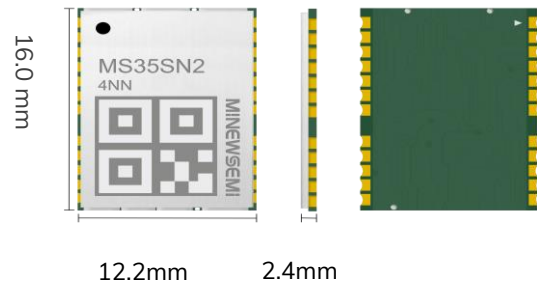


MS35SN2

GNSS Module



Multi-constellation

MS35SN2 is a multi-galaxy, concurrent, dual-frequency single-point L1+L5 positioning GNSS module. Built-in 12nm advanced process GNSS Soc chip, integrated ARM Cortex-M4 FPU and MPU with a main frequency of up to 530MHz, the module supports GPS, BDS, GLONASS, GALILEO and QZSS multi-satellite systems, with excellent fusion positioning performance, while maintaining low power consumption.

The multi-satellite system combination greatly increases the number of visible satellites when driving in dense urban canyon environments, reducing the time to first position and improving positioning accuracy, even up to 65 satellites in open environments! Accurate positioning is possible even in harsh environments.

The module makes it ideal for industrial-type applications in the automotive sector (e.g. T-Box, car navigation, V2X), transportation sector (e.g. industrial vehicles, operational vehicle supervision), shared electric bikes, smart agriculture, etc.

Advantages

- Mainstream package dimension: 16.0 mm × 12.2 mm × 2.4 mm
- Support multi-satellite system: GPS, BDS, GLONASS, GALILEO, QZSS and NAVIC*
- Dual-band L1+L5 support
- Supports inertial navigation with vehicle speed input*
- Supports output of RTCM data for CORS stations

					
Fast location	Low-power	Multi-constellation Multi-band	Positioning accuracy 15cmCEP	Industrial-grade Temperature	Original observation data output

Parameter	Specification
1 Constellation	GPS: L1C/A, L5
	BDS: B1I, B2a
	GLONASS: L1
	GALILEO: E1, E5a
	QZSS: L1C/A, L5
	SBAS: WAAS, EGNOS, MSAS, GAGAN, SDCM
	NAVIC*: L5
2 Operating frequency	GPS/QZSS L1: 1575.42MHz±1.023MHz
	GPS/QZSS L5: 1176.45MHz±10.23MHz
	BDS:B1I: 1561.098MHz±2.046MHz
	BDS:B2a: 1176.45MHz±20.46MHz
	GLONASS G1: 1601.71875MHz±3.91175MHz
	GALILEO E1: 1575.42MHz±1.023MHz
	GALILEO E5a: 1176.45MHz±10.23MHz
NAVIC*: 1176.45MHz±10.23MHz	
3 Sensitivity	Cold Start: -148dBm
	Re-capturing: -160dBm
	Tracking: -165dBm
4 Acquisition Time	Cold Start: ≤28s;
	Hot Start: 1s;
5 Position Accuracy	Single point positioning: Open Sky: 1.5m CEP
	Urban environment: 2.5m CEP
6 Speed Precision	<0.05m/s
7 Time Precision	20 ns
8 Voltage	Main power input: 2.8 - 4.2V (3.3V recommended)
	Antenna supply voltage: 3.3V / low power antenna supply: 1.8V (optional)
	PPS output voltage: 2.8V
9 Power Consumption	<20mA @ 3.3V
10 Operation Temp	Working: -40℃ - +85℃
11 Refresh Frequency	GNSS 1-10Hz
12 RTCM Differential Output	Support RTCM2.x, RTCM3.x output & MSM4/MSM7
13 Package Size	16.0*12.2*2.4mm , LCC 24pin

NAVIC is optional

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