

HIGH PERFORMANCE BOW MOUNTED SONAR FOR FORCE PROTECTION AND POWER PROJECTION ASW MISSIONS.

- **Very powerful BMS for large ASW frigates and destroyers.**
- **Very long range detection & tracking for offensive ASW and self protection in any environmental condition**
Detects up to Convergence Zone in the Mediterranean and uses Bottom Bounce propagation
- **Permanent panoramic torpedo alert**
- **Multi-static interoperable with CAPTAS family VDS and FLASH dipping sonar**



ANTI SUBMARINE WARFARE

UMS 4110

Low Frequency Active and Passive Bow Mounted Sonar (BMS) for Medium to Large Platforms



PEDIGREE

Twenty-five UMS 4110 sonars have already been ordered.

Stable & continuous production, beyond the 2020's:

Long lead production that warrants systematic upgrades, evolutions, and long term support.

UMS 4110 has been selected by:

French Navy (F70, Horizon & FREMM frigates)

Italian Navy (Horizon and FREMM frigates)

Royal Moroccan Navy (FREMM frigate)
Egyptian Navy (FREMM frigate)



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OPERATIONAL HIGHLIGHTS

High Performance

- The 4110 is particularly efficient to detect submarines in harsh conditions.
- Reverberation effect is limited thanks to wide bandwidth

Added value of HMS/BMS versus VDS

- HMS/BMS is all weather
- HMS/BMS provides excellent coverage above the thermal layer,
- HMS/BMS is key for torpedo alert in forward section

Multi-static interoperable with CAPTAS VDS and FLASH dipping sonar, to form all together the most powerful and unrivalled deterrent ASW sonar suite.

MAIN CHARACTERISTICS

System features

- Very high source level at relatively low frequency
- Provides ASW all-round surveillance
- Provides performance prediction function to optimize the sonar use.

Technical Features

- Omni-directional low/medium frequency transmission.
- Operated either from CMS consoles or stand-alone
- Mammals safe; adjustable source level.

Enhancements to the basic system

- Underwater telephone

OPERATIONAL BENEFITS

Detection range	Typical up to 35 km
Functions	Active & passive surveillance + analysis + audio + torpedo alert + obstacle avoidance
Sustainability	Up to 30 kts

TECHNICAL FEATURES

Active	Frequency	4.6 to 6.1 kHz
	Bandwidth	Wide FM
	Pulse modes	FM, CW, COMBO
	Pulse length	Up to 4 s
Passive frequency		1 to 6,1 kHz

INSTALLATION / MODULARITY

Array size	2200 (H) 2000 (W) 2000 (L) mm
Array Weight	10 t in air
Inboard	3 electronic cabinets

