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TW3072 GPS Brickwall Pre-Filtered Antenna

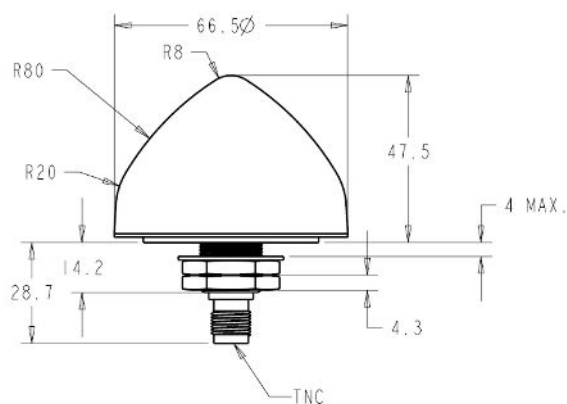
The TW3072 by Tallysman Wireless is a professional grade, high gain, pre-filtered permanent mount, GPS L1 antenna, with a conical radome specially designed for timing applications in environments characterized by high L-Band RF fields.

The TW3072 features a precisely tuned ceramic patch element, a tight band-pass SAW pre-filter, a first LNA gain stage, an in line SAW filter, followed by a two stage amplifier. 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 TW3042 is housed in a permanent mount industrial-grade weather-proof conical white enclosure, and comes with a TNC Jack (female) connector. An L-bracket for pole mount is available.



TW3072 Dimensions (mm)



Applications

- Anti-Jamming GPS
- Military & Security
- Network Timing and Synchronisation
- Long Cable run installations

Features

- Narrow pass-band SAW pre-filter
- LNA Noise Figure: <3.3dB
- Axial ratio: <4dB at Zenith
- High LNA gain: 42 dB typ.
- Low current: 20 mA typ.
- ESD circuit protection: 15 KV
- Wide voltage input range: +2.7 to 10 VDC

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

Test Conditions: Vcc = 3V, over full bandwidth, T=25°C

Antenna

Architecture
Antenna Gain (100mm ground plane)
Axial Ratio

Custom single-feed ceramic patch
5 dBic at 90° on 100mm Ground Plane
4 dB at 90°, 6dB at 20°

Electrical

Architecture
Frequency Bandwidth
Polarization
LNA Gain (including SAW pre-filter)
Out-of-Band Rejection
VSWR (at LNA output)
Noise Figure
Supply Voltage Range
Supply Current
ESD Circuit protection

SAW Pre Pre-Filter, 1st LNA, in-line SAW filter, two stage LNA
1572.5 to 1578 MHz
RHCP
40 dB min. at 90° (at 1575.42 MHz)
*Refer to table below
<1.5:1
3.3 dB typ.
+2.7 to 10 VDC nominal
25 mA Max.
15 KV air discharge

Mechanicals & Environmental

Mechanical Size
Connector / Cable
Operating Temp. Range
Enclosure

Weight
Attachment Method
Environmental
Shock
Vibration
Warranty

66.5 mm dia. x 47.5 mm H
TNC female bulkhead / Custom cable assembly available
-40 to +85 °C
Radome: White or Dark Grey ASA Plastic,
Base: Zamak White Metal
150 g
L-Bracket option: P/N# 23-0040-0
IP67 and RoHS compliant
Vertical axis: 50 G, other axes: 30 G
3 axis, sweep = 15 min, 10 to 200 Hz sweep: 3 G
One year – parts and labour

Ordering Information

TW3072 – white, TNC connector

32-3072-x-y

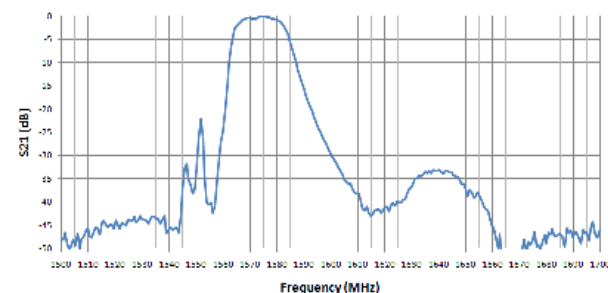
Connector: x=1 TNC, x=2 N type

Color : y=1 White

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Pre-Filter Pass-Band



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