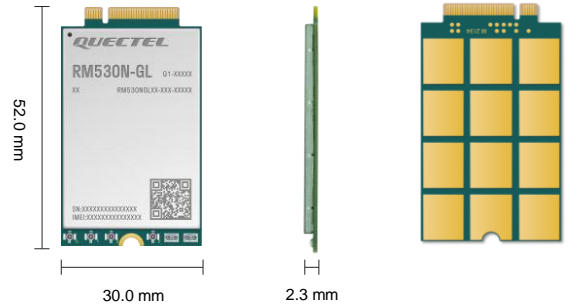




Quectel RM530N-GL

5G Sub-6 GHz & mmWave M.2 Module



Quectel RM530N-GL is a 5G module that is specially optimized for IoT/eMBB applications. Adopting 3GPP Release 16, it supports both 5G NSA and SA modes. Designed in an M.2 form factor, RM530N-GL is compatible with Quectel 5G Sub-6-only module RM520N series, which facilitates customers' compatible design for Sub-6 + mmWave device and Sub-6-only device.

RM530N-GL is an industrial-grade module for industrial and commercial applications only.

The global version RM530N-GL nearly covers all of the main operators worldwide. The module 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 7/8/8.1/10/11, 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 surveillance 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
- ✓ Feature refinements: DFOTA* and VoLTE (optional)



5G NR Sub-6 & mmWave Bands



DL: LTE Cat 19
UL: LTE Cat 18



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



Embedded Abundant Protocols



M.2 Form Factor



Multi-constellation GNSS



USB 3.1/PCIe 3.0 Super Speed Interface



Voice over LTE (Optional)



Quectel Enhanced AT Commands

Quectel RM530N-GL

5G Sub-6 & mmWave		RM530N-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	
Power Consumption	TBD @ Power down TBD @ Sleep TBD @ USB 2.0, Idle TBD @ USB 3.0, Idle	
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/ 30/ 38/ 40/ 41/ 48/ 66/ 70/ 71/ 75/ 76/ 77/ 78/ 79/ 257 ^① / 258 ^① / 260 ^① / 261 ^①
	SA	n1/ 2/ 3/ 5/ 7/ 8/ 12/ 13/ 14/ 18/ 20/ 25/ 26/ 28/ 29/ 30/ 38/ 40/ 41/ 48/ 66/ 70/ 71/ 75/ 76/ 77/ 78/ 79
LTE	LTE-FDD	B1/ 2/ 3/ 4/ 5/ 7/ 8/ 12/ 13/ 14/ 17/ 18/ 19/ 20/ 25/ 26/ 28/ 29/ 30/ 32/ 66/ 71
	LTE-TDD	B34/ 38/ 39/ 40/ 41/ 42/ 43/ 48
	LAA	B46
UMTS	WCDMA	B1/ 2/ 4/ 5/ 8/ 19
GNSS	GPS/ GLONASS/ BDS/ Galileo/ QZSS	
Certification		
Carrier/ Regulatory	TBD	
Others	RoHS	
Data Rate (Max.) ^②		
5G SA Sub-6	DL: 2.4 Gbps; UL: 900 Mbps	
5G NSA Sub-6	DL: 3.4 Gbps; UL: 550 Mbps	
5G NSA mmWave	DL: 4.0 Gbps; UL: 1.4 Gbps	
LTE	DL: 1.6 Gbps; UL: 200 Mbps	
UMTS	DL: 42 Mbps; UL: 5.76 Mbps	
Interface		
(U)SIM	× 2	
USB 2.0	× 1	
USB 3.0/3.1	× 1	
PCIe 3.0	× 1	
Antenna	× 6 (Sub-6&GNSS × 4; mmWave × 2)	
Audio		
Digital Audio & VoLTE	○	
Enhanced Features		
eSIM*	○	
DTMF*	●	
DFOTA*	●	
(U)SIM Card Detection	●	

Notes:

- ①: Work with mmWave antennas.
- ②: The presented data rates are theoretical only, and the actual value depends on network conditions.
- : Supported; ○: Optional.
- *: Under development/in progress.