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TOKNAV



GNSS Receiver **P8Global**

4G Full Band Portable RTK Receiver

P8Global Portable RTK Receiver

P8Global is a portable intelligent positioning terminal developed based on BDS high-precision positioning technology. The main unit is lightweight and compact, making it easy to carry around. It supports tracking of signals from all satellite constellations with 1408 channels, built-in high-precision IMU supports tilt measurement, providing centimeter-level positioning accuracy. It caters to various measurement and layout tasks such as road construction, power line surveying, site leveling control, CAD applications, railway stakeout, and etc.

CHARACTERISTIC

Linux intelligent system

Qualcomm Cortex-A7 + Linux, the intelligent system platform, brings efficient computing and unlimited expansion of product functions to users.

Centimeter-level Positioning

Equipped with a compact and omnidirectional helical antenna, it supports tracking signals from all constellations and frequencies. With 1408 channels, it can simultaneously receive BDS, GPS, GLONASS, GALILEO, QZSS, SBAS and NavIC(IRNSS) signals. It enables full constellation positioning, supports base station differential correction, and can integrate with the GBAS. The accuracy can reach centimeter-level precision.

Qualcomm 4G Full Band Modem

The Receiver supports Qualcomm 4G Full Band Modem, Bluetooth connectivity for communication and control purposes. It can be combined with a cloud server to enable remote monitoring, configuration, and alerts for the main unit.

Compact & portable

The P8Global Portable RTK Receiver weighs only 176g, making it convenient for portable use. It also has low power consumption. With a built-in 2500mAh lithium battery, the device can work continuously for over 12 hours.

Tilt Measurement

The P8Global is equipped with a built-in intelligent high-precision inertial navigation module, providing real-time tilt compensation that enhances the accuracy of RTK measurements. Providing positioning accuracy of less than 2cm within a tilt range of 60 degrees.

P8Global GNSS Receiver

4G Full Band Portable RTK Receiver

176g | 60*41.3*126.3mm
Easy to carry with one hand

1408 Channel
GPS GLONASS BDS GALILEO
QZSS SBAS IRNSS

PPP Function
No Base or Cors, No 4G or Radio

7.4V, 1800mAh
More than 8 Hours

SDK provided
Easy for further development



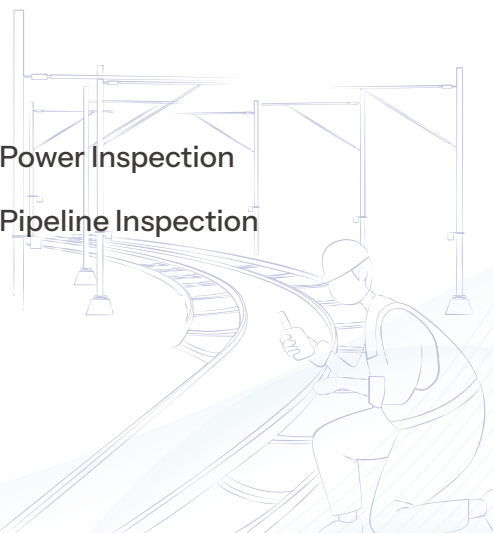
GIS APPLICATION AREA



WIDTH	THICKNESS	WEIGHT
60mm	41.3mm	176g

-  Engineering Survey
-  Agricultural Mapping
-  Landscaping

-  Power Inspection
-  Pipeline Inspection



SPECIFICATION

SYSTEM	
HARDWARE SYSTEM	ARM Cortex-A7 1.8GHz
OS	Linux
GNSS	
GPS	L1 C/A, L1C, L2C, L2P(Y), L5
GLONASS	G1, G2, G3
BDS	B1I, B2I, B3I, B1C, B2a, B2b (PPP)
GALILEO	E1, E5a, E5b, E6 (PPP)
QZSS	L1/C/A, L2C, L2C, L5
SBAS	L1C/A
IRNSS	L5 (Require specialized firmware)
Channel	1408
Data Format	NMEA-0183
Correction I/O Protocol	RTCM 3.X
Data Update Frequency	5Hz (max)
ACCURACY	
SINGLE (RMS)	Horizontal: 1.5m / Vertical: 2.5m
RTK (RMS)	Horizontal: $\pm (8\text{mm}+1\text{ppm})$ Vertical: $\pm (15\text{mm}+1\text{ppm})$
Tilt Compensation Accuracy (within 60°)	<2cm
SYSTEM	
Bluetooth	BR+EDR+BLE
Network	LTE FDD: B1/2/3/4/5/7/8/12/13/18/ 19/20/25/26/28 LTE TDD: B38/39/40/41 WCDMA: B1/2/4/5/6/8/19 GSM: B2/3/5/8

INDICATOR	
Power Indicator	Show power status
Satellite Indicator	Show position status
Data Link Indicator	Show differential signal status
Bluetooth Indicator	Show Bluetooth status
ENVIRONMENT	
Work Temperature	-20°C~+60°C
Storage Temperature	-40°C~+85°C
Protection	IP67
PHYSICAL	
Materials	PC+ABS
Dimension	60mm*41.3mm*126.3mm (Height including helical antenna)
Weight	176g (Weight including helical antenna)
BATTERY	
Battery	7.4V, 2500mAh
Endurance	More than 12 hours
Charging	5V/2A
ACCESSORIES	
P8Global Device	1 SET
Full-band Helical Antenna	1 PCS
Plumb Rod Adapter	1 PCS
5V/2A USB Power Adapter	1 PCS

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Manufacturers may update parameters at any time, please refer to the latest product information.



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