

# TW5262

## TW5262 Smart GNSS Antenna

### Overview

The TW5262 is a multi-constellation GNSS Receiver/Antenna fused with inertial sensor data. It is an easy-to-use tracking solution that enables high performance positioning in places where GNSS signals are poor or not available.

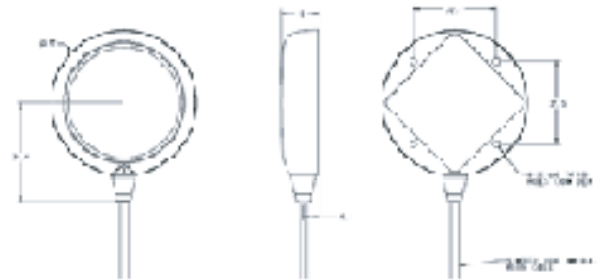
The TW5262 incorporates a latest generation GNSS receiver that supports simultaneous GPS/Galileo/GLONASS (GLONASS or Beidou) reception and a Tallysman's Accutenna™ patch antenna. This dual feed antenna greatly improves rejection of multi-path signal interference, making it the most precise antenna for tracking in dense urban environments.

### Untethered Dead Reckoning (UDR)

The TW5262 Untethered Dead Reckoning (UDR) technology provides continuous navigation without requiring speed information from the vehicle. This innovative technology brings the benefits of dead reckoning to installations previously restricted to using GNSS alone, significantly reducing the cost of installation for Dead Reckoning applications.

The strength of UDR is particularly apparent under poor signal conditions, where it brings continuous positioning in urban environments, even to devices with antennas installed within the vehicle. Useful positioning performance is also available during complete signal loss, for example in parking garages or short tunnels. UDR positioning starts as soon as the ignition signal is applied and before the first GNSS fix is available.

The TW5262 may be installed in any position in a vehicle without electrical connection to the vehicle speed sensor. The on-board accelerometer and gyroscope sensors result in a self-contained UDR which is self-calibrating and provides reliable and consistent navigation.



Mechanical Dimensions (mm)

### Features

- Complete positioning solution with integrated 3D sensors
- Positioning accuracy in dense cities and covered areas
- Independent of any electrical connection to the car
- 5V-36V automotive operation
- Excellent multi-path signal rejection
- Industrial grade IP67 enclosure
- RoHS, REACH, RED compliant. CE marking

# TW5262 Smart GNSS Antenna

## Specifications

### Antenna

Architecture ..... Dual Feed  
Axial Ratio ..... < 1 dB typical.  
Frequencies ..... GPS/QZSS L1 C/A, GLONASS L10F  
BeiDou B1I, Galileo E1B/C  
SBAS L1 C/A ..... WAAS, EGNOS, MSAS, GAGAN  
Channels ..... 72-channel u-blox M8 engine

### Interface

Pwr, Gnd  
Ignition In  
Tx, RX ..... RS232 levels

### 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 ..... 5 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

Tracking & Nav ..... -160 dBm  
Cold starts ..... -148 dBm  
Hot starts ..... -157 dBm

### Acquisition

Cold start ..... 26 sec  
Aided 3 sec  
Reacquisition ..... <1 sec

### Position

Position Accuracy ..... 2.5m CEP  
UDR Position Error ..... Typically <10% of distance covered  
without GNSS (up to 60 s)

### Serial Protocol

Output ..... NMEA 0183  
Baud Rate ..... Configurable  
Update Rate ..... Configurable up to 30Hz

## Ordering Information:

32-5262-7-10-05-ccc

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

e.g. PCO = NMEA out, no adaptor cable TC4 = Tait NMEA, 27-0118-1 radio cable

### TW5262 Configuration Cable

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

**About Calian GNSS Ltd.:** With global headquarters and manufacturing in Ottawa, Canada, Calian GNSS is a leading manufacturer of high-precision antennas and components for Global Navigation Satellite System (GNSS) applications. Calian GNSS' mission is to support the needs of a new generation of positioning systems by delivering unprecedented antenna precision at competitive prices. Learn more at [www.calian.com/GNSS](http://www.calian.com/GNSS)

© 2024 Calian GNSS Ltd. All rights reserved. Calian, the "Confidence. Engineered." tag line and the Calian logo are trademarks or registered trademarks of Calian GNSS Ltd. and/or its affiliates in Canada and certain other countries. All other trademarks mentioned in this document are the property of their respective owners. This document contains Calian proprietary information. Use, disclosure, copying or distribution of information requires the written permission of Calian GNSS Ltd. The information presented is subject to change without notice. Calian assumes no responsibility for any errors or omissions in this document. Calian GNSS Ltd. hereby disclaims any and all warranties and liabilities of any kind.

## Contact us:

info.gnss@calian.com  
T: +1 613 591-3131

Calian GNSS Ltd.  
36 Steacie Drive,  
Ottawa ON  
K2K 2A9 Canada

[www.calian.com/GNSS](http://www.calian.com/GNSS)