ATOM GPS Kit
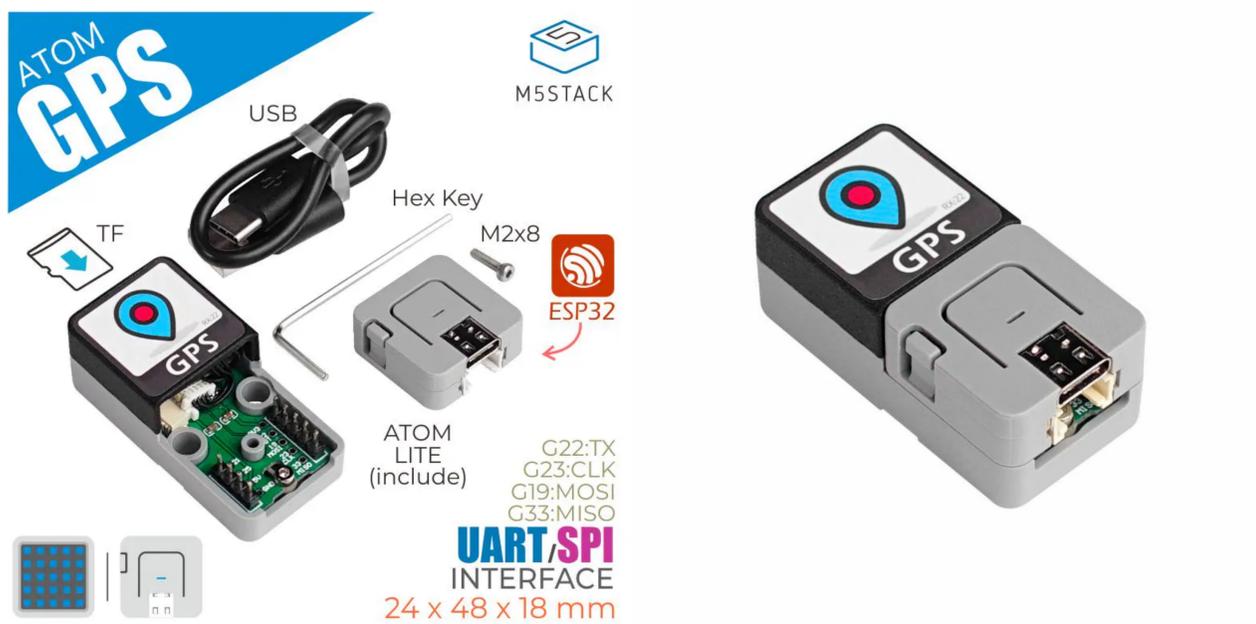
Description

ATOM GPS is a GPS positioning module wich is part of the M5 atomic series. The navigation chip is m8030-kt, which has built-in flash and a coin cell battery, which can save the users configuration. It adopts NMEA-0183 protocol output, supports GPS, GLONASS, Galileo, BDS, SBAS and QZSS satellite systems, has 72 search channels, an adjustable refresh rate, and can be widely used in vehicle monitoring such as bus stop reporting, vehicle navigation, ship navigation, track tracking and other applications. In addition, a self elastic TF(MicroSD) card slot is built in. It is possible to read and write GPS and other file data, for example, you could export GPS data in a specific format to view the motion tracking in the map software, or read and write files as a common card reader.

UART Parameter setting:

- Baud rate(**default: 9600bps**)
- Start bit(1 bit)
- Stop bit(1 bit)
- Check bit(None)

Product Features

- Compatible with Atom Matrix/Atom Lite
- High signal acquisition sensitivity
- Support single system positioning of BDS / GPS / GLONASS / Galileo / SBAS / QZSS multiple satellite navigation systems
- Built in self elastic TF (microSD) card slot
- Low power

Include

- 1x ATOM GPS
- 1x ATOM Lite
- 1x Hex Key

- 1x M2*3mm Hexagon self tapping screw
- 1x M2*8mm Hexagon socket cup head machine screw
- 1x TYPE-C USB Cable(20cm)

Applications

- Vehicle and ship positioning and navigation
- Track record
- File reading and writing

Specification

Resources	Parameter
Frequency accuracy	GPS L1, GLONASS L1, BDS B1, GALILEO E1, SBAS L1, QZSS L1
Accuracy	Horizontal: 2m, Speed: 0.1m/s, Time: 1us
Channels	72 search channel
Update frequency	1-10Hz
Maximum height	50000m
Maximum speed	515m/s
Maximum acceleration	< 4g
Sensitivity	Trace: - 167dbm, capture: - 160dBm, cold start: - 148dbm, hot start: - 156dbm
Start time	Cold start: 26 seconds, warm start: 25 seconds, hot start: 1 second
Baud rate	default: 9600bps
Output protocol	NMEA-0183
NMEA sentence	RMC, VTG, GGA, GSA, GSV, GLL
FLASH	4M FLASH
Indicator light	TX: the power on blue light flashes, indicating that there is data output, PPS:3D Blink after positioning, and it will not light if it is not positioned
Working temperature	-40°C - 85°C
Net weight	28g
Gross weight	38g
Product size	24*48*18mm
Package size	54*54*20mm

EasyLoader is a concise and fast program writer, which has a built-in case program related to the product. It can be burned to the main control by simple steps to perform a series of function verification.
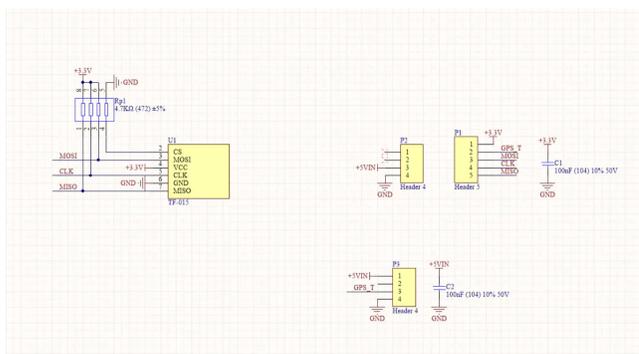
Description:
Connect Bluetooth serial port tool of mobile phone to view GPS information

Peripherals Pin Map

ATOM	GPIO19	GPIO22	GPIO23	GPIO33
ATOM GPS	MOSI	TX	CLK	MISO

Schematic

Related Link

○ **CASIC Multimode satellite navigation receiver protocol specification**

Example

Arduino

○ Click here to download the Arduino example