TW3400/TW3402 GPS/GLONASS Antenna

The TW3400/TW3402 are professional grade GNSS antenna covering the GPS L1, GLONASS L1 and SBAS (WAAS, EGNOS & MSAS) frequency band (1574 to 1606 MHz). They are especially designed for precision industrial, agricultural and military applications and offers excellent circular polarized signal reception, multipath rejection and out of band signal rejection.

The TW3400/TW3402 feature a highly circular dual-feed wideband patch element, with a two stage Low Noise Amplifier, comprised of one input LNA per feed, a mid section SAW to filter the combined output, and a final output gain stage. This configuration provides excellent axial ratio that is constant across the full frequency band. An optional tight pre-filter is available on the TW3402 to protect against saturation by high level sub-harmonic and L-Band signals.

The TW3400/TW3402 is housed in a permanent mount industrial grade weather-proof enclosure, and comes with a TNC Jack (female) connector.

Applications
- High Accuracy & Mission Critical Global Positioning
- Precision Agriculture, Mining & Construction
- Military & Security
- Avionics
- Law Enforcement & Public Safety
- Fleet Management & Asset Tracking

Features
- Great axial ratio: 1 dB typ.
- Low noise LNA: 1 dB
- High rejection SAW filter
- High gain LNA: 28 dB typ.
- Low current: 10 mA typ.
- Wide voltage input range: 3 to 12 VDC
- IP67 weather proof housing

Benefits
- Excellent circular polarisation
- Excellent multipath rejection
- Excellent signal to noise ratio
- Great out of band signal rejection
- Increased system accuracy
- Ideal for harsh environments
- RoHS compliant

www.tallysman.com
TW3400/TW3402 GPS/GLONASS Antenna Specifications

**Antenna**
- **Architecture**
  - Dual, Quadrature Feeds
- **1 dB Bandwidth**
  - 30 MHz
- **Antenna Gain (with 100mm ground plane)**
  - 4.25 dBiC
- **Axial Ratio (over full bandwidth)**
  - 1 dB typ., 3 dB max.

**Electrical**
- **Filtered LNA Frequency Bandwidth**
  - 1574 to 1606 MHz
- **Polarization**
  - RHCP
- **LNA Gain**
  - 28 dB min., 1575.42 to 1606 MHz
- **Gain flatness**
  - +/- 2 dB, 1575 to 1605 MHz
- **Out-of-Band Rejection**
  - <1500 MHz: >32 dB (TW3400)
  - <1550 MHz: >25 dB
  - >1640 MHz: >35 dB
- **VSWR (at LNA output)**
  - <1.5:1
- **Noise Figure**
  - 1 dB typ.
  - 3.5 dB typ (TW3402)
- **Supply Voltage Range (over coaxial cable)**
  - 3 to 12 VDC nominal
- **Supply Current**
  - 10 mA typ.
- **ESD Circuit Protection**
  - 15 KV air discharge

**Mechanicals & Environmental**
- **Mechanical Size**
  - 66.5 mm dia. x 21 mm H
- **Connectors**
  - Custom cable assembly available.
- **Cable (Option)**
  - TNC Jack (female)
- **Operating Temp. Range**
  - -40 to +85 °C
- **Enclosure**
  - Radome: ASA Plastic, Base: Zamak White Metal
  - 150 g
- **Weight**
  - Permanent ¾” (19mm) through hole mount
- **Attachment Method**
  - IP67 and RoHS compliant
- **Environmental**
  - Vertical axis: 50 G, other axes: 30 G
  - 3 axis, sweep = 15 min, 10 to 200 Hz sweep: 3 G
- **Vibration**
  - One year, parts and labour

**Ordering Information**
- TW3400 – GPS/GLonass Antenna, TNC Jack (female) 32-3400-0
- TW3402 - GPS/GLonass Antenna, with pre-filter, TNC Jack (female) 32-3402-0

**Tallysman Wireless Inc**
106 Schneider Road, Unit 3
Ottawa ON K2K 1Y2 Canada
Tel 613 591 3131
Fax 613 591 3121
sales@tallysman.com

The information provided herein is intended as a guide only and is subject to change without notice. This document is not to be regarded as a guarantee of performance. Tallysman Wireless Inc hereby disclaims any or all warranties and liabilities of any kind. © 2010 Tallysman Wireless Inc. All rights reserved.

Doc # 60-0057-0 Rev 1.1