Quectel BC95

Compact NB-IoT Module with Ultra-low Power Consumption

NB-IoT

- Compact Size
- B8/B5/B20
- Extended Temperature Range -40°C to +85°C
- LCC Package
- Multiple Serial Ports
- Embedded Internet Services Protocols
- **AT** Quectel Enhanced AT Commands

Key Benefits

- Compact-sized NB-IoT module
- Ultra-low power consumption
- Super high sensitivity
- LCC package makes it easy for large volume manufacturing
- Compatible with Quectel GSM/GPRS module, easy for future upgrading
- Embedded with abundant Internet service protocols
- Fast time-to-market:

  Reference designs, evaluation tools and timely technical support minimize design-in time and development efforts

BC95 is a high-performance NB-IoT module with low power consumption. The ultra-compact 19.9 × 23.6 × 2.2mm profile makes it a perfect choice for size sensitive applictions. Designed to be compatible with Quectel GSM/GPRS M95 module in the compact and unified form factor, it provides a flexible and scalable platform for migrating from GSM/GPRS to NB-IoT networks.

BC95 adopts surface mounted technology, making it an ideal solution for durable and rugged designs. The low profile and small size of LCC package allow BC95 to be easily embedded into low-volume applications and provide reliable connectivity with the applications. This kind of package is ideally suited for large-scale manufacturing which has strict requirements for cost and efficiency.
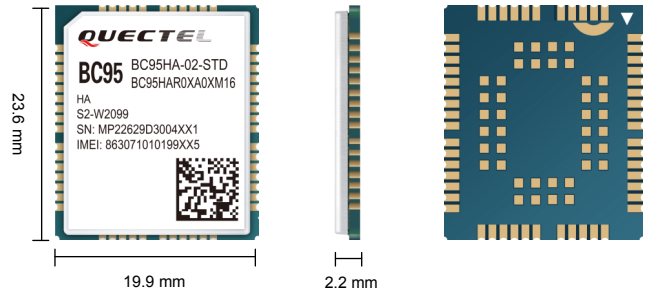
Due to compact form factor, ultra-low power consumption and extended temperature range, BC95 is the best choice for a wide range of M2M applications, such as smart metering, smart city, security and asset tracking, white goods, agricultural and environmental monitoring, etc. It is able to provide a complete range of SMS and data transmission services to meet client-side demands.

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23.6 mm

19.9 mm

2.2 mm

General Features

Frequency Band	BC95-CM: B8 (900MHz) BC95-SL: B5 (850MHz) BC95-VF: B20(800MHz)
Package	LCC
Pin Number	94
Supply Voltage Range	3.1~4.2V Typical: 3.8V
Operation Temperature	-40 °C ~ +85 °C
Dimension	19.9 × 23.6 × 2.2mm
Weight	1.6g
AT Command	3GPP Rel-13 and enhanced AT commands
Download	UART
SIM Application Toolkit	

Data Transmission

Data Transmission	100bps<bit rate<100kbps (TBC)
Protocol Stack	NB-IOT protocols

SMS

Point-to-point MO and MT

Text/PDU Mode

Electrical Characteristics

Output Power	23dBm
Sensitivity	-135dBm
Power Consumption	Sleep: <10uA Idle: <6mA

Interfaces

SIM/USIM	1
UART	2
ADC	1
RESET	1
Antenna	1

Certificates

Approval	TBD

* Under development

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