

Trimble POS AVX RTX

Frequently asked questions

1. What is Trimble POS AVX RTX?

Trimble® POS AVX RTX™ is our new portfolio of products specifically designed to bring efficiency and accuracy to airborne mapping and geospatial applications. It is the successor of our well-known POS AV v7.

2. What differentiates POS AVX RTX from POS AV v7?

POS AVX RTX unlocks the full capability of the latest Trimble technology in real-time and post-processing. It comes with integrated Applanix® IN-Fusion®+ GNSS-Inertial technology and Trimble CenterPoint® RTX correction service to achieve centimeter-level accuracy in real-time and post-processing without dependency on the base stations and ground infrastructure.

The first year of real-time CenterPoint RTX and post-processing service is factory-enabled on the hardware.

Traditional hardware and software options of POS AV v7, like YDC (Yaw Drift Correction), EVO (Event Based Navigation Output), FMS (Flight Management System), dual antenna GAMS (GNSS Azimuth Ambiguity System) which were sold separately, are included by default in POS AVX RTX.

3. What product models are available within POS AVX RTX portfolio?

The POS AVX RTX models determine the accuracy of the product. While positioning accuracy remains the same across all products, the inertial sensor used within a model dictates the orientation performance. The following models are available:

- **POS AVX210 RTX:** Consists of single enclosure (PCS) with embedded IMU-79 inertial sensor. Ideal for direct georeferencing of entry level mapping sensors at low altitude.

- **POS AVX310 RTX:** Consists of the enclosure and remotely connected external IMU-117. Ideal for direct georeferencing of hyperspectral, medium format photogrammetric camera and LiDAR sensors.
- **POS AVX510 RTX:** Consists of the single enclosure and remotely connected IMU-95. Ideal for direct georeferencing of large format photogrammetric cameras and airborne LiDAR sensors.
- **POS AVX610 RTX:** Consists of the single enclosure and remotely connected IMU57. Ideal for direct georeferencing of all airborne sensors on high altitude.

4. Is POS AVX RTX supported by Applanix POSPac?

Yes, POS AVX RTX portfolio is supported by Applanix POSPac™ Complete that includes GNSS-INS processing with PP-RTX, Single and Applanix SmartBase™.

5. Do I need to acquire or purchase any additional POSPac licenses?

No, the GNSS-INS processing license is enabled on hardware for the first year of service and included in product price. All you require is to install POSPac Complete and simply process the data.

The POSPac licenses such as Camera/LiDAR QC, SAR processing that are no part of POSPac Complete need to be purchased separately and enabled within POSPac.

6. Does POS AVX RTX support real-time Trimble CenterPoint RTX correction service?

Yes, the real-time RTX correction license is enabled on hardware for the first year of service and included in product price.

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7. What happens after the first year and how can I renew the licenses?

Once the initial period expires, the real-time RTX corrections license can be renewed on the PCS (POS Computer System) hardware itself, while renewal of the POSpac Complete licenses will be within POSpac module.



8. Are RTX corrections performance-tuned for Trimble products?

RTX is tuned to maximize performance with Trimble GNSS receivers. The Trimble Applanix GNSS-inertial products are built using Trimble Maxwell™ low noise GNSS tracking technology, which is the same technology used by the global network of base stations that RTX corrections are generated with. This ensures performance consistency and stability of the service.

9. What is correction delivery method and coverage?

The corrections are available:

- Over Internet via NTRIP client for real-time users
 - True global coverage only limited by the availability of an internet connection.
- Over the Air via L-Band GNSS antenna
 - Corrections are delivered over set of regional geostationary satellites transmitting corrections in the L-Band frequency range. The correction broadcast is limited by satellite coverage.

- Available through POSpac Complete for post-processing
 - The corrections acquired in real-time are stored in raw data (T04 files) during acquisition and are available for use in POSpac Complete without a need for Internet correction.
 - The corrections are also stored on Trimble Internet servers and available for download through POSpac Complete immediately after the end of the mission without additional wait time.

10. What is accuracy of the real-time RTX and post-processed solution?

The positional accuracy of real-time RTX and post-processed solutions is at the centimeter-level level and it is the same across all models. The orientation accuracy is coupled with the inertial sensor type used within a model. For more information, please refer to the data sheets.

11. How can I purchase the POS AVX RTX?

The POS AVX RTX is available through Applanix distribution channels. Please contact the sales representative for your region.

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