GNSS RECEIVER

DELTA-3L

874 GNSS channels of this receiver allow tracking all current and future satellite signals. The DELTA-3L receiver is the only all-in-view receiver in the market that can track and decode the QZSS L6 (both L61 and L62) signal messages. We offer highly stable digital filters (band characteristics do not change with age, input voltages, or temperature), improved GLONASS inter-channel bias performance (due to our flat digital filter shape), excellent new multipath rejection technique, the best ever. The embedded calibrator measures phase and code delays of each signal of each band. External calibration is not required.

DELTA-3L is a powerful and reliable receiver for high-precision navigation systems, including high dynamics systems, for machine and traffic control, as well as for high-precision surveying and geodynamics and aerogeophysics applications.

DELTA-3L can operate as a receiver for post-processing, as a Continuously Operating Reference Station (CORS) or portable base station for Real-time Kinematic (RTK) applications, and as a scientific station collecting information for special studies, such as ionosphere monitoring and the like.

DELTA-3L

TRACKING FEATURES

GPS C/A, L1C(P+D) including TMBOC(6,1,4/33) , P1, P2, L2C(L+M), L5(I+Q)

GLONASS C/A, P1, P2, L2C, L3(I+Q)

Gallileo E1(B+C) including CBOC(6,1,1/11), E5A(I+Q), E5B(I+Q), AltBoc, E6(B+C)

QZSS C/A, L1C(P+D) including TMBOC(6,1,4/33) , L2C(L+M), L5(I+Q), L6(L61/L62), L1S, L1Sb, L5S

BeiDou B1, B1C(P+D) including TMBOC(6,1,4/33) , B2B(I+Q), B2, B2A(I+Q), AltBoc, B3

L-band: 1525-1560 MHz

SBAS* L1, L5(P+D)

IRNSS L5

In-Band Interference Rejection

Spoofing detection

Advanced Multipath Reduction

Fast acquisition channels

High accuracy velocity measurement

PERFORMANCE SPECIFICATIONS

Autonomous: < 2 m

Static, Fast Static Accuracy:
Horizontal: 0.3 cm + 0.1 ppm * base_line_length**
Vertical: 0.35 cm + 0.4 ppm * base_line_length

Kinematic Accuracy:
Horizontal: 1 cm + 1 ppm * base_line_length
Vertical: 1.5 cm + 1 ppm * base_line_length

RTK (OTF) Accuracy:
Horizontal: 1 cm + 1 ppm * base_line_length
Vertical: 1.5 cm + 1 ppm * base_line_length

DGPS Accuracy:
< 0.25 m post processing;
< 0.5 m real-time

Real-time heading accuracy:

0.004/L [rad] RMS, where L is the antenna separation in [m]

Cold/Warm Start/ Reacquisition
< 35 seconds / < 5 seconds / < 1 second

* US WAAS, European EGNOS, Russian SDCM, Indian GAGAN, Japanese MSAS, and similar future satellite systems
** For good observation conditions and proper length of observation session

DELTA-3L

DATA STORAGE

Up to 12 GB of onboard non-removable memory for data storage

INPUT/OUTPUT

Two high speed RS232 serial ports (up to 460.8 Kbps) 7 pin ODU

High speed configurable RS232/RS422 serial port (up to 460.8 Kbps) 7 pin ODU

High speed configurable RS232/RS422 serial port (up to 460.8 Kbps) M12, 8 pin

High speed USB 2.0 dual-role port (device or host), 5 pin ODU

Full-duplex 10BASE-T/100BASE-TX Ethernet port, 7 pin ODU

CAN 2.0 M12, 8 pin

IRIG timecode output A134, A137, B124, B137

Two 1 PPS outputs, BNC
- Synchronized to UTC or any selected satellite system time.
- Voltage level: Voh>1,8V at 50 Ohm load
- Output Impedance: 25 to 30 Ohm (typ)

Two Event Marker inputs, BNC

External Reference Frequency Input/Output, BNC

The central pin of the RF antenna connector outputs +5 VDC to power LNA. The sourced current is 0.12A max.

Serial port (M12) bus power, +12 V DC, 250 mA max

Two LEDs, two function keys (TriPad)

POWER SPECIFICATION

External power input, 5 pin ODU

Power consumption: 6.5 Watt

Input voltage: +4.5 to +40 Volts

PHYSICAL & ENVIRONMENTAL

RF antenna connector: TNC or SMA (optional)

Operating Temperature: -40°C to +75°C
Storage Temperature: -40°C to +85°C

Enclosure: aluminum extrusion, waterproof IP 66

Humidity: 95%

Shock
- complies with MIL-STD- 810H (method 514.8)

Vibration
- complies with MIL-STD- 810H (method 516.8)

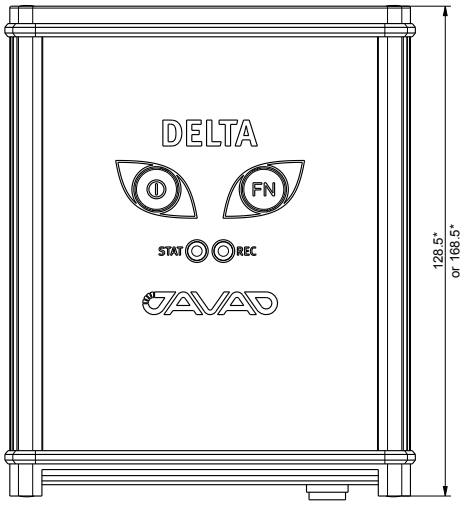
Dimensions: 4.3x1.4x5.6/max 6.3 inches (109x35x141/ max 160 mm) with connectors

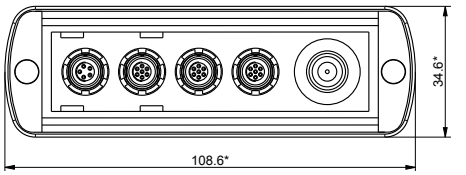
Weight: 0.92 lbs (0.42 kg)

DELTA-3L

DATA FEATURES

- Up to 100 Hz update rate for real time position and raw data (code and carrier)
- 10 cm code phase and 1 mm carrier phase precision
- IEEE 1588 protocol support
- Hardware Viterbi decoder
- Hardware Reed-Solomon and LDPC decoders
- RTCM SC104 versions 2.x and 3.x Input/Output
- NMEA 0183 versions 2.x and 3.0 Output
- Spectrum data output
- In-built netBrowser
- RINEX / BINEX data output
- Code Differential Rover/Base
- Geoid and Magnetic Variation models
- RAIM
- Different DATUMs support
- Output of grid coordinates

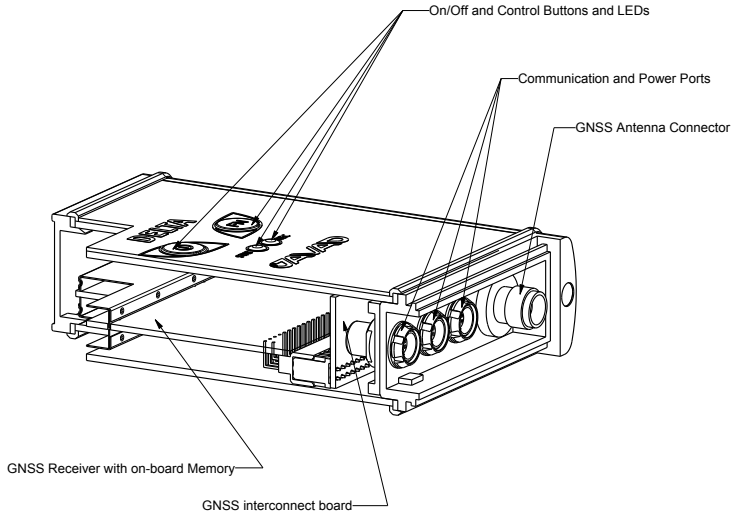




*all dimensions are in mm

EASY MANAGEMENT WITH NETVIEW&MODEM

NetView&Modem is a free application allowing the user easily control JAVAD GNSS DELTA-3L receivers, i.e. allowi efficiently managing receiver parameters and commar via a user friendly graphical interface.



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