

TRIUMPH-1

216 channels

GPS + GLONASS + Galileo



**Better than 30 cm GIS... instantly
or 5 cm static**



Actual size

GISmore stand-alone or
inside the hat

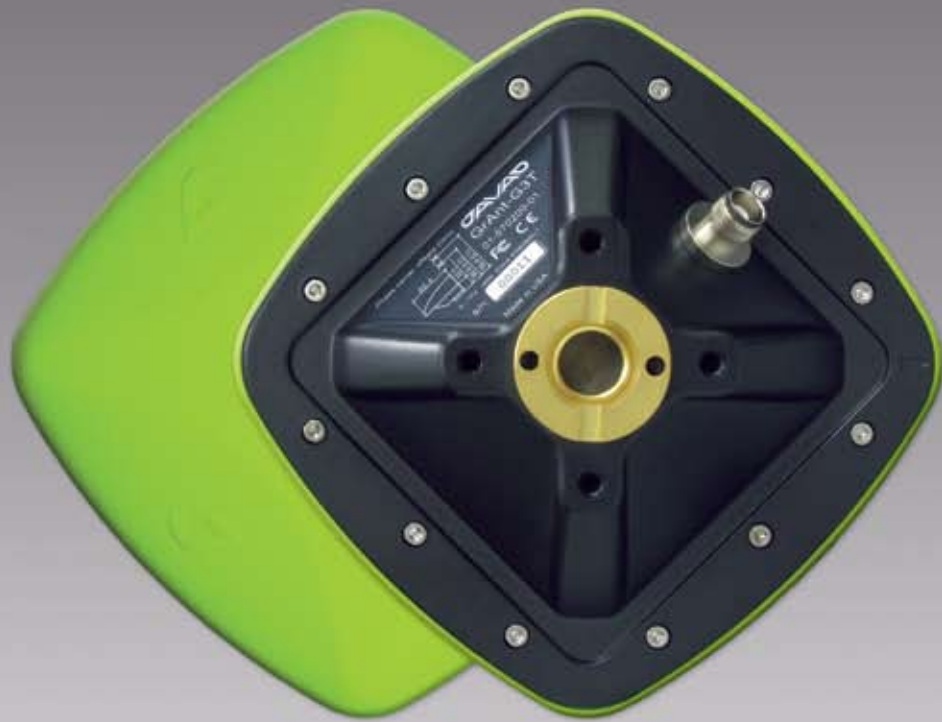
**Bluetooth wireless
connection to GISmore**

- GPS L1
- Galileo E1
- GLONASS L1
- 100 Hz update rate
- RAIM
- Rechargeable Li-Ion Battery
- GNSS Antenna
- GSM Module
- Bluetooth® Interface
- Bluetooth/GSM Antenna



**Many
ways
to use**





GrAnt-G3T/G3

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

140x140x62 mm, 0.52 kg

- Protection Against ESD
- Have good vibration and shock resistance

GrAnt-G3 have similar case as GrAnt-G3T with L1 GPS/Glonass/Galileo capability

140x140x62 mm, 0.45 kg

- All GrAnt-G3T options valid for this antenna

Possible design options:



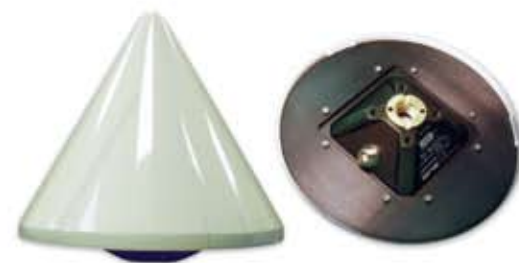
TNC side view connector (regular design)



N-type connector (side view)



TNC on center for pipe mounting



Snow Cone options

- 3 different mounting method available:
 - female thread 5/8"-11
 - female thread 1"-14
 - 4 holes M5 ϕ 50
- Available integration design GrAnt-G3T with receiver boards TR-G2T and TR-G3 or IMU

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

- Communication is provided via RS422 or CAN interface.



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.



AirAnt

AirAnt is designed to be mounted on aircrafts and applications where low profile and aerodynamic shape are desired. Metal flat ground required in application.

120x74x44.5 mm, 0.32 kg

- GPS L1/L2/L5
- Glonass L1/L2
- Galileo L1/E5



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

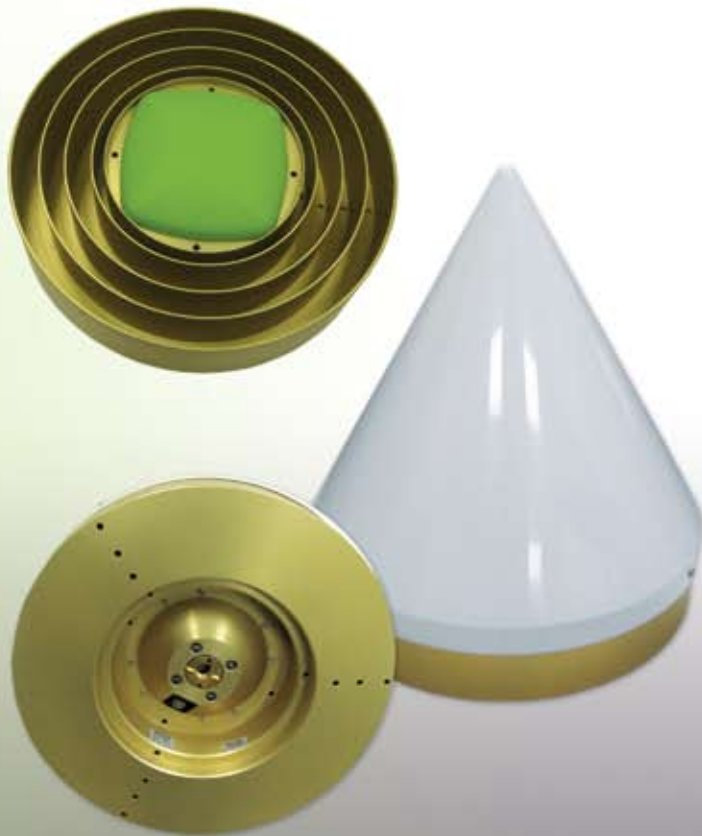
- 2 different mounting options:
female thread 1"-14
3 holes M5 ϕ 50



RingAnt-G3T

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

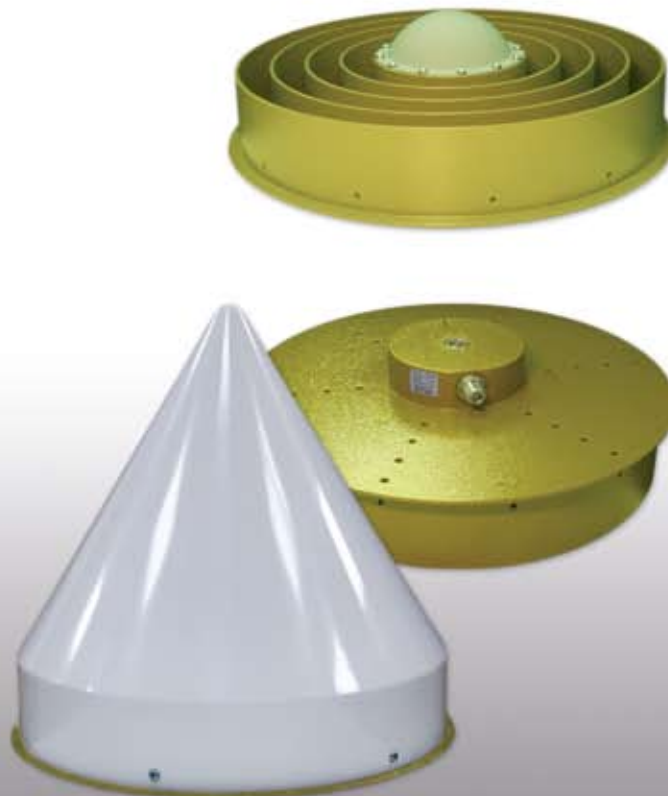
ϕ 326x88 mm, 2.71 kg



RingAnt-DM

Traditional choke ring with Galileo option and Dorne-Margolin element.

- GPS L1/L2/L5
Glonass L1/L2
Galileo L1/E5/E6



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 B



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



SIGMA

- INTERNAL BATTERY
- CHARGER
- MODEM
- GSM

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

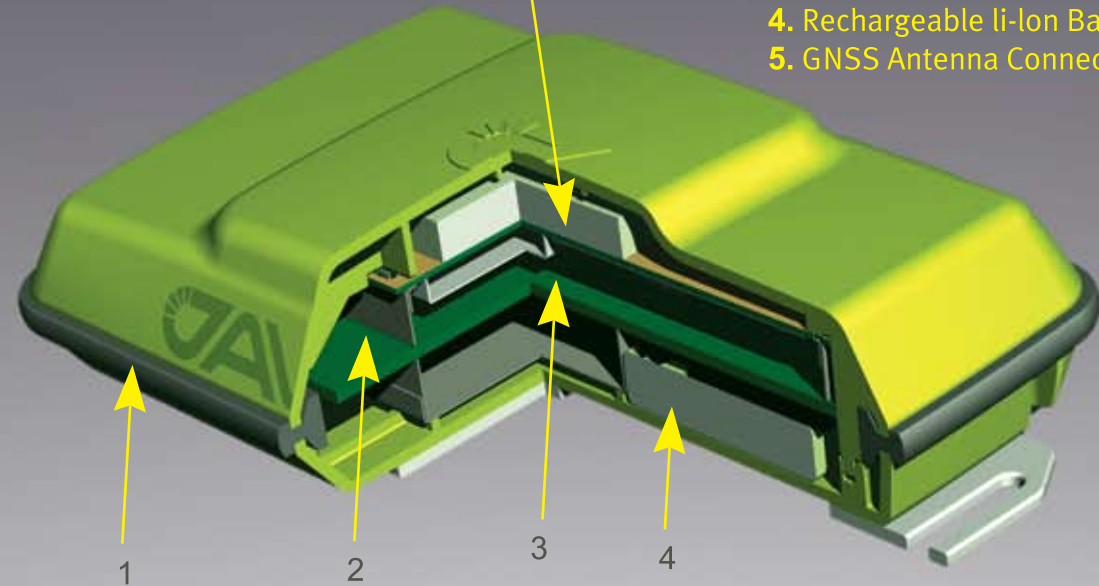
and up to 4 connectors of 1-PPS A • 1-PPS B • Event A • Event B • Antenna • CAN • IRIG • RS422

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

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

1. Guard Bumper
2. Bluetooth/GSM Antenna



3. GNSS Receiver, Power Board, GSM/Bluetooth and Memory
4. Rechargeable li-Ion Battery
5. GNSS Antenna Connectors

216-channel TRIUMPH

Tracking Specification

Tracking Channels
GPS L1/Galileo E1/GLONASS L1

Signals Tracked
L1 C/A, Code & Carrier

Power Specification

Battery
Internal Li-Ion battery (3.7 V, 1.05 Ah) with internal charger

Operating modes Standby mode
Call mode

Input Voltage +4.5 to +6.5 volts

GNSS Antenna Specifications

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

Radio Specifications

GSM/GPRS Module
Internal GSM/GPRS quad-band module, GPRS Class 10

GSM/GPRS Antenna Internal

I/O

Internal Communication Port
Bluetooth V2.0+EDR Class 2 supporting SPP Slave and Master Profiles

External Power port 1 port

GSM Status Indicator One LED

Performance Specifications

Static, Fast Static Accuracy
Horizontal: 5 cm + 0.5 ppm * base_line_length
Vertical: 5 cm + 0.5 ppm * base_line_length

Kinematic Accuracy
Horizontal: 5 cm + 1 ppm * base_line_length
Vertical: 5 cm + 1.5 ppm * base_line_length

RTK(OTF) Accuracy
Horizontal: 5 cm + 1 ppm * base_line_length
Vertical: 5 cm + 1.5 ppm * base_line_length

DGPS Accuracy < 0.25 m Post Processing,
< 0.5 m Real Time

Cold Start <65 seconds

Warm Start <5 seconds

Reacquisition <1 second

Memory & Recording

Internal Memory
Up to 256 MB of onboard non-removable memory for data storage

Raw Data Recording
Up to 100 times per second (100 Hz)

Data Type
Code and Carrier from GPS L1/Galileo E1/GLONASS L1

Environmental Specifications

Enclosure High impact plastic, waterproof

Operating Temperature -4° C to +55° C

Dimensions W: 79 mm x H: 33 mm x D: 131 mm

Weight 210 g

TR/TRE Evaluation Kit

The evaluation and development kit for all TR and TRE Javad GNSS OEM boards

Include 4 items:

1 TR-G3T Cross Adapter

2 TRE-Interface Adapter

3 Power cable

4 TNC-MMCX RA 0,19 m RF cable



JAVAD
WWW.JAVAD.COM