

# TW5384

## TW5384 Smart GNSS Antenna for High Accuracy Positioning

### Overview

The TW5384 is a multi-band (L1/L2), multi-constellation integrated GNSS receiver/antenna with RTK for Precise Point Positioning. The TW5384 is capable of providing sub 1 meter accuracy stand alone and sub 10 cm accuracy with RTK corrections to support the most demanding positioning applications.

### Interference Resilience

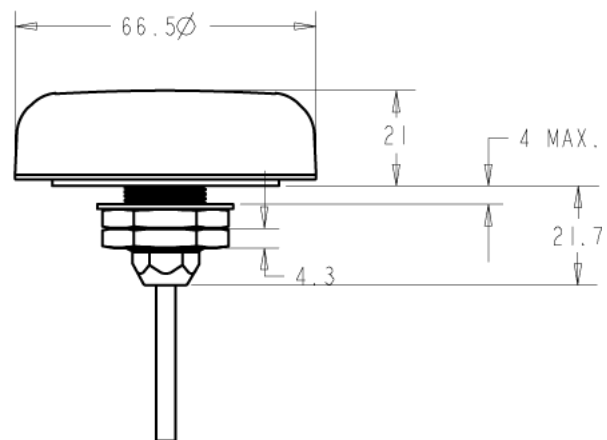
The TW5384 incorporates a latest generation multi-band (L1/L2) GNSS receiver with a Tallysman Accutenna™ multi-band (L1/L2) dual feed patch. The state of the art GNSS receiver supports concurrent tracking of all four major constellations (GPS, BeiDou, Galileo and GLONASS) in multiple frequency bands. The multi-band (L1/L2) architecture is the most effective method for the removal of ionospheric error. The TW5384 employs multi-stage filtering with low noise figure LNAs, combined with the dual feed Accutenna™, which greatly improves the rejection of multi-path signal interference, to offer exceptional performance to meet the most stringent precise positioning applications.

### Precise Point Positioning

The TW5384 is designed to meet the most demanding of positioning applications. The receiver offers support for a broad range of corrections services (RTK base/rover or network) allowing performance optimization according to each application's unique requirements. The concurrent multi-band (L1/L2) access to all four satellite constellations improves the receiver's convergence capability to deliver a quick, precise and reliable position solution which is unaffected by ionospheric errors, and improved resilience to jamming.

The TW5384 accepts RTCM RTK messages from a base station, Virtual Reference Station or SPARTN SSR message type via the Point Perfect subscription service. TW5384 may also be configured as a RTK base station or moving base.

The TW5384 provides sub 10 cm positioning accuracy in conjunction with RTK applied corrections.



Mechanical Dimensions (mm)

### Features

- Improved noise immunity with multi-band GNSS receiver
- Improved multi-path rejection with Dual feed Accutenna™
- Multi-band GNSS receiver is unaffected by ionospheric errors
- High reliability timing with expansive constellation array
- Exceptional position performance without correction services
- Broad 5V-36V operation
- RS-485 differential signalling
- Industrial grade IP69K enclosure
- Rugged fixed mount
- Multiple cable lengths (5m, 15m and 25m)
- Available with conical radome

# TW5384 Smart GNSS Antenna

## Specifications

Antenna	Environmental
Architecture.....Multi-band (L1/L2), Dual Feed	Operating Temperature.....-40°C to +85°C
Axial Ratio.....L1: < 1 dB typical.	Storage Temperature.....-40°C to +85°C
Frequencies.....GPS L1C/A L2C, GLO L10F L20F, GAL E1B/C E5b, BDS B1I B2I, QZSS L1C/A L2C	Weatherproof.....IP69K
SBAS L1 C/A.....WAAS, EGNOS, MSAS, GAGAN	Shock.....Vertical axis 50G, other axis 30G 3 axis sweep – 15 min
Channels.....184-channel u-blox F9 engine	Vibration.....10-200 Hz log sweep 3G
Anti-jamming.....Active CW detection	
Interface	Sensitivity
Pwr, Gnd	Tracking & Nav.....-167 dBm
Tx, RX, Timepulse.....RS-485 levels	Reacquisition.....-160 dBm
	Hot starts.....-157 dBm
	Cold starts.....-148 dBm
Serial Protocol	Acquisition
Output.....NMEA 0183, UBX Binary, RTCM v3.3, SPARTN v2.0	Cold start......25 sec
Baud Rate.....Configurable	Aided start......2 sec
Update Rate.....Configurable up to 10Hz*	Reacquisition......2 sec
Mechanical	Position Accuracy
Dimensions......66.5 mm dia. x 21 mm H	Horizontal PVT......1.5m CEP
Weight......135 g	Horizontal SBAS......1.0m CEP
Mounting Method.....Industrial grade fixed Mount	Horizontal RTK......0.01 + 1ppm R50*
Cable Length.....5, 15, 25m with RJ45 termination	Horizontal PPP-RTK (SPARTN).....<0.06m CEP
	Typical Convergence.....<45 sec*
Electrical	Timing
Voltages......5 V to 36 VDC	Timing Accuracy......30 ns RMS
Current......0.5 Watts (nominal operating) Measured @ 5VDC supply	

## Ordering Information:

33-5384-7-yy-zz-PC0 (PCO = NMEA out, no adaptor cable.)

yy = Radome (00=grey conical, 10=grey low profile, 01=white conical, 11=white low profile)  
zz = Cable length in meters. Standard is 5m. (15m and 25m are special order only)

**TW5384 SDK Test Adaptor required for programming 33-0095-1**

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



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