



GNSS RECEIVER

## TRIUMPH-2



The TRIUMPH-2 brings rugged, scalable, affordable, best-in-class GNSS performance to every application.

TRIUMPH-2 is based on our TRIUMPH Technology implemented in our TRIUMPH Chip. We offer powerful GIS field mapping receiver with up to 100 Hz RTK, 216 channels of dual-frequency GPS and GLONASS in a small attractive, sturdy, and watertight box.

Using its internal Bluetooth and WiFi connection the receiver can access local GNSS Reference Station Network. In addition to post-processed DGPS capabilities, the TRIUMPH-2 utilizes external correction services for real-time DGPS mapping and navigation applications.



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## GNSS RECEIVER

Total 216 channels: all-in-view*	
Signals Tracked	GPS C/A, P1, P2, L1C (P+D), L2C (L+M) GLONASS C/A, L2C, P1, P2 GALILEO E1 (B+C) BeiDou B1, B1C(P+D) QZSS C/A, L1C(P+D), L1S, L2C (L+M) SBAS L1
Autonomous Accuracy (rms)	<2 m
Static, Fast Static Accuracy (rms)	Horizontal: 0.3 cm + 0.5 ppm * base_line_length** Vertical: 0.35 cm + 0.4 ppm * base_line_length
Kinematic Accuracy (rms)	Horizontal: 1 cm + 1 ppm * base_line_length Vertical: 1.5 cm + 1 ppm * base_line_length
RTK (OTF) Accuracy (rms)	Horizontal: 1 cm + 1 ppm * base_line_length Vertical: 1.5 cm + 1 ppm * base_line_length
DGPS Accuracy (rms)	< 0.25 m (post-processing) < 0.5 m (real-time)
Cold Start	<35 seconds
Warm Start	<5 seconds
Reacquisition	<1 second

## INTERNAL GNSS ANTENNA

Versatile High Performance Geodetic Antenna

GNSS Antenna	Internal; NGS calibrated
Antenna Type	Microstrip (Zero Centered)
Ground Plane	Antenna on a flat ground plane

## ENVIRONMENTAL

Enclosure	Metal base, plastic cover; IP67
Color	Green
Operating Temperature***	-40° C to +60° C***
Storage Temperature***	-45° C to +85° C***
Humidity	100% condensing
Dimensions	3.34 x 2.40 x 5.20 inches (85 x 61 x 132 mm)
Weight	1.23 lbs (0.56 kg)

\* For the full list of standard and optional features see [www.javad.com](http://www.javad.com)

\*\* For good observation conditions and proper length of observation session

\*\*\*Li-Ion batteries are the temperature limiting factor



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## I/O

Communication Ports	Built-in USB to RS232 FTDI converter. 12Mbps USB 2.0 Full-Speed; Wi-Fi (IEEE 802.11b/g); Bluetooth V2.0+EDR Class 2 supporting SPP Slave Profile
External Power port	1 port

## MEMORY & RECORDING

Internal Memory	Up to 2 GB of onboard 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
Status Indicator	Six LEDs, two function keys (MinPad)

## USER INTERFACE

LED Indication	On/OFF, Battery status, External power, Bluetooth, Radio, Satellites, Position, Recording statuses
Buttons	On/Off button; Recording On/Off

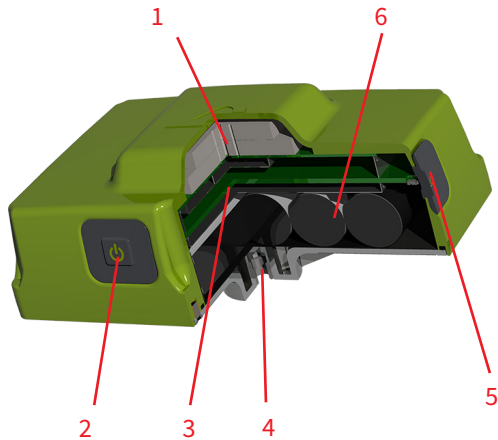
## POWER MANAGEMENT

Battery	Internal Li-Ion battery ( 7.2 V, 8.85 Ah) with internal charger
Operation Time	25 hours on one charge
External Power Input	10-16 V DC

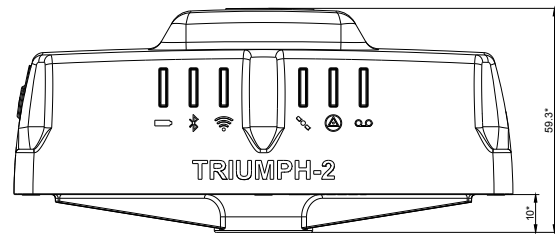
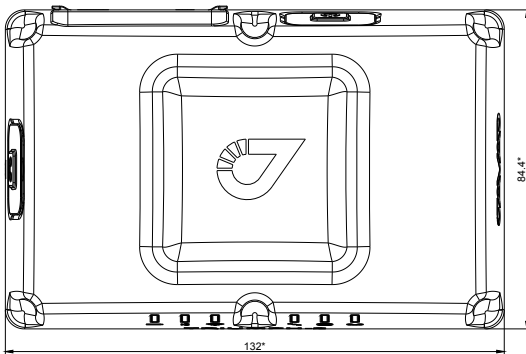


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# TRIUMPH-2



1. GNSS Antenna
2. On/Off button
3. GNSS Receiver, power board with Bluetooth, WiFi, and on-board Memory
4. 1/4-20" Mounting Thread
5. Record button
6. Rechargeable Li-Ion battery pack



All dimensions are in mm



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