

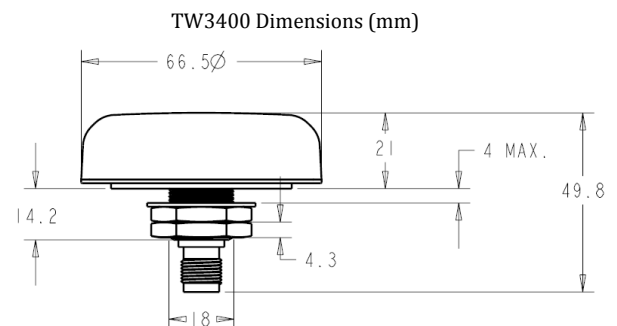


TW3400/TW3402 GPS/GLONASS Antenna

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



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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) >50dB (TW3402)
	<1550 MHz >25 dB >50dB
	>1640 MHz >35 dB >75dB
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	TNC Jack (female)
Cable (Option)	Custom cable assembly available.
Operating Temp. Range	-40 to +85 °C
Enclosure	Radome: ASA Plastic, Base: Zamak White Metal
Weight	150 g
Attachment Method	Permanent 3/4" (19mm) through hole mount
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

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

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