

**To Explore,  
and Be in Control!**



## Product Overview

CAMINO-108 is globally certified AIS class B AIS transponder. It allows automatic exchange of vessel data with other AIS equipped vessels within VHF range – the essential way to improve collision avoidance on the water.

The unit is designed to provide high performance and great reliability, resulting from our software defined radio technology expertise and years of field experience.

The dual-channel receivers of CAMINO-108 ensure maximum reception of available AIS messages. Its NMEA2000, NMEA0183 and waterproof USB port enable simple integration with chart plotters, MAC and PCs. Built-in SD card slot makes storage of AIS data easier than ever.

## Key Features

- ▶ Fully certified high-performance AIS Class B transponder
- ▶ NMEA2000, NMEA0183, and USB connectivity
- ▶ Support SD data logger card slot
- ▶ Built-in high-sensitivity GPS receiver
- ▶ Optional silent mode (Tx off) operation
- ▶ Compact and stylish housing design
- ▶ Support Access Point or Client Mode (CAMINO-108W only)
- ▶ Support 10+ mobile devices simultaneously (CAMINO-108W only)



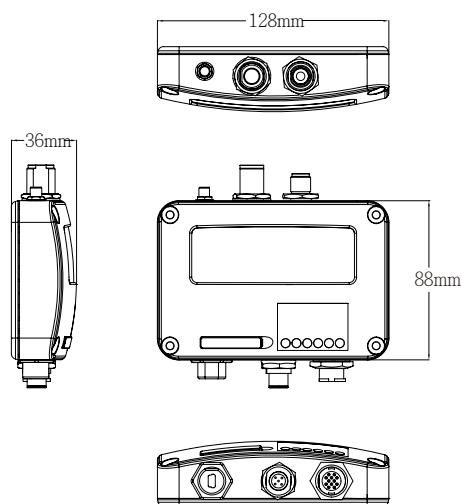
## Ordering Information

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

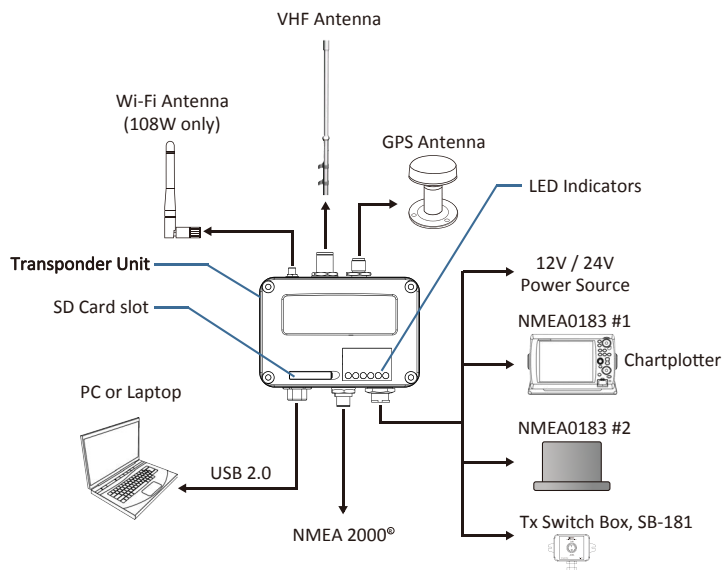
## Applications



## DIMENSIONS



## CONNECTION DIAGRAM



## SPECIFICATIONS

### ▶ APPLICABLE STANDARDS

EN 301 489-1 V2.1.0 / EN 301 489-3 V2.1.0	IEC 60945 Ed. 4:2002
EN 301 489-1 V2.1.0 / EN 301 489-17 V3.1.0	IEC 62287-1 Ed. 2:2010
EN 301 843-1 V2.1.1 / EN 301 843-2 V2.1.1	IEC 61108-1 Ed. 2:2003
EN 300 440 V2.1.0	EN 300 328 V2.1.0
EN 60950-1:2006 + A11:2009 + A1:2010	EN 62311:2008
+ A12:2011 + A2:2013	ITU-R M.1371-5, 2014

### ▶ VHF TRANSCEIVER

Frequency Range	156.025 MHz ~ 162.025 MHz
Channel Bandwidth	25 KHz
Modulation	GMSK / FM
Data Rate	9,600 bps
Number of AIS Transmitter	1
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
Rx Message Format	AIS Class A & B messages

### ▶ DSC RECEIVER

Modulation	1,300 Hz / 2,100 Hz FSK
Data Rate	1,200 bps ± 30 ppm
Spurious Response Rejection	≥ 70 dB for signal @ -104 dBm; BER ≤ 1 %
Blocking	≥ 84 dB for signal @ -104 dBm; BER ≤ 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°C ~ +55°C (+5°F ~ +130°F)
Waterproof	IPX2

Note: Specifications are subject to change without prior notice.

### ▶ LED INDICATION

Power (green)	System power on / off
Error (red)	MMSI not set / BIIT error
Rx (green)	Receiving AIS data
Tx/Silent (green/orange)	Transmitting AIS data / Silent mode
SD (green)	Accessing SD card
Wi-Fi (green)	WiFi traffic in active (CAMINO-108W only)

### ▶ CONNECTION INTERFACE

GPS Antenna Connector	TNC (Female)
VHF Antenna Connector	SO-239 (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
USB	Mini type, waterproof
Wireless Connection	IEEE 802.11 b/g/n for Access Point or Client Mode (CAMINO-108W only)
Wireless Security	WPA2-AES for Access Point or Client Mode (Camino-108W only)

### ▶ POWER SUPPLY

Supply Voltage	12V / 24V DC
Power Consumption	Typically less than 3W average @ 12V DC

### ▶ PHYSICAL

Width	128 mm (4.99 inch)
Height	36 mm (1.40 inch)
Depth	88 mm (3.43 inch) (exclude connector)
Weight	250 g

### ▶ SOFTWARE TOOL

AMEC AIS Configuration, AMEC AIS Viewer, AMEC AIS App



The AIS Specialists

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