



# TW3030 Permanent Mount GPS L1 Antenna

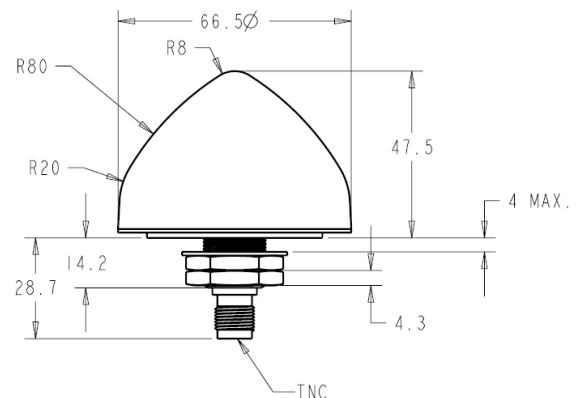
The TW3030 by Tallysman Wireless is a professional grade, permanent mount GPS L1 antenna, specially designed for professional precision timing applications.

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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