

VERIPOS LD4 HDT is the latest generation of user hardware from VERIPOS and provides a comprehensive integrated mobile solution for offshore positioning and heading applications.

The unit is IP55 rated, small (H 60mm x W 160mm x L 200mm) and weigh less than 2kg. The philosophy of the LD4 HDT is to allow a single receiver that can be configured to accommodate a robust heading sensor and every positioning solution offered by VERIPOS. In its most basic form the LD4 HDT is an L-band demodulator, which would be used to receive VERIPOS services and to output the information to external equipment and software for processing. As a fully integrated mobile unit the LD4 HDT can be configured with a Septentrio 272 Channel GPS and Glonass receiver with dual boards installed for deriving a heading in addition to a high accuracy position. The LD4 HDT can be used to calculate all of the different VERIPOS solutions in addition to a GNSS heading. Alternatively, it can output raw GNSS and Veripos correction data for external processing.

The LD4 HDT uses dual GNSS Antennas to receive GPS and Glonass L1L2 signals, which are then used to compute a very robust moving baseline vector / heading RTK fixed solution. When using the integrated L Band receiver to receive VERIPOS propriety Ultra and Apex corrections, the LD4 HDT will provide either a sub meter or a decimetre accuracy positioning in addition to the robust heading.

The accuracy of the moving baseline Vector / Heading is dependent on the dual antenna distance separation, e.g.

- 1m separation, expected heading accuracy is better than 0.5 deg
- 10m separation, expected heading accuracy is better than 0.1 deg

Set-up of the unit and services required can be carried using Veripos and Septentrio Controller software through an external PC RS232 coms port

Typical Applications

- Back up to mechanical gyro heading for Hydrographic/MBES/Geophysical vessel/Construction barges
- Tug tracking negates additional hardware for RTCM telemetry, expensive gyro or a low accuracy Fluxgate Compass for anchor handling
- Near shore survey vessel requiring rapid mobilisation
 with low space requirements
- Offshore Construction Structure emplacement/remote monitoring via radio data telemetry, (eg. Jacket, SBM Buoy etc)

Key features of the LD4 HDT are

- Single unit fitted with Veripos L Band receiver, Septentrio Asterx2eH GNSS 272 channels incorporating Dual GNSS receiver for GPS and Glonass L1L2 reception
- IP55 Rated, lightweight, portable integrated GNSS receiver with 6 to 18 VDC power (2amp) input
- PPP decimetre accuracy solutions with multiple levels of fall-back / back-up solutions including internal Multi-base RTCM calculation for standard 1m accuracy position
- Four RS232 serial ports (GNSS data), Three RS232 serial ports (L Band)
- Standard NMEA positioning and heading string @ 1hz to 20hz output, 1 PPS via SNA output
- Output of raw GNSS data for recalculation, VERIPOS corrections and quality control to external software such as Verify-QC
- Static RINEX Raw GNSS data logging/Post processing
 @ mm accuracy for Land Survey Control points
- Glonass Ultra/APEX PPP GNSS Services ready
- Upgradable for future GNSS RTK operations
- Future USB and Ethernet communications port for both GNSS and L Band receiver
- Certified to IEC 60945, FCC, CTick, CE and IP55

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Physical Characteristics

- Weight: 1.2kg
- Operating Temp: 0 to 50 deg C
- Input Voltage: 6 to 24V DC
- Consumption: 3W (without GNSS Card)
 - 5W (with GNSS Card)

Demodulator

Antenna Input:	1525 to 1559 MHz
Connector:	TNC
Frequency step:	1.25 kHz
Acquisition time:	<1 min (cold start)
	<10 secs (warm start)

Accuracy

Interfaces

Power:

GNSS:

L Band:

Connector:

Antenna:

Connector:

Positioning:	DGPS 1m, Ultra/Apex/0.1m
Heading:	0.1 Deg @ 3m Separation

DC Input (3 Pins Male Audio)

L-band/L1/L2 GPS/GLONASS

4x RS2232 Coms Port

3x RS232 Coms Port

Binder 12 pins male

TNC Female







Certifications

CE, FCC, CTick, IEC 60945, IP55

1 PPS Connector: SMA Female

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