

# TW5252

## TW5252 Smart GNSS Antenna

### Overview

The TW5252 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 TW5252 GNSS Smart Antenna uses a state of the art multi-constellation GNSS receiver which provides 72 high sensitivity tracking channels which can be configured to acquire and track 3 concurrent GNSS constellations (GPS, Galileo, GLONASS and Beidou) plus SBAS (WAAS, EGNOS, MSAS and GAGAN) and QZSS augmentation signals simultaneously. Differential GPS corrections may also be supplied via RTCM formatted corrections messages.

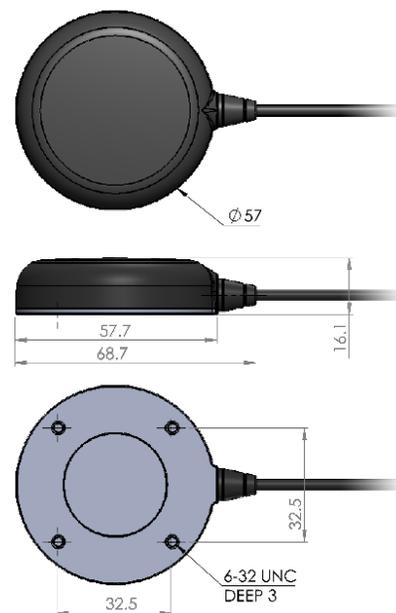
The TW5252 employs Tallysman's Accutenna™ dual feed antenna patch technology which greatly improves rejection of multi-path signal interference, across the whole GNSS band. The addition of pre- and post- filtering within the RF signal chain greatly improves immunity to jamming carriers typical within urban environments.

The TW5252 can be configured to output a variety of NMEA 0183 message lists with navigation update rates up to 5Hz. An RS232 interface is provided for data communication with input voltage range from 5V to 36V suitable for Automotive applications.

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

### Interface

The TW5252 has a 5 meter cable terminated in RJ12 connector. Adaptor cables are available to interface to for a variety of Two-Way radios, PC, etc contact Tallysman for details.



Mechanical Dimensions (mm)

### Features

- Multi-Constellation Receiver/Antenna
- Concurrent tracking of 3 constellations
- 72 Channel simultaneous operation
- High performance tracking (-164 dBm)
- WAAS, EGNOS, MSAS & GAGAN + QZSS
- DGPS corrections using RTCM input
- Navigation rates 1 to 5 Hz
- Conditioned ignition input for Tait Radios
- 5V to 36V automotive operation
- Accutenna™ Technology
- Pre- and Post- LNA filtering
- Superior multi-path signal rejection
- Industrial grade IP67 enclosure
- RoHS, Reach, RED compliant, CE Marking

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## Specifications

<b>Antenna</b>		Shock.....Vertical axis 50G,other axis 30G 3 axis sweep – 15 min
Architecture.....	Dual Feed	Vibration.....10-200 Hz log sweep 3G
Axial Ratio.....	< 1 dB typical.	
Frequencies.....	GPS/QZSS L1 C/A, GLONASS L10F BeiDou B1I, Galileo E1B/C	
SBAS.....	.WAAS, EGNOS, MSAS, GAGAN	
Channels.....	.72-Channel u-blox M8 engine	
<b>Interface</b>		
Pwr, Gnd		
Tx, RX.....	.RS232	
<b>Mechanical</b>		
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	
<b>Electrical</b>		
Voltages.....	.5 V to 36 VDC	
Current.....	.<500 mW nominal Operating	
<b>Environmental</b>		
Operating Temperature.....	..-40°C to +85°C	
Storage Temperature.....	..-45°C to +85°C	
Weatherproof.....	..IP67	
		<b>Sensitivity</b>
		Tracking & Nav.....-164 dBm 1
		Cold starts.....-148 dBm
		Hot starts.....-157 dBm
		<b>Acquisition</b>
		Cold start.....26 sec
		Aided 3 sec
		Reacquisition.....1 sec
		<b>Accuracy</b>
		Position Accuracy.....2.5m CEP (Horizontal)
		Velocity Accuracy.....0.05 m/s
		Heading Accuracy.....0.3 deg
		<b>Operational Limits</b>
		Dynamics.....4 g
		Altitude.....50,000 m
		Velocity.....500 m/s
		<b>Serial Protocol</b>
		Output.....NMEA 0183
		Input.....RTCM
		Baud Rate.....Configurable up to 230400 bps
		Update Rate.....Configurable up to 5Hz

## Ordering Information:

32-5252-7-10-05-ccc

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

e.g. PC0= NMEA out, no adaptor cable

TC4 = Tait NMEA, 27-0118-1 radio cable

### TW5252 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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