

LD900 Rack Mount

LD900 GNSS receiver and marine computer in a 2U 19" rack-mounted format



LD900 Rack Mount

Flexible Options

The LD900 Rack Mount solution from Veripos provides an integrated solution for mounting the receiver in a single or dual configuration with the option of a marine computer for efficient use of space.

LD900 Receiver

Integration of the LD900 and marine computer expands the system's capabilities, including advanced status and configuration, as well as additional interfacing options using Quantum software.

Marine Computer

The integrated marine computer provides a powerful platform for stable and reliable system operation. The computer provides Ethernet, USB, DisplayPort and serial interfacing with reliable storage, making it the ideal platform for running Veripos Quantum software.

Expanded networking and serial options:

- Integrated hardware solution for efficient use of rack space
- EN60945 Marine Certified
- Powerful, stable and reliable computing

Features:

- 19-inch rack mountable 2U Height
- Front accessible power switch and USB ports
- Supports all LD900 variants in single or dual receiver format

LD900 Rack Mount solutions**Options**

Single LD900 without marine computer
 Single LD900 with marine computer
 Dual LD900 without marine computer

LD900 Rack Mount physical

Dimensions 484 x 453 x 90 mm

Weight

Single LD900 with marine computer 14.14 kg
 Single LD900 w/o marine computer 12.62 kg
 Dual LD900 w/o marine computer 9.5 kg

LD900 Rack Mount environmental**Temperature**

Operating -15°C to +55°C

Humidity 5 to 95% (non-condensing)

LD900 Rack Mount compliance

FCC, CE, UKCA, RoHS, REACH, WEEE, EN60945
 (Protected Equipment), EN/IEC62368

Marine computer**Specification**

Processor Intel® Core™ i7-1185G7E
 RAM 8 GB
 Video output 2 x DisplayPort
 OS Windows 10 IoT Enterprise 2021

Interface

4 Ethernet 10/100/1000 Mbps
 2 RS-232/422/485 DB9 male
 4 NMEA Terminal block connectors
 2 USB 3.0 Type-A connectors
 4 USB 2.0 Type-A connectors
 2 Video output DisplayPort

Power

Input voltage 24 VDC

LD900 Physical and electrical**Power¹**

Power consumption 13 W (typical)
 Input voltage +12 to 24 VDC

Antenna LNA power outputs

Output voltage 12 VDC ±5%
 Maximum current 300mA

Connectors

GNSS RF TNC
 L-band RF TNC
 IALA TNC
 Serial DB9
 Serial (expansion) DB15
 USB (host) Type A
 Ethernet RJ45
 PPS BNC
 Power M12, 4 pin
Display 3.5" QVGA TFT Colour Display

LD900 Communication ports

3 RS-232/RS-422 up to 460,800bps
 3 RS-232/RS-422 (expansion) up to 460,800bps
 1 USB 2.0 (host) HS
 2 Ethernet 10/100 Mbps
 1 PPS output pulse width 1 to 500ms

LD900 Primary GNSS module²**Channel configuration**

555 Channels

Signal tracking²

GPS L1 C/A, L1C, L2C, L2P, L5
 GLONASS³ L1 C/A, L2 C/A, L2P, L3, L5
 BeiDou B1I, B1C, B2I, B2a, B2b, B3I
 Galileo⁴ E1, E5 AltBOC, E5a, E5b, E6
 NavIC (IRNSS) L5
 SBAS L1, L5
 QZSS L1 C/A, L1C, L2C, L5, L6

LD900 Secondary GNSS module⁵**Channel configuration**

555 Channels

Signal tracking²

GPS L1 C/A, L1C, L2C, L2P, L5
 GLONASS³ L1 C/A, L2C, L2P, L3, L5
 BeiDou B1I, B1C, B2I, B2a
 Galileo⁴ E1, E5 AltBOC, E5a, E5b
 NavIC (IRNSS) L5
 SBAS L1, L5

LD900 ALIGN GNSS heading**Baseline**

2 m 0.08 degrees
 4 m 0.05 degrees

Accuracy (RMS)**LD900 SPAN technology**

GNSS+INS integration with marine profile for hydrographic survey applications.

Supported IMUs:

IMU-ISA-100C
 IMU-ulMU-IC

Attitude & velocity performance

Refer to IMU product sheets for values

Heave performance⁶

Instantaneous heave 5 cm or 5%
 Delayed heave 3.5 cm or 3.5%
 Post-processed heave 2.5 cm or 2.5%⁷

LD900 L-band module**Channels**

5 Channels

Frequency range

1525 to 1560 MHz

LD900 Beacon module (option)**Channels**

2 Channels

Frequency range

283.5 to 325.0 kHz

Channel spacing

500 Hz

Demodulation

Minimum Shift Keying (MSK)

¹ Typical values. Consult the user documentation for power supply considerations. ² Typical values. Performance specifications subject to GNSS system characteristics, Signal-in-Space (SIS) operational degradation, ionospheric and tropospheric conditions, satellite geometry, baseline length, multipath effects and the presence of intentional or unintentional interference sources. ³ Hardware ready for L3 and L5. ⁴ E1bc and E6bc support only. ⁵ Model-configurable to track L5/E5a (all / Galileo) through L2 (GPS) or L3/E5b/B2 (GLONASS / Galileo / BeiDou) through L2 (GLONASS). ⁶ Requires SPAN Marine Profile. ⁷ Post-processing results using Waypoint Inertial Explorer.

Contact Hexagon | Veripos

sales.ver.ap@hexagon.com +44 1224 965800

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