RF Exposure Evaluation Report

APPLICANT	:	Quectel Wireless Solutions Co., Ltd.
EQUIPMENT	:	5G NR Module
BRAND NAME	:	QUECTEL
MODEL NAME	:	AG555Q-GL
FCC ID	:	XMR2024AG555QGL
STANDARD	:	47 CFR Part 2.1093

The product evaluation date was started from Apr. 28, 2024 and completed on Apr. 28, 2024. We, Sporton International Inc. (Kunshan), would like to declare that the device has been evaluated in accordance with 47 CFR Part2.1093/47 CFR Part 1.1307, and pass the limit. Without written approval of Sporton International Inc. (Kunshan), the test report shall not be reproduced except in full.

Si Zhang

Approved by: Si Zhang

ACCREDITED Cert #5145.02

Sporton International Inc. (Kunshan)
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People's Republic of China

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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA3D1801	Rev. 01	Initial issue of report.	Jun. 06, 2024

1. Administration Data

1.1. Testing Laboratory

Sporton International Inc. (Kunshan) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Testing Laboratory			
Test Firm	Sporton International Inc. (Kunshan)		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	SAR01-KS	CN1257	314309

Applicant	
Company Name	Quectel Wireless Solutions Co., Ltd.
Address	Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, 200233, China

Manufacturer	
Company Name	Quectel Wireless Solutions Co., Ltd.
Address	Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, 200233, China

2. Guidance Applied

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC 47 CFR Part 2.1093
- KDB 447498 D04 Interim General RF Exposure Guidance v01
- FCC 47 CFR Part 1.1307

3. Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT Type	5G NR Module
Brand Name	QUECTEL
Model Name	AG555Q-GL
FCC ID	XMR2024AG555QGL
Wireless Technology and Frequency Range	GSM850: 824 MHz ~ 849 MHz GSM1900: 1850 MHz ~ 1910 MHz WCDMA Band II: 1850 MHz ~ 1910 MHz WCDMA Band IV: 1710 MHz ~ 1755 MHz WCDMA Band V: 824 MHz ~ 849 MHz LTE Band 2 : 1850 MHz ~ 1910 MHz LTE Band 4 : 1710 MHz ~ 1755 MHz LTE Band 5 : 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12 : 699 MHz ~ 716 MHz LTE Band 13 : 777 MHz ~ 787 MHz LTE Band 14: 788 MHz ~ 798 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 25 : 1850 MHz ~ 1915 MHz LTE Band 26 : 814 MHz ~ 849 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 42: 3450 MHz ~ 3550 MHz LTE Band 48: 3550 MHz ~ 3700 MHz LTE Band 66 : 1710 MHz ~ 1780 MHz LTE Band 71: 663 MHz ~ 698 MHz 5G NR n2 : 1850 MHz ~ 1910 MHz 5G NR n5 : 824 MHz ~ 849 MHz 5G NR n7 : 2500 MHz ~ 2570 MHz 5G NR n12 : 699 MHz ~ 716 MHz 5G NR n14 : 788 MHz ~ 798 MHz 5G NR n25 : 1850 MHz ~1915 MHz 5G NR n26 : 814 MHz ~ 849 MHz 5G NR n38 : 2570 MHz ~ 2620 MHz 5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n48 : 3550 MHz ~ 3700 MHz 5G NR n66 : 1710 MHz – 1780 MHz 5G NR n71 : 663 MHz – 698 MHz 5G NR n77 : 3450 MHz ~ 3550 MHz; 3700 MHz ~ 3980 MHz; 5G NR n78 : 3450 MHz ~ 3550 MHz; 3700 MHz ~ 3800 MHz;
Mode	GSM/GPRS/EGPRS RMC/AMR 12.2Kbps HSDPA HSUPA DC-HSDPA HSPA+(16QAM uplink is supported) LTE: QPSK, 16QAM, 64QAM, 256QAM 5G NR : CP-OFDM / DFT-s-OFDM, PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM
Antenna Gain	GSM850 : 2.68 dBi GSM1900 : 0.25 dBi WCDMA Band II: 0.25 dBi WCDMA Band IV: 1.47 dBi WCDMA Band V: 2.68 dBi LTE Band 2 : 0.25 dBi LTE Band 4 : 1.47 dBi LTE Band 5 : 2.68 dBi LTE Band 7 : 0.55 dBi LTE Band 12 : -0.2 dBi LTE Band 13 : 1.54 dBi

	LTE Band 14 : 2.42 dBi LTE Band 17 : -0.2 dBi LTE Band 25 : 0.25 dBi LTE Band 26 : 2.87 dBi LTE Band 38 : -0.23 dBi LTE Band 41: 0.78 dBi LTE Band 42 : 1.61 dBi LTE Band 48 : -3.65 dBi LTE Band 66: 1.47 dBi LTE Band 71: 1.22 dBi 5G NR n2 : 0.25 dBi 5G NR n5 : 2.68 dBi 5G NR n7 : 0.55 dBi 5G NR n12 : -0.2 dBi 5G NR n14 : 2.42 dBi 5G NR n25 : 0.25 dBi 5G NR n26 : 2.87 dBi 5G NR n38 : -0.23 dBi 5G NR n41 : 0.78 dBi 5G NR n48 : -3.65 dBi 5G NR n66 : 1.47 dBi 5G NR n71 : 1.22 dBi 5G NR n77Part27Q : 1.61 dBi 5G NR n77Part27O : 2.59 dBi 5G NR n78Part27Q : 1.61 dBi 5G NR n78Part27O : 2.59 dBi
Antenna Type	WWAN : Monopole for B48/n48 WWAN : Dipole Antenna for other bands
HW Version	R1.0
SW Version	BYA555QGLABR01A01M8G_OCPU
EUT Stage	Identical Prototype

Remark:
1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
2. 5GNR n2/5/7/12/14/25/26/38/41/48/66/71/77/78 supports SA mode and NSA mode.
3. The intra-band/inter-band ULCA, UL MIMO and EN-DC mode combination could be referred to the product spec.
4. This device supports intra-band ULCA, due to intra-band ULCA and non-CA power is same, so non-CA MPE analysis can represent ULCA SAR-Based Exemption analysis.
5. This device supports HPUE 5GNR n77/78 with class 2, so HPUE has been performed to do SAR-Based Exemption analysis.
6. 5G NR n77/n78 support HPUE mode and UL MIMO mode. Since the MIMO power level is higher than the SISO power level, so chose MIMO tune up power to perform SAR-Based Exemption conservatively.

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

Comments and Explanations:
1. The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.
2. The maximum RF output tune up power, antenna gain also the safe distance used for evaluate RF exposure were declared by manufacturer.

4. Maximum RF average output tune up power among production units

<GSM>

Mode	Burst average power(dBm)	
	GSM 850	GSM 1900
GPRS (GMSK, 1 Tx slot)	35.00	32.00
GPRS (GMSK, 2 Tx slots)	35.00	32.00
GPRS (GMSK, 3 Tx slots)	33.20	30.20
GPRS (GMSK, 4 Tx slots)	32.00	29.00
EDGE (8PSK, 1 Tx slot)	30.00	29.00
EDGE (8PSK, 2 Tx slots)	30.00	29.00
EDGE (8PSK, 3 Tx slots)	28.20	27.20
EDGE (8PSK, 4 Tx slots)	27.00	26.00

<WCDMA>

Mode		Maximum Average power(dBm)
WCDMA	Band II	25.00
	Band IV	25.00
	Band II	25.00

<LTE>

Mode		Maximum Average power(dBm)
LTE	Band 2	25.00
	Band 4	25.00
	Band 5	25.00
	Band 7	25.00
	Band 12	25.00
	Band 13	25.00
	Band 14	25.00
	Band 17	25.00
	Band 25	25.00
	Band 26	25.00
	Band 38	25.00
	Band 41	25.00
	Band 42	25.00
	Band 48	21.60
	Band 66	25.00
	Band 71	25.00

<5GNR>

Mode		Maximum Average power(dBm)
5GNR	n2	25.00
	n5	25.00
	n7	25.00
	n12	25.00
	n14	25.00
	n25	25.00
	n26	25.00
	n38	25.00
	n41	25.00
	n48	21.60
	n66	25.00
	n71	25.00
	n77 pc3	25.00
	n78 pc3	25.00
	n77 pc2	27.00
	n78 pc2	27.00

<5GNR MIMO>

Mode		Maximum Average power(dBm)
5GNR	n77 PC3	25.00
	n77 PC2	27.00
	n78 PC3	25.00
	n78 PC2	27.00

Note: Since the MIMO power level is higher than the SISO power level, so chose MIMO tune up power to perform SAR-Based Exemption conservatively.

5. RF Exposure Exemption

1. Per 1.1307(b)(3), (i) For single RF sources (i.e., any single fixed RF source, mobile device, or portable device, as defined in paragraph (b)(2) of this section): A single RF source is exempt if:

(A) The available maximum time-averaged power is no more than 1 mW, regardless of separation distance. This exemption may not be used in conjunction with other exemption criteria other than those in paragraph (b)(3)(ii)(A) of this section. Medical implant devices may only use this exemption and that in paragraph (b)(3)(ii)(A);

(B) Or the available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold Pth (mW) described in the following formula. This method shall only be used at separation distances (cm) from 0.5 centimeters to 40 centimeters and at frequencies from 0.3 GHz to 6 GHz (inclusive). Pth is given by:

$$\mathrm{P}_{th}\ (\mathrm{mW}) = \begin{cases} \mathrm{ERP}_{20\,cm}\ (\mathrm{d}/20\ \mathrm{cm})^{x} & d \le 20\ cm \\ \mathrm{ERP}_{20\,cm} & 20\ cm < d \le 40\ cm \end{cases} \quad [1]$$

Where $\mathrm{x} = -\log_{10}\left(\frac{60}{ERP_{20\,cm}\sqrt{f}}\right)$ and f is in GHz [2]

and $\mathrm{ERP}_{20\,cm}\ (\mathrm{mW}) = \begin{cases} 2040\mathrm{f} & 0.3\ GHz < f \le 1.5\ GHz \\ 3060 & 1.5\ GHz < f \le 6\ GHz \end{cases}$ [3]

(C) Or using Table 1 and the minimum separation distance (R in meters) from the body of a nearby person for the frequency (f in MHz) at which the source operates, the ERP (watts) is no more than the calculated value prescribed for that frequency. For the exemption in Table 1 to apply, R must be at least λ/2π, where λ is the free-space operating wavelength in meters. If the ERP of a single RF source is not easily obtained, then the available maximum time-averaged power may be used in lieu of ERP if the physical dimensions of the radiating structure(s) do not exceed the electrical length of λ/4 or if the antenna gain is less than that of a half-wave dipole (1.64 linear value)

Table 1 to § 1.1307(b)(3)(i)(C) - Single RF Sources Subject to Routine Environmental Evaluation

RF Source frequency (MHz)	Threshold ERP (watts)
0.3-1.34	1,920 R^2
1.34-30	3,450 R^2 /f^2
30-300	3.83 R^2
300-1,500	0.0128 R^2 f
1,500-100,000	19.2 R^2

2. For multiple RF sources: Multiple RF sources are exempt if:

(A) The available maximum time-averaged power of each source is no more than 1 mW and there is a separation distance of two centimeters between any portion of a radiating structure operating and the nearest portion of any other radiating structure in the same device, except if the sum of multiple sources is less than 1 mW during the time-averaging period, in which case they may be treated as a single source (separation is not required). This exemption may not be used in conjunction with other exemption criteria other than those is paragraph (b)(3)(i)(A) of this section. Medical implant devices may only use this exemption and that in paragraph (b)(3)(i)(A).

(B) In the case of ¦xed RF sources operating in the same time-averaging period, or of multiple mobile or portable RF sources within a device operating in the same time averaging period, if the sum of the fractional contributions to the applicable thresholds is less than or equal to 1 as indicated in the following equation.

$$\sum_{i=1}^{a}\frac{P_i}{P_{th,i}}+\sum_{j=1}^{b}\frac{ERP_j}{ERP_{th,j}}+\sum_{j=1}^{b}\frac{Evaluated_k}{Exposure\ Limit_k}\leq 1$$

a. a = number of fixed, mobile, or portable RF sources claiming exemption using the § 1.1307(b)(3)(i)(B) formula for *P*th, including existing exempt transmitters and those being added.

b. b = number of fixed, mobile, or portable RF sources claiming exemption using the applicable § 1.1307(b)(3)(i)(C) Table 1 formula for Threshold ERP, including existing exempt transmitters and those being added.

c. c = number of existing fixed, mobile, or portable RF sources with known evaluation for the specified minimum distance.

d. *Pi,* the available maximum time-averaged power or the ERP, whichever is greater, for fixed, mobile, or portable RF source *i* at a distance between 0.5 cm and 40 cm (inclusive)

e. *P*th,*i* the exemption threshold power (*P*th) according to the § 1.1307(b)(3)(i)(B) formula for fixed, mobile, or portable RF source *i*.

f. *ERPj* the available maximum time-averaged power or the ERP, whichever is greater, of fixed, mobile, or portable RF source *j*.

g. *ERP*th,*j* exemption threshold ERP for fixed, mobile, or portable RF source *j*, at a distance of at least λ/2π, according to the applicable § 1.1307(b)(3)(i)(C) Table 1 formula at the location in question.

h. *Evaluatedk* the maximum reported SAR or MPE of fixed, mobile, or portable RF source *k* either in the device or at the transmitter site from an existing evaluation.

i. *Exposure Limitk* either the general population/uncontrolled maximum permissible exposure (MPE) or specific absorption rate (SAR) limit for each fixed, mobile, or portable sources RF source k, as applicable from § 1.1310 of this chapter.

j. The relationship between EIRP and ERP is: ERP (dBm) = EIRP - 2.15, Where EIRP is the sum of the conducted power (dBm) and the antenna gain (dBi)

The sum of the ratios of the applicable terms for SAR-based, MPE-based and measured SAR or MPE shall be less than 1, to determine simultaneous transmission exposure compliance

6. RF Exposure Exemption

6.1. SAR-Based Exemption

Separation Distance = 13.0 cm

Band	Frequency (MHz) Low	Frequency (MHz) High	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	Maximum ERP (dBm)	Duty cycle	Average EIRP (mW)	Average ERP (mW)	Maximum Average Power (mW)	Pi [Maximum Average ERP or Power] (mW)	Part1.1307 option(b) Threshold (mW)	PASS /FAIL	Part1.1307 option(b) Pi/Pth ratio
GSM 850 GPRS 1 Tx slot	824.0	849.0	2.68	35.00	37.68	35.53	12.5%	732.67	446.59	395.28	446.59	917.55	PASS	0.487
GSM 850 GPRS 2 Tx slots	824.0	849.0	2.68	35.00	37.68	35.53	25.0%	1465.35	893.18	790.57	893.18	917.55	PASS	0.973
GSM 850 GPRS 3 Tx slots	824.0	849.0	2.68	33.20	35.88	33.73	37.5%	1452.22	885.18	783.49	885.18	917.55	PASS	0.965
GSM 850 GPRS 4 Tx slots	824.0	849.0	2.68	32.00	34.68	32.53	50.0%	1468.82	895.30	792.45	895.30	917.55	PASS	0.976
GSM 850 EGPRS 1 Tx slot	824.0	849.0	2.68	30.00	32.68	30.53	12.5%	231.69	141.22	125.00	141.22	917.55	PASS	0.154
GSM 850 EGPRS 2 Tx slots	824.0	849.0	2.68	30.00	32.68	30.53	25.0%	463.38	282.45	250.00	282.45	917.55	PASS	0.308
GSM 850 EGPRS 3 Tx slots	824.0	849.0	2.68	28.20	30.88	28.73	37.5%	459.23	279.92	247.76	279.92	917.55	PASS	0.305
GSM 850 EGPRS 4 Tx slots	824.0	849.0	2.68	27.00	29.68	27.53	50.0%	464.48	283.12	250.59	283.12	917.55	PASS	0.309
GSM 1900 GPRS 1 Tx slot	1850.0	1910.0	0.25	32.00	32.25	30.10	12.5%	209.85	127.91	198.11	198.11	1384.41	PASS	0.143
GSM 1900 GPRS 2 Tx slots	1850.0	1910.0	0.25	32.00	32.25	30.10	25.0%	419.70	255.82	396.22	396.22	1384.41	PASS	0.286
GSM 1900 GPRS 3 Tx slots	1850.0	1910.0	0.25	30.20	30.45	28.30	37.5%	415.94	253.53	392.67	392.67	1384.41	PASS	0.284
GSM 1900 GPRS 4 Tx slots	1850.0	1910.0	0.25	29.00	29.25	27.10	50.0%	420.70	256.43	397.16	397.16	1384.41	PASS	0.287
GSM 1900 EGPRS 1 Tx slot	1850.0	1910.0	0.25	29.00	29.25	27.10	25.0%	210.35	128.22	198.58	198.58	1384.41	PASS	0.143
GSM 1900 EGPRS 2 Tx slots	1850.0	1910.0	0.25	29.00	29.25	27.10	25.0%	210.35	128.22	198.58	198.58	1384.41	PASS	0.143
GSM 1900 EGPRS 3 Tx slots	1850.0	1910.0	0.25	27.20	27.45	25.30	37.5%	208.46	127.07	196.80	196.80	1384.41	PASS	0.142
GSM 1900 EGPRS 4 Tx slots	1850.0	1910.0	0.25	26.00	26.25	24.10	50.0%	210.85	128.52	199.05	199.05	1384.41	PASS	0.144
WCDMA Band II	1850.0	1910.0	0.25	25.00	25.25	23.10	100.0%	334.97	204.17	316.23	316.23	1384.41	PASS	0.228
WCDMA Band IV	1710.0	1755.0	1.47	25.00	26.47	24.32	100.0%	443.61	270.40	316.23	316.23	1394.64	PASS	0.227
WCDMA Band V	824.0	849.0	2.68	25.00	27.68	25.53	100.0%	586.14	357.27	316.23	357.27	917.55	PASS	0.389
LTE Band 2	1850.0	1910.0	0.25	25.00	25.25	23.10	100.0%	334.97	204.17	316.23	316.23	1384.41	PASS	0.228
LTE Band 4	1710.0	1755.0	1.47	25.00	26.47	24.32	100.0%	443.61	270.40	316.23	316.23	1394.64	PASS	0.227
LTE Band 5	824.0	849.0	2.68	25.00	27.68	25.53	100.0%	586.14	357.27	316.23	357.27	917.55	PASS	0.389
LTE Band 7	2500.0	2570.0	0.55	25.00	25.55	23.40	100.0%	358.92	218.78	316.23	316.23	1345.96	PASS	0.235
LTE Band 12	699.0	716.0	-0.20	25.00	24.80	22.65	100.0%	302.00	184.08	316.23	316.23	815.14	PASS	0.388
LTE Band 13	777.0	787.0	1.54	25.00	26.54	24.39	100.0%	450.82	274.79	316.23	316.23	879.60	PASS	0.360
LTE Band 14	788.0	798.0	2.42	25.00	27.42	25.27	100.0%	552.08	336.51	316.23	336.51	888.54	PASS	0.379
LTE Band 17	704.0	716.0	-0.20	25.00	24.80	22.65	100.0%	302.00	184.08	316.23	316.23	819.33	PASS	0.386
LTE Band 25	1850.0	1915.0	0.25	25.00	25.25	23.10	100.0%	334.97	204.17	316.23	316.23	1384.41	PASS	0.228
LTE Band 26	814.0	849.0	2.87	25.00	27.87	25.72	100.0%	612.35	373.25	316.23	373.25	909.53	PASS	**0.410**
LTE Band 66	1710.0	1780.0	1.47	25.00	26.47	24.32	100.0%	443.61	270.40	316.23	316.23	1394.64	PASS	0.227
LTE Band 71	663.0	698.0	1.22	25.00	26.22	24.07	100.0%	418.79	255.27	316.23	316.23	784.72	PASS	0.403
LTE Band 38	2570.0	2620.0	-0.23	25.00	24.77	22.62	63.3%	189.85	115.72	200.17	200.17	1342.49	PASS	0.149
LTE Band 41	2496.0	2690.0	0.78	25.00	25.78	23.63	63.3%	239.55	146.02	200.17	200.17	1346.16	PASS	0.149
LTE Band 42 for Part 27Q	3450.0	3550.0	1.61	25.00	26.61	24.46	63.3%	290.00	176.77	200.17	200.17	1306.02	PASS	0.153
LTE Band 48 for Part 96	3550.0	3700.0	-3.65	21.60	17.95	15.80	63.3%	39.48	24.07	91.50	91.50	1302.53	PASS	0.070
5G NR n2	1850.0	1910.0	0.25	25.00	25.25	23.10	100.0%	334.97	204.17	316.23	316.23	1384.41	PASS	0.228
5G NR n5	824.0	849.0	2.68	25.00	27.68	25.53	100.0%	586.14	357.27	316.23	357.27	917.55	PASS	0.389
5G NR n7	2500.0	2570.0	0.55	25.00	25.55	23.40	100.0%	358.92	218.78	316.23	316.23	1345.96	PASS	0.235
5G NR n12	699.0	716.0	-0.20	25.00	24.80	22.65	100.0%	302.00	184.08	316.23	316.23	815.14	PASS	0.388
5G NR n14	788.0	798.0	2.42	25.00	27.42	25.27	100.0%	552.08	336.51	316.23	336.51	888.54	PASS	0.379
5G NR n25	1850.0	1915.0	0.25	25.00	25.25	23.10	100.0%	334.97	204.17	316.23	316.23	1384.41	PASS	0.228
5G NR n26	814.0	849.0	2.87	25.00	27.87	25.72	100.0%	612.35	373.25	316.23	373.25	909.53	PASS	0.410
5G NR n66	1710.0	1780.0	1.47	25.00	26.47	24.32	100.0%	443.61	270.40	316.23	316.23	1394.64	PASS	0.227
5G NR n71	663.0	698.0	1.22	25.00	26.22	24.07	100.0%	418.79	255.27	316.23	316.23	784.72	PASS	0.403
5G NR n38	2570.0	2620.0	-0.23	25.00	24.77	22.62	100.0%	299.92	182.81	316.23	316.23	1342.49	PASS	0.236
5G NR n41	2496.0	2690.0	0.78	25.00	25.78	23.63	100.0%	378.44	230.67	316.23	316.23	1346.16	PASS	0.235

5G NR n48 for Part96	3550.0	3700.0	-3.65	21.60	17.95	15.80	100.0%	62.37	38.02	144.54	144.54	1302.53	PASS	0.111
5G NR n77 -MIMO for Part27Q	3450.0	3550.0	1.61	27.00	28.61	26.46	100.0%	726.11	442.59	501.19	501.19	1306.02	PASS	0.384
5G NR n77 for Part27Q	3450.0	3550.0	1.61	25.00	26.61	24.46	100.0%	458.14	279.25	316.23	316.23	1306.02	PASS	0.242
5G NR n78 -MIMO for Part27Q	3450.0	3550.0	1.61	27.00	28.61	26.46	100.0%	726.11	442.59	501.19	501.19	1306.02	PASS	0.384
5G NR n78 for Part27Q	3450.0	3550.0	1.61	25.00	26.61	24.46	100.0%	458.14	279.25	316.23	316.23	1306.02	PASS	0.242
5G NR n77-MIMO for Part27O	3700.0	3980.0	2.59	27.00	29.59	27.44	100.0%	909.91	554.63	501.19	554.63	1297.50	PASS	**0.427**
5G NR n77-MIMO for Part27O	3700.0	3980.0	2.59	25.00	27.59	25.44	100.0%	574.12	349.95	316.23	349.95	1297.50	PASS	0.270
5G NR n78 for Part27O	3700.0	3800.0	2.59	27.00	29.59	27.44	100.0%	909.91	554.63	501.19	554.63	1297.50	PASS	**0.427**
5G NR n78 for Part27O	3700.0	3800.0	2.59	25.00	27.59	25.44	100.0%	574.12	349.95	316.23	349.95	1297.50	PASS	0.270

Note:
1. Chose the maximum power to do MPE analysis.
2. The MIMO mode is completely uncorrelated, so selected the higher SISO gain among all antennas as MIMO gain to perform MPE calculation.

6.2. Simultaneous Transmission with SAR-based Test Exemption

LTE Pi/Pth Ratio	LTE Pi/Pth Ratio	Sum of the Ratio LTE + LTE
0.410	0.410	0.820

LTE Pi/Pth Ratio	5GNR Pi/Pth Ratio	Sum of the Ratio LTE + 5GNR
0.410	0.427	0.837

Note:
1. According to Part1.1307 (b)(3)(i)(B), the Pi/Pth Ratio is using for Sim-Tx analysis, above table was showing summation ratio is smaller than 1.

Conclusion:

According to 47 CFR §1.1307 (b)(3)(i)(B), the RF exposure analysis concludes that the RF Exposure is FCC compliant.

------THE END------