



Product Overview

WideLink B600 is an SOTDMA AIS class B, the next evolution of AMEC's cutting edge software defined radio technology. Its 5W transmit power, higher reporting rate and professional grade time division management make B600 an overall more advanced product compared to AIS class B based on CSTDMA scheme.

The WideLink B600 series converts multiple NMEA 2000 PGNs into NMEA 0183 sentences, such as heading, speed, depth, temperature, wind, pressure and so on. With the multiplexing function, sensor data along with AIS and GPS information can be displayed on mobile devices and PC programs. Its internal GNSS receiver with 72 channels is able to process signals from GPS and GIONASS with differential capability by default (BeiDou & Gallieo as options).

Its enhanced housing with IPx7 waterproof and shock and temperature robustness is ideal to survive harsh marine environments. Chart plotter and PC can be easily integrated over its NMEA2000, NMEA0183 and waterproof USB port. Its built-in data logger can record AIS data on micro SD card in the most intuitive way.

Key Features

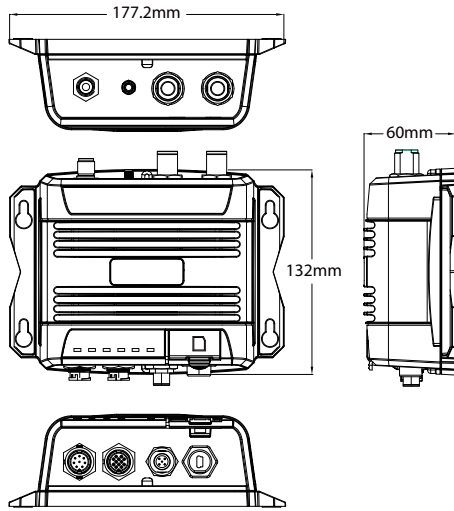
- ▶ New generation AIS Class B transponder based on advanced SOTDMA technology
- ▶ Tested and approved by BSH, CE RED certified
- ▶ Support 5 watt output power for longer transmission range
- ▶ NMEA 2000, dual NMEA 0183 and USB connectivity
- ▶ Compact and robust housing, IP67 waterproof
- ▶ Built-in SD card-slot for data logging and firmware upgrade
- ▶ Optional silent-mode (Tx-off) operation
- ▶ Support alarm relay output and external SOS panic button (OPTIONAL)
- ▶ High performance Wi-Fi supporting AP & Client Mode (B600W only)
- ▶ Integrated zero loss antenna splitter (B600S only)



Ordering Information

Model	Supported Function					
	NEMA 0183	NEMA 2000	USB	SD card	Wi-Fi	Splitter
B600	•	•	•	•		
B600W	•	•	•	•	•	
B600S	•	•	•	•		•

DIMENSIONS



SPECIFICATIONS

▶ APPLICABLE STANDARDS

ISO MSC. 74(69) Annex	IEC 60945 Ed. 4.0:2002
ITU-R M. 825-3:1998	IEC 61108-1 Ed. 2.0:2003
ITU-R M. 1084-5:2012	IEC 61162-1 Ed. 5.0:2016
ITU-R M. 1371-5:2014	IEC 61162-2 Ed. 1.0:1998
EN 303 413 V1.1.1	IEC 62287-2 Ed. 2.0:2017
EN 62368-1:2014 + A11:2017	EN 301 489-1 V2.2.0 / EN 301 489-3 V2.1.1

▶ VHF TRANSCEIVER

Frequency Range	156.025 MHz ~ 162.025 MHz
Access Scheme	SOTDMA
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	5 Watt (37 dBm ± 1.5 dB)
	1 Watt (30 dBm ± 1.5 dB)
Rx Sensitivity	< -107 dBm @ 20% PER
Rx Message Format	AIS Class A & B messages

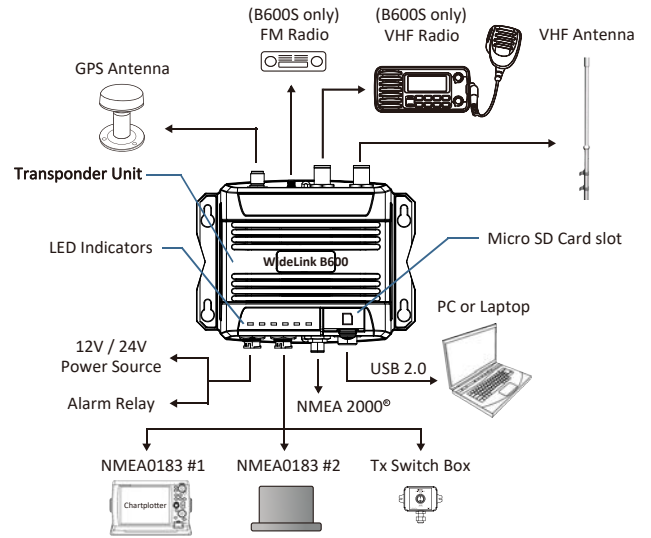
▶ DSC RECEIVER

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 %

▶ GNSS RECEIVER (INTEGRATED)

Receiving Channels	72 channels
Accuracy	IEC 61108-1 compliant
Output Rate	1 Hz
Support:	GPS, GLONASS, BeiDou, Galileo

CONNECTION DIAGRAM



▶ POWER SUPPLY

Supply Voltage	12V / 24V DC, 2A
Power Consumption	Typically less than 3W average @ 12V DC

▶ CONNECTION INTERFACE

GPS Antenna Connector	TNC (Female)
VHF Antenna Connector	SO-239 (Female)
VHF Radio Connector (B600S)	SO-239 (Female)
NMEA 2000	Standard connector
NMEA 0183 (RS-422)	Support two NMEA 0183 interfaces
	Default baud rate 38,400 & 4,800bps
	Configurable and separate Tx/Rx baud rate
	Standard IEC 61162-1 / IEC 61162-2 sentences
Silent Mode Setting	Set by dedicated pins in the 12-pin cable
Internal Alarm Relay Setting	Set by dedicated pins in the 8-pin cable
USB	Mini-B type, waterproof
FM Radio (B600S)	SMA (Female)
Wireless Connection (B600W)	IEEE 802.11 b/g/n for Access Point or Client Mode
Wireless Security (B600W)	WPA2-AES for Access Point or Client Mode

▶ ENVIRONMENTAL

Operating Conditions	IEC 60945 "protected" category
Operating Temperature	-15°C ~ +55°C (+5°F ~ +130°F)
Waterproof	IP67

▶ PHYSICAL

W*H*D (exclude connector)	177*60*132 mm (6.97*2.36*5.2 inches)
Weight	510 g

▶ COMPASS SAFETY DISTANCE

Standard Magnetic Compass	0.30m
Steering Magnetic Compass	0.30m

▶ Wi-Fi POWER (B600W ONLY)

Tx Transmit Power	19.53 dBm (EIRP)
Frequency Range	2412 MHz ~ 2462 MHz

▶ RF PERFORMANCE (SPLITTER, B600S ONLY)

Insertion loss, VHF Radio Receive path	Typical 0dB
Insertion loss, VHF Radio Transmit path	Typical 1dB

Note: Specifications are subject to change without prior notice.



The AIS Specialists

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