

BX316D GNSS RTK & Heading

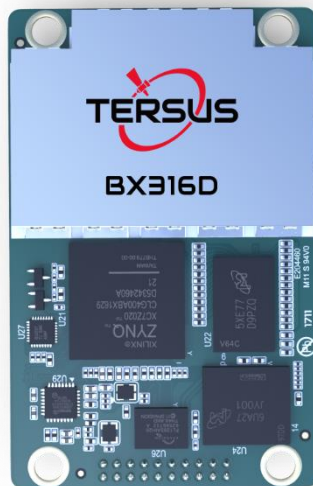
GPS L1/L2, GLONASS G1/G2, BeiDou B1/B2

BX316D is a GNSS RTK board for accurate positioning and heading. This board offers real-time, cost efficient and cm-level positioning as well as flexible interfaces for a variety of applications, such as precision navigation, precision agriculture, surveying and UAVs. BX316D can work as an independent positioning system while it can also be integrated with other host devices.

Its popular interface and log/command format make it compatible with most of the OEM boards in market.

Key Features:

- Supports RTK positioning mode or RTK positioning+ heading mode, and modes are software configurable
- Up to 20Hz RTK solution and raw data output
- Supports IMU raw data output
- Pin to Pin compatible with Novatel OEM617D
- LOG & Command compatible with Novatel Protocol
- Supports PPS output and event mark input
- Serial ports with LVTTL level
- External antenna input through MMCX connectors
- Data output: NMEA-0183 and Tersus Binary format
- Correction: RTCM 2.x/3.x/CMR/CMR+
- Easy to integrate with Pixhawk and other autopilots
- Compact design





Technical Specifications

Performance Specifications

- Frequencies from primary antenna.....GPS L1/L2, GLONASS G1/G2, BeiDou B1/B2
- Frequencies from secondary antennaGPS L1+ GLONASS G1 or GPS L1 + BeiDou B1
- Standard Positioning Accuracy
 - Horizontal (RMS).....1.5m
 - Vertical (RMS).....3.0m
- RTK Positioning Accuracy
 - Horizontal (RMS).....10mm+1ppm
 - Vertical (RMS).....15mm+1ppm
- Observation Accuracy
 - C/A Code (zenith direction).....10cm
 - P Code (zenith direction).....10cm
 - Carrier Phase (zenith direction).....1mm
- Heading accuracy
 - 1m baseline (RMS)0.1°
- Time to First Fix (TTFF)
 - Cold Start.....<50s
 - Warm Start.....<30s
- Timing Accuracy (RMS).....20ns
- Velocity accuracy (RMS)0.03m/s
- Initialization(typical).....<10s
- Initialization Reliability.....>99.9%
- Differential Data Format.....RTCM 2.x/3.x/CMR/CMR+
- Max Update Rate.....20Hz

Communication

- Serial Ports.....LVTTL x2
- USB Ports.....USB device x1
- CAN Ports.....ISO/DIS 11898 x2 *
- PPS Ports.....LVTTL x1
- Event Mark.....LVTTL x2 *

Physical Characteristics

- Input Voltage.....3.3V DC
- Power Consumption(typical).....2.8W
- Active Antenna Input Impedance.....50Ω
- Size.....46x71x12mm
- Weight.....23g
- Antenna Connector.....MMCX female x2
- COM Baud Rate.....Up to 921600bps
- Operating Temperature.....-40°C ~ +85°C

* This port's function is related to FW version.

Information and related materials are subject to change without notice. © Copyright 2018 Tersus GNSS Inc.