DELTA-3

Continuing our leadership in introducing 12, 76, and 216 channel receivers, now we introduce DELTA-3 receiver with 864 channels along with three powerful processors and program memory in a single chip which uses less power and makes the total system less expensive.

864 GNSS channels of this receiver allow tracking all current and future satellite signals. DELTA-3 is the only receiver in the market that can track and decode the QZSS LEX signal messages.

DELTA-3 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-3 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.

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Tracking Features*

- Total 864 channels: all-in-view
- GPS: C/A, L1C (P+D),P1, P2, L2C (L+M), L5(I+Q)
- GLONASS: C/A, L2C, P1, P2, L3 (I+Q)
- Galileo: E1 (B+C), E5A (I+Q), E5B (I+Q), AltBoc, E6
- BeiDou B1, B1-2, B1C(P+D), B5A(I+Q), B2, B5B(I+Q), B3
- QZSS: C/A, L1C (P+D), L2C (L+M), L5 (I+Q), SAIF, LEX
- SBAS** L1, L5
- IRNSS L5
- In-Band Interference Rejection
- 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

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
- RTCM SC104 versions 2.x and 3.x Input/Output
- NMEA 0183 versions 2.x and 3.0 Output
- BINEX Output
- Code Differential Rover
- Code Differential Base
- Geoid and Magnetic Variation models
- RAIM
- Different DATUMs support
- Output of grid coordinates

Data Storage

- Up to 16 GB of onboard non-removable memory for data storage

Input/Output

- Two serial RS232 ports (up to 460.8 kbps)
- Two high-speed RS232/RS422 serial ports (up to 460.8 Kbps)
- High-speed USB 2.0 device port (480 Mbps)
- Full-duplex 10BASE-T/100BASE-TX Ethernet port
- CAN 2.0 port
- Two 1 PPS timing strobes
- Two event markers
- IRIG A134, A137, B124, B137
- External Reference Frequency Input/Output
- Two LEDs, two function keys (TriPad)

Power Specification

- External power input: Two (primary and secondary)
- Power consumption: 8 Watt
- Input voltage: +5.5 to +35 Volts

Environmental and Physical

- Operating Temperature: -40°C to +70°C
- Storage Temperature: -45°C to +85°C
- Humidity: 95%
- High shock and vibration resistance
- Dimensions: 4.3x1.4x5.6/max 6.3 inches (109x35x141/max 160 mm) with connectors
- Weight: 0.92 lbs (0.42 kg)
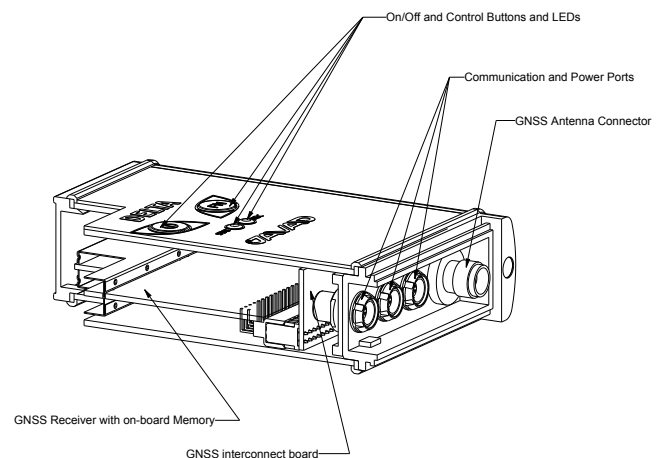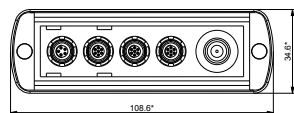
* For the full list of standard and optional features see www.javad.com
** US WAAS, European EGNOS, Russian SDCM, Indian GAGAN, Japanese MSAS, and similar future satellite systems
*** For good observation conditions and proper length of observation session

On/Off and Control Buttons and LEDs
Communication and Power Ports
GNSS Antenna Connector
GNSS Receiver with on-board Memory
GNSS interconnect board

Specifications are subject to change without notice

JAVAD GNSS
www.javad.com
Rev 1.5 January 12, 2018