DELTA-3

for TRE-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.

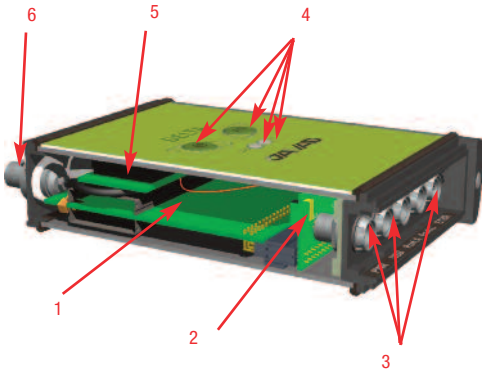
DELTA-3

Standard Configuration

- GPS L1/L2/L2C/L5
- GLONASS L1/L2
- Update rate 1 Hz
- RAIM
- TriPad interface
- RS232 serial port (460.8 kbps)
- External GNSS Antenna TNC Female connector

Optional Features

- Galileo E1/E5A/E5B/E6
- GLONASS L3
- QSZZ, QZSS LEX
- BeiDou B1/B2/B3
- Update rate 5Hz, 10Hz, 20Hz, 50Hz & 100Hz
- RTK rate 1 Hz, 5Hz, 10Hz, 20Hz, 50Hz & 100Hz
- Data recording up to 16GB
- IEEE 1588 protocol support
- In-Band Interference Rejection
- Multi-Base Code Differential Rover
- Code Differential Base
- Advanced Multipath Reduction
- Two event markers
- Two 1 PPS timing strobes
- CAN port
- External Reference Frequency Input/Output
- Up to 2 high-speed RS232 serial ports
- Up to 2 high-speed RS232/RS422 serial port
- USB port
- Ethernet
- WAAS/EGNOS/MSAS (SBAS)



1. GNSS Receiver with on-board Memory
2. GNSS Interconnect Board
3. Communication and Power Ports
4. On/Off and Function Buttons and LEDs
5. Reference Converter Board (optional)
6. External GNSS Antenna Connector

Description	Total 864 channels: all-in-view (GPS L1/L2/L5, Galileo E1/E5A/E5B/E6, GLONASS L1/L2/L3, QZSS L1/L2/L5, BeiDou B1/B2/B3, SBAS L1/L5) integrated receiver, rugged aluminum housing with TriPad interface
Tracking Specification	
Signals Tracked	GPS C/A, P1, P2, L2C (L+M), L5 (I+Q) Gallileo E1 (B+C), E5A (I+Q), E5B (I+Q), AltBoc, E6 GLONASS C/A, L2C, P1, P2, L3 (I+Q) QZSS C/A, L1C(I+Q), L2C (L+M), L5 (I+Q), SAIF, LEX BeiDou B1, B2, B3 SBAS L1, L5
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 + 1.5 ppm * base_line_length
RTK (OTF) accuracy	Horizontal: 1 cm + 1 ppm * base_line_length Vertical: 1.5 cm + 1.5 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 Start	<35 seconds
Warm Start	<5 seconds
Reacquisition	<1 second
Power Specification	
Battery	External
External Input Voltage	+4.5 to +35 volts (1 external power port)
Power Consumption	8 W
I/O	
GNSS Antenna Connector	50 Ohm TNC, +5 VDC (120 mA) to power LNA.
Communication Ports	Two serial RS232 port (up to 460.8 kbps) Two high-speed RS232/RS422 serial port (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
Other I/O Signals	Two 1 PPS Two Event Markers IRIG A134, A137, B124, B137 External Reference Frequency Input/Output
Status Indicator	Two LEDs, two function keys (TriPad)
Memory & Recording	
Internal Memory	Up to 16 GB of on-board non-removable memory for data storage
Raw Data Recording	Up to 100 times per second (100Hz)
Real Time Data	
Input/Output	JPS, RTCM SC104 v. 2.x and 3.x, CMR
Output	NMEA 0183 v. 2.x and 3.0, BINEX
Environmental Specifications	
Enclosure	Aluminum extrusion, waterproof IP66
Operating Temperature	-40° C to +70° C
Storage Temperature	-45° C to +85° C
Humidity	95%
Dimensions	4.3 x 1.4 x 5.6 / max 6.3 inches (109 x 35 x 141/ max 160 mm) with connectors
Weight	0.92 lbs (0.42 kg)

* For good observation conditions and proper length of observation session

Specifications are subject to change without notice

JAVAD GNSS

www.javad.com

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