TW5242

TALLYMATICS ®

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TW5242 Smart GNSS Antenna

Overview

The TW5242 is a multi-constellation GNSS Receiver which provides simultaneous GPS/GLONASS/SBAS reception. It is designed for use in professional grade digital tracking/ positioning applications.

The TW5242 uses a state of the art ST STA8088 receiver which provides 32 high sensitivity tracking channels plus 2 fast acquisition channels which can be assigned to acquire and track GPS, GLONASS, QZSS, and SBAS (WAAS, EGNOS, MSAS) signals simultaneously.
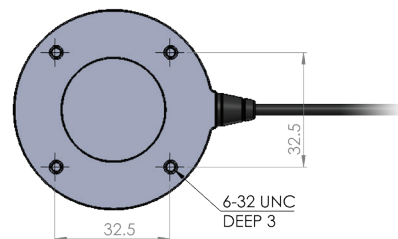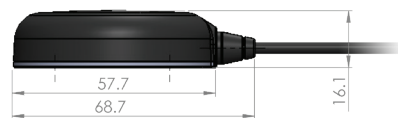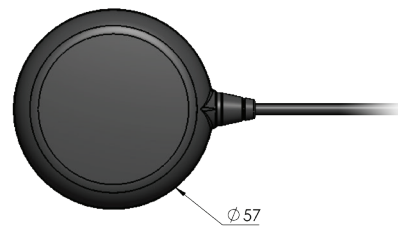
The TW5242 employs Tallysman's Accutenna™ dual feed antenna patch technology which greatly improves rejection of multi-path signal interference, making it the most precise antenna for tracking in dense urban environments.

The TW5242 output NMEA 0183 messages lists with navigation update rate of 1Hz. It has a RS232 interface and 9V to 36 V operation for automotive applications.

Tallysman's Windows™ based configurator application enables configuration of parameters such as baud rates, output message rates, constellation, tracking parameters.

Interface

The TW5242 has a 5 meter cable terminated in RJ12 connector. Adaptor cables are available for connecting to a variety of Two-Way radios, PC, etc contact Tallysman for details.

Ø 57

57.7
68.7
16.1

32.5

32.5

6-32 UNC
DEEP 3

Mechanical Dimensions (mm)

Features

- Multi-Constellation Receiver/Antenna
- 32 Channel simultaneous operation
- High performance tracking (162 dBm)
- Conditional ignition input for Tait Radios

- 9V-36V automotive operation
- Excellent multi-path signal rejection
- Industrial grade IP67 enclosure
- RoHS, REACH, RED compliant. CE marking

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Specifications

Antenna

Architecture . . . . .Dual Feed
Axial Ratio . . . .< 1 dB typical.
Frequencies . . . . .GPS / GLONASS / QZSS
SBAS . . . . .WAAS, EGNOS, MSAS
Channels. . . . . .32 simultaneous plus 2 fast
acquisition
Navigation Accuracy
GPS+GLONASS . . . . .1.55m (50% CEP)

Interface

Outputs. . . . . .Pwr, Gnd, Tx
Inputs . . . . .Rx
RS232

Mechanical

Dimensions . . . . .57 mm dia. x 15 mm H
Weight. . . . . .130 g
Mounting Method . . . . .Magnetic Mount
Cable Length. .5 m with RJ12 termination
Enclosure . . . . .Industrial grade magnetic mount
weatherproof IP67

Electrical

Voltages . . . . .9 V to 36 VDC
Current . . . . .50 mA during acquisition
40 mA operating

Environmental

Operating Temperature. . . . .-40℃ to +85℃
Storage Temperature. . . . .-45℃ to +85℃
Weatherproof IP67
Shock. . . . . .Vertical axis 50G,other axis 30G
3 axis sweep – 15 min
Vibration. . . . . .10-200 Hz log sweep 3G

Sensitivity

Acquisition. . . . .-146 dBm
Tracking . . . .-162 dBm

Time to First Fix

Cold start . . . . .35 sec
Warm start . . . . .30 sec
Hot start . . . .<2 sec
Reacquisition . . . .<1 sec

Serial Protocol

Output. . . . . .NMEA 0183
Baud Rate. . . . . .Configurable
Update Rate. . . . . .Configurable up to 10Hz
Constellations

Ordering Information:

32-5242-6-10-05-ccc

ccc= Custom Configuration (Contact Tallysman for "Custom" details e.g. configuration, radio cable type.

e.g.   PC0= NMEA out, no adaptor cable   TC3= Tait NMEA, 27-0118-1 radio cable

TW5242 Configuration Cable   **27-0117-0 T**

Please refer to the Ordering Guide for the current and complete list of available products.

TALLYMATICS®

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Tallymatics manufactures high performance, telematics products and solutions for a wide range of applications. With support for both RF wireless and data networks, Tallymatics enables high-resolution location awareness of mobile field assets across any type of wireless network. Tallymatics is a division of Tallysman.

Contact us:
info@tallymatics.com
T: +1 613 591-3131

Tallymatics Inc.
36 Steacie Drive,
Ottawa ON
K2K 2A9 Canada

www.tallymatics.com