

TEST REPORT

of

FCC CFR 47 part1, 1.1307(b), 1.1310

FCC ID: NYOMBECNEM2606

Equipment Under Test : UNIT ASSY-WIRELESS CHARGING
Model Name : MBECNEM2606
Variant Model Name(s) : -
Applicant : MOBASE ELECTRONICS CO., LTD.
Manufacturer : MOBASE ELECTRONICS CO., LTD.
Date of Receipt : 2025.11.05
Date of Test(s) : 2026.05.31 ~ 2026.06.01
Date of Issue : 2026.06.02

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

Tested by:



Finn Nam

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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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	MBECNEM2606
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	NARDA	EHP 200AC	170WX91017	04/16/2026	Annual	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.

► 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-RTL007032	2026.06.02	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>20.926</u>	<u>0.182</u>
	50 %		18.102	0.156
	99 %		17.466	0.154
7.5 W	1 %		<u>27.349</u>	<u>1.038</u>
	50 %		26.794	1.033
	99 %		27.935	0.964
15 W	1 %		<u>30.762</u>	<u>0.198</u>
	50 %		30.524	0.191
	99 %		29.683	0.166

Ant.2

Mode	Battery	Frequency (kHz)	E-field Strength (V/m)	H-field Strength (A/m)
5 W	1 %	128	<u>41.625</u>	<u>0.580</u>
	50 %		38.456	0.566
	99 %		37.642	0.525
7.5 W	1 %		<u>52.788</u>	<u>1.004</u>
	50 %		50.470	0.951
	99 %		50.495	0.978
15 W	1 %		<u>65.664</u>	<u>0.844</u>
	50 %		65.654	0.817
	99 %		65.120	0.834

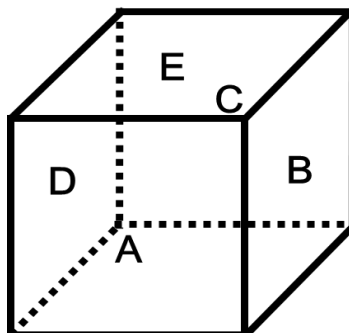
Note;

- 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.

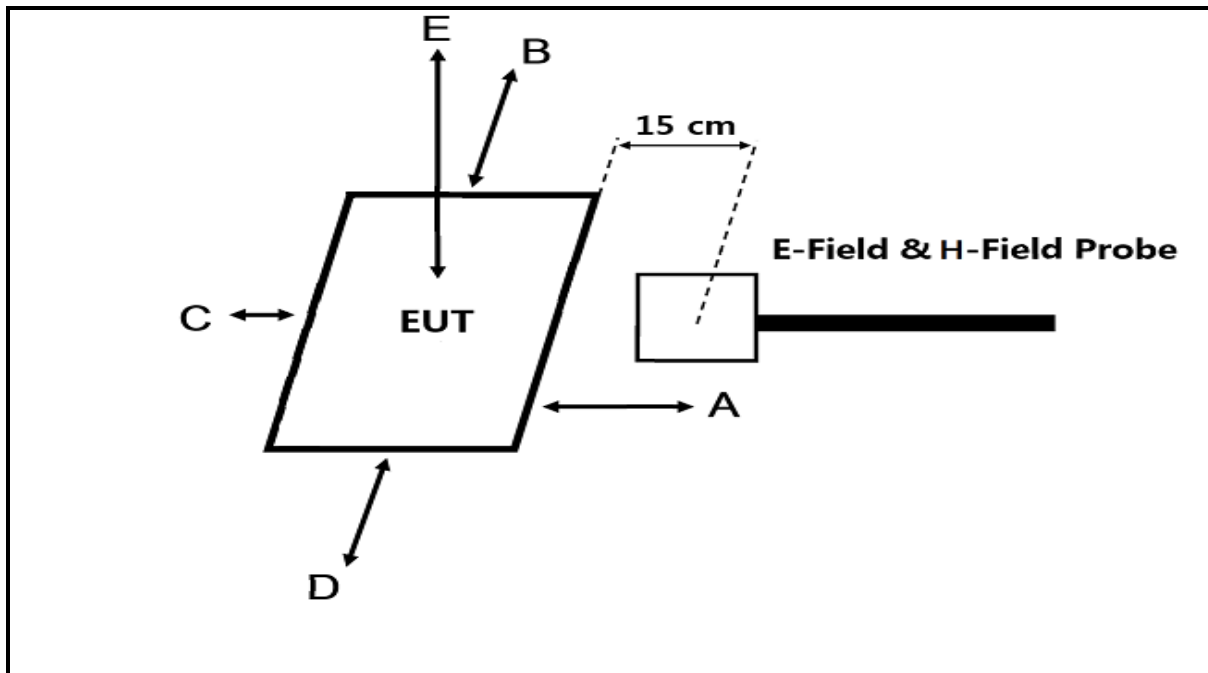
Measurement Point	A	B	C	D	E
Direction	Front	Right	Rear	Left	Top
Measurement Point	A to B	B to C	C to D	D to A	N/A
Direction	Front to Right	Right to Rear	Rear to Left	Left to Front	-
Measurement Point	A to E	B to E	C to E	D to E	N/A
Direction	Front to Top	Right to Top	Rear to Top	Left to Top	-

- 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	0.524	0.841	0.647	0.381	1.384	614
	10	0.507	1.121	0.956	0.373	2.783	
	8	0.694	1.682	1.228	0.371	3.610	
	3.2 (7.2 cm)	0.962	2.765	2.034	0.364	-	
	6	-	-	-	-	5.309	
	Contact (4 cm)	-	-	-	-	<u>20.926</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	0.504	1.230	0.638	0.362	3.240	614
	10	0.534	1.646	0.923	0.373	4.735	
	8	0.777	2.805	1.439	0.381	6.661	
	3.2 (7.2 cm)	1.466	4.388	1.745	0.362	-	
	6	-	-	-	-	9.907	
	Contact (4 cm)	-	-	-	-	<u>27.349</u>	

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	0.909	1.620	1.025	0.371	2.097	614
	10	1.060	2.015	1.586	0.373	4.031	
	8	1.794	3.278	2.256	0.381	5.426	
	3.2 (7.2 cm)	2.695	4.816	3.227	0.381	-	
	6	-	-	-	-	7.920	
	Contact (4 cm)	-	-	-	-	<u>30.762</u>	

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	1.320	0.381	1.465	1.951	3.101	614
	10	1.887	0.362	1.800	2.733	5.863	
	8	2.643	0.428	2.872	3.728	8.022	
	3.2 (7.2 cm)	4.417	0.398	4.741	6.222	-	
	6	-	-	-	-	11.364	
	Contact (4 cm)	-	-	-	-	41.625	

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	1.262	0.381	1.851	2.265	6.670	614
	10	1.872	0.381	2.585	3.065	9.466	
	8	2.589	0.362	4.157	4.503	14.066	
	3.2 (7.2 cm)	4.537	0.366	6.138	7.487	-	
	6	-	-	-	-	22.795	
	Contact (4 cm)	-	-	-	-	<u>52.788</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	1.271	0.381	2.148	2.854	9.068	614
	10	2.195	0.495	3.048	3.935	12.444	
	8	3.096	0.604	4.814	5.892	17.693	
	3.2 (7.2 cm)	5.125	0.844	7.574	9.493	-	
	6	-	-	-	-	27.108	
	Contact (4 cm)	-	-	-	-	65.664	

Ant.1 + Ant.2

Test Condition: 15 W + 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	3.277	1.689	4.721	2.162	9.406	614
	10	4.649	2.341	6.900	3.014	13.113	
	8	8.327	3.213	11.715	4.319	15.672	
	3.2 (7.2 cm)	17.302	8.190	25.332	6.283	-	
	6	-	-	-	-	20.094	
	Contact (4 cm)	-	-	-	-	<u>39.027</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	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	0.362	0.365	0.371	0.373	0.381	614
	10	0.373	0.371	0.362	0.373	0.362	
	8	0.381	0.364	0.362	0.373	0.362	
	3.2 (7.2 cm)	0.373	0.362	0.364	0.373	-	
	6	-	-	-	-	0.362	
	Contact (4 cm)	-	-	-	-	<u>11.556</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	0.154	0.153	0.157	0.152	0.150	1.63
	10	0.152	0.154	0.157	0.157	0.150	
	8	0.150	0.150	0.154	0.150	0.150	
	3.2 (7.2 cm)	0.156	<u>0.257</u>	0.164	0.156		
	6					0.152	
	Contact (4 cm)	-	-	-	-	0.182	

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	0.150	0.153	0.154	0.152	0.154	1.63
	10	0.160	0.154	0.157	0.163	0.163	
	8	0.187	0.156	0.166	0.157	0.157	
	3.2 (7.2 cm)	0.256	0.231	0.233	0.150	-	
	6	-	-	-	-	0.171	
	Contact (4 cm)	-	-	-	-	<u>1.038</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	0.150	0.157	0.153	0.150	0.156	1.63
	10	0.154	0.169	0.155	0.154	0.156	
	8	0.157	0.235	0.152	0.156	0.152	
	3.2 (7.2 cm)	0.207	<u>0.387</u>	0.196	0.150	-	
	6	-	-	-	-	0.153	
	Contact (4 cm)	-	-	-	-	0.198	

Ant.2

Test Condition: 5 W Operating mode with client device

Frequency (kHz)	Distance (cm)	EUT Sides					
		A	B	C	D	E	Limit
		(A/m)	(A/m)	(A/m)	(A/m)	(A/m)	(A/m)
128	15	0.255	0.150	0.160	0.182	0.154	1.63
	10	0.336	0.157	0.153	0.260	0.168	
	8	0.584	0.156	0.150	0.525	0.162	
	3.2 (7.2 cm)	0.900	0.154	0.297	<u>1.025</u>	-	
	6	-	-	-	-	0.248	
	Contact (4 cm)	-	-	-	-	0.580	

Test Condition: 7.5 W Operating mode with client device

Frequency (kHz)	Distance (cm)	EUT Sides					
		A	B	C	D	E	Limit
		(A/m)	(A/m)	(A/m)	(A/m)	(A/m)	(A/m)
128	15	0.149	0.150	0.154	0.160	0.156	1.63
	10	0.154	0.156	0.163	0.193	0.156	
	8	0.154	0.157	0.154	0.254	0.154	
	3.2 (7.2 cm)	0.175	0.147	0.203	0.552	-	
	6	-	-	-	-	0.242	
	Contact (4 cm)	-	-	-	-	<u>1.038</u>	

Test Condition: 15 W Operating mode with client device

Frequency (kHz)	Distance (cm)	EUT Sides					
		A	B	C	D	E	Limit
		(A/m)	(A/m)	(A/m)	(A/m)	(A/m)	(A/m)
128	15	0.379	0.153	0.153	0.340	0.154	1.63
	10	0.575	0.152	0.186	0.466	0.166	
	8	0.925	0.149	0.237	0.771	0.205	
	3.2 (7.2 cm)	<u>1.335</u>	0.156	0.499	1.286	-	
	6	-	-	-	-	0.342	
	Contact (4 cm)	-	-	-	-	0.844	

Ant.1 + Ant.2

Test Condition: 15 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	0.154	0.150	0.153	0.156	0.160	1.63
	10	0.156	0.150	0.150	0.154	0.152	
	8	0.150	0.173	0.173	0.230	0.424	
	3.2 (7.2 cm)	0.161	0.233	0.198	0.401	-	
	6	-	-	-	-	0.837	
	Contact (4 cm)	-	-	-	-	<u>1.256</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	0.163	0.155	0.150	0.154	0.154	1.63
	10	0.154	0.154	0.157	0.153	0.154	
	8	0.157	0.152	0.156	0.153	0.157	
	3.2 (7.2 cm)	0.156	0.157	0.157	0.156	-	
	6	-	-	-	-	0.157-	
	Contact (4 cm)	-	-	-	-	<u>0.161</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	20.926	18.433	17.834	17.264	15.20	14.61	13.01	12.47	10.84	9.6102	8.8812	613
7.5 W	26.788	25.167	24.353	22.413	19.848	16.316	15.133	14.355	13.103	12.691	11.810	
15 W	30.762	29.242	27.821	25.518	24.499	22.092	20.249	19.647	17.957	17.175	15.514	

- 5 W

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.

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	0.989	0.990	0.990	0.992	0.993	0.997	0.997	0.997	0.997	0.997
Standard Error (S)*	0.426	0.441	0.465	0.449	0.469	0.363	0.394	0.474	0.665	0.671
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated E-field strength (V/m)	24.96	25.64	27.15	<u>39.64</u>	64.64	268.25	529.04	-80.88	-2 115.70	96.67

The validation of E-field strength

Distance [mm]	Estimated E-field [V/m]	Measured E-field [V/m]	Deviation (%)	Result
8	20.728	20.926	0.95	Sufficient
10	18.970	18.433	2.91	Sufficient
12	17.685	17.834	0.83	Sufficient
14	16.630	17.264	3.67	Sufficient
16	15.626	15.200	2.81	Sufficient
18	14.560	14.610	0.34	Sufficient
20	13.383	13.010	2.87	Sufficient
22	12.112	12.470	2.87	Sufficient
24	10.828	10.840	0.11	Sufficient
26	9.679	9.610	0.72	Sufficient
28	8.876	8.881	0.06	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.

- 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	0.958	0.981	0.989	0.992	0.995	0.998	0.998	0.999	1.000	0.999
Standard Error (S)*	1.213	0.871	0.694	0.645	0.571	0.386	0.431	0.354	0.392	0.417
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated E-field strength (V/m)	33.32	39.81	<u>27.93</u>	6.61	76.68	350.40	560.64	-2 061.00	5 922.54	333.39

The validation of E-field strength

Distance [mm]	Estimated E-field [V/m]	Measured E-field [V/m]	Deviation (%)	Result
8	27.314	26.788	1.96	Sufficient
10	25.736	25.167	2.26	Sufficient
12	23.841	24.353	2.10	Sufficient
14	21.753	22.413	2.95	Sufficient
16	19.596	19.848	1.27	Sufficient
18	17.498	16.316	7.24	Sufficient
20	15.582	15.133	2.97	Sufficient
22	13.975	14.355	2.65	Sufficient
24	12.801	13.103	2.30	Sufficient
26	12.186	12.691	3.98	Sufficient
28	12.256	11.810	3.77	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.

- 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	0.991	0.995	0.996	0.997	0.997	0.997	0.997	0.997	1.000	1.000
Standard Error (S)*	0.526	0.4	0.399	0.37	0.38	0.425	0.487	0.592	0.121	0.217
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated E-field strength (V/m)	36.687	39.354	<u>36.425</u>	24.16	48.084	45.466	-53.595	-541.603	20 694.142	1 794.761

The validation of E-field strength

Distance [mm]	Estimated E-field [V/m]	Measured E-field [V/m]	Deviation (%)	Result
8	30.880	30.762	0.38	Sufficient
10	29.218	29.242	0.08	Sufficient
12	27.508	27.821	1.13	Sufficient
14	25.780	25.518	1.03	Sufficient
16	24.065	24.499	1.77	Sufficient
18	22.395	22.092	1.37	Sufficient
20	20.800	20.249	2.72	Sufficient
22	19.311	19.647	1.71	Sufficient
24	17.958	17.957	0.01	Sufficient
26	16.774	17.175	2.34	Sufficient
28	15.788	15.514	1.76	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	41.625	39.426	37.533	35.335	32.494	30.451	28.878	26.542	23.986	22.092	21.028	613
7.5 W	52.788	49.604	47.512	46.474	40.081	36.756	34.565	32.475	29.494	27.809	25.872	
15 W	65.664	63.079	59.019	54.124	49.406	44.021	42.836	38.357	37.079	34.221	33.124	

- 5 W

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.

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
R²	0.997	0.998	0.998	0.999	0.999	0.999	1.000	1.000	1.000	1.000
Standard Error (S)*	0.414	0.373	0.337	0.350	0.315	0.284	0.188	0.162	0.012	0.018
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated E-field strength (V/m)	50.01	51.61	47.52	52.91	15.93	127.92	621.18	-474.51	-6 319.97	-517.29

The validation of E-field strength

Distance [mm]	Estimated E-field [V/m]	Measured E-field [V/m]	Deviation (%)	Result
8	41.660	41.625	0.08	Sufficient
10	39.471	39.426	0.11	Sufficient
12	37.323	37.533	0.56	Sufficient
14	35.161	35.335	0.49	Sufficient
16	32.957	32.494	1.42	Sufficient
18	30.713	30.451	0.86	Sufficient
20	28.458	28.878	1.45	Sufficient
22	26.249	26.542	1.10	Sufficient
24	24.171	23.986	0.77	Sufficient
26	22.337	22.092	1.11	Sufficient
28	20.889	21.028	0.66	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	0.984	0.987	0.991	0.992	0.993	0.996	0.996	0.998	0.999	0.999
Standard Error (S)*	1.273	1.181	1.060	1.091	1.140	0.976	1.063	0.870	0.677	0.817
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated E-field strength (V/m)	63.80	<u>68.30</u>	55.16	35.85	96.35	537.27	1 226.54	-5 251.18	-31 555.01	-2 923.44

The validation of E-field strength

Distance [mm]	Estimated E-field [V/m]	Measured E-field [V/m]	Deviation (%)	Result
8	53.503	52.788	1.35	Sufficient
10	50.122	49.604	1.04	Sufficient
12	46.867	47.512	1.36	Sufficient
14	43.738	46.474	5.89	Sufficient
16	40.736	40.081	1.63	Sufficient
18	37.861	36.756	3.01	Sufficient
20	35.112	34.565	1.58	Sufficient
22	32.490	32.475	0.05	Sufficient
24	29.994	29.494	1.70	Sufficient
26	27.625	27.809	0.66	Sufficient
28	25.383	25.872	1.89	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	0.975	0.992	0.995	0.997	0.998	0.998	0.998	0.998	0.998	0.999
Standard Error (S)*	1.963	1.142	0.944	0.783	0.807	0.857	0.987	1.209	1.466	1.350
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated E-field strength (V/m)	78.62	90.55	<u>75.72</u>	39.41	-9.63	142.50	256.13	88.77	-22 468.95	-2 370.27

The validation of E-field strength

Distance [mm]	Estimated E-field [V/m]	Measured E-field [V/m]	Deviation (%)	Result
8	66.306	65.664	0.98	Sufficient
10	62.447	63.079	1.00	Sufficient
12	58.297	59.019	1.22	Sufficient
14	54.015	54.124	0.20	Sufficient
16	49.756	49.406	0.71	Sufficient
18	45.676	44.021	3.76	Sufficient
20	41.933	42.836	2.11	Sufficient
22	38.682	38.357	0.85	Sufficient
24	36.081	37.079	2.69	Sufficient
26	34.285	34.221	0.19	Sufficient
28	33.452	33.124	0.99	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)											
	0	2	4	6	8	10	12	14	16	18	20	
15 W + 15 W	39.027	36.962	34.432	31.281	28.311	26.417	25.79	24.867	23.902	22.838	21.953	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.

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	0.937	0.992	0.992	0.998	0.999	1.000	1.000	1.000	1.000	1.000
Standard Error (S)*	1.556	0.605	0.643	0.376	0.285	0.206	0.123	0.132	0.127	0.109
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated E-field strength (V/m)	44.15	54.68	<u>56.12</u>	23.67	-26.52	104.22	477.22	-5.07	-3 538.13	-279.97

The validation of E-field strength

Distance [mm]	Estimated E-field [V/m]	Measured E-field [V/m]	Deviation (%)	Result
8	39.604	39.027	1.48	Sufficient
10	36.444	36.962	1.40	Sufficient
12	33.642	34.432	2.29	Sufficient
14	31.181	31.281	0.32	Sufficient
16	29.047	28.311	2.60	Sufficient
18	27.225	26.417	3.06	Sufficient
20	25.699	25.790	0.35	Sufficient
22	24.455	24.867	1.66	Sufficient
24	23.476	23.902	1.78	Sufficient
26	22.749	22.838	0.39	Sufficient
28	22.258	21.953	1.39	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)											
	0	2	4	6	8	10	12	14	16	18	20	
5 W	0.2567	0.2022	0.205	0.1933	0.1842	0.1825	0.1784	0.1629	0.1552	0.1583	0.1597	1.63
7.5 W	1.0376	0.9268	0.8229	0.7539	0.7084	0.6526	0.6384	0.5795	0.4897	0.4426	0.3398	
15 W	0.3867	0.2988	0.2756	0.2984	0.2772	0.2622	0.2586	0.2418	0.2302	0.2277	0.2191	

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	0.801 093	0.893 305	0.909 222	0.964 659	0.975 411	0.978 694	0.997 570	0.999 873	0.999 975	0.999 972
Standard Error (S)*	0.013 889	0.010 789	0.010 639	0.007 170	0.006 552	0.006 818	0.002 659	0.000 744	0.000 468	0.000 498
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated H-field strength (A/m)	0.26	<u>0.33</u>	0.41	0.91	1.64	3.08	16.66	37.87	13.70	6.98

The validation of H-field strength

Distance [mm]	Estimated H-field [A/m]	Measured H-field [A/m]	Deviation (%)	Result
8	0.240	0.257	6.61	Sufficient
10	0.223	0.202	10.40	Sufficient
12	0.208	0.205	1.46	Sufficient
14	0.195	0.193	1.04	Sufficient
16	0.185	0.184	0.54	Sufficient
18	0.176	0.183	3.83	Sufficient
20	0.169	0.178	5.06	Sufficient
22	0.164	0.163	0.61	Sufficient
24	0.160	0.155	3.23	Sufficient
26	0.159	0.158	0.63	Sufficient
28	0.160	0.160	0.00	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	0.977	0.980	0.997	0.997	0.998	0.998	0.999	1.000	1.000	1.000
Standard Error (S)*	0.033	0.033	0.013	0.014	0.014	0.014	0.014	0.008	0.011	0.011
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated H-field strength (A/m)	0.98	<u>1.00</u>	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04

The validation of H-field strength

Distance [mm]	Estimated H-field [A/m]	Measured H-field [A/m]	Deviation (%)	Result
8	1.040	1.038	0.19	Sufficient
10	0.920	0.927	0.76	Sufficient
12	0.828	0.823	0.61	Sufficient
14	0.759	0.754	0.66	Sufficient
16	0.706	0.708	0.28	Sufficient
18	0.661	0.653	1.23	Sufficient
20	0.619	0.638	2.98	Sufficient
22	0.572	0.580	1.38	Sufficient
24	0.514	0.490	4.90	Sufficient
26	0.438	0.443	1.13	Sufficient
28	0.337	0.340	0.88	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	0.788 906	0.847 777	0.892 165	0.951 200	0.982 086	0.986 045	0.986 155	0.994 522	0.999 994	0.999 834
Standard Error (S)*	0.022 885	0.020 612	0.018 547	0.013 476	0.008 944	0.008 826	0.010 151	0.007 820	0.000 368	0.001 926
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated H-field strength (A/m)	0.38	0.47	0.70	<u>1.52</u>	3.51	6.04	7.69	-56.97	-340.17	-33.79

The validation of H-field strength

Distance [mm]	Estimated H-field [A/m]	Measured H-field [A/m]	Deviation (%)	Result
8	0.380	0.387	1.81	Sufficient
10	0.313	0.299	4.68	Sufficient
12	0.284	0.276	2.90	Sufficient
14	0.275	0.298	7.72	Sufficient
16	0.274	0.277	1.08	Sufficient
18	0.271	0.262	3.44	Sufficient
20	0.262	0.259	1.16	Sufficient
22	0.247	0.242	2.07	Sufficient
24	0.229	0.230	0.43	Sufficient
26	0.217	0.228	4.82	Sufficient
28	0.224	0.219	2.28	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)											
	0	2	4	6	8	10	12	14	16	18	20	
5 W	1.025	0.943	0.917	0.868	0.778	0.692	0.654	0.566	0.484	0.448	0.390	1.63
7.5 W	1.038	0.923	0.875	0.797	0.749	0.701	0.632	0.611	0.553	0.532	0.480	
15 W	1.335	1.271	1.233	1.219	1.200	1.126	0.985	0.936	0.911	0.882	0.706	

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	0.993	0.993	0.996	0.996	0.997	0.997	0.999	1.000	1.000	1.000
Standard Error (S)*	0.019	0.020	0.017	0.018	0.018	0.018	0.013	0.010	0.011	0.010
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated H-field strength (A/m)	1.29	<u>1.27</u>	1.04	1.29	2.53	7.22	37.6	-45.42	-284.98	-27.98

The validation of H-field strength

Distance [mm]	Estimated H-field [A/m]	Measured H-field [A/m]	Deviation (%)	Result
8	1.028	1.025	0.29	Sufficient
10	0.965	0.943	2.33	Sufficient
12	0.902	0.917	1.64	Sufficient
14	0.838	0.868	3.46	Sufficient
16	0.774	0.778	0.51	Sufficient
18	0.709	0.692	2.46	Sufficient
20	0.643	0.654	1.68	Sufficient
22	0.577	0.566	1.94	Sufficient
24	0.510	0.484	5.37	Sufficient
26	0.443	0.448	1.12	Sufficient
28	0.375	0.390	3.85	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	0.977	0.995	0.997	0.997	0.998	0.998	0.998	0.998	1	1
Standard Error (S)*	0.028	0.014	0.012	0.013	0.012	0.013	0.014	0.017	0.010	0.007
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated H-field strength (A/m)	1.19	<u>1.37</u>	1.53	1.7	3.02	4.08	15.84	36.53	584.75	61.96

The validation of H-field strength

Distance [mm]	Estimated H-field [A/m]	Measured H-field [A/m]	Deviation (%)	Result
8	1.020	1.038	1.73	Sufficient
10	0.944	0.923	2.28	Sufficient
12	0.873	0.875	0.23	Sufficient
14	0.808	0.797	1.38	Sufficient
16	0.747	0.749	0.27	Sufficient
18	0.692	0.701	1.28	Sufficient
20	0.642	0.632	1.58	Sufficient
22	0.596	0.611	2.45	Sufficient
24	0.556	0.553	0.54	Sufficient
26	0.521	0.532	2.07	Sufficient
28	0.492	0.480	2.50	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	0.951	0.968	0.968	0.969	0.993	0.997	0.998	0.999	0.999	1
Standard Error (S)*	0.047	0.04	0.042	0.046	0.024	0.018	0.014	0.016	0.015	0
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated H-field strength (A/m)	1.37	1.32	1.32	1.32	<u>1.34</u>	1.34	1.33	1.33	1.34	1.33

The validation of H-field strength

Distance [mm]	Estimated H-field [A/m]	Measured H-field [A/m]	Deviation (%)	Result
8	1.342	1.335	0.52	Sufficient
10	1.247	1.271	1.89	Sufficient
12	1.248	1.233	1.22	Sufficient
14	1.240	1.219	1.72	Sufficient
16	1.186	1.200	1.17	Sufficient
18	1.098	1.126	2.49	Sufficient
20	1.006	0.985	2.13	Sufficient
22	0.942	0.936	0.64	Sufficient
24	0.912	0.911	0.11	Sufficient
26	0.872	0.882	1.13	Sufficient
28	0.710	0.706	0.57	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)											
	0	2	4	6	8	10	12	14	16	18	20	
15 W + 7.5 W	1.256	1.218	1.159	1.141	1.078	1.032	0.987	0.957	0.933	0.914	0.864	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.

- 15 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	0.987	0.994	0.994	0.996	0.998	0.998	0.998	0.999	1.000	1.000
Standard Error (S)*	0.016	0.011	0.012	0.011	0.009	0.010	0.010	0.009	0.008	0.009
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated H-field strength (A/m)	1.40	1.49	<u>1.43</u>	1.06	2.43	1.41	-6.02	-66.57	-312.89	-31.73

The validation of H-field strength

Distance [mm]	Estimated H-field [A/m]	Measured H-field [A/m]	Deviation (%)	Result
8	1.259	1.256	0.24	Sufficient
10	1.214	1.218	0.33	Sufficient
12	1.168	1.159	0.78	Sufficient
14	1.123	1.141	1.58	Sufficient
16	1.079	1.078	0.09	Sufficient
18	1.037	1.032	0.48	Sufficient
20	0.997	0.987	1.01	Sufficient
22	0.961	0.957	0.42	Sufficient
24	0.927	0.933	0.64	Sufficient
26	0.898	0.914	1.75	Sufficient
28	0.874	0.864	1.16	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 -