



TW3032 GPS Brickwall Filtered Antenna

The TW3032 by Tallysman Wireless is a professional grade, dual-filtered permanent mount GPS L1 antenna, specially designed for precision positioning and timing applications in environments characterized by high L-Band RF fields.

The TW3032 features a precisely tuned ceramic patch element, a tight SAW pre-filter, a first LNA gain stage, a mid-section SAW filter and a final gain stage. It covers the GPS L1 and SBAS (WAAS/EGNOS/MSAS) frequency band (1572.5 to 1578 MHz), and it offers unparalleled out-of-band signal rejection and excellent axial ratio for improved signal reception and multipath rejection.

The TW3032 is housed in a compact, industrial-grade weather-proof, domed shaped enclosure. Its radome is available in dark gray or white, it comes with a TNC female connector and a L-bracket for pole mount is available.

Applications

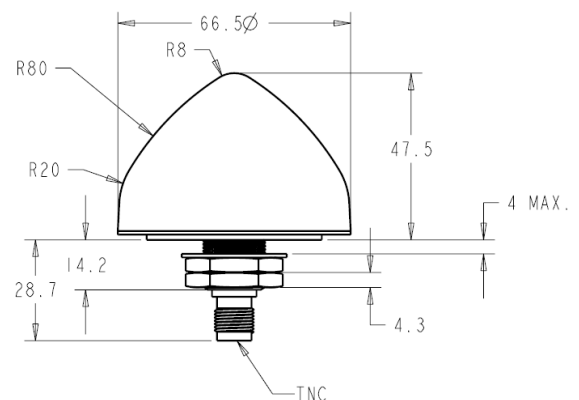
- Anti-Jamming GPS
- Mission Critical GPS Timing
- Military & Security
- Network Timing and Synchronisation

Features

- Narrow pass-band SAW pre-filter
- 3 dB Noise Figure (including pre-filter)
- Axial ratio: <4dB at Zenith
- High LNA gain: 26 dB typ.
- Low current: 10 mA typ.
- ESD circuit protection: 15 KV
- Wide voltage input range: +3.0 to 10 VDC



TW3032 Dimensions (mm)



Benefits

- Great out-of-band signal rejection
- Ideal for high level RF environments
- Great multipath rejection
- Increase system accuracy
- Great signal to noise ratio
- Weather proof IP67 housing
- RoHS compliant



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Specifications

Vcc = 3V, over full bandwidth, T=25°C

Antenna

Architecture	Custom single-feed ceramic patch
Antenna Gain (100mm ground plane)	5 dBiC at 90° on 100mm Ground Plane
Axial Ratio	4 dB at 90°, 6dB at 20°

Electrical

Architecture	SAW Pre-Filter, 1 st LNA, mid section SAW filter, output LNA
Frequency Bandwidth	1572.5 to 1578 MHz
Polarization	RHCP
LNA Gain (including SAW pre-filter)	26 dB min. at 90° (at 1575.42 MHz)
Out-of-Band Rejection	*Refer to table below
VSWR (at LNA output)	<1.5:1
Noise Figure	3 dB typ.
Supply Voltage Range	+3.0 to 10 VDC nominal
Supply Current	10 mA typ.
ESD Circuit protection	15 KV air discharge

Mechanicals & Environmental

Mechanical Size	66.5 mm dia. x 47.5 mm H
Connector / Cable	TNC female bulkhead / Custom cable assembly available
Operating Temp. Range	-40 to +85 °C
Enclosure	Radome: Dark Gray or White ASA Plastic, Base: Zamak White Metal
Weight	150 g
Attachment Method	L-Bracket option: P/N# 23-0040-0
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

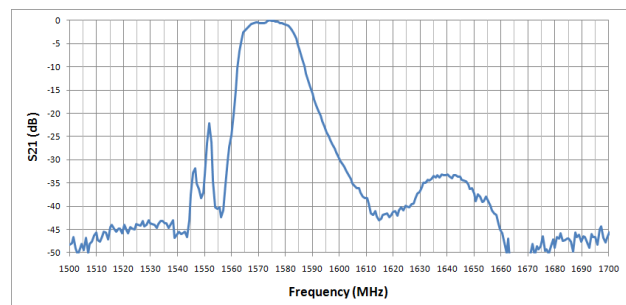
TW3032 – dark gray, TNC connector	32-3032-0-00
TW3032 – white, TNC connector	32-3032-0-01

Please contact Tallysman Wireless additional information

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Pre-Filter Out-of-Band Rejection



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