Rack-Mounted Software Defined Sonobuoy Receiver (RaSDSR)

Ruggedized, 4U rack-mounted receiver

Key features

- 32 acoustic channels
- Dynamic range of >100 dB
- Universal mount
- Supports future sonobuoy formats
- Field programmable / upgradeable
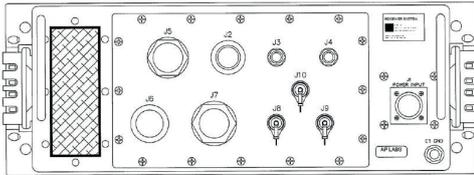- GPS buoy support

Overview

The Rack-Mounted Software Defined Sonobuoy Receiver system (RaSDSR) system is a highly sensitive ruggedized VHF signal receiver. This receiver system is designed to meet environmental requirements for Laboratory or Shipboard use. The system is capable of receiving any mix of passive and active sonobuoy VHF signals concurrently for up to 32 independently selectable RF channels. The Ultra SDSR supports all current NATO sonobuoy formats including GPS buoys. Another key feature of the RaSDSR is the universal rack-mounting option. The 4U envelope size fits nicely into a typical software server rack.

ULTRA MARITIME

Ordering Information

6005-0500-001 ———— RaSDSR

Panel Layout

J1	AC Power	J6	Multipurpose
J2	SEP Power	J7	Baseband Audio
J3	SEP Control & BIT	J8	CFS/CSG Command
J4	Amplified RF	J9	CFS/CSG Keyline
J5	Gigabit Ethernet	J10	Stub Antenna

Mission Critical Accessories

Single External Preamplifier (SEP)
Part No. 6120-8000-001

Command Function Transmitter (CFT)
Part No. 5982-7000-002

Performance

Channels	Up to 100 Channels
Dynamic Range	>100 dB
FM Sensitivity	12 dB at -113 dBm (25 kHz bandwidth)
Digital Data Rate	Multiple / Selectable (At time of order)
Audio Distortion	$\leq$ 0.2% at 100 Hz >140 dB out-of-band rejection
Frequency Response	Flat within 1 dB (0.5 Hz - 20 kHz)
Antenna Support	1 or 4

Physical Specifications

General Physical Description	1 ATR
Dimensions - Receiver	10.60H x 11.54W x 17.84D (in) 26.93H x 29.31W x 45.31D (cm)
Dimensions - Preamplifier	8.81H x 10.50W x 5.60D (in) 22.38H x 26.67W x 14.23D (cm)
Weight - Receiver	55 lbs / 24.95 kg
Weight - Preamplifier	10 lbs / 4.54 kg[A]
Housing Color	Grey or Custom

Input & Control

Power Input	115 VAC 400 Hz Power
Control	Ethernet (Primary) - 1 Gbps 1553 Data Bus (SPS)

Environmental

Operating Temperature	0°C to 45°C
Cooling Requirements	Self-cooled (Fan)
Operating Humidity	6% to 95% Non-condensing
Vibration	MIL-STD-810F Compliant
Shock	MIL-STD-810F Compliant
Safety Standard	MIL-STD-810F Compliant