



You've come a long way, Survey!

TRIUMPH-VS

Complete RTK rover unit



TRIUMPH-NT

- Where you don't need internal GNSS antenna



VICTOR-VS

- Ultra-rugged Windows CE controller for Field Applications



WWW.JAVAD.COM

We were the first to

- Combine GPS and GLONASS • Track GLONASS-K L3 CDMA • Track Galileo E5 altBOC • Track Chinese Compass • Offer 12 (1989), 76 (1999), and 216 (2007) channel GNSS receivers.

We received highest score in Japanese CORS "GEONET" selection process and received USGS award for its high precision networks.

We are the only company who offers GNSS receivers with

- Galileo • QZSS and its L1C signal • GPS L5 • GLONASS • Mitigating SVN-49 anomaly • Best multipath reduction (German Aerospace report) • Lift & Tilt survey • Interference Analysis feature • In-band interference rejection feature • Calibrating GLONASS inter-channel biases (0.2 mm) • Fully integrated high precision GNSS RTK system • 6-pack RTK engine of up to 100 Hz.



And Now...



Protected from ...

Compensated for ...

and Integrated with... LightSquared.

- LightSquared not only can coexist with GPS... **It complements it.**
- TRIUMPH-LS can benefit from LightSquared communication channels for receiving **RTK corrections.**
- LightSquared communication channels are much **faster and less expensive** than conventional channels for RTK correction transmissions.

OEM boards



TR-G2

16 each of GPS L1, Galileo E1

TR-G2T

16 each of GPS L1/L2/L2C/L5, Galileo E1/E5A

TR-G3

16 each of GPS L1, Galileo E1, GLONASS L1

TR-G3T

16 each of GPS L1/L2/L2C/L5, Galileo E1/E5A, GLONASS L1/L2

TRE-G2T

16 each of GPS L1/L2/L2C/L5, Galileo E1/E5A

Duo-G2

Two sets of 14 each of GPS L1, Galileo E1

Duo-G2D

Two sets of 14 each of GPS L1/L2, Galileo E1

TRE-G3T

16 each of GPS L1/L2/L2C/L5, Galileo E1/E5A, GLONASS L1/L2

TRE-G3T-AJ

Has the anti jamming capability

QUATTRO-G3D

One set of 14 each of GPS L1/L2, Galileo E1, GLONASS L1/L2; and three set of 14 each of GPS L1/L2, Galileo E1



- Based on 216-channel TRIUMPH chip, our family of OEM boards can support you in any GNSS application... Now and in the future.

- For the first time in the GNSS history we offer up to 100 Hz RTK.

Duo-G2 accepts inputs from up to two antennas.

Duo-G2D is similar to Duo-G2 but it tracks dual frequency GPS. It can calculate orientations faster.

The anti-jamming capabilities of TRE-G3T-AJ basically eliminates the interferences (typical of harmonics of TV and radio stations, etc) which fall within any GNSS signal

Quattro-G3D is a 100x120 mm Euro-card board that accepts inputs from up to four antennas.

Receivers

TRIUMPH-1

- An elegant, rugged, light (1.7 kg, 18x18 cm), and hermetically sealed box

Based on the TRIUMPH Chip, TRIUMPH-1 is a fully integrated package ready for your demanding jobs, offering precise and automatic performance beyond anything that you have experienced so far.

TRIUMPH-4X

- 4 base – 4 rover, 16 baselines

TRIUMPH-4X is equivalent of 4 independent TRIUMPH-1 receivers packaged in the same small box.

GISMORE

Receiver is based on our TRIUMPH Technology implemented in our TRIUMPH Chip. For the first time in the GNSS

history we offer very powerful GIS field mapping receiver with up to 100 Hz RTK, 216 channels of single frequency GPS, Galileo and GLONASS in a small attractive, sturdy, and watertight box.

TRIUMPH-VS

- Complete RTK rover unit

Revolutionary, compact, 216-channel GNSS Receiver

High precision GPS+GLONASS+Galileo Antenna

Breakthrough, wide-screen, high-resolution handheld controller

TRIUMPH-NT

- Where you don't need internal GNSS antenna

Same as TRIUMPH-VS but without internal GNSS antenna, inclinometers, compass and cameras.

VICTOR-VS

- 4,3-inch display of 800x480 pixels
- Integrated camera 3 Mpixels

We complete our receivers with an ultra-rugged Windows CE controller for Field Applications. VICTOR-VS is powerful, waterproof, shockproof and versatile.



Boxed version



ALPHA

- INTERNAL BATTERY
- CHARGER
- GSM
- BLUETOOTH

FOR: TR-G3, TR-G2T, TR-G3T



Front panel connectors:

Power Input + serial port A + USB + Antenna



Back panel connectors:

Can have up to 3 connectors of 1-PPS
• Event Marker • IRIG • GSM Antenna (without Bluetooth antenna).

When Bluetooth antenna is installed only one extra connector can be installed.

Example 1: BT Antenna + GSM

Antenna

Example 2: 1-PPS output + Event Marker + GSM Antenna



DELTA

FOR: TRE-G2T, TRE-G3T, Duo-G2, Duo-G2D, QUATTRO-G3D



Front panel connectors:

Option 1: Power Input + Serial A + Serial B + Serial C + Antenna



Option 2: Power Input + USB + Serial A + Serial C + Antenna



Options 3: Power Input + USB + Serial A + Serial C + Ethernet



Back panel connectors:

Can have up to 4 connector of 1-PPS A • 1-PPS B • Event A • Event B • Antenna • CAN • IRIG

Example: 1-PPS A + 1-PPS B + Event A + Event B



SIGMA

- INTERNAL BATTERY
- CHARGER
- MODEM
- GSM
- BLUETOOTH

FOR: TRE-G2T, TRE-G3T, Duo-G2, Duo-G2D, QUATTRO-G3D



Front panel connectors:

Can have Power Input • Second Power Input • USB • Serial A • Serial B or C • Ethernet

and up to 4 connectors of 1-PPS A • 1-PPS B • Event A • Event B • Antenna • CAN • IRIG • RS422



Back panel connectors:

Can have SIM door and GSM Antenna connector and up to 4 connectors of 1-PPS A • 1-PPS B • Event A • Event B • Antenna • IRIG • Modem Antenna • Bluetooth Antenna

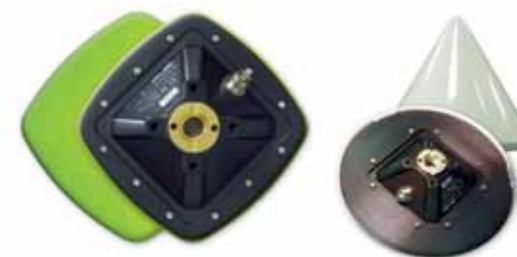
Example: GSM Antenna + SIM door + 1-PPS A + 1-PPS B + Event A + Modem Antenna

Antennas

GRANT-G3T/G3

GrAnt-G3T is a versatile high performance antenna with GPS L1/L2/L5; Glonass L1/L2; Galileo L1/E5

GrAnt-G3 Have similar case as GrAnt-G3T. With GPS L1; Glonass L1; Galileo E1



SNOW CONE OPTIONS

- Protection Against ESD
- Have good vibration and shock resistance
- Possible options:
N-type connector
TNC on center
Snow Cone

TYRANT-G2T/G3

TyrAnt is our GrAnt antenna integrated with our TR-G3 or TR-G2T OEM board. It is the first and only smart antenna with triple frequency GPS with Galileo option



140x140x62 mm, 0.6 kg



GYRANT

GyrAnt is the GrAnt antenna integrated with Inertial Measurement Unit (IMU) consisting of three accelerometers and three gyros on three axes



140x140x62 mm, 0.6 kg

- Communication is provided via RS422 or CAN interface via M12 8 pin connector

AIRANT

AirAnt is designed to be mounted on aircrafts and applications where low profile and aerodynamic shape are desired. GPS L1/L2/L5; Glonass L1/L2; Galileo L1/E5



120x74x44.5 mm, 0.32 kg

- Overload protection
- Improved rejection out-of-band signal rejection

TRIAnt

TriAnt is small, thin, and rugged high performance GNSS antenna. It is ideal for applications like navigation and surround antennas of TRIUMPH-4X. With GPS L1/L2/L5; Glonass L1/L2; Galileo L1/E5



128x128x55 mm, 0.47 kg

- 2 different mounting options:
female thread 1"-14
3 holes M5 ϕ 50

RINGANT-G3T

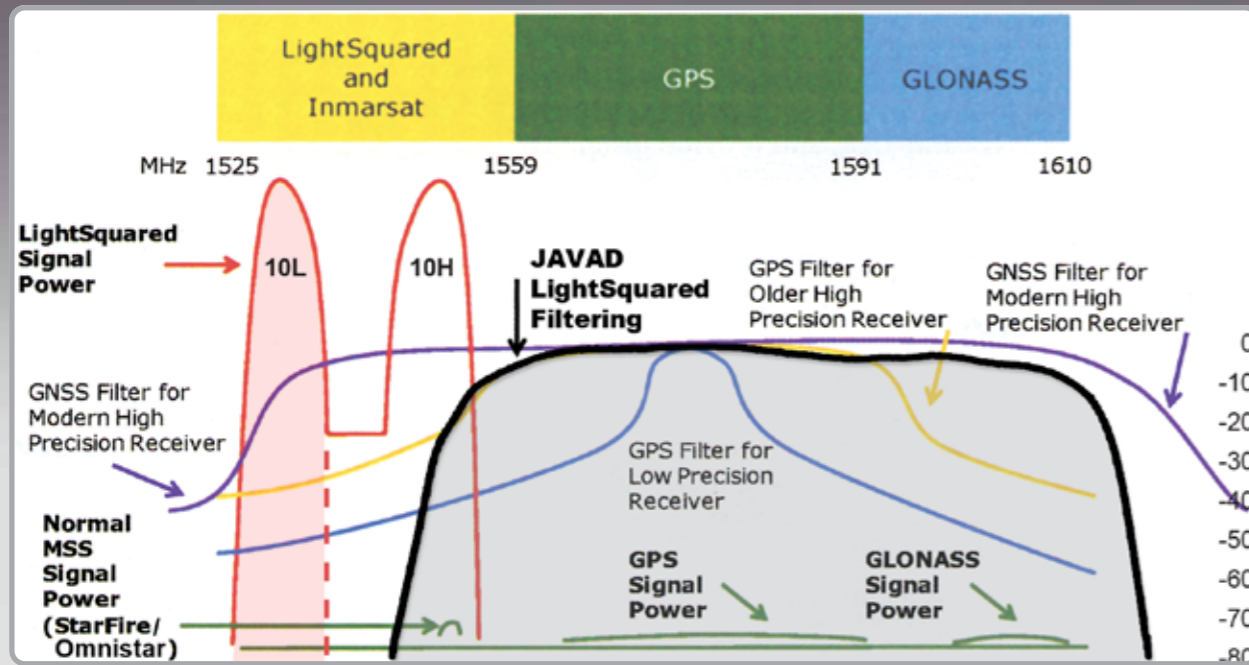
is our GrAnt antenna mounted on our own choke ring ground plate. With GPS L1/L2/L5; Glonass L1/L2; Galileo L1/E5



RINGANT-DM

traditional choke ring with Galileo option and Dorne-Margolin element. With GPS L1/L2/L5; Glonass L1/L2; Galileo L1/E5/E6

For the latest GNSS news and technical information visit www.javad.com



LightSquared-Protected:
Protected by the above JAVAD LNA system. For all precision positioning applications. Multipath mitigation features preserved.
November 2011

LightSquared-Compensated:
Protected by the above JAVAD LNA system and dynamically compensated for group delay variations (better than 100 picosecond). For precision timing applications.
March 2012

LightSquared-Integrated:
Same as two above plus LightSquared communication module inside.
June 2012