



FEATURES

- GPS/Beidou/Galileo/GLONASS/QZSS Capable
- cm-Level Accuracy Dual-Frequency RTK
- Supports Moving-Base RTK
- Base or Rover Mode Configurable
- 12mm x 16mm Small Size
- Weighs 1.7 gram

The PX1122R is a cost-effective dual-frequency RTK GNSS receiver delivering centimeter-level position accuracy for precision guidance applications. When configured in moving-base mode, it provides high precision heading information even in static.

The PX1122R can receive RTCM 3.x data from a base station, or another PX1122R receiver in base mode outputting SkyTraQ raw measurement or RTCM data, to perform carrier phase RTK processing, achieving centimeter-level accurate relative positioning.

The PX1122R has a size of 12mm x 16mm. This very small size makes it easy to integrate into applications requiring high precision RTK positioning. The receiver is optimized for mass market applications requiring centimeter-level accuracy, low power, small size, and lower cost.

TECHNICAL SPECIFICATIONS

Receiver Type

230 Channel
GPS/QZSS L1/L2C, Beidou B1I/B2I, Galileo E1/E5b,
GLONASS L1/L2 Capable

Performance Spec

Hot/Warm/Cold Start 1 / 28 / 29 sec
Reacquisition 1 sec
Velocity Accuracy 0.05m/sec
Timing Accuracy 12nsec

Sensitivity

Cold Start -148dBm
Tracking -160dBm

Position Accuracy

Autonomous 2.0m CEP
RTK 1cm + 1ppm

Heading Accuracy

50cm baseline 0.27 degree 1- σ

Communication

3.3V UART serial
115200 baud, 8, N, 1

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The product is not intended for use in medical, life-support devices, or applications involving potential risk of death, personal injury, or severe property damage in case of failure of the product.

Supported Protocol

Rover Mode

NMEA-0183 V4.1 GGA, GLL,
GSA, GSV,
VTG, RMC
RTCM-SC104 3.x

Base Mode

SkyTraq Raw Data
RTCM-SC104 3.2

PHYSICAL CHARACTERISTICS

Size 12mm x 16mm
Weight 1.7g

Electrical Characteristics

Voltage 3.3V +/- 5%
Current 50mA

Environmental Characteristics

Working temperature -40°C ~ +85°C
Storage temperature -55°C ~ +100°C
Humidity 5% ~ 95%

Ordering Information

Part Number	Description
PX1122R	Dual Frequency RTK Receiver Module