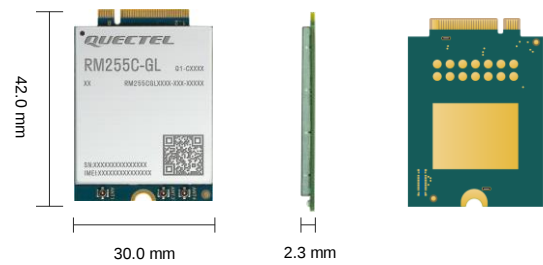


# Quectel RM255C-GL

## 5G RedCap Sub-6 GHz M.2 Module



Quectel RM255C-GL is a 5G Sub-6 GHz M.2 module. Adopting the 3GPP Rel-17 technology, 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. With M.2 form factor, It is pin-to-pin compatible with Quectel 5G modules RM5x0N/ RM50xQ, and is pin-to-pin and size compatible with LTE-A Cat 6 module EM06, Cat 12 modules EM12/ EM12xR/ EM120K, Cat 16 module EM160R-GL and 4G module EM05.

RM255C-GL supports Qualcomm® IZat™ location technology Gen 9VT (GPS, GLONASS, BDS, 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, PCIe 2.0, 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, small size
- ✓ Worldwide 5G/ LTE coverage
- ✓ 5G SA mode
- ✓ Multi-constellation GNSS receiver available for applications requiring fast and accurate fixes in any environment (Optional)
- ✓ Feature refinement: DFOTA

|                                                                                                                     |                                                                                                             |                                                                                                                              |
|---------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <br>5G NR Sub-6 GHz Bands        | <br>LTE Cat 4 (DL)     | <br>Multi-constellation GNSS (Optional) |
| <br>Embedded Abundant Protocols  | <br>M.2 Form Factor    | <br>USB 2.0 High Speed Interface        |
| <br>Quectel Enhanced AT Commands | <br>PCIe 2.0 Interface |                                                                                                                              |

| 5G Sub-6                       |         | RM255C-GL                                                                                 |
|--------------------------------|---------|-------------------------------------------------------------------------------------------|
| Region/Operator                |         | Global                                                                                    |
| Dimensions (mm)                |         | 30.0 × 42.0 × 2.3                                                                         |
| Weight (g)                     |         | Approx. 6                                                                                 |
| Supply Voltage Range           |         | 3.135–4.4 V, typ. 3.7 V                                                                   |
| Power Consumption              |         | TBD                                                                                       |
| Temperature Range              |         |                                                                                           |
| Operating Temperature          |         | -30 °C to +75 °C                                                                          |
| Extended Temperature           |         | -40 °C to +85 °C                                                                          |
| Frequency Bands                |         |                                                                                           |
| 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 |
| LTE                            | LTE-FDD | B1/ 2/ 3/ 4/ 5/ 7/ 8/ 12/ 13/ 14/ 17/ 18/ 19/ 20/ 25/ 26/ 28/ 30/ 66/ 71                  |
|                                | LTE-TDD | B34/ 38/ 39/ 40/ 41/ 42/ 43/ 48                                                           |
| GNSS (Optional)                |         | GPS/ GLONASS/ BDS/ Galileo                                                                |
| Certifications                 |         |                                                                                           |
| Regulatory                     |         | TBD                                                                                       |
| Carrier                        |         | TBD                                                                                       |
| Others                         |         | RoHS                                                                                      |
| Data Rates (Max.) <sup>①</sup> |         |                                                                                           |
| 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                                                                                       |
| Antennas                       |         | ANT1: MAIN<br>ANT4: DRX/GNSS L1<br>ANT5: GNSS L1&L5 (optional)                            |
| Enhanced Features              |         |                                                                                           |
| eSIM                           |         | ○                                                                                         |
| DTMF*                          |         | ●                                                                                         |
| DFOTA                          |         | ●                                                                                         |
| (U)SIM Card Detection          |         | ○                                                                                         |

NOTE:  
1. ①: Theoretical only; actual values depend on network conditions.  
2. \*: Under development/In progress.  
3. ●: Supported; ○: Optional.  
4. TBD: To be determined.