When precision matters..™



TW3370/TW3372 40dB Wideband GPS/GLONASS Antenna

The TW3370/TW3372 is a high Gain (40dB) GNSS antenna covering the GPS L1, GLONASS L1 and SBAS (WAAS, EGNOS & MSAS) frequency band (1575 to 1606 MHz). It features a patch element with 40% wider bandwidth than previously available in this format. Unlike its competitors, both GPS-L1 and GLONASS signals are included in the 1dB received power bandwidth.

The TW3370/TW3372 has a three stage Low Noise Amplifier with a mid-section SAW. A tight pre-filter is available with the TW3372 to protect against saturation by high level sub-harmonics and L-Band signals making it particularly suitable for timing applications.

The TW3370/TW3372 has a 19mm (3/4 Inch) though hole, permanent mount white-metal base, with an industrial-grade, IP67 compliant conical radome. Two options for pole mounting are available an L-bracket (P/N#23-0040-0) or a pipe mount (P/N#23-0065-0).

Applications

- Timing applications
- Fixed installations
- Cost Sensitive Mission Critical Positioning
- Military & Security

Features

- 40dB LNA Gain
- 1 dB LNA Noise Figure (TW3370)
- Available Pre-filter (TW3372)
- Wide voltage input range: 2.5 to 16 VDC
- IP67 Compliant conical radome
- Low Power: 9mA typ. at 2.3Vcc min.



TW3370 / TW3372 Shown with Conical Radome. Low Profile Radome also available



Benefits

- Bandwidth fully Includes GPS-L1 & GLONASS
- Excellent multipath rejection
- Increased system accuracy
- Excellent signal to noise ratio
- Great out of band signal rejection
- Ideal for harsh environments
- RoHS, REACH, and CE compliant



TW3370/TW3372 40dB Wideband GPS/GLONASS Antenna Specification

Antenna

Architecture 1 dB Bandwidth 10dB Return Loss Bandwidth Antenna Gain (with 100mm ground plane) Axial Ratio

Electrical

Architecture TW3370 TW3372 Filtered LNA Frequency Bandwidth Polarization Gain Gain flatness Out-of-Band Rejection <1500 MHz <1550 MHz >1640 MHz VSWR (at LNA output)

Noise Figure Supply Voltage Range (over coaxial cable) Supply Current ESD Circuit Protection

Mechanicals & Environmental

Mechanical Size Operating Temperature Range Enclosure Weight Environmental Shock Vibration Salt Fog / Spray Wideband Single Feed Patch 31 MHz 45MHz 4.5 dBic <4dB @ 1590MHz, 8 dB typical at band-edges

LNA stage 1 -> SAW filter-> LNA stage 2 SAW Pre-filter ->LNA stage 1 -> SAW filter-> LNA stage 2 1575 to 1606 MHz RHCP 41 dB min., TW3370 40dB min., TW3372 +/- 2 dB, 1575 to 1606 MHz >32 dB (TW3370) >50dB (TW3372) >25 dB >50dB >35 dB >70dB <1.5:1 typ 1.8:1 max 1dB typ. TW3370, 2.5 dB typ. TW3372 +2.5 to 16 VDC nominal (12VDC recommended maximum) 20 mA max. at 85°C 15 KV air discharge

66.5 mm dia. x 21 mm H -40 to +85 °C Radome:EXL9330, Base: Zamak White Metal 150 g IP67, CE, REACH, RED, and RoHS compliant Vertical axis: 50 G, other axes: 30 G 3 axis, sweep = 15 min, 10 to 200 Hz sweep: 3 G MIL-STD-810F Section 509.4

Ordering Information.

TW3370 – GPS/GLONASS antenna TW3372 – GPS GLONASS antenna w/pre-filter 33-3370-xx-yy-zzzz 33-3372-xx-yy-zzzz

Where xx = connector type, yy = shape and colour of radome, and zzzz = cable length in mm (where applicable) Please refer to the Ordering Guide (<u>http://www.tallysman.com/wp-content/uploads/Current-Ordering-Guide.pdf</u>) for the current and complete list of available radomes and connectors.



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