

# TW5790 High-Precison Smart GNSS Antenna with L-Band PPP-RTK SDK

Calian's High Precision Tallysman **Smart GNSS antennas** integrate advanced receivers with High Precision Tallysman GNSS antennas, connecting Position, Navigation and Timing resources to host systems over digital interfaces.

Calian Smart GNSS SDK's are a plug and play evaluation platform for Calian's Smart Antennas, with tools such as: TruPrecision Software, short term complimentary augmentation subscription services and simple connection to a PC.

The TW5790 SDK supports the TW5790 High Precision GNSS Smart Antenna with L-Band PPP-RTK. TW5790 incorporates the u-Blox ZED-F9R GNSS receiver and NEO-D9S L-Band receiver. It features:

- MQTT client for PointPerfect PPP-RTK Corrections over LBand or terrestrial network (<6cm accuracy)
- NTRIP client for RTK Rover Configurations; local or Point One Navigation Polaris RTK or Swift Navigation Skylark corrections (cm-level accuracy)
- NMEA monitoring, satellite visibility and signal strength, GNSS status monitoring, Inertial Measurement Unit (IMU) monitoring and logging tools, with visual state heat-map
- Status console to pinpoint issues between antenna, connections and network corrections
- Complimentary trials of u-blox PointPerfect PPP-RTK service, Swift Navigation Skylark Cx Precise Positioning service and Point One Navigation Polaris RTK Service

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TP Tru	Precision v1.2	-	×
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	Rover Antenna Serial Connection Communicating with antenna on COM6.		
	Rover GNSS Fix Valid GNSS fix.		
	Rover RTK Status Receiving corrections. RTK fixed. Length from base: 0.00	133m.	
	Base/Rover Connection Communicating with base.		



# point <1> one



**Complimentary corrections trials** 

TW5790 Smart GNSS Antenna

TruPrecision Software

## • TW5790 SDK includes:

- 1x Calian TW5790 Dual Frequency Precision Smart Antenna/Receiver with L-Band receiver (USB or RS-232 see ordering information)
- 1x23-0067-14:10 cm ground plane
- Calian TruPrecision Application for PointPerfect IP correction streaming
- Trial subscriptions: PointPerfect PPP-RTK (60 days); Swift Navigation Skyark Cx (6 months); Point One Navigation Polaris RTK (2 weeks)

#### Ordering Information:

- 33-TP5790SDK-1 (USB) (33-5790-19-10-0S USB);
- 33-TP5790SDK-2 (RS-232) (33-5790-29-10-05-PC0 RS-232 + Serial to USB Converter)

The TruPrecision SDK application is a Windows application which provides an autonomous connection to stream PointPerfect, Swift Navigation Skylark and PointOne Polaris corrections and decryption keys to the TW5790 Smart Antenna, which also provides a Virtual COM Port to allow customers to connect their existing applications to the Calian Tallysman Smart GNSS Antenna high precision "corrected" position data output. The position data may be either NMEA or UBX formatted messages. ROS2® Drivers are available for integration with ROS2 open framework projects.

#### **ROS2® Drivers**

https://github.com/Calian-gnss/calian-gnss-ROS2-drivers



TruPrecision Configuration	×
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Ma	ode
Antenna Model RTK Mode Use Point Perfect Corrections	Heading Base V
RTK Cor	nection
Corrections Channel Name	Testi1
Antenna Seria	al Connection
COM Port Baudrate	
Log	ging
Troubleshooting Logs Serial Data Logs Protocol Logs NMEA Logs RINEX Logs	0 0
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