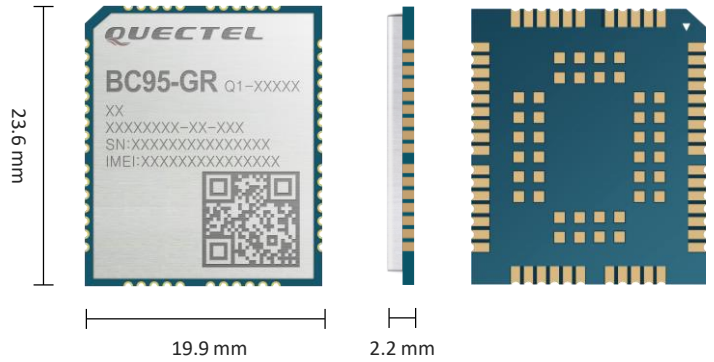


Quectel BC95-GR

Compact NB-IoT Module with Ultra-low Power Consumption



BC95-GR is a high-performance NB-IoT module which supports multiple frequency bands of B3/ 5/ 8/ 20/ 28 with extremely low power consumption. The ultra-compact 23.6 mm × 19.9 mm × 2.2 mm profile makes it a perfect choice for size sensitive applications. Designed to be compatible with Quectel NB-IoT BC95-G/BC92 modules, it provides a flexible and scalable platform for migrating from GSM/ GPRS to NB-IoT networks.

BC95-GR adopts surface-mount technology, making it an ideal solution for durable and rugged designs. The low profile and small size of LCC package allow BC95-GR 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 the compact form factor, ultra-low power consumption and extended temperature range, BC95-GR is one of the best choices for a wide range of IoT applications, such as smart metering, bike sharing, smart parking, smart city, home appliances, agricultural and environmental monitoring. It is able to provide a complete range of SMS* and data transmission functions to meet client-side diversified demands.



Key Features

- ✓ Power saving design ensures ultra-low power consumption
- ✓ Multi-band and rich external interfaces ensure convenient application
- ✓ Compatible with Quectel NB-IoT BC95-G/ BC92 modules, easy for future upgrading and migration
- ✓ Embedded with abundant Internet protocols
- ✓ Fast time-to-market: Reference designs, evaluation tools and timely technical support to minimize design-in time and development efforts



Compact Size



Multi Frequency Bands



LCC Package



Extended Temperature Range



Multiple Serial Ports



Ultra-low Power Consumption



Quectel Enhanced AT Commands



Embedded Internet Services Protocols

Quectel BC95-GR

LTE Cat NB2	BC95-GR
Region/Operator	Global
Dimensions (mm)	23.6 × 19.9 × 2.2
Weight (g)	1.6 ±0.2
Temperature Range	
Operating Temperature	-25 °C to +75 °C
Extended Temperature	-40 °C to +85 °C
Frequency Bands	
LTE-FDD	B3/ 5/ 8/ 20/ 28
Certifications	
Regulatory	CE*
Carrier	TBD
Data Rate (Max.)	
LTE-FDD	Cat NB1: Single-Tone: DL: 25.5 kbps / UL: 16.7 kbps Multi-Tone: DL: 25.5 kbps / UL: 62.5 kbps Cat NB2: DL: 127 kbps / UL: 158.5 kbps
Interfaces	
USIM	× 1
UART	× 2
ADC	× 1
RESET	× 1
ANT	× 1
NETLIGHT	× 1
RI	× 1
VDD_EXT	× 1
Enhanced Features	
ECID (Enhanced Cell ID)	●
RAI (Release Assistance Indication)	●
DFOTA (Delta Firmware Over-The-Air)	●
USIM Detection	●
Software Features	
Protocol Stacks	UDP/ TCP/ SNTP/ MQTT/ CoAP/ HTTP/ HTTPS/ PPP/ TLS/ DTLS
USB Serial Driver	Windows XP/ Vista/ 7/ 8/ 8.1/ 10
AT Command	3GPP Rel-13/ Rel-14 Quectel Enhanced AT Commands
Electrical Features	
Supply Voltage Range	3.2–4.2 V, typical 3.6 V
Power Consumption (Typical)	3.8 μA @ Deep Sleep 1.2 mA @ Idle, DRX = 2.56 s, ECL0

Notes:

- *: under development/in planning.
- : supported.
- TBD: To Be Determined.