

M68 GNSS RECEIVER DATA SHEET

M68 is a mini portable multifunctional GNSS receiver, a new generation of measurement engine, supports tilt measurement, built-in 4G full Netcom and Bluetooth/WIFI, adopts a new design, magnesium alloy structure, Linux operating system, is an extreme, multi- Functional, lightweight and portable geodetic GNSS receiver.



Linux smart system

Linux+Qualcomm MDM9628 Cortex-A7 The intelligent system platform brings users efficient computing and unlimited expansion of product functions.

Full system full frequency GNSS receiver

BDS B1/B2/B3, GPS L1/L2/L5, GLONASS L1/L2, Galileo E1/E5a/E5b, SBAS L1, QZSS L1/L2/L5, Signal reception and calculation of the whole system and all frequency points.

Tilt measurement

Built-in intelligent high-precision inertial navigation module, real-time tilt compensation, let RTK measurement bid farewell to the "flying point" .

4G Full Netcom

The 4G full Netcom solution based on the Linux platform fully supports China Mobile/Unicom/Telecom 2/3/4G network, with better compatibility, stronger signal, and more stable connection.

Combination antenna

The new four-in-one antenna integrates GNSS, WiFi, Bluetooth, and 4G into one, with a smaller size and better signal.

Long battery life

The built-in large-capacity lithium battery ensures that the continuous working time exceeds 9 hours under normal operation.

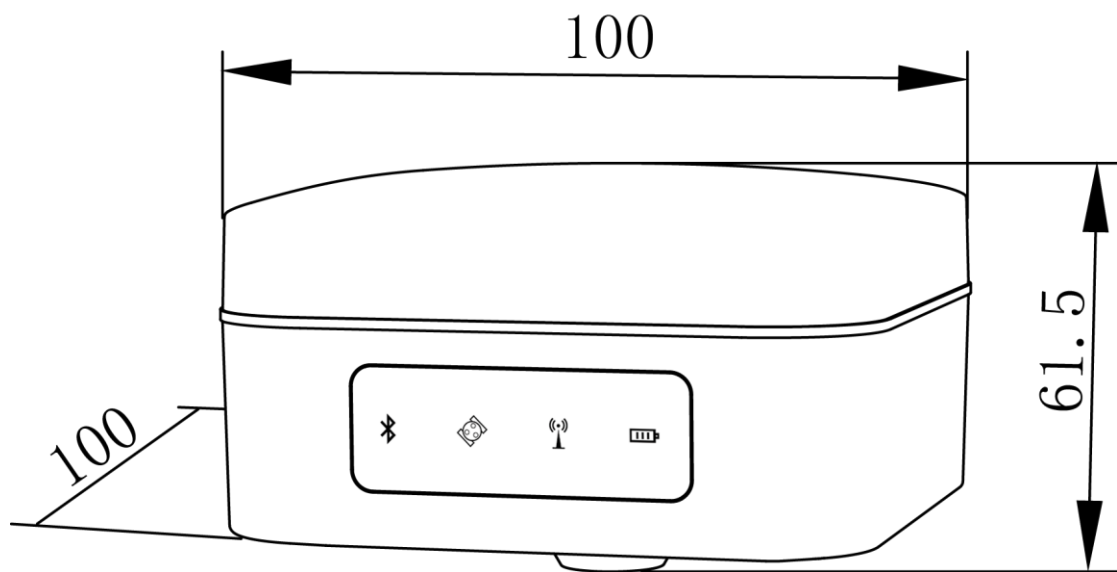
Features

- Linux+Qualcomm MDM9628 Cortex-A7 Intelligent system platform
- Support BDS、GPS、GLONASS、Galileo、QZSS 和 SBAS
- Centimeter-level positioning Support tilt measurement, meet the positioning accuracy of less than 2cm within the range of 30° tilt
- The built-in large-capacity lithium battery ensures that the continuous working time exceeds 9 hours under normal operation
- Industrial-grade design, strong magnesium alloy shell, meets IP65 design requirements, safe and reliable

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Structural dimension drawing (Dimensional tolerance without tolerance: $\pm 1\text{mm}$)

单位:MM



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配置	内容	备注	
Hardware platform	Qualcomm MDM9628 Cortex-A7		
SOFTWARE	Linux		
GNSS	GPS	L1、L2、L5	
	GLONASS	L1、L2	
	BDS	B1、B2、B3	
	GALILEO	E1、E5a、E5b	
	QZSS	L1、L2、L5	
	SBAS	L1	
	DATA FORMAT	NMEA-0183	
	I/O	RTCM 2.X、RTCM3.X	
	Data update rate	5Hz	
	Recapture time	<1s	
	Cold start	<40s	
positioning accuracy	Single point positioning (RMS)	horizontal : 1.5m vertical : 3.0m	
	DGPS (RMS)	horizontal : 0.4m vertical : 0.8m	
	RTK (RMS)	horizontal : ± (10mm+1ppm) vertical : ± (15mm+1ppm)	
	Time accuracy (RMS)	20ns	
	Speed accuracy (RMS)	0.03m/s	
	Tilt compensation accuracy (within 30°)	<2cm (Tilt function is optional)	
the system platform	BIUETOOTH	V2.1+EDR / V4.0 Dual mode ,	
	WIFI	802.11 a/b/g/n/ac	
	NETWORK	Netcom LTE FDD: B1/B3/B5/B8 LTE TDD: B38/B39/B40/B41 TD-SCDMA: B34/B39 CDMA: BC0 WCDMA: B1/B8 GSM: 900/1800MHz	
	Built-in storage	32GB	
Indicator light	POWER	Power indicator	
	SATELLITE	Flashing means effective positioning	
	BLUETOOTH	Always on when Bluetooth is connected	
	DATA LINK	Flashes when there is a difference	
battery charging	SPEC	3.7V, 9600mAh	
	TIME	9H	
	CHARGING	支持 MTK PE+ 1.1/2.0 9V/1.6A 支持 USB PD 12V/1.25A 支持 5V/2A	Support fast charging adapter, adaptive and dynamic adjustment of

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			charging current
Environmental characteristics	Operating temperature	-20°C~+60°C	
	storage temperature	-40°C~+85°C	
	Resistance	Resistance to 1.5m drop with rod at room temperature	
	IP	IP65	
Physical characteristics	Material	Magnesium alloy shell + ABS/PC plastic top cover	
	size	100mm*100mm*61.5mm	
	weight	≤0.65kg	
Accessories	M68 receiver	1pc	
	5V/2A USB adapter	1pc	
	USB A To Type-C data cable	1pc	
	connector	1pc	