

TW5352



Smart GNSS Antenna

Overview

The TW5352 is a multi-constellation GNSS Receiver which provides simultaneous multi-constellation GNSS reception. It is designed for use in professional grade digital tracking/positioning applications.

The TW5352 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.

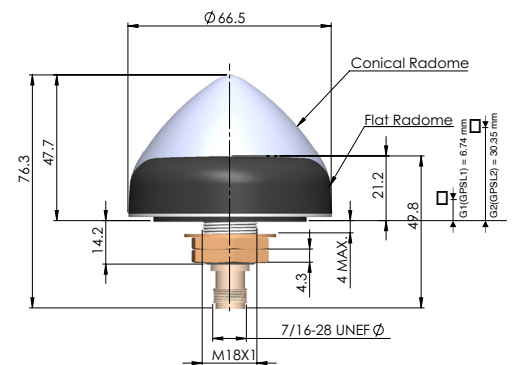
The TW5352 employs Tallysman's Accutenna™ dual feed antenna patch technology which greatly improves rejection of multi-path signal interference, across the whole GNSS band. The addition of pre- and post- filtering within the RF signal chain greatly improves immunity to jamming carriers typical within urban environments.

The TW5352 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 TW5352 has a 5 meter cable terminated in RJ45 connector. Adaptor cables are available to interface to for a variety of Two-Way radios, PC, etc contact Tallysman for details.



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 IP69K enclosure
- RoHS, Reach, RED compliant, CE Marking

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Specifications

Antenna

Architecture Dual Feed
Axial Ratio < 1 dB typical.
Frequencies GPS/QZSS L1 C/A, GLONASS L1OF
BeiDou B1I, Galileo E1B/C
SBAS WAAS, EGNOS, MSAS, GAGAN
Channels 72–Channel u-blox M8 engine

Interface

Pwr, Gnd
Tx, RX RS232

Mechanical

Dimensions 66.5 mm dia. x 21 mm H
Weight 135 g
Mounting Method Fixed Mount
Cable Length 5 m with RJ45 termination
Enclosure Industrial weatherproof IP69K

Electrical

Voltages 5 V to 36 VDC
Current <500 mW nominal Operating

Environmental

Operating Temperature -40°C to +85°C
Storage Temperature -45°C to +85°C
Weatherproof IP69K
Shock Vertical axis 50G, other axis 30G
3 axis sweep – 15 min
Vibration 10–200 Hz log sweep 3G

Sensitivity

Tracking & Nav -164 dBm
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 (Horizontal)
Velocity Accuracy 0.05 m/s
Heading Accuracy 0.3 deg

Operational Limits

Dynamics 4 g
Altitude 50,000 m
Velocity 500 m/s

Serial Protocol

Output NMEA 0183
Input RTCM
Baud Rate Configurable up to 230400 bps
Update Rate Configurable up to 5Hz

Ordering Information:

33-5352-7-yy-05-ccc

yy= Radome (10= Grey low profile, 11= White low profile)

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

e.g. PC0= NMEA out, No Adaptor cable TC5= Tait NMEA, 27-0028-0 radio cable

DB9 Configuration Adaptor

27-0124-0

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

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