

Precis-BX204G GNSS RTK Board

GPS L1/L2, GLONASS G1/G2 with 128 GNSS Channels

Datasheet
V2.0-170324

Precis-BX204G is a GNSS RTK board for accurate position. This board offers real-time, cost-efficient, cm-level positioning capability and uses standard serial port module for communication. A special connector makes it easy to integrate to its host devices or autopilots. Precis-BX204G board supports multi-GNSS RTK positioning, which improves the continuity and reliability in challenging environment. The flexible interfaces, hardware size and the main commands make it compatible with GNSS boards in the market.

Key Features:



- Supports three constellations, six frequencies
 - GPS L1/L2
 - GLONASS G1/G2
- Supports 128 GNSS channels
- Rapid RTK integer ambiguity resolution
- Supports 20Hz or higher position/velocity/time solutions
- Supports camera shutter synchronization
- Serial ports with LVTTTL
- External antenna input through MCX connector
- Data output: NMEA-0183 and Tersus Binary format
- Supports logging of raw observation data
- Correction: RTCM 2.x/3.x/CMR/CMR+
- Easy to integrate with Pixhawk and other autopilots
- Compact design and low power consumption



Technical Specifications

Performance Specifications

- Channel Number.....128
- Frequencies.....GPS L1/L2、
GLONASS G1/G2
- 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
- Time to First Fix(TTFF)
 - Code Start.....<50s
 - Warm Start.....<30s
- Timing Accuracy(RMS).....20ns
- 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).....2.7W
- Active Antenna Input Impedance.....50Ω
- Size.....46x71x12mm
- Weight.....23g
- Antenna Connector.....MCX Receptacle x1
- COM Baud Rate.....Up to 460800bps

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