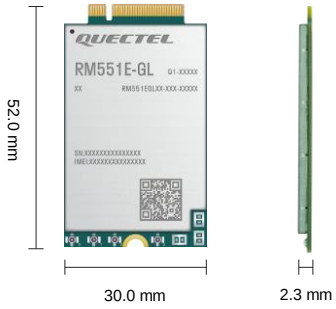
Quectel RM551E-GL

IoT/ eMBB-Optimized 5G Sub-6 GHz & mmWave M.2 Module



Quectel RM551E-GL is a 5G module that is specially optimized for IoT/ eMBB applications. Adopting 3GPP Rel-17, it supports both 5G NSA and SA modes. Designed in an M.2 form factor, RM551E-GL is compatible with Quectel 5G module RM530N series, which facilitates customers' compatible design for Sub-6-only and Sub-6 & mmWave device.

RM551E-GL is an industrial-grade module for industrial and commercial applications.

The global version RM551E-GL covers all of the main operators worldwide. The module can supports Qualcomm® IZat™ location technology Gen9C Lite (GPS, GLONASS, BDS, Galileo, and QZSS). The integrated GNSS receiver greatly simplifies the product design, and also provides quicker, more accurate and more dependable positioning capability.

A rich set of Internet protocols, industry-standard interfaces and abundant functionality (USB and PCIe drivers for operating systems Windows 8/ 8.1/ 10/ 11, Linux and Android) extend the applicability of the module to a wide range of IoT and eMBB applications such as industrial router, home gateway, CPE, industrial and consumer laptop, industrial PDA, rugged tablet PC, video transmission and digital signage, etc.

Key Features

- 5G/ 4G/ 3G multi-mode module with M.2 form factor, optimized for IoT and eMBB applications
- Worldwide 5G and LTE-A coverage
- Both NSA and SA modes supported
- Multi-constellation GNSS receiver available for applications requiring fast and accurate fixes in any environment (optional)
- Feature refinements: DFOTA* and VoLTE/ VoNR (optional)

5G NR
Sub-6 & mmWave Bands

DL: LTE Cat 20
UL: LTE Cat 18

DL: max. 42 Mbps
UL: max. 5.76 Mbps

Embedded Abundant Protocols

M.2 Form Factor

Multi-constellation GNSS (Optional)

USB 3.1/ PCIe 4.0
Super Speed Interface

VoLTE/ VoNR (Optional)

Quectel Enhanced AT Commands

Version: 1.0.0 | Status: Preliminary

Quectel RM551E-GL

5G Sub-6 & mmWave		RM551E-GL
Region/Operator		Global
Dimensions (mm)		30.0 × 52.0 × 2.3
Weight (g)		Approx. 8.7
Supply Voltage Range (V)		3.135–4.4, typical 3.7
3GPP Standard Compliance		3GPP Release 17
Temperature Range		
Operation Temperature		-30 °C to +75 °C
Extended Temperature		-40 °C to +85 °C
Frequency Bands		
5G NR	**NSA**	n1/ 2/ 3/ 5/ 7/ 8/ 12/ 13/ 14/ 18/ 20/ 25/ 26/ 28/ 29(Rx)/ 30/ 38/ 40/ 41/ 48/ 53/ 66/ 70/ 71/ 75/ 76/ 77/ 78/ 79/ 92/ 94/ 257/ 258/ 260/ 261
	SA	n1/ 2/ 3/ 5/ 7/ 8/ 12/ 13/ 14/ 18/ 20/ 25/ 26/ 28/ 29(Rx)/ 30/ 38/ 40/ 41/ 53/ 48/ 66/ 70/ 71/ 75/ 76/ 77/ 78/ 79/ 91/ 92/ 93/ 94/ 257/ 258/ 260/ 261
LTE	**LTE-FDD**	B1/ 2/ 3/ 4/ 5/ 7/ 8/ 12/ 13/ 14/ 17/ 18/ 19/ 20/ 25/ 26/ 28/ 29/ 30/ 32/ 66/ 70/ 71
	LTE-TDD	B34/ 38/ 39/ 40/ 41/ 42/ 43/ 48/ 53
	LAA	B46(Rx)
UMTS	**WCDMA**	B1/ 2/ 4/ 5/ 8/ 19
GNSS (Optional)		GPS/ GLONASS/ BDS/ Galileo/ QZSS
Certification		
Regulatory		GCF*/ PTCRB*/ CE*/ Anatel*/ CCC*/ RCM*/ IC*/ FCC*/ JATE*/ TELEC*/ KC*/ NCC*
Carrier		T-Mobile*/ Verizon*/ AT&T*/ NTT DOCOMO*/ Deutsche Telekom* /Telstra*
Others		RoHS
Data Rate (Max.) ①		
5G SA Sub-6		DL: 7.01 Gbps; UL: 1.25 Gbps
5G NSA Sub-6		DL: 5.47 Gbps; UL: 730 Mbps
5G NSA mmWave		DL: 10.94Gbps; UL: 4.16Gbps
LTE		DL: 2 Gbps; UL: 211 Mbps
UMTS	**WCDMA**	DL: 42 Mbps; UL: 5.76 Mbps
Interface		
(U)SIM		× 2
USB 2.0		× 1
USB 3.0/3.1		× 1
PCIe 4.0		× 1
Antenna		× 7 (Sub-6 & GNSS: × 4; mmWave: × 3)
Voice		
Digital Audio & VoLTE/ VoNR		○
Enhanced Features		
eSIM*		○
DTMF*		●
DFOTA*		●
(U)SIM Card Detection		●

Notes:
1. ①: The presented data rates are theoretical only, and the actual value depends on network conditions.
2. ●: Supported; ○: Optional.
3. *: Under development/in progress.

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