AN INDUSTRY-LEADING, EXTENSIBLE RECEIVER PLATFORM

The latest technology Sonobuoy Receiver from Ultra Electronics supports both AM and FM demodulation for analog or digital sonobuoys. Growth for future Sonobuoy variants is supported. The modular/programmable nature of the design makes the overall system scalable for any mix of up to 64 buoys at a time and for operator control of select receiver parameters to suit a specific RF environment.

This Ruggedized Sonobuoy Receiver system is ideally suited for any application requiring a light weight, multi-channel, high performance receiver. The Wideband system provides a mix of expanded features such as:

- Built in Test (BIT using buoy simulations as the test stimulus)
- Sonobuoy Positioning System
- Direction Finding / Homing (with suitable antenna(s))
- Support for multiple control and data interfaces
- Continuous signal strength reporting for all 99 channels
- Field Programmable/Upgradable

Sdsr Software-defined Sonobuoy Receiver

ANTISUBMARINE WARFARE

- Market Leader with over 4000 installed receivers
- MH-60, P-3, P-8A, LCS, DDG-1000
- 30 Years supporting U.S. NAVY and Global Military
- Airborne, Shipboard, Land-based Platforms
- Integrating with other Missions - AIS, COMINT

INDUSTRY LEADING SPECIFICATIONS

- Simultaneous receipt of multiple signals (99 standard sonobuoy channels)
- In sensitivity -113 dBm at 240 kHz bw
- Extremely low audio distortion .02 % at 100 Hz
- Dynamic range of > 100 dB
- Digital data rates to 326 kbps
- Flexible
- Modular 32-64 acoustic channels for sonobuoy applications

DOCUMENT CONTROL NUMBER
ASW-As-SDSR-DW_B

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Flightline Systems
Antisubmarine Warfare
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Industry Leading Specifications
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PERFORMANCE
• 136-174 MHz (standard Sonobuoy Band)
• Channelization to any of 99 RF frequencies
• Continuous Signal Strength reporting
• Outstanding FM sensitivity down to 0.5 uV
• Extremely low Audio Distortion:< 1% from 2 Hz to 5 kHz, 3% from 5-50kHz
• > 140dB out of band rejection
• > 80db dynamic range
• Power Consumption—250-425W

CONTROL
• Gigabit Ethernet (Primary)
• Mil-Std-1553B (Option)
• RS-429 (Option)
• RS-422 (Option)

DATA
• 14 Bit Raw Data
• Conforms to STANAG 4283
• Data rate (Selectable): 52.4 or 104.8 kbps, configurable for other data rates

CONFIGURATIONS
• Multiple conduction cooled chassis configurations (ARINC and 19”Rack Mounting available)
• Basic Wideband card set (three cards) provides 16-32 Acoustic Channel Sonobuoy Receiver System
• 64 acoustic channel system with one additional card
• External preamplifier provides band filtering and low noise amplification of antenna inputs

• Optional Analog DF Module (ADM) provides 10 analog outputs on separated selected channels, and DF antenna signals AM demodulated for display on aircraft RMI displays
• Optional Homing Card to allow aircraft to home in on and ontop position sonobuoys
• Optional baseband UHF downlink Command Function Transmitter (15 Watts AM / 60 Watts FM)

GENERAL
• Programmable characteristics for sonobuoy type optimization
• Sets new standards for acoustic receiver baseband noise floor compared to earlier generation sonobuoy receivers
• Extended acoustic baseband frequency response from 0.1 to 0.45 times the output sample rate yielding superior low frequency response and outstanding infrasonic performance
• Channel signal strength indication in whole dB increments (-40 to –120 dB)
• Field reprogrammable / upgradable
• Software defined radio architecture
• Comprehensive Built-In-Test (BIT)
• Supplied with control program for integration/operational test