

FCC Part 15C/E Measurement and Test Report

For

Shenzhen Juxinfeng Trading Co., Ltd

FCC ID:2BROY-GGJ

FCC Rule(s):	<u>FCC Part 15C/15E</u>
Product Description:	<u>Digital Signage Display</u>
Tested Model:	<u>GGJ</u>
Report No.:	<u>MAX250840706301MPE</u>
Tested Date:	<u>Jul. 28~Aug.30, 2025</u>
Issued Date:	<u>Aug. 30, 2025</u>
Tested By:	<u>Steven Wen/ Engineer</u>
Reviewed By:	<u>Lisa. Ji / EMC Manager</u>
Approved & Authorized By:	<u>Mike mo / PSQ Manager</u>
Prepared By:	

Steven Wen

Lisa. Ji

Mike mo

MAXLAB TESTING CO., LTD.

1/F, Building B, Xinshidai GR Park, Shiyao Street, Bao'an District, Shenzhen,
Guangdong, 518052, People's Republic of China

Tel: 400-882-9628

Fax: 86- 755-26508703

1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant: Shenzhen Juxinfeng Trading Co., Ltd
Address of applicant: Bldg 4, Rm 301-305, Wenkeng Ind. Zone, 24 Dafa Rd, Bantian, Longgang, Shenzhen, China

Manufacturer: Shenzhen Juxinfeng Trading Co., Ltd
Address of manufacturer: Bldg 4, Rm 301-305, Wenkeng Ind. Zone, 24 Dafa Rd, Bantian, Longgang, Shenzhen, China

General Description of EUT	
Product Name:	Digital Signage Display
Trade Name:	N/A
Model No.:	GGJ
Adding Model:	GGJ-stand43.GGJ-stand55.GGJ-stand65.GGJ-stand75.GGJ-st and85.GGJ-stand98.GGJ-BG32.GGJ-BG43.GGJ-BG49.GGJ-B G55.GGJ-BG65.GGJ-BG75.GGJ-BG85.GGJ-BG86.GGJ-BG98. GGJ-BG110.GGJ-HP22.GGJ-HP27.GGJ-HP32.GGJ-HP43.GGJ -HP55.GGJ-HP65
Rated Voltage:	AC 100-240V 2.5A
Adapter information:	N/A

Technical Characteristics of EUT	
Support Standards:	Bluetooth, 802.11a/b/g/n/ac
Frequency Range:	2402-2480MHz 2412-2462MHz 5180-5240MHz 5745-5825MHz
Type of Antenna:	Dedicated Antennas
Antenna Gain:	5.3dBi

1.2 Test Standards

The tests were performed according to following standards:

ANSI C95.1-1999: IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.

FCC KDB 447498 D01 General RF Exposure Guidance v06: Mobile and Portable Device, RF Exposure, Equipment Authorization Procedures.

FCC CFR 47 part1 1.1310: Radiofrequency radiation exposure limits.

FCC CFR 47 part2 2.1091: Radiofrequency radiation exposure evaluation: mobile devices

1.3 Test Facility

MAXLAB Testing Co., Ltd.

1/F, Building B, Xinshidai GR Park, Shiyan Street, Bao'an District, Shenzhen, ShiyanStreet, Bao'an District, Shenzhen,Guangdong,518052,People' s Republic of China

FCC Test Firm Registration Number: 562200

Designation Number: CN1338

Tel: 400-882-9628

Fax: 86-755-26508703

1.4 Measurement Uncertainty

Measurement uncertainty		
Parameter	Conditions	Uncertainty
RF Output Power	Conducted	$\pm 0.42\text{dB}$

2. TEST LIMIT

2.1 Requirement

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	6	1.63	(100	6
3.0 – 30	1842/f	4.89/f	(900/f ²)*	6
30 – 300	6	0.163	1.0 f/300	6
300 – 1500	/	/	5	6
1500 – 100,000	/	/		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/Controlled Exposure				
0.3 – 3.0	6	1.63	(100	3
3.0 – 30	824/f	2.19/f	(180/f ²)*	3
30 – 300	2	0.073	0.2 f/1500	3
300 – 1500	/	/	1.0	3
1500 – 100,000	/	/		3

F=frequency in MHz

*=Plane-wave equivalent power density

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

As declared by the Applicant, the EUT transmits with the maximum source-based Duty Cycle of 100%-see the User manual, and the EUT is a wireless device used in a mobile application, at least 20 cm from any body part of the

user or nearby persons; from the maximum EUT RF output power, the minimum mobile separation distance, $r = 20\text{cm}$, as well as the gain of the used antenna is 5.3dBi for BT&WLAN, and the power drift from Turn-up Procedure provide by manufacturer as following states, the RF power density can be obtained.

2.2 Conducted Peak Output Power

[BT]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)
GFSK	00	2402	0.1
	39	2441	0.13
	79	2480	0.33
$\pi/4$ -DQPSK	00	2402	1
	39	2441	1.02
	79	2480	1.18
8-DPSK	00	2402	1.35
	39	2441	1.4
	79	2480	1.56

[2.4G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)
IEEE 802.11b	1	2412	12.89
	6	2437	12.94
	11	2462	11.82
IEEE 802.11g	1	2412	13.39
	6	2437	12.92
	11	2462	12.65
IEEE 802.11n HT20	1	2412	13.61
	6	2437	13.34
	11	2462	14.1
IEEE 802.11n HT40	3	2422	14.77
	6	2437	14.6
	9	2452	14.44

[5.2G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)
IEEE 802.11a	36	5180	11.47
	40	5200	10.08
	48	5240	9.89
IEEE 802.11n HT20	36	5180	9.89
	40	5200	9.72
	48	5240	10.14
IEEE 802.11n HT40	38	5190	10.87
	46	5230	11.18
	36	5180	11.01
	40	5200	10.05

IEEE 802.11ac VHT20	48	5240	10.99
IEEE 802.11ac VHT40	38	5190	12.09
	46	5230	10.17

[5.8G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)
IEEE 802.11a	149	5745	11.61
	157	5785	11.77
	165	5825	11.19
IEEE 802.11n HT20	149	5745	12.16
	157	5785	12.54
	165	5825	12.83
IEEE 802.11n HT40	151	5755	12.54
	159	5795	12.83
IEEE 802.11ac VHT20	149	5745	13.53
	157	5785	13.44
	165	5825	14.15
IEEE 802.11ac VHT40	151	5755	12.29
	159	5795	12.36
IEEE 802.11ac VHT80	155	5775	11.78

2.3 Manufacturing Tolerance

BT(Peak)			
Channel	Channel 00	Channel 39	Channel 78
Target (dBm)	1.0	1.0	1.0
Tolerance $\pm$ (dB)	2.0	2.0	2.0

2.4G WIFI (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	13.0	13.0	13.0
Tolerance $\pm$ (dB)	2.0	2.0	2.0

5.2G WIFI (Average)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	11.0	11.0	11.0
Tolerance $\pm$ (dB)	2.0	2.0	2.0

5.8G WIFI (Average)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	12.5	12.5	12.5
Tolerance $\pm$ (dB)	2.0	2.0	2.0

2.4 Evaluation Result

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
BT	3.00	1.9953	5.3	3.388	0.0013	1.0000
2.4G WIFI	15.00	31.6228	5.3	3.388	0.0213	1.0000
5.2G WIFI	13.00	19.9526	5.3	3.388	0.0135	1.0000
5.8G WIFI	14.50	28.1838	5.3	3.388	0.0190	1.0000

Remark:

1. Output power including tune up tolerance;
2. MPE evaluate distance is 20cm from user manual provide by manufacturer;.

2.5 Simultaneous Transmission for SAR Exclusion

N/A

2.6 Conclusion

The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure and SAR Exclusion Threshold per KDB447498 D01 General RF Exposure Guidance v06.

***** END OF REPORT *****

