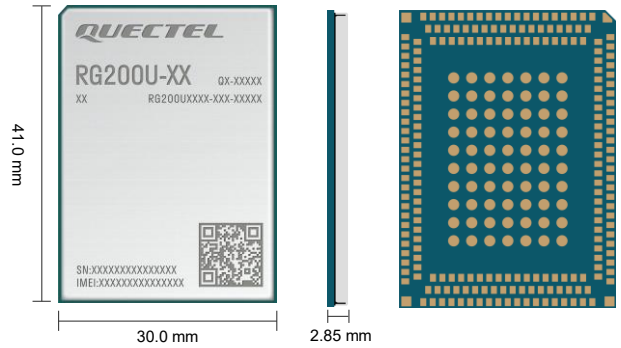




Quectel RG200U Series

IoT/ eMBB-Optimized 5G Sub-6 GHz LGA Module



Quectel RG200U series is a 5G Sub-6 GHz LGA module that is specially optimized for IoT/ eMBB applications with features of high performance and cost-effective. Adopting the 3GPP Release 15 technology, it supports both 5G NSA and SA modes. It supports both TDD and FDD modes and it is compatible with the 4G/ 3G network backward.

RG200U series is an industrial-grade module for industrial and commercial applications only.

RG200U series includes two variants: RG200U-CN and RG200U-JO. RG200U series provides rich built-in network protocols, integrates multiple industry standard interfaces, and supports multiple drivers and software functions (such as USB/ PCIe drivers for Windows, Linux, and Android operating systems). It has greatly expanded its application scope in IoT and eMBB. RG200U series can be widely used in vertical industries such as smart energy, Internet of Vehicles, industrial Internet, telemedicine, smart education, high-definition video, smart city, and home entertainment.



Key Features

- ✓ 5G Sub-6 GHz module with LGA form factor, optimized for IoT/ eMBB applications
- ✓ Worldwide 5G/ 4G/ 3G coverage
- ✓ 5G NSA and SA modes supported
- ✓ High performance and cost-effective
- ✓ Feature refinements: DFOTA, VoLTE and VoNR



5G NR Sub-6 GHz
Band



Max. 600 Mbps (DL)
Max. 150 Mbps (UL)



Max. 42.2 Mbps (DL)
Max. 11 Mbps (UL)



Embedded Abundant
Protocols



LGA Form Factor



Quectel Enhanced
AT Commands



USB 3.0 High Speed
Interface



VoNR/ VoLTE



PCIe 2.0 Interface

Quectel RG200U Series

5G Sub-6		RG200U-CN	RG200U-JO
Region/ Operator		APAC	India
Dimensions (mm)		41.0 × 30.0 × 2.85	41.0 × 30.0 × 2.85
Weight (g)		8.2	Approx. 8.1
Temperature Range			
Operating Temperature		-30 °C to +75 °C	-30 °C to +75 °C
Extended Temperature		-40 °C to +85 °C	-40 °C to +85 °C
Frequency Bands			
5G	5G NR	3GPP Release 15 NSA/ SA operation, Sub-6 GHz	3GPP Release 15 SA operation, Sub-6 GHz
	5G NR NSA	n78/ 79	-
	5G NR SA	n1/ 5/ 8/ 28/ 41/ 77/ 78/ 79	n78
	MIMO	DL 4 × 4: n1/ 41/ 77/ 78/ 79 DL 2 × 2: n5/ 8/ 28 UL 2 × 2: n77/ 78/ 79	DL 4 × 4: n78 UL 2 × 2: n78
LTE	LTE Category	DL Cat 12, UL Cat 13	-
	LTE-FDD	B1/ 3/ 5/ 8	-
	LTE-TDD	B34/ 38/ 39/ 40/ 41	-
	DL 2 × 2 MIMO	B1/ 3/ 5/ 8/ 34/ 38/ 39/ 40/ 41	-
UMTS	WCDMA	B1/ 8	-
Certifications			
Regulatory		China: SRRC/ NAL/ CCC	Global: GCF*
Carrier		China: China Telecom/ China Mobile*/ China Unicom*	TBD
Others		RoHS/ WHQL	RoHS/ WHQL
Data Rates (Max.) ①			
5G SA Sub-6		2 Gbps (DL)/ 1 Gbps (UL)	2 Gbps (DL)/ 1 Gbps (UL)
5G NSA Sub-6		2.2 Gbps (DL)/ 575 Mbps (UL)	-
LTE		600 Mbps (DL)/ 150 Mbps (UL)	-
WCDMA		42.2 Mbps (DL)/ 11 Mbps (UL)	-
Interfaces			
(U)SIM		× 2	× 2
USB 2.0		× 1	× 1
USB 3.0		× 1	× 1
PCIe 2.0		× 1	× 1
SDIO		× 1	× 1
SPI		× 1	× 1
UART		× 2	× 2
I2S		× 1	× 1
I2C		× 1	× 1
PCM		× 1	× 1
ADC		× 1	× 1
Antenna		× 4	× 4
Audio			
Voice (optional)		Digital Audio, VoLTE and VoNR	Digital Audio, VoNR
Enhanced Features			
eSIM		○	○
DTMF		●	●
DFOTA		●	●
(U)SIM Card Detection		●	●
5G Network Slice		●	●

NOTE:

- 1. ①: Theoretical only. The actual values depend on network conditions.
- 2. *: Under development/ planning/ in progress.
- 3. ●: Supported; ○: Optional.
- 4. TBD: To Be Determined.



Quectel RG200U Series

5G Sub-6	RG200U-CN	RG200U-JO
Drivers		
USB Serial Driver	Windows 7/ 8/ 10/ 11 Linux 2.6–6.16 Android 4.x–16.x	Windows 7/ 8/ 10/ 11 Linux 2.6–6.16 Android 4.x–16.x
RIL Driver	Android 4.x–16.x	Android 4.x–16.x
PCIe Driver	Linux 3.10–6.16	Linux 3.10–6.16
USB RNDIS Driver	Windows 7/ 8/ 10/ 11 Linux 2.6–6.16	Windows 7/ 8/ 10/ 11 Linux 2.6–6.16
USB ECM Driver	Linux 2.6–6.16	Linux 2.6–6.16
USB NCM Driver	Linux 2.6–6.16	Linux 2.6–6.16
Electrical Features		
Supply Voltage Range	3.3–4.3 V, typ. 3.8 V	3.3–4.3 V, typ. 3.8 V
Power Consumption	80 μA @ Power off 3.3 mA @ Sleep 58.5 mA @ USB 2.0, idle 73.0 mA @ USB 3.0, idle	66 μA @ Power off 4.75 mA @ Sleep 55.8 mA @ USB 2.0, idle 70.6 mA @ USB 3.0, idle

