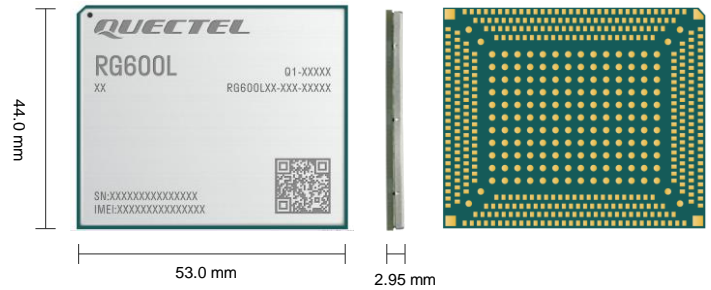




Quectel RG600L-EU

IoT/eMBB-Optimized 5G Sub-6 GHz LGA Module



Quectel RG600L-EU is a 5G Sub-6 GHz LGA modules optimized specially for IoT and eMBB applications. By adopting the 3GPP Rel-15 technology, the module supports both 5G NSA and SA modes.

RG600L-EU is an industrial-grade module for industrial and commercial applications only.

RG600L-EU has built-in rich network protocols, integration of multiple industrial standard interfaces, and supports of multiple drivers and software functions, and is integrated with network hardware accelerator and VPN hardware accelerator, which extend the applicability of the module to a wide range of IoT and eMBB applications such as 5G wireless router, CPE, MiFi, business router, home gateway, etc.



Key Features

- ✓ 5G Sub-6 GHz LGA module with 4G (LTE Cat 19), optimized for IoT and eMBB applications
- ✓ Worldwide 5G, LTE-A and WCDMA coverage
- ✓ Supports 5G NSA and SA modes
- ✓ Supports 5G 2CC Carrier Aggregation
- ✓ Spectrum multiplexing and significantly increased network capacity enabled with TM9



Max. 4.67 Gbps (DL)
Max. 1.25 Gbps (UL)



Max. 1.6 Gbps (DL)
Max. 200 Mbps (UL)



Max. 42 Mbps (DL)
Max. 5.76 Mbps (UL)



Embedded Abundant
Protocols



LGA
Form Factor



USB 3.0 Interface



VoLTE/ VoNR
(Optional)



Quectel
Enhanced API



PCIe 3.0 Interface

Quectel RG600L-EU

5G Sub-6	RG600L-EU
Region/ Operator	EMEA/ Oceania/ Brazil
Dimensions (mm)	53.0 × 44.0 × 2.95
Temperature Range	
Operating Temperature	-30 °C to +70 °C
Extended Temperature	-40 °C to +85 °C
Frequency Bands	
5G NR NSA	n1/ 3/ 5/ 7/ 8/ 20/ 28/ 38/ 40/ 41/ 71 ^① / 75 ^① / 76 ^① / 77/ 78
5G NR SA	n1/ 3/ 5/ 7/ 8/ 20/ 28/ 38/ 40/ 41/ 71 ^① / 75 ^① / 76 ^① / 77/ 78
5G DL CA	Supports 2CC CA
5G DL 4 × 4 MIMO	n1/ 3/ 7/ 28/ 38/ 40/ 41/ 75 ^① / 76 ^① / 77/ 78
5G UL 2 × 2 MIMO	n40/ 41/ 77/ 78
LTE-FDD	B1/ 3/ 5/ 7/ 8/ 20/ 28/ 32 ^① / 71 ^①
LTE-TDD	B38/ 40/ 41/ 42/ 43
LTE-LAA	-
LTE DL 4 × 4 MIMO LTE-FDD	B1/ 3/ 7/ 28/ 32 ^①
LTE DL 4 × 4 MIMO LTE-TDD	B38/ 40/ 41/ 42/ 43
LTE DL CA	Supports 5CC CA
WCDMA	B1/ 5/ 8
GNSS	-
Certifications	
Carrier	TBD
Regulatory	Global: GCF* Europe: CE* Australia/ New Zealand: RCM*
Others	RoHS
Data Rates	
5G SA Sub-6 GHz	4.67 Gbps (DL)/ 1.25 Gbps (UL)
5G NSA Sub-6 GHz	4.67 Gbps (DL)/ 836 Mbps (UL)
LTE	1.6 Gbps (DL)/ 200 Mbps (UL)
HSPA+	42 Mbps (DL)/ 5.76 Mbps (UL)
UMTS	384 Kbps (DL)/ 384 Kbps (UL)
Interfaces	
Antenna	Cellular: × 8
(U)SIM	× 2 (Dual SIM Single Standby)
UART	× 3 (including 1 Bluetooth UART)
USB 2.0/ 3.0	× 1
SGMII	× 2
PCIe 3.0	× 2
SPI	× 2
PCM	× 2
I2C	× 4
ADC	× 3
DBI-C	× 1
Audio	
Voice ^①	Digital Audio and VoLTE/ VoNR
Enhanced Features	
DTMF	●
FOTA	●
(U)SIM Card Detection	●
Electrical Features	
Supply Voltage Range	3.3–4.3 V, typ. 3.8 V 100 μA @ Power down
Power Consumption	6.5 mA @ Sleep 125 mA @ Idle (USB connected)
Transmitting Power	Class 3 (23 dBm +2 dB) for WCDMA bands Class 3 (23 dBm ±2.7 dB) for LTE bands Class 2 (26 dBm +2/-3 dB) for LTE B41/ 42/ 43 Class 3 (23 dBm ±2.7 dB) for 5G NR bands Class 2 (26 dBm +2/-3 dB) for 5G NR n40/ 41/ 77/ 78, (Note: n40 @ UL MIMO) Class 1.5 (29 dBm +2/-3 dB) for 5G NR n41/ 77/ 78 UL MIMO (TX Diversity)

Note:

1. ①: Optional.

2. *: Ongoing/planning.

3. TBD: To Be Determined.

4. ● : Supported.

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 HQ address: Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai 200233, China
 Tel: +86 21 51086236 Email: info@quectel.com

