



INTELLIGENCE CONNECTING US

TRIPLE FREQUENCY, WIDEBAND,
HIGH RESOLUTION HULL MOUNTED MCM SONAR

UNDERWATER WEAPON SYSTEMS

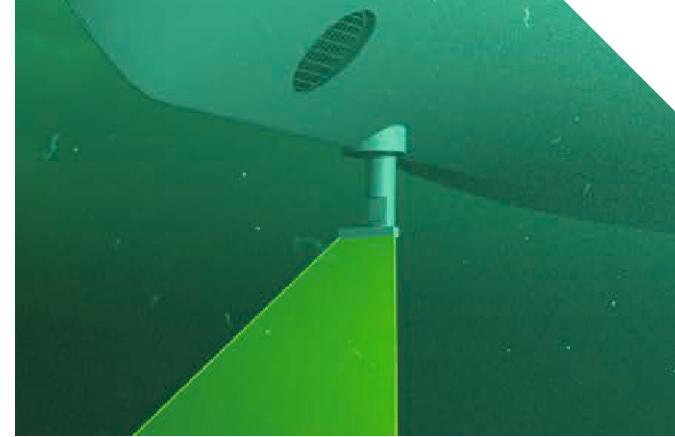
SHL-101/TM

- searching mines in shallow and deep waters with strong stratification of the water column and high level of interferences up to sea level 4 and up to 6 knots of the ship's speed,
- working modes: LF (long-range detection, depth classification), HF (high-resolution detection), VHF (classification by acoustic shadow),
- detection and classification of underwater objects: lying on the water bottom – bottom mines, located in the underwater depths – floating, suspended and anchor mines,
- computer support detection,
- computer support classification,
- archiving and replaying of survey results imaging,
- self-diagnostic system,
- precise electronic and mechanical compensation of the ship's roll and trims,
- single operator handling,
- cooperation with the Ship Command System.

The SHL-101/TM is a triple frequency wideband, high resolution hull mounted MCM sonar. It is designed for detection and classification of bottom and anchor mines, including those difficult to detect. It can operate in shallow waters in conditions of strong stratification of depths and in the presence of interferences. The SHL-101/TM MCM sonar is distinguished by excellent performance as a result of advanced technology of hardware and software use. The sonar is equipped with modern hydroacoustic transducers manufactured by French company Thales Underwater Systems. The application of FM signals enabled implementation of pulse compression resulting in significant increase of the ratio of signal to noise and gaining several centimeters of subsurface resolution. This feature significantly improves performance in range of detection and classification of mines made in stealth technology in waters with high level of noise. The sonar has a modular construction and can be easily adapted to different types of ships.



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TECHNICAL PARAMETERS	LF	HF	VHF
IMPULSE MODULATOR	HFM	HFM	HFM
RANGE SCALE:	1200 m	900 m	300 m

OBSERVATION SECTOR WIDTH

In horizontal plane:	80°	60°	12°
In vertical plane:	3,2°	9°	7,5°
	6,4°		
	12,8°		

RESOLUTION:

Angular:	0,7 °	0,4 °	0,17 °
Range:	<0,07 m	<0,025 m	<0,35 m

ANTENNA SYSTEM:

Vertical transducer:	Tx	-	-
Horizontal transducer:	Rx	Tx, Rx	Tx, Rx
Tilt:	0° ÷ 20°	0° ÷ 40°	0° ÷ 40°
Bearing:	-175° ÷ +175°		
Stabilization accuracy:	0,1°		
DISPLAY:	3-monitor operators console		