



DELTA

Multi-Purpose GNSS Receiver



Key Features

- All GNSS Constellations
- CORS Receiver
- Portable Base Station
- NTRIP Server & Caster
- Web User Interface
- Bluetooth & WiFi
- CAN, Event, 1PPS
- External Frequency I/O

The DELTA receiver enclosure is designed for multiple GNSS applications where reliable correction data, timing, and event markers are required. Based on the TRIUMPH-3 ASIC, the receiver tracks all GNSS constellations with patented antijamming, anti-spoofing and multipath reduction technologies to excel with reliability and signal quality.

A simple Web User Interface sets up a Continuously Operating Reference Station (CORS) or Portable Base Station, with integrated NTRIP Caster and Server functions to transmit RTCM corrections via TCP or NTRIP.



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Number of Channels	874	
GNSS Constellations	GPS GLONASS GALILEO BeiDou QZSS SBAS NavIC	L1 C/A, L1C (P+D), P1, P2, L2C (L+M), L5 (I+Q) L1 C/A, L1 (P+D), P1, P2, L2C, L2 (P+D), L3 (I+Q) E1 (B+C), E5A (I+Q), E5B (I+Q), AltBoc, E6 (B+C) B1, B1C (P+D), B2, B2A (I+Q), B2B (I+Q), AltBOC, B3 L1 C/A, L1 C/B, L1C (P+D), L2C (L+M), L5 (I+Q), L6 (L61/L62), L1S, L1Sb, L5S L1, L5 (P+D) L1 (P+D), L5, S-band
Position Accuracy (rms)	Autonomous (Stand alone) SBAS DGPS J-Star (PPP) Single Baseline RTK Network RTK Static/Fast Static Roll / Pitch / Heading	< 2 m < 1 m < 0.5 m Horizontal: 10 mm Vertical: 20 mm Horizontal: 8 mm + 1 ppm Vertical: 15 mm + 1 ppm Horizontal: 8 mm + 0.5 ppm Vertical: 15 mm + 0.5 ppm Horizontal: 3 mm + 0.1 ppm Vertical: 3.5 mm + 0.4 ppm Roll / Pitch: 0.10 deg, Heading: 0.09 deg (2m baseline)
Time To First Fix	Cold Start Hot Start Reacquisition RTK Initialization	< 35 s < 5 s < 1 s 2 to 6 s
Output Rate	Position / Measurements Heading	Up to 200 Hz (3S, 3SW), up to 100 Hz (DI,DIW) Up to 50 Hz (DI, DIW)
Communication	Ethernet Wi-Fi Bluetooth USB 2.0 Serial Serial/CAN IRIG 1PPS Event Marker External Frequency I/O GNSS Antenna	10BASE-T/100BASE-TX, 7-pin ODU 802.11 a/b/g/n/ac, 5 GHz & 2.4 GHz, R-SMA 5.1, Class 2, R-SMA Host & Device, 5-pin ODU 2 ports: 1 x RS232, 1 x RS232/RS422, up to 406800 bps, 7-pin ODU RS232/RS422, up to 406800 bps, CAN 2.0, 8-pin M12 Timecode A, B, BNC 2 ports, BNC 2 ports, BNC BNC TNC
Power	Input Consumption	2 ports, 5-pin ODU, 4.5-40 VDC 4.5W, Typical
Physical & Environmental	Operating Temperature Storage Temperature Humidity Shock Vibration Dimensions Weight	-40 °C to +75 °C -40 °C to +85 °C 95% MIL-STD-810H Method 516.8 MIL-STD-810H Method 514.8 132 x 61 x 190 mm 0.75 kg

MODEL	Option A (Standard)	Option B	Option C
DELTA-3S	Front: PWR, USB, Port A, Port C, ETHR Back: ANT	Back: ANT, Event A, 1PPS A, Frequency I/O	Back: ANT, EVENT A, 1PPS A, RS/CAN
DELTA-3SW	Front: PWR, PWR2, USB, Port A, Port C, ETHR BT, RS/CAN, WiFi, ANT Back:		Back: 1PPS B, EVENT B, 1PPS A, EVENT A, IRIG, Freq I/O
DELTA-DI	Front: PWR, USB, Port A, Port C, ETHR Back: ANT2, ANT1	Back: ANT2, EVENT A, 1PPS A, ANT1	Back: ANT2, RS/CAN, 1PPS A, ANT1
DELTA-DIW	Front: PWR, PWR2, USB, Port A, Port C, ETHR BT, RS/CAN, WiFi Back: ANT2, ANT1		Back: EVENT B, 1PPS B, IRIG, ANT2, EVENT A, IPPS A, ANT1

GNSS performance is dependent on signal quality, satellite geometry (PDOP), ionospheric and tropospheric conditions, baseline length, multipath effects and RF interference. Specifications may be changed without notice.