

Quectel BC950N-N1

Multi-band LPWA Module

Supporting 450MHz Band with Ultra-low Power Consumption



BC950N-N1 is a high-performance LPWA module which supports multiple frequency bands of B1/B2/B3/B4/B5/B8/B12/B13/B17/B18/B19/B20/B25/B26/B28/B66/B31 with extremely low power consumption. The ultra-compact 23.6mm x 19.9mm x 2.2mm profile makes it a perfect choice for size sensitive applications. BC950N-N1 is compatible with BC95 module in design, which facilitates customers to design and upgrade products quickly and flexibly, and provides rich external interfaces and protocol stacks for customers' application.

BC950N-N1 adopts LCC+LGA package which is easy to weld and provides reliable connectivity for the applications. This kind of package is ideally suited for large-scale manufacturing which has strict requirements for cost and efficiency.

With supported 450MHz band, ultra-low power consumption and extended temperature range, 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

- ✓ LCC + LGA package, compatible with BC95 in footprint
- ✓ Compact-sized multi-band LPWA module with 450MHz supported
- ✓ Ultra-low power consumption
- ✓ Bluetooth LE 5.0* (Optional)



Compact Size



Multi-band
supporting 450MHz



LCC+LGA



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



Quectel Enhanced
AT Commands



Multiple Serial
Ports



Ultra-low Power
Consumption



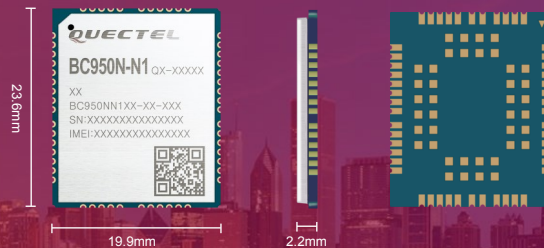
Embedded Internet
Services Protocols



NB-IoT

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Frequency Bands

B1/B2/B3/B4/B5/B8/B12/B13/B17/B18/B19/
B20/B25/B26/B28/B66/B31

Data

Data Transmission:

Single Tone:

DL: 25.5 kbps

UL: 16.7kbps

Multi Tone:

DL: 25.5kbps

UL: 62.5kbps

Protocol Stacks:

UDP/TCP/CoAP/LwM2M/MQTT/PPP/DTLS/

HTTP/SSL/CMUX/HTTPS*/FTP*

Download Methods:

UART

DFOTA*

SMS

Text*/PDU Mode*

Electrical Characteristics

Maximum Output Power:

23dBm±2dB

Sensitivity:

-129dBm

Power Consumption (Typical) :

TBD @PSM (Typical)

TBD @IDEL mode (DRX=1.28s)

Enhanced Features

DFOTA*:

Delta Firmware Upgrade Over-The-Air

RAI: Release Assistance Indication

Bluetooth LE 5.0* (Optional)

Interfaces

USIM × 1

UART × 3

ADC × 1

PWRKEY × 1

RESET × 1

SPI × 1

Main antenna × 1

BT antenna × 1 (Optional)

General Features

LCC+LGA Package

Supply Voltage Range:

3. 4V~4.6V, Typical 3.8V

Temperature Range:

-40°C ~ +85°C

Dimension:

23.6mm × 19.9mm × 2.2mm

Weight:

1.8g±0.2g

AT Command:

3GPP Rel. 13

Quectel Enhanced AT Commands

Approvals

Regulatory:

GCF* (Global)

CE* (Europe)

Anatel* (Brazil)

Others:

RoHS Compliant

* Under Development