FCC 47 CFR MPE REPORT

Superior communications .

Wireless Charger

Model Number: 08502PG

FCC ID: YJW-08502PG

Prepared for:	Superior communications .
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Date of Report:	Jun. 19, 2019

Environmental evaluation and exposure limit according to FCC CFR 47 Part 1.1307(b), 1.1310

## 1. Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm^2)	Average Time (minutes)
(A)Limits for Occupational / Control Exposures				
0.3-3.0	614	1.63	*(100)	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30

"*" means Plane-wave equivalent power density

2. Test equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
E-Magnetic field probe	Narda	2304/03	M-0018	June,29,18	1 Year
Broadband field meter	Narda	ELT-400	N-0045	June,29,18	1 Year

3. Test setup
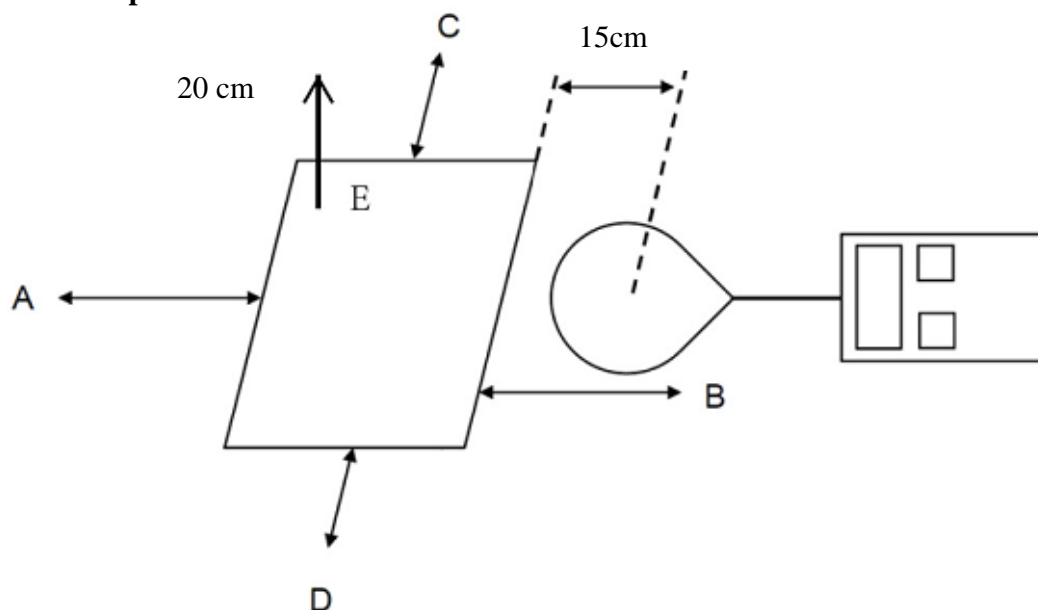
a. The test was performed on 360 degree turn table in anechoic chamber.
b. The probe was placed at 15 cm surrounding the device and 20 cm above the top of the charger and the geometric centre of the probe.
c. The highest emission level was recorded and compared with limit as soon as measurement of each point; A, B, C, D, E were completed.

4. Equipment Approval Considerations

According to the item 5(b) of KDB 680106 D01 RF Exposure Wireless Charging App v03:

Inductive wireless power transfer applications that meets KDB 680106 Clause 5(b) 6 conditions are excluded from submitting an RF exposure evaluation.

1	Power transfer frequency is less that 1 MHz
	YES; the device operated in the frequency range from 110-205KHz.
2	Output power from each primary coil is less than or equal to 15 watts.
	YES; the maximum output power of the primary coil is 10W.
3	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 coils.
	YES; the transfer system includes only single primary and secondary coils.
4	Client device is placed directly in contact with the transmitter.
	YES; Client device is placed directly in contact with the transmitter.
5	Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).
	YES
6	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.
	YES; The EUT field strength levels are 50% x MPE limts.

5. Test Mode

Mode	Description
Charging mode with dummy load	Full Load
	Half Load
	Empty Load

6. E-Field Test Result

Test Mode	Full Load	Half Load	Empty Load
Frequency range (kHz)	110 to 205 kHz		
Position A(V/m)	1.462	1.359	1.228
Position B(V/m)	1.458	1.386	1.209
Position C(V/m)	1.493	1.367	1.217
Position D(V/m)	1.429	1.334	1.215
Position E(V/m)	1.826	1.503	1.368
Limits (V/m)	614		
50% Limits(V/m)	307		

7. H-Field Test Result

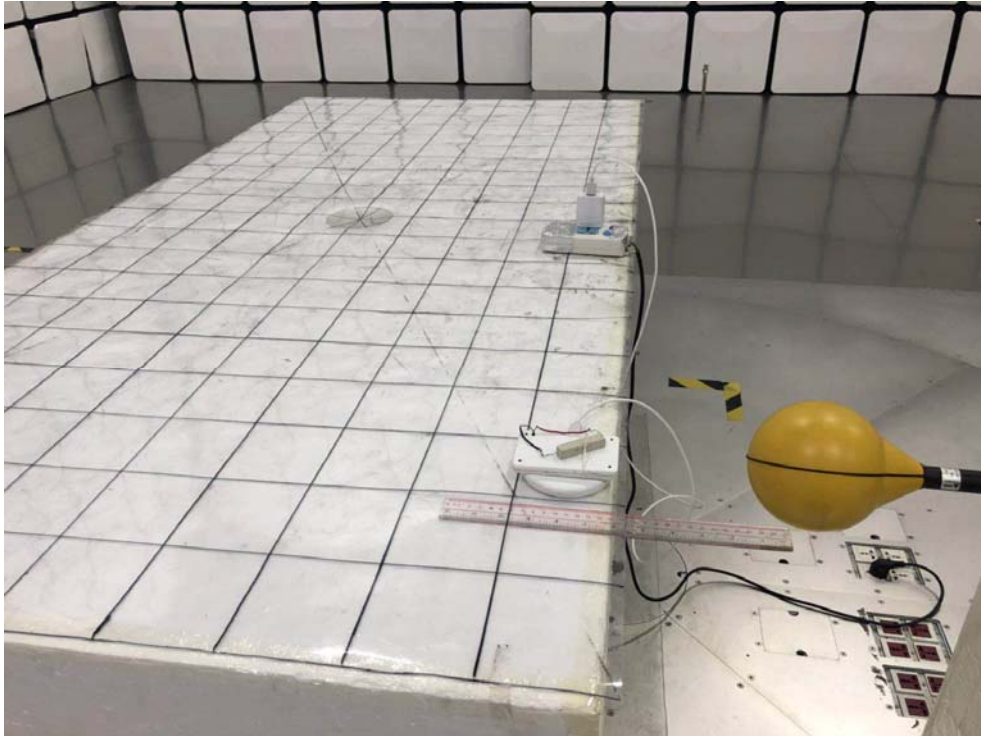| Test Mode	Full Load	Half Load	Empty Load
Frequency range (kHz)	110 to 205 kHz		
Position A(A/m)	0.179	0.138	0.119
Position B(A/m)	0.167	0.132	0.125
Position C(A/m)	0.172	0.136	0.122
Position D(A/m)	0.169	0.135	0.120
Position E(A/m)	0.308	0.201	0.151
Limits (A/m)	1.63		
50% Limits (A/m)	0.815		

8. Test Setup Photo
Position A
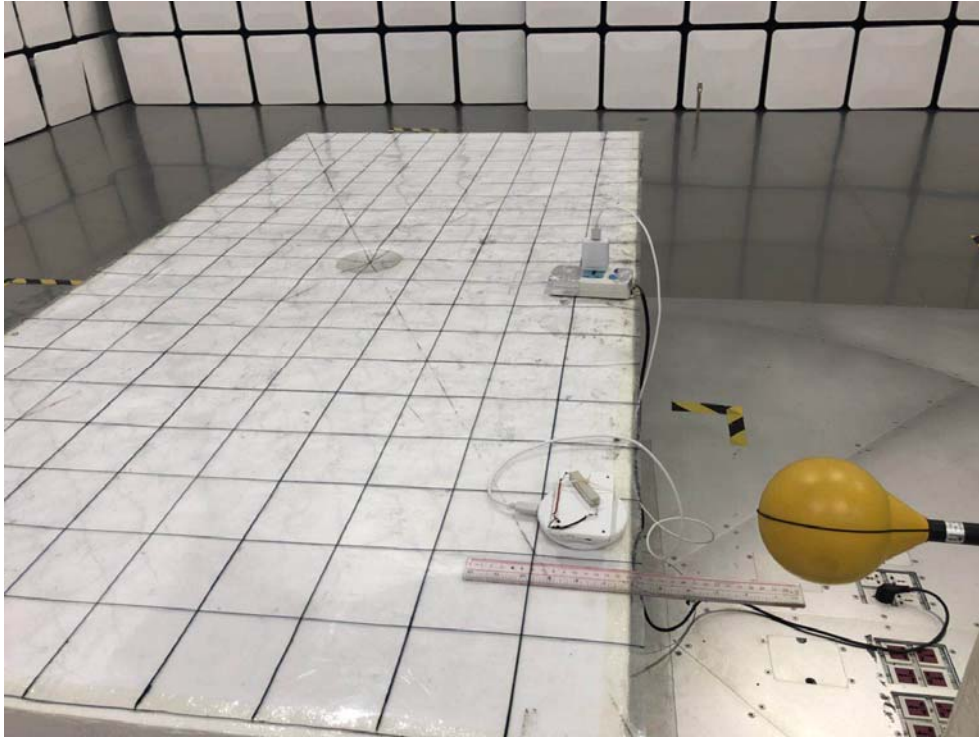
Position B
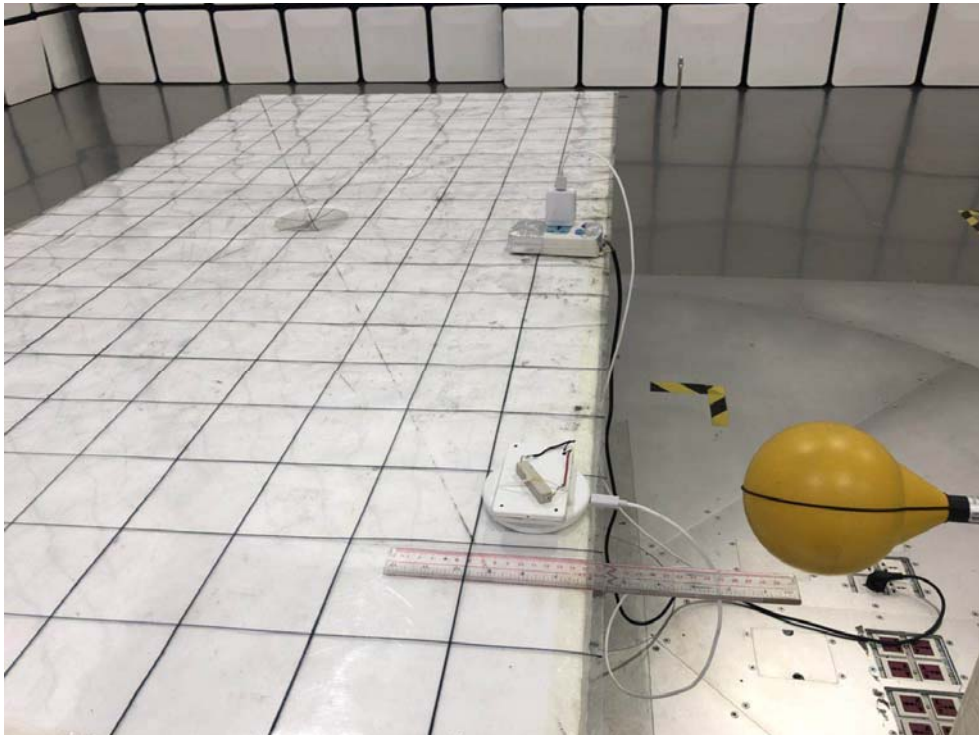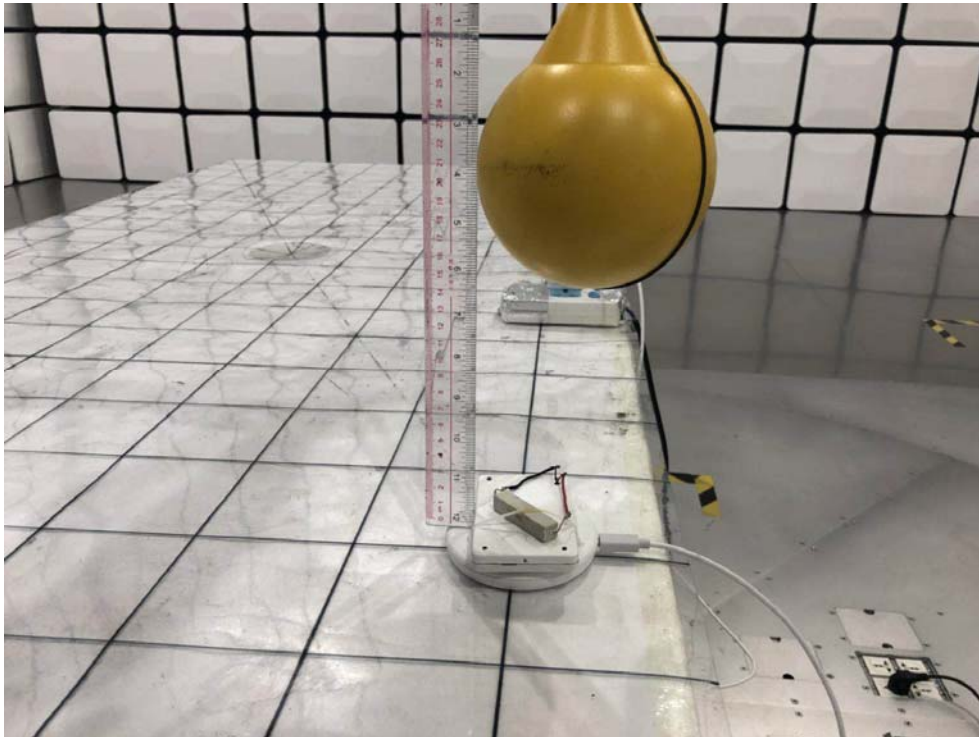
Position C

Position D

Position E

Note: The dummy load must be placed horizontal of the EUT at the top.(Parallel to the coil)
====END====