FCC TEST REPORT

FCC ID: 2AR7W-WL013

On Behalf of

Shenzhen BNY Industrial Co., Ltd

Wireless Charger

Model No.: WL-013

Prepared for	:	Shenzhen BNY Industrial Co., Ltd
Address	:	Room.803. Xingduli Business Building, Longgang Street, Longgang District, Shenzhen, 518103, China

Prepared By	:	Shenzhen Alpha Product Testing Co., Ltd.
Address	:	Building i, No.2, Lixin Road, Fuyong Street, Bao'an District, 518103, Shenzhen, Guangdong, China

Report Number	:	T1905290-C01-R06
Date of Receipt	:	May 28, 2019
Date of Test	:	May 28-June 14, 2019
Date of Report	:	June 15, 2019
Version Number	:	V0

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TEST REPORT DECLARATION

Applicant	:	Shenzhen BNY Industrial Co., Ltd
Address	:	Room.803. Xingduli Business Building, Longgang Street, Longgang District, Shenzhen, 518103, China
Manufacturer	:	Shenzhen BNY Industrial Co., Ltd
Address	:	Room.803. Xingduli Business Building, Longgang Street, Longgang District, Shenzhen, 518103, China
EUT Description	:	Wireless Charger
		(A) Model No. : WL-013
		(B) Trademark : N/A

Measurement Standard Used:

FCC KDB 680106 D01 RF Exposure Wireless Charger Apps v03

The device described above is tested by Shenzhen Alpha Product Testing Co., Ltd. to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The test results are contained in this test report and Shenzhen Alpha Product Testing Co., Ltd. is assumed full responsibility for the accuracy and completeness test. Also, this report shows that the EUT is technically compliant with the KDB 680106 D01 requirements.

This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Shenzhen Alpha Product Testing Co., Ltd.

Tested by (name + signature).....…..:	Lucas Pang Project Engineer	
Approved by (name + signature)…....:	Simple Guan Project Manager	
Date of issue…… ……..:	June 15, 2019	

Revision History

Revision	Issue Date	Revisions	Revised By
V0	June 15, 2019	Initial released Issue	Simple Guan

1. Test Result Summary

Requirement	CFR 47 Section	Result
RF EXPOSURE	§1.1307(b)(1) & KDB680106	PASS

Note:

1. PASS: Test item meets the requirement.

2. Fail: Test item does not meet the requirement.

3. N/A: Test case does not apply to the test object.

4. The test result judgment is decided by the limit of test standard.

2. EUT Description

2.1. Description of Device (EUT)

EUT Name	:	Wireless Charger
Model No.	:	WL-013
DIFF.	:	N/A
Trademark	:	Topband
Power supply	:	Micro USB/Type-C PD Input: DC 5.3V/2A, 9V/2A(QC2.0), 12V2A(QC3.0) QI Output: 5V/1A (Max 5W), 5V/1.5A (Max 7.5W), 9V/1.12A (Max 10W), 9V/1.67A (Max 15W)
Operation frequency	:	125-205KHz
Modulation	:	MSK
Antenna Type	:	Coil Antenna, Maximum Gain is 4dBi
Software version	:	V1.0
Hardware version	:	V1.0

Conditions requirement	Answers
Power transfer frequency is less that 1 MHz	After measuring the product the transfer frequency is 125-205KHz
Output power from each primary coil is less than 15 watts	After measuring the product the each primary coil power is 15 watts
The transfer system includes only single primary and secondary coils. This includes charging systems that may have multiple primary coils and clients that are able to detect and allow coupling only between individual pairs of oils	The wireless charger has only one primary coil. It can only detect and allow coupling between single coil pairs.
Client device is inserted in or placed directly in contact with the transmitter	Client device is placed directly in contact with the transmitter
Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).	Mobile exposure conditions only.
The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit.	After measuring the product the Max H-Filed Strength is 0.33A/m Far less than 50% of the MPE limit.

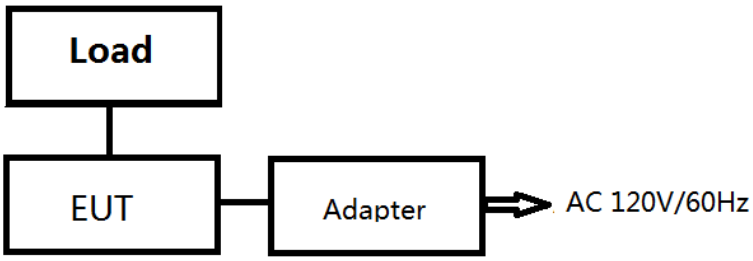
2.2. Accessories of Device (EUT)

Accessories1 : /
Manufacturer : /
Model : /
Ratings : /

2.3. Tested Supporting System Details

No.	Description	Manufacturer	Model	Serial Number	Certification or DOC
1	Load	--	--	--	--
2	Adapter	YIBOYUAN	QC08	--	--

2.4. Block Diagram of connection between EUT and simulators



2.5. Description of Test Modes

Channel	Frequency (KHz)	Channel	Frequency (KHz)	Channel	Frequency (KHz)	Channel	Frequency (KHz)
1	125	6	150	11	175	16	200
2	130	7	155	12	180	17	205
3	135	8	160	13	185	18	
4	140	9	165	14	190	19	
5	145	10	170	15	195	20	

2.6. Test Conditions

Items	Required	Actual
Temperature range:	15-35℃	27℃
Humidity range:	25-75%	56%
Pressure range:	86-106kPa	980kPa

2.7. Test Facility

Shenzhen Alpha Product Testing Co., Ltd
Building i, No.2, Lixin Road, Fuyong Street, Bao'an District, 518103, Shenzhen, Guangdong, China

June 21, 2018 File on Federal Communication Commission
Registration Number: 293961

July 25, 2017 Certificated by IC
Registration Number: 12135A

2.8. Measurement Uncertainty

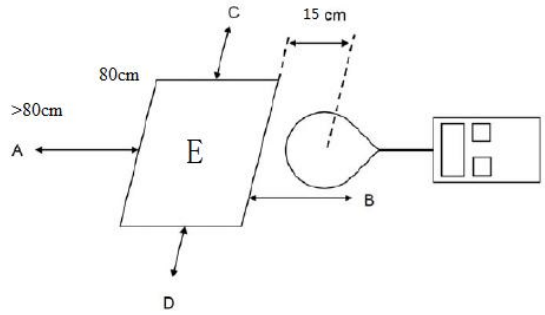
(95% confidence levels, k=2)

Item	Uncertainty
Uncertainty for Conducted Emission Test	2.74dB
Uncertainty for Radiation Emission test in 3m chamber (30MHz to 1GHz)	3.77dB
	3.80dB
Uncertainty for Radiation Emission test in 3m chamber (1GHz to 25GHz)	4.16dB
	4.13dB
	2.56dB(Polarize: V)
Uncertainty for radio frequency	5.4×10^{-8}
Uncertainty for conducted RF Power	0.37dB
Uncertainty for temperature	0.2℃
Uncertainty for humidity	1%
Uncertainty for DC and low frequency voltages	0.06%

3. Test Results and Measurement Data

3.1. RF EXPOSURE TEST

3.1.1. Test Specification

Test Requirement:	**FCC Rules and Regulations KDB680106**
Test Method:	§1.1307(b)(1) & KDB680106
Limits:	According to §1.1307(b)(1), systems operating under the provisions of this 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. According to §1.1310 and §2.1093 RF exposure is calculated. According KDB680106 D01v03: RF Exposure Wireless Charger Apps v02.
Test Setup:	
Test Mode:	Charging + Transmitting Mode
Test Procedure:	1. The RF exposure test was performed on 360 degree turn table in anechoic chamber. 2. The measurement probe was placed at test distance (15cm) which is between the edge of the charger and the geometric centre of probe. 3. The turn table was rotated 360d degree to search of highest strength. 4. The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E) were completed. 5. The EUT were measured according to the dictates of KDB 680106D01v03. 6. E to position is 20cm.
Test Result:	PASS

3.1.2. Test Instruments

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Van der Hoofden	MPB	MS-210	0019	2018.09.21	1 Year

3.1.3. Test data

For Full load mode:
E-Filed Strength at 15 cm for position A,B,C,D 20cm for position E from the edges surrounding the EUT (V/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Limit (50%) (V/m)	Limits Test (V/m)
0.205	2.07	2.03	1.99	1.85	1.89	307	614

H-Filed Strength at 15 cm for position A,B,C,D 20cm for position E from the edges surrounding the EUT (A/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Limit (50%) (A/m)	Limits Test (A/m)
0. 205	**0.33**	0.30	0.26	0.8	0.25	0.815	1.63

For half load mode:
E-Filed Strength at 15 cm for position A,B,C,D 20cm for position E from the edges surrounding the EUT (V/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Limit (50%) (V/m)	Limits Test (V/m)
0.175	1.22	1.32	1.24	1.26	1.48	307	614

H-Filed Strength at 15 cm for position A,B,C,D 20cm for position E from the edges surrounding the EUT (A/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Limit (50%) (A/m)	Limits Test (A/m)
0.175	0.21	0.23	0.19	0.19	0.21	0.815	1.63

For No load mode:
E-Filed Strength at 15 cm for position A,B,C,D 20cm for position E from the edges surrounding the EUT (V/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Limit (50%) (V/m)	Limits Test (V/m)
0.125	1.19	1.18	1.19	1.16	1.16	307	614

H-Filed Strength at 15 cm for position A,B,C,D 20cm for position E from the edges surrounding the EUT (A/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Limit (50%) (A/m)	Limits Test (A/m)
0.125	0.16	0.15	0.17	0.16	0.17	0.815	1.63

Note: Location A of H-Filed Strength test in full load mode is the worst mode.

4. Photos of test setup

For Full load mode

For No load mode

5. Photographs of EUT

Refer to test report T1905290-C01-R05.

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