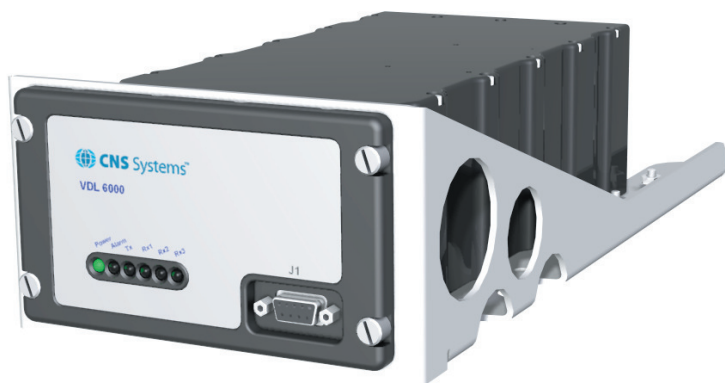


# VDL 6000 AIS

## Airborne transponder



◀ The VDL 6000 Airborne AIS transponder is developed for aircraft installation for use in Search and Rescue (SAR) and coastal surveillance missions.

Airborne AIS transponders greatly enhances surveillance of large areas. The localisation and identification of all AIS equipped vessels greatly increases national security, environmental protection, and the possibility of rescuing vessels in distress. AIS-equipped aircraft, with their high speed and extreme VHF coverage, are well suited to be used in SAR operations.

### Features

The SOTDMA technology used in the AIS transponder broadcasts and receives information about all AIS equipped vessels within VHF coverage. This information includes position, identity, course and speed over ground, heading and rate of turn as well as navigational status and the destination of the ship. 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 on draught, type of cargo and destination is also useful in rescue operations.

The airborne AIS transponder is the result of our extensive experience of avionics, and is designed and produced to the same high demands as our VDL4000 avionic transponders.

### Configuration and interfaces

The airborne AIS transponder, with its internal GPS, connects to power supply, VHF and GPS antennas and to a laptop with our configuration software. The same laptop or a CDTI can also be running an electronic chart system to display targets received by the airborne AIS transponder.



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## Technical specifications

### General

Power requirements	21.6-31.2 V DC
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### Transmitter

Number of transmitters	1
Tuning range	156.025 – 162.025 MHz
Channel spacing	12.5 and 25 kHz
TX to Rx turnaround time	< 1 ms
Channel selection time	< 26 ms
Baud rate	9600 bps
Modulation scheme	25 kHz GMSK (AIS TDMA ) / 12.5 kHz GFSK (AIS TDMA) / 25 kHz FSK (DSC)
Carrier power (adjustable)	33 and 41 dBm (2 and 12,5W) 50Ohm load

### Receiver

Number of receivers	3 (2 AIS TDMA, 1 DSC)
Tuning range	156.025 - 162.025 MHz
Channel spacing	12,5 and 25 kHz
Sensitivity, 20% MER	< -107 dBm AIS for 25 kHz, < -98 dBm AIS 12,5 kHz channel

### GNSS Receiver

GNSS receiver	GPS L1, 16 parallel channels
DGNSS support	
RAIM	

### Environmental

IEC 60945	Protected installation
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### Electrical Interfaces

External Display (RS485)	IEC 61162-2
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### Transponder Interfaces

VHF Antenna	Type N, jack
GNSS Antenna	Type TNC, jack

### Applicable Standards

ITU-R M.1371-3, IALA clarifications on ITU-R M.1371-3 Ed. 2.2, IEC 61993-2, IEC 60945, IEC 61162-1/2, IMO Resolution A.694 (17), IMO Resolution MSC.74 (69) Annex 3, ITU-R M.825-3, ITU-R M.1084-3, IEC 61108-1
ED-12B / RTCA DO 178B
ED-14E / RTCA DO 160E
IPC-A-610 (Manufacturing)

### Physical characteristics transponder

Size (W x H x L)	125 x 78 x 276 mm (164 x 94 x 388 mm in tray)
Weight	2.77 kg (3.42 kg in tray)
Cooling	Not required

### Certification

BSH
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