

# AIS Class B Transponder CAMINO-108



# **Product Overview**

CAMINO-108 is AMEC's next generation class B AIS transponder allowing you to broadcast your data to other AIS equipped vessels, and receive their data by viewing on dedicated chart plotter or PC – the essential way to improve collision avoidance on the water.

CAMINO-108 is designed to deliver high performance AIS transponder solution. The optimized receive and transmit capability is now brought into a compact and robust housing which is less than half the size of its previous generation.

The dual-channel receivers enable AIS vessel monitoring of all AIS signals including class A, class B, AtoN, SART. Its NMEA2000, NMEA0183 and waterproof USB port ensure simple integration with chart plotters and PCs. Built-in SD card slot makes data logging of AIS data easier than ever.

# **Key Features**

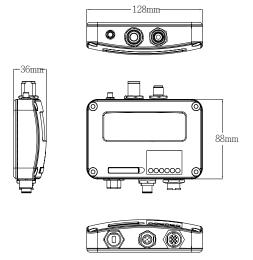
- Next generation high performance AIS Class B transponder
- NMEA2000, NMEA0183, and USB connectivity
- Optional Wi-Fi connectivity (CAMINO-108W)
- ► Support SD data logger card slot
- Built in high-sensitivity GPS receiver
- ▶ Optional silent mode (Tx off) operation
- Compact and stylish housing design
- ▶ Low power consumption, 12 / 24V DC input
- ► Supplied with AIS Viewer and Configuration software for PC



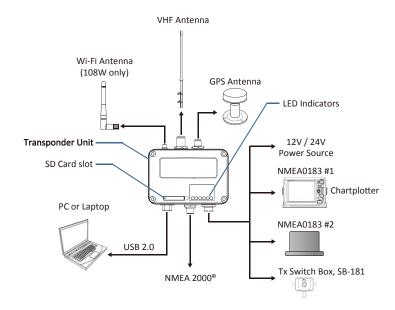
# **Ordering Information**

Model	Interfaces Supported				
	NEMA0183	NEMA2000	USB	SD card	Wi-Fi
CAMINO-108	•	•	•	•	
CAMINO-108W	•	•	•	•	•

#### **DIMENSIONS**



## **CONNECTION DIAGRAM**



#### **SPECIFICATIONS**

#### APPLICABLE STANDARDS

IEC 62287-1 Ed. 2, 2010 IEC 61108-1 Ed. 1, 2003
IEC 61162-1 Ed. 3, 2007 IEC 60945 Ed. 4, 2002
IEC 61162-2 Ed. 1, 1998 ITU-R M.1371-4, 2010

#### VHF TRANSCEIVER

Number of AIS Transmitter

Frequency Range 156.025 MHz ~ 162.025 MHz

Channel Bandwidth25 KHzModulationGMSK / FMData Rate9,600 bps

Number of AIS Receiver 2 (one time-shared between AIS and DSC)

Number of DSC Receiver 1 (time-shared between AIS and DSC)

 AIS Channel 1
 CH 87B (161.975 MHz)

 AIS Channel 2
 CH 88B (162.025 MHz)

 Tx Power Output
 2 Watt (33 dBm ± 1.5 dB)

 Rx Sensitivity
 <-107 dBm @ 20% PER</td>

 Rx Message Format
 AIS Class A & B messages

#### DSC RECEIVER

 $\begin{tabular}{ll} Modulation & 1,300 Hz / 2,100 Hz FSK \\ Data Rate & 1,200 bps <math>\pm$  30 ppm \end{tabular}

Spurious Response Rejection  $\geq$  70 dB for signal @ -104 dBm; BER  $\leq$  1 % Blocking  $\geq$  84 dB for signal @ -104 dBm; BER  $\leq$  1 %

### GPS RECEIVER (integrated)

Receiving Channels 50 channels
Accuracy IEC 61108-1 compliant

Output Rate 1 Hz

### ENVIRONMENTAL

Operating Conditions IEC 60945 "protected" category Operating Temperature  $-15^{\circ}\text{C} \sim +55^{\circ}\text{C} \ (+5^{\circ}\text{F} \sim +130^{\circ}\text{F})$ 

Waterproof IPX2

#### **▶ LED INDICATION**

Power (green) System power on / off
Error (red) MMSI not set / BIIT error
Rx (green) Receiving AIS data

Tx/Silent (green/red) Transmitting AIS data / Silent mode

SD (green) Accessing SD card

WiFi (green) WiFi traffic in active (CAMINO-108W only)

#### **CONNECTION INTERFACE**

GPS Antenna Connector TNC (Female)

VHF Antenna Connector PL-259 (Female)

NMEA2000 Standard connector

NMEA 0183 (RS-422) Support two NMEA0183 interfaces

Baud rate configurable (default 38,400 bps)

Separate Tx/Rx baud rate

Standard IEC 61162-1 / IEC 61162-2 sentences

Silent Mode Setting Set by optional Tx Switch Box SB-181

SB Mini type, waterproof

Wireless Connection IEEE 802.11 b/g/n (CAMINO-108W only)

#### POWER SUPPLY

Supply Voltage 12V / 24V DC

Power Consumption Typically less than 3W average @ 12V DC

## PHYSICAL

 Width
 128 mm (5.51 inch)

 Height
 36 mm (1.97 inch)

Depth 88 mm (7.87 inch) (exclude connector)

Weight 250 g

#### SOFTWARE TOOL

AMEC AIS Configuration PC configuration utility
AMEC AIS Viewer AIS Viewer for PC
AMEC AIS App AIS App for iOS & Android

Note: Specifications are subject to change without prior notice.



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