GNSS Positioning System

R90i

RUIDE

The new GNSS Receiver R90i now is powered by the next-generation mainboard Mk-803, delivering an incomparable performance no matter in fixing speed and accuracy.

With the newly-equipped *Rimu* module, plus the powerful GNSS mainboard, integrated Linux OS and multi-datalink choices, it helps you to complete your surveying tasks with the highest speed and accuracy. Worry-free from the harsh environment and no longer watch and level the bubble! Its dual hot-swappable batteries, and a highest industrial protection standard enable you to work freely and into it!

Rimu | Dynamic Measure Technology

Combined with Rimu Dynamic Measure Technology, R90i provides you an all-new tilt compensation solution, which is immune to magnetic interference and calibration-free. No longer need to level the receiver, and worry-free from the metallic surroundings.

Linux OS
Powered by the new generation of embedded Linux operating system, R90i has a greatly improved RTK performance and efficiency. One unique core processing mechanism is able to response to more than one command at one time.

WiFi and Web Server
By connecting through the integrated WiFi of R90i Series, you can log on an user-friendly management platform on the browser of your phone or computer. All status monitoring and parameter settings can be achieved in a fast and easy way.

Innovative Datalink
Besides conventional internal UHF/Network datalink, R90i can also work as Radio repeater, router or even a mobile reference station, fulfilling various surveying conditions.

Non-stop power supply
Dual hot-swappable batteries enables a non-stop operation, improving the working efficiency to the highest level.

SPECIFICATION

Channels	965
GPS Tracking	L1, L1C, L2C, L2P, L5
GLONASS Tracking	G1, G2
BeiDou Tracking	B1, B2, B3
Galileo Tracking	E1, E5A, E5B, AltBOC
QZSS	L1, L2C, L5
SBAS	L1
Positoning Rate	1-20Hz

Protocol	TrimTalk 450s, TrimMark3, PCC EOT, SOUTH
GSM/GPRS Module	WCDMA, CDMA2000, TD-LTE, FDD-LTE, GPRS, EDGE
WiFi	802.11b/g/n Hotspot /Data Link
Bluetooth	Bluetooth 2.1 +EDR and 4.0
NFC	<10cm

RECEIVER ACCURACY

Code Differential	Horizontal 0.25m±1ppm (rms)
	Vertical 0.50m±1ppm (rms)
Static	Horizontal 2.5mm±0.5ppm (rms)
	Vertical 5mm±0.5ppm (rms)
Real-Time Kinematic	Horizontal 8mm±1ppm (rms)
	Vertical 15mm±1ppm (rms)
Network RTK	Horizontal 8mm±0.5ppm (rms)
	Vertical 15mm±0.5ppm (rms)

DATA STORAGE

Type & Storage	SSD 8GB
	External USB pen drive
Date Transfer	USB transfer
	Supports FTP/HTTP download
Format (Differential)	CMR+, sCRMx, RTCM 2.1, RTCM 2.3, RTCM 3.0, RTCM 3.1, RTCM 3.2
GPS Output Format	NMEA 0183, PJK plane coord., binary code, Trimble GSOF
Network Model	VRS, FKP, MAC
	NTRIP fully supportable

IMU MEASUREMENT *not equipped in Lite Version

Tilt Range	Up to 60°
Accuracy	< 2cm (within 30°)
	< 5cm (within 60°)

INTERFACES

Button	Two
LED Indicator	Bluetooth, Data Link, Satellite, WiFi , Power

POWER SUPPLY

Supply Type	Dual batt., hot-swapping
Voltage	9-25V DC; Overvoltage protection
Battery	Removable Li-on 7.4V, 3400mAh
Operating Time	Static mode 13h
	Rover mode 10h

COMMUNICATION

I/O	5pin LEMO external power + RS232
	7pin LEMO USB (OTG) + Ethernet
	Radio antenna interface
	SIM card slot
UHF Radio Module	1/2/3W switchable
	410-470MHz

PHYSICAL

Dimension	83mm (H), 175mm (W)
Weight with batt.	1330g
Operating Temp.	-45°C to 60°C
Protection Class	IP67
Shock	2m drop on hard surface
Vibration	40G 10ms sawtooth wave

Recommended Partners

Rugged Controller H6

Android 8.1
5" touch screen
4GB/32GB
Alphanumeric keypad
IP67

Surv X

Android software SurvX
Easy-to-use work flow
Useful survey tools
Google map supported
DXF, DWG import & display

External Radio S1

10/25W Output
SOUTH/Trimtalk Protocol
403-473MHz
Bluetooth 4.0
IP67

CE

FC

RUIDE