

TEST REPORT

Application No.: SUCR2602000132MO
FCC ID: XMR2026RG520NLA
Applicant: Quectel Wireless Solutions Co., Ltd.
Address of Applicant: No.8 Waipojing Road, Sijing Town, Songjiang District, Shanghai 201601, China
Manufacturer: Quectel Wireless Solutions Co., Ltd.
Address of Manufacturer: No.8 Waipojing Road, Sijing Town, Songjiang District, Shanghai 201601, China
EUT Description: 5G Module
Model No.: RG520N-LA
Trade Mark: QUECTEL
Standards: 47 CFR Part 2.1091
FCC KDB 447498 D01 v06
Date of Receipt: 2026-02-06
Date of Issue: 2026-03-28

Test Result:	PASS*
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* In the configuration tested, the EUT complied with the standards specified above.

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Version

Revision Record			
Version	Description	Date	Remark
00	Original	2026-03-28	/

Authorized for issue by:				
Tested By		Nature Shen		
		Nature Shen/Project Engineer		
Approved By		Cedar cheng		
		Cedar Cheng /Reviewer		



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1 General Information

1.1 Client Information

Applicant:	Quectel Wireless Solutions Co., Ltd.
Address of Applicant:	No.8 Waipojing Road, Sijing Town, Songjiang District, Shanghai 201601, China
Manufacturer:	Quectel Wireless Solutions Co., Ltd.
Address of Manufacturer:	No.8 Waipojing Road, Sijing Town, Songjiang District, Shanghai 201601, China

1.2 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **A2LA (Certificate No. 6336.01)**

SGS-CSTC Standards Technical Services (Suzhou) Co., Ltd. is accredited by the American Association for Laboratory Accreditation (A2LA).

- **FCC (Designation Number: CN1312)**

SGS-CSTC Standards Technical Services (Suzhou) Co., Ltd. has been recognized as an accredited testing laboratory. Test Firm Registration Number: 717327

- **ISED (CAB Identifier: CN0120)**

SGS-CSTC Standards Technical Services (Suzhou) Co., Ltd. has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory.

Company Number: 27594

1.3 General Description of EUT

Hardware Version:	R1.0		
Software Version:	RG520NLADAR03A04		
IMEI:	869182060001449		
Antenna Type:	☒ External, ☐ Integrated		
Antenna Gain:	WCDMA Band II:	-0.09 dBi	
	WCDMA Band IV:	0.86 dBi	
	WCDMA Band V:	1.5 dBi	
	LTE Band 2:	-0.09 dBi	
	LTE Band 4:	0.86 dBi	
	LTE Band 5:	1.5 dBi	
	LTE Band 7:	0.2 dBi	
	LTE Band 26:	2.2 dBi	
	LTE Band 42:	-6.1 dBi	
	LTE Band 66:	0.8 dBi	
	LTE CA_2C:	0.09 dBi	
	LTE CA_5B:	1.5 dBi	
	LTE CA_7C:	0.2 dBi	
	LTE CA_42C:	-6.1 dBi	
	LTE CA_66B:	0.8 dBi	
	LTE CA_66C:	0.8 dBi	
	NR Band n2:	-0.09 dBi	
	NR Band n5:	1.5 dBi	
	NR Band n7:	0.2 dBi	
	NR Band n66:	0.8 dBi	
	NR Band n78:	0.82 dBi	
Note: The antenna gain are derived from the gain information report provided by the manufacturer.			
RF Cable:	☒ Provided by client		
	0.3dB (9kHz ~ 30MHz)	0.6dB (30MHz ~ 1000MHz)	0.8dB (1000MHz ~ 2000MHz)
	1.1dB (2000MHz ~ 4000MHz)	1.8dB (4000MHz ~ 6000MHz)	2.6dB (6000MHz ~ 12750MHz)
	3.5dB(Above 12750MHz)		
Note: As above information is provided and confirmed by the applicant. SGS is not liable to the accuracy, suitability, reliability or/and integrity of the information.			

2 RF Exposure Evaluation

2.1 RF Exposure Compliance Requirement

2.1.1 Limits

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f ²)	6
30-300	61.4	0.163	1.0	6
300-1500	/	/	f/300	6
1500-100,000	/	/	5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

F=frequency in MHz
 *=Plane-wave equivalent power density
 RF exposure compliance will need to be determined with respect to 1.1307(c) and (d) of the FCC rules. The emissions should be within the limits at 300kHz in Table 1 of 1.1310(use the 300kHz limits for 150kHz:614V/m,1.63A/m).

Friis Formula

Friis transmission formula: $P_d = (P_{out} * G) / (4 * \pi * R^2)$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in cm

P_d is the limit of MPE, 1 mW/cm². If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

2.1.2 Test Procedure

Software provided by client enabled the EUT to transmit data at lowest, middle and highest channel individually

2.1.3 EUT RF Exposure Evaluation

Output Power Into Antenna & RF Exposure Evaluation Distance:

This confirmed that the device comply with MPE limit.

Band	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Distance R (cm)	Power Density (W/m²)	Limit (W/m²)	Result
WCDMA Band II	1852.4	25	-0.09	24.91	20.0	0.062	4.48	Pass
WCDMA Band IV	1712.4	25	0.86	25.86	20.0	0.077	4.25	Pass
WCDMA Band V	826.4	25	1.50	26.50	20.0	0.089	2.58	Pass
LTE Band 2/LTE CA_2C	1850.7	25	-0.09	24.91	20.0	0.062	4.48	Pass
LTE Band 4	1710.7	25	0.86	25.86	20.0	0.077	4.24	Pass
LTE Band 5/LTE CA_5B	824.7	25	1.50	26.50	20.0	0.089	2.58	Pass
LTE Band 7/LTE CA_7C	2502.5	25	0.20	25.20	20.0	0.066	5.50	Pass
LTE Band 26(814-824)	816.5	25	2.2	27.20	20.0	0.104	2.56	Pass
LTE Band 26(824-849)	824.7	25	2.20	27.20	20.0	0.104	2.58	Pass
LTE Band 42/LTE CA_42C(3450-3550)	3452.5	25	-6.10	18.90	20.0	0.015	6.86	Pass
LTE Band 66/LTE CA_66B/LTE CA_66C	1710.7	25	0.80	25.80	20.0	0.076	4.24	Pass
NR Band n2	1852.5	25	-0.09	24.91	20.0	0.062	4.48	Pass
NR Band n5	826.5	25	1.50	26.50	20.0	0.089	2.58	Pass
NR Band n7	2502.5	25	0.20	25.20	20.0	0.066	5.50	Pass
NR Band n66	1712.5	25	0.80	25.80	20.0	0.076	4.25	Pass
NR Band n78 (3450-3550)	3455	28	0.82	28.82	20.0	0.152	6.86	Pass

Due to the EUT support NR ENDC and CA

Both LTE and NR/LTE band can transmit simultaneously, the formula of the calculated the MPE is:

$$\sum_{i=1}^n \frac{S_{E_i} (duty factor)}{MPE_{E_i}} < 1$$

NOTE The corresponding MEs must be expressed in terms of power density in the above summation

Therefore, the worst-case (DC_26A_n78A) situation is 0.104/2.58+0.152/6.86=0.062, which is less than "1", this confirmed that the device comply with MPE limit.

----End of Report---