

TEST REPORT

of

FCC CFR 47 part1, 1.1307(b), 1.1310

FCC ID: NYOMBECNEE2606

Equipment Under Test : UNIT ASSY-WIRELESS CHARGING
Model Name : MBECNEE2606
Variant Model Name(s) : -
Applicant : MOBASE ELECTRONICS CO., LTD.
Manufacturer : MOBASE ELECTRONICS CO., LTD.
Date of Receipt : 2025.11.05
Date of Test(s) : 2026.01.31 ~ 2026.06.04
Date of Issue : 2026.06.05

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

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- 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:


Jangwon Lee

Technical
Manager:


Jinhyoung Cho

SGS Korea Co., Ltd. Gunpo Laboratory

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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

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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

Kind of Product	UNIT ASSY-WIRELESS CHARGING
Model Name	MBECNEE2606
Serial Number	001
Power Supply	DC 12 V
Operation Mode	Ant.1: 5 W, 7.5 W, 15 W, Ant.2: 5 W, 7.5 W, 15 W
Frequency Range	128 kHz
Antenna Type	Coil Antenna
Antenna Part Number	001
H/W Version	1.0
S/W Version	1.0

1.5. Test Equipment List

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Interval	Cal. Due
Electric and Magnetic field Probe analyzer ¹⁾	NARDA	EHP 200AC	170WX91017	04/07/2025	Annual	04/07/2026
				04/16/2026		04/16/2027
DC Power Supply	Agilent	U8002A	MY50060028	09/18/2025	Annual	09/18/2026
Anechoic Chamber	SY Corporation	L × W × H (9.6 m × 6.4 m × 6.6 m)	N/A	N.C.R.	N/A	N.C.R.

Note;

1) The equipment was not used for testing during the period from 04/07/2026 to 04/23/2026.

► Support Equipment

Description	Manufacturer	S/N	Model	FCC ID
SAMSUNG Mobile Phone	Samsung Electronics Co., Ltd	R3CTB068PEN	SM-S918B	A3LSMS918B
SAMSUNG Mobile Phone	Samsung Electronics Co., Ltd	R3CT5050JHA	SM-S918B	A3LSMS918B
Apple Mobile phone	Apple Inc.	GR6CF03YKPHH	A1921	BCG-E3219A
Apple Mobile phone	Apple Inc.	FK1VQ17KJCLJ	A1865	BCG-E3161A
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 and Magnetic Field	Pass

1.7. Test Report Revision

Revision	Report Number	Date of Issue	Description
0	F690501-RF-RTL007044	2026.06.05	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	19.22 %
Magnetic Field	19.08 %

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-S918B	A3LSMS918B	5 W, 15 W	128 kHz	1 % of battery 50 % of battery 99 % of battery
A1921	BCG-E3219A	7.5W	128 kHz	
A1865	BCG-E3161A	7.5W	128 kHz	

Ant.1

Mode	Battery	Frequency (kHz)	E-field Strength (V/m)	H-field Strength (A/m)
5 W	1 %	128	<u>18.299</u>	<u>0.433</u>
	50 %		17.821	0.410
	99 %		18.246	0.419
7.5 W	1 %		<u>18.588</u>	<u>0.929</u>
	50 %		17.459	0.921
	99 %		18.332	0.922
15 W	1 %		<u>28.541</u>	<u>0.828</u>
	50 %		28.497	0.736
	99 %		28.255	0.718

Ant.2

Mode	Battery	Frequency (kHz)	E-field Strength (V/m)	H-field Strength (A/m)
5 W	1 %	128	<u>25.665</u>	<u>0.473</u>
	50 %		25.544	0.466
	99 %		23.050	0.444
7.5 W	1 %		<u>18.691</u>	<u>0.925</u>
	50 %		18.646	0.921
	99 %		18.166	0.899
15 W	1 %		<u>27.820</u>	<u>0.895</u>
	50 %		27.756	0.894
	99 %		27.724	0.889

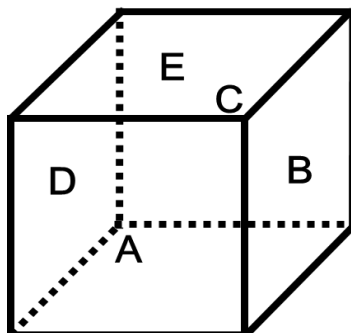
Note;

- EUT was investigated with client device under normal charging condition as above then worst value was only reported.

2. Electronic Field and Magnetic Field

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.

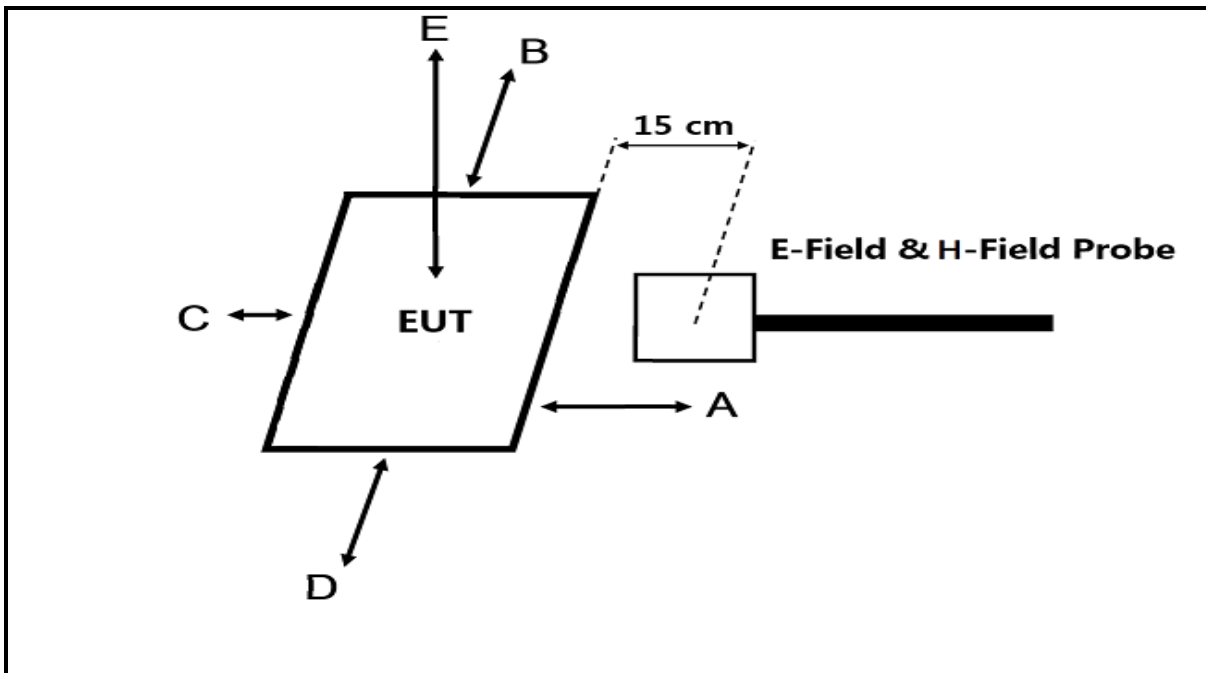
Measurement Point	A	B	C	D	E
Direction	Front	Right	Rear	Left	Top
Measurement Point	A to B	B to C	C to D	D to A	N/A
Direction	Front to Right	Right to Rear	Rear to Left	Left to Front	-
Measurement Point	A to E	B to E	C to E	D to E	N/A
Direction	Front to Top	Right to Top	Rear to Top	Left to Top	-

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

- Worst Case

Mode	Condition	Isotropic Probe position
5W	E-Field	Side D
	H-Field	Side E
7.5W	E-Field	Side D
	H-Field	Side E
15W	E-Field	Side D
	H-Field	Side E

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).
- The EUT was measured according to the dictates of KDB 680106 D01 RF Exposure Wireless Power Transfer v04.

Note;

- Because of measurement probe antenna 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 from the other edge. Therefore, actual distance in measurement at 4 cm is 8 mm.
- According to the manufacturer's declaration, the minimum distance in the EUT installation environment is 40 mm on all sides except the E-side. Therefore, considering the minimum installation environment and the probe's sensing element, the evaluation were carried out at 32 mm respectively.

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 ²)	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 ²)	<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				
<u>0.3-1.34</u>	<u>614</u>	<u>1.63</u>	*(100)	<30
1.34-30	824/f	2.19/f	*(180/f ²)	<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 %

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

Ant.1

Test Condition: 5 W Operating mode with client device

Frequency	Distance (cm)	EUT Sides					
(kHz)		A	B	C	D	E	Limit
		(V/m)	(V/m)	(V/m)	(V/m)	(V/m)	(V/m)
128	15	1.524	1.624	1.206	0.381	1.161	614
	10	1.973	2.363	1.771	0.397	2.717	
	8	2.886	3.395	2.390	0.511	3.511	
	7.2 (3.2 mm)	3.851	4.880	3.538	0.543	-	
	6	-	-	-	-	8.278	
	Contact (4 cm)	-	-	-	-	<u>18.299</u>	

Test Condition: 7.5 W Operating mode with client device

Frequency	Distance (cm)	EUT Sides					
(kHz)		A	B	C	D	E	Limit
		(V/m)	(V/m)	(V/m)	(V/m)	(V/m)	(V/m)
128	15	2.142	1.929	1.776	0.418	1.823	614
	10	2.307	2.667	2.342	0.545	4.340	
	8	4.562	4.117	3.346	0.490	6.210	
	7.2 (3.2 mm)	7.379	5.970	4.764	0.529	-	
	6	-	-	-	-	14.030	
	Contact (4 cm)	-	-	-	-	18.588	

Test Condition: 15 W Operating mode with client device

Frequency	Distance (cm)	EUT Sides					
(kHz)		A	B	C	D	E	Lmit
		(V/m)	(V/m)	(V/m)	(V/m)	(V/m)	(V/m)
128	15	2.386	2.701	1.926	0.561	1.312	614
	10	3.316	1.967	2.657	0.694	2.887	
	8	4.590	5.126	3.639	0.618	3.795	
	7.2 (3.2 mm)	6.630	7.260	5.612	0.801	-	
	6	-	-	-	-	8.552	
	Contact (4 cm)	-	-	-	-	28.541	

Ant.2

Test Condition: 5 W Operating mode with client device

Frequency	Distance (cm)	EUT Sides					
(kHz)		A	B	C	D	E	Limit
		(V/m)	(V/m)	(V/m)	(V/m)	(V/m)	(V/m)
128	15	1.273	0.450	1.034	1.948	1.425	614
	10	1.569	0.483	1.467	2.200	3.965	
	8	2.552	0.549	2.326	3.602	4.668	
	7.2 (3.2 mm)	3.678	0.526	3.239	5.232	-	
	6	-	-	-	-	12.431	
	Contact (4 cm)	-	-	-	-	<u>25.665</u>	

Test Condition: 7.5 W Operating mode with client device

Frequency	Distance (cm)	EUT Sides					
(kHz)		A	B	C	D	E	Limit
		(V/m)	(V/m)	(V/m)	(V/m)	(V/m)	(V/m)
128	15	1.706	0.465	1.533	2.291	1.902	614
	10	2.202	0.398	1.827	2.881	4.156	
	8	3.579	0.460	2.802	4.052	5.882	
	7.2 (3.2 mm)	4.894	0.564	4.435	6.581	-	
	6	-	-	-	-	14.506	
	Contact (4 cm)	-	-	-	-	<u>18.691</u>	

Test Condition: 15 W Operating mode with client device

Frequency	Distance (cm)	EUT Sides					
(kHz)		A	B	C	D	E	Limit
		(V/m)	(V/m)	(V/m)	(V/m)	(V/m)	(V/m)
128	15	2.557	0.473	2.149	2.923	1.379	614
	10	3.255	0.578	1.481	3.638	3.804	
	8	4.477	0.585	3.734	5.637	4.458	
	7.2 (3.2 mm)	6.542	0.655	5.917	8.664	-	
	6	-	-	-	-	14.182	
	Contact (4 cm)	-	-	-	-	<u>27.820</u>	

Ant.1 + Ant.2

Test Condition: 15 W + 15 W Operating mode with client device

Frequency (kHz)	Distance (cm)	EUT Sides					
		A	B	C	D	E	Limit
		(V/m)	(V/m)	(V/m)	(V/m)	(V/m)	(V/m)
128	15	1.168	1.901	1.225	1.471	1.823	614
	10	1.549	2.486	1.390	1.657	4.108	
	8	2.211	3.383	2.073	2.635	6.082	
	7.2 (3.2 mm)	3.891	4.820	2.972	3.633	-	
	6	-	-	-	-	13.334	
	Contact (4 cm)	-	-	-	-	<u>51.340</u>	

Note) The evaluation was performed by considering the position and mode with the highest E-field value for each antenna as the worst case, and measured simultaneous transmission scenarios where Ant.1 and Ant.2 operate concurrently under the same test distance condition.

Test Condition: Idle

Frequency (kHz)	Distance (cm)	EUT Sides					
		A	B	C	D	E	Limit
		(V/m)	(V/m)	(V/m)	(V/m)	(V/m)	(V/m)
128	15	0.381	0.391	0.389	0.364	0.373	614
	10	0.371	0.389	0.381	0.381	0.362	
	8	0.381	0.381	0.381	0.381	0.373	
	7.2 (3.2 mm)	0.391	0.391	0.366	0.381	-	
	6	-	-	-	-	0.381	
	Contact (4 cm)	-	-	-	-	<u>0.391</u>	

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

Ant.1

Test Condition: 5 W Operating mode with client device

Frequency	Distance (cm)	EUT Sides					
(kHz)		A	B	C	D	E	Limit
		(A/m)	(A/m)	(A/m)	(A/m)	(A/m)	(A/m)
128	15	0.163	0.160	0.163	0.154	0.161	1.63
	10	0.160	0.157	0.160	0.157	0.166	
	8	0.182	0.173	0.201	0.166	0.163	
	3.2 (7.2 cm)	0.200	0.238	0.228	0.157	-	
	6	-	-	-	-	0.198	
	Contact (4 cm)	-	-	-	-	<u>0.433</u>	

Test Condition: 7.5 W Operating mode with client device

Frequency	Distance (cm)	EUT Sides					
(kHz)		A	B	C	D	E	Limit
		(A/m)	(A/m)	(A/m)	(A/m)	(A/m)	(A/m)
128	15	0.166	0.160	0.157	0.161	0.150	1.63
	10	0.160	0.160	0.160	0.166	0.161	
	8	0.157	0.160	0.157	0.160	0.154	
	3.2 (7.2 cm)	0.161	0.157	0.163	0.154	-	
	6	-	-	-	-	0.193	
	Contact (4 cm)	-	-	-	-	<u>0.929</u>	

Test Condition: 15 W Operating mode with client device

Frequency	Distance (cm)	EUT Sides					
(kHz)		A	B	C	D	E	Limit
		(A/m)	(A/m)	(A/m)	(A/m)	(A/m)	(A/m)
128	15	0.166	0.166	0.164	0.161	0.157	1.63
	10	0.209	0.169	0.196	0.154	0.160	
	8	0.255	0.257	0.242	0.166	0.248	
	3.2 (7.2 cm)	0.372	0.362	0.343	0.179	-	
	6	-	-	-	-	0.488	
	Contact (4 cm)	-	-	-	-	<u>0.828</u>	

Ant.2

Test Condition: 5 W Operating mode with client device

Frequency	Distance (cm)	EUT Sides					
(kHz)		A	B	C	D	E	Limit
		(A/m)	(A/m)	(A/m)	(A/m)	(A/m)	(A/m)
128	15	0.166	0.166	0.166	0.161	0.157	1.63
	10	0.201	0.156	0.163	0.160	0.166	
	8	0.221	0.157	0.159	0.173	0.163	
	3.2 (7.2 cm)	0.226	0.166	0.201	0.194	-	
	6	-	-	-	-	0.195	
	Contact (4 cm)	-	-	-	-	<u>0.473</u>	

Test Condition: 7.5 W Operating mode with client device

Frequency	Distance (cm)	EUT Sides					
(kHz)		A	B	C	D	E	Limit
		(A/m)	(A/m)	(A/m)	(A/m)	(A/m)	(A/m)
128	15	0.160	0.157	0.160	0.150	0.163	1.63
	10	0.157	0.163	0.160	0.163	0.150	
	8	0.163	0.157	0.156	0.152	0.166	
	3.2 (7.2 cm)	0.154	0.157	0.157	0.203	-	
	6	-	-	-	-	0.278	
	Contact (4 cm)	-	-	-	-	<u>0.925</u>	

Test Condition: 15 W Operating mode with client device

Frequency	Distance (cm)	EUT Sides					
(kHz)		A	B	C	D	E	Limit
		(A/m)	(A/m)	(A/m)	(A/m)	(A/m)	(A/m)
128	15	0.165	0.160	0.156	0.199	0.163	1.63
	10	0.210	0.157	0.157	0.207	0.165	
	8	0.217	0.170	0.190	0.244	0.170	
	3.2 (7.2 cm)	0.309	0.161	0.238	0.289	-	
	6	-	-	-	-	0.267	
	Contact (4 cm)	-	-	-	-	<u>0.895</u>	

Ant.1 + Ant.2

Test Condition: 7.5 W + 7.5 W Operating mode with client device

Frequency	Distance (cm)	EUT Sides					
(kHz)		A	B	C	D	E	Limit
		(A/m)	(A/m)	(A/m)	(A/m)	(A/m)	(A/m)
128	15	0.163	0.226	0.353	0.208	0.161	1.63
	10	0.157	0.236	0.466	0.221	0.176	
	8	0.201	0.347	0.510	0.310	0.201	
	3.2 (7.2 cm)	0.304	0.520	0.842	0.580	-	
	6	-	-	-	-	0.285	
	Contact (4 cm)	-	-	-	-	<u>1.046</u>	

Note) The evaluation was performed by considering the position and mode with the highest H-field value for each antenna as the worst case, and measured simultaneous transmission scenarios where Ant.1 and Ant.2 operate concurrently under the same test distance condition

Test Condition: Idle

Frequency	Distance (cm)	EUT Sides					
(kHz)		A	B	C	D	E	Limit
		(A/m)	(A/m)	(A/m)	(A/m)	(A/m)	(A/m)
128	15	0.150	0.157	0.161	0.157	0.161	1.63
	10	0.161	0.157	0.157	0.157	0.157	
	8	0.163	0.163	0.156	0.160	0.150	
	3.2 (7.2 cm)	0.157	0.157	0.161	0.161	-	
	6	-	-	-	-	0.156	
	Contact (4 cm)	-	-	-	-	<u>0.163</u>	

2.6. E-Field Strength estimation of the EUT

2.6.1. Curve-fitting techniques related measurements

- Ant.1

Operating Frequency: 128 (kHz)												Limits (V/m)
Mode	Distance (mm)											
	8	10	12	14	16	18	20	22	24	26	28	
5 W	18.299	16.271	15.350	14.517	13.734	12.733	12.013	11.774	11.382	10.688	10.290	613
7.5 W	18.588	15.578	14.272	13.143	12.884	12.250	11.924	11.636	10.327	10.305	9.860	
15 W	28.541	16.612	15.205	14.500	13.772	12.980	12.451	11.893	11.258	10.807	10.565	

Remark;

- The Probe's sensing element is located 8 mm inside from the edge. Therefore, the reported measurement distance is includes the offset to the sensing element.

- 5 W

Parameter	Linear Regression Model	Quadratic Regression Model	Cubic Regression Model	4th Order Regression Model	5th Order Regression Model	6th Order Regression Model	7th Order Regression Model	8th Order Regression Model	9th Order Regression Model	10th Order Regression Model
R ²	0.951	0.991	0.995	0.995	0.997	0.999	1.000	1.000	1.000	1.000
Standard Error (S)*	0.591	0.264	0.212	0.221	0.184	0.098	0.066	0.080	0.012	0.025
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated E-field strength (V/m)	20.04	23.93	<u>27.50</u>	30.83	57.50	154.68	-13.59	35.66	2 919.42	294.47

The validation of E-field strength

Distance [mm]	Estimated E-field [V/m]	Measured E-field [V/m]	Deviation (%)	Result
8	18.121	18.299	0.97	Sufficient
10	16.615	16.271	2.12	Sufficient
12	15.370	15.350	0.13	Sufficient
14	14.348	14.517	1.17	Sufficient
16	13.510	13.734	1.63	Sufficient
18	12.820	12.733	0.68	Sufficient
20	12.239	12.013	1.88	Sufficient
22	11.731	11.774	0.37	Sufficient
24	11.257	11.382	1.10	Sufficient
26	10.779	10.688	0.85	Sufficient
28	10.261	10.290	0.28	Sufficient

Deviation (%) = [|Measured(M) - Estimated(E)| / Measured(M)] × 100

Where;

M is the Measurement value of E-field

E is the Estimate value of E-field

Note;

- Each regression model will use the 11 data points from measurement result
- The Data Analysis package included in MS Excel was used to perform the regression analysis.
- Bold and underlined values indicate the regression order selected based on minimum standard error and reasonable E-field values.

- 7.5 W

Parameter	Linear Regression Model	Quadratic Regression Model	Cubic Regression Model	4th Order Regression Model	5th Order Regression Model	6th Order Regression Model	7th Order Regression Model	8th Order Regression Model	9th Order Regression Model	10th Order Regression Model
R ²	0.881	0.950	0.982	0.995	0.995	0.995	0.997	0.997	1.000	1.000
Standard Error (S)*	0.940	0.645	0.415	0.238	0.260	0.291	0.279	0.297	0.060	0.106
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated E-field strength (V/m)	19.39	24.60	35.13	<u>56.28</u>	59.10	64.34	407.90	716.74	9 947.07	876.79

The validation of E-field strength

Distance [mm]	Estimated E-field [V/m]	Measured E-field [V/m]	Deviation (%)	Result
8	18.556	18.588	0.17	Sufficient
10	15.702	15.578	0.80	Sufficient
12	14.101	14.272	1.20	Sufficient
14	13.255	13.143	0.85	Sufficient
16	12.778	12.884	0.82	Sufficient
18	12.393	12.250	1.17	Sufficient
20	11.936	11.924	0.10	Sufficient
22	11.348	11.636	2.47	Sufficient
24	10.685	10.327	3.47	Sufficient
26	10.112	10.305	1.88	Sufficient
28	9.901	9.860	0.41	Sufficient

$$\text{Deviation (\%)} = [|\text{Measured(M)} - \text{Estimated(E)}| / \text{Measured(M)}] \times 100$$

Where;

M is the Measurement value of E-field

E is the Estimate value of E-field

Note;

- Each regression model will use the 11 data points from measurement result
- The Data Analysis package included in MS Excel was used to perform the regression analysis.
- Bold and underlined values indicate the regression order selected based on minimum standard error and reasonable E-field values.

- 15 W

Parameter	Linear Regression Model	Quadratic Regression Model	Cubic Regression Model	4th Order Regression Model	5th Order Regression Model	6th Order Regression Model	7th Order Regression Model	8th Order Regression Model	9th Order Regression Model	10th Order Regression Model
R ²	0.615	0.798	0.903	0.966	0.990	0.998	1.000	1.000	1.000	1.000
Standard Error (S)*	3.306	2.538	1.878	1.202	0.715	0.331	0.103	0.073	0.057	0.074
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated E-field strength (V/m)	25.17	<u>41.76</u>	79.24	170.17	356.53	748.51	1 422.18	2 113.63	4 309.38	854.76

The validation of E-field strength

Distance [mm]	Estimated E-field [V/m]	Measured E-field [V/m]	Deviation (%)	Result
8	23.898	28.541	16.27	Sufficient
10	20.600	16.612	24.00	Sufficient
12	17.769	15.205	16.86	Sufficient
14	15.405	14.500	6.24	Sufficient
16	13.509	13.772	1.91	Sufficient
18	12.080	12.980	6.93	Sufficient
20	11.119	12.451	10.70	Sufficient
22	10.624	11.893	10.67	Sufficient
24	10.597	11.258	5.87	Sufficient
26	11.038	10.807	2.13	Sufficient
28	11.945	10.565	13.07	Sufficient

Deviation (%) = [|Measured(M) - Estimated(M)| / Measured(M)] × 100

Where;

M is the Measurement value of E-field

E is the Estimate value of E-field

Note;

- Each regression model will use the 11 data points from measurement result
- The Data Analysis package included in MS Excel was used to perform the regression analysis.
- Bold and underlined values indicate the regression order selected based on minimum standard error and reasonable E-field values.

- Ant.2

Operating Frequency: 128 (kHz)												Limits (V/m)
Mode	Distance (mm)											
	8	10	12	14	16	18	20	22	24	26	28	
5 W	25.665	15.971	14.477	13.731	12.761	12.066	11.581	10.503	10.440	10.122	9.647	613
7.5 W	18.691	16.823	15.474	13.443	13.294	12.978	11.680	11.628	11.315	11.048	10.480	
15 W	27.820	26.158	25.142	23.533	21.006	19.847	18.555	18.544	17.090	16.709	16.186	

Remark;

- The Probe's sensing element is located 8 mm inside from the edge. Therefore, the reported measurement distance is includes the offset to the sensing element.

- 5 W

Parameter	Linear Regression Model	Quadratic Regression Model	Cubic Regression Model	4th Order Regression Model	5th Order Regression Model	6th Order Regression Model	7th Order Regression Model	8th Order Regression Model	9th Order Regression Model	10th Order Regression Model
R ²	0.671	0.847	0.927	0.972	0.994	0.998	0.999	1.000	1.000	1.000
Standard Error (S)*	2.743	1.986	1.467	0.987	0.515	0.346	0.232	0.217	0.137	0.112
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated E-field strength (V/m)	23.44	38.08	<u>67.40</u>	136.33	296.68	544.55	1 140.44	2 361.24	-4 695.34	-14.41

The validation of E-field strength

Distance [mm]	Estimated E-field [V/m]	Measured E-field [V/m]	Deviation (%)	Result
8	23.901	25.665	6.87	Sufficient
10	18.702	15.971	17.10	Sufficient
12	15.153	14.477	4.67	Sufficient
14	12.944	13.731	5.73	Sufficient
16	11.765	12.761	7.81	Sufficient
18	11.307	12.066	6.29	Sufficient
20	11.260	11.581	2.77	Sufficient
22	11.313	10.503	7.71	Sufficient
24	11.158	10.440	6.87	Sufficient
26	10.483	10.122	3.57	Sufficient
28	8.980	9.647	6.92	Sufficient

Deviation (%) = [|Measured(M) - Estimated(E)| / Measured(M)] × 100

Where;

M is the Measurement value of E-field

E is the Estimate value of E-field

Note;

- Each regression model will use the 11 data points from measurement result
- The Data Analysis package included in MS Excel was used to perform the regression analysis.
- Bold and underlined values indicate the regression order selected based on minimum standard error and reasonable E-field values.

- 7.5 W

Parameter	Linear Regression Model	Quadratic Regression Model	Cubic Regression Model	4th Order Regression Model	5th Order Regression Model	6th Order Regression Model	7th Order Regression Model	8th Order Regression Model	9th Order Regression Model	10th Order Regression Model
R ²	0.887	0.978	0.988	0.988	0.988	0.990	0.991	0.995	1.000	1.000
Standard Error (S)*	0.927	0.436	0.337	0.364	0.399	0.404	0.466	0.415	0.183	0.105
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated E-field strength (V/m)	20.05	26.09	<u>32.26</u>	31.94	29.16	-71.55	-122.29	2 502.05	16 784.96	1 796.03

The validation of E-field strength

Distance [mm]	Estimated E-field [V/m]	Measured E-field [V/m]	Deviation (%)	Result
8	18.739	18.691	0.26	Sufficient
10	16.760	16.823	0.37	Sufficient
12	15.212	15.474	1.69	Sufficient
14	14.029	13.443	4.36	Sufficient
16	13.146	13.294	1.11	Sufficient
18	12.499	12.978	3.69	Sufficient
20	12.022	11.680	2.93	Sufficient
22	11.650	11.628	0.19	Sufficient
24	11.319	11.315	0.03	Sufficient
26	10.962	11.048	0.78	Sufficient
28	10.515	10.480	0.33	Sufficient

$$\text{Deviation (\%)} = [|\text{Measured(M)} - \text{Estimated(E)}| / \text{Measured(M)}] \times 100$$

Where;

M is the Measurement value of E-field

E is the Estimate value of E-field

Note;

- Each regression model will use the 11 data points from measurement result
- The Data Analysis package included in MS Excel was used to perform the regression analysis.
- Bold and underlined values indicate the regression order selected based on minimum standard error and reasonable E-field values.

- 15 W

Parameter	Linear Regression Model	Quadratic Regression Model	Cubic Regression Model	4th Order Regression Model	5th Order Regression Model	6th Order Regression Model	7th Order Regression Model	8th Order Regression Model	9th Order Regression Model	10th Order Regression Model
R ²	0.957	0.989	0.991	0.994	0.994	0.997	0.998	0.998	0.998	0.998
Standard Error (S)*	0.892	0.469	0.462	0.418	0.458	0.377	0.368	0.393	0.528	0.508
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated E-field strength (V/m)	31.81	37.44	<u>33.70</u>	18.51	18.01	204.52	628.51	-855.49	3 539.66	491.33

The validation of E-field strength

Distance [mm]	Estimated E-field [V/m]	Measured E-field [V/m]	Deviation (%)	Result
8	27.941	27.820	0.44	Sufficient
10	26.306	26.158	0.57	Sufficient
12	24.672	25.142	1.87	Sufficient
14	23.078	23.533	1.93	Sufficient
16	21.564	21.006	2.66	Sufficient
18	20.169	19.847	1.62	Sufficient
20	18.933	18.555	2.04	Sufficient
22	17.895	18.544	3.50	Sufficient
24	17.095	17.090	0.03	Sufficient
26	16.571	16.709	0.82	Sufficient
28	16.365	16.186	1.10	Sufficient

Deviation (%) = [|Measured(M) - Estimated(M)| / Measured(M)] × 100

Where;

M is the Measurement value of E-field

E is the Estimate value of E-field

Note;

- Each regression model will use the 11 data points from measurement result
- The Data Analysis package included in MS Excel was used to perform the regression analysis.
- Bold and underlined values indicate the regression order selected based on minimum standard error and reasonable E-field values.

- Ant.1 + Ant.2

Operating Frequency: 128 (kHz)												Limits (V/m)
Mode	Distance (mm)											
	8	10	12	14	16	18	20	22	24	26	28	
15 W + 15 W	51.340	33.197	28.307	25.444	22.291	21.867	20.071	19.580	18.571	18.260	17.170	613

Remark;

- The Probe's sensing element is located 8 mm inside from the edge. Therefore, the reported measurement distance includes the offset to the sensing element.

- 15 W + 15 W

Parameter	Linear Regression Model	Quadratic Regression Model	Cubic Regression Model	4th Order Regression Model	5th Order Regression Model	6th Order Regression Model	7th Order Regression Model	8th Order Regression Model	9th Order Regression Model	10th Order Regression Model
R ²	0.688	0.894	0.967	0.988	0.996	0.998	0.999	0.999	0.999	0.999
Standard Error (S)*	5.865	3.615	2.161	1.422	0.901	0.692	0.505	0.587	0.823	0.818
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated E-field strength (V/m)	47.50	82.21	143.57	<u>246.52</u>	460.81	854.92	1 987.95	3 292.75	516.30	983.07

The validation of E-field strength

Distance [mm]	Estimated E-field [V/m]	Measured E-field [V/m]	Deviation (%)	Result
8	50.368	51.340	1.89	Sufficient
10	35.602	33.197	7.25	Sufficient
12	27.621	28.307	2.43	Sufficient
14	23.899	25.444	6.07	Sufficient
16	22.449	22.291	0.71	Sufficient
18	21.820	21.867	0.22	Sufficient
20	21.096	20.071	5.11	Sufficient
22	19.899	19.580	1.63	Sufficient
24	18.384	18.571	1.01	Sufficient
26	17.246	18.260	5.55	Sufficient
28	17.714	17.170	3.17	Sufficient

Deviation (%) = [|Measured(M) - Estimated(E)| / Measured(M)] × 100

Where;

M is the Measurement value of E-field

E is the Estimate value of E-field

Note;

- Each regression model will use the 11 data points from measurement result
- The Data Analysis package included in MS Excel was used to perform the regression analysis.
- Bold and underlined values indicate the regression order selected based on minimum standard error and reasonable E-field values.
- The evaluation was performed at the worst-case position by comparing the E-side outputs under simultaneous transmission scenarios where Ant.1 and Ant.2 operate concurrently under the same test distance condition.

2.7. H-Field Strength estimation of the EUT

2.7.1. Curve-fitting techniques related measurements

- Ant.1

Operating Frequency: 128 (kHz)												Limits (A/m)
Mode	Distance (mm)											
	8	10	12	14	16	18	20	22	24	26	28	
5 W	0.433	0.397	0.376	0.350	0.339	0.323	0.308	0.293	0.277	0.276	0.265	1.63
7.5 W	0.929	0.846	0.778	0.757	0.700	0.645	0.550	0.502	0.482	0.470	0.437	
15 W	0.828	0.786	0.719	0.628	0.610	0.544	0.525	0.484	0.483	0.451	0.439	

Remark;

- The Probe's sensing element is located 8 mm inside from the edge. Therefore, the reported measurement distance includes the offset to the sensing element.

- 5 W

Parameter	Linear Regression Model	Quadratic Regression Model	Cubic Regression Model	4th Order Regression Model	5th Order Regression Model	6th Order Regression Model	7th Order Regression Model	8th Order Regression Model	9th Order Regression Model	10th Order Regression Model
R ²	0.961	0.995	0.996	0.998	0.998	0.998	0.999	0.999	1.000	1.000
Standard Error (S)*	0.011	0.004	0.004	0.003	0.004	0.003	0.003	0.004	0.001	0.002
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated H-field strength (A/m)	0.48	0.55	0.59	<u>0.74</u>	0.94	-0.16	4.95	7.07	130.59	12.84

The validation of H-field strength

Distance [mm]	Estimated H-field [A/m]	Measured H-field [A/m]	Deviation (%)	Result
8	0.432	0.433	0.11	Sufficient
10	0.399	0.397	0.38	Sufficient
12	0.374	0.376	0.70	Sufficient
14	0.354	0.350	1.03	Sufficient
16	0.337	0.339	0.61	Sufficient
18	0.322	0.323	0.29	Sufficient
20	0.307	0.308	0.05	Sufficient
22	0.293	0.293	0.11	Sufficient
24	0.281	0.277	1.51	Sufficient
26	0.271	0.276	1.81	Sufficient
28	0.266	0.265	0.60	Sufficient

$$\text{Deviation (\%)} = [|\text{Measured(M)} - \text{Estimated(M)}| / \text{Measured(M)}] \times 100$$

Where;

M is the Measurement value of H-field

E is the Estimate value of H-field

Note;

- Each regression model will use the 11 data points from measurement result
- The Data Analysis package included in MS Excel was used to perform the regression analysis.
- Bold and underlined values indicate the regression order selected based on minimum standard error and reasonable H-field values.

- 7.5 W

Parameter	Linear Regression Model	Quadratic Regression Model	Cubic Regression Model	4 th Order Regression Model	5 th Order Regression Model	6 th Order Regression Model	7 th Order Regression Model	8 th Order Regression Model	9 th Order Regression Model	10 th Order Regression Model
R ²	0.972	0.986	0.989	0.991	0.997	0.998	0.999	0.999	0.999	0.999
Standard Error (S)*	0.030	0.022	0.021	0.021	0.012	0.011	0.009	0.011	0.014	0.015
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated H-field strength (A/m)	1.10	1.25	<u>1.04</u>	1.51	4.79	0.65	-16.72	-15.94	-137.20	-10.10

The validation of H-field strength

Distance [mm]	Estimated H-field [A/m]	Measured H-field [A/m]	Deviation (%)	Result
8	0.921	0.929	0.90	Sufficient
10	0.866	0.846	2.41	Sufficient
12	0.807	0.778	3.80	Sufficient
14	0.745	0.757	1.51	Sufficient
16	0.683	0.700	2.38	Sufficient
18	0.624	0.645	3.30	Sufficient
20	0.568	0.550	3.35	Sufficient
22	0.520	0.502	3.63	Sufficient
24	0.482	0.482	0.12	Sufficient
26	0.455	0.470	3.29	Sufficient
28	0.442	0.437	1.17	Sufficient

Deviation (%) = [|Measured(M) - Estimated(M)| / Measured(M)] × 100

Where;

M is the Measurement value of H-field

E is the Estimate value of H-field

Note;

- Each regression model will use the 11 data points from measurement result
- The Data Analysis package included in MS Excel was used to perform the regression analysis.
- Bold and underlined values indicate the regression order selected based on minimum standard error and reasonable H-field values.

- 15 W

Parameter	Linear Regression Model	Quadratic Regression Model	Cubic Regression Model	4th Order Regression Model	5th Order Regression Model	6th Order Regression Model	7th Order Regression Model	8th Order Regression Model	9th Order Regression Model	10th Order Regression Model
R ²	0.938	0.991	0.991	0.993	0.994	0.995	0.995	0.996	0.997	0.996
Standard Error (S)*	0.036	0.014	0.015	0.014	0.014	0.016	0.017	0.018	0.025	0.026
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated H-field strength (A/m)	0.95	1.19	<u>1.18</u>	0.73	-0.23	-2.35	-12.85	54.31	239.80	18.28

The validation of H-field strength

Distance [mm]	Estimated H-field [A/m]	Measured H-field [A/m]	Deviation (%)	Result
8	0.840	0.828	1.38	Sufficient
10	0.770	0.786	2.06	Sufficient
12	0.706	0.719	1.69	Sufficient
14	0.650	0.628	3.45	Sufficient
16	0.600	0.610	1.68	Sufficient
18	0.557	0.544	2.35	Sufficient
20	0.520	0.525	0.80	Sufficient
22	0.491	0.484	1.46	Sufficient
24	0.468	0.483	3.22	Sufficient
26	0.452	0.451	0.30	Sufficient
28	0.443	0.439	0.92	Sufficient

Deviation (%) = [|Measured(M) - Estimated(M)| / Measured(M)] × 100

Where;

M is the Measurement value of H-field

E is the Estimate value of H-field

Note;

- Each regression model will use the 11 data points from measurement result
- The Data Analysis package included in MS Excel was used to perform the regression analysis.
- Bold and underlined values indicate the regression order selected based on minimum standard error and reasonable H-field values.

- Ant.2

Operating Frequency: 128 (kHz)												Limits (A/m)
Mode	Distance (mm)											
	8	10	12	14	16	18	20	22	24	26	28	
5 W	0.4731	0.4661	0.4253	0.3752	0.3723	0.3691	0.3593	0.3582	0.3549	0.3382	0.3054	1.63
7.5 W	0.9247	0.8931	0.8896	0.8595	0.8083	0.7798	0.7631	0.6738	0.6562	0.6130	0.6033	
15 W	0.8947	0.8602	0.8208	0.8149	0.7969	0.4789	0.4692	0.4211	0.4201	0.3853	0.3827	

Remark;

- The Probe's sensing element is located 8 mm inside from the edge. Therefore, the reported measurement distance is includes the offset to the sensing element.

- 5 W

Parameter	Linear Regression Model	Quadratic Regression Model	Cubic Regression Model	4th Order Regression Model	5th Order Regression Model	6th Order Regression Model	7th Order Regression Model	8th Order Regression Model	9th Order Regression Model	10th Order Regression Model
R ²	0.866	0.913	0.952	0.976	0.987	0.994	0.994	0.998	1.000	1.000
Standard Error (S)*	0.020	0.017	0.014	0.010	0.008	0.006	0.007	0.006	0.001	0.002
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated H-field strength (A/m)	0.51	0.60	<u>0.84</u>	0.26	-1.04	-4.71	-7.41	39.58	241.02	24.07

The validation of H-field strength

Distance [mm]	Estimated H-field [A/m]	Measured H-field [A/m]	Deviation (%)	Result
8	0.488	0.473	3.14	Sufficient
10	0.444	0.466	4.66	Sufficient
12	0.413	0.425	2.84	Sufficient
14	0.392	0.375	4.47	Sufficient
16	0.378	0.372	1.58	Sufficient
18	0.369	0.369	0.07	Sufficient
20	0.363	0.359	1.01	Sufficient
22	0.356	0.358	0.48	Sufficient
24	0.347	0.355	2.10	Sufficient
26	0.333	0.338	1.42	Sufficient
28	0.312	0.305	2.09	Sufficient

Deviation (%) = [|Measured(M) - Estimated(M)| / Measured(M)] × 100

Where;

M is the Measurement value of H-field

E is the Estimate value of H-field

Note;

- Each regression model will use the 11 data points from measurement result
- The Data Analysis package included in MS Excel was used to perform the regression analysis.
- Bold and underlined values indicate the regression order selected based on minimum standard error and reasonable H-field values.

- 7.5 W

Parameter	Linear Regression Model	Quadratic Regression Model	Cubic Regression Model	4 th Order Regression Model	5 th Order Regression Model	6 th Order Regression Model	7 th Order Regression Model	8 th Order Regression Model	9 th Order Regression Model	10 th Order Regression Model
R ²	0.976	0.980	0.988	0.990	0.990	0.990	0.992	0.994	0.999	0.999
Standard Error (S)*	0.019	0.018	0.015	0.015	0.017	0.018	0.019	0.021	0.013	0.010
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated H-field strength (A/m)	1.08	1.02	0.79	<u>1.18</u>	1.02	2.56	21.22	81.95	-602.11	-47.25

The validation of H-field strength

Distance [mm]	Estimated H-field [A/m]	Measured H-field [A/m]	Deviation (%)	Result
8	0.923	0.925	0.19	Sufficient
10	0.901	0.893	0.89	Sufficient
12	0.880	0.890	1.10	Sufficient
14	0.855	0.860	0.57	Sufficient
16	0.823	0.808	1.81	Sufficient
18	0.784	0.780	0.54	Sufficient
20	0.739	0.763	3.10	Sufficient
22	0.693	0.674	2.78	Sufficient
24	0.649	0.656	1.13	Sufficient
26	0.616	0.613	0.43	Sufficient
28	0.603	0.603	0.12	Sufficient

Deviation (%) = [|Measured(M) - Estimated(M)| / Measured(M)] × 100

Where;

M is the Measurement value of H-field

E is the Estimate value of H-field

Note;

- Each regression model will use the 11 data points from measurement result
- The Data Analysis package included in MS Excel was used to perform the regression analysis.
- Bold and underlined values indicate the regression order selected based on minimum standard error and reasonable H-field values.

- 15 W

Parameter	Linear Regression Model	Quadratic Regression Model	Cubic Regression Model	4th Order Regression Model	5th Order Regression Model	6th Order Regression Model	7th Order Regression Model	8th Order Regression Model	9th Order Regression Model	10th Order Regression Model
R ²	0.878	0.885	0.934	0.936	0.955	0.960	0.972	0.979	0.980	0.980
Standard Error (S)*	0.080	0.083	0.067	0.071	0.066	0.069	0.067	0.070	0.097	0.097
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated H-field strength (A/m)	1.17	<u>1.32</u>	0.22	-0.52	6.55	20.56	-56.84	-340.61	281.07	-37.83

The validation of H-field strength

Distance [mm]	Estimated H-field [A/m]	Measured H-field [A/m]	Deviation (%)	Result
8	0.953	0.895	6.47	Sufficient
10	0.872	0.860	1.39	Sufficient
12	0.796	0.821	3.03	Sufficient
14	0.724	0.815	11.17	Sufficient
16	0.656	0.797	17.69	Sufficient
18	0.592	0.479	23.67	Sufficient
20	0.533	0.469	13.54	Sufficient
22	0.477	0.421	13.37	Sufficient
24	0.426	0.420	1.46	Sufficient
26	0.379	0.385	1.57	Sufficient
28	0.336	0.383	12.08	Sufficient

Deviation (%) = [|Measured(M) - Estimated(M)| / Measured(M)] × 100

Where;

M is the Measurement value of H-field

E is the Estimate value of H-field

Note;

- Each regression model will use the 11 data points from measurement result
- The Data Analysis package included in MS Excel was used to perform the regression analysis.
- Bold and underlined values indicate the regression order selected based on minimum standard error and reasonable H-field values.

- Ant.1 + Ant.2

Operating Frequency: 128 (kHz)												Limits (A/m)
Mode	Distance (mm)											
	8	10	12	14	16	18	20	22	24	26	28	
7.5 W + 7.5 W	1.046	1.032	0.966	0.954	0.924	0.919	0.904	0.898	0.880	0.824	0.797	1.63

Remark;

- The Probe's sensing element is located 8 mm inside from the edge. Therefore, the reported measurement distance is includes the offset to the sensing element.

- 7.5 W + 7.5 W

Parameter	Linear Regression Model	Quadratic Regression Model	Cubic Regression Model	4th Order Regression Model	5th Order Regression Model	6th Order Regression Model	7th Order Regression Model	8th Order Regression Model	9th Order Regression Model	10th Order Regression Model
R ²	0.948	0.949	0.980	0.982	0.990	0.990	0.997	0.997	0.999	0.998
Standard Error (S)*	0.018	0.019	0.013	0.013	0.011	0.012	0.008	0.009	0.008	0.010
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated H-field strength (A/m)	1.12	1.14	1.45	<u>1.21</u>	-0.46	-0.23	-21.34	-42.72	-282.17	-28.46

The validation of H-field strength

Distance [mm]	Estimated H-field [A/m]	Measured H-field [A/m]	Deviation (%)	Result
8	1.053	1.046	0.66	Sufficient
10	1.013	1.032	1.81	Sufficient
12	0.979	0.966	1.33	Sufficient
14	0.951	0.954	0.27	Sufficient
16	0.931	0.924	0.75	Sufficient
18	0.916	0.919	0.29	Sufficient
20	0.904	0.904	0.08	Sufficient
22	0.892	0.898	0.72	Sufficient
24	0.873	0.880	0.86	Sufficient
26	0.842	0.824	2.10	Sufficient
28	0.790	0.797	0.86	Sufficient

Deviation (%) = [|Measured(M) - Estimated(M)| / Measured(M)] × 100

Where;

M is the Measurement value of H-field

E is the Estimate value of H-field

Note;

- Each regression model will use the 11 data points from measurement result
- The Data Analysis package included in MS Excel was used to perform the regression analysis.
- Bold and underlined values indicate the regression order selected based on minimum standard error and reasonable H-field values.
- The evaluation was performed at the worst-case position by comparing the E-side outputs under simultaneous transmission scenarios where Ant.1 and Ant.2 operate concurrently under the same test distance condition.

- End of the Test Report -