

# ELECTROMAGNETIC EMISSION COMPLIANCE REPORT FOR LOW-POWER, NON-LICENSED TRANSMITTER

**Test Report No.** : W168R-D061  
**AGR No** : A168A-288  
**Applicant** : BARO TECHNOLOGY CO., LTD.  
**Address** : 6F Sewon Bldg, 314-9, Seoksu-dong, Manan-gu, Anyang-si, Gyeonggi-do, 13970, Korea  
**Manufacturer** : BARO TECHNOLOGY CO., LTD.  
**Address** : 6F Sewon Bldg, 314-9, Seoksu-dong, Manan-gu, Anyang-si, Gyeonggi-do, 13970, Korea  
**Type of Equipment** : Wireless Charging Pad  
**FCC ID.** : 2AJM9-BTWC-001  
**Model Name** : BTWC-001  
**Serial number** : N/A  
**Total page of Report** : 9 pages (including this page)  
**Date of Incoming** : August 25, 2016  
**Date of issue** : August 31, 2016

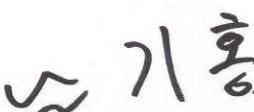
## SUMMARY

The equipment complies with the regulation; **FCC CFR 47 PART 1.1310**

This test report only contains the result of a single test of the sample supplied for the examination.

It is not a generally valid assessment of the features of the respective products of the mass-production.

Reviewed by:

  
Ki-Hong, Nam / Asst, Chief Engineer  
ONETECH Corp.

Approved by:

  
Sung-Ik, Han/ Managing Director  
ONETECH Corp.

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**Revision History**

Issue Report No.	Issued Date	Revisions	Effect Section
W168R-D061	August 31, 2016	Initial Release	All

## 1. VERIFICATION OF COMPLIANCE

APPLICANT : BARO TECHNOLOGY CO., LTD.  
ADDRESS : 6F Sewon Bldg, 314-9, Seoksu-dong, Manan-gu, Anyang-si, Gyeonggi-do, 13970, Korea  
CONTACT PERSON : Dong Jun, Lee / Deputy General Manager  
TELEPHONE NO : +82-31-431-2242  
FCC ID : 2AJM9-BTWC-001  
MODEL NAME : BTWC-001  
BRAND NAME : N/A  
SERIAL NUMBER : N/A  
DATE : August 31, 2016

EQUIPMENT CLASS	<b>DCD – Part 15 Low Power Transmitter Below 1 705 kHz</b>
KIND OF EQUIPMENT	Wireless Charging Pad
THIS REPORT CONCERNS	Original Grant
MEASUREMENT PROCEDURES	ANSI C63.10: 2013
TYPE OF EQUIPMENT TESTED	Pre-Production
KIND OF EQUIPMENT AUTHORIZATION REQUESTED	Certification
EQUIPMENT WILL BE OPERATED UNDER FCC RULES PART(S)	FCC CFR 47 PART 1.1310
MODIFICATIONS ON THE EQUIPMENT TO ACHIEVE COMPLIANCE	No
FINAL TEST WAS CONDUCTED ON	3 m, Semi Anechoic Chamber

- The above equipment was tested by ONETECH Corp. for compliance with the requirement set forth in the FCC Rules and Regulations. This said equipment in the configuration described in this report, shows the maximum emission levels emanating from equipment are within the compliance requirements.

## 2. GENERAL INFORMATION

### 2.1 Product Description

The BARO TECHNOLOGY CO., LTD., Model: BTWC-001 (referred to as the EUT in this report) is an Wireless Charging Pad. Product specification information described herein was obtained from product data sheet or user's manual.

DEVICE TYPE	Wireless Charger
OPERATING FREQUENCY	110 kHz ~ 205 kHz
RATED RF OUTPUT POWER	76.20 dB $\mu$ V/m
ANTENNA TYPE	Coil Antenna
MODULATION	ASK
LIST OF EACH OSC. OR CRY. FREQ.(FREQ. $\geq$ 1 MHz)	110 kHz ~ 205 kHz
RATED SUPPLY VOLTAGE	DC 5.0 V

### 2.2 Model Differences

- None

## 3. EUT MODIFICATIONS

- None

## 4. RADIO FREQUENCY EXPOSURE

### 4.1 Environmental evaluation and exposure limit

According to FCC 1.1310 : The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in § 1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of FCC part 2.1093 of this chapter

Frequency Range [MHz]	Electric Field Strength [V/m]	Magnetic Field Strength [A/m]	Power Density [mW/cm <sup>2</sup> ]	Average Time [minutes]
(A) Limits for Occupational / Control Exposures				
0.3 – 3.0	614	1.63	*(100)	6
3.0 – 30	1 842/f	4.89/f	*(900/f <sup>2</sup> )	6
30 – 300	61.4	0.163	1.0	6
300 – 1 500			f/300	6
1 500 – 100 000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3 – 3.0	614	1.63	*(100)	30
3.0 – 30	824/f	2.19/f	*(180/f <sup>2</sup> )	30
30 – 300	27.5	0.073	0.2	30
300 – 1 500			f/1 500	30
1 500 – 100 000			1.0	30

f = frequency in MHz

\* = Plane wave equivalent power density

Note 1 to Table 1: Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

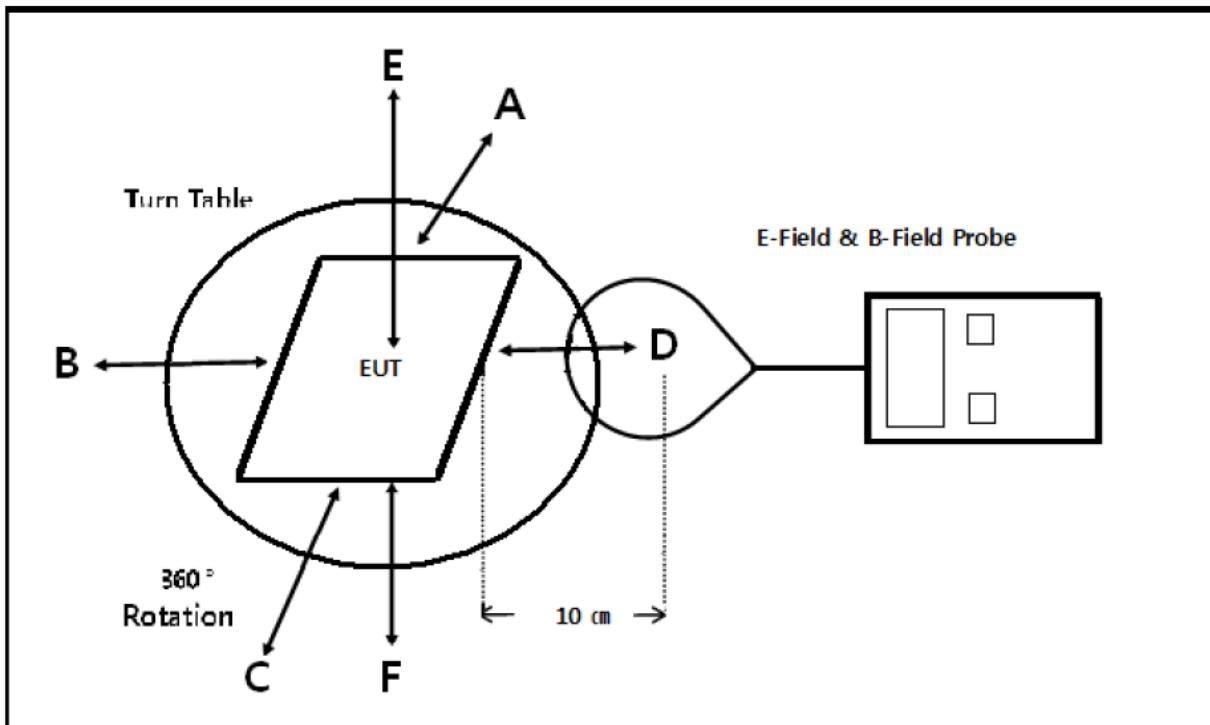
Note 2 to Table 1: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

## 4.2 H / E field strength

### 4.2.1 EUT Operating condition

Mode	Charging current	Description
Charging Mode With load	1 120 mA	Using Max load
	500 mA	Using Mid load
	100 mA	Using Min load

### 4.2.2 EUT Operating condition



### 4.2.3 Measurement procedure

- The RF exposure test was performed on 360 degree turn table in anechoic chamber.
- The measurement probe was placed at test distance (10 cm) which is between the edge of the charger and the geometric center of probe.
- The turn table was rotated 360 degree to search of highest strength
- The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E, F) were completed.
- The EUT were measured according to the dictates of KDB 680106 D01v02.

**4.2.4 E - field strength at 10 cm from each edges the EUT**

Mode	Position A [V/m]	Position B [V/m]	Position C [V/m]	Position D [V/m]	Position E [V/m]	Position F [V/m]	Limits [V/m]
Charging Mode With Max. load	48.9	42.1	35.8	39.5	100.2	63.4	614.00
Charging Mode With Mid. load	45.2	36.9	34.2	39.1	97.5	62.9	614.00
Charging Mode With Min. load	41.3	37.5	31.4	38.4	98.4	64.2	614.00

**4.2.5 H - field strength at 10 cm from each edges the EUT**

Mode	Position A [A/m]	Position B [A/m]	Position C [A/m]	Position D [A/m]	Position E [A/m]	Position F [A/m]	Limits [A/m]
Charging Mode With Max. load	0.25	0.22	0.19	0.21	0.51	0.31	1.63
Charging Mode With Mid. load	0.24	0.19	0.18	0.21	0.48	0.30	1.63
Charging Mode With Min. load	0.22	0.20	0.17	0.20	0.49	0.32	1.63



Tested by: Seok-Jun, Lee / Engineer

**4.3 LIST OF TEST EQUIPMENT**

No.	EQUIPMENTS	MFR.	MODEL	SER. NO.	LAST CAL	DUE CAL	USE
1.	Isotropic Electric Field Probe	Amplifer research	FP7003	311520	2016.03.11	One Year	■
2	Exposure Level Meter	Narde	ELP-400	H-0013	2016.07.01	One Year	■