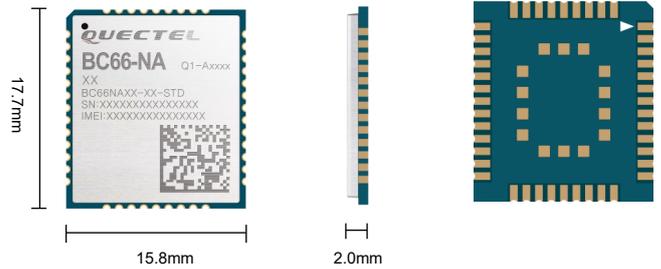


# Quectel BC66-NA

## Compact LTE Cat NB2 Module with Ultra-low Power Consumption



BC66-NA is a high-performance, multi-band LTE Cat NB2 module with extremely low power consumption. The ultra-compact 17.7mm × 15.8mm × 2.0mm profile makes it a perfect choice for size sensitive applications. Designed to be compatible with Quectel GSM/GPRS module M66 in the compact and unified form factor, it provides a flexible and scalable platform for migrating from GSM/GPRS to NB-IoT network. Also it is pin-to-pin compatible with Quectel LTE Cat NB1 module BC66/BC65 and Cat NB2 module BC68, and additionally supports band 71 and band 85 to accommodate more operators. BC66-NA provides abundant external interfaces and protocol stacks, providing great convenience for customers' applications.

The surface-mount technology makes BC66-NA an ideal solution for durable and rugged designs. The low profile and small size of LCC package allow it to be easily embedded into space-constrained applications and provide reliable connectivity with applications.

Due to compact form factor, ultra-low power consumption and extended temperature range, BC66-NA is a best choice for a wide range of IoT applications, such as smart metering, bike sharing, smart wearables, 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 LTE Cat NB2 module with ultra-low power consumption
- ✓ Low power supply voltage: 2.1V~3.63V
- ✓ OpenCPU solution minimizes application design
- ✓ Build-in eSIM reserved
- ✓ Multi-band and rich external interfaces ensure convenient application
- ✓ Compatible with Quectel GSM/GPRS module, easy for future upgrading
- ✓ Embedded with abundant Internet service protocols



Compact Size



Multi Frequency Bands



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 BC66-NA

## Compact LTE Cat NB2 Module with Ultra-low Power Consumption

### Frequency Bands

B1/B2/B3/B4/B5/B8/B12/B13/B17/B18/B19/  
B20/B25/B26\*/B28/B66/B71/B85

### Data

#### Cat NB2:

Single-tone: Max. 103kbps (DL)/18kbps (UL)

Multi-tone: Max. 103kbps (DL)/151kbps (UL)

### SMS\*

Text/PDU Mode

### Electrical Characteristics

#### Output Power:

23dBm±2dB

#### Sensitivity:

-129dBm

#### Power Consumption (Typ.):

3.5µA @PSM

0.13mA @Idle Mode (eDRX=81.92s)

0.25mA @Idle Mode (DRX=2.56s)

95mA @LTE Cat NB2, 23dBm

### Interfaces

USB × 1

USIM × 1

PSM\_EINT × 1

UART × 3

ADC\* × 1

RESET × 1

PWRKEY × 1

NETLIGHT × 1

Antenna × 1

SPI × 1 (OpenCPU Version Only)

I2C × 1 (OpenCPU Version Only)

I2S × 1 (OpenCPU Version Only)

GPIO: Configurable (OpenCPU Version Only)

### Software Features

#### Protocol Stacks:

UDP/TCP/LwM2M/MQTT/DTLS/TLS/SNTP/PPP\*/

CoAP\*/HTTP\*/HTTPS\*

#### Firmware Download Methods:

UART

DFOTA

USB

### General Features

#### OTDOA\*:

Observed Time Difference of Arrival

#### Supply Voltage Range:

2.1V~3.63V, 3.3V Typ.

(GPIO Voltage Domain: 1.8V)

#### Temperature Range:

Operation Temperature Range: -35°C ~ +75°C

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

#### Dimensions:

17.7mm × 15.8mm × 2.0mm

#### 58-Pin LCC Package

Weight: 1.2g±0.2g

#### AT Command:

3GPP Rel. 14 Compliant AT Commands

Quectel Enhanced AT Commands

### Approvals

#### Carrier:

Vodafone\* (Global)

Verizon\*/AT&T\*/T-Mobile\* (North America)

NTT DOCOMO\*/SoftBank\* (Japan)

Telstra\* (Australia)

#### Regulatory:

GCF (Global)

CE (Europe)

FCC/PTCRB (North America)

IC (Canada)

KC\* (South Korea)

NCC\* (Taiwan)

JATE\*/TELEC\* (Japan)

RCM (Australia)

NBTC\* (Thailand)

IMDA\* (Singapore)

#### Others:

RoHS

ATEX\* (Europe)

\* Under Development/Planning