Human Exposure Report

FCC ID: 2AX7X-JOWUAWC1

Report No.	:	BTL-FCCP-2-2009T076
Equipment	:	Wireless Charger
Model Name	:	JOWUAWC1
Brand Name	:	JOWUA
Applicant	:	JOWUA INTERNATIONAL LIMITED TAIWAN BRANCH
Address	:	9F.,No.156, Sec. 3,Minsheng E. Rd.,Songshan Dist.,Taipei City 105, Taiwan (R.O.C.)
Standard(s)	:	47 CFR PART 1, Subpart I, Section 1.1310 KDB680106 D01 RF Exposure Wireless Charging Apps v03
Date of Receipt	:	2020/11/4
Date of Test	:	2020/11/4 ~ 2020/11/18
Issued Date	:	2020/12/24

The above equipment has been tested and found in compliance with the requirement of the above standards by BTL Inc.

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Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

BTL's reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **BTL** shall have no liability for any declarations, inferences or generalizations drawn by the client or others from **BTL** issued reports.

This report is the confidential property of the client. As a mutual protection to the clients, the public and ourselves, the test report shall not be reproduced, except in full, without our written approval.

BTL's laboratory quality assurance procedures are in compliance with the **ISO/IEC 17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

BTL is not responsible for the sampling stage, so the results only apply to the sample as received.

The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

CONTENTS

REPORT ISSUED HISTORY		4
1	GENERAL INFORMATION	5
1.1	TEST FACILITY	5
2	TEST RESULTS	5
2.1	LIMITS	5
2.2	MEASUREMENT DATA	6
3	LIST OF MEASURING EQUIPMENTS	10
4	EUT TEST PHOTO	11

REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue.	2020/12/8
R01	Revised report to address TCB's comments.	2020/12/24

1 GENERAL INFORMATION

1.1 TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No. 68-1, Ln. 169, Sec. 2, Datong Rd., Xizhi Dist., New Taipei City 221, Taiwan
The test sites and facilities are covered under FCC RN: 674415 and DN: TW0659.

2 TEST RESULTS

2.1 LIMITS

For 47 CFR PART 1, Subpart I, Section 1.1310:

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density ($m/W/cm^2$)	Averaging time (minutes)
(A) Limits for Occupational / Controlled Exposures				
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
1500-100000	/	/	5	6
(B) Limits for General Population / Uncontrolled Exposures				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*($180/f^2$)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100000	/	/	1.0	30
F=frequency in MHz *=Plane-wave equivalent power density RF exposure compliance will need to be determined with respect to 1.1307(c) and (d) of the FCC rules. The emissions should be within the limits at 300kHz in Table 1 of 1.1310 (use the 300kHz limits for 150kHz: 614V/m, 1.63A/m).				

For KDB680106 D01:

For devices designed for typical desktop applications, such a wireless charging pads, RF exposure evaluation should be conducted assuming a user separation distance of 15 cm. E and H field strength measurements or numerical modeling may be used to demonstrate compliance. Measurements should be made from all sides and the top of the primary/client pair, with the 15 cm measured from the center of the probe(s) to the edge of the device. Emissions between 100 kHz to 300 kHz should be assessed versus the limits at 300 kHz in Table 1 of Section 1.1310: 614 V/m and 1.63 A/m. A KDB inquiry is required to determine the applicable exposure limits below 100 kHz.

2.2 MEASUREMENT DATA

Electric Field Emissions:

Test Position(0 cm)	Probe Measure Results (V/m)	Limit (V/m)
	intermediate charge	
Front	84.16	614
Back	79.75	614
Left	36.71	614
Right	34.05	614
Top	40.03	614
Bottom	45.21	614

Test Position(2 cm)	Probe Measure Results (V/m)	Limit (V/m)
	intermediate charge	
Front	66.75	614
Back	62.15	614
Left	29.26	614
Right	21.44	614
Top	33.21	614
Bottom	31.75	614

Test Position(4 cm)	Probe Measure Results (V/m)	Limit (V/m)
	intermediate charge	
Front	36.30	614
Back	41.51	614
Left	18.82	614
Right	16.38	614
Top	20.11	614
Bottom	24.54	614

Test Position(6 cm)	Probe Measure Results (V/m)	Limit (V/m)
	intermediate charge	
Front	22.58	614
Back	35.77	614
Left	14.81	614
Right	12.47	614
Top	13.58	614
Bottom	15.04	614

Test Position(8 cm)	Probe Measure Results (V/m)	Limit (V/m)
	intermediate charge	
Front	21.91	614
Back	25.26	614
Left	10.94	614
Right	9.31	614
Top	10.02	614
Bottom	11.41	614

Test Position(10 cm)	Probe Measure Results (V/m)	Limit (V/m)
	intermediate charge	
Front	15.35	614
Back	19.41	614
Left	9.21	614
Right	7.31	614
Top	8.72	614
Bottom	8.84	614

Test Position(12 cm)	Probe Measure Results (V/m)	Limit (V/m)
	intermediate charge	
Front	14.45	614
Back	15.4	614
Left	7.50	614
Right	4.14	614
Top	7.23	614
Bottom	7.26	614

Test Position(14 cm)	Probe Measure Results (V/m)	Limit (V/m)
	intermediate charge	
Front	11.40	614
Back	12.69	614
Left	5.96	614
Right	5.43	614
Top	5.99	614
Bottom	5.79	614

Test Position(15 cm)	Probe Measure Results (V/m)	Limit (V/m)
	intermediate charge	
Front	10.52	614
Back	11.91	614
Left	5.57	614
Right	4.65	614
Top	5.47	614
Bottom	5.19	614

Note:

The maximum Probe Measure Results of this EUT is 84.16 V/m, less than 307 V/m(614 *50%).

Magnetic Field Emissions:

Test Position(0 cm)	Probe Measure Results (A/m)	Limit (A/m)
	intermediate charge	
Front	0.32	1.63
Back	0.63	1.63
Left	0.11	1.63
Right	0.22	1.63
Top	0.09	1.63
Bottom	0.22	1.63

Test Position(2 cm)	Probe Measure Results (A/m)	Limit (A/m)
	intermediate charge	
Front	0.16	1.63
Back	0.28	1.63
Left	0.11	1.63
Right	0.11	1.63
Top	0.06	1.63
Bottom	0.08	1.63

Test Position(4 cm)	Probe Measure Results (A/m)	Limit (A/m)
	intermediate charge	
Front	0.13	1.63
Back	0.20	1.63
Left	0.07	1.63
Right	0.08	1.63
Top	0.05	1.63
Bottom	0.07	1.63

Test Position(6 cm)	Probe Measure Results (A/m)	Limit (A/m)
	intermediate charge	
Front	0.11	1.63
Back	0.13	1.63
Left	0.05	1.63
Right	0.06	1.63
Top	0.04	1.63
Bottom	0.05	1.63

Test Position(8 cm)	Probe Measure Results (A/m)	Limit (A/m)
	intermediate charge	
Front	0.08	1.63
Back	0.11	1.63
Left	0.05	1.63
Right	0.05	1.63
Top	0.04	1.63
Bottom	0.05	1.63

Test Position(10 cm)	Probe Measure Results (A/m)	Limit (A/m)
	intermediate charge	
Front	0.07	1.63
Back	0.09	1.63
Left	0.04	1.63
Right	0.04	1.63
Top	0.04	1.63
Bottom	0.04	1.63

Test Position(12 cm)	Probe Measure Results (A/m)	Limit (A/m)
	intermediate charge	
Front	0.06	1.63
Back	0.06	1.63
Left	0.04	1.63
Right	0.04	1.63
Top	0.04	1.63
Bottom	0.04	1.63

Test Position(14 cm)	Probe Measure Results (A/m)	Limit (A/m)
	intermediate charge	
Front	0.05	1.63
Back	0.05	1.63
Left	0.04	1.63
Right	0.04	1.63
Top	0.04	1.63
Bottom	0.04	1.63

Test Position(15 cm)	Probe Measure Results (A/m)	Limit (A/m)
	intermediate charge	
Front	0.04	1.63
Back	0.04	1.63
Left	0.04	1.63
Right	0.04	1.63
Top	0.04	1.63
Bottom	0.04	1.63

Note:

The maximum Probe Measure Results of this EUT is 0.63 A/m, less than 0.815 V/m(1.63*50%).

Remark: The EUT has the maximum average output power when the support unit is in low power and being charged by EUT.

3 LIST OF MEASURING EQUIPMENTS

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	Field strength meter	N/A	SMP2	19SN1139	2021/1/3	2021/1/2
2	Probe	N/A	WP400	19WP100578	2021/1/3	2021/1/2

Remark: "N/A" denotes no model name, no serial no. or no calibration specified.
All calibration period of equipment list is one year.

4 EUT TEST PHOTO

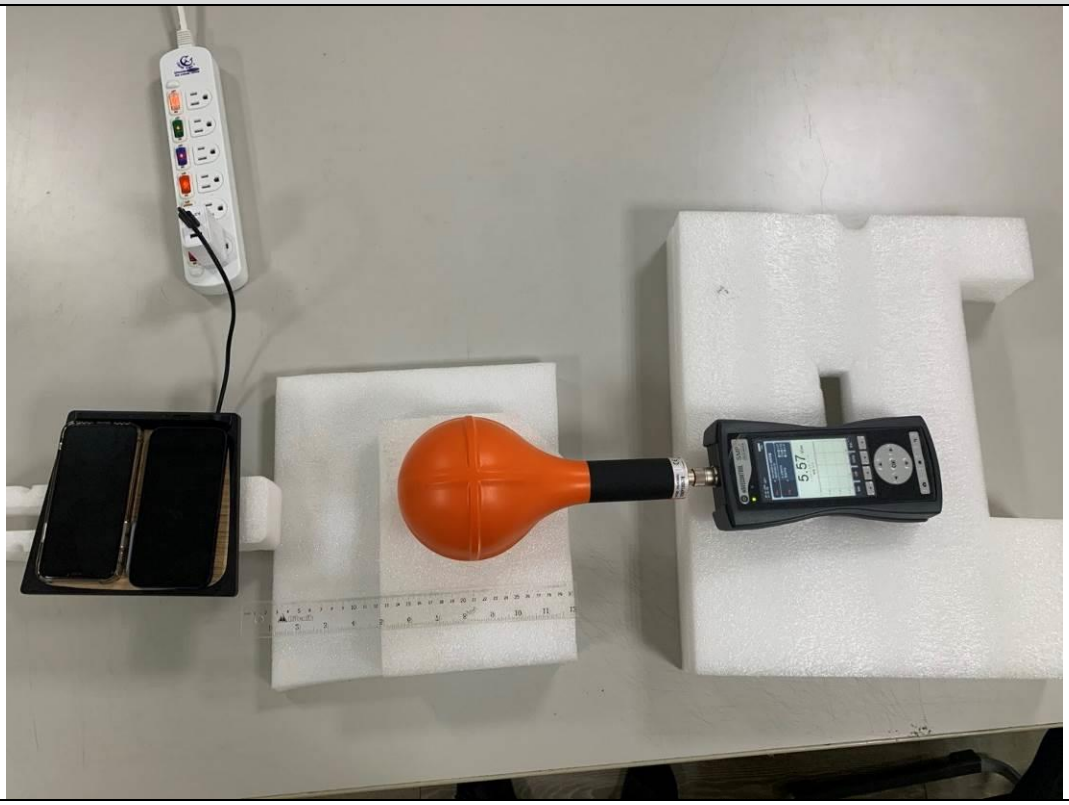
Front Side (0 cm)

Front Side (15 cm)


Back Side (0 cm)

Back Side (15 cm)

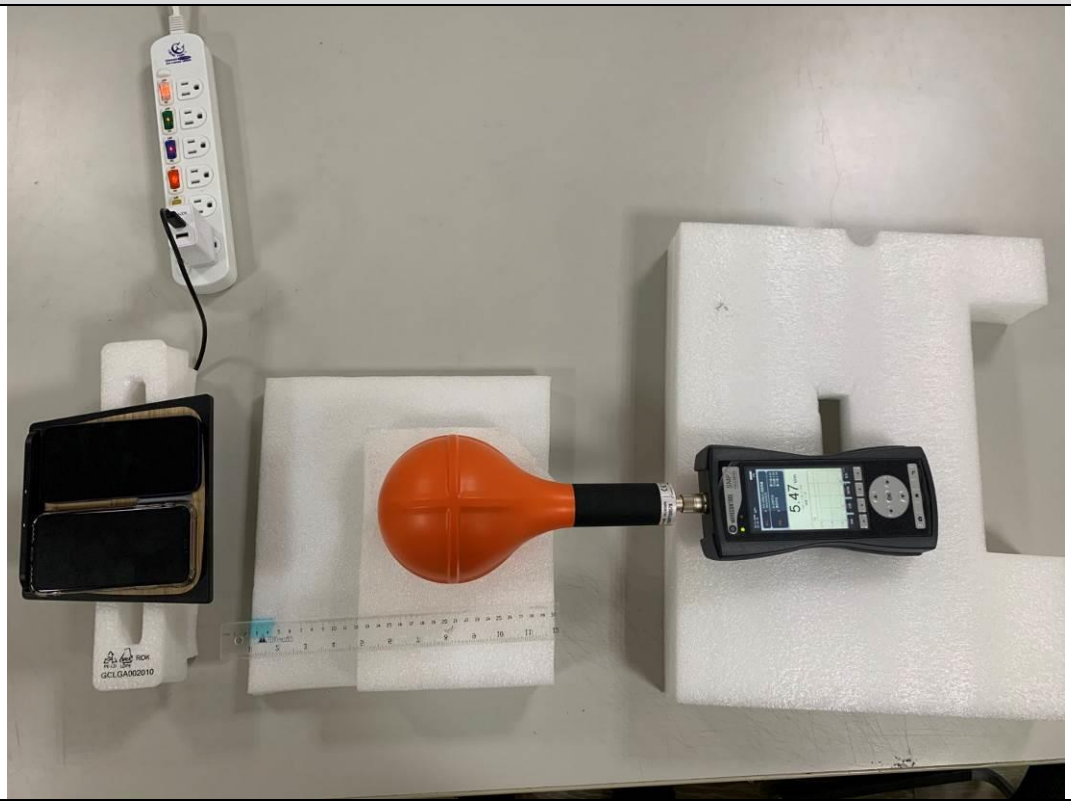

Left Side (0 cm)

Left Side (15 cm)


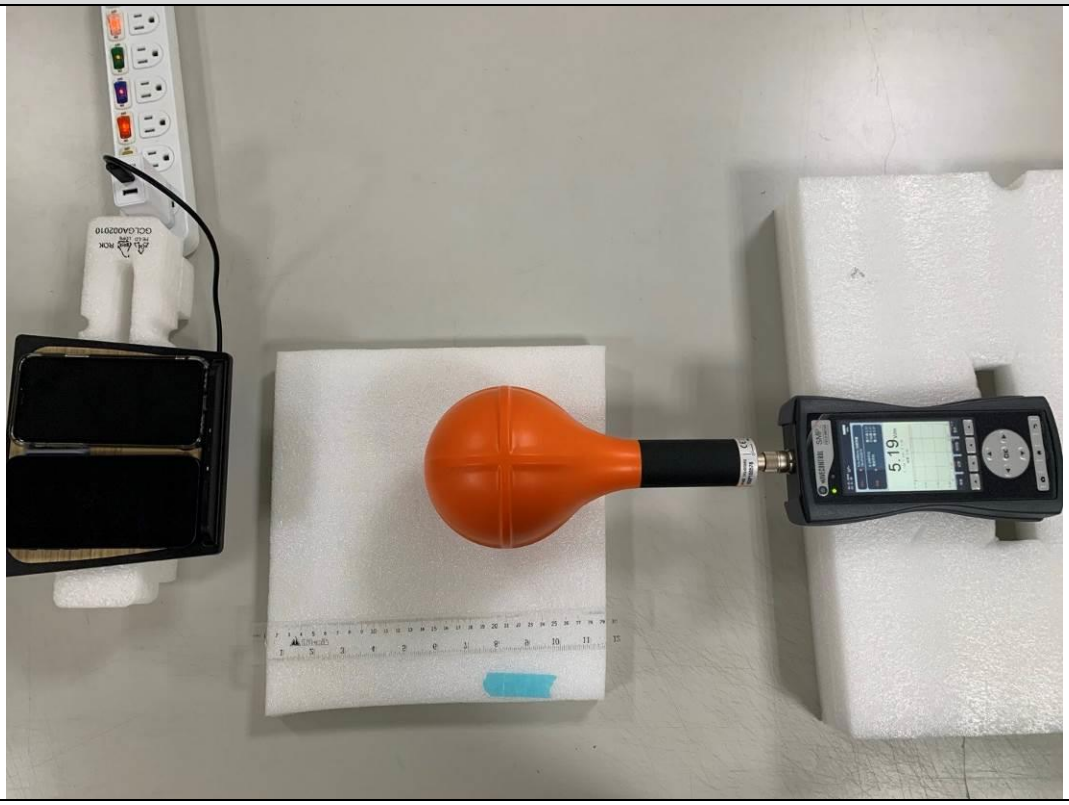
Right Side (0 cm)

Right Side (15 cm)


Top Side (0 cm)

Top Side (15 cm)


Bottom Side (0 cm)

Bottom Side (15 cm)


End of Test Report