TW2410 Magnet Mount GPS/GLONASS Antenna

The TW2410 by Tallysman Wireless is a professional grade GNSS antenna covering the GPS L1, GLONASS L1 and SBAS (WAAS, EGNOS & MSAS) frequency band (1574 to 1606 MHz). It is 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 TW2410 features a 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.

The TW2410 is housed in a compact, industrial-grade weather-proof, magnet mount enclosure, and comes with a bulkhead SMA female connector or with 5 metres of cable and a wide range of connector options.

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

**Features**
- Great axial ratio: 1 typ., 3 dB max
- Low noise LNA: ≤1 dB
- High rejection SAW filter
- LNA gain: 25 dB typ.
- Low current: 12 mA typ.
- Wide voltage input range: 2.5 to 10 VDC
- IP67 weather proof housing

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

Dimensions (mm) p/n 32-2410-0

Dimensions (mm) p/n 32-2410-7

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# TW2410 Magnet Mount 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 Bandwidth (over full bandwidth)**: 1 dB typ, ≤3 dB max

## Electrical
- **Architecture**: One LNA per feed line, mid section SAW filter
- **Filtered LNA Frequency Bandwidth**: 1574 to 1606 MHz
- **Polarization**: RHCP
- **LNA Gain**: 25 dB min., 1575.42 to 1606 MHz
- **Gain flatness**: +/- 2 dB, 1575 to 1605 MHz
- **Out-of-Band Rejection**:
  - <1500 MHz: >32 dB
  - <1550 MHz: >25 dB
  - >1640 MHz: >35 dB
- **VSWR (at LNA output)**: <1.5:1
- **Noise Figure**: ≤1 dB typ.
- **Supply Voltage Range (over coaxial cable)**: +2.5 to 10 VDC nominal
- **Supply Current**: 12 mA typ.
- **ESD Circuit Protection**: 15 KV air discharge

## Mechanicals & Environmental
- **Mechanical Size**: 57 mm dia. x 15 mm H
- **Connectors**:
  - Bulkhead SMA female, or SMA male on flying lead
  - Other connectors optional
  - RG174 / 5 metres, other lengths optional
- **Operating Temp. Range**: -40 to +85 °C
- **Enclosure**: Radome: ASA Plastic, Base: Zamak white metal
- **Weight**: 150 g
- **Attachment Method**: Magnet or permanent (pre-tapped 4 x 6-32 UNC)
- **Environmental**:
  - IP67 and RoHS compliant
  - Vertical axis: 50 G, other axes: 30 G
  - 3 axis, sweep = 15 min, 10 to 200 Hz sweep: 3 G
- **Warranty**: One year, parts and labour

## Ordering Information
- TW2410 – GPS/GLonass Antenna, 5 metre cable, SMA Male 32-2410-0
- TW2410 – GPS/GLonass Antenna, SMA female on housing 32-2410-7

Please contact Tallysman Wireless for additional information.