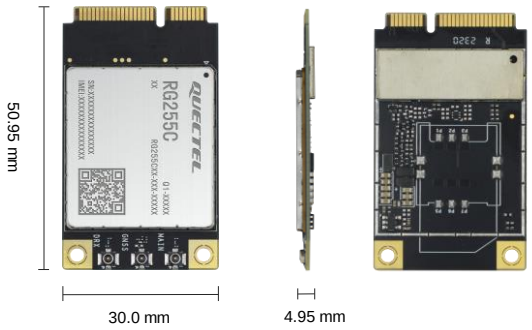
Quectel RG255C-GL Mini PCIe

5G RedCap Sub-6 GHz Mini PCIe Module



Quectel RG255C-GL Mini PCIe is a 5G RedCap module adopting standard PCI Express® Mini Card form factor (Mini PCIe). Adopting the 3GPP Rel-17 RedCap technology, the module supports 5G LAN*/ Slicing/ URLLC, etc., with a theoretical peak data rate of 223 Mbps in the downlink and 123 Mbps in the uplink. The module supports LTE Cat 4 and 5G Sub-6 SA modes , and is backward compatible with 3GPP Rel-15 and Rel-16 networks. The module can meet customers' different application demands for medium speed, large capacity, low latency, high reliability, etc.

RG255C-GL Mini PCIe module supports Qualcomm® IZat™ location technology Gen 9VT (GPS, GLONASS, NavIC, BDS and Galileo). The integrated GNSS receiver greatly simplifies product design and provides quicker, more accurate and more dependable positioning capability.

A rich set of Internet protocols, industry-standard interfaces (USB 2.0, PCM, UART, etc.) and abundant functionalities (USB drivers for Windows 10/ 11, Linux and Android) extend the applicability of the module to a wide range of RedCap applications.

Key Features

- Worldwide 5G/ 4G coverage
- 5G SA mode, 5G LAN*/ URLLC/ Slicing supported
- Multi-constellation GNSS receiver available for applications requiring fast and accurate fixes in any environment (optional)
- Feature refinements: DFOTA and VoNR/ VoLTE (optional)

5G NR Sub-6 GHz Bands

LTE Cat 4

Quectel Enhanced AT Commands

Embedded Abundant Protocols

Mini PCIe Form Factor

Multi-constellation GNSS (optional)

USB 2.0 High Speed Interface

VoNR/VoLTE (optional)

Version: 1.2 | Status: Released

Quectel RG255C-GL Mini PCIe

5G Sub-6		RG255C-GL Mini PCIe
Region/Operator		Global
Dimensions (mm)		30.0 × 50.95 × 4.95
Weight (g)		11.0
Temperature Range		
Operating Temperature		-30 °C to +75 °C
Extended Temperature		-40 °C to +85 °C
Frequency Bands		
5G	5G NR	3GPP Release 17 RedCap SA operation, Sub-6 GHz
	5G NR SA	n1/ 2/ 3/ 5/ 7/ 8/ 12/ 13/ 14/ 18/ 20/ 25/ 26/ 28/ 30/ 38/ 40/ 41/ 48/ 66/ 70/ 71/ 77/ 78/ 79
	DL 2 × 2 MIMO	n1/ 2/ 3/ 5/ 7/ 8/ 12/ 13/ 14/ 18/ 20/ 25/ 26/ 28/ 30/ 38/ 40/ 41/ 48/ 66/ 70/ 71/ 77/ 78/ 79
LTE	LTE-FDD	B1/ 2/ 3/ 4/ 5/ 7/ 8/ 12/ 13/ 14/ 17/ 18/ 19/ 20/ 25/ 26/ 28/ 30/ 66/ 70/ 71
	LTE-TDD	B34/ 38/ 39/ 40/ 41/ 42/ 43/ 48
	DL 2 × 2 MIMO	B1/ 2/ 3/ 4/ 5/ 7/ 8/ 12/ 13/ 14/ 17/ 18/ 19/ 20/ 25/ 26/ 28/ 30/ 34/ 38/ 39/ 40/ 41/ 42/ 43/ 48/ 66/ 70/ 71
GNSS (optional)		GPS/ GLONASS/ BDS/ Galileo/ NavIC
Certifications		
Regulatory		CE②/ FCC②/ IC②/ RCM② GCF③/ PTCRB③
Carrier		AT&T③/ T-Mobile③/ Verizon④⑤/ Boost_Mobile(DISH)
Others		RoHS
Data Rates (Max.) ①		
5G SA Sub-6		223 Mbps (DL)/ 123 Mbps (UL)
LTE		195 Mbps (DL)/ 105 Mbps (UL)
Interfaces		
(U)SIM		× 1
UART		× 2
USB 2.0		× 1
PCM		× 1
I2C		× 1
PERST#		●
Antennas		Cellular: × 2; GNSS: × 1
Voice		
Voice		Digital Audio and VoNR/VoLTE (optional)
Enhanced Features		
eSIM		○
DTMF		●
DFOTA		●
(U)SIM Card Detection		●
Drivers		
USB Serial Driver		Windows 10/11; Linux 2.6–6.7; Android 4.x–14.x
RIL Driver		Android 4.x–14.x
USB MBIM Driver⑥		Windows 10/11; Linux 3.18–6.7
USB GobiNet Driver		Linux 2.6–6.7
USB QMI_WWAN Driver		Linux 3.4–6.7
Electrical Features		
Supply Voltage Range		3.0–3.6 V, typ. 3.3 V
Power Consumption		Typical 3.7 mA @ Sleep Typical 29 mA @ Idle

NOTE:

①: Theoretical only; actual values depend on network conditions.
②: CE, FCC, IC and RCM can only provide certification reports.
③: AT&T, T-Mobile, GCF and PTCRB can reuse RG255C-GL certification results.
④: Verizon requires Delta testing based on RG255C-GL to obtain Variant certification.
⑤: Arrange testing based on actual business opportunity.
⑥: Optional (a license is required to use this driver).
*: Under development/In progress.
●: Supported; ○: Optional.
TBD: To be determined.

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