

NEWEST PRODUCTS



Tallysman 33-5390-09-10 Smart High Precision GNSS Antenna with L-Band Augmentation



The Tallysman TW5390-09-10 Smart GNSS Antenna is a Dual Band (L1/L2) Smart GNSS Antenna that integrates a Tallysman Accutenna ceramic patch with eXtended Filtering with a u-blox ZED-F9R High Precision (cm level) GNSS receiver and a u-blox D9S L-Band Corrections receiver to provide system developers with a plug and play GNSS resource with a UART interface over RS-422/485 with an RJ45 connector. Multi-constellation (3 Simultaneous: GPS, GLONASS, Beidou, Galileo), PointPerfect PPP-RTK Augmentation, RTK Rover capable, with built-in Inertial Measurement Unit.

FEATURES

- Dual Band (L1/L2)
- Multi-Constellation (Glonass, Galileo, GPS, Beidou)
- L-Band Corrections
- PointPerfect PPP-RTK via SPARTN
- Inertial Measurement Unit
- RTK Rover operation
- uBlox ZED-F9R, NEO-D9S
- Fixed Mount Through Hole
- Low Profile grey radome, IP69K package
- RS422/485 RJ45 connector
- Tallysman Accutenna® Dual Feed patch with eXtreme Filtering for out-of-band signal rejection

APPLICATIONS

- Autonomous Driving
- Smart Agriculture
- Robotics
- UAV
- Geodetic Survey
- Precision Timing
- Subsidence Monitoring
- Digital Twin

SPECIFICATIONS

- Antenna/Receiver
 - Multi-band L1/L2
 - Axial Ratio L1 <1 dB Typical
 - Signal Support: GPS L1C/A, GLO L1OF L2OF, GAL E1B/C E5b, BDS B1I B2I, QZSS L1C/A L2C
 - SBAS L1 C/S: WAAS, EGNOS, MSAS, GAGAN
 - 184 channels u-blox F9 Engine
 - Anti-jamming: Active CW detection
 - Corrections: L-Band PPP-RTK (SSR)
 - PointPerfect
 - Corrections Data Rate: Continental: 2400 bps
 - Regions: EU, US, AUS, KR
 - Format: SPARTN, RTCM
- I/F
 - RS422/485 RJ45 Connector
- Output
 - NMEA 0183, UBX Binary, RTCM v3.3
 - Baud Rate: Configurable
 - Update Rate: 9 Hz 4 constellations, 10 Hz (GPS+GAL+BDS); 20 Hz (GPS+GAL); 20 Hz (GPS+GLO); 16 Hz (GPS+BDS); 25 Hz (GPS)
- Mechanical
 - 66.5 mm dia. X 21 mm H
 - Weight: 135g
 - Mounting: Fixed Mount Through Hole
 - Cable Length 5 m
- Electrical
 - Voltage: 5 VDC
 - Current: 200 mA
- Environmental
 - Operation Temp: -40°C to +85°C
 - Storage: -40°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: -167 dBm
 - Reacquisition: -160 dBm
 - Hot starts: -157 dBm
 - Cold Starts: -148 dBm
- Acquisition
 - Cold Start: 25 sec
 - Aided Start: 2 sec
 - Reacquisition: 2 sec
- Horizontal Position Accuracy (4 Constellations)
 - Standard PVT: 1.5m CEP
 - Standard SBAS: 1.0m CEP
 - Corrected RTK: 0.01m + 1ppm CEP
 - Augmented PPP-RTK: <0.06m CEP
 - SPARTN Convergence: <45 sec
- Heading
 - Dynamic Heading Accuracy: 0.3° (30 m/sec)
- Operational Limits
 - Dynamics: <4G
 - Altitude: 80,000m
 - Velocity: 500m/sec