TW3040 Permanent Mount GPS L1 Antenna

The TW3040 by Tallysman Wireless is a professional grade, permanent mount GPS L1 antenna, specially designed for professional precision timing applications.

The TW3040 features a custom high performance, wide band patch element, a 40dB gain LNA stage and a high rejection out-of-band SAW filter. It provides ±10MHz bandwidth centred on 1575.42 MHz and covers the GPS L1, Galileo E1 and SBAS (WAAS/EGNOS/MSAS) signals, and it provides great axial ratio, excellent circular polarized signal reception, great multipath rejection and great out-of-band signal rejection.

The TW3040 is housed in a permanent mount industrial-grade weather-proof enclosure, and comes with a TNC Jack (female) connector.

Applications
- Mission Critical GPS Tracking & Timing
- Precision Agriculture, Mining & Construction
- Military & Security
- Avionics
- Law Enforcement & Public Safety
- Fleet Management & Asset Tracking

Features
- Great axial ratio
- Low noise LNA: 1 dB
- High rejection SAW filter
- High gain: 40 dB typ.
- Low current: 15 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

www.tallysman.com
TW3040 Permanent Mount GPS L1 Antenna

Specifications

Vcc = 3V, over full bandwidth, T=25°C

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

Electrical
Architecture
3 stage LNA circuit + a mid section SAW filter.
(Pre-filter option available)
Frequency Bandwidth
1575 MHz ± 10 MHz
Polarization
RHCP
Gain
40 dB min. (at 1575.42 MHz)
Out-of-Band Rejection
>42 dB
>31 dB
>45 dB
<1.5:1
VSWR (at LNA input)
1 dB typ.
Noise Figure
+3.0 to 10 VDC nominal
Supply Voltage Range
15 mA typ.
Supply Current
15 KV air discharge
ESD Circuit Protection

Mechanicals & Environmental
Mechanical Size 66.5 mm dia.x 21 mm H
Connector / Cable
TNC female bulkhead / Custom cable assembly available
Operating Temp. Range
-40 to +85 °C
Enclosure
Base: Zamak White Metal
Radome: Dark Gray or White ASA Plastic,
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
TW3040 – GPS L1 antenna, dark gray, TNC connector 32-3040-0-00
TW3040 – GPS L1 antenna, white, TNC connector 32-3040-0-01

Please contact Tallysman Wireless additional information

Tallysman Wireless Inc
106 Schneider Road, Unit 3
Ottawa ON K2K 1Y2 Canada
Tel 613 591 3131
Fax 613 591 3121
sales@tallysman.com

The information provided herein is intended as a guide only and is subject to change without notice. This document is not to be regarded as a guarantee of performance. Tallysman Wireless Inc. hereby disclaims any or all warranties and liabilities of any kind. © 2011 Tallysman Wireless Inc. All rights reserved.