



*Simply Clear.*

## Product Overview

The AMEC CYPHO-150 is an AIS receiver. It receives AIS navigation data from AIS-equipped vessels nearby and the data is utilized to improve navigation safety. CYPHO-150 is designed to inter-operate with AIS Class A or Class B transponders, or any other AIS station operating on the AIS VHF data link.

CYPHO-150 is built with two parallel AIS receivers in one box. The default frequencies are standard marine VHF AIS channels, i.e. 161.975 and 162.025 MHz. Having CYPHO-150 AIS receiver on board, not only can you monitor the status of the vessels in the surrounding area, but also receive the dynamic information (position, speed, SOG, etc.), static information (ship name, MMSI, call sign, etc.), and voyage related information (cargo type, destination, etc.) from any vessels nearby that are equipped with AIS transponders.

Equipped with standard USB and NMEA0183, CYPHO-150 allows connectivities to most available peripherals in the market. Through USB, users are able to view AIS information on their preferred navigation chart software on their PCs or notebooks.

CYPHO-150 is IPX2 water resistant providing acceptable protection against water. It complies with international IEC 60945 standard and has gained CE/FCC conformity. You have made a smart choice to ensure a happy and safety journey.

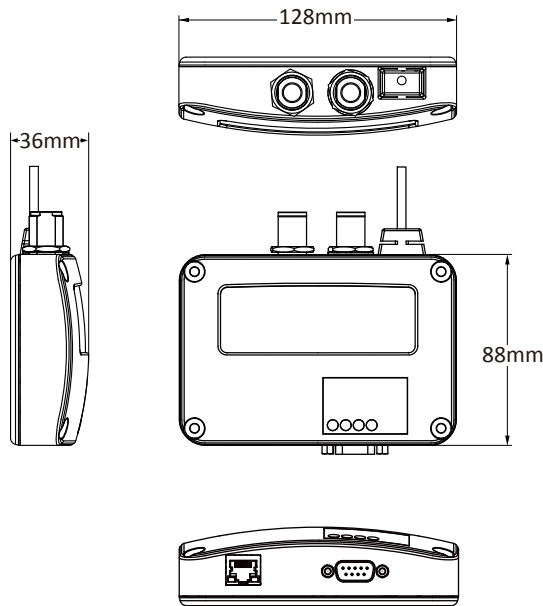
## Key Features

- ▶ Able to receive all AIS information from Class A, Class B, Base Station, AIS AtoN, AIS SART, etc.
- ▶ Compact size, robust housing, easy installation
- ▶ Capable of connecting to chartplotter or PC
- ▶ Built-in VHF antenna splitter with low insertion loss (CYPHO-150S only)
- ▶ Designed with sophisticated dual-channel receivers
- ▶ Field-proved exceptional receiving sensitivity performance
- ▶ Connect to a PC or a Network via the standard RJ-45 Ethernet connector (CYPHO-150G only)
- ▶ Supplied with user-friendly AMEC AIS Viewer software for PC

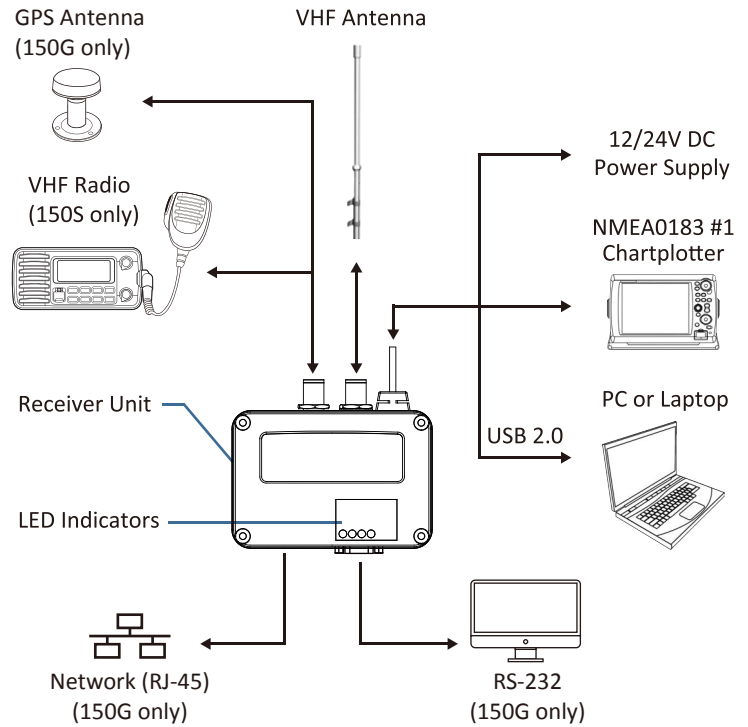
## Ordering Information

Model	Interfaces Supported						
	VHF Antenna	NEMA0183	USB	VHF Radio	GPS	RS-232	Network
CYPHO-150	•	•	•				
CYPHO-150S	•	•	•	•			
CYPHO-150G	•	•	•		•	•	•

## DIMENSIONS



## CONNECTION DIAGRAM



## SPECIFICATIONS

### ▶ APPLICABLE STANDARDS

IEC 62287-1 (applicable parts)	IEC 60945 (applicable parts)
ITU-R M.1371 (applicable parts)	IEC 61162 (applicable parts)

### ▶ AIS RECEIVER

Number of AIS Receivers 2 channels	
CH-1	CH 87B (161.975MHz)
CH-2	CH 88B (162.025MHz)
Channel Bandwidth	25KHz
Message Format	AIS Class A & B messages
Data Rate	9,600bps / per channel
Receive Sensitivity	-112 dBm @ PER ≤ 20%

### ▶ POWER SUPPLY

Supply Voltage	12 / 24V DC
Power Consumption	<1.50 Watt

### ▶ LED INDICATION

CYPHO-150	Power, Error, AIS Rx
CYPHO-150S	Power, Error, AIS Rx, Radio Tx
CYPHO-150G	Power, Error, AIS Rx, Link/Act

### ▶ RF PERFORMANCE (CYPHO-150S only)

Frequency Range	156.025 ~ 162.025 MHz
AIS Receiver Sensitivity	-110dBm (when not connecting to DSC)
VHF Port Insertion Loss	Receiver Path: 3.5dB Transmit Path: 1.2dB

Note: Specifications are subject to change without prior notice.

### ▶ CYPHO-150G SUPPORTED PROTOCOLS

Protocol	TCP/IP & UDP/IP
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### ▶ EXTERNAL CONNECTORS

VHF Antenna Connector	SO-239 (Female)
NMEA 0183	38400 (default), 9600, 4800 bps
USB 2.0	Supported
VHF Radio	Supported (CYPHO-150S only)
GPS	Supported (CYPHO-150G only)
RS-232	Supported (CYPHO-150G only)
Ethernet	10/100 Base-T (RJ-45, 2PIN Power) (CYPHO-150G only)

### ▶ ENVIRONMENTAL

Operating Temperature	-15°C~55°C
Storage Temperature	-25°C~70°C
Humidity Operation	0~95% RH at 40°C
Vibration	IEC 60945
Waterproof	IPX2

### ▶ PHYSICAL DIMENSIONS

Length	128 mm (4.99 in)
Width	36 mm (1.40 in)
Depth	88 mm (3.43 in)
Weight	210 g (including cable)



The AIS Specialists

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