

Wio Tracker - GPS, BT3.0, GSM, Arduino Compatible

SKU 102990824

The Wio Tracker (Wireless Input Output) is an open source gateway based on the ARM Cortex-M0+ and Arduino M0 MCU which enable faster IoT GPS solutions. This Arduino and Grove compatible development board helps you track nearly any moving thing on the planet and then upload that data wirelessly. By integrating Bluetooth 3.0 and GPRS (an LTE solution is planned for release in Q3), the Wio Tracker allows for flexible communication solutions. While there are GPS/GPRS shields available for Arduino and other development boards, Seeed believes that having a single board solution is the best approach to your project.

The Arduino and Grove compatibility allows for quicker development through numerous libraries and a supportive community. The GPS library which will be available with the board is not just limited to Arduino – it can function just as well if you chose to develop in C/C++. With 6 Grove connections available developers can plug in any combination of out 180+ sensors and actuators to make any project and solve any problem. Simplifying the prototyping and development phase is our goal.

The Wio Tracker is well suited for outdoor projects where the device can connect to the GPS satellites and provide a real-time location of the item it is attached to. The GPRS provides a moderate bandwidth which allows immediate interaction between the user and device. Some example projects could be a bicycle sharing service, tracking pets or livestock, locating a vehicle, or even keeping track of a child.

We mentioned earlier the Wio Tracker is a gateway to faster IoT solutions — and we meant it! Does your project need a few extra sensors, say a temperature sensor and maybe an accelerometer to tell the object's orientation? Our Grove sensors easily plug into our boards and allow you to quickly prototype and provide your project with a proof of concept. Next we can help you go from a prototype to an engineering sample, working with you to customize your own version of the Wio Tracker. Finally, if you decide to take your project to market we can help you with manufacturing, and even selling your product through our website and channels!

From making a fun GPS based project at home, to manufacturing and selling a GPS product to consumers, Seeed is here to help you succeed.

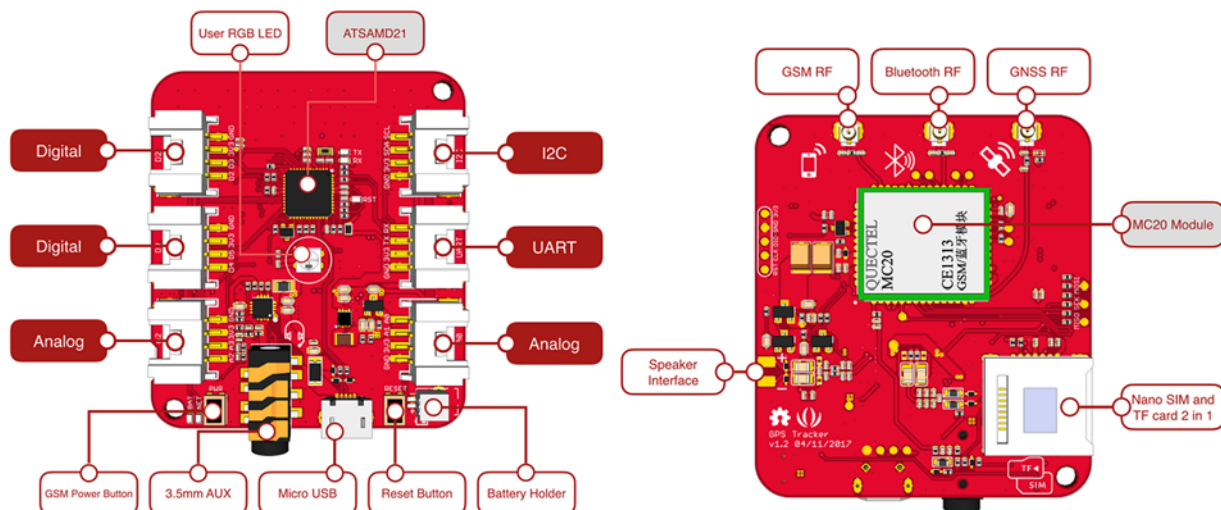
Note:

Please always plug a 3.7V Lipo battery in case USB power supply is not sufficient.

Key Features

- Connects with GPS + BeiDou + QZSS – Allowing for Higher Precision Location Around the Globe
- 99 Channels Allows for Quicker Lock Times
- GLP Mode - 40% Power Consumption for Normal Mode
- LOCUS Technology – Records Navigation Data Automatically
- GPS, GSM, and BT Antennas Included
- GSM AT Commands: GSM 07.07, 07.05 and enhanced AT Command
- Bluetooth 3.0 with SPP Profile and HFP-AG Profile
- 6 Grove Connectors (2x Digital, 2x Analog, 1x UART, 1 I2C)
- Arduino IDE Compatibility
- Small Form Factor (54.7mm x 48.2mm)
- Nano SIM and microSD 2-in-1 Socket

Hardware Overview



Specifications

Item	Function	Value
Microcontroller	Processor	ATSAMD21G18A-MU ARM Cortex-M0+ 48MHZ
	Memory	256K Bytes Flash
		32K Bytes SRAM
GSM/GPRS	GSM	850/900/1800/1900MHz: Class 4 (2W @850/900MHz) Class 1 (1W @1800/1900MHz)
		AT Command: GSM 07.07, 07.05 and enhanced AT Command
		Low Power Consumption: 1.2mA@DRX=5V
	GPRS	GPRS Multi-slot Class 12: Down to 85.6kbps Up to 85.6kbps
		Protocol: TCP/UDP/FTP/HTTP/PPP/SSL
	SMS	Peer to Peer Message SMS broadcast Text and PDU mode
	Audio	Echo cancellation Noise elimination
Bluetooth	Bluetooth 3.0: SPP HFP-AG	
GNSS	System	GPS L1 1575.42MHz BeiDou B1 1561.10MHz
	Precision	<2.5 m CEP (2.5m radius)
	Time To First Lock	EPOTM turns on Cold Start:<15s Warm Start:<5s

	Technology	EASY/LOCUS/AlwaysLocate/EPO/GLP/AIC
Peripheral	Grove	2 x Grove Digital Port
		2 x Analog Port
		1 x UART
		1 x I2C
	Antenna	GSM Antenna
		Bluetooth Antenna
		GNSS Antenna
	Others	USB: Power Supply/Firmware Upload
		JST 1.0 Battery Connector
		3.5mm Audio Jack (Mic and Sound)
		2 Buttons: GSM Power Button (MC20) Reset Button (M0)
		User RGB LED
		Speaker Interface
Nano SIM and microSD 2 in 1 Socket		
Size	Length	54.7mm
	Width	48.2mm
	Weight	Board (No Battery): 45g Antennas: 9g

Additional Quotes from the Team

- “I am excited to offer a development board with GPS, GPRS, and Bluetooth 3.0 solutions in such a small footprint.” – Ye Xiaobo, Product Manager.

Technical Details

Dimensions	54.70mm x 48.20mm x 6mm
Weight	G.W 50g
Battery	Exclude

Part List

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ECCN/HTS

ECCN	3A991.a
HSCODE	8529909090

