GNSS Receiver (Geodesic Receiver)

G20

The G20 is a high-end GNSS receiver, a new generation of measurement engine, built-in 4G module, all-network link, and multi-protocol radio, using a new appearance design, magnesium alloy structure, Linux operating system, is an extreme, intelligent, lightweight survey GNSS receiver.

Linux smart system

Linux+ i.mx6ul cortex-a7 intelligent system platform,bring efficient computing and unlimited expansion of product functions to users

Full system full frequency GNSS receiver

The host is integrated with high precision positioning module, with completely independent core intellectual property rights，it support BDS B1/B2/B3， GPS L1/L2/L5，GLONASS L1/L2，Galileo E1/E5a/E5b，SBAS L1， QZSS L1/L2/L5，Full system fullfrequency signal reception and processing

4G, all-network link

Based on the Linux platform, 4G all-network link solution, fully support China mobile/Unicom/Telecom 2/3/4G network, better compatibility, stronger signal, more stable connection.

Long endurance

Built-in large-capacity intelligent lithium battery to ensure continuous working time over 15 hours (under typical power consumption)

Combination of antenna

New four in one antenna, GNSS, WiFi, bluetooth, 4G all in one, better wireless signal

Features

- Linux+I.MX6UL Cortex-A7 intelligent system platform
- 432 Super channels and special fast catching engine
- Support BDS、GPS、GLONASS、Galileo、QZSS and SBAS
- Centimeter level accuracy
- Built-in large capacity intelligent lithium battery, Long endurance
- Industrial type design, strong magnesium alloy housing, IP67 design, safe and reliable

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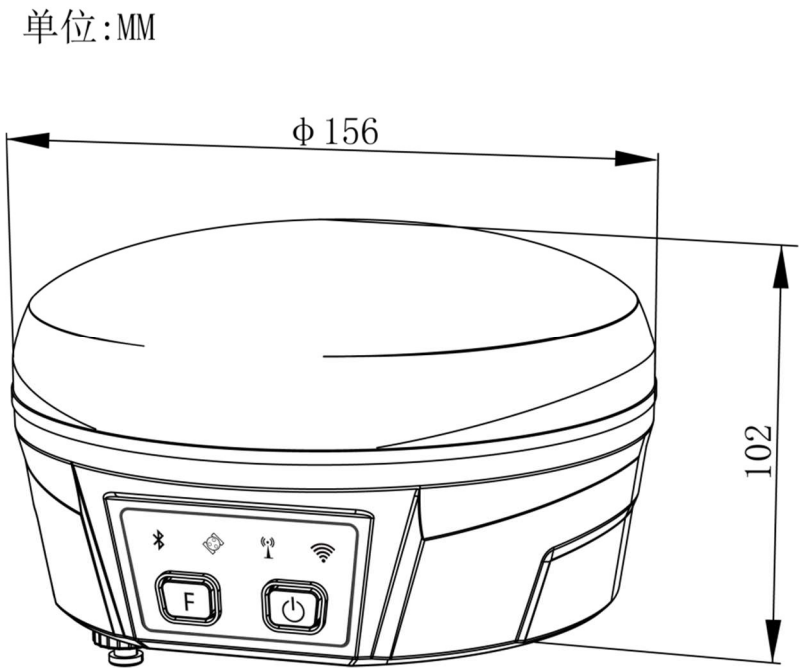
Structure dimension drawing (dimension tolerance without markedis: ±1mm)



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Configuration		Content	Remarks
Hardware platform		I.MX6UL Cortex-A7	
Software platform		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	
	CorrectionI/OProtocol	RTCM 2.X、RTCM3.X	
	Data update rate	MAX 5Hz	
	Reacquisition 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 precision（RMS）	20ns	
	Static accuracy(RMS)	Horizontal：±（2.5mm+1ppm） Vertical：±（5mm+1ppm）	
	Speedaccuracy（RMS）	0.03m/s	
	Tilt Compensation Accuracy（within30°）	<2cm	Only supported by G20XXI
The system platform	Bluetooth	V2.1+EDR / V4.0 Dual mode	
	WIFI	802.11 b/g/n	
	Radio communication	External transmit：5W/35W（adjustable external radio） Built-in transmit：0.5W/1W adjustable frequency：410-470MHz Communication protocol：TrimTalk,TrimMark3，SOUTH，PCC-EOT	
	Cellular network communication	all-network link 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 memory	On board 8G;	
	Power light	Power indicator	

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Indicator light	Satellite light	Positioning status indicator	
	Bluetoothlight	Bluetooth connection status indicator	
	Data link light	Differential data link indicator	
	Mobile network indicato	Mobile network status indicator	
Battery	Specification	7.4V，9750mAh	
	Endurance	>15hour (under typical power consumption)	
Environmental features	Working temperature	-20℃~+70℃	
	Storage temperature	-40℃~+85℃	
	Shock resistance	2mdrop with pole at normal temperature	
	Protection rating	IP67	
Physical features	material	Magnesium alloy shell+ABS / PCPlastic lid	
	Dimension	156mm*156mm*102mm	
	Weight	1.4kg	
Accessories	G20Host	1Set	
	Radio antenna	1PCS	
	Data cable with 7 core	1PCS	
	Power adapter	1PCS	