



RF Exposure Evaluation

FOR

WizarPos International Co., Ltd.

Smart POS

Test Model: WIZARPOS Q3

Prepared for : WizarPos International Co., Ltd.
Address : 4F, No 507 Wuning Rd, Shanghai, China

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

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

Date of receipt of test sample : March 09, 2026
Number of tested samples : 2
Sample No. : A260305056-1, A260305056-2
Serial number : Prototype
Date of Test : March 09, 2026 ~ April 09, 2026
Date of Report : April 10, 2026



Shenzhen LCS Compliance Testing Laboratory Ltd.

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

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

Scan code to check authenticity

**RF Exposure Evaluation****Report Reference No. : LCSA10015003EJ**

Date of Issue..... : April 10, 2026

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 : WizarPos International Co., Ltd.**

Address..... : 4F, No 507 Wuning Rd, Shanghai, China

Test SpecificationStandard : 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-214 A/0

TRF Originator : Shenzhen LCS Compliance Testing Laboratory Ltd.

Master TRF : Dated 2011-03

Shenzhen LCS Compliance Testing Laboratory Ltd. All rights reserved.

This publication may be reproduced in whole or in part for non-commercial purposes as long as the Shenzhen LCS Compliance Testing Laboratory Ltd. is acknowledged as copyright owner and source of the material. Shenzhen LCS Compliance Testing Laboratory Ltd. takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.

Test Item Description..... : Smart POS

Trade Mark : WIZARPOS

Test Model : WIZARPOS Q3

Ratings..... : Please Refer to Page 6

Result : Pass**Compiled by:**

Jack Liu/ Administrator

Supervised by:

Kevin Huang/ RF Manager

Approved by:

Gavin Liang/ Manager



Shenzhen LCS Compliance Testing Laboratory Ltd.

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

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

Scan code to check authenticity



RF Exposure Evaluation

Test Report No. : LCSA10015003EJ	<u>April 10, 2026</u> Date of issue
----------------------------------	--

Test Model.....	: WIZARPOS Q3
EUT.....	: Smart POS
Applicant.....	: WizarPos International Co., Ltd.
Address.....	: 4F, No 507 Wuning Rd, Shanghai, China
Telephone.....	: /
Fax.....	: /
Manufacturer.....	: WizarPos International Co., Ltd.
Address.....	: 4F, No 507 Wuning Rd, Shanghai, China
Telephone.....	: /
Fax.....	: /
Factory.....	: WizarPos International Co., Ltd.
Address.....	: 4F, No 507 Wuning Rd, Shanghai, China
Telephone.....	: /
Fax.....	: /

Test Result	Pass
-------------	------

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.



Shenzhen LCS Compliance Testing Laboratory Ltd.

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

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

Scan code to check authenticity



Revision History

Report Version	Issue Date	Revision Content	Revised By
000	April 10, 2026	Initial Issue	---





TABLE OF CONTENTS

Description	Page
1. Product Information.....	6
2. Evaluation Method	8
3. Limit	8
4. MPE Calculation Method	9
5. Conducted Power	9
6. Manufacturing Tolerance	11
7. Measurement Results	14
8. Conclusion	15
9. Description of Test Facility.....	15
10.Measurement Uncertainty.....	16



Shenzhen LCS Compliance Testing Laboratory Ltd.

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

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

Scan code to check authenticity



1. Product Information

EUT	: Smart POS
Test Model	: WIZARPOS Q3
Ratings	: Input: 9V $\overline{\sim}$ 3.0A For AC Adapter Input: 100-240V~, 50/60Hz, 1.0A MAX Adapter Output: 9V $\overline{\sim}$ 3.0A DC 3V By CR2032 LITHIUM BATTERY
Hardware Version	: V 1.0
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	: Internal Antenna, 2.84dBi(Max.)
WIFI(2.4G Band)	:
Frequency Range	: 2412MHz~2462MHz 11 Channels for 20MHz bandwidth (2412~2462MHz)
Channel Number	: 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	: Internal Antenna, 2.84dBi(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	: Internal Antenna, 1.16dBi(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	: Internal Antenna, 3.43dBi(Max.)
2G	:
Support Band	: ☒ GSM 900 (EU-Band) ☒ GSM 850 (U.S.-Band) ☒ GSM 850 (U.S.-Band) ☒ PCS 1900 (U.S.-Band)
Release Version	: R99
GPRS Class	: Class 12
EGPRS Class	: Class 12



Shenzhen LCS Compliance Testing Laboratory Ltd.

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

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

Scan code to check authenticity



Type Of Modulation : GMSK for GSM/GPRS; GMSK/8PSK for EGPRS
Antenna Description : Internal Antenna
-0.26dBi (max.) For GSM 850
0.76dBi (max.) For PCS 1900

3G

Support Band : ☒ WCDMA Band I (EU-Band)
☒ WCDMA Band II (U.S.-Band)
☒ WCDMA Band V (U.S.-Band)
☒ WCDMA Band VIII (EU-Band)

Release Version : R6

Type Of Modulation : QPSK,16QAM

Antenna Description : Internal Antenna
0.76dBi (max.) For WCDMA Band II
-0.26dBi (max.) For WCDMA Band V

LTE

Support Band : ☒ E-UTRA Band 1(Non U.S.-Band)
☒ E-UTRA Band 2(U.S.-Band)
☒ E-UTRA Band 3(Non U.S.-Band)
☒ E-UTRA Band 4(U.S.-Band)
☒ E-UTRA Band 5(U.S.-Band)
☒ E-UTRA Band 7(U.S.-Band)
☒ E-UTRA Band 8(Non U.S.-Band)
☒ E-UTRA Band 38(U.S.-Band)
☒ E-UTRA Band 39(Non U.S.-Band)
☒ E-UTRA Band 40(Non U.S.-Band)
☒ E-UTRA Band 41(U.S.-Band)

LTE Release Version : R8

Type Of Modulation : QPSK/16QAM

Antenna Description : Internal Antenna
0.76dBi (max.) For E-UTRA Band 2
1.76dBi (max.) For E-UTRA Band 4
-0.26dBi (max.) For E-UTRA Band 5
3.0dBi (max.) For E-UTRA Band 7
2.28dBi (max.) For E-UTRA Band 38
3.0dBi (max.) For E-UTRA Band 41

Power Class : Class 3

NFC

Operating Frequency : 13.56MHz

Modulation Type : ASK

Antenna Description : Internal Antenna (Max.)

Power Class : Class 3

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.



Shenzhen LCS Compliance Testing Laboratory Ltd.

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

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

Scan code to check authenticity



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



Shenzhen LCS Compliance Testing Laboratory Ltd.

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

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

Scan code to check authenticity



4. 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)
GFSK	0	2402	5.75
	39	2441	6.71
	78	2480	6.15
$\pi/4$ DQPSK	0	2402	7.26
	39	2441	8.36
	78	2480	7.49
8DPSK	0	2402	7.6
	39	2441	8.66
	78	2480	7.68

[BLE 1M]

Mode	Channel	Frequency (MHz)	Peak Conducted Output Power (dBm)
BLE	0	2402	3.8
	19	2440	1.18
	39	2480	0.15

[2.4G WIFI]

Mode	Channel	Frequency (MHz)	Peak Conducted Output Power (dBm)
11B	1	2412	15.11
	6	2437	14.23
	11	2462	15.62
11G	1	2412	14.19
	6	2437	13.56
	11	2462	15.03
11N20 SISO	1	2412	13.5
	6	2437	13.73
	11	2462	13.46
11N40 SISO	3	2412	12.89
	6	2437	12.58
	9	2462	12.31



Shenzhen LCS Compliance Testing Laboratory Ltd.

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

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

Scan code to check authenticity



[5.2G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)
11A	36	5180	11.35
	40	5200	11.28
	48	5240	11.63
11N20 SISO	36	5180	11.75
	40	5200	11.63
	48	5240	12.04
11N40 SISO	38	5190	10.65
	46	5230	11.39
11AC20 SISO	36	5180	11.8
	40	5200	11.68
	48	5240	11.92
11AC40 SISO	38	5190	11.17
	46	5230	11.24
11AC80 SISO	42	5210	11.45

[5.8G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)
11A	149	5745	10.98
	157	5785	10.98
	165	5825	11.23
11N20 SISO	149	5745	11.37
	157	5785	11.81
	165	5825	11.96
11N40 SISO	151	5755	11.69
	159	5795	11.7
11AC20 SISO	149	5745	11.87
	157	5785	11.82
	165	5825	11.85
11AC40 SISO	151	5755	11.75
	159	5795	11.53
11AC80 SISO	155	5775	11.63

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: 42.05dBuV/m @3m

@20cm=@3m+40*log(3/0.2)= 89.09dBuV/m

For 13.56MHz: $89.09\text{dBuV/m}=10^{(89.09/20)}/10^6=0.028\text{V/m}< 60.77\text{V/m}$



Shenzhen LCS Compliance Testing Laboratory Ltd.

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

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

Scan code to check authenticity



6. Manufacturing Tolerance

[BT]

GFSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	5.0	6.0	6.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
$\pi/4$ -DQPSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	7.0	8.0	7.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
8DPSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	7.0	8.0	7.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0

[BLE1M]

BT LE (Peak)			
Channel	Channel 0	Channel 19	Channel 39
Target (dBm)	3.0	1.0	0
Tolerance $\pm$ (dB)	1.0	1.0	1.0

[2.4G WIFI]

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



Shenzhen LCS Compliance Testing Laboratory Ltd.

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

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

Scan code to check authenticity



[5.2G WIFI]

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

[5.8G WIFI]

11A (Average)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	10.0	10.0	11.0
Tolerance ±(dB)	1.0	1.0	1.0
11N20 (Average)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	11.0	11.0	11.0
Tolerance ±(dB)	1.0	1.0	1.0
11N40 (Average)			
Channel	Channel 151		Channel 159
Target (dBm)	11.0		11.0
Tolerance ±(dB)	1.0		1.0
11AC20 (Average)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	11.0	11.0	11.0
Tolerance ±(dB)	1.0	1.0	1.0



Shenzhen LCS Compliance Testing Laboratory Ltd.

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

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

Scan code to check authenticity



11AC40 (Average)		
Channel	Channel151	Channel 159
Target (dBm)	11.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0
11AC80 (Average)		
Channel	Channel155	
Target (dBm)	11.0	
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	LCH	824.2	32.40	32.0 $\pm$ 1.0
	MCH	836.6	32.39	32.0 $\pm$ 1.0
	HCH	848.8	32.37	32.0 $\pm$ 1.0
PCS 1900	LCH	1850.2	29.46	29.0 $\pm$ 1.0
	MCH	1880.0	29.47	29.0 $\pm$ 1.0
	HCH	1909.8	29.47	29.0 $\pm$ 1.0

[WCDMA Max Average Power]

Test Mode	Channel	Frequency (MHz)	Max Average Power (dBm)	ANT Max. Tune Up Power (dBm)
Band II	LCH	1852.4	23.27	23.0 $\pm$ 1.0
	MCH	1880	23.50	23.0 $\pm$ 1.0
	HCH	1907.6	23.12	23.0 $\pm$ 1.0
Band V	LCH	826.4	23.11	23.0 $\pm$ 1.0
	MCH	836.4	23.26	23.0 $\pm$ 1.0
	HCH	846.6	23.22	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	23.6	23.0 $\pm$ 1.0
		MCH	24.04	24.0 $\pm$ 1.0
		HCH	24.76	24.0 $\pm$ 1.0
	Band 4	LCH	24.65	24.0 $\pm$ 1.0
		MCH	24.55	24.0 $\pm$ 1.0
		HCH	24.49	25.0 $\pm$ 1.0
	Band 5	LCH	25.23	25.0 $\pm$ 1.0
		MCH	25.0	25.0 $\pm$ 1.0
		HCH	24.96	24.0 $\pm$ 1.0
	Band 7	LCH	24.49	24.0 $\pm$ 1.0
		MCH	24.28	24.0 $\pm$ 1.0
		HCH	24.03	24.0 $\pm$ 1.0
	Band 38	LCH	24.83	24.0 $\pm$ 1.0
		MCH	25.0	25.0 $\pm$ 1.0
		HCH	24.5	24.0 $\pm$ 1.0
	Band 41	LCH	24.5	24.0 $\pm$ 1.0
		MCH	24.64	24.0 $\pm$ 1.0
		HCH	23.64	23.0 $\pm$ 1.0



Shenzhen LCS Compliance Testing Laboratory Ltd.

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

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

Scan code to check authenticity



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 ¹
	dBm	mW					
GFSK	7.0	5.0119	2.84	1.9231	0.0019	1.0000	0.0019
$\pi/4$ -DQPSK	9.0	7.9433	2.84	1.9231	0.0030	1.0000	0.0030
8-DPSK	9.0	7.9433	2.84	1.9231	0.0030	1.0000	0.0030

[BLE1M]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)	MPE ratios ¹
	dBm	mW					
GFSK	4.0	2.5119	2.84	1.9231	0.0010	1.0000	0.0010

[2.4G WIFI]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)	MPE ratios ¹
	dBm	mW					
IEEE 802.11b	16.0	39.8107	2.84	1.9231	0.0152	1.0000	0.0152
IEEE 802.11g	16.0	39.8107	2.84	1.9231	0.0152	1.0000	0.0152
IEEE 802.11n HT20	14.0	25.1189	2.84	1.9231	0.0096	1.0000	0.0096
IEEE 802.11n HT40	13.0	19.9526	2.84	1.9231	0.0076	1.0000	0.0076

[5.2G WIFI]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)	MPE ratios ¹
	dBm	mW					
IEEE 802.11a	12.0	15.8489	1.16	1.3062	0.0041	1.0000	0.0041
IEEE 802.11n HT20	13.0	19.9526	1.16	1.3062	0.0052	1.0000	0.0052
IEEE 802.11n HT40	12.0	15.8489	1.16	1.3062	0.0041	1.0000	0.0041
IEEE 802.11ac VHT20	12.0	15.8489	1.16	1.3062	0.0041	1.0000	0.0041
IEEE 802.11ac VHT40	12.0	15.8489	1.16	1.3062	0.0041	1.0000	0.0041
IEEE 802.11ac VHT80	12.0	15.8489	1.16	1.3062	0.0041	1.0000	0.0041

[5.8G WIFI]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)	MPE ratios ¹
	dBm	mW					
IEEE 802.11a	12.0	15.8489	3.43	2.2029	0.0069	1.0000	0.0069
IEEE 802.11n HT20	12.0	15.8489	3.43	2.2029	0.0069	1.0000	0.0069



Shenzhen LCS Compliance Testing Laboratory Ltd.

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

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

Scan code to check authenticity



IEEE 802.11n HT40	12.0	15.8489	3.43	2.2029	0.0069	1.0000	0.0069
IEEE 802.11ac VHT20	12.0	15.8489	3.43	2.2029	0.0069	1.0000	0.0069
IEEE 802.11ac VHT40	12.0	15.8489	3.43	2.2029	0.0069	1.0000	0.0069
IEEE 802.11ac VHT80	12.0	15.8489	3.43	2.2029	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 ²
	dBm	mW					
GSM 850	23.97	249.4595	-0.26	0.9419	0.0468	0.5493	0.0851
PCS 1900	20.97	125.0259	0.76	1.1912	0.0296	1.0000	0.0296
Band II	24.0	251.1886	0.76	1.1912	0.0596	1.0000	0.0596
Band V	24.0	251.1886	-0.26	0.9419	0.0471	0.5493	0.0857
LTE Band 2	25.0	316.2278	0.76	1.1912	0.0750	1.0000	0.0750
LTE Band 4	26.0	398.1072	1.76	1.4997	0.1188	1.0000	0.1188
LTE Band 5	26.0	398.1072	-0.26	0.9419	0.0746	0.5493	0.1359
LTE Band 7	25.0	316.2278	3	1.9953	0.1256	1.0000	0.1256
LTE Band 38	26.0	398.1072	-0.26	0.9419	0.0746	1.0000	0.0746
LTE Band 41	25.0	316.2278	0.76	1.1912	0.0750	1.0000	0.0750

Remark:

1. Output power including tune-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.
4. For GSM, Duty cycle=1/8.

7.2 Simultaneous Transmission MPE Evaluation

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

Simultaneous transmission MPE

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

Max MPE ratios ¹	Max MPE ratios ²	NFC Ant Max MPE ratios	$\sum$ MPE ratios	Limit	Results
0.0096	0.1359	0.000461	0.1460	1.000	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.



Shenzhen LCS Compliance Testing Laboratory Ltd.

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

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

Scan code to check authenticity



10.Measurement Uncertainty

BT&BLE&2.4GWLAN&5.2GWLAN&5.8GWLAN/GSM/WCDMA/LTE/NFC:

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

