

# TW5242



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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.

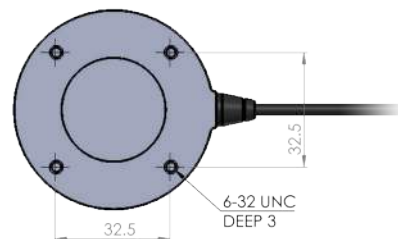
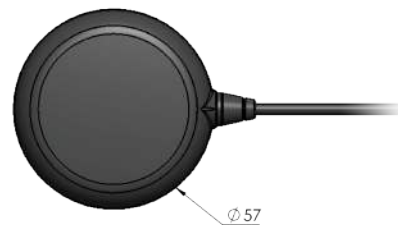
The TW5242 employs Tallysman's Accutenna™ dual feed antenna patch technology which greatly improves rejection of multi-path signal interference, making it the most precise antenna for tracking in dense urban environments.

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.



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°C to +85°C  
Storage Temperature.....-45°C to +85°C  
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.



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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.

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