

# TRIUMPH-OMEGA

## GNSS Receiver Enclosure



### Key Features

- All Constellation GNSS
- Ethernet, USB, Serial
- Cellular Modem / UHF / SS Radio
- WIFI, Bluetooth
- CAN, Event Marker
- External Reference Frequency
- 128 GB Memory
- Secure Mounting

The TRIUMPH-OMEGA is a GNSS receiver designed in a rugged enclosure for secure mounting in machine control, marine and avionic applications. With integrated wireless communications, the TRIUMPH-OMEGA can deliver RTK from all constellations. All interfaces are onboard for applications with Event Markers, CANBUS, 1 PPS and time synchronization.

Number of Channels	864	
GNSS Constellations	GPS GLONASS Galileo BeiDou QZSS SBAS IRNSS	L1 C/A, L1C (P+D), P1, P2, L2C (L+M), L5 (I+Q) L1 C/A, P1, P2, L2C, L3 (I+Q) E1 (B+C), E5A (I+Q), E5B (I+Q), AltBoc, E6 (B+C) B1, B1-2, B1C (P+D), B2, B3, B5A (I+Q), B5B (I+Q) L1 C/A, L1C (P+D), L2C (L+M), L5 (I+Q), SAIF, LEX (P+D) L1, L5 L5
Position Accuracy	Autonomous (Stand alone) DGPS RTK Static/Fast Static	<2.000m <0.500m Horizontal: 0.008 m + 1 ppm, Vertical: 0.015 m + 1 ppm Horizontal: 0.003 m + 0.1 ppm, Vertical: 0.0035 m + 0.4 ppm
Time for First Fix	Cold Start Warm Start Reacquisition	< 35 s < 5 s <1 s
Cellular	4G LTE Mini Card	LTE, HSPA+, HSDPA, HSUPA, WCDMA, GSM, GPRS, EDGE LTE, EV-DO, 1xRTT CDMA
Radio	UHF ISM	Internal 406 – 470 MHz, 1 W 902 – 928 / 868 – 870 MHz, 1 W (Optional)
Communication	Wi-Fi Bluetooth Ethernet USB 2.0x2 CAN 2.0 RS-422 RS-232/RS-422 (configurable)	IEEE 802.11 b/g/n/d/e 4.1 Bluetooth Low Energy 10BASE-T / 100BASE-TX High Speed 480 Mbps Host & Device A / B Port Up to 460.8 Kbps Up to 460.8 Kbps (2 ports)
I/O	Input/Output Input Output Other I/O	External Reference Frequency Event Marker 1PPS External Calibrator, External GNSS Antenna, External Cellular Antenna, External Radio Antenna
User Interface	SD card slot LED Indication Buttons	High Capacity MicroSD Card (MicroSDHC) up to 128GB Class 10; user accessible, fully sealed On / Off, Battery status, External power, Cellular, Bluetooth, WIFI, Radio, Ethernet, Satellites, Position, Recording status Power, Bluetooth, WIFI, Recording
Power	Input Battery Operation Time	10 – 30 VDC Lightweight Li-Ion 42.5 Wh, Rechargeable 12-Hours per charge
Physical & Environmental	Material Operating Temperature Storage Temperature Humidity Dimensions	Molded magnesium alloy -40° C – +55° C -20° C – +45° C 100% Condensing 125 x 170 x 45 mm (4.91 x 6.69 x 1.77 in) Without Radio 125 x 170 x 65 mm (4.91 x 6.69 x 2.56 in) With Radio



Top view



Bottom view

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.

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