WisLTE (Quectel BG96 based) NBiot Arduino friendly single board computer RAK8214 - supports LTE Cat M1,CatNB1 and EGPRS module

WisLTE - The first BG96 LTE Arduino Friendly Board

- Base on Quectel BG96

- Support LTE Cat M1 & Cat NB 1 & EGPRS Module

- Arduino Shield Compatible
Embedded IoT wireless communication module without receive diversity. It supports LTE-TDD and half-duplex LTE-FDD wireless communication, which provides data connectivity on LTE-TDD/FDD networks. It also provides GNSS1 and voice2 functionalities to meet customers' specific application demands.

WisLTE development board is based on Quectel launched a new generation of IoT module BG96.

With cost-effective SMT form factor of 22.5mm x 26.5mm x 2.3mm and high integration level, BG96 enables integrators and developers to easily design their applications and take advantage from the module's low power consumption and mechanical intensity. Its advanced LGA package allows fully automated manufacturing for high volume applications.
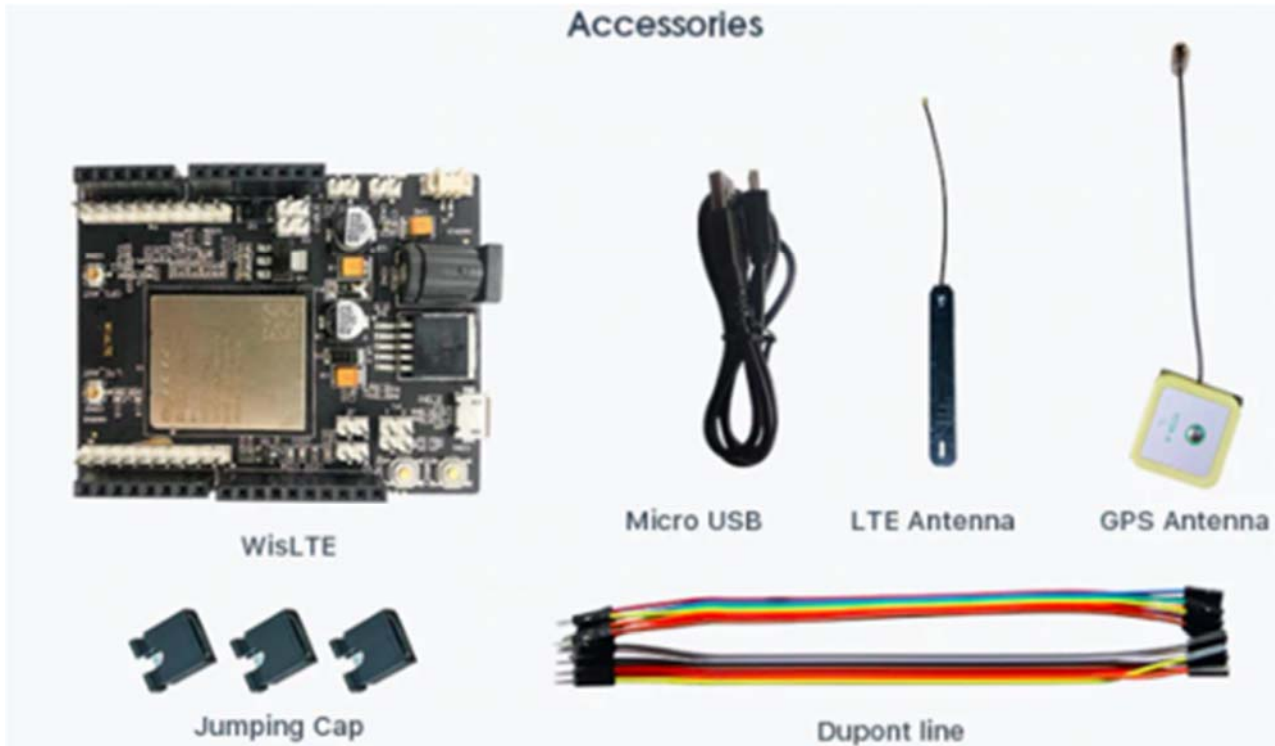
LTE Cat M1 and Cat NB1 module

A maximum data rate of 375kbps downlink and uplink. It features ultra-low power consumption and provides pin to pin compatibility with Qectel LTE module EG91 CAT NB1 (NBIoT) module BC95, UMTS/HSPA modules UG95/UG96 and GSM/GPRS module M95

Interface

Front

Back
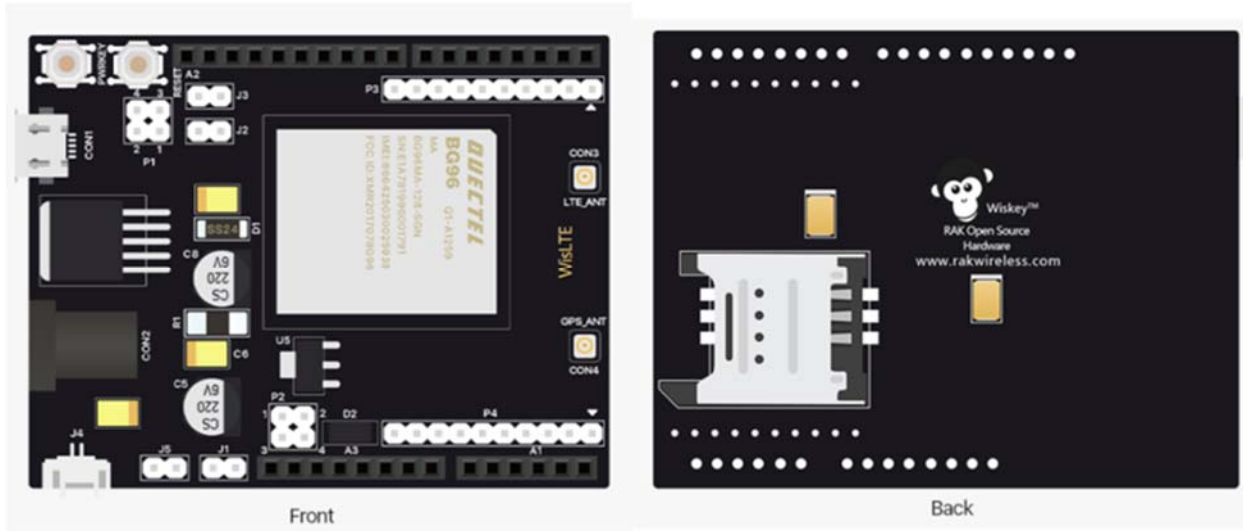
Guides & Tutorials

- Using Hologram Services with RAK WisLTE Board

Accessories

Accessories

WisLTE

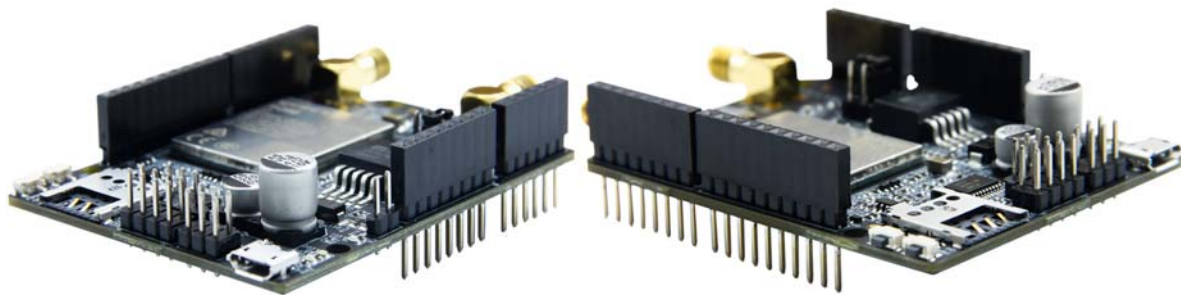Micro USB

LTE Antenna

GPS Antenna

Jumping Cap

Dupont line

Introducing: NB-IoT for everyone

What is Narrowband IoT?

Narrowband IoT (NB-IoT) is a Low Power Wide Area (LPWA) technology specifically designed for the IoT and connects devices efficiently on existing mobile networks. It can be seen as a far more superior and future proof replacement for 2G data communications for devices that is commonly known as M2M (machine to machine). We believe it will open up a wide variety of new types of applications from which no only many industries and businesses, but also society in general will profit.

You can use BN-IoT to send small amounts of 2 way data, securely and reliably. It is designed to have very low power consumption and deep penetration into buildings resulting in a secure, stable and robust communication network for devices like smart sensors such as room occupancy monitors.

Traditional cellular networks are not optimised for applications that only transmit small amounts of data and don't offer power saving capabilities, which makes these unsuitable for inexpensive devices that require battery lives of several years. Since NB-IoT operates in the licensed spectrum of the telecom operators, it is secure and reliable providing guaranteed quality of service.

Lable	Function	Description
P1	UART switch	Can use the interface to connect the device's UART pin to the Arduino device's UART port
J2	PWRKEY	Default connection, Can be achieved after power on , start the device
CON1	Micro USB	Device USB interface, you can send command control device through this interface
J3	Power consumption	Remove the R1 resistor, you can use this pin to test the device's power consumption
RESET	RST key	Reset the module
PWRKEY	PWRKEY key	Turn on/off the module
CON2	DC power supply	External DC power supply interface
J4	Battery powered	Battery-powered interface
J1	USB BOOT	Can force the module to boot from USB port for firmware upgrade
J5	Functional interface	64,63 pins for BG96, reserved for function pins
P2	UART voltage switch	Can be used to switch the voltage on the UART pin of the device to adapt to different Arduino devices
P3, P4	Functional interface	Reserved for function pins