

# Quectel BC95

## Compact NB-IoT Module with Ultra-low Power Consumption



BC95 is a high-performance NB-IoT module with extremely low power consumption. The ultra-compact 19.9mm × 23.6mm × 2.2mm profile makes it a perfect choice for size sensitive applications. 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 space-constrained 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 IoT applications, such as smart metering, bike sharing, smart parking, smart city, security and asset tracking, home appliances, agricultural and environmental monitoring, etc. It is able to provide a complete range of SMS\* and data transmission services to meet client-side demands.



### 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



Compact Size



B1/B3/B5/B8/  
B20/B28



Extended Temperature  
Range: -40°C ~ +85°C



LCC Package



Multiple Serial  
Ports



Ultra-low Power  
Consumption



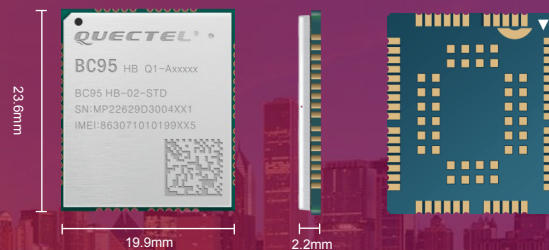
Quectel Enhanced  
AT Commands



Embedded Internet  
Services Protocols

# Quectel BC95

## Compact NB-IoT Module with Ultra-low Power Consumption



### Frequency Bands

BC95-B8: 900MHz  
BC95-B5: 850MHz  
BC95-B20: 800MHz  
BC95-B28: 700MHz  
BC95-G\*: B1/B3/B5/B8/B20/B28

### Data

#### Data Transmission:

Single Tone:  
UL: 15.625kbps; DL: 24kbps  
Multi Tone\*:  
UL: 62.5kbps; DL: 24kbps

#### Protocol Stacks:

IPv4  
IPv6\*  
UDP  
CoAP

#### Download Method:

UART  
DFOTA\*

### SMS\*

Point-to-point MO and MT  
Text/PDU Mode

### Electrical Characteristics

#### Output Power:

23dBm±2dB

#### Sensitivity:

-129dBm±1dB

#### Power Consumption:

5uA @PSM  
6mA @Idle Mode

### Interfaces

USIM × 1  
UART × 2  
ADC\* × 1  
RESET × 1  
Antenna × 1

### General Features

LCC Package  
94 Pins

#### Supply Voltage Range:

3.1V~4.2V, 3.6V Typ.

#### Temperature Range:

-40°C ~ +85°C

#### Dimension:

19.9mm × 23.6mm × 2.2mm

#### Weight:

1.8g±0.2g

### AT Command:

3GPP Rel. 13 and Quectel Enhanced AT  
Commands

### Approvals

RoHS Compliant  
CCC\*/NAL\*/SRRC\* (China)  
CE\*/GCF (Europe)  
FCC\* (North America)

\* Under Development