



Maximum Permissible Exposure Report

1. Product Information

FCC ID:	2APRGLT02
Product name	Cellular WiFi Router
Test Model	LT18
Additional Model No.	LT12, LT700, LT500D, LT300 Outdoor
Model Declaration	PCB board, structure and internal of these model(s) are the same, So no additional models were tested
Power supply	Input: 12V $\overline{\text{---}}$ 1.5A For Adapter Input: 100-240V~, 50/60Hz, 0.6A For Adapter Output: 12V $\overline{\text{---}}$ 1.5A
Operation frequency	2412MHz ~ 2462MHz 5180-5240MHz 5745MHz-5825MHz
Antenna Type	Antenna 0: External Antenna Antenna 1: External Antenna
Antenna Gain	2.0dBi(Max) for 2.4GWIFI 3.0dBi(Max) for 5GWIFI
Hardware version	V1
Software version	1.13.12
Channel Number	11 Channels for 20MHz bandwidth (2412~2462MHz) 7 Channels for 40MHz bandwidth (2422~2452MHz) 4 Channels for 20MHz bandwidth(5180MHz-5240MHz) 2 channels for 40MHz bandwidth(5190MHz~5230MHz) 1 channels for 80MHz bandwidth(5210MHz) 5 channels for 20MHz bandwidth(5745MHz-5825MHz) 2 channels for 40MHz bandwidth(5755MHz~5795MHz) 1 channels for 80MHz bandwidth(5775MHz)
WCDMA Frequency Band	WCDMA band 2, WCDMA band 4, WCDMA band5
LTE Frequency Band	LTE FDD Band 2, Band 4, Band 5, Band 12, Band 13, Band 14, Band 25, Band 26, Band 30, Band 41, Band 66, Band 71
GSM And LTE Antenna Description	External Antenna, 9.0dBi(Max.) For WCDMA Band2 , LTE Band 2 and LTE Band 25; 5.5dBi(Max.) For WCDMA Band 4, LTE Band 4, LTE Band 12, LTE Band 13, LTE Band 14, LTE Band 66 and LTE Band 71; 7.0dBi(Max.) For WCDMA Band 5 , LTE Band 5 and LTE Band 26; 8.0(Max.) For LTE Band 7 and LTE Band 41; 6.0(Max.) For LTE Band 30
Exposure category	General population/uncontrolled environment
EUT Type	Production Unit
Device Type	Mobile Devices



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2. Evaluation Method

Systems operating under the provisions of FCC 47 CFR section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission’s guidelines. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as mobile device whereby a distance of 0.2m normally can be maintained between the user and the device, and below RF Permissible Exposure limit shall comply with.

In accordance with KDB447498D01 for Simultaneous transmission MPE test exclusion applies when the sum of the MPE ratios for all simultaneous transmitting antennas incorporated in a host device, based on the calculated/estimated, numerically modelled or measured field strengths or power density, is ≤ 1.0 . The MPE ratio of each antenna is determined at the minimum test separation distance required by the operating configurations and exposure conditions of the host device, according to the ratio of field strengths or power density to MPE limit, at the test frequency. Either the maximum peak or spatially averaged results from measurements or numerical simulations may be used to determine the MPE ratios. Spatial averaging does not apply when MPE is estimated using simple calculations based on far-field plane-wave equivalent conditions. The antenna installation and operating requirements for the host device must meet the minimum test separation distances required by all antennas, in both standalone and simultaneous transmission operations, to satisfy compliance.

3. Limit

3.1 Refer Evaluation Method

[ANSI C95.1–1999](#): IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.

[FCC KDB publication 447498 D01 General 1 RF Exposure Guidance v06](#): Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies.

[FCC CFR 47 part1 1.1310](#): Radiofrequency radiation exposure limits.

[FCC CFR 47 part2 2.1091](#): Radiofrequency radiation exposure evaluation: Mobile Devices

3.2 Limit

Limits for Maximum Permissible Exposure (MPE)/Controlled Exposure

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for Occupational/Controlled Exposure				
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

Limits for Maximum Permissible Exposure (MPE)/Uncontrolled Exposure

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for Occupational/Controlled Exposure				
0.3 – 3.0	614	1.63	(100)*	30
3.0 – 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



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4. MPE Calculation Method

Predication of MPE limit at a given distance
Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S=PG/4\pi R^2$$

Where: S=power density
P=power input to antenna
G=power gain of the antenna in the direction of interest relative to an isotropic radiator
R=distance to the center of radiation of the antenna

5. Antenna Information

External Antenna can only use antennas certificated as follows provided by manufacturer;

Antenna type and antenna number	Operate frequency band	Maximum antenna gain	Notes
External Antenna0	2400MHz ~ 2500MHz 5180-5240MHz 5745MHz-5825MHz	2.0dBi(Max) for 2.4GWIFI 3.0dBi(Max) for 5GWIFI	WiFi Antenna
External Antenna1	2400MHz ~ 2500MHz 5180-5240MHz 5745MHz-5825MHz	2.0dBi(Max) for 2.4GWIFI 3.0dBi(Max) for 5GWIFI	WiFi Antenna





6. Conducted Power

[2.4GWIFI Max Conducted Power]

Mode	Channel	Frequency (MHz)	Ant 0 Max Conducted Power(dBm)	Ant 1 Max Conducted Power(dBm)
11B	1	2412	19.49	19.57
	6	2437	19.53	19.4
	11	2462	19.63	20.48
11G	1	2412	19.73	19.29
	6	2437	19.71	19.16
	11	2462	19.74	18.88
11N20 SISO	1	2412	19.6	19.04
	6	2437	22.01	19.25
	11	2462	21.43	21.6
11N40 SISO	3	2422	19.61	19.22
	6	2437	17.5	19.25
	9	2452	19.18	19.25
11AX20 SISO	1	2412	19.21	19.75
	6	2437	19.35	19.83
	11	2462	19.6	19.55
11AX40 SISO	3	2422	17.96	19.77
	6	2437	19.16	19.3
	9	2452	19.22	19.48





[5.2GWIFI Max Conducted Power]

Mode	Channel	Frequency (MHz)	Ant 0 Max Conducted Power(dBm)	Ant 1 Max Conducted Power(dBm)
11A	36	5180	17.44	17.22
	40	5200	18	18.07
	48	5240	17.29	16.95
11N20 SISO	36	5180	17.36	17.59
	40	5200	17.79	18.06
	48	5240	17.17	17.08
11N40 SISO	38	5190	17.63	15.82
	46	5230	19.37	16.98
11AC20 SISO	36	5180	17.64	17.64
	40	5200	17.87	18.33
	48	5240	17.26	17.39
11AC40 SISO	38	5190	16.27	16.73
	46	5230	19.39	17
11AC80 SISO	42	5210	18.5	14.05
11AX20 SISO	36	5180	17.55	17.83
	40	5200	18.07	18.39
	48	5240	17.52	17.66
11AX40 SISO	38	5190	17.52	16.22
	46	5230	12.63	17.44
11AX80 SISO	42	5210	14.39	14.58





[5.8WIFI Max Conducted Power]

Mode	Channel	Frequency (MHz)	Ant 0 Max Conducted Power(dBm)	Ant 1 Max Conducted Power(dBm)
11A	149	5745	18.31	17.86
	157	5785	17.8	17.77
	165	5825	18.37	18.29
11N20 SISO	149	5745	18.18	18.22
	157	5785	17.72	17.73
	165	5825	18.22	18.1
11N40 SISO	151	5755	18.26	18.08
	159	5795	17.68	17.65
11AC20 SISO	149	5745	18.29	18.12
	157	5785	17.65	17.57
	165	5825	18.17	18.12
11AC40 SISO	151	5755	18.38	18.12
	159	5795	17.6	17.7
11AC80 SISO	155	5775	17.45	17.83
11AX20 SISO	149	5745	18.45	18.37
	157	5785	18.09	17.88
	165	5825	18.46	18.38
11AX40 SISO	151	5755	26.54	25.38
	159	5795	26.11	17.7
11AX80 SISO	155	5775	22.11	17.44



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[WCDMA/LTE Max Conducted Power]

Band	Maximum Power (dBm)
WCDMA II	24
WCDMA IV	24
WCDMA V	24
LTE Band 2	24
LTE Band 4	24.5
LTE Band 5	24
LTE Band 7	24.5
LTE Band 12	24
LTE Band 13	24
LTE Band 14	24
LTE Band 25	24
LTE Band 26	24
LTE Band 30	24
LTE Band 41	24.5
LTE Band 66	24.5
LTE Band 71	24.5





7. Measurement Results

2.4GWIFI(Ant0)

11B (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	19.0	19.0	19.0
Tolerance ±(dB)	1.0	1.0	1.0
11G (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	19.0	19.0	19.0
Tolerance ±(dB)	1.0	1.0	1.0
11N20 (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	19.0	22.0	21.0
Tolerance ±(dB)	1.0	1.0	1.0
11N40 (Peak)			
Channel	Channel 3	Channel 6	Channel 9
Target (dBm)	19.0	17.0	19.0
Tolerance ±(dB)	1.0	1.0	1.0
11AX20 (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	19.0	19.0	19.0
Tolerance ±(dB)	1.0	1.0	1.0
11AX40(Peak)			
Channel	Channel 3	Channel 6	Channel 9
Target (dBm)	17.0	19.0	19.0
Tolerance ±(dB)	1.0	1.0	1.0

2.4GWIFI(Ant1)

11B (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	19.0	19.0	20.0
Tolerance ±(dB)	1.0	1.0	1.0
11G (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	19.0	19.0	18.0
Tolerance ±(dB)	1.0	1.0	1.0
11N20 (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	19.0	19.0	21.0
Tolerance ±(dB)	1.0	1.0	1.0
11N40 (Peak)			
Channel	Channel 3	Channel 6	Channel 9
Target (dBm)	19.0	19.0	19.0





Tolerance ±(dB)	1.0	1.0	1.0
11AX20 (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	19.0	19.0	19.0
Tolerance ±(dB)	1.0	1.0	1.0
11AX40(Peak)			
Channel	Channel 3	Channel 6	Channel 9
Target (dBm)	19.0	19.0	19.0
Tolerance ±(dB)	1.0	1.0	1.0

5.2GWIFI(Ant0)

11A (Peak)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	17.0	18.0	17.0
Tolerance ±(dB)	1.0	1.0	1.0
11N20 (Peak)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	17.0	17.0	17.0
Tolerance ±(dB)	1.0	1.0	1.0
11N40 (Peak)			
Channel	Channel 38	Channel 46	
Target (dBm)	17.0	19.0	
Tolerance ±(dB)	1.0	1.0	
11AC20 (Peak)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	17.0	17.0	17.0
Tolerance ±(dB)	1.0	1.0	1.0
11AC40 (Peak)			
Channel	Channe38	Channel 46	
Target (dBm)	16.0	19.0	
Tolerance ±(dB)	1.0	1.0	
11AC80 (Peak)			
Channel	Channel 42		
Target (dBm)	18.0		
Tolerance ±(dB)	1.0		
11AX20 (Peak)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	17.0	18.0	17.0
Tolerance ±(dB)	1.0	1.0	1.0
11AX40 (Peak)			
Channel	Channe38	Channel 46	
Target (dBm)	17.0	12.0	
Tolerance ±(dB)	1.0	1.0	





11AX80 (Peak)	
Channel	Channel 42
Target (dBm)	14.0
Tolerance ±(dB)	1.0

5.2GWIFI(Ant1)			
11A (Peak)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	17.0	18.0	16.0
Tolerance ±(dB)	1.0	1.0	1.0

11N20 (Peak)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	17.0	18.0	17.0
Tolerance ±(dB)	1.0	1.0	1.0

11N40 (Peak)		
Channel	Channel 38	Channel 46
Target (dBm)	15.0	16.0
Tolerance ±(dB)	1.0	1.0

11AC20 (Peak)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	17.0	18.0	17.0
Tolerance ±(dB)	1.0	1.0	1.0

11AC40 (Peak)		
Channel	Channel 38	Channel 46
Target (dBm)	16.0	17.0
Tolerance ±(dB)	1.0	1.0

11AC80 (Peak)	
Channel	Channel 42
Target (dBm)	14.0
Tolerance ±(dB)	1.0

11AX20 (Peak)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	17.0	18.0	17.0
Tolerance ±(dB)	1.0	1.0	1.0

11AX40 (Peak)		
Channel	Channel 38	Channel 46
Target (dBm)	16.0	17.0
Tolerance ±(dB)	1.0	1.0

11AX80 (Peak)	
Channel	Channel 42
Target (dBm)	14.0
Tolerance ±(dB)	1.0



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5.8GWIFI(Ant0)

11A (Peak)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	18.0	17.0	18.0
Tolerance ±(dB)	1.0	1.0	1.0
11N20 (Peak)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	18.0	17.0	18.0
Tolerance ±(dB)	1.0	1.0	1.0
11N40 (Peak)			
Channel	Channel 151	Channel 159	
Target (dBm)	18.0	17.0	
Tolerance ±(dB)	1.0	1.0	
11AC20 (Peak)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	18.0	17.0	18.0
Tolerance ±(dB)	1.0	1.0	1.0
11AC40 (Peak)			
Channel	Channel 151	Channel 159	
Target (dBm)	18.0	17.0	
Tolerance ±(dB)	1.0	1.0	
11AC80 (Peak)			
Channel	Channel 155		
Target (dBm)	17.0		
Tolerance ±(dB)	1.0		
11AX20 (Peak)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	18.0	18.0	18.0
Tolerance ±(dB)	1.0	1.0	1.0
11AX40 (Peak)			
Channel	Channel 151	Channel 159	
Target (dBm)	26.0	26.0	
Tolerance ±(dB)	1.0	1.0	
11AX80 (Peak)			
Channel	Channel 155		
Target (dBm)	22.0		
Tolerance ±(dB)	1.0		





5.8GWIFI(Ant1)

11A (Peak)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	17.0	17.0	18.0
Tolerance ±(dB)	1.0	1.0	1.0
11N20 (Peak)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	18.0	17.0	18.0
Tolerance ±(dB)	1.0	1.0	1.0
11N40 (Peak)			
Channel	Channel 151	Channel 159	
Target (dBm)	18.0	17.0	
Tolerance ±(dB)	1.0	1.0	
11AC20 (Peak)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	18.0	17.0	18.0
Tolerance ±(dB)	1.0	1.0	1.0
11AC40 (Peak)			
Channel	Channel 151	Channel 159	
Target (dBm)	18.0	17.0	
Tolerance ±(dB)	1.0	1.0	
11AC80 (Peak)			
Channel	Channel 155		
Target (dBm)	17.0		
Tolerance ±(dB)	1.0		
11AX20 (Peak)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	18.0	17.0	18.0
Tolerance ±(dB)	1.0	1.0	1.0
11AX40 (Peak)			
Channel	Channel 151	Channel 159	
Target (dBm)	25.0	17.0	
Tolerance ±(dB)	1.0	1.0	
11AX80 (Peak)			
Channel	Channel 155		
Target (dBm)	17.0		
Tolerance ±(dB)	1.0		





8. Evaluation Results

8.1 Standalone MPE Evaluation

As declared by the Applicant, the EUT is a wireless device used in a fix application, at least 20 cm from any body part of the user or nearby persons; from the maximum EUT RF output power, the minimum separation distance, $r = 20\text{cm}$, as well as the gain of the used antenna refer to antenna information, the RF power density can be obtained.

Ant0:
2.4GWIFI

Band/Mode	RF output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)	ΣMPE Ratios1
	dBm	mW					
IEEE 802.11b	20.0	100.0000	2.0	1.5849	0.032	1.000	0.032
IEEE 802.11g	20.0	100.0000	2.0	1.5849	0.032	1.000	0.032
IEEE 802.11n HT20	23.0	199.5262	2.0	1.5849	0.063	1.000	0.063
IEEE 802.11n HT40	20.0	100.0000	2.0	1.5849	0.032	1.000	0.032
IEEE 802.11ax HT20	20.0	100.0000	2.0	1.5849	0.032	1.000	0.032
IEEE 802.11ax HT40	20.0	100.0000	2.0	1.5849	0.032	1.000	0.032

5.2GWIFI

Band/Mode	RF output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)	ΣMPE Ratios1
	dBm	mW					
11A	19.0	79.4328	3.0	1.9953	0.032	1.000	0.032
11N20	18.0	63.0957	3.0	1.9953	0.025	1.000	0.025
11N40	20.0	100.0000	3.0	1.9953	0.040	1.000	0.040
11AC20	18.0	63.0957	3.0	1.9953	0.025	1.000	0.025
11AC40	20.0	100.0000	3.0	1.9953	0.040	1.000	0.040
11AC80	19.0	79.4328	3.0	1.9953	0.032	1.000	0.032
11AX20	19.0	79.4328	3.0	1.9953	0.032	1.000	0.032
11AX40	18.0	63.0957	3.0	1.9953	0.025	1.000	0.025
11AX80	15.0	31.6228	3.0	1.9953	0.013	1.000	0.013

5.8GWIFI

Band/Mode	RF output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)	ΣMPE Ratios1
	dBm	mW					
11A	19.0	79.4328	3.0	1.9953	0.032	1.000	0.032
11N20	19.0	79.4328	3.0	1.9953	0.032	1.000	0.032
11N40	19.0	79.4328	3.0	1.9953	0.032	1.000	0.032
11AC20	19.0	79.4328	3.0	1.9953	0.032	1.000	0.032
11AC40	19.0	79.4328	3.0	1.9953	0.032	1.000	0.032
11AC80	18.0	63.0957	3.0	1.9953	0.025	1.000	0.025
11AX20	19.0	79.4328	3.0	1.9953	0.032	1.000	0.032
11AX40	27.0	501.1872	3.0	1.9953	0.199	1.000	0.199
11AX80	23.0	199.5262	3.0	1.9953	0.079	1.000	0.079



Ant1:
2.4GWIFI

Band/Mode	RF output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)	ΣMPE Ratios ²
	dBm	mW					
IEEE 802.11b	21.0	125.8925	2.0	1.5849	0.040	1.000	0.040
IEEE 802.11g	20.0	100.0000	2.0	1.5849	0.032	1.000	0.032
IEEE 802.11n HT20	22.0	158.4893	2.0	1.5849	0.050	1.000	0.050
IEEE 802.11n HT40	20.0	100.0000	2.0	1.5849	0.032	1.000	0.032
IEEE 802.11ax HT20	20.0	100.0000	2.0	1.5849	0.032	1.000	0.032
IEEE 802.11ax HT40	20.0	100.0000	2.0	1.5849	0.032	1.000	0.032

5.2GWIFI

Band/Mode	RF output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)	ΣMPE Ratios ²
	dBm	mW					
11A	19.0	79.4328	3.0	1.9953	0.032	1.000	0.032
11N20	19.0	125.8925	3.0	1.9953	0.032	1.000	0.032
11N40	17.0	158.4893	3.0	1.9953	0.020	1.000	0.020
11AC20	19.0	158.4893	3.0	1.9953	0.032	1.000	0.032
11AC40	18.0	158.4893	3.0	1.9953	0.025	1.000	0.025
11AC80	15.0	100.0000	3.0	1.9953	0.013	1.000	0.013
11AX20	19.0	158.4893	3.0	1.9953	0.032	1.000	0.032
11AX40	18.0	100.0000	3.0	1.9953	0.025	1.000	0.025
11AX80	15.0	63.0957	3.0	1.9953	0.013	1.000	0.013

5.8GWIFI

Band/Mode	RF output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)	ΣMPE Ratios ²
	dBm	mW					
11A	19.0	79.4328	3.0	1.9953	0.032	1.0000	0.032
11N20	19.0	158.4893	3.0	1.9953	0.032	1.0000	0.032
11N40	19.0	158.4893	3.0	1.9953	0.032	1.0000	0.032
11AC20	19.0	158.4893	3.0	1.9953	0.032	1.0000	0.032
11AC40	19.0	158.4893	3.0	1.9953	0.032	1.0000	0.032
11AC80	18.0	125.8925	3.0	1.9953	0.025	1.0000	0.025
11AX20	19.0	158.4893	3.0	1.9953	0.032	1.0000	0.032
11AX40	26.0	1000.0000	3.0	1.9953	0.158	1.0000	0.158
11AX80	18.0	251.1886	3.0	1.9953	0.025	1.0000	0.025



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WCDMA/LTE

Band/Mode	RF output power		Antenna Gain (dBi)	MPE3 (mW/cm ²)	MPE Limits (mW/cm ²)	ΣMPE Ratios ³
	dBm	mW				
WCDMA II	24	251.1886	9.0	0.397	1.000	0.397
WCDMA IV	24	251.1886	5.5	0.177	1.000	0.177
WCDMA V	24	251.1886	7.0	0.251	0.550	0.456
LTE Band 2	24	251.1886	9.0	0.397	1.000	0.397
LTE Band 4	24.5	281.8383	5.5	0.199	1.000	0.199
LTE Band 5	24	251.1886	7.0	0.251	0.550	0.456
LTE Band 7	24.5	281.8383	8.0	0.354	1.000	0.354
LTE Band 12	24	251.1886	5.5	0.177	0.466	0.380
LTE Band 13	24	251.1886	5.5	0.177	0.520	0.340
LTE Band 14	24	251.1886	5.5	0.177	0.527	0.336
LTE Band 25	24	251.1886	9.0	0.397	1.000	0.397
LTE Band 26	24	251.1886	7.0	0.251	0.543	0.462
LTE Band 30	24	251.1886	6.0	0.199	1.000	0.199
LTE Band 41	24.5	281.8383	8.0	0.354	1.000	0.354
LTE Band 66	24.5	281.8383	5.5	0.199	1.000	0.199
LTE Band 71	24.5	281.8383	5.5	0.199	0.444	0.448





8.2 Simultaneous Transmission MPE

The sample support one 2.4GWLAN&5.2G WLAN&5.8G WLAN, another one 2.4GWLAN&5.2G WLAN&5.8G WLAN and another Four WCDMA/LTE transmit antenna, so need consider simultaneous transmission;
 Simultaneous transmission MPE
 According to KDB447498 for Transmitters used in mobile exposure conditions for simultaneous transmission operations;
 $\sum\sum$ of MPE ratios ≤ 1.0

Mode	\sum MPE Ratios1(Max)	\sum MPE Ratios2(Max)	\sum MPE Ratios3(Max)	\sum MPE ratios	Limit	Results
2.4G WIFI(Ant0)+2.4G WIFI(Ant1)+WCDMA/LTE	0.063	0.050	0.462	0.575	1.0	PASS
2.4G WIFI(Ant0)+5.2G WIFI(Ant1)+WCDMA/LTE	0.063	0.032	0.462	0.557	1.0	PASS
2.4G WIFI(Ant0)+5.8G WIFI(Ant1)+WCDMA/LTE	0.063	0.158	0.462	0.683	1.0	PASS
5.2G WIFI(Ant0)+2.4G WIFI(Ant1)+WCDMA/LTE	0.040	0.050	0.462	0.552	1.0	PASS
5.2G WIFI(Ant0)+5.2G WIFI(Ant1)+WCDMA/LTE	0.040	0.032	0.462	0.534	1.0	PASS
5.2G WIFI(Ant0)+5.8G WIFI(Ant1)+WCDMA/LTE	0.040	0.158	0.462	0.660	1.0	PASS
5.8G WIFI(Ant0)+2.4G WIFI(Ant1)+WCDMA/LTE	0.199	0.050	0.462	0.711	1.0	PASS
5.8G WIFI(Ant0)+5.2G WIFI(Ant1)+WCDMA/LTE	0.199	0.032	0.462	0.693	1.0	PASS
5.8G WIFI(Ant0)+5.8G WIFI(Ant1)+WCDMA/LTE	0.199	0.158	0.462	0.819	1.0	PASS

Remark:

1. Output power including turn-up tolerance;
2. Output power is burst average power;
3. MPE evaluate distance is 20cm from user manual provide by manufacturer;
4. $MPE\ values = PG/4\pi R^2$

9. Conclusion

The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure of mobile device.

-----THE END OF REPORT-----

