FCC AND ISED CERTIFICATION TEST REPORT

Applicant:	EXPRESS LUCK INDUSTRIAL (SHENZHEN) LIMITED
Address:	Floor1, Workshop1, NO.88, SOUTH BAOTONG ROAD, XIKENG COMMUNITY, YUANSHAN STREET, LONGGANG DISTRICT, Shenzhen
Manufacturer:	Guangzhou Shikun Electronics Co., Ltd
Address:	No.6, Liankun Road, Huangpu District, Guangzhou, China
Product Description:	IEEE 802.11b/g/n 2T2R USB Wi-Fi Module
Brand Name:	NA
Tested Model:	EL.RT8192FC-WFT
FCC ID:	2AWY6-ELRT8192FCT
IC:	26332-ELRT8192FCT
Report No.:	JCF250408041-001
Received Date:	Apr. 08, 2025
Tested Date:	Apr. 08, 2025 ~ Apr. 18, 2025
Issued Date:	Apr. 18, 2025
Test Standards:	FCC Rules and Regulations Part 15 Subpart C, RSS-247 Issue 3 August 2023
Test Procedure:	ANSI C63.10:2013, RSS-Gen Issue 5 A2, Feb. 2021
Test Result:	Pass

Prepared By:

Roger Li

Roger Li/Engineer **Date:** Apr. 18, 2025

Reviewed By:

Kennys Zhang

Kennys Zhang/Engineer **Date:** Apr. 18, 2025

Approved By:

Talent Zhang

Talent Zhang/Engineer **Date:** Apr. 18, 2025

Note: The test results in this report apply exclusively to the tested model / sample. Without written approval of Guangzhou Jingce Testing Technology Co., Ltd. the test report shall not be reproduced except in full.

Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Apr. 18, 2025	Original Report	/

Table of Contents

1. Test Report Declare **5**
2. Summary of Test Results **6**
3. Test Laboratory **6**
4. Equipment Under Test **7**
4.1. Description of EUT 7
4.2. Channel List 7
4.3. Test Channel Configuration 8
4.4. Test environment conditions 8
4.5. Description of Available Antennas 8
4.6. Description of Available Antennas 9
5. Description of Test Setup **9**
5.1. Accessory 9
5.2. Support Equipment 9
5.3. Test Setup 10
5.4. Setup Diagram for Tests 10
6. Measurement Uncertainty **10**
7. Measuring Instrument and Software Used **10**
8. On Time and Duty Cycle **12**
8.1. Block diagram of test setup 12
8.2. Limits 12
8.3. Procedure 12
8.4. Results 12
8.5. Original test data 13
9. 6 dB DTS Bandwidth and 99 % Occupied Bandwidth **22**
9.1. Block diagram of test setup 22
9.2. Limits 22
9.3. Test Procedure 22
9.4. Results 22
9.5. Original test data 24
10. Conducted Output Power **40**
10.1. Block diagram of test setup 40
10.2. Limits 40
10.3. Test Procedure 40
10.4. Results 40
11. Power Spectral Density **42**
11.1. Block diagram of test setup 42
11.2. Limits 42
11.3. Test Procedure 42
11.4. Results 42
11.5. Original test data 43
12. Conducted Band edge and Spurious Emissions **52**
12.1. Block diagram of test setup 52
12.2. Limits 52
12.3. Test Procedure 52
12.4. Test result 52
12.5. Original test data 54
13. Radiated Emission **84**
13.1. Block diagram of test setup 84
13.2. Limit 85
13.3. Test Procedure 86
13.4. Results 88
13.5. Original test data 88

14. AC Power Line Conducted Emissions 89
14.1. Block diagram of test setup 89
14.2. Limits 89
14.3. Test procedure 89
14.4. Test result 90
14.5. Original test data 90
15. Antenna Requirements 91
15.1. Applicable Requirements 91
15.2. Result 91
APPENDIX A – Radiated Emission Below 1GHz Test Data 92
APPENDIX B – Radiated Emission Above 1GHz Test Data 94
APPENDIX C – AC Power Line Conducted Emission Test Data 116

1. Test Report Declare

Applicant:	EXPRESS LUCK INDUSTRIAL (SHENZHEN) LIMITED
Address:	Floor1, Workshop1, NO.88, SOUTH BAOTONG ROAD, XIKENG COMMUNITY, YUANSHAN STREET, LONGGANG DISTRICT, Shenzhen
Manufacturer:	Guangzhou Shikun Electronics Co., Ltd
Address:	No.6, Liankun Road, Huangpu District, Guangzhou, China
Product Name:	IEEE 802.11b/g/n 2T2R USB Wi-Fi Module
Brand Name:	NA
Model Name:	EL.RT8192FC-WFT
Difference Description:	NA

We Declare:

The equipment described above is tested by Guangzhou Jingce Testing Technology Co., Ltd. and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and Guangzhou Jingce Testing Technology Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these tests except as provided information by clients.

2. Summary of Test Results

Summary of Test Results			
Clause	**Test Items**	**FCC/ISED Rules**	**Test Results**
1	6dB Bandwidth and 99 % Occupied Bandwidth	FCC Part 15.247 (a) (2) RSS-247 Clause 5.2 (a) ISED RSS-Gen Clause 6.7	Pass
2	Peak Conducted Output Power	FCC Part 15.247 (b) (3) RSS-247 Clause 5.4 (d)	Pass
3	Power Spectral Density	FCC Part 15.247 (e) RSS-247 Clause 5.2 (b)	Pass
4	Conducted Bandedge and Spurious Emission	FCC Part 15.247 (d) RSS-247 Clause 5.5	Pass
5	Radiated Bandedge and Spurious Emission	FCC Part 15.247 (d) FCC Part 15.209 FCC Part 15.205 RSS-247 Clause 5.5 RSS-GEN Clause 8.9	Pass
6	Conducted Emission Test For AC Power Port	FCC Part 15.207 RSS-GEN Clause 8.8	Pass
7	Antenna Requirement	FCC Part 15.203 RSS-GEN Clause 6.8	Pass

3. Test Laboratory

Guangzhou Jingce Testing Technology Co., Ltd.

Add.: No.10, Hefeng No.1 street, Huangpu District, Guangzhou, Guangdong, People's Republic of China

Association for Laboratory Accreditation(A2LA). Certificate Number: 6594.03

FCC Designation Number: CN1381. Test Firm Registration Number: 486550

IC Test Firm Registration Number: 31808

Conformity Assessment Body identifier: CN0173

4. Equipment Under Test

4.1. Description of EUT

EUT Name:	IEEE 802.11b/g/n 2T2R USB Wi-Fi Module
Model Number:	EL.RT8192FC-WFT
EUT Function Description:	Please refer to user manual of this device
Power Supply:	DC 3.3V
Hardware Version:	NA
Software Version:	NA
Radio Specification:	IEEE802.11b/g/n
Operation Frequency:	IEEE 802.11b: 2412MHz—2462MHz IEEE 802.11g: 2412MHz—2462MHz IEEE 802.11n HT20: 2412MHz—2462MHz IEEE 802.11n HT40: 2422MHz—2452MHz
Modulation:	IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n (HT20/40): OFDM (64QAM, 16QAM, QPSK, BPSK)
Data Rate:	IEEE 802.11b: 1, 2, 5.5, 11 Mbps IEEE 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps IEEE 802.11n HT20: 14.4, 28.9, 43.3, 57.8, 86.7, 115.6, 130.0, 144.4Mbps IEEE 802.11n HT40: 30.0, 60.0, 90.0, 120.0, 180.0, 240.0, 270.0, 300.0 Mbps
Antenna Type:	Sheet Metal Antenna, MAX. Gain: 0.48 dBi

Note 1: EUT is the ab. of equipment under test.

Note 2: The antenna gain is declared by the customer and the laboratory is not responsible for the accuracy of the antenna gain.

4.2. Channel List

Channel List for 802.11b/g/n (20 MHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	4	2427	7	2442	10	2457
2	2417	5	2432	8	2447	11	2462
3	2422	6	2437	9	2452	/	/

Channel List for 802.11n (40 MHz)					
Channel	Frequency (MHz)	Channel	Frequency(MHz)	Channel	Frequency (MHz)
3	2422	6	2437	9	2452
4	2427	7	2442	/	/
5	2432	8	2447	/	/

4.3. Test Channel Configuration

Tested mode, channel and rand data rate information			
Mode	Data rate (Mbps) (see Note)	Channel	Frequency (MHz)
802.11b	1	Low: CH1	2412
	1	Middle: CH6	2437
	1	High: CH11	2462
802.11g	6	Low: CH1	2412
	6	Middle: CH6	2437
	6	High: CH11	2462
802.11n HT20	MCS 8	Low: CH1	2412
	MCS 8	Middle: CH6	2437
	MCS 8	High: CH11	2462
802.11n HT40	MCS 8	Low: CH3	2422
	MCS 8	Middle: CH6	2437
	MCS 8	High: CH9	2452
Note: According exploratory test, EUT will have maximum output power in those data rate, so those data rate were used for all test.			

4.4. Test environment conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature range:	21-25 ℃
Humidity range:	40-75%
Pressure range:	86-106 kPa

4.5. Description of Available Antennas

The Worse Case Power Setting Parameter under 2400 ~ 2483.5MHz Band				
Test Software		MPTool		
Modulation Mode	Transmit Antenna Number	Test Software Setting Value		
		Channel	ANT1	ANT2
802.11b	2	CH1	32	30
		CH6	32	30
		CH11	32	30
802.11g	2	CH1	30	30
		CH6	30	30
		CH11	30	30
802.11HT20	2	CH1	30	30
		CH6	30	30
		CH11	30	30
802.11n HT40	2	CH3	30	30
		CH6	30	30
		CH9	30	30

4.6. Description of Available Antennas

Test Mode	Transmit and Receive Mode	Description
802.11b	☒ 2TX, 2RX	ANT 1 and ANT2 can be used as transmitting/receiving antenna.
802.11g	☒ 2TX, 2RX	ANT 1 and ANT2 can be used as transmitting/receiving antenna.
802.11n HT20	☒ 2TX, 2RX	ANT 1 and ANT2 can be used as transmitting/receiving antenna.
802.11n HT40	☒ 2TX, 2RX	ANT 1 and ANT2 can be used as transmitting/receiving antenna.
Note: 1. Only 802.11n HT20/HT40 support MIMO mode		

5. Description of Test Setup

5.1. Accessory

Description of Accessories	Manufacturer	Model Number	Description	Remark
/	/	/	/	/

5.2. Support Equipment

Equipment	Brand Name	Model Name	P/N
PC	Lenovo	T480	/

5.3. Test Setup

The EUT can work in Fixed Frequency mode.

5.4. Setup Diagram for Tests

6. Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Test Item	Uncertainty
AC Power Conduction emission	1.37 dB
All Radiated emissions	5.4dB
Conducted emissions	3.09 dB
Occupied Channel Bandwidth	1.1%
Conducted Output power	0.82dB
Power Spectral Density	0.82dB
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95 % confidence level using a coverage factor of k = 2.	

7. Measuring Instrument and Software Used

TS Test System						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due. Date
☑	Spectrum Analyzer	Keysight	N9030B	MY56320512	Aug. 22, 2024	Aug. 21, 2025
☑	Vector Signal Generator	Keysight	N5182B	MY57300334	Aug. 22, 2024	Aug. 21, 2025
☑	Signal Generator	Keysight	N5171B	MY57280639	Aug. 22, 2024	Aug. 21, 2025
☑	DC POWER	Keysight	E342A	MY59020356	Aug. 29, 2024	Aug. 28, 2025
☑	Incubator thermometer	GWS	EL-02JA	21107288	Aug. 15, 2024	Aug. 14, 2025
☑	Control unit(Power sensor)	Tonscend	JS0806-2	/	Aug. 23, 2024	Aug. 22, 2025
☑	Spectrum Analyzer	Keysight	N9020B	MY60112206	Sep. 11, 2024	Sep. 10, 2025
☑	Control unit(Power sensor)	Tonscend	JS0806-2	21H8060465	Aug. 22, 2024	Aug. 21, 2025
☑	Spectrum Analyzer	Keysight	N9020B	MY60112811	Aug. 23, 2024	Aug. 22, 2025
☑	Signal Generator	Keysight	N5173B	MY62220145	Aug. 23, 2024	Aug. 22, 2025
☑	Vector Signal Generator	Keysight	N5182B	MY61252859	Aug. 22, 2024	Aug. 21, 2025
☑	DC POWER	Keysight	E3642A	MY40005294	Aug. 30, 2024	Aug. 29, 2025
☑	Control unit(Power	Tonscend	JS0806-2	24F80620865	Aug. 23, 2024	Aug. 22, 2025