Contact us for product details and pricing

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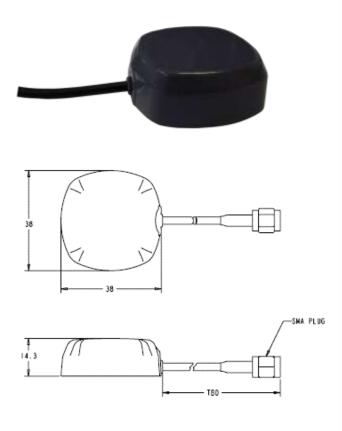
+1-703-256-8900 or 800-628-0885 info@NavtechGPS.com www.NavtechGPS.com

# TW4320/TW4322 Wideband GPS/GLONASS Antenna

The TW4320/TW4322 is a wideband GNSS antenna covering the GPS L1, GLONASS L1 and SBAS (WAAS, EGNOS & MSAS) frequency bands (1575 to 1606 MHz). It features a small patch element with 40% wider bandwidth than previously available in this format. Unlike its competitors, both GPS-L1 and GLONASS signals are included in the 1dB received power bandwidth.

The TW4320/TW4322 has a two stage Low Noise Amplifier with a mid-section SAW. A tight pre-filter is available in the TW4322 to protect against saturation by high level sub-harmonics and L-Band signals.

Even with the wider bandwidth, the TW4320/TW4322 antenna is the smallest high performance antennas available. It is housed in a compact IP67 magnetic mount enclosure.



### **Applications**

- Cost Sensitive Mission Critical Positioning
- Military & Security
- Covert surveillance
- Fleet Management & Asset Tracking

### Features

- 40% wider bandwidth, small footprint
- Axial ratio: 6 dB Typ. (GPS & GLONASS)
- Low noise LNA: 1 dB
- High rejection mid-section SAW filter
- Available Pre-filter (TW4322)
- High gain: 28 dB typ.

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• Wide voltage input range: 2.5 to 16 VDC

## **Benefits**

- 1dB Bandwidth Includes GPS-L1 & GLONASS
- Excellent multipath rejection
- improved GNSS reliability
- Excellent signal to noise ratio
- RoHS compliant
- Ideal for harsh environments
- Excellent out of band signal rejection

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>50dB (TW4322)

>50dB

>70dB

# TW4320/TW4322 Wideband GPS/GLONASS Antenna **Specifications**

31 MHz

45MHz

4.5 dBic

RHCP

Wideband Single Feed Patch

6 dB typical, 8dB Maximum.

28dB min., 1575.42 to 1606 MHz

+/- 2 dB, 1575 to 1606 MHz

1574 to 1606 MHz

<1.5:1 typ. 1.8:1 max.

+2.5 to 16 VDC nominal

1 dB typ.(TW4320);

15 KV air discharge

<1500 MHz

<1550 MHz

>1640 MHz

12 mA max.

LNA stage 1 -> SAW filter-> LNA stage 2 (TW4320)

>32 dB (TW4320)

>25 dB

>35 dB

SAW Pre-filter ->LNA stage 1 -> SAW filter-> LNA stage 2 (TW4322)

3.5 dB typ. (TW4322)

#### Antenna

Architecture 1 dB radiated power bandwidth 10dB Return Loss Bandwidth Antenna Gain (with 100mm ground plane) Axial Ratio (over full bandwidth) Polarization

## Electrical

Architecture

Filtered LNA Frequency Bandwidth Gain Gain flatness Out-of-Band Rejection Out-of-Band Rejection

VSWR (at LNA output) Noise Figure Supply Voltage Range (over coaxial cable) Supply Current **ESD** Circuit Protection

## **Mechanicals & Environmental**

Mechanical Size Cable **Operating Temp. Range** Enclosure Weight Environmental Shock Vibration Warranty

38mm x 38mm dia. x 14.3mm H RG174 -40 °C to +85 °C Radome and base: EXL9330 50 gm (Enclosure + SMA connector 34gm, cable 0.31gm/cm) IP67 and RoHS compliant Vertical axis: 50 G, other axes: 30 G 3 axis, sweep = 15 min, 10 to 200 Hz sweep: 3 G One year, parts and labour

## **Ordering Information**

TW4320 - Wideband GPS Antenna TW4322 - Prefiltered Wideband GPS Antenna 33-4320-xx-yyyy 33-4320-xx-yyyy

Where xx = connector type and yyyy = cable length in mm

Please refer to the Ordering Guide (http://www.tallysman.com/orderingguide.php) for the current and complete list of available radomes and connectors.

## **Tallysman Wireless Inc**

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