

TW5362

TW5362 Smart GNSS Antenna

Overview

The TW5362 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 TW5362 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.

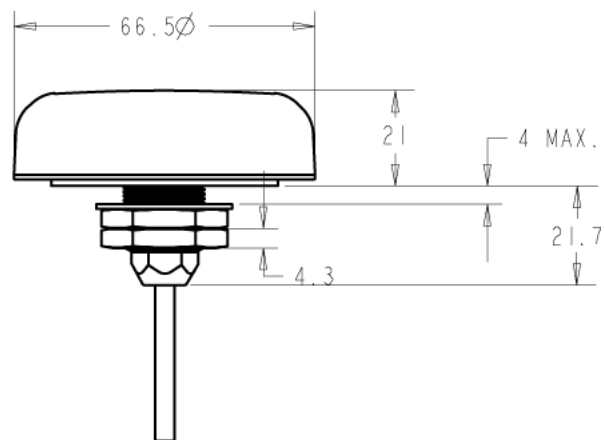
Untethered Dead Reckoning (UDR)

The TW5362 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 when the antenna is 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 TW5362 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.

A Timepulse output generates pulse trains synchronized with GPS or UTC time grid with intervals configurable over a wide frequency range.



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 IP69K enclosure
- RoHS, REACH, RED compliant. CE marking

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Specifications

Antenna	Environmental
Architecture.....Dual Feed	Operating Temperature.....-40°C to +85°C
Axial Ratio.....< 1 dB typical.	Storage Temperature.....-45°C to +85°C
Frequencies.....GPS/QZSS L1 C/A, GLONASS L10F BeiDou B1I, Galileo E1B/C	Weatherproof.....IP69K
SBAS L1 C/A.....WAAS, EGNOS, MSAS, GAGAN	Shock.....Vertical axis 50G, other axis 30G 3 axis sweep – 15 min
Channels.....72-channel u-blox M8 engine	Vibration.....10-200 Hz log sweep 3G
Interface	Sensitivity
Pwr, Gnd Ignition In	Tracking & Nav.....-160 dBm 1
Ignition Out (50% of ignition IN voltage level)	Cold starts.....-148 dBm
Tx, RX.....RS232 levels	Hot starts.....-157 dBm
Timepulse.....RS232 level	Acquisition
N/C	Cold start.....26 sec Aided 3 sec
Mechanical	Reacquisition.....<1 sec
Dimensions.....66.5 mm dia. x 21 mm H	Position
Weight.....135 g	Position Accuracy.....2.5m CEP, 1.5m with SBAS
Mounting Method.....Fixed Mount	UDR Position Error.....Typically <10% of distance covered without GNSS (up to 60 s)
Cable Length.....5 m with RJ45 termination	Serial Protocol
Enclosure.....Industrial grade fixed mount weatherproof IP69K	Output.....NMEA 0183
Electrical	Baud Rate.....Configurable
Voltages.....5 V to 36 VDC	Update Rate.....Configurable up to 30Hz
Current.....50 mA during acquisition 40 mA operating	

Ordering Information:

32-5362-7-10-05-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

TW5362 Configuration Adaptor Cable

27-0124-1

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



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

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

www.tallymatics.com