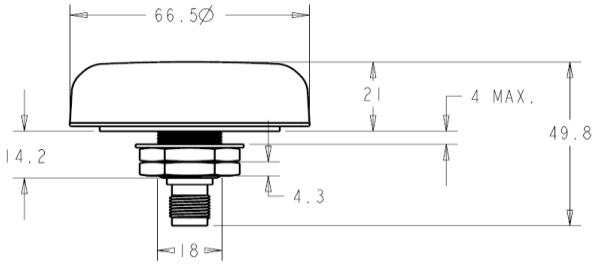
A Tallysman *Accutenna*®
TW3400/TW3402 GPS/GLONASS Antenna

The TW3400/TW3402 employs Tallysman's unique *Accutenna* technology 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. . They provide truly circular response over the antennas' entire bandwidth thereby producing superior multipath 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. Two options for pole mounting are available an L-bracket (P/N#23-0040-0) or a pipe mount (P/N#23-0065-0).

TW3400 Dimensions (mm)
Flat radome is shown, Conical Radome also available



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: 26 dB typ.
- Low current: 13 mA typ.
- Wide voltage input range: 2.5 to 16 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 and REACH 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 @zenith., 3 dB max.

Electrical

Filtered LNA Frequency Bandwidth		1574 to 1606 MHz	
Polarization		RHCP	
LNA Gain (1575.42 to 1606 MHz)		28dB min (TW3400)	26 dB min. (TW3402),
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 typ. 1.8:1 max.	
Noise Figure		1.5dB typ. (TW3400)	3.5 dB typ (TW3402)
Supply Voltage Range (over coaxial cable)		2.5 to 16 VDC nominal (12VDC recommended maximum)	
Supply Current		13 mA typ.	
ESD Circuit Protection		15 KV air discharge	

Mechanicals & Environmental

Mechanical Size	66.5 mm dia. x 21 mm H
Operating Temp. Range	-40 to +85 °C
Enclosure	Radome: EXL9330, Base: Zamak White Metal (M18x1thread)
Weight	150 g
Attachment Method	Permanent ¾" (19mm) through hole mount
Environmental	IP67, RoHS, REACH, and RED compliant
Shock	Vertical axis: 50 G, other axes: 30 G
Vibration	3 axis, sweep = 15 min, 10 to 200 Hz sweep: 3 G
Salt Spray	MIL-STD-810F Section 509.4

Ordering Information

TW3400 – GPS/GLONASS antenna 33-3400-xx-yy-zzzz TW3402 - 33-3402-xx-yy-zzzz

Where xx = connector type, yy = shape and colour of radome, and zzzz = cable length in mm (where applicable)

Please refer to the Ordering Guide (http://www.tallysman.com/wp-content/uploads/Current-Ordering-Guide.pdf)) for the current and complete list of available radomes and connectors.

An ISO 9001:2015 Certified Company

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