



# 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

## Applications

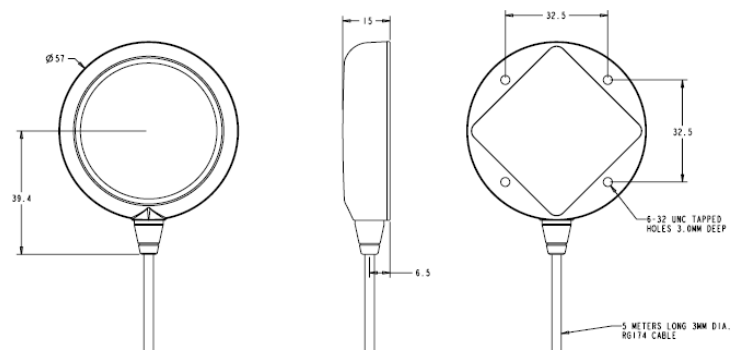
- High Accuracy & Mission Critical GNSS
- Precision Agriculture, Mining & Construction
- Military & Security
- Avionics
- Law Enforcement & Public Safety
- Fleet Management & Asset Tracking

## Features

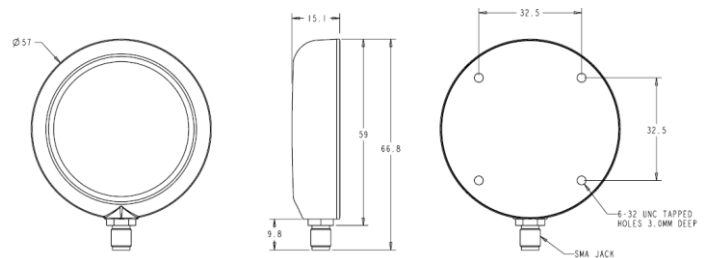
- Great axial ratio: 1 typ., 3 dB max
- Low noise LNA:  $\leq 1$  dB
- High rejection SAW filter
- LNA gain: 25 dB typ.
- Low current: 12 mA typ.
- Wide voltage input range: 2.5 to 5.5 VDC
- IP67 weather proof housing



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



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



## Benefits

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



# 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)	≤3 dB

## 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 5.5 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
Cable	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
Shock	Vertical axis: 50 G, other axes: 30 G
Vibration	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

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