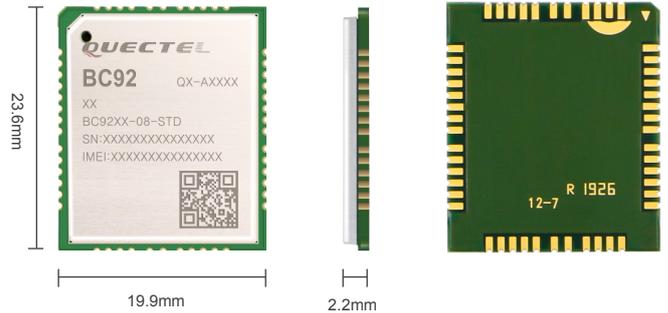


# Quectel BC92

## Compact NB-IoT/GSM Dual-mode Module with Ultra-low Power Consumption



BC92 is a high-performance, multi-band NB-IoT/GSM dual-mode module with extremely low power consumption. The ultra-compact 23.6mm × 19.9mm × 2.2mm profile makes it a perfect choice for size-sensitive applications. Designed to be compatible with Quectel GSM/GPRS M95 module, NB-IoT BC95-G module and LTE BG95 module, BC92 provides abundant external interfaces and protocol stacks, providing great convenience for customers' applications.

BC92 adopts surface-mount technology, making it an ideal solution for durable and rugged designs. The low profile and small size of LCC package enables BC92 to be easily embedded into space-constrained applications and provides reliable connectivity with applications.

Due to the compact size and ultra-low power consumption, BC92 is one of the best choices of IoT applications, such as smart metering, bike sharing, smart wearables, smart parking, smart city, security and asset tracking, home appliances, agricultural environment monitoring, etc. Also it provides a complete range of SMS\*, voice call\* and data transmission functions to meet customers' diversified demands.



### Key Benefits

- ✓ NB-IoT/GSM dual-mode module with ultra-low power consumption, compact size and high sensitivity
- ✓ GSM voice call\*
- ✓ Multi-band and rich external interfaces ensuring convenient application
- ✓ Compatible with Quectel GSM/GPRS M95 module, NB-IoT BC95-G module and LTE BG95 module, easy for future upgrading
- ✓ Embedded with abundant Internet service protocols



Compact Size



Multi Frequency Bands



Embedded Internet Services Protocols



LCC Package



Multiple Serial Ports



Ultra-low Power Consumption



Quectel Enhanced AT Commands

# Quectel BC92

## Compact NB-IoT/GSM Dual-mode Module with Ultra-low Power Consumption

### Variant for the Global

#### BC92

LTE Cat NB2: B3/B5/B8/B20/B28

GSM: 850/900/1800/1900MHz

#### Data

##### Data Transmission:

##### LTE Cat NB1:

Single-Tone (Max): 25.5kbps (DL)/16.7kbps (UL)

Multi-Tone (Max): 25.5kbps (DL)/62.5kbps (UL)

##### LTE Cat NB2:

Max: 127Kbps (DL)/158.5Kbps (UL)

##### GSM:

GPRS Class 12 (Max): 85.6kbps (DL/UL)

#### SMS\*

Text/PDU Mode

#### Voice\*

##### Speech Codec Modes:

Half Rate (HR)

Full Rate (FR)

Enhanced Full Rate (EFR)

##### Echo Arithmetic:

Echo Suppression

Noise Reduction

#### Electrical Specification

##### Output Power:

23dBm±2dB @LTE FDD Bands

33dBm±2dB @GSM850/EGSM900

30dBm±2dB @DCS1800/PCS1900

##### Sensitivity:

-129dBm @LTE FDD Bands (with Repetitions)

-109dBm @GSM850/EGSM900

-109dBm @DCS1800/PCS1900

### Power Consumption (Typ.):

#### Cat NB1:

4µA @PSM

1.2mA @Idle, DRX=2.56s

#### GSM:

1mA @DRX=5

0.9mA @DRX=9

#### Interfaces

USIM × 2 (1.8V/3.0V)

PSM\_EINT × 1

UART × 2

ADC\* × 1

RESET × 1

PWRKEY × 1

RI\* × 1

NETLIGHT × 1

Antenna × 1

Audio\* × 3

#### Enhanced Features

GSM Voice Call\*

Firmware Upgrade via UART

QuecLocator<sup>®</sup>

DFOTA: Delta Firmware Upgrade Over-The-Air

#### Software Features

##### Protocol Stacks:

UDP/TCP/LwM2M/SNTP/PPP/MQTT/CoAP\*/

HTTP\*/HTTPS\*/FTP\*

#### General Features

LCC Package

50 Pins

##### Supply Voltage Range:

3.4V~4.2V, 3.8V Typ.

### Operation temperature:

-25°C ~ +75°C

**Dimensions:** 23.6mm × 19.9mm × 2.2mm

**Weight:** 1.8±0.1 g

#### AT Command:

3GPP Rel-13/Rel-14

Quectel Enhanced AT Commands

#### Approvals

##### Carrier:

Vodafone\* (North America)

Vodacom/ MTN\* (South Africa)

##### Regulatory:

GCF\* (Global)

CE (Europe)

RCM (Australia & New Zealand)

ICASA\* (South Africa)

##### Others:

RoHS Compliant

\* Under Development