The SOTDMA technology used in the AIS transponder broad within VHF coverage. This information includes position, casts and receives information about all AIS equipped vessels identity, course and speed over ground, heading, navigational status and destination. The information received is easily plotted on an electronic chart display system. This gives a surveillance capability that was not possible prior to AIS. AIS information is also useful in rescue operations with the increased situational awareness.

Confi guration and Interfaces
The AIS Airborne transponder, with its internal GPS, connects to power supply, VHF and GPS antennas and to a laptop with configuration software. The same laptop or a CDTI can also run an electronic chart system to display targets received by the AIS Airborne transponder.

VDL 6000/FASS

The VDL 6000/FASS can be factory configured as the following base station types:
- AIS Base Station (can be set as receive-only)
- Repeater Base Station
- AtoN Base Station

The AIS Shore Station – VDL 6000/FASS fulfills requirements of international AIS standards and provides all the features required for extended vessel traffic surveillance.

Low power consumption and alternative power sources drastically limit the need for infrastructure investments.

Features
The VDL 6000/FASS can be factory configured to support several features.

The AIS Base Station provides a number of functions, including filtering of AIS targets by selection of MSG type and/or filtering of a defined area. The AIS Base Station can be equipped with dual antennas.

The AIS Base Station can be set to function as a receive-only base station.

The AIS Base Station is also available as a Repeater Station, which is an ideal gap-filler at remote and isolated locations. The dual antenna configuration allows the Repeater station to receive and transmit on directional antennas. This greatly improves coverage and distance in an AIS network. The VDL 6000/FASS, factory configured as Repeater station, is the perfect choice when implementing an AIS network where extended coverage at remote locations is required.

The AIS Base Station can be factory configured to support AtoN features. The AtoN Base Station is capable of storing one Real AtoN station and multiple (up to 20) Virtual or Synthetic AtoN stations in its AtoN database. The AtoN database also contains aids-to-navigation report transmission schedules for each AtoN station.
Technical Specifications

**Power**
- **Input voltage**: 100 – 240 V AC, 50 – 60 Hz and/or +24 V DC
- **Power consumption**: Idle 15 W, Nominal 25 W, Max 40 W

**Radio**
- **Transmitter output power (adjustable)**: 12.5 W / 1 W, 50 Ohm load
- **Receiver sensitivity, 20% MER**: < -107 dBm
- **Bandwidth**: 25 kHz
- **Protocol**: TDMA (AIS)
- **Baud rate**: 9600 bps (AIS) / 1200 bps (DSC)
- **Modulation**: GMSK (AIS) / FSK (DSC)
- **Frequencies**: 156.025 MHz – 162.025 MHz
- **Default channels**: 87B (161.975 MHz), 88B (162.025 MHz), 70 (156.525 MHz)

**GNSS Receiver**
- **GPS**: L1, 16 parallel channels
- **DGNSS support**: NMEA via network

**Base Station Feature**
- **AIS base station**: Ordinary (can be set as receive-only)
- **Repeater base station**: Optional
- **AtoN base station**: Optional

**Interfaces**
- **VHF antenna (combined Tx/Rx)**: N female, 50 Ohm
- **VHF antenna (separate Tx and Rx)**: Optional: N female, 50 Ohm
- **GPS antenna**: TNC female, 50 Ohm
- **Power, AC**: IEC320, C14
- **Power, DC**: Three pole male
- **Network**: RJ45 Ethernet

**Standards**
- ITU-R M.1371-4
- ITU-R M.1084-4
- IEC 62320-1
- IEC 62320-2
- IEC 61162-1, 2
- IEC 61108-1
- IALA Recommendation A-124
- EN 60950
- R&TTE Directive 1999/5/EC
- IPC-A-610 (manufacturing)
- RTCA/DO-178B (SW development)

**Physical characteristics**
- **Depth**: 465 mm (excl. connectors and front handles)
- **Height**: 4 HU (177.8 mm)
- **Weight**: 9.2 kg
- **Width**: Standard for mounting in 19" rack

**Compliance**
- BSH Statement of Conformity
- CE Declaration of Conformity