

VDL 4000/GSI

Ground Station

◀ VDL 4000/GSI

The ground station is designed for a wide range of CNS/ATM applications, tailored to fit many different areas of operation such as helicopter operation and airport vehicle fleet management where Communication, Navigation and Surveillance is essential.

The ground station operates in accordance with the ICAO standard for the VDL Mode 4 digital radio link, offering a robust and reliable communication platform.

The system has long range at low power and very good transmission characteristics on ground at airports and remote areas where the radio environment is a tough challenge.

The ground station provides Automatic Dependent Surveillance Broadcast (ADS-B) and supports the following services:

- Traffic Information Broadcast (TIS-B),
- Flight Information Service Broadcast (FIS-B),
- Information Broadcast (INFO-B)
- Point-to-Point (P2P)
- DGNSS augmentation (GNS-B)

With a flexible design, the ground station can easily be configured depending on the customer's requirements.

The ground station offers real-time communication and surveillance information for maximum efficiency while increasing the safety of operation.



CNS Systems™

Maritime and Aviation Solutions



Technical specifications

Equipment

VDL Mode 4 Transponder

Controller unit:

- Data Management
- Monitoring and Control

GNSS Reference Receiver (option)

Power supply

Rack mountable chassis (standard 19 inch):

- Fans

Installation material:

- GPS antenna
- VHF Tx antenna
- VHF Rx antenna

Transmitter

| | |
|---------------------------|--------------------------|
| Number of receivers | 3 |
| Tuning range | 108.000 - 136.975 MHz |
| Channel spacing | 25 kHz |
| Baud rate | 19200 bps |
| Modulation scheme | GFSK |
| Output power (adjustable) | 40 dBm into 50 Ohm (10W) |

Receiver

| | |
|-----------------------|-----------------------|
| Number of transmitter | 1 |
| Tuning range | 108.000 - 136.975 MHz |
| Channel spacing | 25 kHz |
| Sensitivity | <-98 dBm |

External Interfaces

| | |
|----------------|---------------------------|
| Main Power | 110/240 V AC 50/60 Hz |
| Services | TCP/UDP/IP, RJ45 Ethernet |
| Local access | TCP/UDP/IP, RJ45 Ethernet |
| VHF Tx antenna | N-type female |
| VHF Rx antenna | N-type female |
| GPS antenna | TNC female |

Environmental

| | |
|------------------------|--|
| Temperature, operating | +5°C to +40°C (-5°C to +45°C extreme conditions) |
| Temperature, storage | -20°C to +50°C |

Compliance

| | |
|-------------------------------|-----------|
| CE | |
| EUROCAE ED-109, RTCA / DO-278 | |
| ICAO Manual on VDL Mode 4 | Doc. 9816 |
| ETSI | EN 301842 |

Services

| |
|----------------|
| ADS-B |
| TIS-B |
| FIS-B |
| INFO-B |
| Point-to-point |
| DGNSS (Option) |

Options

| | |
|-------------------------|-------------------|
| GNSS reference receiver | Differential GNSS |
|-------------------------|-------------------|

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