

i-VDE-BS4 VDES AIS Base Station



The i-VDE-BS4 VDES AIS Base Station from iMarine is a VDES-compliant base station that integrates AIS and ASM functionalities. The i-VDE-BS4 complies with the key international standards, including the VDES standard, AIS Base Station Standard IEC 62320-1, AtoN Standard IEC 62320-2, and AIS Repeater Standard IEC 62320-3.

As a core component of a Physical AIS Shore Station, as defined by IALA, the primary function of the i-VDE-BS4 VDES AIS Base Station is to facilitate data exchange with AIS/VDES-equipped vessels within its coverage area. It can be deployed as a stand-alone unit or integrated into a broader network.

LEADING FUNCTIONS

- ▶ *Fully meets all AIS Base Station standards (IEC 62320-1)*
- ▶ *Aids to Navigation (AtoN) capabilities compliant with IEC 62320-2*
- ▶ *Integrated repeater functionality in accordance with IEC 62320-3*
- ▶ *Supports reception and transmission of all relevant AIS and ASM messages*
- ▶ *Simultaneous operation on AIS 1, AIS 2, ASM 1, ASM 2, VDE and optional Secure AIS*
- ▶ *High sensitivity, exceeding -115 dBm*
- ▶ *Software defined radio (SDR)*
- ▶ *Built-in Base Station Controller (BSC)*
- ▶ *Secure AIS support (optional) for encrypted communications*

Technical Specifications

PHYSICAL DATA

Type	19" Rack-Mount - 2U
Size	483 mm x 206 mm x 88 mm
Weight	3.5 kg

DISPLAY

Color Display	4.3" 24-bit color TFT with touch interface
Resolution	480 x 272 px

INPUT POWER

Input	AC 110-240 volts @ 50/60 Hz
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VHF TRANCIEVER

Frequency	156.0 - 162.5 MHz
Channel bandwidth	25, 50, 100 kHz
Output power	12.5 W (rms)
Output power (peak)	25 W
Receiver sensitivity	-115 dBm

GNSS RECEIVER

# of Channels	56
Time to First Fix	32s
Receiver Sensitivity	Better than -155 dBm
Antenna Voltage	5.0 V DC
Antenna Current	10 mA
Antenna Impedance	50 Ω

INTERFACES

TCP/IP port	1 x Ethernet
GNSS-Antenna	TNC-Female
VHF-Antenna	N-Female
AC-Power	IEC 320 connector

STANDARDS

Compliance to standards	VDES-Standard ITU-R M.2092-1
	AIS Base Station Standard IEC 62320-1
	Aton Standard IEC 62320-2
	AIS Repeater Standard 62320-3
	RF Transceiver ITU-R M.1371-5/Annex 2

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