 1 to 99 (136 MHz to 173.5 MHz, 375 kHz spacing)
Telemetry Mode	Frequency Modulation Analogue
VHF Radiated RF Power	1 Watt nominal
Acoustic Frequency Range	10 Hz to 20 kHz
FM Deviation Acoustic Sensitivity	116 dB ± 2 dB re 1 µPa produces 19 kHz peak deviation at 100 Hz
Variants	SSQ 906G High performance, omni-directional SSQ 906H Shallow water, low salinity variant
Temperature Range	**Seawater operating:** - 2°C to + 35°C **Un-packaged non-operating:** - 20°C to + 55°C **Packaged:** - 50°C to + 70°C
Seawater Salinity Optional SSQ 906H	1.5% to 3.6% by weight 0.0% to 3.6% by weight
Storage Life	**Packaged:** 7 Years **Un-packaged:** 90 Days

Ultra Maritime
+44 (0) 1628 530 000
maritime@ultra-electronics.com
ultra.group