



# GNSS Receiver RSat 2

RSat is a high-performance GNSS receiver that provides an easy-to-use solution for users. You can forget the bubble when you use Robust RSat, with support for the original tilt-compensating GNSS solution. 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.



## Linux intelligent system

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



## Multi constellation

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

## Tilt measurement

RSat has the IMU technology. Fast initialization and up to 60° inclination.



## 4G Modem

RSat has an internal 4G modem that operates with more cellular network signals. A fast internet connection is guaranteed.



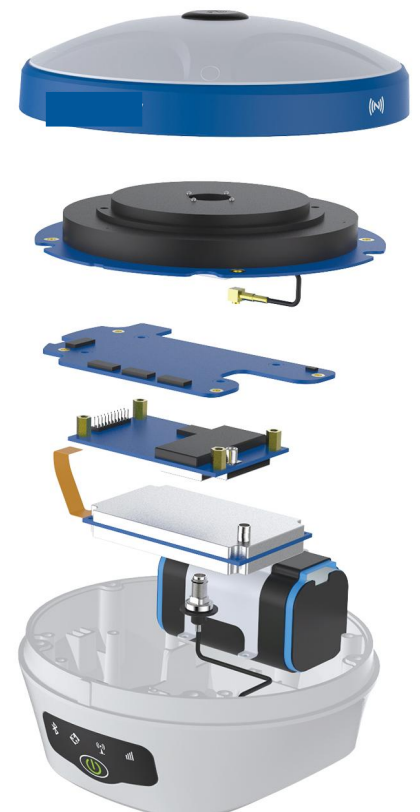
## Combined antenna

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.



# RSat 2 GNSS Receiver

## Characteristic



Qualcomm Cortex-A7 + Linux intelligent system



BDS, GPS, GLONASS, Galileo, QZSS and SBAS



Centimeter level positioning



Support tilt measurement, and meet the positioning accuracy of less than 2cm within the tilt range of 60°



Support 4G, Radio, Bluetooth and WiFi, and work more flexibly



Built in high-capacity lithium battery, super fast charge ultra long life



Industrial design, solid magnesium alloy shell, in line with IP68 design requirements, safe and reliable



# PCR100 Data Collector

## PCR100 Data Collector

The PCR100 Controller is a rugged multifunctional data controller with design of 5 inch sunlight readable HD touch screen and an alphanumeric keypad. Equipped with powerful Octa-core processor and Android operating system. With professional IP68 rating, it is robust and reliable for outdoor harsh environment. The large capacity lithium battery guarantees more than 10 hours of field working for a whole day of multiple surveying tasks.

## Key Features

- Five inch sunlight readable HD touch screen;
- Octa-core 2.0GHz CPU;
- Android 8.1 operating system;
- 4GB RAM + 64GB ROM;
- 5MP front camera and 12MP rear camera;
- IP67 certified grade, water/shock/dust proof;
- 7000mAh battery;
- Wi-Fi, Bluetooth, NFC and 4G;
- USB Type-C.



# ROBUST RSat 2 GNSS Receiver

ITEM	SPECIFICATION	REMARKS	
<b>HARDWARE SYSTEM</b>	Qualcomm Cortex-A7		
<b>OS</b>	Linux		
<b>GNSS</b>	GPS	L1C/A, L1C, L2P(Y), L2C, L5	
	GLONASS	L1, L2	
	BDS	B1I, B2I, B3I, B1C, B2a, B2b	
	GALILEO	E1, E5a, E5b, E6	
	QZSS	L1, L2, L5	
	SBAS	L1	
	NavIC(IRNSS)*	L5*	IRNSS support in future
	Channel	1408 channels	
	Data format	NMEA-0183	
	Correction I/O Protocol	RTCM2.X, RTCM3.X	
	Data update frequency	5Hz	
	Recapture Time	<1s	
Cold Boot	<30s		
<b>POSITIONING ACCURACY</b>	Single(RMS)	Horizontal: 1.5m vertical: 2.5m	
	DGPS(RMS)	Horizontal: 0.4m vertical: 0.8m	
	RTK(RMS)	Horizontal: $\pm(8\text{mm}+1\text{ppm})$ ; Vertical: $\pm(15\text{mm}+1\text{ppm})$	
	Time Accuracy(RMS)	20ns	
	Static Accuracy(RMS)	Horizontal: $\pm(2.5\text{mm}+0.5\text{ppm})$ ; Vertical: $\pm(5\text{mm}+0.5\text{ppm})$	
	Speed Accuracy(RMS)	0.03m/s	
	Tilt compensation Accuracy (within 60°)	<2cm	
<b>SYSTEM</b>	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 TTE TDD: B38/39/40/41 WCDMA: B1/2/4/5/6/8/19 GSM: B2/3/5/8	
	Data Radio	Frequency: 410~470MHz Protocol: TRIMTALK, TRIMMK3, SOUTH, TRANSEOT RF transmit power: 1W/5W Air baud rate: 9600/19200bps	
	Storage	32GB, User Storage Space 24GB	
<b>INDICATOR</b>	Power Indicator	Show power status	
	Bluetooth Indicator	Show Bluetooth status	
	Satellite Indicator	Show position status	
	Data link Indicator	Show differential signal status	
	Network Indicator	Show network signal status	
<b>BATTERY</b>	Battery	7.4V, 6500mAh	
	Work time	More than 20 hours (typical, Rover, GSM)	The static working mode supports continuous data collection for 24 hours under full power
	Charge	USB PD 15V/2A 5V/3A	Support fast charging adapter and adaptively and dynamically adjust charging current
<b>ENVIRONMENT</b>	Work Temperature	-20°C~+60°C	
	Storage Temperature	-40°C~+85°C	
	Shock	Withstand 1.5M pole drop	
	Protection	IP68	
<b>PHYSICAL</b>	Material	Magnesium alloy main body, ABS/PC top cover	
	Dimension	$\Phi 143.5\text{mm} \times 90.7\text{mm}$	
	Weight	$\leq 0.90\text{kg}$	
<b>A FULL SET</b>	T20 Device	1 SET	
	USB power adapter	1 PCS	
	Type-C To Type-C	1 PCS	
	Radio Antenna	1 PCS	

