



RF Exposure Evaluation
For

Shenzhen Geniatech INC.,LTD.

Edge Computing Box

Test Model: APC3588

Prepared for : Shenzhen Geniatech INC.,LTD.
Address : Room 02-04, 10/F, Block A, Building 8, Shenzhen International Innovation Valley, Dashi Road, Nanshan District, Shenzhen, Guangdong, China.

Prepared by : Shenzhen LCS Compliance Testing Laboratory Ltd.
Address : 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel : (+86)755-82591330
Fax : (+86)755-82591332
Web : www.LCS-cert.com
Mail : webmaster@LCS-cert.com

Date of receipt of test sample : December 10, 2024
Number of tested samples : 2
Sample No. : A241204067-1, A241204067-2
Serial number : Prototype
Date of Test : December 10, 2024 ~ December 30, 2024
Date of Report : December 31, 2024



Shenzhen LCS Compliance Testing Laboratory Ltd.
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity



RF Exposure Evaluation	
Report Reference No.	: LCSA12064006EH
Date of Issue	: December 31, 2024
Testing Laboratory Name	: Shenzhen LCS Compliance Testing Laboratory Ltd.
Address.....	: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China
Testing Location/ Procedure	: Full application of Harmonised standards ☒ Partial application of Harmonised standards ☐ Other standard testing method ☐
Applicant's Name.....	: Shenzhen Geniatech INC.,LTD.
Address.....	: Room 02-04, 10/F, Block A, Building 8, Shenzhen International Innovation Valley, Dashi Road, Nanshan District, Shenzhen, Guangdong, China.
Test Specification	
Standard	: FCC KDB publication 447498 D01 General RF Exposure Guidance v06 FCC CFR 47 part1 1.1310 FCC CFR 47 part2 2.1093
Test Report Form No.....	: TRF-4-E-215 A/0
TRF Originator	: Shenzhen LCS Compliance Testing Laboratory Ltd.
Master TRF	: Dated 2011-03
Shenzhen LCS Compliance Testing Laboratory Ltd. All rights reserved.	
This publication may be reproduced in whole or in part for non-commercial purposes as long as the Shenzhen LCS Compliance Testing Laboratory Ltd. is acknowledged as copyright owner and source of the material. Shenzhen LCS Compliance Testing Laboratory Ltd. takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.	
Test Item Description. : Edge Computing Box	
Trade Mark	: N/A
Test Model	: APC3588
Ratings.....	: Input: 12.0V $\Rightarrow$ 2.0A For AC Adapter: Input:100-240V~, 50/60Hz, 0.6A Max Output: 12.0V $\Rightarrow$ 2.0A, 24.0W
Result	: Positive

Compiled by:

Jack Liu/Administrator

Supervised by:

Cary Luo/ Technique principal

Approved by:

Gavin Liang/ Manager



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



RF Exposure Evaluation

Test Report No. : LCSA12064006EH	<u>December 31, 2024</u> Date of issue
---	---

EUT..... : Edge Computing Box

Test Model..... : APC3588

Applicant..... : Shenzhen Geniatech INC.,LTD.

Room 02-04, 10/F, Block A, Building 8, Shenzhen International
Address..... : Innovation Valley, Dashi Road, Nanshan District, Shenzhen,
Guangdong, China.

Telephone..... : /

Fax..... : /

Manufacturer..... : Shenzhen Geniatech INC.,LTD.

Room 02-04, 10/F, Block A, Building 8, Shenzhen International
Address..... : Innovation Valley, Dashi Road, Nanshan District, Shenzhen,
Guangdong, China.

Telephone..... : /

Fax..... : /

Factory..... : Shenzhen Geniatech INC.,LTD.

2F Block A, Yinghaosheng Industrial park, Fu'an Road, Dayang
Address..... : Development Zone, Fuyong Town, Bao'an District, Shenzhen,
China.

Telephone..... : /

Fax..... : /

Test Result	Positive
--------------------	-----------------

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.





Revision History

Report Version	Issue Date	Revision Content	Revised By
000	December 31, 2024	Initial Issue	---



Shenzhen LCS Compliance Testing Laboratory Ltd.
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity



TABLE OF CONTENTS

Description	Page
1. PRODUCT INFORMATION	6
2. EVALUATION METHOD AND LIMIT	8
3. REFER EVALUATION METHOD.....	8
4. CONDUCTED POWER RESULTS	9
5. MANUFACTURING TOLERANCE	12
6. EVALUATION RESULTS.....	22
7. CONCLUSION.....	25
8. DESCRIPTION OF TEST FACILITY	25
9. MEASUREMENT UNCERTAINTY.....	25





1. Product Information

EUT	: Edge Computing Box
Test Model	: APC3588
Ratings	: Input: 12.0V $\Rightarrow$ 2.0A For AC Adapter: Input:100-240V~, 50/60Hz, 0.6A Max Output: 12.0V $\Rightarrow$ 2.0A, 24.0W
Hardware Version	: CBD_APC3588_V1.21;RKR20220526_V1.01
Software Version	: rk3588_13.0_r6\image-rk3588_t_20240704
Bluetooth	:
Frequency Range	: 2402MHz~2480MHz
Channel Number	: 79 channels for Bluetooth V5.2 (DSS) 40 channels for Bluetooth V5.2 (DTS)
Channel Spacing	: 1MHz for Bluetooth V5.2 (DSS) 2MHz for Bluetooth V5.2 (DTS)
Modulation Type	: GFSK, $\pi/4$ -DQPSK, 8-DPSK for Bluetooth V5.2 (DSS) GFSK for Bluetooth V5.2 (DTS)
Bluetooth Version	: V5.2
Antenna Description	: Ant1: External Antenna, 3.0dBi (max.)
WIFI(2.4G Band)	:
Frequency Range	: 2412MHz~2462MHz
Channel Spacing	: 5MHz
Channel Number	: 11 Channels for 20MHz bandwidth (2412~2462MHz) 7 Channels for 40MHz bandwidth (2422~2452MHz)
Modulation Type	: IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ax: OFDMA (1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK)
Antenna Description	: Ant1: External Antenna, 3.0dBi(Max.) Ant2: External Antenna, 3.0dBi(Max.)
WIFI(5.2G Band)	:
Frequency Range	: 5180MHz~5240MHz
Channel Number	: 4 Channels for 20MHz bandwidth(5180MHz~5240MHz) 2 channels for 40MHz bandwidth(5190MHz~5230MHz) 1 channels for 80MHz bandwidth(5210MHz)
Modulation Type	: IEEE 802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ax: OFDMA (1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK)
Antenna Description	: Ant1: External Antenna, 3.0dBi(Max.) Ant2: External Antenna, 3.0dBi(Max.)
WIFI(5.3G Band)	:
Frequency Range	: 5260MHz~5320MHz





Channel Number	: 4 Channels for 20MHz bandwidth(5260MHz~5320MHz) 2 channels for 40MHz bandwidth(5270MHz~5310MHz) 1 channels for 80MHz bandwidth(5290MHz)
Modulation Type	: IEEE 802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ax: OFDMA (1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK)
Antenna Description	: Ant1: External Antenna, 3.0dBi(Max.) Ant2: External Antenna, 3.0dBi(Max.)
WIFI(5.5G Band)	:
Frequency Range	: 5500MHz~5700MHz
Channel Number	: 11 Channels for 20MHz bandwidth(5500MHz~5700MHz) 5 Channels for 40MHz bandwidth(5510MHz~5670MHz) 2 Channels for 80MHz bandwidth(5530MHz, 5610MHz)
Modulation Type	: IEEE 802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ax: OFDMA (1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK)
Antenna Description	: Ant1: External Antenna, 3.0dBi(Max.) Ant2: External Antenna, 3.0dBi(Max.)
WIFI(5.8G Band)	:
Frequency Range	: 5745MHz~5825MHz
Channel Number	: 5 channels for 20MHz bandwidth(5745MHz~5825MHz) 2 channels for 40MHz bandwidth(5755MHz~5795MHz) 1 channels for 80MHz bandwidth(5775MHz)
Modulation Type	: IEEE 802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ax: OFDMA (1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK)
Antenna Description	: Ant1: External Antenna, 3.0dBi(Max.) Ant2: External Antenna, 3.0dBi(Max.)





2. Evaluation method and Limit

According to KDB447498 D01 General RF Exposure Guidance v06 Section 4.3.1 Standalone SAR test exclusion considerations: "Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Test Exclusion Threshold condition, listed below, is satisfied. These test exclusion conditions are based on source-based time-averaged maximum conducted output power of the RF channel requiring evaluation, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions. The minimum test separation distance is determined by the smallest distance from the antenna and radiating structures or outer surface of the device, according to the host form factor, exposure conditions and platform requirements, to any part of the body or extremity of a user or bystander (see 5) of section 4.1). To qualify for SAR test exclusion, the test separation distances applied must be fully explained and justified by the operating configurations and exposure conditions of the transmitter and applicable host platform requirements, typically in the SAR measurement or SAR analysis report, according to the required published RF exposure KDB procedures. When no other RF exposure testing or reporting is required, a statement of justification and compliance must be included in the equipment approval, in lieu of the SAR report, to qualify for the SAR test exclusion. When required, the device specific conditions described in the other published RF exposure KDB procedures must be satisfied before applying these SAR test exclusion provisions; for example, handheld PTT two-way radios, handsets, laptops & tablets etc."

$$\left[\frac{(\text{max. power of channel, including tune-up tolerance, mW})}{(\text{min. test separation distance, mm})} \cdot \sqrt{f \text{ (GHz)}} \right] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, where:}$$

- f (GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm according to f) in section 4.1 is applied to determine SAR test exclusion.

When one of the following test exclusion conditions is satisfied for all combinations of simultaneous transmission configurations, further equipment approval is not required to incorporate transmitter modules in host devices that operate in the mixed mobile and portable host platform exposure conditions. The grantee is responsible for documenting this according to Class I permissive change requirements. Antennas that qualify for standalone SAR test exclusion must apply the estimated standalone SAR to determine simultaneous transmission test exclusion.

a) The $[\sum \text{ of (the highest measured or estimated SAR for each standalone antenna configuration, adjusted for maximum tune-up tolerance) / 1.6 W/kg}] + [\sum \text{ of MPE ratios}] \leq 1.0$.

b) The SAR to peak location separation ratios of all simultaneously transmitting antenna pairs operating in portable device exposure conditions are all ≤ 0.04 , and the $[\sum \text{ of MPE ratios}] \leq 1.0$.

3. 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 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 2.1093](#): Radiofrequency radiation exposure evaluation: portable devices



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



4. Conducted Power Results

[BT]

Mode	Channel	Frequency (MHz)	Peak Conducted Output Power (dBm)
GFSK	0	2402	-1.00
	39	2441	-0.54
	79	2480	0.85
$\pi/4$ -DQPSK	00	2402	0.67
	39	2441	1.05
	79	2480	-0.05
8-DPSK	00	2402	1.17
	39	2441	1.49
	79	2480	0.32

[BLE]

Mode	Channel	Frequency (MHz)	Peak Conducted Output Power (dBm)
BLE_1M	0	2402	0.09
	19	2440	-0.28
	39	2480	-1.43

[2.4G WIFI]

Mode	Channel	Frequency (MHz)	Ant 1 Max Conducted Power(dBm)	Ant 2 Max Conducted Power(dBm)
11B	1	2412	15.84	15.23
	6	2437	15.7	15.15
	11	2462	15.64	15.74
11G	1	2412	14.27	14.2
	6	2437	14.03	14.1
	11	2462	14.11	13.96
11N20 SISO	1	2412	13.89	13.59
	6	2437	13.54	13.51
	11	2462	13.62	13.15
11N40 SISO	3	2422	12.15	12.36
	6	2437	12.41	12.58
	9	2452	12.1	12.28
11AX20 SISO	1	2412	13.27	13.74
	6	2437	12.94	13.49
	11	2462	13	13.14
11AX40 SISO	3	2422	12.67	11.85
	6	2437	12.02	12.21
	9	2452	12.57	12.89





[5.2G WIFI]

Mode	Channel	Frequency (MHz)	Ant 1 Max Conducted Power(dBm)	Ant 2 Max Conducted Power(dBm)
11A	36	5180	12.84	12.26
	40	5200	12.3	12.18
	48	5240	13.08	11.47
11N20 SISO	36	5180	11.24	10.53
	40	5200	11.95	10.33
	48	5240	11.63	10.81
11N40 SISO	38	5190	10.59	10.13
	46	5230	10.82	9.92
11AC20 SISO	36	5180	11.84	10.45
	40	5200	11.65	10.49
	48	5240	11.62	10.86
11AC40 SISO	38	5190	10.97	9.28
	46	5230	10.76	10.03
11AC80 SISO	42	5210	9.37	8.53
11AX20 SISO	36	5180	11.15	10.66
	40	5200	11.1	10.43
	48	5240	11.6	10.91
11AX40 SISO	38	5190	10.94	9.42
	46	5230	10.69	9.03
11AX80 SISO	42	5210	9.42	8.64

[5.3G WIFI]

Mode	Channel	Frequency (MHz)	Ant 1 Max Conducted Power(dBm)	Ant 2 Max Conducted Power(dBm)
11A	52	5260	12.59	11.35
	60	5280	12.46	11.99
	64	5320	12.17	12.02
11N20 SISO	52	5260	11.96	10.68
	60	5280	11.82	10.2
	64	5320	11.55	10.17
11N40 SISO	54	5270	10.98	9.47
	62	5310	10.06	10.27
11AC20 SISO	52	5260	10.97	10.65
	60	5280	11.82	9.91
	64	5320	11.51	10.24
11AC40 SISO	54	5270	10.8	9.23
	62	5310	10.78	10.17
11AC80 SISO	58	5290	9.9	8.91
11AX20 SISO	52	5260	11.95	11.18
	60	5280	11.58	10.35
	64	5320	11.45	10.65
11AX40 SISO	54	5270	10.78	9.64
	62	5310	10.77	9.5
11AX80 SISO	58	5290	9.96	8.89



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



[5.5G WIFI]

Mode	Channel	Frequency (MHz)	Ant 1 Max Conducted Power(dBm)	Ant 2 Max Conducted Power(dBm)
11A	100	5500	12.27	11.46
	116	5580	12.74	11.91
	140	5700	12.8	12.02
11N20 SISO	100	5500	11.53	10.9
	116	5580	11.96	11.06
	140	5700	12.08	10.97
11N40 SISO	102	5510	10.36	10.73
	110	5550	10.66	9.71
	134	5670	11.04	10.12
11AC20 SISO	100	5500	11.54	10.94
	116	5580	12.06	10.25
	140	5700	12.09	10.31
11AC40 SISO	102	5510	10.36	10.52
	110	5550	10.58	9.54
	134	5670	11.04	9.93
11AC80 SISO	106	5530	9.36	9.49
	122	5610	9.68	8.8
11AX20 SISO	100	5500	11.54	10.95
	116	5580	12.12	10.17
	140	5700	11.13	10.38
11AX40 SISO	102	5510	10.33	9.26
	110	5550	10.59	9.52
	134	5670	11	9.99
11AX80 SISO	106	5530	9.25	8.54
	122	5610	9.64	8.97

[5.8G WIFI Max Conducted Power]

Mode	Channel	Frequency (MHz)	Ant 1 Max Conducted Power(dBm)	Ant 2 Max Conducted Power(dBm)
11A	149	5745	12.67	11.41
	157	5785	12.68	11.02
	165	5825	12.36	11.79
11N20 SISO	149	5745	11	10.21
	157	5785	10.98	10.47
	165	5825	11.64	10.28
11N40 SISO	151	5755	10.61	9.82
	159	5795	10.61	10.01
11AC20 SISO	149	5745	11.88	10.2
	157	5785	11.99	10.54
	165	5825	11.75	10.24
11AC40 SISO	151	5755	10.53	9.87
	159	5795	10.6	9.98
11AC80 SISO	155	5775	9.79	8.54
11AX20 SISO	149	5745	11.9	10.21
	157	5785	11.03	10.36
	165	5825	11.74	10.21
11AX40 SISO	151	5755	10.49	9.83
	159	5795	10.55	10.01
11AX80 SISO	155	5775	9.77	8.54



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity

**5. Manufacturing Tolerance**

[BT]

GFSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	-1.0	0	0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
$\pi/4$ DQPSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	0	1.0	0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
8DPSK (Peak)			
Channel	Channel 0	Channel 19	Channel 39
Target (dBm)	1.0	1.0	0
Tolerance $\pm$ (dB)	1.0	1.0	1.0

[BLE]

BT LE (Peak)			
Channel	Channel 0	Channel 19	Channel 39
Target (dBm)	0	0	-1.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0

[2.4G WIFI Ant 1]

11B (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	15.0	15.0	15.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11G (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	14.0	14.0	14.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N20(Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	13.0	13.0	13.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N40(Peak)			
Channel	Channel 3	Channel 6	Channel 9
Target (dBm)	12.0	12.0	12.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AX20(Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	13.0	12.0	13.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AX40(Peak)			
Channel	Channel 3	Channel 6	Channel 9



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



Target (dBm)	12.0	12.0	12.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0

[2.4G WIFI Ant 2]

11B (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	15.0	15.0	15.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11G (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	14.0	14.0	13.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N20(Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	13.0	13.0	13.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N40(Peak)			
Channel	Channel 3	Channel 6	Channel 9
Target (dBm)	12.0	12.0	12.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AX20(Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	13.0	13.0	13.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AX40(Peak)			
Channel	Channel 3	Channel 6	Channel 9
Target (dBm)	11.0	12.0	12.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0





[5.2G WIFI Ant 1]

11A(Average)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	12.0	12.0	13.0
Tolerance ±(dB)	1.0	1.0	1.0
11N20(Average)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	11.0	11.0	11.0
Tolerance ±(dB)	1.0	1.0	1.0
11N40(Average)			
Channel	Channel 38	Channel 46	
Target (dBm)	10.0	10.0	
Tolerance ±(dB)	1.0	1.0	
11AC20(Average)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	11.0	11.0	11.0
Tolerance ±(dB)	1.0	1.0	1.0
11AC40(Average)			
Channel	Channel 38	Channel 46	
Target (dBm)	10.0	10.0	
Tolerance ±(dB)	1.0	1.0	
11AC80(Average)			
Channel	Channel 42		
Target (dBm)	9.0		
Tolerance ±(dB)	1.0		
11AX20(Average)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	11.0	11.0	11.0
Tolerance ±(dB)	1.0	1.0	1.0
11AX40(Average)			
Channel	Channel 38	Channel 46	
Target (dBm)	10.0	10.0	
Tolerance ±(dB)	1.0	1.0	
11AX80(Average)			
Channel	Channel 42		
Target (dBm)	9.0		
Tolerance ±(dB)	1.0		





[5.2G WIFI Ant 2]

11A(Average)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	12.0	12.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N20(Average)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	10.0	10.0	10.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N40(Average)			
Channel	Channel 38	Channel 46	
Target (dBm)	10.0	9.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AC20(Average)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	10.0	10.0	10.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AC40(Average)			
Channel	Channel 38	Channel 46	
Target (dBm)	9.0	10.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AC80(Average)			
Channel	Channel 42		
Target (dBm)	8.0		
Tolerance $\pm$ (dB)	1.0		
11AX20(Average)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	10.0	10.0	10.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AX40(Average)			
Channel	Channel 38	Channel 46	
Target (dBm)	9.0	9.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AX80(Average)			
Channel	Channel 42		
Target (dBm)	8.0		
Tolerance $\pm$ (dB)	1.0		





[5.3G WIFI Ant 1]

11A (AVG)			
Channel	Channel 52	Channel 60	Channel 64
Target (dBm)	12.0	12.0	12.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N20(AVG)			
Channel	Channel 52	Channel 60	Channel 64
Target (dBm)	11.0	11.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N40(AVG)			
Channel	Channel 54	Channel 62	
Target (dBm)	10.0	10.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AC20(AVG)			
Channel	Channel 52	Channel 60	Channel 64
Target (dBm)	10.0	11.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AC40(AVG)			
Channel	Channel 54	Channel 62	
Target (dBm)	10.0	10.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AC VHT80 (Average)			
Channel	Channel 58		
Target (dBm)	9.0		
Tolerance $\pm$ (dB)	1.0		
11AX20(AVG)			
Channel	Channel 52	Channel 60	Channel 64
Target (dBm)	11.0	11.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AX40(AVG)			
Channel	Channel 54	Channel 62	
Target (dBm)	10.0	10.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AX VHT80 (Average)			
Channel	Channel 58		
Target (dBm)	9.0		
Tolerance $\pm$ (dB)	1.0		





[5.3G WIFI Ant 2]

11A (AVG)			
Channel	Channel 52	Channel 60	Channel 64
Target (dBm)	11.0	11.0	12.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N20(AVG)			
Channel	Channel 52	Channel 60	Channel 64
Target (dBm)	10.0	10.0	10.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N40(AVG)			
Channel	Channel 54	Channel 62	
Target (dBm)	9.0	10.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AC20(AVG)			
Channel	Channel 52	Channel 60	Channel 64
Target (dBm)	10.0	9.0	10.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AC40(AVG)			
Channel	Channel 54	Channel 62	
Target (dBm)	9.0	10.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AC VHT80 (Average)			
Channel	Channel 58		
Target (dBm)	8.0		
Tolerance $\pm$ (dB)	1.0		
11AX20(AVG)			
Channel	Channel 52	Channel 60	Channel 64
Target (dBm)	11.0	10.0	10.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AX40(AVG)			
Channel	Channel 54	Channel 62	
Target (dBm)	9.0	9.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AX VHT80 (Average)			
Channel	Channel 58		
Target (dBm)	8.0		
Tolerance $\pm$ (dB)	1.0		





[5.5G WIFI Ant 1]

11A (AVG)			
Channel	Channel 100	Channel 116	Channel 140
Target (dBm)	12.0	12.0	12.0
Tolerance ±(dB)	1.0	1.0	1.0
11N20(AVG)			
Channel	Channel 100	Channel 116	Channel 140
Target (dBm)	11.0	11.0	12.0
Tolerance ±(dB)	1.0	1.0	1.0
11N40(AVG)			
Channel	Channel 102	Channel 110	Channel 134
Target (dBm)	10.0	10.0	11.0
Tolerance ±(dB)	1.0	1.0	1.0
11AC20(AVG)			
Channel	Channel 100	Channel 116	Channel 140
Target (dBm)	11.0	12.0	12.0
Tolerance ±(dB)	1.0	1.0	1.0
11AC40(AVG)			
Channel	Channel 102	Channel 110	Channel 134
Target (dBm)	10.0	10.0	11.0
Tolerance ±(dB)	1.0	1.0	1.0
11AC VHT80 (Average)			
Channel	Channel 106	Channel 122	
Target (dBm)	9.0	9.0	
Tolerance ± (dB)	1.0	1.0	
11AX20(AVG)			
Channel	Channel 100	Channel 116	Channel 140
Target (dBm)	11.0	12.0	11.0
Tolerance ±(dB)	1.0	1.0	1.0
11AX40(AVG)			
Channel	Channel 102	Channel 110	Channel 134
Target (dBm)	10.0	10.0	11.0
Tolerance ±(dB)	1.0	1.0	1.0
11AX VHT80 (Average)			
Channel	Channel 106	Channel 122	
Target (dBm)	9.0	9.0	
Tolerance ± (dB)	1.0	1.0	



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



[5.5G WIFI Ant 2]

11A (AVG)			
Channel	Channel 100	Channel 116	Channel 140
Target (dBm)	11.0	11.0	12.0
Tolerance ±(dB)	1.0	1.0	1.0
11N20(AVG)			
Channel	Channel 100	Channel 116	Channel 140
Target (dBm)	10.0	11.0	10.0
Tolerance ±(dB)	1.0	1.0	1.0
11N40(AVG)			
Channel	Channel 102	Channel 110	Channel 134
Target (dBm)	10.0	9.0	10.0
Tolerance ±(dB)	1.0	1.0	1.0
11AC20(AVG)			
Channel	Channel 100	Channel 116	Channel 140
Target (dBm)	10.0	10.0	10.0
Tolerance ±(dB)	1.0	1.0	1.0
11AC40(AVG)			
Channel	Channel 102	Channel 110	Channel 134
Target (dBm)	10.0	9.0	9.0
Tolerance ±(dB)	1.0	1.0	1.0
11AC VHT80 (Average)			
Channel	Channel 106	Channel 122	
Target (dBm)	9.0	8.0	
Tolerance ± (dB)	1.0	1.0	
11AX20(AVG)			
Channel	Channel 100	Channel 116	Channel 140
Target (dBm)	10.0	10.0	10.0
Tolerance ±(dB)	1.0	1.0	1.0
11AX40(AVG)			
Channel	Channel 102	Channel 110	Channel 134
Target (dBm)	9.0	9.0	9.0
Tolerance ±(dB)	1.0	1.0	1.0
11AX VHT80 (Average)			
Channel	Channel 106	Channel 122	
Target (dBm)	8.0	8.0	
Tolerance ± (dB)	1.0	1.0	



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



[5.8G WIFI Ant 1]

11A (Average)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	12.0	12.0	12.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N20(Average)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	11.0	10.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N40(Average)			
Channel	Channel 151	Channel 159	
Target (dBm)	10.0	10.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AC20(Average)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	11.0	11.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AC40(Average)			
Channel	Channel 151	Channel 159	
Target (dBm)	10.0	10.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AC80 (Average)			
Channel	Channel 155		
Target (dBm)	9.0		
Tolerance $\pm$ (dB)	1.0		
11AX20(Average)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	11.0	11.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AX40(Average)			
Channel	Channel 151	Channel 159	
Target (dBm)	10.0	10.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AX80 (Average)			
Channel	Channel 155		
Target (dBm)	9.0		
Tolerance $\pm$ (dB)	1.0		





[5.8G WIFI Ant 2]

11A (Average)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	11.0	11.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N20(Average)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	10.0	10.0	10.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N40(Average)			
Channel	Channel 151	Channel 159	
Target (dBm)	9.0	10.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AC20(Average)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	10.0	10.0	10.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AC40(Average)			
Channel	Channel 151	Channel 159	
Target (dBm)	9.0	9.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AC80 (Average)			
Channel	Channel 155		
Target (dBm)	8.0		
Tolerance $\pm$ (dB)	1.0		
11AX20(Average)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	10.0	10.0	10.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AX40(Average)			
Channel	Channel 151	Channel 159	
Target (dBm)	9.0	10.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AX80 (Average)			
Channel	Channel 155		
Target (dBm)	8.0		
Tolerance $\pm$ (dB)	1.0		



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



6. Evaluation Results

6.1 Standalone Evaluation

[BT]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
GFSK	1.0	1.2589	3.0	1.9953	0.0005	1.0000
$\pi/4$ -DQPSK	2.0	1.5849	3.0	1.9953	0.0006	1.0000
8-DPSK	2.0	1.5849	3.0	1.9953	0.0006	1.0000

[BT LE]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
BT LE	1.0	1.2589	3.0	1.9953	0.0005	1.0000

[2.4G WIFI Ant 1]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11b	16	39.8107	3.0	1.9953	0.0158	1.0000
IEEE 802.11g	15	31.6228	3.0	1.9953	0.0126	1.0000
IEEE 802.11n HT20	14	25.1189	3.0	1.9953	0.0100	1.0000
IEEE 802.11n HT40	13	19.9526	3.0	1.9953	0.0079	1.0000
IEEE 802.11AX HT20	14	25.1189	3.0	1.9953	0.0100	1.0000
IEEE 802.11AX HT40	13	19.9526	3.0	1.9953	0.0079	1.0000

[2.4G WIFI Ant 2]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11b	16	39.8107	3.0	1.9953	0.0158	1.0000
IEEE 802.11g	15	31.6228	3.0	1.9953	0.0126	1.0000
IEEE 802.11n HT20	14	25.1189	3.0	1.9953	0.0100	1.0000
IEEE 802.11n HT40	13	19.9526	3.0	1.9953	0.0079	1.0000
IEEE 802.11AX HT20	14	25.1189	3.0	1.9953	0.0100	1.0000
IEEE 802.11AX HT40	13	19.9526	3.0	1.9953	0.0079	1.0000

[5.2G WIFI Ant 1]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11a	14.0	25.1189	3.0	1.9953	0.0100	1.0000
IEEE 802.11n HT20	12.0	15.8489	3.0	1.9953	0.0063	1.0000
IEEE 802.11n HT40	11.0	12.5893	3.0	1.9953	0.0050	1.0000
IEEE 802.11ac VHT20	12.0	15.8489	3.0	1.9953	0.0063	1.0000
IEEE 802.11ac VHT40	11.0	12.5893	3.0	1.9953	0.0050	1.0000
IEEE 802.11ac VHT80	10.0	10.0000	3.0	1.9953	0.0040	1.0000
IEEE 802.11ax VHT20	12.0	15.8489	3.0	1.9953	0.0063	1.0000
IEEE 802.11ax VHT40	11.0	12.5893	3.0	1.9953	0.0050	1.0000
IEEE 802.11ax VHT80	10.0	10.0000	3.0	1.9953	0.0040	1.0000



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



[5.2G WIFI Ant 2]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11a	13.0	19.9526	3.0	1.9953	0.0079	1.0000
IEEE 802.11n HT20	11.0	12.5893	3.0	1.9953	0.0050	1.0000
IEEE 802.11n HT40	11.0	12.5893	3.0	1.9953	0.0050	1.0000
IEEE 802.11ac VHT20	11.0	12.5893	3.0	1.9953	0.0050	1.0000
IEEE 802.11ac VHT40	11.0	12.5893	3.0	1.9953	0.0050	1.0000
IEEE 802.11ac VHT80	9.0	7.9433	3.0	1.9953	0.0032	1.0000
IEEE 802.11ax VHT20	11.0	12.5893	3.0	1.9953	0.0050	1.0000
IEEE 802.11ax VHT40	10.0	10.0000	3.0	1.9953	0.0040	1.0000
IEEE 802.11ax VHT80	9.0	7.9433	3.0	1.9953	0.0032	1.0000

[5.3G WIFI Ant 1]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11a	13.0	19.9526	3.0	1.9953	0.0079	1.0000
IEEE 802.11n HT20	12.0	15.8489	3.0	1.9953	0.0063	1.0000
IEEE 802.11n HT40	11.0	12.5893	3.0	1.9953	0.0050	1.0000
IEEE 802.11ac VHT20	12.0	15.8489	3.0	1.9953	0.0063	1.0000
IEEE 802.11ac VHT40	11.0	12.5893	3.0	1.9953	0.0050	1.0000
IEEE 802.11ac VHT80	10.0	10.0000	3.0	1.9953	0.0040	1.0000
IEEE 802.11ax VHT20	12.0	15.8489	3.0	1.9953	0.0063	1.0000
IEEE 802.11ax VHT40	11.0	12.5893	3.0	1.9953	0.0050	1.0000
IEEE 802.11ax VHT80	10.0	10.0000	3.0	1.9953	0.0040	1.0000

[5.3G WIFI Ant 2]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11a	13.0	19.9526	3.0	1.9953	0.0079	1.0000
IEEE 802.11n HT20	11.0	12.5893	3.0	1.9953	0.0050	1.0000
IEEE 802.11n HT40	11.0	12.5893	3.0	1.9953	0.0050	1.0000
IEEE 802.11ac VHT20	11.0	12.5893	3.0	1.9953	0.0050	1.0000
IEEE 802.11ac VHT40	11.0	12.5893	3.0	1.9953	0.0050	1.0000
IEEE 802.11ac VHT80	9.0	7.9433	3.0	1.9953	0.0032	1.0000
IEEE 802.11ax VHT20	12.0	15.8489	3.0	1.9953	0.0063	1.0000
IEEE 802.11ax VHT40	10.0	10.0000	3.0	1.9953	0.0040	1.0000
IEEE 802.11ax VHT80	9.0	7.9433	3.0	1.9953	0.0032	1.0000

[5.5G WIFI Ant 1]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11a	13.0	19.9526	3.0	1.9953	0.0079	1.0000
IEEE 802.11n HT20	13.0	19.9526	3.0	1.9953	0.0079	1.0000
IEEE 802.11n HT40	12.0	15.8489	3.0	1.9953	0.0063	1.0000
IEEE 802.11ac VHT20	13.0	19.9526	3.0	1.9953	0.0079	1.0000
IEEE 802.11ac VHT40	12.0	15.8489	3.0	1.9953	0.0063	1.0000
IEEE 802.11ac VHT80	10.0	10.0000	3.0	1.9953	0.0040	1.0000
IEEE 802.11ax VHT20	13.0	19.9526	3.0	1.9953	0.0079	1.0000
IEEE 802.11ax VHT40	12.0	15.8489	3.0	1.9953	0.0063	1.0000
IEEE 802.11ax VHT80	10.0	10.0000	3.0	1.9953	0.0040	1.0000





[5.5G WIFI Ant 2]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11a	13.0	19.9526	3.0	1.9953	0.0079	1.0000
IEEE 802.11n HT20	12.0	15.8489	3.0	1.9953	0.0063	1.0000
IEEE 802.11n HT40	11.0	12.5893	3.0	1.9953	0.0050	1.0000
IEEE 802.11ac VHT20	11.0	12.5893	3.0	1.9953	0.0050	1.0000
IEEE 802.11ac VHT40	11.0	12.5893	3.0	1.9953	0.0050	1.0000
IEEE 802.11ac VHT80	10.0	10.0000	3.0	1.9953	0.0040	1.0000
IEEE 802.11ax VHT20	11.0	12.5893	3.0	1.9953	0.0050	1.0000
IEEE 802.11ax VHT40	10.0	10.0000	3.0	1.9953	0.0040	1.0000
IEEE 802.11ax VHT80	9.0	7.9433	3.0	1.9953	0.0032	1.0000

[5.8G WIFI Ant 1]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11a	13.0	19.9526	3.0	1.9953	0.0079	1.0000
IEEE 802.11n HT20	12.0	15.8489	3.0	1.9953	0.0063	1.0000
IEEE 802.11n HT40	11.0	12.5893	3.0	1.9953	0.0050	1.0000
IEEE 802.11ac VHT20	12.0	15.8489	3.0	1.9953	0.0063	1.0000
IEEE 802.11ac VHT40	11.0	12.5893	3.0	1.9953	0.0050	1.0000
IEEE 802.11ac VHT80	10.0	10.0000	3.0	1.9953	0.0040	1.0000
IEEE 802.11ax VHT20	12.0	15.8489	3.0	1.9953	0.0063	1.0000
IEEE 802.11ax VHT40	11.0	12.5893	3.0	1.9953	0.0050	1.0000
IEEE 802.11ax VHT80	10.0	10.0000	3.0	1.9953	0.0040	1.0000

[5.8G WIFI Ant 2]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11a	12.0	15.8489	3.0	1.9953	0.0063	1.0000
IEEE 802.11n HT20	11.0	12.5893	3.0	1.9953	0.0050	1.0000
IEEE 802.11n HT40	11.0	12.5893	3.0	1.9953	0.0050	1.0000
IEEE 802.11ac VHT20	11.0	12.5893	3.0	1.9953	0.0050	1.0000
IEEE 802.11ac VHT40	10.0	10.0000	3.0	1.9953	0.0040	1.0000
IEEE 802.11ac VHT80	9.0	7.9433	3.0	1.9953	0.0032	1.0000
IEEE 802.11ax VHT20	11.0	12.5893	3.0	1.9953	0.0050	1.0000
IEEE 802.11ax VHT40	11.0	12.5893	3.0	1.9953	0.0050	1.0000
IEEE 802.11ax VHT80	9.0	7.9433	3.0	1.9953	0.0032	1.0000

<According to LTE modular power (FCC ID: XMR201605EC25A) >

Modulation Type	Frequency	Output power	Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
WCDMA band II	1852.4	23.5	2.5	1.7783	0.0792	1.000
WCDMA band V	826.4	23.5	2.5	1.7783	0.0792	0.551
LTE band 2	1850.7	24.0	2.5	1.7783	0.0889	1.000
LTE band 4	1710.7	24.0	2.5	1.7783	0.0889	1.000
LTE Band 12	699.7	24.0	2.5	1.7783	0.0889	0.466

Remark:

1. Output power including tune up tolerance;
2. When the minimum test separation distance is < 5 mm, a distance of 5 mm according to f) in section 4.1 is applied to determine SAR test exclusion.





6.2 Simultaneous Transmission for SAR Exclusion

The sample support one BT & BLE & 2.4G WLAN & 5.2G WLAN & 5.3G WLAN & 5.5G WLAN & 5.8G WLAN, one 2.4G WLAN & 5.2G WLAN & 5.3G WLAN & 5.5G WLAN & 5.8G WLAN, another one 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

<the worst simultaneous transmission operations result-2.4GWIFI<E>

2.4GWIFI-Ant 1	2.4GWIFI-Ant 2	LTE ANT	$\sum$ MPE ratios	Limit	Results
0.0100	0.0100	0.1908	0.2108	1.0	Pass

Remark:

1. Output power including tune-up tolerance;
2. BT/BLE/2.4G WIFI output power is burst peak power;
3. 5G WIFI output power is burst average power;
4. MPE evaluate distance is 20cm from user manual provide by manufacturer;
5. MPE values = $PG/4\pi R^2$
6. Both Bluetooth and WIFI cannot be transmitter simultaneously..

7. Conclusion

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

8. Description of Test Facility

NVLAP Accreditation Code is 600167-0.

FCC Designation Number is CN5024.

CAB identifier is CN0071.

CNAS Registration Number is L4595.

Test Firm Registration Number: 254912.

9. Measurement Uncertainty

BT&WIFI:

Test Item	Frequency Range	Uncertainty	Note
Output power	1GHz-40GHz	± 0.57 dB	(1)

(1). This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

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

