Maximum Permissible Exposure Report

1. Product Information

EUT	: VIM4
Test Model	: VIM4
Power Supply	: Input: 5V⎓3A, 9V⎓2.67A, 12V⎓2A USB1 Output: 5V⎓1300mA USB2 Output: 5V⎓1500mA
Hardware Version	: V12
Software Version	: OOWOW
Bluetooth	:
Frequency Range	: 2402MHz ~ 2480MHz
Channel Number	: 79 channels for Bluetooth V5.1(BDR/EDR) 40 channels for Bluetooth V5.1 (BT LE) (BT 2LE)
Channel Spacing	: 1MHz for Bluetooth V5.1 (BDR/EDR) 2MHz for Bluetooth V5.1 (BT LE) (BT 2LE)
Modulation Type	: GFSK, π/4-DQPSK, 8-DPSK for Bluetooth V5.1(BDR/EDR) GFSK for Bluetooth V5.1 (BT LE) (BT 2LE)
Bluetooth Version	: V5.1
Antenna Description	: ANT A: FPC Antenna, 3.45dBi(Max.)
WIFI(2.4G Band)	:
Frequency Range	: 2412MHz ~ 2462MHz
Channel Spacing	: 5MHz
Channel Number	: 11 Channels for 20MHz bandwidth (2412~2462MHz)
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: OFDM (64QAM, 16QAM, QPSK, BPSK)
Antenna Description	: ANT A: FPC Antenna, 3.45dBi(Max.) ANT B: FPC Antenna, 3.45dBi(Max.)
5.2G WLAN	:
Frequency Range	: 5180MHz-5240MHz
Channel Number	: 4 channels for 20MHz bandwidth(5180MHz-5240MHz) 2 channels for 40MHz bandwidth(5190MHz~5230MHz)
Modulation Type	: IEEE 802.11a/n/ac/ax: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK)
Antenna Description	: ANT A: FPC Antenna, 1.87dBi(Max.) ANT B: FPC Antenna, 1.87dBi(Max.)
5.8G WLAN	:
Frequency Range	: 5745MHz-5825MHz
Channel Number	: 5 channels for 20MHz bandwidth(5745MHz-5825MHz) 2 channels for 40MHz bandwidth(5755MHz~5795MHz)

Modulation Type	:	IEEE 802.11a/n/ac/ax: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK)
Antenna Description	:	ANT A: FPC Antenna, 1.87dBi(Max.) ANT B: FPC Antenna, 1.87dBi(Max.)

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. Antenna Information

VIM4 can only use antennas certificated as follows provided by manufacturer;

Internal/External Identification	Antenna type and antenna number	Operate frequency band	Maximum antenna gain	Notes
Antenna A	FPC Antenna	2400-2500MHz	3.45dBi	BT/2.4G WIFI Antenna
Antenna A	FPC Antenna	5150-6000MHz	1.87dBi	5G WIFI Antenna
Antenna B	FPC Antenna	2400-2500MHz	3.45dBi	2.4G WIFI Antenna
Antenna B	FPC Antenna	5150-6000MHz	1.87dBi	5G WIFI Antenna

6. Conducted Power

[BT]

Mode	Channel	Frequency (MHz)	Peak Conducted Output Power (dBm)
GFSK	00	2402	0.91
	39	2441	-0.88
	79	2480	-0.59
π/4-DQPSK	00	2402	1.07
	39	2441	-0.91
	79	2480	-0.45
8-DPSK	00	2402	0.95
	39	2441	-0.86
	79	2480	-0.33

[BT LE]

Mode	Channel	Frequency (MHz)	Peak Conducted Output Power (dBm)
GFSK	00	2402	-0.28
	19	2440	-1.04
	39	2480	-2.3

[BT 2LE]

Mode	Channel	Frequency (MHz)	Peak Conducted Output Power (dBm)
GFSK	00	2402	-0.57
	19	2440	-1.13
	39	2480	-2.44

[2.4G WLAN]

TestMode	Antenna	Frequency (MHz)	Result[dBm]	Limit[dBm]	Verdict
11B	Ant A	2412	13.41	≤30.00	PASS
		2437	14.70	≤30.00	PASS
		2462	15.52	≤30.00	PASS
11G	Ant A	2412	15.53	≤30.00	PASS
		2437	16.92	≤30.00	PASS
		2462	17.82	≤30.00	PASS
11N20SISO	Ant A	2412	16.39	≤30.00	PASS
		2437	17.80	≤30.00	PASS
		2462	17.77	≤30.00	PASS
11AX20SISO	Ant A	2412	8.38	≤30.00	PASS
		2437	8.73	≤30.00	PASS
		2462	8.56	≤30.00	PASS
11B	Ant B	2412	11.96	≤30.00	PASS
		2437	13.87	≤30.00	PASS
		2462	14.91	≤30.00	PASS
11G	Ant B	2412	12.39	≤30.00	PASS
		2437	13.47	≤30.00	PASS
		2462	14.55	≤30.00	PASS
11N20SISO	Ant B	2412	12.40	≤30.00	PASS
		2437	13.44	≤30.00	PASS
		2462	14.52	≤30.00	PASS
11AX20SISO	Ant B	2412	8.15	≤30.00	PASS
		2437	8.42	≤30.00	PASS
		2462	8.37	≤30.00	PASS

[5.2G WLAN]

TestMode	Antenna	Frequency (MHz)	Result[dBm]	Limit[dBm]	Verdict
11A	Ant A	5180	9.86	≤23.98	PASS
		5220	9.48	≤23.98	PASS
		5240	9.30	≤23.98	PASS
11N20SISO	Ant A	5180	9.79	≤23.98	PASS
		5220	9.46	≤23.98	PASS
		5240	9.28	≤23.98	PASS
11N40SISO	Ant A	5190	6.64	≤23.98	PASS
		5230	7.33	≤23.98	PASS
11AC20SISO	Ant A	5180	9.84	≤23.98	PASS
		5220	9.45	≤23.98	PASS
		5240	9.26	≤23.98	PASS
11AC40SISO	Ant A	5190	7.55	≤23.98	PASS
		5230	6.30	≤23.98	PASS
11AX20SISO	Ant A	5180	9.58	≤23.98	PASS
		5220	9.87	≤23.98	PASS
		5240	9.25	≤23.98	PASS
11AX40SISO	Ant A	5190	7.13	≤23.98	PASS
		5230	6.77	≤23.98	PASS
11A	Ant B	5180	9.48	≤23.98	PASS
		5220	9.27	≤23.98	PASS
		5240	9.31	≤23.98	PASS
11N20SISO	Ant B	5180	9.38	≤23.98	PASS
		5220	8.79	≤23.98	PASS
		5240	8.44	≤23.98	PASS
11N40SISO	Ant B	5190	9.58	≤23.98	PASS
		5230	9.09	≤23.98	PASS
11AC20SISO	Ant B	5180	9.07	≤23.98	PASS
		5220	9.32	≤23.98	PASS
		5240	9.89	≤23.98	PASS
11AC40SISO	Ant B	5190	7.65	≤23.98	PASS
		5230	7.41	≤23.98	PASS
11AX20SISO	Ant B	5180	9.30	≤23.98	PASS
		5220	9.18	≤23.98	PASS
		5240	8.51	≤23.98	PASS
11AX40SISO	Ant B	5190	6.57	≤23.98	PASS
		5230	5.26	≤23.98	PASS

[5.8G WLAN]

TestMode	Antenna	Frequency (MHz)	Result[dBm]	Limit[dBm]	Verdict
11A	Ant A	5745	10.06	≤30.00	PASS
		5785	12.83	≤30.00	PASS
		5825	11.07	≤30.00	PASS
11N20SISO	Ant A	5745	10.92	≤30.00	PASS
		5785	8.57	≤30.00	PASS
		5825	11.04	≤30.00	PASS
11N40SISO	Ant A	5755	10.91	≤30.00	PASS
		5795	11.03	≤30.00	PASS
11AC20SISO	Ant A	5745	10.91	≤30.00	PASS
		5785	11.00	≤30.00	PASS
		5825	10.82	≤30.00	PASS
11AC40SISO	Ant A	5755	10.68	≤30.00	PASS
		5795	10.92	≤30.00	PASS
11AX20SISO	Ant A	5745	4.09	≤30.00	PASS
		5785	6.21	≤30.00	PASS
		5825	5.43	≤30.00	PASS
11AX40SISO	Ant A	5755	5.79	≤30.00	PASS
		5795	4.17	≤30.00	PASS
11A	Ant B	5745	8.51	≤30.00	PASS
		5785	8.50	≤30.00	PASS
		5825	8.21	≤30.00	PASS
11N20SISO	Ant B	5745	8.31	≤30.00	PASS
		5785	8.36	≤30.00	PASS
		5825	8.12	≤30.00	PASS
11N40SISO	Ant B	5755	8.16	≤30.00	PASS
		5795	8.26	≤30.00	PASS
11AC20SISO	Ant B	5745	8.29	≤30.00	PASS
		5785	8.33	≤30.00	PASS
		5825	8.11	≤30.00	PASS
11AC40SISO	Ant B	5755	8.09	≤30.00	PASS
		5795	8.35	≤30.00	PASS
11AX20SISO	Ant B	5745	4.32	≤30.00	PASS
		5785	6.25	≤30.00	PASS
		5825	5.47	≤30.00	PASS
11AX40SISO	Ant B	5755	5.71	≤30.00	PASS
		5795	4.13	≤30.00	PASS

7. Manufacturing Tolerance

[BT] (ANT A)

GFSK(Peak)			
Channel	Channel 00	Channel 39	Channel 78
Target (dBm)	1.0	0	0
Tolerance ± (dB)	1.0	1.0	1.0
π/4-DQPSK(Peak)			
Channel	Channel 00	Channel 39	Channel 78
Target (dBm)	1.0	0	0
Tolerance ± (dB)	1.0	1.0	1.0
8-DPSK(Peak)			
Channel	Channel 00	Channel 39	Channel 78
Target (dBm)	1.0	0	0
Tolerance ± (dB)	1.0	1.0	1.0

[BT LE] (ANT A)

Channel	Channel 00	Channel 19	Channel 39
Target (dBm)	0	-1.0	-2.0
Tolerance ± (dB)	1.0	1.0	1.0

[BT 2LE] (ANT A)

Channel	Channel 00	Channel 19	Channel 39
Target (dBm)	0	-1.0	-2.0
Tolerance ± (dB)	1.0	1.0	1.0

2.4GWIFI

11B (Peak) (ANT A)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	13.0	14.0	15.0
Tolerance ±(dB)	1.0	1.0	1.0
11G (Peak) (ANT A)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	15.0	16.0	17.0
Tolerance ±(dB)	1.0	1.0	1.0
11N20 (Peak) (ANT A)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	16.0	17.0	17.0
Tolerance ±(dB)	1.0	1.0	1.0
11AX20 (Peak) (ANT A)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	8.0	8.0	8.0
Tolerance ±(dB)	1.0	1.0	1.0
11B (Peak) (ANT B)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	12.0	14.0	15.0
Tolerance ±(dB)	1.0	1.0	1.0

11G (Peak) (ANT B)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	12.0	13.0	14.0
Tolerance ±(dB)	1.0	1.0	1.0
11N20 (Peak) (ANT B)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	12.0	13.0	14.0
Tolerance ±(dB)	1.0	1.0	1.0
11AX20 (Peak) (ANT B)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	8.0	8.0	8.0
Tolerance ±(dB)	1.0	1.0	1.0

5.2GWIFI

11A (Peak) (ANT A)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	9.0	9.0	9.0
Tolerance ±(dB)	1.0	1.0	1.0
11N20 (Peak) (ANT A)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	9.0	9.0	9.0
Tolerance ±(dB)	1.0	1.0	1.0
11N40 (Peak) (ANT A)			
Channel	Channel 38		Channel 46
Target (dBm)	7.0		7.0
Tolerance ±(dB)	1.0		1.0
11AC20 (Peak) (ANT A)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	9.0	9.0	9.0
Tolerance ±(dB)	1.0	1.0	1.0
11AC40 (Peak) (ANT A)			
Channel	Channe38		Channel 46
Target (dBm)	7.0		7.0
Tolerance ±(dB)	1.0		1.0
11AX20 (Peak) (ANT A)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	9.0	9.0	9.0
Tolerance ±(dB)	1.0	1.0	1.0
11AX40 (Peak) (ANT A)			
Channel	Channe38		Channel 46
Target (dBm)	7.0		7.0
Tolerance ±(dB)	1.0		1.0

11A (Peak) (ANT B)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	9.0	9.0	9.0
Tolerance ±(dB)	1.0	1.0	1.0
11N20 (Peak) (ANT B)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	9.0	9.0	9.0
Tolerance ±(dB)	1.0	1.0	1.0
11N40 (Peak) (ANT B)			
Channel	Channel 38		Channel 46
Target (dBm)	9.0		9.0
Tolerance ±(dB)	1.0		1.0
11AC20 (Peak) (ANT B)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	9.0	9.0	9.0
Tolerance ±(dB)	1.0	1.0	1.0
11AC40 (Peak) (ANT B)			
Channel	Channe38		Channel 46
Target (dBm)	7.0		7.0
Tolerance ±(dB)	1.0		1.0
11AX20 (Peak) (ANT B)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	9.0	9.0	9.0
Tolerance ±(dB)	1.0	1.0	1.0
11AX40 (Peak) (ANT B)			
Channel	Channe38		Channel 46
Target (dBm)	6.0		5.0
Tolerance ±(dB)	1.0		1.0

5.8GWIFI

11A (Peak) (ANT A)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	10.0	12.5	11.0
Tolerance ±(dB)	1.0	1.0	1.0
11N20 (Peak) (ANT A)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	11.0	9.0	11.0
Tolerance ±(dB)	1.0	1.0	1.0
11N40 (Peak) (ANT A)			
Channel	Channel 151		Channel 159
Target (dBm)	11.0		11.0
Tolerance ±(dB)	1.0		1.0
11AC20 (Peak) (ANT A)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	11.0	11.0	11.0
Tolerance ±(dB)	1.0	1.0	1.0
11AC40 (Peak) (ANT A)			
Channel	Channe151		Channel 159
Target (dBm)	11.0		11.0
Tolerance ±(dB)	1.0		1.0
11AX20 (Peak) (ANT A)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	4.0	6.0	5.0
Tolerance ±(dB)	1.0	1.0	1.0
11AX40 (Peak) (ANT A)			
Channel	Channe151		Channel 159
Target (dBm)	5.0		4.0
Tolerance ±(dB)	1.0		1.0
11A (Peak) (ANT B)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	8.0	8.0	8.0
Tolerance ±(dB)	1.0	1.0	1.0
11N20 (Peak) (ANT B)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	8.0	8.0	8.0
Tolerance ±(dB)	1.0	1.0	1.0
11N40 (Peak) (ANT B)			
Channel	Channel 151		Channel 159
Target (dBm)	8.0		8.0
Tolerance ±(dB)	1.0		1.0

11AC20 (Peak) (ANT B)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	8.0	8.0	8.0
Tolerance ±(dB)	1.0	1.0	1.0
11AC40 (Peak) (ANT B)			
Channel	Channe151		Channel 159
Target (dBm)	8.0		8.0
Tolerance ±(dB)	1.0		1.0
11AX20 (Peak) (ANT B)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	4.0	6.0	5.0
Tolerance ±(dB)	1.0	1.0	1.0
11AX40 (Peak) (ANT B)			
Channel	Channe151		Channel 159
Target (dBm)	5.0		4.0
Tolerance ±(dB)	1.0		1.0

8. Measurement 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 =20cm, as well as the gain of the used antenna refer to antenna information, the RF power density can be obtained.

[BT] (ANT A)

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm2)	MPE Limits (mW/cm2)
	dBm	mW				
GFSK	2.0	1.5849	3.45	2.26	0.0007	1.0000
π/4-DQPSK	2.0	1.5849	3.45	2.26	0.0007	1.0000
8-DPSK	2.0	1.5849	3.45	2.26	0.0007	1.0000

[BT LE] (ANT A)

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm2)	MPE Limits (mW/cm2)
	dBm	mW				
BT LE	1.0	1.2589	3.45	2.26	0.0006	1.0000

[BT 2LE] (ANT A)

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm2)	MPE Limits (mW/cm2)
	dBm	mW				
BT 2LE	1.0	1.2589	3.45	2.26	0.0006	1.0000

[2.4GWLAN]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm2)	MPE Limits (mW/cm2)
	dBm	mW				
11B (ANT A)	16.0	39.8107	3.45	2.21	0.0175	1.0000
11G (ANT A)	18.0	63.0957	3.45	2.21	0.0278	1.0000
11N20 (ANT A)	18.0	63.0957	3.45	2.21	0.0278	1.0000
11AX20 (ANT A)	9.0	7.9433	3.45	2.21	0.0035	1.0000
11B (ANT B)	16.0	39.8107	3.45	2.21	0.0175	1.0000
11G (ANT B)	15.0	31.6228	3.45	2.21	0.0139	1.0000
11N20 (ANT B)	15.0	31.6228	3.45	2.21	0.0139	1.0000
11AX20 (ANT B)	9.0	7.9433	3.45	2.21	0.0035	1.0000

[5.2G WLAN]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm2)	MPE Limits (mW/cm2)
	dBm	mW				
11A (ANT A)	10.0	10.0000	1.87	1.54	0.0031	1.0000
11N20 (ANT A)	10.0	10.0000	1.87	1.54	0.0031	1.0000
11N40 (ANT A)	8.0	6.3096	1.87	1.54	0.0019	1.0000
11AC20 (ANT A)	10.0	10.0000	1.87	1.54	0.0031	1.0000
11AC40 (ANT A)	8.0	6.3096	1.87	1.54	0.0019	1.0000
11AX20 (ANT A)	10.0	10.0000	1.87	1.54	0.0031	1.0000
11AX40 (ANT A)	8.0	6.3096	1.87	1.54	0.0019	1.0000
11A (ANT B)	10.0	10.0000	1.87	1.54	0.0031	1.0000
11N20 (ANT B)	10.0	10.0000	1.87	1.54	0.0031	1.0000
11N40 (ANT B)	10.0	10.0000	1.87	1.54	0.0031	1.0000

11AC20 (ANT B)	10.0	10.0000	1.87	1.54	0.0031	1.0000
11AC40 (ANT B)	8.0	6.3096	1.87	1.54	0.0019	1.0000
11AX20 (ANT B)	10.0	10.0000	1.87	1.54	0.0031	1.0000
11AX40 (ANT B)	7.0	5.0119	1.87	1.54	0.0015	1.0000

[5.8G WLAN]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm2)	MPE Limits (mW/cm2)
	dBm	mW				
11A (ANT A)	13.5	22.3872	1.87	1.54	0.0069	1.0000
11N20 (ANT A)	12.0	15.8489	1.87	1.54	0.0048	1.0000
11N40 (ANT A)	12.0	15.8489	1.87	1.54	0.0048	1.0000
11AC20 (ANT A)	12.0	15.8489	1.87	1.54	0.0048	1.0000
11AC40 (ANT A)	12.0	15.8489	1.87	1.54	0.0048	1.0000
11AX20 (ANT A)	7.0	5.0119	1.87	1.54	0.0015	1.0000
11AX40 (ANT A)	6.0	3.9811	1.87	1.54	0.0012	1.0000
11A (ANT B)	9.0	7.9433	1.87	1.54	0.0024	1.0000
11N20 (ANT B)	9.0	7.9433	1.87	1.54	0.0024	1.0000
11N40 (ANT B)	9.0	7.9433	1.87	1.54	0.0024	1.0000
11AC20 (ANT B)	9.0	7.9433	1.87	1.54	0.0024	1.0000
11AC40 (ANT B)	9.0	7.9433	1.87	1.54	0.0024	1.0000
11AX20 (ANT B)	7.0	5.0119	1.87	1.54	0.0015	1.0000
11AX40 (ANT B)	6.0	3.9811	1.87	1.54	0.0012	1.0000

Remark:
1. Output power including turn-up tolerance;
2. Output power was adjust 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 ANT1 BLUETOOTH&2.4GWLAN&5.2G WLAN&5.8G WLAN, ANT2 2.4GWLAN&5.2G WLAN&5.8G WLAN transmit antenna, so need consider simultaneous transmission;
Simultaneous transmission MPE
According to KDB447498 for Transmitters used in mobile exposure conditions for simultaneous transmission operations;
∑∑of MPE ratios ≤ 1.0

∑∑of MPE ratios = ANT A MAX+ ANT B MAX=0.0278+0.0175=0.0453 ≤ 1.0

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----------