

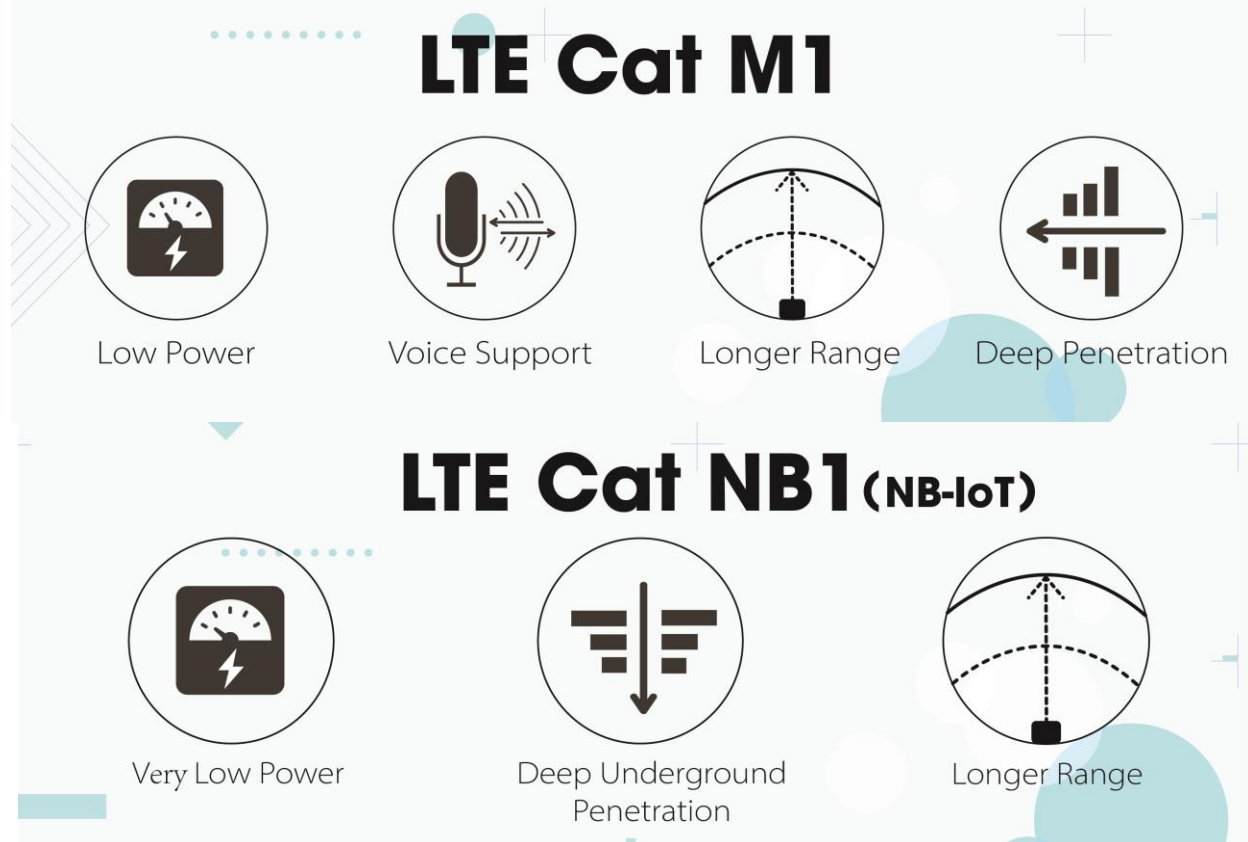
# Wio LTE - Cat M1/NB1

SKU 102991016

## Description

The Wio LTE Cat M1 / NB1 is an exciting IoT focused addition to our Wio cellular series which will provide you a more convenient IoT design and prototyping experience. The board features a M4 processor, a ublox modem with the new LTE Cat M1 and NB1, GNSS, and more.

## LTE Cat M1 & NB1 (NB-IoT) & GNSS



LTE categories M1 and NB1 have been designed with IoT design and deployment in mind. These new categories operate at lower frequencies enabling them to operate at a longer range and with more penetration capability. In addition the cost point of these new technologies will be cheaper due to the physical silicon chips using smaller areas and using older processes. To top it off the power consumption is lower than other LTE technologies. Cat M1 is capable of 375 kb/s download and upload speeds as well as VoLTE, while Cat NB1 is capable of 27.2 kb/s download speed with 62.5 kb/s upload speed. This Wio board is a global solution. The hardware is capable of operating in all regions, reducing the needs to source multiple versions. The board is compatible with major GNSS including GPS, BeiDou, GLONASS, and Galileo.

### Chose Your Development Enviornment

The board is powered by a STM32 Cortex-M4 and supports Arduino, MBed, and Espruino allowing developers to choose that which they are more comfortable with. Also included is an micro SD card slot for data logging.

### Grove Enabled

All 3.3v Grove modules are supported which give us wide-range possibilities of applications for prototyping. With the onboard 6 Grove connections, developers can create any combination of our 180+ sensors and actuators to build a project and solve any problem. Simplifying the prototyping and development phase is our goal.

So, welcome on board to the future of IoT development!

Item	Description
CPU&Storage	STM32F405RG, ARM Cortex-M4, CPU running up to 168MHZ
	1Mbytes Flash
	192+4KBytes RAM
System	Operating voltage: 3.3V
	Low power: Sleep / Standby modes / Stop
	CRC-32 generator
LTE Connectivity	LTE CAT M1 and NB-IoT, Cat M1 Half-duplex (375 kb/s DL and UL) Cat NB1 Half-duplex (27.2 kb/s DL, 62.5 UL)
	Embed protocol: TCP/UDP /FTP/HTTP/HTTPS/FTPS/TLS/MQTT/CoAP
GNSS	GPS / GLONASS
	2.5m CEP(GPS), 4.0m CEP(GLONASS)
Peripheral	1 x USB for power supply and DFU
	JST 1.0 connector for battery
	3 Buttons: 1. for Reset 2. for User function 3. into upload mode
	Nano SIM and TF card 2 in 1 socket
Grove	2 x Digital Port
	2 x Analog Port

	1 x UART
	1 x I2C

Technical Details

Weight	G.W 111g
Battery	Exclude

*Part List*

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