PHEREFIX

S66UFH-Lite

BASE STATION RECEIVER

- *Provide Dual Antennas*

- *Support Front-end Solution*

S66UFH-Lite GNSS Receiver

S66UFH-Lite is a miniaturized GNSS receiver based on the Beidou ground-based augmentation system and is completely independently developed. It is equipped with a built-in Linux operating system, with a variety of interface types, diverse communication methods, supporting large capacity data storage. It supports dual-antenna directional solution and dual-antenna independent differential output function at full-system and full-frequency points. It is widely used in the fields such as automatic driving, mechanical control, and motion posture measurement.

LENGTH	WIDTH	HEIGHT	WEIGHT
135mm	102mm	47mm	470g

Receive all satellite signals

S66UFH-Lite has 1408 channels, integrates a high-precision positioning module, and supports the reception and interpretation of GNSS signals (BDS, GPS, GLONASS, GALILEO, QZSS and SBAS).

Rich interfaces, multiple communication methods

S66UFH-Lite provides dual antennas, Ethernet, serial port and mobile network interfaces for customers to choose.

Support front-end solution

S66UFH-Lite supports the front-end calculation function, which can complete the static data calculation inside the device and upload the results to the cloud, which greatly reduces the requirements on the computing power of the cloud server.

IP68

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

Characteristic

- Qualcomm Cortex-A7
- Linux intelligent system

- Ethernet, WiFi, serial ports.
- mobile network interfaces

- Supports Ntrip Client/Server/Caster, TCP Client/Server, FTP for file transfers.
- Supports HTTP/HTTPS for secure communications over protected networks.

- Narrowband and continuous wave interference resistance
- Rapid initial positioning and fast satellite signal lock for quick data acquisition

Key Features

Provide dual antennas

- Channel:
  1408
- GNSS Tracking:
  BDS, GPS, GLONASS, Galileo, QZSS, SBAS
- Interface:
  PWE*1: Power supply port, SIM*1: Standard SIM card,
  GNSS*2: TCN port, DATA*1, PPS*1, Ethernet*1, 4G*1
- Voltage Input:
  9-24V DC (12V typical)
- Power Dissipation:
  2W(typ)
- Heading Accuracy (RMS):
  0.2°/m

Application Scenario

Autonomous Driving

Agricultural Navigation

Mechanical Control

ITEM		SPECIFICATION	REMARKS
HARDWARE SYSTEM		ARM Cortex-A7 1.8GHz	
OS		Linux	
GNSS	GPS	L1C/A, L2P/L2C, L5	Marked with *, it means firmware support is required. Support PPP-B2b Support PPP-E6 Support SBAS
	GLONASS	L1, L2	
	BDS	B1I, B2I, B3I, B1C*, B2b*	
	GALILEO	E1, E5a, E5b, E6*	
	QZSS	L1, L2, L5	
	SBAS	L1C/A	
	Channel	1408 channels	
	Differential Observation Accuracy(RMS)	10.0cm	
	Kinematic Phase Observation Accuracy (RMS)	1.0cm	
	Data format	RINEX, Custom	
	Position Data	NMEA-0183	
	Differential Data	RTCM3.X	
	Data update frequency	1Hz, 2Hz, 5Hz, 10Hz, 20Hz	
	Receive Data Availability	≥98%(Data available/Data collected)	
	Data Integrity	≥98%(Data collected/Data should be collected)	
	Single(RMS)	Horizontal: 1.5m Vertical: 2.5m	
	RTK(RMS)	Horizontal: ±(8mm+1ppm) Vertical: ±(15mm+1ppm)	
	Static Accuracy(RMS)	Horizontal: ±(2.5mm+0.5ppm) Vertical: ±(5mm+0.5ppm)	
	Time Accuracy(RMS)	20ns	
	Heading Accuracy(RMS)	0.2°/m	
SYSTEM	Serial Port	Standard RS232 interface, Baud rate supports 1200, 2400, 4800, 9600, 19200, 38400, 115200, 230400bps	
	Network port	Standard RJ45 interface, 10/100Mbps network adaptive	
	USB	Integrated on the 7-pin interface, support access to the computer to copy data directly	
	Network Communication (Full Netcom)	LTE FDD: B1/2/3/4/5/7/8/12/13/18/19/20/25/26/28 LTE TDD: B38/39/40/41 WCDMA: B1/2/4/5/6/8/19 GSM: B2/3/5/8	
	Interface	PWE*1: Power supply port DATA*1 SIM*1: Standard SIM card Ethernet*1 GNSS*2: TNC interface 4G*1: 4G antenna port	
	Storage	32GB, circular storage support multi-channel storage	
ELECTRICAL CHARACTERISTIC	Voltage Input	9-24V DC (12V typical)	
	Power dissipation	2W(typ)	
ENVIRONMENT	Operating Temperature	-40℃~+85℃	
	Storage Temperature	-40℃~+85℃	
	Protection	IP68	
PHYSICAL	Material	Magnesium alloy main body	
	Dimension	135mm*102mm*47mm	
	Weight	470g	

▶ Manufacturers may update parameters at any time, please refer to the latest product information.