

Wio LTE AU Version- 4G, Cat.1, GNSS, Espruino Compatible

SKU 102990924

Description

Wio Tracker (Wireless Input Output) is an open source gateway which enable faster IoT GPS solutions. It is Arduino and Grove compatible development boards that helps you track nearly any moving thing on the planet and then upload that data wirelessly. The Wio LTE is the LTE version of Wio Tracker, so now we've got 2 versions of Wio Tracker and the LTE (4G) version will make some differences.

There are three main updates comparing the Wio LTE to the 2G version. Firstly, from its name we know that the Wio LTE supports LTE (4G) communication which is much faster and popular than 2G. Secondly, the Wio LTE supports in total 4 different GNSS – GPS, Beidou, GLONSS and Galileo, the QZSS is also supported as bonus. With more GNSS support, positioning will be more accurate. Thirdly, the Wio LTE's MCU is upgraded to STM32, which is based on Cortex-M4, makes the Wio LTE 5 times faster than the 2G version. What's more, the flash and RAM have also been raised to 1Mbytes and 192+4k bytes.

Apart from the three main updates, the LTE version is almost the same as the 2G version. If your project is using the 2G version, it would be very easy to update to the LTE version because we have prepared transplantable and expansible AT command library. 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 the onboard 6 Grove connections, developers can create any combination of our 180+ sensors and actuators to build project and solve any problem. Simplifying the prototyping and development phase is our goal.

The Wio LTE 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 LTE provides a wide bandwidth which allows much faster interaction between the user and device. If you are going to build projects like a bicycle sharing service, tracking pets or livestock, locating a vehicle, or even keeping track of a child, the Wio LTE is the best solution.

Note:
This is the AU version of Wio LTE,and there are in total 4 different versions. Here is a table to show the main difference between different versions. For more detail information, please refer to this manual.
https://github.com/SeeedDocument/Bazzar_Attachment/raw/master/102990837/Quectel_EC21_Hardware_Design_V1.4.pdf

Versions	LTE Bands	3G Bands	GSM	GNSS
US	FDD: B2/B4/B12	WCDMA: B2/B4/B5	/	GPS/GLONASS/Beidou/Compass/Galieo/GZSS
EU	FDD: B1/B3/B5/B7/B8/B20	WCDMA: B1/B5/B8	900/1800	GPS/GLONASS/Beidou/Compass/Galieo/GZSS
AU	FDD: B1/B2/B3/B4/B5/B7/B8/B28	WCDMA: B1/B2/B5/B8	850/900/1800/1900	GPS/GLONASS/Beidou/Compass/Galieo/GZSS
JP	FDD: B1/B3/B8/B18/B19/B26	/	/	/

B2 band on EC21-AU module does not support Rx-diversity.

Sub-System	Function	Detail
Microcontroller	Processor	STM32F405RG， ARM Cortex-M4, CPU running up to 168MHZ
	Flash	1MB
	RAM	192+4KB
	Operating Voltage	3.3V
	Low Power	Sleep, Stop, Standby modes
	DC Current per I/O Pin	7 mA
LTE	LTE Cat.1	FDD LTE: B1/B2/B3/B4/B5/B7/B8/B28 TDD：B40 WCDMA: B1/B2/B5/B8 GSM：850/900/1800/1900
		AT Command: 3GPP TS27.007 and enhanced AT Commands
	Data	LTE-FDD Max 10Mbps(DL) Max 5Mbps (UL)
		Protocol: TCP/UDP/PPP/FTP/HTTP/SSL
	SMS	Peer to Peer Message, SMS broadcast, Text and PDU mode
	Audio	Echo cancellation; Noise elimination
GNSS	System	GPS/GLONASS/BeiDou/Galileo
	Precision	<2.5 m CEP
Peripheral	Grove	2 x Grove Digital Port
		2 x Analog Port
		1 x UART
		1 x I2C
	Antenna	2 x LTE Antenna
		1 x GPS Antenna
	Others	USB: Power supply and upload program
		JST 1.0 connecter for battery
		3.5mm Audio Jack
		MCU Reset Button, EC21 Power Button
		1 x User RGB LED SK6812
		Nano SIM and TF card 2 in 1 socket

Technical Details

Weight	G.W 18.5g
Battery	Exclude

Part List

Wio LTE AU Version- 4G, Cat.1, GNSS, Espruino Compatible	1
LTE Antenna	1
GPS Antenna	1

