



TRIUMPH-1M Plus

GNSS Smart Antenna



Key Features

- GNSS & MEMS IMU
- 4G Cellular Modem
- UHF Radio
- Pole secured UHF/Cell Antenna
- Bluetooth & WiFi
- 18 Hour Battery Life

The TRIUMPH-1M Plus is a precision GNSS Smart Antenna featuring integrated wireless communications and a MEMS IMU to deliver Tilt Compensated RTK. With a full band UHF radio and a 4G cell modem, users have Base/Rover or network RTK on demand. The TRIUMPH-1M Plus is unique with exceptional field reliability from protected UHF & cell antennas as part of the survey pole.

TRIUMPH-1M Plus Specifications



Number of Channels	874	
GNSS Constellations	GPS GLONASS GALILEO BeiDou QZSS SBAS IRNSS L-Band	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), CBOC, E5A(I+Q), E5B(I+Q), AltBoc, E6(B+C) B1, B1C(P+D), TMBOC, B2B(I+Q), B2, B2A(I+Q), AltBoc, B3 L1 C/A, L1C(P+D), L1S, L1Sb, L2C(L+M), L5(I+Q), L5S, L6 L1, L5 L5 1525 - 1560 MHz
Position Accuracy	Autonomous (Stand alone) DGPS Single Baseline RTK Network RTK Tilt Compensated RTK Static/Fast Static	< 2 m < 0.25 m Horizontal: 0.008 m + 1 ppm Vertical: 0.015 m + 1 ppm Horizontal: 0.008 m + 0.5 ppm Vertical: 0.015 m + 0.5 ppm RTK + 5 mm + 0.5 mm / ° tilt, up to 30° Horizontal: 0.003 m + 0.1 ppm Vertical: 0.004 m + 0.4 ppm
Time To First Fix	Cold Start Hot Start Reacquisition RTK Initialization	< 35 s < 5 s < 1 s 2 to 6 s
Communications	Cellular Wi-Fi Bluetooth UHF Radio UHF Tx Power	LTE / DC-HSPA+ / HSPA+ / HSPA / UMTS (WCDMA) 802.11 ac/a/b/g/n, 2.4 & 5 GHz v5.1 Class 2 406 - 470 MHz Up to 2 Watts
I/O	Data Storage USB Power	64 GB, Internal USB 2.0 High Speed, Type C 5-pin ODU
User Interface	Card Slots LED Indication Buttons	SD Card up to 128 GB, Class 10 microSIM Battery Status / External power, Bluetooth/Wi-Fi, Cellular / Radio, Satellites, Position Mode, Recording Status Power, Function
Power	Input Battery Battery Charger Operation Time	+10 to +30 VDC 2 x Li-Ion batteries (7.2 V, 5.9 Ah) Internal Up to 18 hours
Physical & Environmental	Material Operating Temperature Storage Temperature Humidity Vibration Shock Dimensions Weight Ingress Protection Drop	Molded magnesium alloy and plastic -40° C to +65° C -45° C to +85° C 100% condensing MIL-STD- 810H (Method 516.8) MIL-STD- 810H (Method 514.8) 7 x 3.78 x 7 in (178 x 96 x 178 mm) 1.7 kg (3.75 lbs) / 1.82 kg (4.02 lbs) IP68 2 m drop

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

