

**Maximum Permissible Exposure Report****1. Product Information**

EUT	: Automatic Intelligent Medicine Dispenser
Test Model	: GS01
Power Supply	: Input: 12V $\overline{\text{---}}$ 8A For AC Adapter Input: 100-240V~, 50/60Hz, 2A Adapter Output: 12V $\overline{\text{---}}$ 8A DC 3.7V by Rechargeable Li-ion Battery, 6000mAh
Hardware Version	: /
Software Version	: /
Bluetooth	:
Frequency Range	: 2402MHz~2480MHz
Channel Number	: 79 channels for Bluetooth V4.1 (DSS) 40 channels for Bluetooth V4.1 (DTS)
Channel Spacing	: 1MHz for Bluetooth V4.1 (DSS) 2MHz for Bluetooth V4.1 (DTS)
Modulation Type	: GFSK, $\pi/4$ -DQPSK, 8-DPSK for Bluetooth V4.1 (DSS) GFSK for Bluetooth V4.1 (DTS)
Bluetooth Version	: V4.1
Antenna Description	: FPC Antenna, 2.48dBi (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)
Antenna Description	: Antenna0:FPC Antenna, 2.48dBi (max.) Antenna1:FPC Antenna, 2.48dBi (max.)
5.2G WLAN	:
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: OFDM (1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK)
Antenna Description	: Antenna0:FPC Antenna, 1.64dBi (max.) Antenna1:FPC Antenna, 1.64dBi (max.)





5.8G WLAN	:
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: OFDM (1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK)
Antenna Description	: Antenna0:FPC Antenna, 2.77dBi (max.) Antenna1:FPC Antenna, 2.77dBi (max.)
3G	:
Support Band	: ☒ WCDMA Band II (U.S.-Band) ☒ WCDMA Band IV (U.S.-Band) ☒ WCDMA Band V (U.S.-Band)
Release Version	: R8
Type Of Modulation	: QPSK,16QAM
Antenna Description	: FPC Antenna 0dBi (max.) For WCDMA Band II 0dBi (max.) For WCDMA Band IV 0dBi (max.) For WCDMA Band V
LTE	:
Support Band	: ☒ E-UTRA Band 2(U.S.-Band) ☒ E-UTRA Band 4(U.S.-Band) ☒ E-UTRA Band 12(U.S.-Band)
LTE Release Version	: R8
Type Of Modulation	: QPSK/16QAM
Antenna Description	: FPC Antenna 0dBi (max.) For E-UTRA Band 2 0dBi (max.) For E-UTRA Band 4 0dBi (max.) For E-UTRA Band 12
Power Class	: Class 3
NFC	:
Operating Frequency	: 13.56MHz
Modulation Type	: ASK
Antenna Description	: FPC Antenna, 0dBi(Max.)
Extreme temp.	: -30°C to +50°C
Tolerance	
Extreme vol. Limits	: 3.3VDC to 4.25VDC (nominal: 3.7VDC)
Exposure category	: General population/uncontrolled environment
EUT Type	: Production Unit





Device Type : Mobile Device



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

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

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

3. Limit

3.1 Refer Evaluation Method

[ANSI C95.1-2019](#): 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



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4. MPE Calculation Method

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

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

Where: S=power density

P=power input to antenna

G=power gain of the antenna in the direction of interest relative to an isotropic radiator

R=distance to the center of radiation of the antenna

5. Antenna Information

EUT 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
Internal	FPC Antenna	2400MHz ~ 2500MHz 5000MHz ~ 6000MHz	Bluetooth: 2.48dBi 2.4GWIFI: 2.48dBi 5.2GWIFI: 1.64dBi 5.8GWIFI: 2.77dBi	BT/BLE/WIFI Antenna
	FPC Antenna	2400MHz ~ 2500MHz 5000MHz ~ 6000MHz	2.4GWIFI: 2.48dBi 5.2GWIFI: 1.64dBi 5.8GWIFI: 2.77dBi	WIFI Antenna
Internal	FPC Antenna	824-849MHz 869-894MHz 1850-1910MHz 1930-1990MHz 1710-1755MHz 2110-2155MHz 698-716MHz 728-746MHz	0dBi (max.) For WCDMA Band II 0dBi (max.) For WCDMA Band IV 0dBi (max.) For WCDMA Band V 0dBi (max.) For E-UTRA Band 2 0dBi (max.) For E-UTRA Band 4 0dBi (max.) For E-UTRA Band 12	3G/LTE Antenna



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6. Conducted Power

[BT]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)	ANT Max. Tune Up Power (dBm)
GFSK	00	2402	0.26	0±1.0
	39	2441	1.09	1.0±1.0
	79	2480	0.79	0±1.0
$\pi/4$ -DQPSK	00	2402	0.05	0±1.0
	39	2441	0.69	0±1.0
	79	2480	4.31	4.0±1.0
8-DPSK	00	2402	3.94	3.0±1.0
	39	2441	4.67	4.0±1.0
	79	2480	4.56	4.0±1.0

[BLE]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)	ANT Max. Tune Up Power (dBm)
GFSK	0	2402	1.2	1.0±1.0
	19	2440	2.1	2.0±1.0
	39	2480	1.79	1.0±1.0

[2.4G WIFI Ant 0]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)	ANT Max. Tune Up Power (dBm)
IEEE 802.11b	1	2412	14.25	14.0±1.0
	6	2437	14.33	14.0±1.0
	11	2462	14.11	14.0±1.0
IEEE 802.11g	1	2412	13.87	13.0±1.0
	6	2437	13.08	13.0±1.0
	11	2462	13.57	13.0±1.0
IEEE 802.11n HT20	1	2412	12.83	12.0±1.0
	6	2437	12.43	12.0±1.0
	11	2462	12.45	12.0±1.0
IEEE 802.11n HT40	3	2422	12.88	12.0±1.0
	6	2437	12.64	12.0±1.0
	9	2452	12.77	12.0±1.0

[2.4G WIFI Ant 1]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)	ANT Max. Tune Up Power (dBm)
IEEE 802.11b	1	2412	14.3	14.0±1.0
	6	2437	13.88	13.0±1.0
	11	2462	14.13	14.0±1.0
IEEE 802.11g	1	2412	13.31	13.0±1.0
	6	2437	13.53	13.0±1.0
	11	2462	13.1	13.0±1.0
IEEE 802.11n HT20	1	2412	12.91	12.0±1.0
	6	2437	12.48	12.0±1.0
	11	2462	12.78	12.0±1.0
IEEE 802.11n HT40	3	2422	12.9	12.0±1.0
	6	2437	12.22	12.0±1.0
	9	2452	12.33	12.0±1.0



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[5.2G WIFI Ant 0]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)	ANT Max. Tune Up Power (dBm)
11A	36	5180	10.56	10.0±1.0
	40	5200	10.74	10.0±1.0
	48	5240	9.77	9.0±1.0
11N20 SISO	36	5180	6.86	6.0±1.0
	40	5200	7.06	7.0±1.0
	48	5240	6.2	6.0±1.0
11N40 SISO	38	5190	9.33	9.0±1.0
	46	5230	8.4	8.0±1.0
11AC20 SISO	36	5180	9.17	9.0±1.0
	40	5200	9.34	9.0±1.0
	48	5240	8.35	8.0±1.0
11AC40 SISO	38	5190	9.44	9.0±1.0
	46	5230	8.5	8.0±1.0
11AC80 SISO	42	5210	8.18	8.0±1.0
11AX20 SISO	36	5180	9.35	9.0±1.0
	40	5200	9.54	9.0±1.0
	48	5240	8.56	8.0±1.0
11AX40 SISO	38	5190	9.7	9.0±1.0
	46	5230	8.83	8.0±1.0
11AX80 SISO	42	5210	8.5	8.0±1.0

[5.2G WIFI Ant 1]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)	ANT Max. Tune Up Power (dBm)
11A	36	5180	10.52	10.0±1.0
	40	5200	10.76	10.0±1.0
	48	5240	9.66	9.0±1.0
11N20 SISO	36	5180	9.05	9.0±1.0
	40	5200	9.17	9.0±1.0
	48	5240	8.12	8.0±1.0
11N40 SISO	38	5190	9.3	9.0±1.0
	46	5230	8.24	8.0±1.0
11AC20 SISO	36	5180	9.19	9.0±1.0
	40	5200	9.36	9.0±1.0
	48	5240	8.19	8.0±1.0
11AC40 SISO	38	5190	9.38	9.0±1.0
	46	5230	8.31	8.0±1.0
11AC80 SISO	42	5210	8.39	8.0±1.0
11AX20 SISO	36	5180	9.45	9.0±1.0
	40	5200	9.63	9.0±1.0
	48	5240	8.58	8.0±1.0
11AX40 SISO	38	5190	9.82	9.0±1.0
	46	5230	8.68	8.0±1.0
11AX80 SISO	42	5210	8.66	8.0±1.0



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[5.8G WIFI Ant 0]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)	ANT Max. Tune Up Power (dBm)
11A	149	5745	10.25	10.0±1.0
	157	5785	9.69	9.0±1.0
	165	5825	9.87	9.0±1.0
11N20 SISO	149	5745	8.68	8.0±1.0
	157	5785	8.19	8.0±1.0
	165	5825	8.4	8.0±1.0
11N40 SISO	151	5755	8.75	8.0±1.0
	159	5795	7.82	7.0±1.0
11AC20 SISO	149	5745	8.92	8.0±1.0
	157	5785	8.37	8.0±1.0
	165	5825	8.58	8.0±1.0
11AC40 SISO	151	5755	8.78	8.0±1.0
	159	5795	7.93	7.0±1.0
11AC80 SISO	155	5775	7.63	7.0±1.0
11AX20 SISO	149	5745	9.11	9.0±1.0
	157	5785	8.55	8.0±1.0
	165	5825	8.77	8.0±1.0
11AX40 SISO	151	5755	9.1	9.0±1.0
	159	5795	8.19	8.0±1.0
11AX80 SISO	155	5775	7.92	7.0±1.0

[5.8G WIFI Ant 1]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)	ANT Max. Tune Up Power (dBm)
11A	149	5745	10.16	10.0±1.0
	157	5785	9.54	9.0±1.0
	165	5825	9.78	9.0±1.0
11N20 SISO	149	5745	8.6	8.0±1.0
	157	5785	8.09	8.0±1.0
	165	5825	8.18	8.0±1.0
11N40 SISO	151	5755	8.77	8.0±1.0
	159	5795	7.78	7.0±1.0
11AC20 SISO	149	5745	8.78	8.0±1.0
	157	5785	8.37	8.0±1.0
	165	5825	8.54	8.0±1.0
11AC40 SISO	151	5755	8.8	8.0±1.0
	159	5795	7.92	7.0±1.0
11AC80 SISO	155	5775	7.7	7.0±1.0
11AX20 SISO	149	5745	9.11	9.0±1.0
	157	5785	8.56	8.0±1.0
	165	5825	8.7	8.0±1.0
11AX40 SISO	151	5755	9.13	9.0±1.0
	159	5795	8.26	8.0±1.0
11AX80 SISO	155	5775	7.97	7.0±1.0



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[WCDMA Max Average Power]

Test Mode	Channel	Frequency (MHz)	Max Average Power (dBm)	ANT Max. Tune Up Power (dBm)
WCDMA Band II	Low	1852.4	23.17	23.0±1.0
	Middle	1880	23.33	23.0±1.0
	High	1907.6	23.31	23.0±1.0
WCDMA Band IV	Low	826.4	23.17	23.0±1.0
	Middle	836.4	23.19	23.0±1.0
	High	846.6	23.32	23.0±1.0
WCDMA Band V	Low	1712.4	22.79	22.0±1.0
	Middle	1732.6	22.90	22.0±1.0
	High	1752.6	22.76	22.0±1.0

[LTE Max Average Power]

Test Mode		Channel	Max Average Power (dBm)	ANT Max. Tune Up Power (dBm)
LTE	Band 2	LCH	22.87	22.0±1.0
		MCH	22.89	22.0±1.0
		HCH	22.62	22.0±1.0
	Band 4	LCH	23.09	23.0±1.0
		MCH	22.93	22.0±1.0
		HCH	23.17	23.0±1.0
	Band 12	LCH	22.91	22.0±1.0
		MCH	22.76	22.0±1.0
		HCH	22.77	22.0±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, $r=20\text{cm}$, as well as the gain of the used antenna refer to antenna information, the RF power density can be obtained.

[BT]

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	2.48	1.7701	0.0006	1.0000
$\pi/4$ -DQPSK	5.0	3.1623	2.48	1.7701	0.0011	1.0000
8-DPSK	5.0	3.1623	2.48	1.7701	0.0011	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	3.0	1.9953	2.48	1.7701	0.0007	1.0000



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[2.4G WIFI Ant0]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11b	15.0	31.6228	2.48	1.7701	0.0111	1.0000
IEEE 802.11g	14.0	25.1189	2.48	1.7701	0.0088	1.0000
IEEE 802.11n HT20	13.0	19.9526	2.48	1.7701	0.0070	1.0000
IEEE 802.11n HT40	13.0	19.9526	2.48	1.7701	0.0070	1.0000

[2.4G WIFI Ant1]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11b	15.0	31.6228	2.48	1.7701	0.0111	1.0000
IEEE 802.11g	14.0	25.1189	2.48	1.7701	0.0088	1.0000
IEEE 802.11n HT20	13.0	19.9526	2.48	1.7701	0.0070	1.0000
IEEE 802.11n HT40	13.0	19.9526	2.48	1.7701	0.0070	1.0000

[5.2G WIFI Ant0]

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	1.64	1.4588	0.0037	1.0000
IEEE 802.11n HT20	8.0	6.3096	1.64	1.4588	0.0018	1.0000
IEEE 802.11n HT40	9.0	7.9433	1.64	1.4588	0.0023	1.0000
IEEE 802.11ac VHT20	10.0	10.0000	1.64	1.4588	0.0029	1.0000
IEEE 802.11ac VHT40	10.0	10.0000	1.64	1.4588	0.0029	1.0000
IEEE 802.11ac VHT80	9.0	7.9433	1.64	1.4588	0.0023	1.0000
IEEE 802.11ax VHT20	10.0	10.0000	1.64	1.4588	0.0029	1.0000
IEEE 802.11ax VHT40	10.0	10.0000	1.64	1.4588	0.0029	1.0000
IEEE 802.11ax VHT80	9.0	7.9433	1.64	1.4588	0.0023	1.0000

[5.2G WIFI Ant1]

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	1.64	1.4588	0.0037	1.0000
IEEE 802.11n HT20	10.0	10.0000	1.64	1.4588	0.0029	1.0000
IEEE 802.11n HT40	10.0	10.0000	1.64	1.4588	0.0029	1.0000
IEEE 802.11ac VHT20	10.0	10.0000	1.64	1.4588	0.0029	1.0000
IEEE 802.11ac VHT40	10.0	10.0000	1.64	1.4588	0.0029	1.0000
IEEE 802.11ac VHT80	9.0	7.9433	1.64	1.4588	0.0023	1.0000
IEEE 802.11ax	10.0	10.0000	1.64	1.4588	0.0029	1.0000



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VHT20						
IEEE 802.11ax VHT40	10.0	10.0000	1.64	1.4588	0.0029	1.0000
IEEE 802.11ax VHT80	9.0	7.9433	1.64	1.4588	0.0023	1.0000

[5.8G WIFI Ant0]

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	2.77	1.8923	0.0047	1.0000
IEEE 802.11n HT20	9.0	7.9433	2.77	1.8923	0.0030	1.0000
IEEE 802.11n HT40	9.0	7.9433	2.77	1.8923	0.0030	1.0000
IEEE 802.11ac VHT20	9.0	7.9433	2.77	1.8923	0.0030	1.0000
IEEE 802.11ac VHT40	9.0	7.9433	2.77	1.8923	0.0030	1.0000
IEEE 802.11ac VHT80	8.0	6.3096	2.77	1.8923	0.0024	1.0000
IEEE 802.11ax VHT20	10.0	10.0000	2.77	1.8923	0.0038	1.0000
IEEE 802.11ax VHT40	10.0	10.0000	2.77	1.8923	0.0038	1.0000
IEEE 802.11ax VHT80	8.0	6.3096	2.77	1.8923	0.0024	1.0000

[5.8G WIFI Ant1]

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	2.77	1.8923	0.0047	1.0000
IEEE 802.11n HT20	9.0	7.9433	2.77	1.8923	0.0030	1.0000
IEEE 802.11n HT40	9.0	7.9433	2.77	1.8923	0.0030	1.0000
IEEE 802.11ac VHT20	9.0	7.9433	2.77	1.8923	0.0030	1.0000
IEEE 802.11ac VHT40	9.0	7.9433	2.77	1.8923	0.0030	1.0000
IEEE 802.11ac VHT80	8.0	6.3096	2.77	1.8923	0.0024	1.0000
IEEE 802.11ax VHT20	10.0	10.0000	2.77	1.8923	0.0038	1.0000
IEEE 802.11ax VHT40	10.0	10.0000	2.77	1.8923	0.0038	1.0000
IEEE 802.11ax VHT80	8.0	6.3096	2.77	1.8923	0.0024	1.0000

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
WCDMA Band II	24.0	251.1886	0	1.0000	0.0500	1.0000
WCDMA Band IV	24.0	251.1886	0	1.0000	0.0500	1.0000
WCDMA Band V	23.0	199.5262	0	1.0000	0.0397	0.5493
LTE Band 2	23.0	199.5262	0	1.0000	0.0397	1.0000
LTE Band 4	24.0	251.1886	0	1.0000	0.0500	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

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LTE Band 12	23.0	199.5262	0	1.0000	0.0397	0.4653
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NFC:

13.56MHz:54.55dBuV/m@3m

@20cm=54.55+40lg(3/0.2)=101.59dBuV/m=0.1201V/m<60.77V/m

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 EUT equipped with BT/BLE/WIFI antenna, WIFI antenna ,NFC antenna and 3G/LTE Antenna. So need consider simultaneous transmission, WCDMA/LTE
According to KDB447498 for Transmitters used in mobile exposure conditions for simultaneous transmission operations;

 Σ of MPE ratios ≤ 1.0

<the worst simultaneous transmission operations result>

2.4GWIFI MAX		LTE band 12	NFC	Σ MPE ratios	Limit	Results
Ant 0	Ant 1	LTE Main ANT				
0.0070	0.0070	0.085	0.0020	0.101	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. The Bluetooth WiFi cannot be transmit at the same time.

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-----



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

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