

# TEST REPORT

of

FCC CFR 47 part1, 1.1307(b), 1.1310

FCC ID: NYOMBECWPC2310

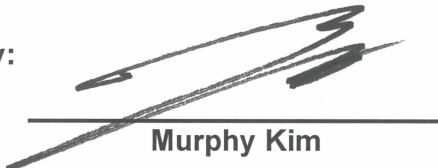
Equipment Under Test : UNIT ASSY-WIRELESS CHARGING  
Model Name : MBECWPC2310  
Variant Model Name(s) : -  
Applicant : MOBASE ELECTRONICS CO., LTD.  
Manufacturer : MOBASE ELECTRONICS CO., LTD.  
Date of Receipt : 2023.05.24  
Date of Test(s) : 2023.05.29 ~ 2023.09.08  
Date of Issue : 2023.09.08

In the configuration tested, the EUT complied with the standards specified above. This test report does not assure KOLAS accreditation.

- 1) The results of this test report are effective only to the items tested.
- 2) The SGS Korea is not responsible for the sampling, the results of this test report apply to the sample as received.
- 3) This test report cannot be reproduced, except in full, without prior written permission of the Company.
- 4) The data marked ※ in this report was provided by the customer and may affect the validity of the test results.

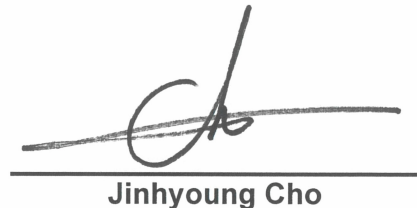
We are responsible for all the information of this test report except for the data(※) provided by the customer.

Tested by:



Murphy Kim

Technical  
Manager:



Jinhyoung Cho

**SGS Korea Co., Ltd. Gunpo Laboratory**



# INDEX

## Table of Contents

1. General Information .....	3
2. Test Result .....	6

## 1. General Information

### 1.1. Testing Laboratory

SGS Korea Co., Ltd. (Gunpo Laboratory)

- 10-2, LS-ro 182beon-gil, Gunpo-si, Gyeonggi-do, Korea, 15807
- 4, LS-ro 182beon-gil, Gunpo-si, Gyeonggi-do, Korea, 15807
- Designation number: KR0150

All SGS services are rendered in accordance with the applicable SGS conditions of service available on request and accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>.

Phone No. : +82 31 688 0901

Fax No. : +82 31 688 0921

### 1.2. Details of Applicant

Applicant : MOBASE ELECTRONICS CO., LTD.  
 Address : 100, Saneop-ro 156beon-gil, Gwonseon-gu, Suwon-si, Gyeonggi-do,  
 South Korea, 16648  
 Contact Person : Ryu, Hee-tack  
 Phone No. : +82 31 8090 2611

### 1.3. Details of Manufacturer

Company : Same as applicant  
 Address : Same as applicant

### 1.4. Description of EUT

<b>Kind of Product</b>	UNIT ASSY-WIRELESS CHARGING		
<b>Model Name</b>	MBECWPC2310		
<b>Serial Number</b>	001		
<b>Power Supply</b>	DC 12 V		
<b>Operation Mode</b>	5 W, 7.5 W, 10 W		
<b>Frequency Range</b>	5 W	Ant. 1	114 ~ 116 kHz
		Ant. 2	
		Ant. 3	
	7.5 W	Ant. 1	126 ~ 128 kHz
		Ant. 2	
		Ant. 3	
	10 W	Ant. 1	114 ~ 116 kHz
		Ant. 2	
		Ant. 3	
		Idle	
<b>Antenna Type</b>	Coil Antenna		
<b>Antenna Part Number</b>	N/A		
<b>H/W Version</b>	1.0		
<b>S/W Version</b>	1.0		

### 1.5. Test Equipment List

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Interval	Cal. Due
Electric and Magnetic field Probe analyzer	NARDA	EHP 200AC	170WX91017	Dec. 19, 2022	Annual	Dec. 19, 2023
DC Power Supply	Agilent	U8002A	MY50020026	Nov. 30, 2022	Annual	Nov. 30, 2023
Anechoic Chamber	SY Corporation	L x W x H (9.6 m x 6.4 m x 6.6 m)	N/A	N.C.R.	N/A	N.C.R.

► **Support Equipment**

Description	Manufacturer	Model	FCC ID
SAMSUNG Mobile Phone	Samsung Electronics Co., Ltd.	SM-N981U	A3LSMN981U
Apple Mobile Phone	Apple Inc.	A1897	BCG-E3174A
Lap top	Dell	Latitude 3510	-

### 1.6. Summary of Test Results

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 1 Subpart I		
Section	Test Item(s)	Result
1.1307(b) 1.1310(e)(1)	Electronic Field, Magnetic Field	Complied

### 1.7. Test Report Revision

Revision	Report Number	Date of Issue	Description
0	F690501-RF-RTL004367	2023.09.08	Initial

### 1.8. Measurement Uncertainty

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

Parameter	Uncertainty
Electric Field	19.44 %
Magnetic Field	19.86 %

All measurement uncertainty values are shown with a coverage factor of  $k=2$  to indicate a 95 % level of confidence.

### 1.9. Worst Case of Test Configurations

In order to check all kinds of possible configurations, EUT was evaluated with appropriate client and under each charging condition as below table.

Charging mode With client device		Mode		Description
Model	FCC ID			
SM-N918U	A3LSMN981U	5 W, 10 W	114 ~ 116 kHz	1 % of battery 50 % of battery 99 % of battery
A1897	BCG-E3174A	7.5 W	126 ~ 128 kHz	

Mode	Battery	Frequency (kHz)	E-field Strength (V/m)	H-field Strength (A/m)
5 W	1 %	114 ~ 116	<b>82.017</b>	<b>1.197</b>
	50 %		81.775	1.158
	99 %		81.686	1.122
7.5 W	1 %	126 ~ 128	<b>64.142</b>	<b>0.864</b>
	50 %		63.677	0.859
	99 %		63.283	0.853
10 W	1 %	114 ~ 116	<b>81.808</b>	<b>1.196</b>
	50 %		81.448	1.168
	99 %		81.071	1.106

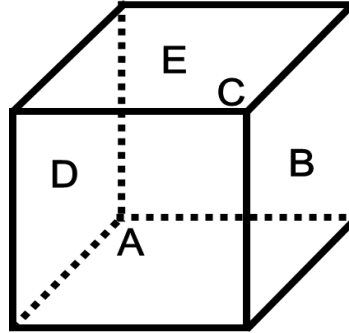
**Note;**

- EUT was investigated with client device under normal charging condition as above and the test mode case was configured based on the antenna with the highest value among the antennas and worst value were only reported.

## 2. Test Result

### 2.1. Isotropic Probe Test Setup

The measurement probe (EHP-200AC) is a regular hexahedron and supports 3-axis isotropic probe.



A: Front of measurement probe  
 B: Right of measurement probe  
 C: Rear of measurement probe  
 D: Left of measurement probe  
 E: Top of measurement probe

\*Bottom of measurement probe is not used to measure RF exposure condition owing to connection with a stick.

- Measurement isotropic probe was investigated by rotating the probe through various angles for one of the EUT's sides as below.

Measurement Point	A	B	C	D	E
Direction	Front	Right	Rear	Left	Top
Measurement Point	A to B	B to C	C to D	D to A	N/A
Direction	Front to Right	Right to Rear	Rear to Left	Left to Front	-
Measurement Point	A to E	B to E	C to E	D to E	N/A
Direction	Front to Top	Right to Top	Rear to Top	Left to Top	-

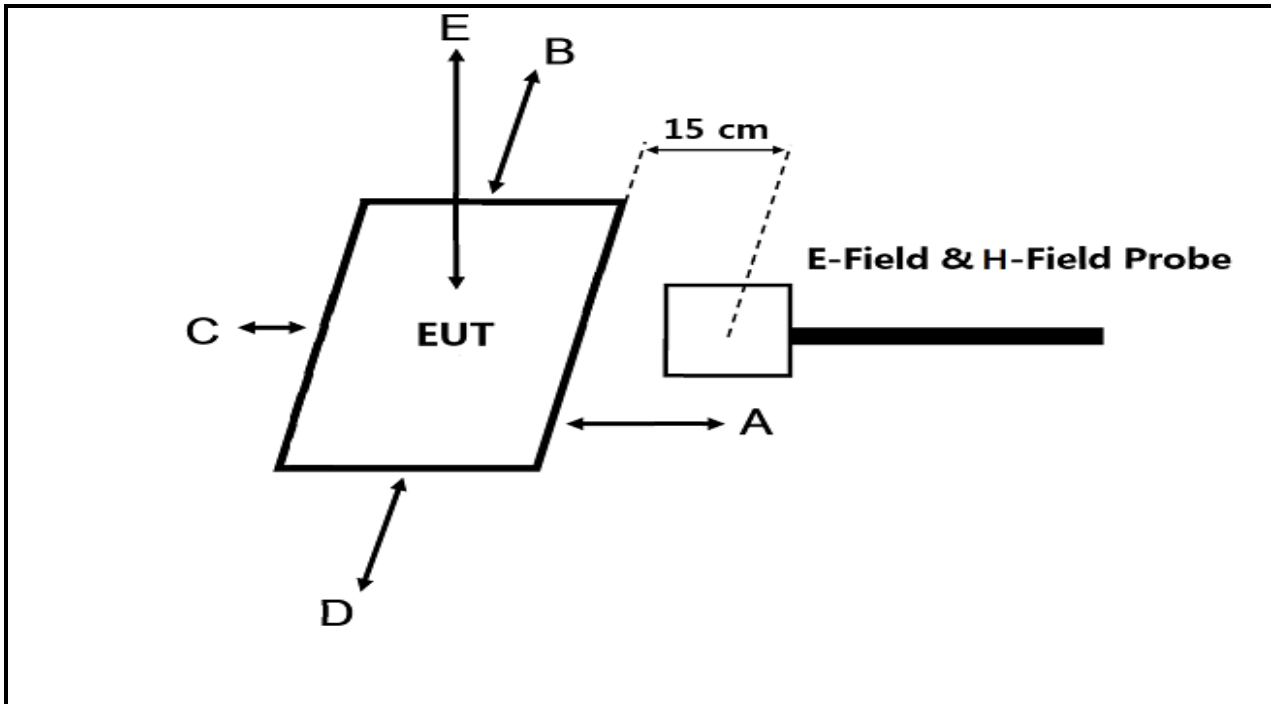
- When the worst angle among all angles was found, RF exposure measurement should be adjusted from worst angle.

- Worst Case

E-field: One of the several angles was found as **Side E** of isotropic probe.

H-field: One of the several angles was found as **Side D** of isotropic probe.

## 2.2. EUT Test Setup



## 2.3. Measurement procedure

- The RF exposure test was performed in anechoic chamber.
- The measurement probe was placed at test distance (4, 6, 8, 10, 15 cm) which is between the edge of the charger and the geometric center of probe.
- Measurement was performed on each side of the EUT as described above picture (A, B, C, D, E, F).
- The EUT was measured according to the dictates of KDB 680106 D01 RF Exposure Wireless Charging Apps v03.

### Note;

- Because of measurement probe size, minimum distance between charger and probe is 4 cm for E-Field and H-Field.
- Probe has 4 cm radius enclosure but each sensing element is located 8 mm below the external surface. Therefore, the actual measurement distance is reduced by 0.8 cm from reported distance.

**2.4. Environmental evaluation and exposure limit according to FCC CFR 47 part 1, 1.1307(b), 1.1310.**

§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.

**Table 1 to § 1.1310(e)(1) - Limits for Maximum Permissible Exposure (MPE)**

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Average Time (minutes)
(i) Limits for Occupational /Control Exposures				
0.3-3.0	614	1.63	*(100)	≤ 6
3.0-30	1842/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
(ii) Limits for General Population/Uncontrolled Exposures				
<b>0.3-1.34</b>	<b>614</b>	<b>1.63</b>	*(100)	<30
1.34-30	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.



## 2.5. E and H field strength

Ambient temperature : (23 ± 1) °C  
 Relative humidity : 47 % R.H.

### 2.5.1. E-Field Strength at from the edges surrounding the EUT

#### Ant. 1

Test Condition: 5 W Operating mode with client device (1 % battery status of client device)

Frequency (kHz)	Distance (cm)	EUT Sides						Limits (V/m)
		A (V/m)	B (V/m)	C (V/m)	D (V/m)	E (V/m)	F (V/m)	
114 ~ 116	15	11.718	7.934	7.583	6.343	14.738	2.557	614
	10	15.983	11.390	12.492	10.102	20.589	2.722	
	8	29.541	19.247	18.855	18.123	30.417	3.186	
	6	65.326	31.043	33.502	31.359	45.109	3.755	
	Contact, 4	<b>82.017</b>	57.321	61.135	58.604	72.193	8.295	

Test Condition: 7.5 W Operating mode with client device (1 % battery status of client device)

Frequency (kHz)	Distance (cm)	EUT Sides						Limits (V/m)
		A (V/m)	B (V/m)	C (V/m)	D (V/m)	E (V/m)	F (V/m)	
126 ~ 128	15	7.245	7.779	6.589	5.817	10.975	2.389	614
	10	11.435	11.696	10.001	9.053	15.918	2.853	
	8	19.628	18.083	16.517	15.089	23.349	3.012	
	6	39.826	30.101	31.861	28.157	36.221	3.463	
	Contact, 4	<b>64.142</b>	57.819	57.897	56.402	58.292	5.231	

Test Condition: 10 W Operating mode with client device (1 % battery status of client device)

Frequency (kHz)	Distance (cm)	EUT Sides						Limits (V/m)
		A (V/m)	B (V/m)	C (V/m)	D (V/m)	E (V/m)	F (V/m)	
114 ~ 116	15	12.030	8.758	8.177	6.515	14.507	2.374	614
	10	15.595	12.648	12.608	11.104	20.458	2.566	
	8	28.926	19.366	20.199	18.471	30.651	2.763	
	6	65.788	32.624	35.438	34.283	45.120	3.876	
	Contact, 4	<b><u>81.808</u></b>	61.482	68.015	64.068	76.995	7.394	

**Ant. 2**

**Test Condition: 5 W Operating mode with client device (1 % battery status of client device)**

Frequency (kHz)	Distance (cm)	EUT Sides						Limits (V/m)
		A (V/m)	B (V/m)	C (V/m)	D (V/m)	E (V/m)	F (V/m)	
114 ~ 116	15	7.148	6.362	7.529	4.683	14.123	2.138	614
	10	11.427	9.514	11.991	8.976	19.368	2.430	
	8	22.382	17.933	22.398	13.632	26.872	2.551	
	6	42.068	28.472	42.746	26.528	41.220	2.685	
	Contact, 4	62.654	50.679	<b>62.712</b>	49.973	60.081	6.985	

**Test Condition: 7.5 W Operating mode with client device (1 % battery status of client device)**

Frequency (kHz)	Distance (cm)	EUT Sides						Limits (V/m)
		A (V/m)	B (V/m)	C (V/m)	D (V/m)	E (V/m)	F (V/m)	
126 ~ 128	15	6.337	6.306	6.231	4.060	11.752	1.635	614
	10	10.242	9.131	10.248	6.204	16.667	2.145	
	8	18.314	14.829	16.814	10.484	23.999	2.610	
	6	37.243	25.134	31.818	20.285	37.631	2.791	
	Contact, 4	<b>63.249</b>	48.354	53.142	46.778	61.047	4.812	

**Test Condition: 10 W Operating mode with client device (1 % battery status of client device)**

Frequency (kHz)	Distance (cm)	EUT Sides						Limits (V/m)
		A (V/m)	B (V/m)	C (V/m)	D (V/m)	E (V/m)	F (V/m)	
114 ~ 116	15	6.198	6.049	7.808	5.133	14.935	2.024	614
	10	11.110	9.365	13.583	8.534	20.142	2.353	
	8	22.608	17.614	22.487	14.702	30.422	2.683	
	6	42.228	27.463	48.918	26.049	46.045	2.954	
	Contact, 4	63.451	52.270	<b><u>67.180</u></b>	49.443	63.852	6.539	

**Ant. 3**

**Test Condition: 5 W Operating mode with client device (1 % battery status of client device)**

Frequency (kHz)	Distance (cm)	EUT Sides						Limits (V/m)
		A (V/m)	B (V/m)	C (V/m)	D (V/m)	E (V/m)	F (V/m)	
114 ~ 116	15	6.509	7.793	8.793	3.589	13.664	1.820	614
	10	10.619	11.153	13.778	5.741	19.863	2.398	
	8	18.080	18.318	24.127	15.391	30.250	3.003	
	6	37.829	30.316	52.498	31.389	47.996	3.274	
	Contact, 4	63.121	56.106	<b><u>75.820</u></b>	56.223	72.206	7.715	

**Test Condition: 7.5 W Operating mode with client device (1 % battery status of client device)**

Frequency (kHz)	Distance (cm)	EUT Sides						Limits (V/m)
		A (V/m)	B (V/m)	C (V/m)	D (V/m)	E (V/m)	F (V/m)	
126 ~ 128	15	5.434	6.698	7.616	4.909	12.270	2.483	614
	10	8.712	9.658	11.967	7.101	17.528	3.269	
	8	14.611	15.171	19.830	11.300	25.974	3.877	
	6	26.937	25.499	41.399	19.534	42.717	4.066	
	Contact, 4	51.800	51.925	65.159	41.395	<b><u>68.340</u></b>	5.478	

**Test Condition: 10 W Operating mode with client device (1 % battery status of client device)**

Frequency (kHz)	Distance (cm)	EUT Sides						Limits (V/m)
		A (V/m)	B (V/m)	C (V/m)	D (V/m)	E (V/m)	F (V/m)	
114 ~ 116	15	6.741	7.627	8.967	5.233	14.149	2.274	614
	10	11.864	11.547	15.195	8.496	19.372	2.588	
	8	18.974	18.441	27.511	15.540	28.738	2.930	
	6	35.906	31.237	58.165	31.366	44.550	3.157	
	Contact, 4	65.144	58.212	<b><u>78.631</u></b>	56.230	69.362	7.097	

**Idle**

**Test Condition: Operating mode without client device**

Frequency (kHz)	Distance (cm)	EUT Sides						Limits (V/m)
		A (V/m)	B (V/m)	C (V/m)	D (V/m)	E (V/m)	F (V/m)	
114 ~ 116	15	1.468	1.392	1.591	1.328	2.781	0.818	614
	10	3.335	2.250	4.408	2.126	3.759	0.823	
	8	5.026	3.328	6.630	2.763	5.975	0.896	
	6	6.462	5.888	8.174	4.863	8.802	0.931	
	Contact, 4	16.877	14.143	19.142	12.518	<b><u>24.128</u></b>	1.857	

### 2.5.2. H-Field Strength at from the edges surrounding the EUT

Ant. 1

Test Condition: 5 W Operating mode with client device (1 % battery status of client device)

Frequency (kHz)	Distance (cm)	EUT Sides						Limits (A/m)
		A (A/m)	B (A/m)	C (A/m)	D (A/m)	E (A/m)	F (A/m)	
114 ~ 116	15	0.161	0.163	0.166	0.164	0.164	0.161	1.63
	10	0.163	0.213	0.176	0.194	0.179	0.166	
	8	0.209	0.403	0.284	0.291	0.304	0.174	
	6	0.337	0.880	0.398	0.441	0.402	0.193	
	Contact, 4	0.482	<b>1.197</b>	0.519	0.655	0.525	0.278	

Test Condition: 7.5 W Operating mode with client device (1 % battery status of client device)

Frequency (kHz)	Distance (cm)	EUT Sides						Limits (A/m)
		A (A/m)	B (A/m)	C (A/m)	D (A/m)	E (A/m)	F (A/m)	
126 ~ 128	15	0.164	0.166	0.159	0.163	0.163	0.161	1.63
	10	0.171	0.232	0.162	0.166	0.195	0.161	
	8	0.213	0.368	0.163	0.170	0.252	0.166	
	6	0.280	0.672	0.230	0.300	0.384	0.176	
	Contact, 4	0.472	<b>0.864</b>	0.445	0.593	0.666	0.185	

Test Condition: 10 W Operating mode with client device (1 % battery status of client device)

Frequency (kHz)	Distance (cm)	EUT Sides						Limits (A/m)
		A (A/m)	B (A/m)	C (A/m)	D (A/m)	E (A/m)	F (A/m)	
114 ~ 116	15	0.161	0.161	0.161	0.168	0.163	0.159	1.63
	10	0.163	0.254	0.188	0.192	0.176	0.164	
	8	0.230	0.426	0.271	0.332	0.333	0.166	
	6	0.323	0.894	0.456	0.553	0.493	0.197	
	Contact, 4	0.504	<b><u>1.196</u></b>	0.580	0.652	0.619	0.273	



**Ant. 2**

**Test Condition: 5 W Operating mode with client device (1 % battery status of client device)**

Frequency (kHz)	Distance (cm)	EUT Sides						Limits (A/m)
		A (A/m)	B (A/m)	C (A/m)	D (A/m)	E (A/m)	F (A/m)	
114 ~ 116	15	0.159	0.166	0.171	0.161	0.161	0.161	1.63
	10	0.163	0.198	0.212	0.164	0.212	0.166	
	8	0.166	0.351	0.227	0.218	0.305	0.185	
	6	0.219	0.654	0.290	0.381	0.579	0.216	
	Contact, 4	0.375	<u>0.837</u>	0.411	0.505	0.604	0.253	

**Test Condition: 7.5 W Operating mode with client device (1 % battery status of client device)**

Frequency (kHz)	Distance (cm)	EUT Sides						Limits (A/m)
		A (A/m)	B (A/m)	C (A/m)	D (A/m)	E (A/m)	F (A/m)	
126 ~ 128	15	0.163	0.164	0.164	0.166	0.163	0.161	1.63
	10	0.164	0.164	0.166	0.171	0.164	0.159	
	8	0.181	0.230	0.171	0.216	0.273	0.164	
	6	0.303	0.507	0.207	0.248	0.428	0.166	
	Contact, 4	0.513	<u>0.715</u>	0.431	0.452	0.624	0.178	

Test Condition: 10 W Operating mode with client device (1 % battery status of client device)

Frequency (kHz)	Distance (cm)	EUT Sides						Limits (A/m)
		A (A/m)	B (A/m)	C (A/m)	D (A/m)	E (A/m)	F (A/m)	
114 ~ 116	15	0.158	0.166	0.161	0.158	0.166	0.161	1.63
	10	0.166	0.216	0.164	0.181	0.185	0.161	
	8	0.178	0.341	0.176	0.217	0.288	0.163	
	6	0.213	0.716	0.273	0.452	0.469	0.176	
	Contact, 4	0.420	<b><u>0.845</u></b>	0.549	0.541	0.596	0.204	

**Ant. 3**

**Test Condition: 5 W Operating mode with client device (1 % battery status of client device)**

Frequency (kHz)	Distance (cm)	EUT Sides						Limits (A/m)
		A (A/m)	B (A/m)	C (A/m)	D (A/m)	E (A/m)	F (A/m)	
114 ~ 116	15	0.161	0.163	0.161	0.159	0.156	0.159	1.63
	10	0.211	0.166	0.166	0.166	0.199	0.161	
	8	0.340	0.243	0.192	0.290	0.279	0.166	
	6	0.603	0.406	0.292	0.419	0.478	0.223	
	Contact, 4	<u>0.771</u>	0.617	0.464	0.645	0.728	0.288	

**Test Condition: 7.5 W Operating mode with client device (1 % battery status of client device)**

Frequency (kHz)	Distance (cm)	EUT Sides						Limits (A/m)
		A (A/m)	B (A/m)	C (A/m)	D (A/m)	E (A/m)	F (A/m)	
126 ~ 128	15	0.161	0.164	0.159	0.166	0.159	0.161	1.63
	10	0.166	0.168	0.166	0.185	0.166	0.164	
	8	0.185	0.300	0.168	0.216	0.227	0.166	
	6	0.331	0.636	0.180	0.434	0.300	0.166	
	Contact, 4	0.547	<u>0.866</u>	0.177	0.670	0.498	0.211	

**Test Condition: 10 W Operating mode with client device (1 % battery status of client device)**

Frequency (kHz)	Distance (cm)	EUT Sides						Limits (A/m)
		A (A/m)	B (A/m)	C (A/m)	D (A/m)	E (A/m)	F (A/m)	
114 ~ 116	15	0.166	0.172	0.161	0.164	0.166	0.161	1.63
	10	0.185	0.186	0.164	0.163	0.185	0.161	
	8	0.353	0.238	0.230	0.249	0.302	0.164	
	6	0.540	0.463	0.296	0.532	0.507	0.235	
	Contact, 4	0.769	0.769	0.441	<u>0.802</u>	0.778	0.271	

**Idle**

**Test Condition: Operating mode without client device**

Frequency (kHz)	Distance (cm)	EUT Sides						Limits (A/m)
		A (A/m)	B (A/m)	C (A/m)	D (A/m)	E (A/m)	F (A/m)	
114 ~ 116	15	0.160	0.166	0.171	0.161	0.211	0.159	1.63
	10	0.164	0.234	0.236	0.257	0.425	0.161	
	8	0.250	0.384	0.398	0.312	0.736	0.172	
	6	0.336	0.467	0.470	0.403	1.063	0.221	
	Contact, 4	0.622	0.677	<b><u>0.682</u></b>	0.680	1.187	0.349	

## 2.6. H-Field Strength Calculation of the EUT

### 2.6.1. Calculation of $\mu_r$ (relative permeability)

According to the self-inductance formula,  $\mu_r$ (relative permeability) can be obtained.

$$x = \sqrt{1 + \left(\frac{d}{2l}\right)^2}$$

$$L = 2l \left[ \ln\left\{\left(\frac{2l}{d}\right)(1+x)\right\} - x + \frac{\mu_r}{4} + \frac{d}{2l} \right]$$

$$\mu_r = 4 \left[ \frac{L}{2l} - \ln\left\{\left(\frac{2l}{d}\right)(1+x)\right\} + x - \frac{d}{2l} \right]$$

Where;

L: self inductance [nH], Qi specification of WIRELESS POWER CONSORTIUM

d: diameter of the wire [cm]

l: length of the wire in [cm]

$\mu_r$ : relative permeability

L [nH]	d [cm]	l [cm]	$\mu_r$
11 500	0.115	153	120.01

**2.6.2. Calculation of theoretical H-field strength with Biot-Savart's law**

According to Biot-Savart law, the value of the B-field at the distance z from the coil is expressed as follows.

$$B_z = \frac{\mu_0 IR^2}{2(R^2 + z^2)^{3/2}}$$

Convert the value of the B-field to the H-field.

$$B_z = \mu_0 \times H_z,$$

$$H_z = \frac{IR^2}{2(R^2 + z^2)^{3/2}}$$

Considering the number of turns and relative permeability of coil, it is expressed as follows.

$$H_z = \frac{IR^2}{2(R^2 + z^2)^{3/2}} \times \frac{N}{\mu_r}$$

Where;

I: the maximum current to the EUT during charging can be obtained from the power supply equipment [A]

R: the radial of EUT' coil antenna [m]

z: the distance from the coil antenna to the point to be measured [m]

N: the number of turns in the coil

$\mu_r$ : relative permeability

Test Condition	I [A]	R [m]	$\mu_r$	N	z [m]	Actual measuring distance <sup>3)</sup> [m]	Theoretical H-field value [A/m]
5 W	1	0.027	120.01	12	0.020 <sup>1)</sup>	0.008	0.961
					0.012 <sup>2)</sup>	0	1.413
7.5 W	1	0.027	120.01	12	0.020 <sup>1)</sup>	0.008	0.961
					0.012 <sup>2)</sup>	0	1.413
10 W	1	0.027	120.01	12	0.020 <sup>1)</sup>	0.008	0.961
					0.012 <sup>2)</sup>	0	1.413

**Note;**

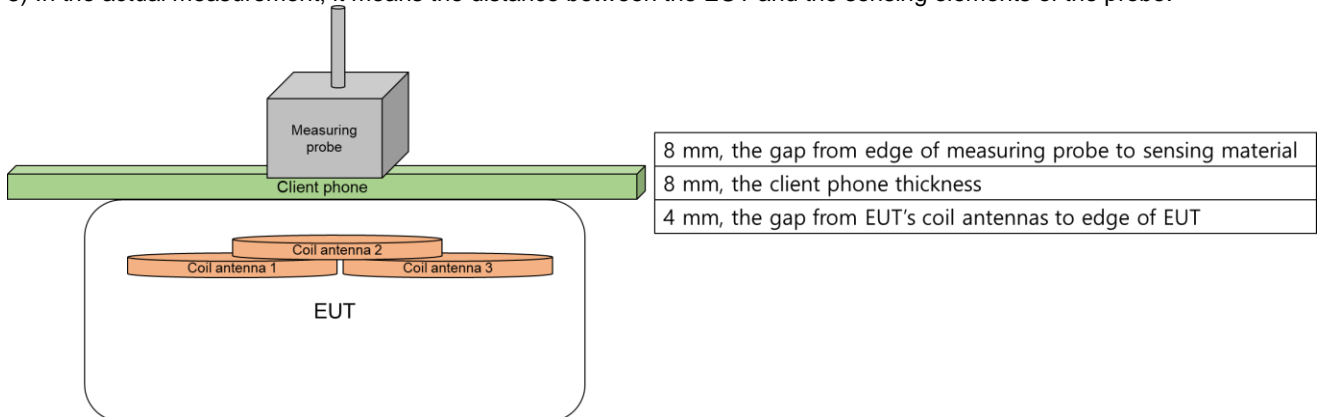
1) Distance z is from the EUT's coil antenna to the measurement point and includes all of the following.

- 4 mm, the gap from EUT's coil antenna to edge of the EUT
- 8 mm, the client phone thickness
- 8 mm, the gap from edge of measuring probe to sensing elements of measuring probe

2) Distance z is from the EUT's coil antenna to the measurement point and includes all of the following.

- 4 mm, the gap from EUT's coil antenna to edge of the EUT
- 8 mm, the client phone thickness

3) In the actual measurement, it means the distance between the EUT and the sensing elements of the probe.



**2.6.3. The Validation of H-field Strength**

Frequency (kHz)	Ant.	Test Condition	Distance (cm)	Theoretical H-field value [A/m]	30 % tolerance of theoretical H-field value [A/m]		Measured Maximum Value [A/m]	Limits [A/m]
					Min.	Max		
114 ~ 116	1	5 W (1 % battery status of client device)	Contact <sup>1)</sup>	0.961	0.673	1.249	1.197	1.63
	2						0.837	
	3						0.771	
126 ~ 128	1	7.5 W (1 % battery status of client device)	Contact <sup>1)</sup>	0.961	0.673	1.249	0.864	
	2						0.715	
	3						0.866	
114 ~ 116	1	10 W (1 % battery status of client device)	Contact <sup>1)</sup>	0.961	0.673	1.249	1.196	
	2						0.845	
	3						0.802	

**Note;**

1) Probe has 4 cm radius enclosure but each sensing element is located 8 mm from the probe edge. Therefore, actual distance in measurement is 8 mm.

**2.6.4. The estimation of H-field strength**

Frequency (kHz)	Test Condition	Distance (cm)	EUT Sides E	Limits [A/m]
			Theoretical H-field value [A/m]	
114 ~ 116	5 W (1 % battery status of client device)	0	1.413	1.63
126 ~ 128	7.5 W (1 % battery status of client device)	0	1.413	
114 ~ 116	10 W (1 % battery status of client device)	0	1.413	

**Note;**

Estimation formula and theoretical value have 30% agreement with actual measurement. Estimation for 0 mm field strength with validated formula complies limit.

**- End of the Test Report -**