



# TW3030 Permanent Mount GPS L1 Antenna

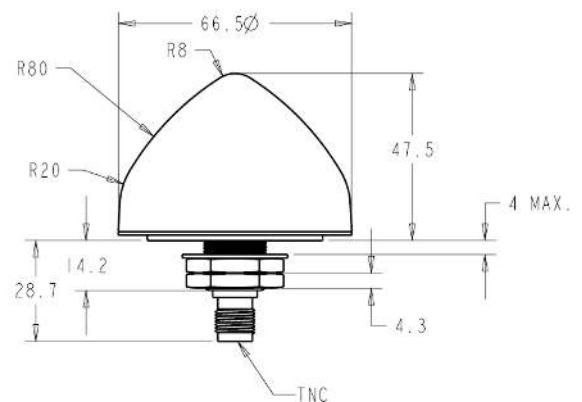
The TW3030 by Tallysman Wireless is a professional grade, permanent mount GPS L1 antenna, specially designed for professional precision timing applications.

The TW3030 features a custom high performance, wide band patch element, a 30dB gain LNA stage and a high rejection out-of-band SAW filter. It provides  $\pm 10$  MHz bandwidth centred on 1575.42 MHz and covers the GPS L1, Galileo E1 and SBAS (WAAS/EGNOS/MSAS) signals. It provides great axial ratio, excellent circular polarized signal reception, great multipath rejection and great out-of-band signal rejection.

The TW3030 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 (P/N#23-0040-0).



TW3030 Dimensions (mm)



## Applications

- High Accuracy, Mission Critical GPS Timing
- Military & Security
- Network Timing and Synchronisation

## Features

- Great axial ratio
- Low noise LNA: 1 dB
- High rejection SAW filter
- High gain: 30 dB typ.
- Low current: 10 mA typ.
- ESD circuit protection: 15 KV
- Wide voltage input range: +3.0 to 10 VDC
- Weather proof housing: IP67

## Benefits

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



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## Specifications

Vcc = 3V, over full bandwidth, T=25°C

### Antenna

Antenna Element Gain (100mm ground plane)	4 dBic at 90°
Axial Ratio (over full bandwidth)	4 dB at 90°

### Electrical

Architecture	2 stage LNA circuit + a mid section SAW filter. (Pre-filter option available)
Frequency Bandwidth	1575 MHz ± 10 MHz
Polarization	RHCP
Gain	30 dB typ. (at 1575.42 MHz)
Out-of-Band Rejection	<1560 MHz >42 dB >1600 MHz >31 dB >1620 MHz >45 dB
VSWR (at LNA input)	<1.5:1
Noise Figure	1 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 45 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

TW3030 – GPS L1 antenna, dark gray, TNC connector	32-3030-0-00
TW3030 – GPS L1 antenna, white, TNC connector	32-3030-0-01

Please contact Tallysman Wireless additional information

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