



RF Exposure Evaluation

For

Smartmatic International Corp.

VIU-Desktop

Test Model: VIU-818-NG

Prepared for : Smartmatic International Corp.
Address : Whitepark House, White Park Road, Bridgetown, Barbados BB11135

Prepared by : Shenzhen LCS Compliance Testing Laboratory Ltd.
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Date of receipt of test sample : April 08, 2025
Number of tested samples : 2
Sample No. : A250407116-1, A250407116-2
Serial number : Prototype
Date of Test : April 08, 2025 ~ April 27, 2025
Date of Report : April 28, 2025



Shenzhen LCS Compliance Testing Laboratory Ltd.

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RF Exposure Evaluation	
Report Reference No.	LCSA02225055EJ
Date of Issue	April 28, 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, China
Testing Location/ Procedure	Full application of Harmonised standards ■ Partial application of Harmonised standards □ Other standard testing method □
Applicant's Name	Smartmatic International Corp.
Address	Whitepark House, White Park Road, Bridgetown, Barbados BB11135
Test Specification	
Standard	FCC KDB publication 447498 D01 General RF Exposure Guidance v06 FCC CFR 47 part1 1.1310 FCC CFR 47 part2 2.1091
Test Report Form No.	TRF-4-E-215 A/0
TRF Originator	Shenzhen LCS Compliance Testing Laboratory Ltd.
Master TRF	Dated 2011-03
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Test Item Description : VIU-Desktop	
Trade Mark	SMARTMATIC
Test Model	VIU-818-NG
Ratings	Please Refer to Page 6
Result	Pass

Compiled by:

Martin Lee/ Administrator

Supervised by:

Jack Liu / Technique principal

Approved by:

Gavin Liang/ Manager



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Scan code to check authenticity



RF Exposure Evaluation

Test Report No. : LCSA02225055EJ	<u>April 28, 2025</u> Date of issue
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EUT.....	: VIU-Desktop
Test Model.....	: VIU-818-NG
Applicant.....	: Smartmatic International Corp.
Address.....	: Whitepark House, White Park Road, Bridgetown, Barbados
	: BB11135
Telephone.....	: /
Fax.....	: /
Manufacturer.....	: Smartmatic International Corp.
Address.....	: Whitepark House, White Park Road, Bridgetown, Barbados
	: BB11135
Telephone.....	: /
Fax.....	: /
Factory.....	: Telepower Communication Co., Ltd.
Address.....	: Room 201 & Room 203 at 2nd Floor, Building 5, Zone A, Hantian
	: Technology Town, ShenHai RD. No.17, GuiCheng Street, Nanhai
	: District, Foshan City, Guangdong, China.
Telephone.....	: /
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	April 28, 2025	Initial Issue	---





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1. Product Information

EUT	: VIU-Desktop
Test Model	: VIU-818-NG
Ratings	: Input: 24.0V $\overline{\sim}$ 5.0A For AC Adapter Input: 100-240V~, 50/60Hz, 2.5A Adapter Output: 24.0V $\overline{\sim}$ 5.0A, 120.0W DC 7.2V by Rechargeable Li-ion Battery, 13Ah
Hardware Version	: V1.0.1
Software Version	: V1.0.0
Bluetooth	:
Frequency Range	: 2402MHz~2480MHz
Channel Number	: 79 channels for Bluetooth V5.0 (DSS) 40 channels for Bluetooth V5.0 (DTS)
Channel Spacing	: 1MHz for Bluetooth V5.0 (DSS) 2MHz for Bluetooth V5.0 (DTS)
Modulation Type	: GFSK, $\pi/4$ -DQPSK, 8-DPSK for Bluetooth V5.0 (DSS) GFSK for Bluetooth V5.0 (DTS)
Bluetooth Version	: V5.0
Antenna Description	: FPC Antenna, 5.9dBi(Max.)
WIFI(2.4G Band)	:
Frequency Range	: 2412MHz~2462MHz
Channel Number	: 11 Channels for 20MHz bandwidth (2412~2462MHz) 7 Channels for 40MHz bandwidth (2422~2452MHz)
Channel Spacing	: 5MHz
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	: FPC Antenna, 5.9dBi(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/n: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK)
Antenna Description	: FPC Antenna, 6.4dBi(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/n: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK)





Antenna Description	: FPC Antenna, 6.4dBi(Max.)
2G	:
Support Band	: ☒ GSM 850 (U.S.-Band) ☒ PCS 1900 (U.S.-Band)
Release Version	: R99
GPRS Class	: Class 12
EGPRS Class	: Class 12
Type Of Modulation	: GMSK for GSM/GPRS; GMSK/8PSK for EGPRS
Antenna Description	: FPC Antenna 1.4dBi (max.) For GSM 850 1.2dBi (max.) For PCS 1900
3G	:
Support Band	: ☒ WCDMA Band II (U.S.-Band) ☒ WCDMA Band V (U.S.-Band)
Release Version	: R6
Type Of Modulation	: QPSK, 16QAM
Antenna Description	: FPC Antenna 1.2dBi (max.) For WCDMA Band II 1.4dBi (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 5(U.S.-Band) ☒ E-UTRA Band 7(U.S.-Band)
LTE Release Version	: R8
Type Of Modulation	: QPSK/16QAM
Antenna Description	: FPC Antenna 1.2dBi (max.) For E-UTRA Band 2 3.0dBi (max.) For E-UTRA Band 4 1.4dBi (max.) For E-UTRA Band 5 3.1dBi (max.) For E-UTRA Band 7
Power Class	: Class 3
NFC	:
Operating Frequency	: 13.56MHz
Modulation Type	: ASK
Antenna Description	: FPC Antenna, 0dBi(Max.)
GPS function	: Support and only RX
Extreme temp. Tolerance	: -30°C to +50°C
Extreme vol. Limits	: 6.1VDC to 8.4VDC (nominal: 7.2VDC)
Exposure category	: General population/uncontrolled environment
EUT Type	: Production Unit





Device Type	: Mobile Device
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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)
1-DH5	0	2402	-0.71
	39	2441	-0.61
	78	2480	-1.65
2-DH5	0	2402	-1.37
	39	2441	1.32
	78	2480	0.24
3-DH5	0	2402	-0.88
	19	2441	1.78
	39	2480	0.66

[BT LE]

Mode	Channel	Frequency (MHz)	Peak Conducted Output Power (dBm)
BLE 1M	0	2402	-1
	19	2440	1.59
	39	2480	0.72
BLE 2M	0	2402	-1.1
	19	2440	1.32
	39	2480	0.54

[2.4G WIFI]

Mode	Channel	Frequency (MHz)	Peak Conducted Output Power (dBm)
IEEE 802.11b	1	2412	15.00
	6	2437	14.20
	11	2462	15.22
IEEE 802.11g	1	2412	13.28
	6	2437	12.46
	11	2462	12.79
IEEE 802.11n HT20	1	2412	13.03
	6	2437	12.08
	11	2462	12.47
IEEE 802.11n HT40	3	2422	12.37
	6	2437	11.25
	9	2452	11.99





[5.2G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)
11A	36	5180	11.56
	40	5200	11.11
	48	5240	10.08
11N20 SISO	36	5180	11.84
	40	5200	11.44
	48	5240	10.66
11N40 SISO	38	5190	10.64
	46	5230	9.86
11AC20 SISO	36	5180	10.98
	40	5200	10.63
	48	5240	9.99
11AC40 SISO	38	5190	9.9
	46	5230	9.12
11AC80 SISO	42	5210	8.36

[5.8G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)
11A	149	5745	12.6
	157	5785	11.88
	165	5825	12
11N20 SISO	149	5745	12.84
	157	5785	12.56
	165	5825	12.57
11N40 SISO	151	5755	10.63
	159	5795	9.88
11AC20 SISO	149	5745	12.16
	157	5785	11.4
	165	5825	11.48
11AC40 SISO	151	5755	10.62
	159	5795	9.86
11AC80 SISO	155	5775	8.95

Test Procedure

TX frequency range: 13.56MHz, Limit: $824/13.56=60.77\text{V/m}$

Device category: Mobile device (Distance: 20cm)

Max. Field Strength: 36.47dBuV/m @3m

@20cm=@3m+40*log(3/0.2)=83.51dBuV/m

For 13.56MHz: $83.51\text{dBuV/m}=10^{(83.51/20)}/10^6=0.015\text{V/m}< 60.77\text{V/m}$





6. Manufacturing Tolerance

[BT]

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

[BT LE]

BLE 1M (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 2M (Peak)			
Channel	Channel 0	Channel 19	Channel 39
Target (dBm)	-1.0	1.0	0
Tolerance $\pm$ (dB)	1.0	1.0	1.0

[2.4G WIFI]

IEEE 802.11b (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	15.0	14.0	15.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
IEEE 802.11g (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	13.0	12.0	12.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
IEEE 802.11n HT20 (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	13.0	12.0	12.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
IEEE 802.11n HT40 (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





[5.2G WIFI]

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





[5.8G WIFI]

11A (Average)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	12.0	11.0	12.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N20 (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
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)	12.0	11.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AC40 (Average)			
Channel	Channel 151	Channel 159	
Target (dBm)	10.0	9.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AC80 (Average)			
Channel	Channel 155		
Target (dBm)	8.0		
Tolerance $\pm$ (dB)	1.0		

[GSM Max Average Power]

Test Mode	Channel	Frequency (MHz)	Max Average Power (dBm)	ANT Max. Tune Up Power (dBm)
GSM 850	Low	824.2	31.39	31.0 $\pm$ 1.0
	Middle	836.6	31.41	31.0 $\pm$ 1.0
	High	848.8	31.43	31.0 $\pm$ 1.0
GSM 1900	Low	1850.2	29.66	29.0 $\pm$ 1.0
	Middle	1880.0	29.72	29.0 $\pm$ 1.0
	High	1909.8	29.67	29.0 $\pm$ 1.0

[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	23.42	23.0 $\pm$ 1.0
	Middle	1880	23.49	23.0 $\pm$ 1.0
	High	1907.6	23.46	23.0 $\pm$ 1.0
WCDMA Band V	Low	826.4	23.40	23.0 $\pm$ 1.0
	Middle	836.4	23.55	23.0 $\pm$ 1.0
	High	846.6	23.47	23.0 $\pm$ 1.0





[LTE Max Average Power]

Test Mode		Channel	Max Average Power (dBm)	ANT Max. Tune Up Power (dBm)
LTE	Band 2	LCH	24.08	24.0±1.0
		MCH	22.57	22.0±1.0
		HCH	23.54	23.0±1.0
	Band 4	LCH	23.44	23.0±1.0
		MCH	23.37	23.0±1.0
		HCH	23.39	23.0±1.0
	Band 5	LCH	24.15	24.0±1.0
		MCH	24.13	24.0±1.0
		HCH	23.79	23.0±1.0
	Band 7	LCH	22.06	22.0±1.0
		MCH	22.83	22.0±1.0
		HCH	21.97	21.0±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]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)	MPE ratios
	dBm	mW					
GFSK	1.0	1.2589	5.9	3.8905	0.0010	1.0000	0.0010
$\pi/4$ -DQPSK	2.0	1.5849	5.9	3.8905	0.0012	1.0000	0.0012
8-DPSK	2.0	1.5849	5.9	3.8905	0.0012	1.0000	0.0012

[BLE 1M]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)	MPE ratios
	dBm	mW					
GFSK	2.0	1.5849	5.9	3.8905	0.0012	1.0000	0.0012

[BLE 2M]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)	MPE ratios
	dBm	mW					
GFSK	2.0	1.5849	5.9	3.8905	0.0012	1.0000	0.0012

[2.4G WIFI]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)	MPE ratios
	dBm	mW					
IEEE 802.11b	16.0	39.8107	5.9	3.8905	0.0308	1.0000	0.0308
IEEE 802.11g	14.0	25.1189	5.9	3.8905	0.0194	1.0000	0.0194
IEEE 802.11n HT20	14.0	25.1189	5.9	3.8905	0.0194	1.0000	0.0194
IEEE 802.11n HT40	13.0	19.9526	5.9	3.8905	0.0154	1.0000	0.0154

[5.2G WIFI]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)	MPE ratios
	dBm	mW					
IEEE 802.11a	12.0	15.8489	6.4	4.3652	0.0138	1.0000	0.0138
IEEE 802.11n HT20	12.0	15.8489	6.4	4.3652	0.0138	1.0000	0.0138
IEEE 802.11n HT40	11.0	12.5893	6.4	4.3652	0.0109	1.0000	0.0109
IEEE 802.11ac VHT20	11.0	12.5893	6.4	4.3652	0.0109	1.0000	0.0109
IEEE 802.11ac VHT40	10.0	10.0000	6.4	4.3652	0.0087	1.0000	0.0087
IEEE 802.11ac VHT80	9.0	7.9433	6.4	4.3652	0.0069	1.0000	0.0069





[5.8G WIFI]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)	MPE ratios
	dBm	mW					
IEEE 802.11a	13.0	19.9526	6.4	4.3652	0.0173	1.0000	0.0173
IEEE 802.11n HT20	13.0	19.9526	6.4	4.3652	0.0173	1.0000	0.0173
IEEE 802.11n HT40	11.0	12.5893	6.4	4.3652	0.0109	1.0000	0.0109
IEEE 802.11ac VHT20	13.0	19.9526	6.4	4.3652	0.0173	1.0000	0.0173
IEEE 802.11ac VHT40	11.0	12.5893	6.4	4.3652	0.0109	1.0000	0.0109
IEEE 802.11ac VHT80	9.0	7.9433	6.4	4.3652	0.0069	1.0000	0.0069

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)	MPE ratios
	dBm	mW					
GSM 850	32.0	1584.8932	1.4	1.3804	0.4352	0.5493	0.7923
GSM 1900	30.0	1000.0000	1.2	1.3183	0.2623	1.0000	0.2623
WCDMA Band II	24.0	251.1886	1.2	1.3183	0.0659	1.0000	0.0659
WCDMA Band V	24.0	251.1886	1.4	1.3804	0.0690	0.5493	0.1256
LTE Band 2	25.0	316.2278	1.2	1.3183	0.0829	1.0000	0.0829
LTE Band 4	24.0	251.1886	3.0	1.9953	0.0997	1.0000	0.0997
LTE Band 5	25.0	316.2278	1.4	1.3804	0.0868	0.5493	0.1580
LTE Band 7	23.0	199.5262	3.1	2.0417	0.0810	1.0000	0.0810

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.





7.2 Simultaneous Transmission MPE Evaluation

The sample support one BT/BLE/2.4GWIFI/5.2GWIFI/5.8GWIFI antenna, another one NFC antenna and another one GSM&WCDMA<E transmit antenna, so need consider simultaneous transmission;

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

$$TER = \sum_{k=1}^{N_S} \left(\frac{SAR_k}{SAR_{lim}} \right) + \sum_{k=1}^{N_f} \left(\frac{MPE_{field,k}}{MPE_{field,lim}} \right)^2 + \sum_{k=1}^{N_{PD}} \left(\frac{MPE_{PD,k}}{MPE_{PD,lim}} \right)$$

$\sum$ of MPE ratios ≤ 1.0

Simultaneous Transmission					
WIFI Antenna Max MPE ratios	NFC Antenna Max MPE ratios	GSM Antenna Max MPE ratios	$\sum$ MPE ratios	Limit	Results
0.0308	0.0005	0.7923	0.8236	1.0	Pass

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/BLE/2.4GWIFI/5GWIFI/2G/3G/4G/NFC:

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-----

