PHEREFIX

SP30

GNSS RTK SYSTEM

SP30 GNSS Receiver

SP30 is a high-performance GNSS receiver that provides an easy-to-use solution for users. SP30 supports the original tilt compensating GNSS solution. With the built-in 5W radio, its transmission distance can spread to 16KM in open area. Multi constellation and frequency tracking always gives a fixed solution for your job. The durable IP68 design makes it possible to work in extreme environments.

HEIGHT	DIAMETER	WEIGHT
69mm	100.5mm	0.63kg

LINUX INTELLIGENT SYSTEM

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

MULTI CONSTELLATION

With its 1408 channels, SP30 provides an excellent on board real time navigation solution with high accuracy. All GNSS signals (GPS, GLONASS, BDS, GALILEO, QZSS and SBAS) are included.

ADJUSTABLE POWER

SP30 has internal radio with adjustable power of 0.5W/2W/5W. And when SP30 work as base station at 5W power, the transmission distance can reach to maximum 16KM when working in the open area.

4G MODEM

SP30 has an internal 4G modem that operates with more cellular network signals, a fast internet connection is guaranteed.

COMBINED ANTENNA

The new four in one antenna integrates GNSS, WiFi, Bluetooth and 4G, with smaller volume and better signal.

LONG ENDURANCE

Built in high-capacity lithium battery ensures continuous working time of more than 20 hours under normal operation.

CHARACTERISTIC

- Qualcomm *Cortex-A7*
- *Linux* intelligent system

- *BDS ,GPS ,GLONASS, Galileo ,QZSS, SBAS*
- 4G, Radio,Bluetooth,WiFi

- Centimeter level positioning
- Positioning accuracy of *less than 2cm* within the tilt *range of 60°*

- High-capacity lithium battery
- ultra long battery endurance

- Solid *magnesium alloy* shell
- In line with *IP68* design requirements, safe and reliable

- 32GB Storage
- User storage Space 24GB

C100 Data Controller

The C100 Controller is a rugged multifunctional data controller with design of 5.5 inch sunlight readable HD touch screen and an alphanumerical keypad. Equipped with powerful Octa-core processor and Android operating system. With professional IP67 rating, it is robust and reliable for outdoor harsh environment. The large capacity lithium battery guarantees more than 15 hours of field working for a whole day of multiple surveying tasks.

KEY FEATURES

- 5.5-inch sunlight readable HD touch screen

- 8-core 2.0GHz CPU

- Android 11 operating system

- 3GB RAM + 32GB ROM

- 13MP rear camera

- IP67 certified grade, water/shock/dust proof

- 7700mAh

- Wi-Fi, Bluetooth and 4G

- USB Type-C.

ITEM		SPECIFICATION	REMARKS
HARDWARE SYSTEM		Qualcomm Cortex-A7	
OS		Linux	
GNSS	GPS	L1C/A, L2P, L5	
	GLONASS	L1, L2	
	BDS	B1I, B2I, B3I, B1C, B2a	
	GALILEO	E1, E5a, E5b	
	QZSS	L1, L2, L5	
	SBAS	L1	
	Channel	1408	
	Data format	NMEA-0183	
	Correction I / O Protocol	RTCM3.X	
	Data update frequency	5Hz(max)	
	Recapture Time	<1s	
	Cold Boot	<40s	
POSITIONING ACCURACY	Single(RMS)	Horizontal: 1.5m Vertical: 2.5m	
	DGPS(RMS)	Horizontal: 0.4m Vertical: 0.8m	
	RTK(RMS)	Horizontal: ±(8mm+1ppm) Vertical: ±(15mm+1ppm)	
	Time Accuracy(RMS)	10ns	
	Static Accuracy(RMS)	Horizontal: ±(2.5mm+1ppm) Vertical: ±(5mm+1ppm)	
	Speed Accuracy(RMS)	0.2m/s	
	Tilt compensation Accuracy (within 60°)	<2cm	
SYSTEM	Bluetooth	BR+EDR+BLE	
	WIFI	802.11 b/g/n	
	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	
	Data Radio	Transceiver station Frequency: 410~470MHz Power: 5W, 2W, 0.5W Protocol: TRIMTALK, TRIMMK3, SOUTH, TRANSEOT Air baud rate: 9600, 19200bps	
	Storage	32GB	
INDICATOR	Power Indicator	Show power status	
	Satellite Indicator	Show position status	
	Data link Indicator	Show differential signal status	
	Bluetooth Indicator	Show Bluetooth status	
	Network Indicator	Show network signal status	
BATTERY	Battery	7.4V, 6500mAh	The static working mode supports continuous data collection for 26 hours under full power
	Battery Endurance	More than 20 hours (Typical, Rover, GSM)	
	Charge	USB PD 12V/2A 5V/3A	Support fast charging adapter and adaptively and dynamically adjust charging current
ENVIRONMENT	Working Temperature	-20°C~+60°C	
	Storage Temperature	-20°C~+70°C	
	Shock	Withstand 1.5M pole drop	
	Protection	IP68	
PHYSICAL	Material	Magnesium alloy main body, ABS/PC top cover	
	Dimension(mm)	Φ161.88*60.85	
	Weight(g)	1040	TBD

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

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