

# nautel**sonar** Thermal Wall Amplifier Module

Low Frequency Amplifiers

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## OVERVIEW

The Thermal Wall Amplifier Module fills a niche in the marketplace for an easily packaged sea water cooled broadband amplifier module. It comes as a 5.7" ( 145mm) diameter by 12" (305 mm) long package that will slide into a 6" pipe housing to save costs. All cooling is performed through the end plate which connects to the customers housing. The end plate includes two pass through clearance areas to allow customer sub sea connectors on the same end wall.

This amp is broadband ready from 400 Hz to 12 kHz with analog and digital inputs and a full DSP implemented exciter. Library space can be configured as part of the exciter for customer waveforms. Other output frequency ranges are possible as options.

This amp has an onboard power converter to allow powering direct from 28 volts DC, making it very simple to package and power with ordinary batteries.

The H Bridge inverter is populated with state of the art Silicon Carbide FETS and has a 2.5 kW power rating. The amplifier can handle wide ranging reactive loads. The amplifier also contains an output transformer giving maximum load connection flexibility. A full range of configurable alarms plus output V and I are available at the customer control interface.

## GENERAL

<b>Power Rating</b>	2.5 kW
<b>Input Power</b>	DC, 28 or 48 VDC
<b>Power Supply Package</b>	Integrated
<b>Energy Storage Option</b>	No
<b>Frequency Range</b>	400 Hz to 12 kHz
<b>Extended Frequency Options</b>	Yes
<b>Handle Reactive Loads</b>	Yes
<b>Package Weight Savings (Typical)</b>	N/A
<b>Package Volume Savings (Typical)</b>	N/A
<b>DSP Based Exciter</b>	Yes
<b>Analog and Digital Inputs</b>	Yes
<b>V and I data outputs</b>	Yes
<b>Configurable alarms</b>	Yes
<b>Ambient Temperature</b>	Seawater
<b>Water Cooled</b>	Yes
<b>Silicon Carbide FETS</b>	Yes

## ENVIRONMENTAL

<b>MIL-STD-901D shock (optional)</b>	1/2 sine pulse 20 G
<b>MIL-STD-167-1A Mechanical Vibration (optional)</b>	Yes
<b>MIL-STD--461E Requirements for control of electromagnetic interference (August 1999) (optional)</b>	Yes TBD