



RF Exposure Evaluation

For

Wacebo USA, Inc.

Interactive Flat Panel Display/Interactive LED Panel/Touch Screen
Monitor/Touch Screen/Touch Monitor/Interactive LED

Test Model: L1R-148A

Additional Model No.: Please Refer to Page 6

Prepared for : Wacebo USA, Inc.
Address : 8 The Green Ste R, Dover, DELAWARE, 19901 USA

Prepared by : Shenzhen LCS Compliance Testing Laboratory Ltd.
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Date of receipt of test sample : June 24, 2025
Number of tested samples : 2
Sample No. : A250610001-1, A250610001-2
Serial number : Prototype
Date of Test : June 24, 2025 ~ August 22, 2025
Date of Report : August 25, 2025



**RF Exposure Evaluation****Report Reference No.** : **LCSA06195145EH**

Date of Issue : August 25, 2025

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, ChinaTesting Location/ Procedure : Full application of Harmonised standards ■
Partial application of Harmonised standards □
Other standard testing method □**Applicant's Name** : **Wacebo USA, Inc.**

Address : 8 The Green Ste R, Dover, DELAWARE, 19901 USA

Test Specification

Standard : FCC CFR 47 PART 15 C(15.247)

Test Report Form No. : TRF-4-E-145 A/0

TRF Originator : Shenzhen LCS Compliance Testing Laboratory Ltd.

Master TRF : Dated 2011-03

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EUT Description. : **Interactive Flat Panel Display/Interactive LED Panel/Touch
Screen Monitor/Touch Screen/Touch Monitor/Interactive LED**

Trade Mark : DABLIU

Test Model : L1R-148A

Ratings : Please Refer to Page 6

Result : **PASS****Compiled by:**

Vera Deng/ Administrator

Supervised by:

Jack Liu/ Technique principal

Approved by:

Gavin Liang/ Manager





RF Exposure Evaluation

Test Report No. :	LCSA06195145EH	<u>August 25, 2025</u> Date of issue
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Test Model.....	: L1R-148A
EUT.....	: Interactive Flat Panel Display/Interactive LED Panel/Touch Screen Monitor/Touch Screen/Touch Monitor/Interactive LED
Applicant.....	: Wacebo USA, Inc.
Address.....	: 8 The Green Ste R, Dover, DELAWARE, 19901 USA
Telephone.....	: /
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Manufacturer.....	: Wacebo USA, Inc.
Address.....	: 8 The Green Ste R, Dover, DELAWARE, 19901 USA
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Factory.....	: Wacebo USA, Inc.
Address.....	: 8 The Green Ste R, Dover, DELAWARE, 19901 USA
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Fax.....	: /

Test Result	PASS
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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	August 25, 2025	Initial Issue	---





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1. Product Information

EUT	: Interactive Flat Panel Display/Interactive LED Panel/Touch Screen Monitor/Touch Screen/Touch Monitor/Interactive LED
Test Model	: L1R-148A
Additional Model No.	: L1R-147A, L1R-146A
Model Declaration	: Three models were tested for EMC differences due to different sizes and input parameters, and only the worst mode(model: L1R-148A)was recorded, PCB board, structure and internal of these model(s) are the same, no additional differences were tested for the RF portion.
Ratings	: L1R-148A : Input:100-240V~, 50/60Hz, 5.5A, Max 550W L1R-147A: Input:100-240V~, 50/60Hz, 4.8A, Max 480W L1R-146A: Input:100-240V~, 50/60Hz, 4.5A, Max 450W
Hardware Version	: /
Software Version	: /
Module model	: Module 1: WXT05R2601 Module 2: WXT52M2511
Bluetooth	:
Frequency Range	: 2402MHz~2480MHz
Channel Number	: 79 channels for Bluetooth V5.4 (DSS) 40 channels for Bluetooth V5.4 (DTS)
Channel Spacing	: 1MHz for Bluetooth V5.4 (DSS) 2MHz for Bluetooth V5.4 (DTS)
Modulation Type	: Module 1 & 2: GFSK, $\pi/4$ -DQPSK, 8-DPSK for Bluetooth V5.4 (DSS) GFSK for Bluetooth V5.4 (DTS)
Bluetooth Version	: V5.4
Antenna Description	: Module 1: Antenna1: Mdetal Antenna, 2.28dBi(Max.) Module 2: Antenna4: PCB Antenna, -1.77dBi(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	: Module 1 & 2: 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	: Module 1: Antenna2: Metal Antenna, 2.28dBi(Max.) Antenna3: Metal Antenna, 2.28dBi(Max.) Module 2: Antenna5: PCB Antenna, 2.98dBi(Max.) Antenna6: PCB Antenna, 2.78dBi(Max.)
WIFI(5.2G Band)	:
Frequency Range	: 5180MHz~5240MHz
Channel Number	: 4 Channels for 20MHz bandwidth(5180MHz~5240MHz)





Modulation Type	2 channels for 40MHz bandwidth(5190MHz~5230MHz)
	1 channels for 80MHz bandwidth(5210MHz)
Antenna Description	: Module 1 & 2: 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)
	: Module 1: Antenna2: Metal Antenna, 3.39dBi(Max.) Antenna3: Metal Antenna, 3.39dBi(Max.) Module 2: Antenna5: PCB Antenna, 3.93dBi(Max.) Antenna6: PCB Antenna, 3.87dBi(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	: Module 1 & 2: 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)
	: Module 1: Antenna2: Metal Antenna, 3.39dBi(Max.) Antenna3: Metal Antenna, 3.39dBi(Max.) Module 2: Antenna5: PCB Antenna, 3.93dBi(Max.) Antenna6: PCB Antenna, 3.87dBi(Max.)
WIFI(5.5G Band)	
Frequency Range	: 5500MHz~5700MHz
Channel Number	: Module 1 & 2: 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)
	: Module 1: Antenna2: Metal Antenna, 3.39dBi(Max.) Antenna3: Metal Antenna, 3.39dBi(Max.) Module 2: Antenna5: PCB Antenna, 3.93dBi(Max.) Antenna6: PCB Antenna, 3.87dBi(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	: Module 1 & 2: 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)
	: Module 1: Antenna2: Metal Antenna, 3.39dBi(Max.) Antenna3: Metal Antenna, 3.39dBi(Max.) Module 2: Antenna5: PCB Antenna, 3.93dBi(Max.) Antenna6: PCB Antenna, 3.87dBi(Max.)





Antenna Description : BPSK)
: Module 1:
Antenna2: Metal Antenna, 3.39dBi(Max.)
Antenna3: Metal Antenna, 3.39dBi(Max.)
Module 2:
Antenna5: PCB Antenna, 3.93dBi(Max.)
Antenna6: PCB Antenna, 3.87dBi(Max.)
Exposure category : General population/uncontrolled environment
EUT Type : Production Unit
Device Type : Mobile Device

Note: For a more detailed antenna description, please refer to the antenna specifications or the antenna report provided by the customer.

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 C95.1-2019](#): IEEE Standard for Safety Levels with Respect to Human Exposure to Electric, Magnetic, and Electromagnetic Fields, 0 Hz 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/Uncontrolled 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

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. Conducted Power

[BT]

Mode	Channel	Frequency (MHz)	Peak Conducted Output Power (dBm)	
			Ant1	Ant4
GFSK	0	2402	-1.02	-1.16
	39	2441	1.37	1.61
	78	2480	0.45	0.48
π/4DQPSK	0	2402	0.76	0.67
	39	2441	3.38	3.26
	78	2480	2.22	2.06
8DPSK	0	2402	1.03	1.03
	39	2441	3.79	3.6
	78	2480	2.54	2.34

[BLE]

Mode	Channel	Frequency (MHz)	Peak Conducted Output Power (dBm)	
			Ant1	Ant4
BLE 1M	0	2402	-1.94	-2.11
	19	2440	0.73	0.54
	39	2480	-0.15	-0.39
BLE 2M	0	2402	-2.02	-2.24
	19	2440	0.56	0.3
	39	2480	-0.3	-0.56





[2.4G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)	
			Ant2	Ant3
11B	1	2412	13.59	13.92
	6	2437	12.7	12.91
	11	2462	13.16	13.4
11G	1	2412	12.79	11.78
	6	2437	10.68	10.8
	11	2462	11.14	10.45
11N20 SISO	1	2412	11.92	12.09
	6	2437	11.01	11.11
	11	2462	13.34	12.52
11N40 SISO	3	2422	12.54	10.99
	6	2437	11.4	10.43
	9	2452	12.19	10.71
11AX20 SISO	1	2412	14.87	12.97
	6	2437	13.93	12.02
	11	2462	14.43	12.51
11AX40 SISO	3	2422	12.93	12.04
	6	2437	12.31	11.36
	9	2452	12.57	11.58

[2.4G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)	
			Ant5	Ant6
11B	1	2412	14.83	13.51
	6	2437	14.3	12.86
	11	2462	15.49	13.23
11G	1	2412	12.83	12.73
	6	2437	14.08	11.89
	11	2462	14.89	12.12
11N20 SISO	1	2412	12.4	13.2
	6	2437	14.06	12.22
	11	2462	16.98	14.26
11N40 SISO	3	2422	14.19	12.5
	6	2437	13.87	11.32
	9	2452	14.8	12.28
11AX20 SISO	1	2412	14.01	13.99
	6	2437	15.11	13.04
	11	2462	15.61	13.4
11AX40 SISO	3	2422	14.26	15.52
	6	2437	14.5	14.39
	9	2452	15.35	15.05





[5.2G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)	
			Ant2	Ant3
11A	36	5180	8.59	8.9
	40	5200	8.3	8.57
	48	5240	7.36	7.77
11N20 SISO	36	5180	9.16	9.11
	40	5200	8.92	8.89
	48	5240	8.08	8.1
11N40 SISO	38	5190	8.39	8.71
	46	5230	7.51	7.81
11AC20 SISO	36	5180	9.15	9.13
	40	5200	8.84	8.76
	48	5240	7.81	7.9
11AC40 SISO	38	5190	8.36	7.74
	46	5230	7.47	6.82
11AC80 SISO	42	5210	8.34	8.21
11AX20 SISO	36	5180	8.24	8.15
	40	5200	7.88	7.81
	48	5240	6.84	7.02
11AX40 SISO	38	5190	7.44	8.66
	46	5230	6.47	7.71
11AX80 SISO	42	5210	7.34	7.41

[5.2G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)	
			Ant5	Ant6
11A	36	5180	10.37	8.8
	40	5200	9.32	8.45
	48	5240	8.77	7.7
11N20 SISO	36	5180	9.65	9.14
	40	5200	9.75	8.86
	48	5240	8.87	8.01
11N40 SISO	38	5190	8.35	10.07
	46	5230	7.69	9.22
11AC20 SISO	36	5180	9.87	9.08
	40	5200	9.43	8.85
	48	5240	8.81	7.94
11AC40 SISO	38	5190	8.44	10.18
	46	5230	7.57	9.2
11AC80 SISO	42	5210	7.78	9.63
11AX20 SISO	36	5180	8.59	10.47
	40	5200	8.24	10.12
	48	5240	7.55	9.17
11AX40 SISO	38	5190	8.41	8.87
	46	5230	8.15	8.02
11AX80 SISO	42	5210	7.87	9.65





[5.3G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)	
			Ant2	Ant3
IEEE 802.11a	52	5260	9.09	10.5
	60	5280	9.42	10.93
	64	5320	9.81	11.45
11N20 SISO	52	5260	9.44	11.03
	60	5280	9.69	11.25
	64	5320	10.09	11.79
11N40 SISO	54	5270	9.04	10.42
	62	5310	9.83	11.08
11AC20 SISO	52	5260	9.32	10.92
	60	5280	9.76	11.38
	64	5320	10.18	11.71
11AC40 SISO	54	5270	8.83	10.39
	62	5310	9.91	11.06
11AC80 SISO	58	5290	9.97	11.06
11AX20 SISO	52	5260	10.84	11.18
	60	5280	10.87	11.24
	64	5320	11.3	11.66
11AX40 SISO	54	5270	10.49	10.46
	62	5310	10.94	11.07
11AX80 SISO	58	5290	11.1	9.83

[5.3G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)	
			Ant5	Ant6
IEEE 802.11a	52	5260	13.08	10.55
	60	5280	14.03	10.73
	64	5320	11.12	10.21
11N20 SISO	52	5260	11.01	10.82
	60	5280	11.26	10.82
	64	5320	11.45	10.68
11N40 SISO	54	5270	10.48	7.66
	62	5310	11.27	8.34
11AC20 SISO	52	5260	11.15	10.57
	60	5280	11.32	10.71
	64	5320	11.4	11.1
11AC40 SISO	54	5270	10.52	8.65
	62	5310	11.29	9.31
11AC80 SISO	58	5290	11.33	9.39
11AX20 SISO	52	5260	11.3	9.6
	60	5280	11.39	9.22
	64	5320	11.48	9.53
11AX40 SISO	54	5270	9.41	8.76
	62	5310	10	9.48
11AX80 SISO	58	5290	10.12	9.53





[5.5G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)	
			Ant2	Ant3
11A	100	5500	9.54	8.65
	116	5580	10.12	9.21
	140	5700	9.54	8.6
11N20 SISO	100	5500	10.26	9.36
	116	5580	10.36	9.43
	140	5700	10.41	9.45
11N40 SISO	102	5510	7.33	8.75
	110	5550	7.16	8.5
	134	5670	8.1	9.32
11AC20 SISO	100	5500	7.67	9.27
	116	5580	7.92	9.36
	140	5700	8.03	9.42
11AC40 SISO	102	5510	7.35	8.75
	110	5550	7.18	8.52
	134	5670	8.11	10.35
11AC80 SISO	106	5530	7.44	9.67
	122	5610	7.92	10.14
11AX20 SISO	100	5500	8.99	11.26
	116	5580	9.58	11.39
	140	5700	9.04	11.37
11AX40 SISO	102	5510	8.43	8.55
	110	5550	8.28	8.37
	134	5670	9.1	9.29
11AX80 SISO	106	5530	8.58	8.76
	122	5610	8.98	9.04

[5.5G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)	
			Ant5	Ant6
11A	100	5500	12.76	13.08
	116	5580	13.14	13.08
	140	5700	13.22	13.23
11N20 SISO	100	5500	12.24	13.36
	116	5580	12.38	13.38
	140	5700	12.41	13.67
11N40 SISO	102	5510	11.14	11.76
	110	5550	11.1	11.59
	134	5670	12.04	12.48
11AC20 SISO	100	5500	11.8	12.23
	116	5580	12.1	12.23
	140	5700	11.99	12.45
11AC40 SISO	102	5510	11.24	11.85
	110	5550	11.08	11.6
	134	5670	12.21	12.51
11AC80 SISO	106	5530	10.76	11.82
	122	5610	11.1	12.21
11AX20 SISO	100	5500	11.52	13.51
	116	5580	11.53	13.6
	140	5700	11.55	12.64
11AX40 SISO	102	5510	11.02	10.88
	110	5550	10.71	10.67
	134	5670	11.77	11.57
11AX80 SISO	106	5530	10.97	10.53
	122	5610	11.44	10.9





[5.8G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)	
			Ant2	Ant3
11A	149	5745	9.31	9.41
	157	5785	8.83	8.61
	165	5825	8.94	8.71
11N20 SISO	149	5745	9.75	9.62
	157	5785	9.04	8.84
	165	5825	9.09	9.03
11N40 SISO	151	5755	10.55	10.41
	159	5795	9.76	9.55
11AC20 SISO	149	5745	9.71	9.58
	157	5785	9.04	8.83
	165	5825	9.13	8.99
11AC40 SISO	151	5755	9.4	10.42
	159	5795	8.55	9.57
11AC80 SISO	155	5775	9.99	8.68
11AX20 SISO	149	5745	10.85	10.74
	157	5785	10.08	9.93
	165	5825	10.1	10.08
11AX40 SISO	151	5755	10.53	9.25
	159	5795	9.73	8.47
11AX80 SISO	155	5775	8.68	8.57

[5.8G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)	
			Ant5	Ant6
11A	149	5745	10.39	9.08
	157	5785	9.61	8.55
	165	5825	10.05	8.62
11N20 SISO	149	5745	10.71	9.21
	157	5785	10	8.51
	165	5825	10.14	8.65
11N40 SISO	151	5755	8.75	8.73
	159	5795	8	8.33
11AC20 SISO	149	5745	10.71	9.52
	157	5785	10.25	8.92
	165	5825	10.7	9.06
11AC40 SISO	151	5755	8.64	10.52
	159	5795	7.99	9.54
11AC80 SISO	155	5775	8.07	9.55
11AX20 SISO	149	5745	10.01	9.67
	157	5785	8.03	8.96
	165	5825	8.6	9.05
11AX40 SISO	151	5755	8.68	9.25
	159	5795	8.01	8.41
11AX80 SISO	155	5775	8.02	9.27





6. Manufacturing Tolerance

[BT Ant1]

GFSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	-1.0	1.0	0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
$\pi/4$ DQPSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	0	3.0	2.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
8DPSK (Peak)			
Channel	Channel 0	Channel 19	Channel 39
Target (dBm)	1.0	3.0	2.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0

[BT Ant4]

GFSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	-1.0	1.0	0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
$\pi/4$ DQPSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	0	3.0	2.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
8DPSK (Peak)			
Channel	Channel 0	Channel 19	Channel 39
Target (dBm)	1.0	3.0	2.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0

[BLE Ant1]

BLE 1M (Peak)			
Channel	Channel 0	Channel 19	Channel 39
Target (dBm)	-1.0	0	0
Tolerance $\pm$ (dB)	1.0	1.0	1.0

BLE 2M (Peak)			
Channel	Channel 0	Channel 19	Channel 39
Target (dBm)	-2.0	0	0
Tolerance $\pm$ (dB)	1.0	1.0	1.0





[BLE Ant4]

BLE 1M (Peak)

Channel	Channel 0	Channel 19	Channel 39
Target (dBm)	-2.0	0	0
Tolerance $\pm$ (dB)	1.0	1.0	1.0

BLE 2M (Peak)

Channel	Channel 0	Channel 19	Channel 39
Target (dBm)	-2.0	0	0
Tolerance $\pm$ (dB)	1.0	1.0	1.0

[2.4G WIFI Ant2]

11B (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

11G (Peak)

Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	12.0	10.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0

11N20 (Peak)

Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	11.0	11.0	13.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0

11N40 (Peak)

Channel	Channel 3	Channel 6	Channel 9
Target (dBm)	12.0	11.0	12.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0

11AX20 (Peak)

Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	14.0	13.0	14.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0

11AX40 (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

[2.4G WIFI Ant3]

11B (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

11G (Peak)

Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	11.0	10.0	10.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0

11N20 (Peak)

Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	12.0	11.0	12.0





Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N40 (Peak)			
Channel	Channel 3	Channel 6	Channel 9
Target (dBm)	10.0	10.0	10.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AX20 (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	12.0	12.0	12.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AX40 (Peak)			
Channel	Channel 3	Channel 6	Channel 9
Target (dBm)	12.0	11.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0

[2.4G WIFI Ant5]

11B (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	14.0	14.0	15.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11G (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	12.0	14.0	14.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N20 (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	12.0	14.0	16.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N40 (Peak)			
Channel	Channel 3	Channel 6	Channel 9
Target (dBm)	14.0	13.0	14.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AX20 (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	14.0	15.0	15.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AX40 (Peak)			
Channel	Channel 3	Channel 6	Channel 9
Target (dBm)	14.0	15.0	15.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0

[2.4G WIFI Ant6]

11B (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
11G (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	12.0	11.0	12.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0





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

[5.2G WIFI Ant2]			
11A (Average)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	8.0	8.0	7.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N20 (Average)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	9.0	8.0	8.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N40 (Average)			
Channel	Channel 38	Channel 46	
Target (dBm)	8.0	7.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AC20 (Average)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	9.0	8.0	7.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AC40 (Average)			
Channel	Channel 38	Channel 46	
Target (dBm)	8.0	7.0	
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)	8.0	7.0	6.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AX40 (Average)			
Channel	Channel 38	Channel 46	





Target (dBm)	7.0	6.0
Tolerance $\pm$ (dB)	1.0	1.0
11AX80 (Average)		
Channel	Channel 42	
Target (dBm)	7.0	
Tolerance $\pm$ (dB)	1.0	

[5.2G WIFI Ant3]

11A (Average)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	8.0	8.0	7.0
Tolerance ±(dB)	1.0	1.0	1.0
11N20 (Average)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	9.0	8.0	8.0
Tolerance ±(dB)	1.0	1.0	1.0
11N40 (Average)			
Channel	Channel 38	Channel 46	
Target (dBm)	8.0	7.0	
Tolerance ±(dB)	1.0	1.0	
11AC20 (Average)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	9.0	8.0	7.0
Tolerance ±(dB)	1.0	1.0	1.0
11AC40 (Average)			
Channel	Channel 38	Channel 46	
Target (dBm)	7.0	6.0	
Tolerance ±(dB)	1.0	1.0	
11AC80 (Average)			
Channel	Channel 42		
Target (dBm)	8.0		
Tolerance ±(dB)	1.0		
11AX20 (Average)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	8.0	7.0	7.0
Tolerance ±(dB)	1.0	1.0	1.0
11AX40 (Average)			
Channel	Channel 38	Channel 46	
Target (dBm)	8.0	7.0	
Tolerance ±(dB)	1.0	1.0	
11AX80 (Average)			
Channel	Channel 42		
Target (dBm)	7.0		
Tolerance ±(dB)	1.0		





[5.2G WIFI Ant5]

11A (Average)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	10.0	9.0	8.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N20 (Average)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	9.0	9.0	8.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N40 (Average)			
Channel	Channel 38	Channel 46	
Target (dBm)	8.0	7.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AC20 (Average)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	9.0	9.0	8.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AC40 (Average)			
Channel	Channel 38	Channel 46	
Target (dBm)	8.0	7.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AC80 (Average)			
Channel	Channel 42		
Target (dBm)	7.0		
Tolerance $\pm$ (dB)	1.0		
11AX20 (Average)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	8.0	8.0	7.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AX40 (Average)			
Channel	Channel 38	Channel 46	
Target (dBm)	8.0	8.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AX80 (Average)			
Channel	Channel 42		
Target (dBm)	7.0		
Tolerance $\pm$ (dB)	1.0		





[5.2G WIFI Ant6]

11A (Average)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	8.0	8.0	7.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N20 (Average)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	9.0	8.0	8.0
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)	8.0	8.0	7.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AC40 (Average)			
Channel	Channel 38	Channel 46	
Target (dBm)	10.0	9.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AC80 (Average)			
Channel	Channel 42		
Target (dBm)	9.0		
Tolerance $\pm$ (dB)	1.0		
11AX20 (Average)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	10.0	10.0	9.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AX40 (Average)			
Channel	Channel 38	Channel 46	
Target (dBm)	8.0	8.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AX80 (Average)			
Channel	Channel 42		
Target (dBm)	9.0		
Tolerance $\pm$ (dB)	1.0		





[5.3G WIFI Ant2]

11A (Average)			
Channel	Channel 52	Channel 60	Channel 64
Target (dBm)	9.0	9.0	9.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N HT20 (Average)			
Channel	Channel 52	Channel 60	Channel 64
Target (dBm)	9.0	10.0	9.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N HT40 (Average)			
Channel	Channel 54	Channel 62	
Target (dBm)	9.0	9.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AC VHT20 (Average)			
Channel	Channel 52	Channel 60	Channel 64
Target (dBm)	9.0	9.0	10.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AC VHT40 (Average)			
Channel	Channel 54	Channel 62	
Target (dBm)	8.0	9.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AC VHT80 (Average)			
Channel	Channel 58		
Target (dBm)	9.0		
Tolerance $\pm$ (dB)	1.0		
11AX VHT20 (Average)			
Channel	Channel 52	Channel 60	Channel 64
Target (dBm)	10.0	10.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AX VHT40 (Average)			
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)	11.0		
Tolerance $\pm$ (dB)	1.0		





[5.3G WIFI Ant3]

11A (Average)			
Channel	Channel 52	Channel 60	Channel 64
Target (dBm)	10.0	10.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N HT20 (Average)			
Channel	Channel 52	Channel 60	Channel 64
Target (dBm)	11.0	11.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N HT40 (Average)			
Channel	Channel 54	Channel 62	
Target (dBm)	10.0	11.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AC VHT20 (Average)			
Channel	Channel 52	Channel 60	Channel 64
Target (dBm)	10.0	10.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AC VHT40 (Average)			
Channel	Channel 54	Channel 62	
Target (dBm)	10.0	11.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AC VHT80 (Average)			
Channel	Channel 58		
Target (dBm)	11.0		
Tolerance $\pm$ (dB)	1.0		
11AX VHT20 (Average)			
Channel	Channel 52	Channel 60	Channel 64
Target (dBm)	11.0	11.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AX VHT40 (Average)			
Channel	Channel 54	Channel 62	
Target (dBm)	10.0	11.0	
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 Ant5]

11A (Average)			
Channel	Channel 52	Channel 60	Channel 64
Target (dBm)	13.0	14.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N HT20 (Average)			
Channel	Channel 52	Channel 60	Channel 64
Target (dBm)	11.0	11.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N HT40 (Average)			
Channel	Channel 54	Channel 62	
Target (dBm)	10.0	11.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AC VHT20 (Average)			
Channel	Channel 52	Channel 60	Channel 64
Target (dBm)	11.0	11.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AC VHT40 (Average)			
Channel	Channel 54	Channel 62	
Target (dBm)	10.0	11.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AC VHT80 (Average)			
Channel	Channel 58		
Target (dBm)	11.0		
Tolerance $\pm$ (dB)	1.0		
11AX VHT20 (Average)			
Channel	Channel 52	Channel 60	Channel 64
Target (dBm)	11.0	11.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AX VHT40 (Average)			
Channel	Channel 54	Channel 62	
Target (dBm)	9.0	10.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AX VHT80 (Average)			
Channel	Channel 58		
Target (dBm)	10.0		
Tolerance $\pm$ (dB)	1.0		





[5.3G WIFI Ant6]

11A (Average)			
Channel	Channel 52	Channel 60	Channel 64
Target (dBm)	10.0	10.0	10.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N HT20 (Average)			
Channel	Channel 52	Channel 60	Channel 64
Target (dBm)	10.0	10.0	10.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N HT40 (Average)			
Channel	Channel 54	Channel 62	
Target (dBm)	7.0	8.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AC VHT20 (Average)			
Channel	Channel 52	Channel 60	Channel 64
Target (dBm)	10.0	10.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AC VHT40 (Average)			
Channel	Channel 54	Channel 62	
Target (dBm)	8.0	9.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AC VHT80 (Average)			
Channel	Channel 58		
Target (dBm)	9.0		
Tolerance $\pm$ (dB)	1.0		
11AX VHT20 (Average)			
Channel	Channel 52	Channel 60	Channel 64
Target (dBm)	9.0	9.0	9.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AX VHT40 (Average)			
Channel	Channel 54	Channel 62	
Target (dBm)	8.0	9.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AX VHT80 (Average)			
Channel	Channel 58		
Target (dBm)	9.0		
Tolerance $\pm$ (dB)	1.0		





[5.5G WIFI Ant2]

11A (Average)			
Channel	Channel 100	Channel 116	Channel 140
Target (dBm)	9.0	10.0	10.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N HT20 (Average)			
Channel	Channel 100	Channel 116	Channel 140
Target (dBm)	10.0	10.0	10.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N HT40 (Average)			
Channel	Channel 102	Channel 110	Channel 134
Target (dBm)	7.0	7.0	8.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AC VHT20 (Average)			
Channel	Channel 100	Channel 116	Channel 140
Target (dBm)	7.0	7.0	8.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AC HT40 (Average)			
Channel	Channel 102	Channel 110	Channel 134
Target (dBm)	7.0	7.0	8.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AC VHT80 (Average)			
Channel	Channel 106	Channel 122	
Target (dBm)	7.0	7.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AX VHT20 (Average)			
Channel	Channel 100	Channel 116	Channel 140
Target (dBm)	8.0	9.0	9.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AX HT40 (Average)			
Channel	Channel 102	Channel 110	Channel 134
Target (dBm)	8.0	8.0	9.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AX VHT80 (Average)			
Channel	Channel 106	Channel 122	
Target (dBm)	8.0	8.0	
Tolerance $\pm$ (dB)	1.0	1.0	





[5.5G WIFI Ant3]

11A (Average)			
Channel	Channel 100	Channel 116	Channel 140
Target (dBm)	8.0	9.0	8.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N HT20 (Average)			
Channel	Channel 100	Channel 116	Channel 140
Target (dBm)	9.0	9.0	9.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N HT40 (Average)			
Channel	Channel 102	Channel 110	Channel 134
Target (dBm)	8.0	8.0	9.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AC VHT20 (Average)			
Channel	Channel 100	Channel 116	Channel 140
Target (dBm)	9.0	9.0	9.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AC HT40 (Average)			
Channel	Channel 102	Channel 110	Channel 134
Target (dBm)	8.0	8.0	10.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AC VHT80 (Average)			
Channel	Channel 106	Channel 122	
Target (dBm)	9.0	10.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AX VHT20 (Average)			
Channel	Channel 100	Channel 116	Channel 140
Target (dBm)	11.0	11.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AX HT40 (Average)			
Channel	Channel 102	Channel 110	Channel 134
Target (dBm)	8.0	8.0	9.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AX VHT80 (Average)			
Channel	Channel 106	Channel 122	
Target (dBm)	8.0	9.0	
Tolerance $\pm$ (dB)	1.0	1.0	





[5.5G WIFI Ant5]

11A (Average)			
Channel	Channel 100	Channel 116	Channel 140
Target (dBm)	12.0	13.0	13.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N HT20 (Average)			
Channel	Channel 100	Channel 116	Channel 140
Target (dBm)	12.0	12.0	12.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N HT40 (Average)			
Channel	Channel 102	Channel 110	Channel 134
Target (dBm)	11.0	12.0	12.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AC VHT20 (Average)			
Channel	Channel 100	Channel 116	Channel 140
Target (dBm)	11.0	12.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AC HT40 (Average)			
Channel	Channel 102	Channel 110	Channel 134
Target (dBm)	11.0	11.0	12.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AC VHT80 (Average)			
Channel	Channel 106	Channel 122	
Target (dBm)	10.0	11.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AX VHT20 (Average)			
Channel	Channel 100	Channel 116	Channel 140
Target (dBm)	11.0	11.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AX HT40 (Average)			
Channel	Channel 102	Channel 110	Channel 134
Target (dBm)	11.0	10.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AX VHT80 (Average)			
Channel	Channel 106	Channel 122	
Target (dBm)	10.0	11.0	
Tolerance $\pm$ (dB)	1.0	1.0	





[5.5G WIFI Ant6]

11A (Average)			
Channel	Channel 100	Channel 116	Channel 140
Target (dBm)	13.0	13.0	13.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N HT20 (Average)			
Channel	Channel 100	Channel 116	Channel 140
Target (dBm)	13.0	13.0	13.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N HT40 (Average)			
Channel	Channel 102	Channel 110	Channel 134
Target (dBm)	11.0	11.0	12.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AC VHT20 (Average)			
Channel	Channel 100	Channel 116	Channel 140
Target (dBm)	12.0	12.0	12.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AC HT40 (Average)			
Channel	Channel 102	Channel 110	Channel 134
Target (dBm)	11.0	11.0	12.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AC VHT80 (Average)			
Channel	Channel 106	Channel 122	
Target (dBm)	11.0	12.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AX VHT20 (Average)			
Channel	Channel 100	Channel 116	Channel 140
Target (dBm)	13.0	13.0	12.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AX HT40 (Average)			
Channel	Channel 102	Channel 110	Channel 134
Target (dBm)	10.0	10.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AX VHT80 (Average)			
Channel	Channel 106	Channel 122	
Target (dBm)	10.0	10.0	
Tolerance $\pm$ (dB)	1.0	1.0	





[5.8G WIFI Ant2]

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





[5.8G WIFI Ant3]

11A (Average)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	9.0	9.0	8.0
Tolerance ±(dB)	1.0	1.0	1.0
11N20 (Average)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	9.0	8.0	9.0
Tolerance ±(dB)	1.0	1.0	1.0
11N40 (Average)			
Channel	Channel 151	Channel 159	
Target (dBm)	10.0	9.0	
Tolerance ±(dB)	1.0	1.0	
11AC20 (Average)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	9.0	8.0	8.0
Tolerance ±(dB)	1.0	1.0	1.0
11AC40 (Average)			
Channel	Channe151	Channel 159	
Target (dBm)	10.0	9.0	
Tolerance ±(dB)	1.0	1.0	
11AC80 (Average)			
Channel	Channel 155		
Target (dBm)	8.0		
Tolerance ±(dB)	1.0		
11AX20 (Average)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	10.0	9.0	10.0
Tolerance ±(dB)	1.0	1.0	1.0
11AX40 (Average)			
Channel	Channe151	Channel 159	
Target (dBm)	9.0	8.0	
Tolerance ±(dB)	1.0	1.0	
11AX80 (Average)			
Channel	Channel 155		
Target (dBm)	8.0		
Tolerance ±(dB)	1.0		





[5.8G WIFI Ant5]

11A (Average)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	10.0	9.0	10.0
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)	8.0	8.0	
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)	8.0	7.0	
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	8.0	8.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AX40 (Average)			
Channel	Channel 151	Channel 159	
Target (dBm)	8.0	8.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AX80 (Average)			
Channel	Channel 155		
Target (dBm)	8.0		
Tolerance $\pm$ (dB)	1.0		





[5.8G WIFI Ant6]

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





7. Measurement Results

7.1 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.

[BT Ant1]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
GFSK	2.0	1.5849	2.28	1.6904	0.0005	1.0000
$\pi/4$ -DQPSK	4.0	2.5119	2.28	1.6904	0.0008	1.0000
8-DPSK	4.0	2.5119	2.28	1.6904	0.0008	1.0000

[BT Ant4]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
GFSK	2.0	1.5849	-1.77	0.6653	0.0002	1.0000
$\pi/4$ -DQPSK	4.0	2.5119	-1.77	0.6653	0.0003	1.0000
8-DPSK	4.0	2.5119	-1.77	0.6653	0.0003	1.0000

[BLE 1M Ant1]

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	2.28	1.6904	0.0004	1.0000

[BLE 2M Ant1]

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	2.28	1.6904	0.0004	1.0000

[BLE 1M Ant4]

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	-1.77	0.6653	0.0002	1.0000

[BLE 2M Ant4]

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	-1.77	0.6653	0.0002	1.0000





[2.4G WIFI Ant2]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11b	14.0	25.1189	2.28	1.6904	0.0085	1.0000
IEEE 802.11g	13.0	19.9526	2.28	1.6904	0.0067	1.0000
IEEE 802.11n HT20	14.0	25.1189	2.28	1.6904	0.0085	1.0000
IEEE 802.11n HT40	13.0	19.9526	2.28	1.6904	0.0067	1.0000
IEEE 802.11ax HEW20	15.0	31.6228	2.28	1.6904	0.0106	1.0000
IEEE 802.11ax HEW40	13.0	19.9526	2.28	1.6904	0.0067	1.0000

[2.4G WIFI Ant3]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11b	14.0	25.1189	2.28	1.6904	0.0084	1.0000
IEEE 802.11g	12.0	15.8489	2.28	1.6904	0.0053	1.0000
IEEE 802.11n HT20	13.0	19.9526	2.28	1.6904	0.0067	1.0000
IEEE 802.11n HT40	11.0	12.5893	2.28	1.6904	0.0042	1.0000
IEEE 802.11ax HEW20	13.0	19.9526	2.28	1.6904	0.0067	1.0000
IEEE 802.11ax HEW40	13.0	19.9526	2.28	1.6904	0.0067	1.0000

[2.4G WIFI Ant5]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11b	16.0	39.8107	2.98	1.9861	0.0157	1.0000
IEEE 802.11g	15.0	31.6228	2.98	1.9861	0.0125	1.0000
IEEE 802.11n HT20	17.0	50.1187	2.98	1.9861	0.0198	1.0000
IEEE 802.11n HT40	15.0	31.6228	2.98	1.9861	0.0125	1.0000
IEEE 802.11ax HEW20	16.0	39.8107	2.98	1.9861	0.0157	1.0000
IEEE 802.11ax HEW40	16.0	39.8107	2.98	1.9861	0.0157	1.0000

[2.4G WIFI Ant6]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11b	14.0	25.1189	2.78	1.8967	0.0095	1.0000
IEEE 802.11g	13.0	19.9526	2.78	1.8967	0.0075	1.0000
IEEE 802.11n HT20	15.0	31.6228	2.78	1.8967	0.0119	1.0000
IEEE 802.11n HT40	13.0	19.9526	2.78	1.8967	0.0075	1.0000
IEEE 802.11ax HEW20	14.0	25.1189	2.78	1.8967	0.0095	1.0000
IEEE 802.11ax HEW40	16.0	39.8107	2.78	1.8967	0.0150	1.0000

[5.2G WIFI Ant2]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11a	9.0	7.9433	3.39	2.1827	0.0035	1.0000
IEEE 802.11n HT20	10.0	10.0000	3.39	2.1827	0.0043	1.0000
IEEE 802.11n HT40	9.0	7.9433	3.39	2.1827	0.0035	1.0000
IEEE 802.11ac VHT20	10.0	10.0000	3.39	2.1827	0.0043	1.0000
IEEE 802.11ac VHT40	9.0	7.9433	3.39	2.1827	0.0035	1.0000
IEEE 802.11ac VHT80	9.0	7.9433	3.39	2.1827	0.0035	1.0000
IEEE 802.11ax HEW20	9.0	7.9433	3.39	2.1827	0.0035	1.0000
IEEE 802.11ax HEW40	8.0	6.3096	3.39	2.1827	0.0027	1.0000
IEEE 802.11ax HEW80	8.0	6.3096	3.39	2.1827	0.0027	1.0000





[5.2G WIFI Ant3]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11a	9.0	7.9433	3.39	2.1827	0.0034	1.0000
IEEE 802.11n HT20	10.0	10.0000	3.39	2.1827	0.0043	1.0000
IEEE 802.11n HT40	9.0	7.9433	3.39	2.1827	0.0034	1.0000
IEEE 802.11ac VHT20	10.0	10.0000	3.39	2.1827	0.0043	1.0000
IEEE 802.11ac VHT40	8.0	6.3096	3.39	2.1827	0.0027	1.0000
IEEE 802.11ac VHT80	9.0	7.9433	3.39	2.1827	0.0034	1.0000
IEEE 802.11ax HEW20	9.0	7.9433	3.39	2.1827	0.0034	1.0000
IEEE 802.11ax HEW40	9.0	7.9433	3.39	2.1827	0.0034	1.0000
IEEE 802.11ax HEW80	8.0	6.3096	3.39	2.1827	0.0027	1.0000

[5.2G WIFI Ant5]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11a	11.0	12.5893	3.93	2.4717	0.0062	1.0000
IEEE 802.11n HT20	10.0	10.0000	3.93	2.4717	0.0049	1.0000
IEEE 802.11n HT40	9.0	7.9433	3.93	2.4717	0.0039	1.0000
IEEE 802.11ac VHT20	10.0	10.0000	3.93	2.4717	0.0049	1.0000
IEEE 802.11ac VHT40	9.0	7.9433	3.93	2.4717	0.0039	1.0000
IEEE 802.11ac VHT80	8.0	6.3096	3.93	2.4717	0.0031	1.0000
IEEE 802.11ax HEW20	9.0	7.9433	3.93	2.4717	0.0039	1.0000
IEEE 802.11ax HEW40	9.0	7.9433	3.93	2.4717	0.0039	1.0000
IEEE 802.11ax HEW80	8.0	6.3096	3.93	2.4717	0.0031	1.0000

[5.2G WIFI Ant6]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11a	9.0	7.9433	3.87	2.4378	0.0039	1.0000
IEEE 802.11n HT20	10.0	10.0000	3.87	2.4378	0.0049	1.0000
IEEE 802.11n HT40	11.0	12.5893	3.87	2.4378	0.0061	1.0000
IEEE 802.11ac VHT20	9.0	7.9433	3.87	2.4378	0.0039	1.0000
IEEE 802.11ac VHT40	11.0	12.5893	3.87	2.4378	0.0061	1.0000
IEEE 802.11ac VHT80	10.0	10.0000	3.87	2.4378	0.0049	1.0000
IEEE 802.11ax HEW20	11.0	12.5893	3.87	2.4378	0.0061	1.0000
IEEE 802.11ax HEW40	9.0	7.9433	3.87	2.4378	0.0039	1.0000
IEEE 802.11ax HEW80	10.0	10.0000	3.87	2.4378	0.0049	1.0000

[5.3G WIFI Ant2]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11a	10.0	10.0000	3.39	2.1827	0.0043	1.0000
IEEE 802.11n HT20	11.0	12.5893	3.39	2.1827	0.0055	1.0000
IEEE 802.11n HT40	10.0	10.0000	3.39	2.1827	0.0043	1.0000
IEEE 802.11ac VHT20	11.0	12.5893	3.39	2.1827	0.0055	1.0000
IEEE 802.11ac VHT40	10.0	10.0000	3.39	2.1827	0.0043	1.0000
IEEE 802.11ac VHT80	10.0	10.0000	3.39	2.1827	0.0043	1.0000
IEEE 802.11ax HEW20	12.0	15.8489	3.39	2.1827	0.0069	1.0000
IEEE 802.11ax HEW40	11.0	12.5893	3.39	2.1827	0.0055	1.0000
IEEE 802.11ax HEW80	12.0	15.8489	3.39	2.1827	0.0069	1.0000





[5.3G WIFI Ant3]

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	3.39	2.1827	0.0069	1.0000
IEEE 802.11n HT20	12.0	15.8489	3.39	2.1827	0.0069	1.0000
IEEE 802.11n HT40	12.0	15.8489	3.39	2.1827	0.0069	1.0000
IEEE 802.11ac VHT20	12.0	15.8489	3.39	2.1827	0.0069	1.0000
IEEE 802.11ac VHT40	12.0	15.8489	3.39	2.1827	0.0069	1.0000
IEEE 802.11ac VHT80	12.0	15.8489	3.39	2.1827	0.0069	1.0000
IEEE 802.11ax HEW20	12.0	15.8489	3.39	2.1827	0.0069	1.0000
IEEE 802.11ax HEW40	12.0	15.8489	3.39	2.1827	0.0069	1.0000
IEEE 802.11ax HEW80	10.0	10.0000	3.39	2.1827	0.0043	1.0000

[5.3G WIFI Ant5]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11a	15.0	31.6228	3.93	2.4717	0.0156	1.0000
IEEE 802.11n HT20	12.0	15.8489	3.93	2.4717	0.0078	1.0000
IEEE 802.11n HT40	12.0	15.8489	3.93	2.4717	0.0078	1.0000
IEEE 802.11ac VHT20	12.0	15.8489	3.93	2.4717	0.0078	1.0000
IEEE 802.11ac VHT40	12.0	15.8489	3.93	2.4717	0.0078	1.0000
IEEE 802.11ac VHT80	12.0	15.8489	3.93	2.4717	0.0078	1.0000
IEEE 802.11ax HEW20	12.0	15.8489	3.93	2.4717	0.0078	1.0000
IEEE 802.11ax HEW40	11.0	12.5893	3.93	2.4717	0.0062	1.0000
IEEE 802.11ax HEW80	11.0	12.5893	3.93	2.4717	0.0062	1.0000

[5.3G WIFI Ant6]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11a	11.0	12.5893	3.87	2.4378	0.0061	1.0000
IEEE 802.11n HT20	11.0	12.5893	3.87	2.4378	0.0061	1.0000
IEEE 802.11n HT40	9.0	7.9433	3.87	2.4378	0.0039	1.0000
IEEE 802.11ac VHT20	12.0	15.8489	3.87	2.4378	0.0077	1.0000
IEEE 802.11ac VHT40	10.0	10.0000	3.87	2.4378	0.0049	1.0000
IEEE 802.11ac VHT80	10.0	10.0000	3.87	2.4378	0.0049	1.0000
IEEE 802.11ax HEW20	10.0	10.0000	3.87	2.4378	0.0049	1.0000
IEEE 802.11ax HEW40	10.0	10.0000	3.87	2.4378	0.0049	1.0000
IEEE 802.11ax HEW80	10.0	10.0000	3.87	2.4378	0.0049	1.0000

[5.5G WIFI Ant2]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11a	11.0	12.5893	3.39	2.1827	0.0055	1.0000
IEEE 802.11n HT20	11.0	12.5893	3.39	2.1827	0.0055	1.0000
IEEE 802.11n HT40	9.0	7.9433	3.39	2.1827	0.0035	1.0000
IEEE 802.11ac VHT20	9.0	7.9433	3.39	2.1827	0.0035	1.0000
IEEE 802.11ac VHT40	9.0	7.9433	3.39	2.1827	0.0035	1.0000
IEEE 802.11ac VHT80	8.0	6.3096	3.39	2.1827	0.0027	1.0000
IEEE 802.11ax HEW20	10.0	10.0000	3.39	2.1827	0.0043	1.0000
IEEE 802.11ax HEW40	10.0	10.0000	3.39	2.1827	0.0043	1.0000
IEEE 802.11ax HEW80	9.0	7.9433	3.39	2.1827	0.0035	1.0000





[5.5G WIFI Ant3]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11a	10.0	10.0000	3.39	2.1827	0.0043	1.0000
IEEE 802.11n HT20	10.0	10.0000	3.39	2.1827	0.0043	1.0000
IEEE 802.11n HT40	10.0	10.0000	3.39	2.1827	0.0043	1.0000
IEEE 802.11ac VHT20	10.0	10.0000	3.39	2.1827	0.0043	1.0000
IEEE 802.11ac VHT40	11.0	12.5893	3.39	2.1827	0.0055	1.0000
IEEE 802.11ac VHT80	11.0	12.5893	3.39	2.1827	0.0055	1.0000
IEEE 802.11ax HEW20	12.0	15.8489	3.39	2.1827	0.0069	1.0000
IEEE 802.11ax HEW40	10.0	10.0000	3.39	2.1827	0.0043	1.0000
IEEE 802.11ax HEW80	10.0	10.0000	3.39	2.1827	0.0043	1.0000

[5.5G WIFI Ant5]

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	3.93	2.4717	0.0124	1.0000
IEEE 802.11n HT20	13.0	19.9526	3.93	2.4717	0.0098	1.0000
IEEE 802.11n HT40	13.0	19.9526	3.93	2.4717	0.0098	1.0000
IEEE 802.11ac VHT20	13.0	19.9526	3.93	2.4717	0.0098	1.0000
IEEE 802.11ac VHT40	13.0	19.9526	3.93	2.4717	0.0098	1.0000
IEEE 802.11ac VHT80	12.0	15.8489	3.93	2.4717	0.0078	1.0000
IEEE 802.11ax HEW20	12.0	15.8489	3.93	2.4717	0.0078	1.0000
IEEE 802.11ax HEW40	12.0	15.8489	3.93	2.4717	0.0078	1.0000
IEEE 802.11ax HEW80	12.0	15.8489	3.93	2.4717	0.0078	1.0000

[5.5G WIFI Ant6]

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	3.87	2.4378	0.0122	1.0000
IEEE 802.11n HT20	14.0	25.1189	3.87	2.4378	0.0122	1.0000
IEEE 802.11n HT40	13.0	19.9526	3.87	2.4378	0.0097	1.0000
IEEE 802.11ac VHT20	13.0	19.9526	3.87	2.4378	0.0097	1.0000
IEEE 802.11ac VHT40	13.0	19.9526	3.87	2.4378	0.0097	1.0000
IEEE 802.11ac VHT80	13.0	19.9526	3.87	2.4378	0.0097	1.0000
IEEE 802.11ax HEW20	14.0	25.1189	3.87	2.4378	0.0122	1.0000
IEEE 802.11ax HEW40	12.0	15.8489	3.87	2.4378	0.0077	1.0000
IEEE 802.11ax HEW80	11.0	12.5893	3.87	2.4378	0.0061	1.0000

[5.8G WIFI Ant2]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11a	10.0	mW	3.39	2.1827	0.0043	1.0000
IEEE 802.11n HT20	10.0	10.0000	3.39	2.1827	0.0043	1.0000
IEEE 802.11n HT40	11.0	10.0000	3.39	2.1827	0.0055	1.0000
IEEE 802.11ac VHT20	10.0	12.5893	3.39	2.1827	0.0043	1.0000
IEEE 802.11ac VHT40	10.0	10.0000	3.39	2.1827	0.0043	1.0000
IEEE 802.11ac VHT80	10.0	10.0000	3.39	2.1827	0.0043	1.0000
IEEE 802.11ax HEW20	11.0	10.0000	3.39	2.1827	0.0055	1.0000
IEEE 802.11ax HEW40	11.0	12.5893	3.39	2.1827	0.0055	1.0000
IEEE 802.11ax HEW80	9.0	12.5893	3.39	2.1827	0.0035	1.0000





[5.8G WIFI Ant3]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11a	10.0	10.0000	3.39	2.1827	0.0043	1.0000
IEEE 802.11n HT20	10.0	10.0000	3.39	2.1827	0.0043	1.0000
IEEE 802.11n HT40	11.0	12.5893	3.39	2.1827	0.0055	1.0000
IEEE 802.11ac VHT20	10.0	10.0000	3.39	2.1827	0.0043	1.0000
IEEE 802.11ac VHT40	11.0	12.5893	3.39	2.1827	0.0055	1.0000
IEEE 802.11ac VHT80	9.0	7.9433	3.39	2.1827	0.0034	1.0000
IEEE 802.11ax HEW20	11.0	12.5893	3.39	2.1827	0.0055	1.0000
IEEE 802.11ax HEW40	10.0	10.0000	3.39	2.1827	0.0043	1.0000
IEEE 802.11ax HEW80	9.0	7.9433	3.39	2.1827	0.0034	1.0000

[5.8G WIFI Ant5]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11a	11.0	12.5893	3.93	2.4717	0.0062	1.0000
IEEE 802.11n HT20	11.0	12.5893	3.93	2.4717	0.0062	1.0000
IEEE 802.11n HT40	9.0	7.9433	3.93	2.4717	0.0039	1.0000
IEEE 802.11ac VHT20	11.0	12.5893	3.93	2.4717	0.0062	1.0000
IEEE 802.11ac VHT40	9.0	7.9433	3.93	2.4717	0.0039	1.0000
IEEE 802.11ac VHT80	9.0	7.9433	3.93	2.4717	0.0039	1.0000
IEEE 802.11ax HEW20	11.0	12.5893	3.93	2.4717	0.0062	1.0000
IEEE 802.11ax HEW40	9.0	7.9433	3.93	2.4717	0.0039	1.0000
IEEE 802.11ax HEW80	9.0	7.9433	3.93	2.4717	0.0039	1.0000

[5.8G WIFI Ant6]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11a	10.0	10.0000	3.87	2.4378	0.0049	1.0000
IEEE 802.11n HT20	10.0	10.0000	3.87	2.4378	0.0049	1.0000
IEEE 802.11n HT40	9.0	7.9433	3.87	2.4378	0.0039	1.0000
IEEE 802.11ac VHT20	10.0	10.0000	3.87	2.4378	0.0049	1.0000
IEEE 802.11ac VHT40	11.0	12.5893	3.87	2.4378	0.0061	1.0000
IEEE 802.11ac VHT80	10.0	10.0000	3.87	2.4378	0.0049	1.0000
IEEE 802.11ax HEW20	10.0	10.0000	3.87	2.4378	0.0049	1.0000
IEEE 802.11ax HEW40	10.0	10.0000	3.87	2.4378	0.0049	1.0000
IEEE 802.11ax HEW80	10.0	10.0000	3.87	2.4378	0.0049	1.0000

Remark:

1. Output power including tune-up tolerance;
2. Output power was adjusted to duty cycle at 100% if measured duty cycle less than 98%;
3. MPE evaluate distance is 20cm from user manual provide by manufacturer.

8.2 Simultaneous Transmission MPE Evaluation

The sample support two WLAN/BT modular (Model: WXT05R2601 and WXT52M2511) and each WLAN/BT modular have three antennas, six antennas can support simultaneous transmission, so need consider simultaneous transmission;

Simultaneous transmission MPE

According to KDB447498 for Transmitters used in mobile exposure conditions for simultaneous transmission operations;

$\sum \text{of MPE ratios} \leq 1.0$





<the worst simultaneous transmission operations result-BT+2.4GWIFI>

Ant1	Ant2	Ant3	Ant4	Ant5	Ant6	$\sum$ MPE ratios	Limit	Result
0.0008	0.0085	0.0084	0.0003	0.0198	0.0150	0.1067	1.0	Pass

<the worst simultaneous transmission operations result-BT+5GWIFI>

Ant1	Ant2	Ant3	Ant4	Ant5	Ant6	$\sum$ MPE ratios	Limit	Result
0.0008	0.0069	0.0069	0.0003	0.0156	0.0122	0.0427	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. $MPE\ values = PG/4\pi R^2$

8. Conclusion

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

9. 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.

10. Measurement Uncertainty

BT LE/2.4GWIFI/5.2GWIFI/5.3GWIFI/5.5GWIFI/5.8GWIFI:

Test Item	Frequency Range	Uncertainty	Note
Output power	1GHz-40GHz	$\pm 0.57\text{dB}$	(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-----

