ULTRA MARITIME

# Portable Acoustic Sonobuoy Simulator (PASS II)

## Portable acoustic test system

### Key features

- LCD touch panel display
- Weather resistant
- Convenient travel case
- Supports NATO sonobuoys

### Overview

The Portable Acoustic Sonobuoy Simulator II (PASS II) is a test set designed for maritime acoustic system operation verification and laboratory acoustic system integration. It is a field usable electronic transmitter, receiver, and data processor that simulates standard NATO sonobuoys. The PASS II transmitter can also be used to test On Top Position Indicator (OTPI) systems used on aircraft. The PASS II uses a Digital Signal Processor (DSP) to provide signal synthesis for the various supported sonobuoy types. All test signals are developed using a fully digital architecture and used in digital form to modulate the output RF. Digital signals ensure the PASS II provides high fidelity, accurate, artefact-free test signals. Baseband and RF frequencies are generated to within 0.01% of the desired frequency, and FM deviation levels are generated within 0.1% of the desired level.

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# Technical Specification

## Ordering Information

6474-0000-001 — PASS II

## Applications

Evaluation of acoustic system performance

Troubleshooting of acoustic suites individual Line Replacement Units (LRUs) - acoustic processor, VHF antenna receiver, UHF downlink

Acoustic suite health and welfare - pre-flight operational checks

Bit Error Rate calculation for Flightline wideband sonobuoy receivers

Signal source to aid in training for technicians and operators

Sonobuoy support: DICASS, DIFAR, VLAD, LOFAR, BATHYTHERMOGRAPH, HIDAR, BARRA, ADAR, CAMBS

External PC data streaming

GPS buoy decoding / simulation

## Environmental

| | |
|---|---|
| Power | 115-230 VAC, 50-400 Hz<br>Lithium Ion Battery |
| Operating Temp | -10°C to 45°C |
| Storage Temp | -20°C to 45°C |
| Cooling | N/A |
| Shock | MIL-STD-810F |
| Vibration | MIL-STD-810F |
| Safety Standard | MIL-STD-810F |

## Included Items

1. PASS II
2. Self Test Cable
3. AC Power Cable
4. DC Power Cable
5. UHF Antenna
6. VHF Antenna

## Signal Accuracy

Baseband and RF frequency to 0.01%

FM deviation level to 0.1%

## UHF Downlink

Signal strength: -10 dB

## RF Output Parameters

Touch panel input selection of 99 operational sonobuoy frequencies

VHF signal strength levels generated to 0 dBm (+20 dBm with optional amplifier)

Direct digital modulation of FSK or GFSK digital sonobuoy types with shaped data for controlled RF spectrum

## Interfaces

UHF input to receive and decode UHF command signals from platform's acoustic system

VHF uplink to transmit VHF signals to a platform acoustic system

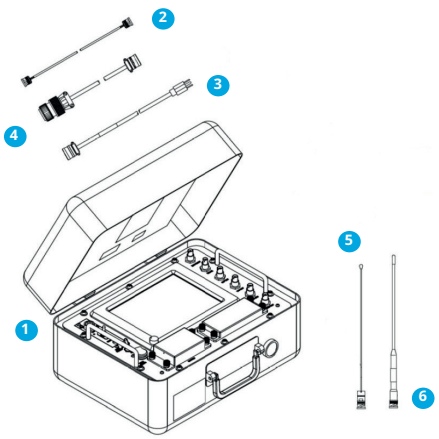
Modulation output for transfer of baseband signals direct to an acoustic processor

Headphone output for aural monitoring

Computer and control interfaces include 2 USB (master and remote) and GigE ethernet

External input for receipt of baseband signals

UHF output for command downlink

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