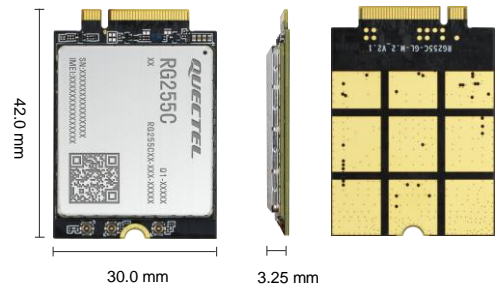


Quectel RG255C-GL M.2

5G RedCap Sub-6 GHz M.2 Module



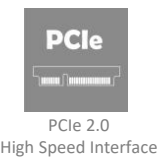
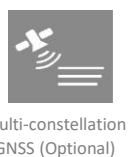
Quectel RG255C-GL M.2 is a 5G Sub-6 GHz M.2 module. Adopting the 3GPP Rel-17 RedCap technology, with features of 5G LAN*/ URLLC/ Slicing, the module supports a theoretical peak data rate of 223 Mbps in the downlink and 123 Mbps in the uplink. The module supports LTE Cat 4 and 5G Sub-6 SA mode, and is backward compatible with Rel-15 and Rel-16 networks. The module can meet customers' different application demands for medium speed, large capacity, low latency, high reliability, etc., and is convenient for customers to design.

RG255C-GL M.2 module supports Qualcomm® IZat™ location technology Gen 9VT (GPS, GLONASS, BDS, Galileo & NavIC). 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, PCIe 2.0, PCM, etc.) and abundant functionalities (USB drivers for Windows 8.1/ 10/ 11, Linux and Android) extend the applicability of the module to a wide range of RedCap applications.

Key Features

- ✓ M.2 form factor
- ✓ Worldwide 5G/ LTE coverage
- ✓ 5G SA mode with features of 5G LAN*/ URLLC/ Slicing
- ✓ Multi-constellation GNSS receiver available for applications requiring fast and accurate fixes in any environment (Optional)
- ✓ Feature refinements: DFOTA and VoNR/VoLTE (Optional)
- ✓ PCIe 2.0 interface for Wi-Fi/Bluetooth



Quectel RG255C-GL M.2

5G RedCap Sub-6		RG255C-GL M.2
Region/Operator	Global	
Dimensions (mm)	30 × 42 × 3.25	
Weight (g)	8.4	
Temperature Range		
Operating Temperature	-30 °C to +75 °C	
Extended Temperature	-40 °C to +85 °C	
Frequency Bands		
	5G NR	3GPP Rel-17 RedCap SA operation, Sub-6 GHz
5G NR	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	CE*/ RCM*/ FCC*/ IC*	
Carrier	TBD	
Others	RoHS	
Data Rates (Max.) ^①		
5G SA Sub-6	223 Mbps (DL)/ 123 Mbps (UL)	
LTE	195 Mbps (DL)/ 105 Mbps (UL)	
Interfaces		
USIM	× 2	
USB 2.0	× 1	
PCIe 2.0	× 1	
RESET#	× 1	
PCM	× 1	
Antennas	Cellular: ×2; GNSS: × 1	
Voice* (optional)		
Voice	Digital Audio and VoNR/VoLTE	
Enhanced Features		
eSIM	○	
DTMF*	●	
DFOTA	●	
(U)SIM Card Detection	○	
Drivers		
USB Serial Driver	Windows 8.1/10/11; Linux 2.6–6.7; Android 4.x–13.x	
RIL Driver	Android 4.x–13.x	
PCIe MHI Driver	Linux 3.10–6.7	
USB MBIM Driver*	Windows 10/11; Linux 3.18–6.7	
USB RNDIS Driver	Windows 8.1/10/11; Linux 2.6–6.7	
USB GobiNet Driver	Linux 2.6–6.7	
USB QMI_WWAN Driver	Linux 3.4–6.7	
Electrical Features		
Supply Voltage Range	3.135–4.4 V, typ. 3.7 V	
Power Consumption	Typical 3 mA @ Sleep Typical 26 mA @ Idle	

NOTE:

- ①: Theoretical only; actual values depend on network conditions.
- *: Under development/In progress.
- : Supported.
- : Optional.
- TBD: To be determined.