DIGITAL YACHT

navigation | information | communication | entertainment

SPL250 VHF-AIS Transponder Antenna Splitter

Allows an AIS Transponder or Receiver To Share An Existing VHF Antenna

- Enables an exiting VHF antenna to be used for both the standard VHF and AIS system
- Works with all Class B transponders and receivers
- Minimal insertion loss
- Patented and approved (R&TTE (CE)) design
- Supplied with power cable, 2m PL259-PL259 cable assembly and 2m BNC-BNC cable assembly for easy installation
- Additional FM outlet for standard car stereo radio
- Makes installation of an AIS receiver or transponder a breeze
- Saves on additional antenna clutter!

What is AIS?

The marine Automatic Identification System (AIS) is a location and vessel information reporting system. It allows vessels equipped with AIS to automatically and dynamically share and regularly update their position, speed, course and other information such as vessel identity with similarly equipped craft. Position is derived from a GPS system and communication between vessels is by VHF digital transmissions (on channels specifically allocated within the normal marine VHF spectrum). A sophisticated and automatic method of time sharing the radio channel is used to ensure that even where a large number of vessels are in one location, blocking of individual transmissions is minimised with any degradation of the expected position reporting interval indicated to the user. Even if the unit suffers extreme channel overload conditions it will always recover to normal operation.

There are two classes of AIS unit fitted to vessels - Class A and Class B. In addition, AIS base stations may be employed by the Coastguard, port authorities and other authorised bodies. AIS units acting as aids to navigation (A to Ns) can also be fitted to fixed and floating navigation markers such as channel markers and buoys. Class A units are a mandatory fit under the safety of life at sea (SOLAS) convention to vessels above 300 gross tons or which carry more than 11 passengers in International waters. Many other commercial vessels and some leisure craft also fit Class A units.

Class B units are currently not a mandatory fit but authorities in several parts of the world are considering this. Class B units are designed for fitting in vessels which do not fall into the mandatory Class A fit category. Digital Yacht's AIT250 shown here is a Class B transponder (as well as a highly sensitive dual channel receiver to integrate with an on board nav system). The SPL250 splitter and AIT250 transponder form a perfect system with the minimum of antenna clutter and bring you the benefits of a full Class B AIS system.

Specifications

Size	120 x 120 x 60mm
Weight	260g
Power	12 or 24v DC
Consumption	120mA typical
Operating temp	-15 to +55 C
Insertion loss (receive)	<4dB
Insertion loss (transmit)	<1dB
Max power AIS transmit	12.5W
Max power VHF transmit	25W
Min power VHF transmit	100mW
Typical switching time	<10uS
VHF Connection	SO239 socket
AIS Connection	BNC socket
FM Connection	BNC Socket
Supplied with	Splitter Unit
	Power cable
	2m PL259-PL259 cable
	2m BNC-BNC cable
Approvals	CE0168

Specifications subject to change

SPL250 Facts

AIS transponders require a VHF antenna in order to receive and transmit AIS information. The SPL250 allows an existing VHF antenna to be used, saving on installation time and cost. The SPL250 incorporates a very fast solid state, low loss switch which ensures both devices can function simultaneously in receive mode and will automatically switch between the AIS and VHF as transmissions occur. However, an important safety feature is that the fixed VHF will always have priority. AIS transmissions are stopped when transmitting on the VHF.

The SPL250 has three LEDs indicating power, AIS transmit and VHF transmit. Interconnect cables are provided for the AIS and the VHF and there's also an outlet for a standard FM radio.

The SPL250 has a minimal insertion loss - less that 1dB on transmit - so in practice the user will see no degradation in VHF performance. Whilst a dedicated and AIS tuned antenna will always provide superior performance, the splitter makes installing AIS much easier and there's no doubt of the safety and navigation benefits of having this technology on board.

Digital Yacht's AIT250 transponder is available with the SPL250 splitter at a special reduced price.

Dealer stamp:

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