



M5STACK

Cap LoRa-1262

1. Description

Cap LoRa-1262 is a high-performance LoRa communication and GNSS global positioning navigation expansion module designed for the Cardputer-Adv. The LoRa module employs a chipset solution based on the SX1262 and comes standard with an **external SMA antenna**, offering enhanced anti-interference capabilities and long-range communication. It supports the **868MHz ~ 923MHz frequency band**, providing long-distance, low-power wireless links for Internet of Things (IoT) applications. The GPS module utilizes a chipset solution based on the AT6668, featuring a built-in ceramic antenna to deliver precise and reliable satellite positioning services. It supports **multi-band, multi-mode GNSS signal** reception, capable of receiving signals from multiple satellite navigation systems (including GPS, BDS, GLONASS, GALILEO). It supports multi-system joint positioning and single-system independent positioning, with strong anti-interference capabilities and high positioning accuracy. In areas with weak signals, it can quickly acquire higher-precision location information. This module is suitable for remote data acquisition, smart cities, smart homes, vehicle positioning and navigation, IoT device positioning, and other fields.



2. Specifications

Specification	Parameters
LoRa Module	Stamp LoRa-1262@SX1262
Frequency Range For CE	868-868.8MHz
LoRa Programmable Bit Rate	Up to 300kbps
LoRa Communication Interface	SPI
Transmit Maximum ERP For CE	9.69dBm
GPS Module	ATGM336H-6N@AT6668
GPS Communication Interface	UART, default 115200bps@8N1
Supported Satellite Navigation Systems	GPS/QZSS/BD2/BD3/GAL/GLO
Frequency Bands	BDS B1I, Galileo E1, GPS L1 C/A, Glonass G1
Supported Modulation Modes	BPSK CBOC
GPS Channels	50 channels
GPS Positioning Accuracy	<1.5m (CEP50)
GPS Update Rate	Up to 10Hz
GPS Protocol	NMEA 0183 4.1
GPS Sensitivity	Tracking: -162dBm Acquisition: -160dBm Cold Start: -148dBm
GPS Start-up Time	Cold Start: 23s Warm Start: 1s
Frequency Range	1559-1610 MHz
Hardware version NO.	V1.0
Software version NO.	V1.0
Receiver category	The equipment provider declared that the receiver category for the EUT is Class A.

3. Quick Start

3.1 LoRa TX



Connect the Cap LoRa-SX1262 to the main testing control device Cardputer-Adv, and burn the test firmware program for testing.

4. FCC Warning

FCC Caution:

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE:

Note: This equipment should be installed and operated with minimum distance 20 cm between the radiator & your body. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement: This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.