GNSS Receiver (Geodesic Receiver)

M65

The M65 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、QZSSand 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

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

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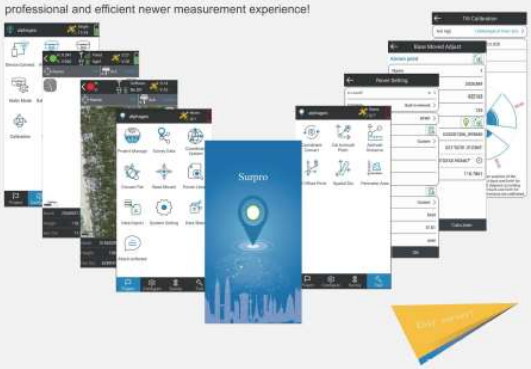
Surpro field software

Surpro is a field survey software that integrates general survey, point, line stakeout and road stakeout based on Android platform created by α-GEO. It has various parameter configurations, simple and friendly interface, comprehensive functions, multiple data format compatibility and report output, bring you a more concise, professional and efficient newer measurement experience!



Applications

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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	
	Correctionl/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 M65XXI
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;	
Indicator light	Power light	Power indicator	
	Satellite light	Positioning status indicator	
	Bluetoothlight	Bluetooth connection status indicator	