

GNSS high-precision reference station receiver, full system and all frequency points

M66UBH

M66UBH is a high-performance GNSS receiver designed for the construction of the Beidou ground-based enhancement system, with a built-in Linux operating system, completely independent intellectual property development, rich interface types, and diverse communication methods. It supports external frequency standard input, event input and large-capacity data storage, and supports multiple sensor inputs. It is the best choice for Beidou ground-based enhancement system construction.



The host integrates a high-precision positioning module, has completely independent core intellectual property rights, and support BDS B1I/B2I/B3I, B1C/B2a, GPS L1/L2/L5, GLONASS L1/L2, Galileo E1/E5a/E5bFull system and full frequency signal

Quick positioning function

The first positioning time is short, and it can lock and track satellite signals, which is convenient for users to quickly obtain accurate positioning data for subsequent calculations..

MULTI interfaces and various communication methods

The host provides Ethernet, WIFI, serial port, Bluetooth and mobile network interfaces for customers to choose

Compatible with multiple protocols

Support Ntrip Client/Server/Caster, TCP Client/Server connect, FTP protocol file transfer, HTTP/HTTPS protocol, special network transmission function with protection strategy

Features

- With 432 super channels and dedicated fast capture engine
- Support BDS、GPS、GLONASS & Galileo, support BD3
- Adaptive anti-narrowband interference up to 60dB
- Based on ARM Cortex-A7 design, Main frequency up to 536MHz
- Internal 32G storage, Can be downloaded remotely, support multi-channel circular storage
- Support secondary development
- Industrial-grade design, strong aluminum alloy shell, meets IP67 design requirements, safe and reliable

GNSS high-precision reference station receiver, full system and all frequency points

GNSS specifications	
GNSS Receiving frequency	BDS B1I/B2I/B3I, B1C/B2a GPS L1/L2/L5 GLONASS L1/L2 Galileo E1/E5a/E5b
channels	432 super channels and dedicated fast capture engine
Pseudorange observation accuracy	10.0cm
Carrier phase observation accuracy	1.0mm
Single point positioning accuracy	horizontal 1.5m vertical 3.0m
RTK positioning accuracy	horizontal 0.8cm+1ppm vertical 1.5cm+1ppm
Time accuracy	20ns(* Does not include delay caused by RF cables or antennas)
Positioning data	NMEA-0183
Differential data	RTCM3.0、RTCM3.2、RTCM3.3
Storage format	RINEX、customize
Data refresh frequency	1Hz、2 Hz、5 Hz、10 Hz、20 Hz
Received data availability rate	≥98% (Available data/collected data)
Data integrity rate	≥98% (Collect data/should collect data)
Interface characteristics	
port	Standard RS232 interface; Baud rate support 1200、2400、4800、9600、19200、38400、115200、230400bps
Network port	Standard RJ45 interface, 10/100Mbps network adaptive
WIFI	2.4GHz, IEEE 802.11b/g/n
Mobile network (full Netcom)	LTE-TDD Band 38/39/40/41LTE-FDD Band 1/3/5/7/8 TD-SCDMA Band 34/39UMTS Baud 1/8 EVDO BC0 CDMA1x BC0 GSM Band 2/3/5/8
bluetooth	Version3.0 TransmitClassClass2 Frequency2.4~2.48GHz
Electrical characteristics	
Voltage input	9-24V DC (typical 12V)
Special voltage input	140~240V@50/60Hz AC input (Need a dedicated adapter)
Power consumption	5.5W (typical)
* Power consumption in non-charging state	* The above power consumption does not include the power consumption of battery charging
Built-in battery	13000mAh@7.4V
Working time of battery	≥15H * Brand new battery, support 16 hours of work under typical power consumption
Structural characteristics	
size	212x 162.5 x 74.5mm
weight	≤2.30kg
Protection level	Dustproof and waterproof IP67 shockproof, in line with GB/T2423
working environment	
Operating temperature	-40~+65°C *The battery life is attenuated at -40°C

GNSS high-precision reference station receiver, full system and all frequency points

Storage temperature

-40~+85°C

size (Unmarked dimensional tolerances: $\pm 1\text{mm}$)

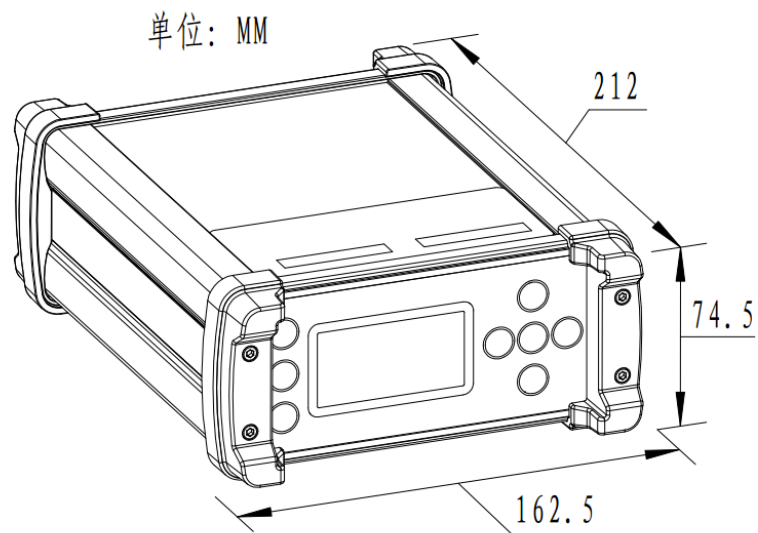







图 2 结构尺寸

GNSS high-precision reference station receiver, full system and all frequency points

FRONT



类型	功能
	Power on/off button, short press to turn on when off, long press for 3 seconds to enter the shutdown process
	Force shutdown button, unplug the external power supply, long press this button for 10 seconds, the host will force shutdown
	Back button, return to the tab bar
	Cursor direction movement keys (a total of four up, down, left and right)
	ENTER

BACK PANEL

GNSS high-precision reference station receiver, full system and all frequency points



序号	标识	类型	备注
1	PWR	Two core head	Host power supply interface, 9-36V (typical 12V) input
2	COM1	Five core head	RS232 Interface, support positioning raw data and differential data output
3	COM2	Five core head	RS232 Interface, support weather meter, rain gauge input
4	SIM	SIM	SIM SLOT
5	GNSS	TNC	GNSS antenna
6	4G	SMA	4G antenna
7	WIFI	SMA	WIFI antenna
8	EVENT	SMA	Event input
9	PPS	SMA	1 PPS output
10	RJ45	RJ45	Adaptive 10/100M Ethernet interface
11	OSC	TNC	External clock input port

GNSS high-precision reference station receiver, full system and all frequency points

config:

no	parts	spec	qty
1	Data cable	5-core Remo head to DB9 female serial cable	1pc
2	AC/DC adapter	12V/2A 2-core Remo	1pc
3	WIFI antenna	WIFI antenna	1pc
4	Data cable	7-pin Remo head to USB-DB9 female cable	1pc
5	4G antenna	4GFull Netcom Antenna	1PC
6	GPS antenna	GPS500	1PC