Datasheet

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TW5262 Smart GNSS Antenna

Overview

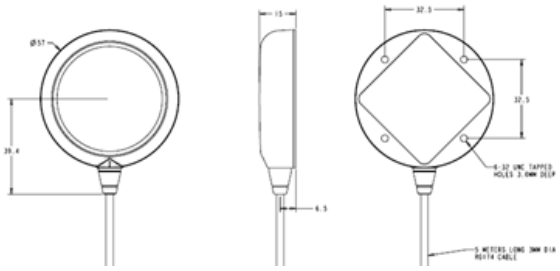
The TW5262 is a multi-constellation GNSS Receiver/Antenna fused with inertial sensor data. It is an easy-to-use tracking solution that enables high performance positioning in places where GNSS signals are poor or not available.

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.



Interface

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.



Mechanical Dimensions (mm)

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.

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

Specifications in brief

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

Interface	
Pwr, Gnd Ignition In Tx, RX	RS232

Mechanical	
Dimensions	57 mm dia. x 15 mm H
Weight	30 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 1
Cold starts	-148 dBm
Hot starts	-157 dBm

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

Accuracy	
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:

33-5262-7-10-05-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.

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