R26 Survey System

Ideal solution for survey

Overview

The R26 survey system is a survey system including Handheld; it integrates the advantages of high precision, low power consumption, small size, convenient and fast portability and operation. It can meet various engineering needs of surveying and mapping industries.

The system consists of two R26 GNSS receiver and a Handheld, Handheld with surveying software. The software interface is clear, easy to learn and understand, convenient and practical, making work easier, faster and more efficient. It can be widely used in surveying and mapping industries such as land, construction, forestry, roads, electric power, water conservancy, oil pipelines, etc.

Key Features

Supports multiple constellations & frequencies:

- GPS L1, L2, L5
- GLONASS L1, L2
- BeiDou B1, B2I
- GALILEO E1, E5a,E5b
- QZSS L1, L2

Handbook with built-in high-capacity battery

Easy-to-use, powerful software

Guided application operation function, low threshold for software use, quick use and high work efficiency

A variety of receiver startup and base station connection methods, suitable for more different working environments

Large capacity battery, suitable for long time outdoor work

The base station and the mobile station can be interchanged, which can be used as a base station or a mobile station

for surveying and mapping

Technical Specifications - R26 GNSS Receiver

DATASHEET

GNSS Performance	Channels	432 channels based on Nebulas-Ⅱ
	GPS	L1/L2/L5
	GLONASS	L1, L2
	Galileo	E1, E5a , E5b
	BeiDou	B1I/B2I
	QZSS	L1, L2, L5
GNSS Accuracies	Real time kinematics(RTK)	Horizontal: 8 mm + 1 ppm RMS Vertical: 15 mm + 1 ppm RMS Initialization time:< 5 s Initialization reliability: > 99.9%
	Post-processing kinematics (PPK)	Horizontal: 2.5 mm + 1 ppm RMS Vertical: 5 mm + 1 ppm RMS
	Post -processing static	Horizontal: 2.5 mm + 0.5 ppm RMS Vertical: 5 mm + 0.5 ppm RMS
	Positioning rate	Default 1 HZ, Maximum 20 HZ
	Time to first fix	Cold start: < 25 s Hot start: < 10 s Signal re-acquisition: < 1 s
	RTK tilt - compensated	Tilt angle 0~60°, Tilt accuracy 25mm (within 30° accuracy)
Hardware	Size (L x W x H)	140 mm x 140 mm x 88 mm (5.5 in × 5.5 in × 3.5 in)
	Weight	1.03 kg (2.27 lb)
	Environment	Operating: -45°C to +75°C (-49°F to +167°F) Storage: -55°C to +85°C (-67°F to +185°F)
	Humidity	100% condensation
	Ingress p rotection	IP67 waterproof and dustproof, protected from temporary immersionto depth of 2 m
	Shock	Survive a 2-meter pole drop
	Tilt sensor	Calibration - free IMU for pole - tilt compensation. Immuneto magnetic disturbances.
	Front panel	4 LED indicates 2 physical buttons

Website | www.smajayu.com
Sales Inquiry | sales@smajayu.com
Technical Support |support@smajayu.com

Communication	Bluetooth	v 4.0, Backward compatible with BT2.x
	Ports	1 x 9 PIN aviation plug, including power supply, COM RS232, CONFIG, RS232. 1 x UHF radio antenna interface
	Build-in UHF radio	Standard Internal Rx/Tx: 410 - 470 MHz/840MHz Transmit Power: 0.5 W to 2 W Protocol: Transparent, TT450S,Trimtalk, TRMMARK3, SOUTH, SATEL
	External Radio	Frequency: 410-470MHz Transmitting power: 35W Working Range: 15-20Km
	Data formats	Link rate: 9600 bps to 460800 bps Range: Typical 5 km to 8 km RTCM2.x, RTCM3.x
	Data storage	8 GB internal memory
Electrical	Power consumption	5 W (depending on user settings)
	Li -ion battery capacity	10200mAh
	Operating time on internal battery	20h(Rover) 10h(Base)
	External power input	9 V DC to 36 V DC
	Power consumption	As Rover<4.0W As Base<10.5W

Technical Specifications - Handheld LP80

DATASHEET

CPU	8 cores 2.0GHz
Operating system	Android 8.1
RAM	4GB
Display size/type	5 inch IPS highlight screen
Camera	Rear 13 million auto-focus camera; high-brightness LED flash Front 5 million fixed focus camera
Resolution	720*1280
Touch screen	5-point capacitive touch screen
Dimension	207*84*20mm
Weight (including battery)	360g
Battery capacity	7000mAh
Charging method	PE fast charge, fully charged within 4 hours
Bluetooth	BT4.1 BLE
GPS	GPS+BD+GLONASS
Data communication	FDD-LTE B1/B3/B5/B7/B8 TDD-LTE B38/B39/B40/B41 TDSCDMA B34/B39 WCDMA B1/B2/B5/B8 GSM B2/B3/B5/B8 CDMA1x/CDMA2000 BC0/BC1
Audio	Front dual stereo speakers, volume 90db±3db (test distance 10cm)
Sensor	Geomagnetism, acceleration, light sensing distance
Expansion card slot	Expandable up to 128G memory card
External interface	USB-TypeC, support fast charge, support OTG, Bottom charging contacts for cradle charging
Button	30 keys + 2 volume keys + 1 power key
method to informe	Sound, vibration, LED prompt
Operating temperature	20℃ + 55℃
storage temperature	-30℃ + 70℃
Working humidity	Humidity 5% to 95%
Dustproof and waterproof	IP67
Certification and test report	CCC、CTA、CE
Fall	6 sides can withstand the impact of falling to the concrete floor from a height of 1.5 meters
Static Protection	±15kV air discharge, ±8kV contact discharge
PSAM card (smart encryption card)	optional
RFID (High Frequency)	Supported protocols: ISO14443A/B, ISO15693, NFC Reading distance: 0~5cm

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