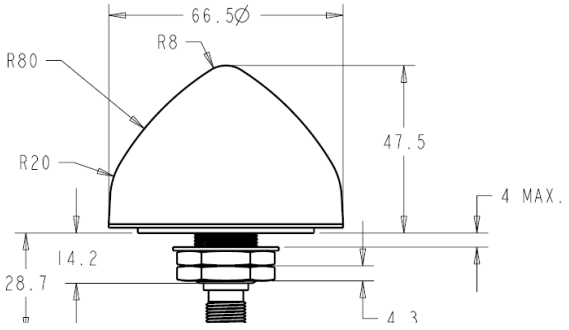
TW3470/TW3472 GPS/GLONASS Timing Antenna

The TW3470/TW3472 are professional grade 40dB fixed mount Timing antennas covering the GPS L1, GLONASS L1 and SBAS (WAAS, EGNOS & MSAS) frequency bands (1574 to 1606 MHz). They are especially designed for timing, precision and military applications and offer excellent circular polarized signal reception, multipath rejection and out of band signal rejection.

The TW3470/TW3472 feature a highly circular dual-feed wideband patch element, with a three stage Low Noise Amplifier. This configuration provides excellent axial ratio that is constant across the full frequency band. An optional tight pre-filter is available to protect against saturation by high level sub-harmonics and L-Band signals.with part number TW3472

The TW3470/TW3472 are housed in a permanent mount industrial-grade weather-proof enclosure, and comes with a TNC Jack (female) connector.



Applications

- GPS / GLONASS Fixed Timing
- 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.
- High gain LNA: 40 dB min.
- Low noise LNA: 1dB/3.5dB TW3470/TW3472
- Available sharp pre-filter (TW3472)
- Low current: 21 mA typ.
- Wide supply voltage: 2.5 to 10 VDC
- IP67 weather proof housing
- Available flat-top radome (mobile apps)

Benefits

- Excellent circular polarisation
- Excellent multipath rejection
- Excellent signal to noise ratio
- Excellent out-of-band rejection (TW3472)
- Increased system accuracy
- Ideal for harsh environments
- RoHS compliant

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Specifications

Antenna

Architecture		Dual, Quadrature Feeds	
1 dB Bandwidth		32 MHz	
Antenna Gain (with 100mm ground plane)		4.25 dBic	
Axial Ratio (over full bandwidth)		1 dB typ., 3 dB max.	

Electrical

Architecture		One LNA per feed line -> SAW filter -> 2-Stage LNA	
Filtered LNA Frequency Bandwidth		1574 to 1606 MHz	
Polarization		RHCP	
LNA Gain		40 dB min., 1575.42 to 1606 MHz	
Gain flatness		+/- 2 dB, 1575 to 1605 MHz	
Out-of-Band Rejection	<1500 MHz	>32 dB (TW3470)	>50dB (TW3472)
	<1550 MHz	>25 dB	>50dB
	>1640 MHz	>35 dB	>70dB
VSWR (at LNA output)		<1.5:1	
Noise Figure		1 dB typ. TW3470	3.5dB typ. TW3472
Supply Voltage Range (over coaxial cable)		2.5 to 10 VDC nominal	
Supply Current		21 mA typ.	
ESD Circuit Protection		15 KV air discharge	

Mechanicals & Environmental

Mechanical Size	66.5 mm dia. x 47.5 mm H
Connectors	TNC Jack (female).
Operating Temp. Range	-40 to +85 °C
Enclosure	Radome: ASA Plastic, Base: Zamak White Metal
Weight	140 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

TW3430 - Dark gray radome, TNC connector	32-3470-0-00
TW3430 - white radome, TNC connector	32-3470-0-01
TW3432 - Dark gray radome, TNC connector	32-3472-0-00
TW3432 - white radome, TNC connector	32-3472-0-01

Please contact Tallysman Wireless for additional information

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