CS100 AIS Coast Station Specifications | Marite Solutions

FEATURES

The AIS Coast Station is designed for high performance network applications. All AIS messages from any AIS transceiver are received, decoded and networked in real time. Easy to install and setup.

- ◆ Receive and transmit capability
- ◆ Streaming of received AIS messages to multiple remote network locations
- ◆ Dynamic network management intelligence
- ◆ Supports TCP/IP and UDP/IP operation, and can operate either as a server or a client
- ◆ Built in WiFi Connectivity (802.11b/g/n)
- ◆ Support for transmission of up to 10 Virtual/Synthetic AIS AtoN targets
- ◆ Highly configurable
  - ➢ Access to the configuration interface is available via the web browser
- ◆ Local Ethernet port for configuration and monitoring
- ◆ USB port for local AIS data display
- ◆ Internal 50 channel GPS receiver
- ◆ Encryption support
- ◆ Automatic message buffering
  - ➢ Internal data logging, with a capability for received AIS messages up to 32GB
  - ➢ Logged data can be uploaded from the Coast Station on request when network connectivity is restored
- ◆ Coast Station data communication protocol
  - ➢ Generates standard NMEA0183 sentences with a TAG block for transport over the network which consists of:
    - • Source identification (Coast station name)
    - • Time stamp (Unix time in seconds)
    - • AIS VDL Messages (indicates "Live" or "Logged")

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SPECIFICATIONS

Physical

- Dimensions: 140mm x 130mm x 35mm
- Weight: 500g (main unit only)

Functions

- Streaming of received AIS messages to four remote network locations
- Operation as a Type 1 or Type 3 AIS AtoN for transmission of AIS AtoN position reports
- Support for transmission of up to 10 Virtual/Synthetic AIS AtoN targets
- Internal 50 channel GPS receiver
- Ethernet and WiFi (802.11b/g/n) connectivity
- Local Ethernet port for configuration and monitoring
- Internal data logging, with a capability for received AIS messages up to 32GB

Interfaces

- Power - 9.5mm DC jack
- VHF – SO239 socket
- GPS – female TNC
- WiFi antenna – reverse thread female SMA
- USB - mini-B connector
- Ethernet (local) – RJ45
- Ethernet (network) – RJ45

VHF Receivers

- AIS Receivers x 2
- Frequency agile over the VHF marine band
- Sensitivity <- 107dBm @ 20% PER

VHF Transmitter

- AIS transmitter x 1
- Output power configurable to 1W, 2W, 5W and 12.5W

GPS Receivers

- 50 channels
- IEC 61108-1 compliant
- GLONASS option available

Environmental

- Operating temperature range -15°C to + 55°C
- IEC60945 'Protected' Category
- Relative humidity: up to 93%
- Designed for indoor / protected installation

Data Communication Protocol

- **Received messages**
  - ➤ All AIS VDM messages; Generates standard NMEA0183 sentences with a TAG block
- **Transmit messages (Customer enabled if required)**
  - ➤ Message 21 – up to ten (10) Virtual / Synthetic AIS AtoN targets
  - ➤ Repeat Function
    - • Message 21 AtoN
    - • Message 6 Binary Addressed
    - • Message 8 Binary Broadcast
    - • Message 1 and 14 SART

Automatic Message Buffering

- 32GB Internal data logging - received AIS messages

Applicable Standards

- ITU-R M.1371-4 Universal AIS Technical characteristics
- IEC62320-2 Edition 1 (applicable only to AIS AtoN transceiver version)
- IEC60945 Edition 4
- IEC61108-1 GPS performance

Electrical

- Power consumption < 4W
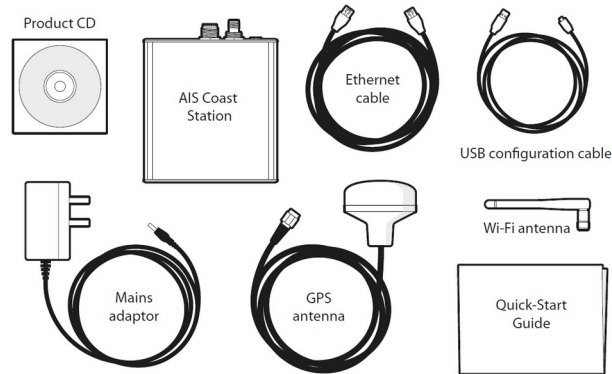- Power input 12 to 24VDC

International Declarations / Notices

- CE - Declaration of conformity - R&TTE
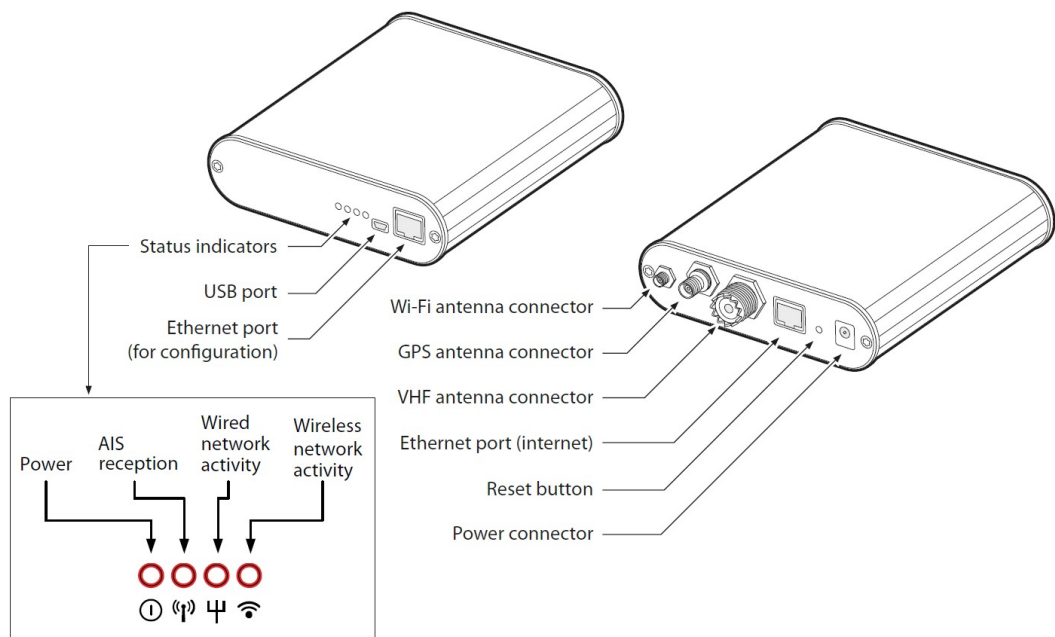- FCC and Industry Canada Notices

Supplied with

- Mains power supply (90 – 264VAC) with international plug adapters
- 2m Ethernet cable
- Installation and configuration guide
- GPS antenna (AIS AtoN Transceiver variant only)
- **Optional -** *High performance AIS tuned VHF antenna (not included)*

What's in the box

Product CD

AIS Coast Station

Ethernet cable

USB configuration cable

Mains adaptor

GPS antenna

Wi-Fi antenna

Quick-Start Guide

Connection and status indicators

Status indicators

USB port

Ethernet port (for configuration)

Wi-Fi antenna connector

GPS antenna connector

VHF antenna connector

Ethernet port (internet)

Reset button

Power connector

Power

AIS reception

Wired network activity

Wireless network activity

Transceiver Dimensions
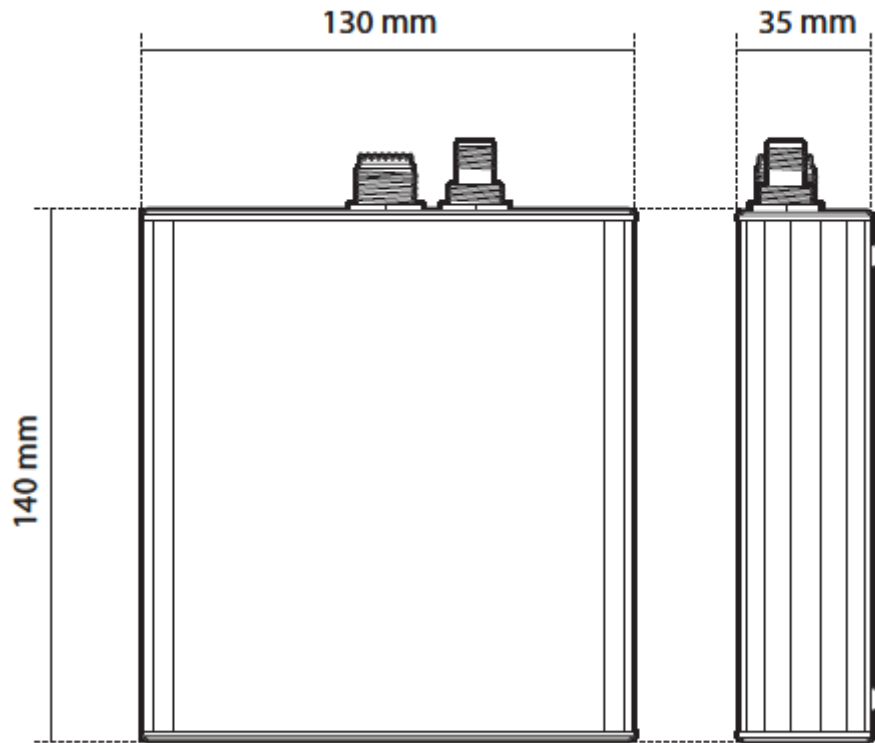
Specifications are subject to change without prior notice.

Typical Coastal Station System

Coast Station installation for connection to a remote viewer/database via Ethernet