



HULL MOUNTED ASW SONAR

#NavalSystems



ASELSAN FERSAH 100-N/MF Hull Mounted ASW Sonar is a mid-frequency anti-submarine sonar with high source level and array directivity. The system has active and passive ASW modes, in addition to its Mine Like Object Avoidance (MAS) mode. ASELSAN FERSAH 100-N/MF Hull Mounted ASW Sonar has detection, tracking and analysis capabilities both in active and passive modes with state of the art signal processing techniques.



**aselsan**

### HULL MOUNTED ASW SONAR

ASELSAN FERSAH 100-N/MF Hull Mounted ASW Sonar consists of 5 units which are Sonar Wet-End, Connection Unit, Sonar Cabinet-1, Sonar Cabinet-2 and Operator Console.

Sonar Wet-End is used for transmission/reception (T/R) of the acoustical signals to/from the environment. It is composed of 36 staves that are arranged in cylindrical fashion.

Connection Unit is used for analog connection between Sonar Wet-End and Sonar Cabinet-1.

Sonar Cabinet-1 includes power amplifier electronics, front-end conditioning filter, pre-amplifiers and analog-digital converter (ADC) electronics.

Sonar Cabinet-2 includes high power voltage supplies, signal processing algorithms and signal processing software.

Operator Console is the human machine interface of ASELSAN FERSAH 100-N/MF Hull Mounted ASW Sonar. It consists of workstation, display, keyboard, programmable display keys, speaker and headset with microphone.

#### Environmental Conditions

##### Sonar Wet-End

- High Storage Temperature : MIL-STD-810F, Method 501.4, Procedure I
- Low Storage Temperature : MIL-STD-810F, Method 502.4, Procedure I
- High Operating Temperature : MIL-STD-810F, Method 501.4, Procedure II
- Low Operating Temperature : MIL-STD-810F, Method 502.4, Procedure II
- Shock : MIL-S-901 D Shipboard Shock Test Grade-B
- IP Proof : IP68

##### Sonar Dry-End

##### (Except Operator Console)

- High Storage Temperature : MIL-STD-810F, Method 501.4, Procedure I
- Low Storage Temperature : MIL-STD-810F, Method 502.4, Procedure I
- High Operating Temperature : MIL-STD-810F, Method 501.4, Procedure II
- Low Operating Temperature : MIL-STD-810F, Method 502.4, Procedure II
- Humidity : MIL-STD-810F, 507.4
- Vibration : MIL-STD-810F, Method 514.5, Procedure I
- Shock : MIL-STD-810F, 516.5
- EMI/EMC : MIL-STD-461E

#### Technical Specifications

- Detection and tracking of 32 targets in active mode
- Detection and tracking of 8 targets in passive mode
- Horizontal Coverage
  - ASW Mode: 360°
  - MAS Mode: 90°
- Active Sonar Frequency: 5 kHz - 9 kHz
- Active Sonar ASW Mode: OMNI, SRDT, ARDT, TRDT, MCC
- Passive Sonar Frequency Band: 3 kHz - 12 kHz
- Pulse Type: CW, FM and COMBO (CW+FM)
- Pulse Length: 8 ms - 2 s
- Range Scale: 2250, 4500, 9000, 18000, 36000 m
- Electrical Supply Voltage
  - 115 VAC, 60 Hz, phase 1
  - 440 VAC, 60 Hz, phase 3

#### General Specifications

- Open architecture and modular design
- Modern signal processing algorithms
- Modern human machine interface
- Onboard training simulator
- Rugged design
- Compatibility with military standards
- Standalone working capability
- Integration to Combat Management System
- Built-in Test (BIT) capability
- Water cooling cabinet infrastructure
- Acoustic data recording
- Dummy load capability
- Raw data recording and replay
- Self noise monitoring and recording
- Screenshot/video recording and replay
- Printing capability



Specifications are subject to change without any notice. | All tolerances are within ±10%.