



TRIUMPH-1M

GNSS Smart Antenna



Key Features

- 864 channels all-in-view GNSS
- Base / Rover
- Bluetooth & Wi-Fi
- 4G LTE Cellular Modem
- UHF / SS Radio Modem
- Serial, USB & Ethernet

The TRIUMPH-1M GNSS Smart Antenna adds to the features of the prior TRIUMPH-1 model. Based on our 864-channel ASIC with expanded signal tracking, the TRIUMPH-1M is equipped with a 4G LTE cellular modem, easily accessible SD and SIM cards, and 'Lift & Tilt' automation.

Number of Channels	864	
GNSS Constellations	GPS GLONASS Galileo BeiDou QZSS SBAS IRNSS	L1 C/A, L1C (P+D), 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 B1, B1C(P+D), B5A(I+Q), B2, B5B(I+Q) L1 C/A, L1C(P+D), L1S, L2C(L+M), L5(I+Q) L1, L5 L5
Position Accuracy	Autonomous (Stand alone) DGPS RTK Static/Fast Static	< 2 m < 0.25 m post processing; < 0.5 m real-time Horizontal: 0.008 m + 1 ppm Vertical: 0.015 m + 1 ppm Horizontal: 0.003 m + 0.1 ppm Vertical: 0.004 m + 0.4 ppm
Time for First Fix	Cold Start Hot Start Reacquisition	< 35 s < 5 s < 1 s
Cellular	MicroSIM card slot 4G LTE Mini Card	Up to 2 (optionally) user accessible, fully sealed LTE, HSPA+, HSDPA, HSUPA, WCDMA, GSM, GPRS, EDGE (up to 100 Mbps), EV-DO, 1xRTT CDMA (up to 100 Mbps)
Radio	Radio Modem Power Output	Internal 406 – 470 MHz, optional 902-928 / 868-870 MHz 1 Watt
Internal GNSS Antenna	Antenna Type Ground Plane	Integrated Microstrip (Zero Centered) Flat
I/O	Data Storage Input / Output Output Other	16 GB JPS, RTCM SC104 v. 2.x and 3.x, CMR NMEA 0183 v. 2.x and 3.x, BINEX USB, Ethernet, RS 232 ports (A, B), External Power / Charging
User Interface	Card Slots LED Indication Buttons	High-Capacity microSD Card (microSDHC) up to 128 GB, Class 10, Up to 2 microSIM, user accessible, fully sealed Power Status, Bluetooth, Wi-Fi, Satellites, Position Mode, Recording. Power, Function
Power	Input Battery Operation Time	+10 to +30 VDC Two internal Li-Ion batteries (7.2 V, 5.9 Ah each) with internal charger 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 – +65° C -45° C – +85° C 100% Condensing MIL-STD-810H (Method 516.8) MIL-STD-810H (Method 514.8) 178 x 96 x 178 mm (7 x 3.78 x 7 in) 1.7 kg (3.75 lbs.) / 1.82 kg (4.02 lbs.) with modem antenna IP67 Survives a 2 m drop