



Overview

The *Sonar Tester At Site (SONTAS™)* is an easily transportable sonar tester used for testing a ship's sonar suite in the frequency range 4 kHz – 50 kHz, while the ship is dockside. Scanmatic also delivers High and Low Frequency versions of SONTAS (SONTAS HF and SONTAS LF).

The system consists of three parts:

1. SONTAS Pelicase, containing electronics to simulate underwater sonar target.
2. Hydrophones and Transducers
3. PC-based SONTAS Control Unit.

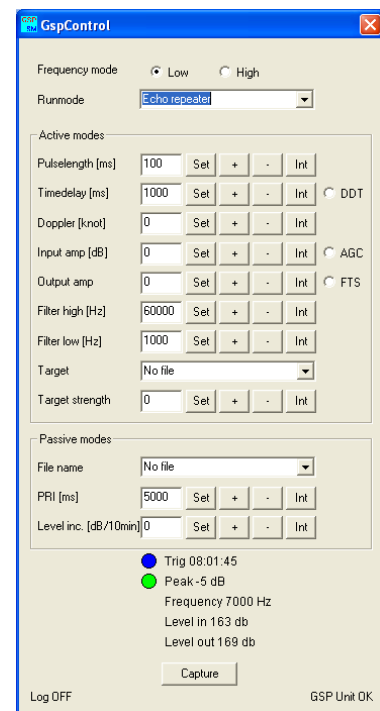
The SONTAS is commanded and report to the SONTAS Control Unit over ethernet cable. All the parameters in the General Sonar Processor, GSP, are controlled from a Windows-based application program.

Applications

- Testing of active and passive sonars
- Calibration of sonars (distance, speed and size of target)
- Sonar operator training

Features:

- Complete portable underwater test system
- Powerful and flexible
- Cost effective
- Proven system with long track record



SONTAS control software

Operation

The SONTAS operates in different modes.

In **"Echo repeat mode"** the SONTAS will receive a sonar pulse, store the pulse in local memory and retransmit the same pulse after an operator-selected timedelay with desired doppler shift, target strength and target highlights, simulating a moving target.

The transmitted signal can be sent nearly simultaneously while receiving. The programmable delay is accurate to within 1 m for calibration of sonar range scale (0.3 m for SONTAS HF).

In **"Passive mode"** the SONTAS will transmit signals either continuously or at predefined intervals. The signals can be ship or torpedo noise for continuously transmission or stored or predefined sonar signals in interval transmission.

Specifications

| SONTAS | |
|-------------------|---|
| Frequency range | SONTAS: 3 kHz – 50 kHz Other versions of SONTAS: SONTAS HF: 60 kHz – 550 kHz SONTAS LF: 300 Hz – 5 kHz |
| Signal | Pulse length: 5 ms – 15 s (SONTAS HF: 0.01 ms – 300 ms) Pulse delay: 50 ms – 16 s (SONTAS HF: 10 ms – 3 s) Doppler: 0 - \pm 60 knots, accuracy < 1 knot (SONTAS HF does not support doppler shift) Signal shape: Any Passive signal: Any wave file |
| Signal levels | Dynamic range: From max receive level + 200 dB to min trig level 120 dB//1 μ Pa Peak output: 180dB // 1 μ Pa (SONTAS HF: Max 170 dB//1 μ Pa) |
| Target highlights | -20dB - +6dB, step 1 dB, 10 ms resolution 10 different settings |
| Transducer depth | 5 – 30 m (other options available on request) |
| Battery capacity | 5 hours |
| Powered mode | 95 – 264 VAC or internal battery |



Low Frequency transducer for SONTAS LF



High frequency transducer set for SONTAS HF