

TEST REPORT

of

FCC CFR 47 part1, 1.1307(b), 1.1310

FCC ID: 2AV76-NMOK-370W

Equipment Under Test : WIRELESS POWER CHARGING SYSTEM
Model Name : NMOK-370W
Variant Model Name(s) : -
Applicant : NIDEC MOBILITY KOREA CORPORATION
Manufacturer : NIDEC MOBILITY KOREA CORPORATION
Date of Receipt : 2025.12.23
Date of Test(s) : 2026.05.20 ~ 2026.05.27
Date of Issue : 2026.06.04

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:



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)

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

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1.2. Details of Applicant

Applicant : NIDEC MOBILITY KOREA CORPORATION

Address : 790-12, Bogaewonsam-ro, Bogae-myeon, Anseng-si, Gyeonggi-do, South Korea, 17507

Contact Person : Nam, Sang-il

Phone No. : +82 2 850 5789

1.3. Details of Manufacturer

Company : Same as applicant

Address : Same as applicant

1.4. Description of EUT

Kind of Product	WIRELESS POWER CHARGING SYSTEM	
Model Name	NMOK-370W	
Serial Number	96560-BQ010	
Power Supply	DC 12.0 V	
Operation Mode	5 W, 10 W, Idle	
Frequency Range	5 W	127.7 kHz
	10 W	127.7 kHz
	Idle	127.7 kHz
Antenna Type	Coil Antenna	
Antenna Part Number	95560-L1410	
H/W Version	1.00	
S/W Version	1.00	

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	MY53150029	11/28/2025	Annual	11/28/2026
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	Model	FCC ID
SAMSUNG Mobile Phone	Samsung Electronics Co., Ltd.	SM-N950N	A3LSMN950KOR
Lap top	Lenovo	T430	-

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-RTL007037	2026.06.04	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-N950N	A3LSMN950KOR	5 W, 10 W	126.7 kHz ~ 128.7 kHz	1 % of battery 50 % of battery 99 % of battery

Mode	Battery	Frequency (kHz)	E-field Strength (V/m)	H-field Strength (A/m)
5 W	1 %	127.7	<u>52.927</u>	<u>1.381</u>
	50 %		52.271	1.280
	99 %		52.082	1.301
10 W	1 %		<u>63.210</u>	<u>1.331</u>
	50 %		61.536	1.305
	99 %		61.885	1.104

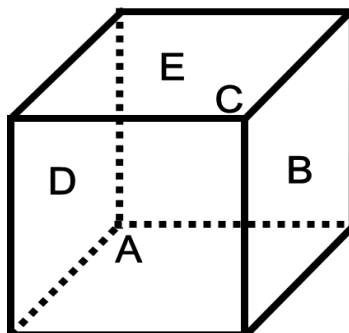
Note;

- 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.

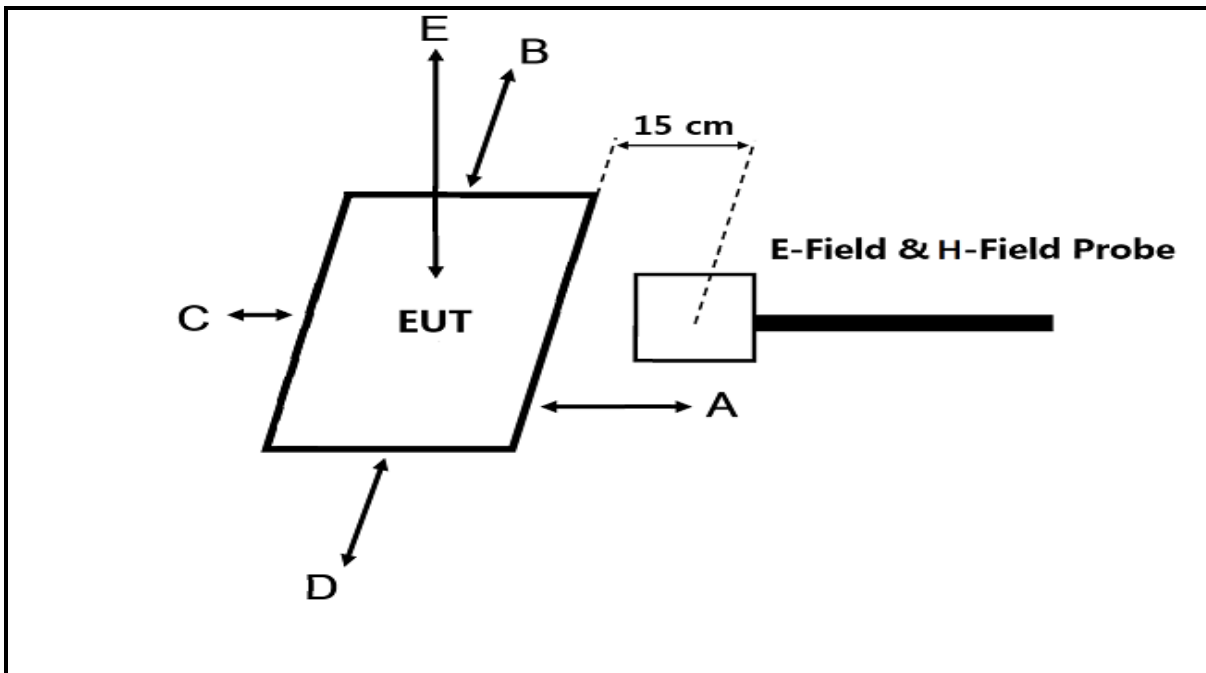
Measurement Point	A	B	C	D	E
Direction	Front	Right	Rear	Left	Top
Measurement Point	A to B	B to C	C to D	D to A	N/A
Direction	Front to Right	Right to Rear	Rear to Left	Left to Front	-
Measurement Point	A to E	B to E	C to E	D to E	N/A
Direction	Front to Top	Right to Top	Rear to Top	Left to Top	-

- 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 A
10W	E-Field	Side D
	H-Field	Side A

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.
- The EUT installed to the vehicle was charged from the top, so it was measured from 5 sides except the bottom.
- According to the manufacturer's declaration, in the installation environment of EUT the minimum distance is 30 mm on the A, 49 mm on the B, 86 mm on the C sides and 53 mm on the D side. Therefore, considering the minimum installation environment and the probe's sensing element, the evaluation were carried out at 22 mm, 41 mm, 78 mm and 45 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

Test Condition: 5 W Operating mode with client device

Frequency (kHz)	Distance (cm)	EUT Sides	Distance (cm)	EUT Sides	Distance (cm)	EUT Sides	Distance (cm)	EUT Sides	Distance (cm)	EUT Sides
		A (V/m)		B (V/m)		C (V/m)		D (V/m)		E (V/m)
127.7	15	3.116	15	4.596	15	3.398	15	2.803	15	6.530
	10	4.872	10	8.196	11.8 (78 mm)	4.826	10	5.340	10	13.186
	8	5.940	8.1 (41 mm)	11.152	-	-	8.5 (45 mm)	7.098	8	18.774
	6.2 (22 mm)	10.892	-	-	-	-	-	-	6	46.342
	-	-	-	-	-	-	-	-	Contact (4 cm)	<u>52.475</u>

Test Condition: 10 W Operating mode with client device

Frequency (kHz)	Distance (cm)	EUT Sides	Distance (cm)	EUT Sides	Distance (cm)	EUT Sides	Distance (cm)	EUT Sides	Distance (cm)	EUT Sides
		A (V/m)		B (V/m)		C (V/m)		D (V/m)		E (V/m)
127.7	15	5.222	15	4.585	15	6.088	15	4.847	15	7.123
	10	8.388	10	8.943	11.8 (78 mm)	9.262	10	9.498	10	14.305
	8	9.505	8.1 (41 mm)	11.532	-	-	8.5 (45 mm)	10.852	8	20.384
	6.2 (22 mm)	12.046	-	-	-	-	-	-	6	29.267
	-	-	-	-	-	-	-	-	Contact (4 cm)	<u>60.425</u>

Test Condition: Idle

Frequency (kHz)	Distance (cm)	EUT Sides	Distance (cm)	EUT Sides	Distance (cm)	EUT Sides	Distance (cm)	EUT Sides	Distance (cm)	EUT Sides
		A (V/m)		B (V/m)		C (V/m)		D (V/m)		E (V/m)
127.7	15	0.362	15	<u>0.440</u>	15	0.373	15	0.381	15	0.373
	10	0.381	10	0.373	11.8 (78 mm)	0.381	10	0.381	10	0.364
	8	0.365	8.1 (41 mm)	0.371	-	-	8.5 (45 mm)	0.391	8	0.381
	6.2 (22 mm)	0.373	-	-	-	-	-	-	6	0.373
	-	-	-	-	-	-	-	-	Contact (4 cm)	0.381

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

Test Condition: 5 W Operating mode with client device

Frequency (kHz)	Distance (cm)	EUT Sides	Distance (cm)	EUT Sides	Distance (cm)	EUT Sides	Distance (cm)	EUT Sides	Distance (cm)	EUT Sides
		A (A/m)		B (A/m)		C (A/m)		D (A/m)		E (A/m)
127.7	15	0.178	15	0.235	15	0.160	15	0.160	15	0.160
	10	0.254	10	0.500	11.8 (78 mm)	0.235	10	0.198	10	0.170
	8	0.386	8.1 (41 mm)	0.873	-	-	8.5 (45 mm)	0.326	8	0.312
	6.2 (22 mm)	0.619	-	-	-	-	-	-	6	0.723
	-	-	-	-	-	-	-	-	Contact (4 cm)	<u>1.225</u>

Test Condition: 10 W Operating mode with client device

Frequency (kHz)	Distance (cm)	EUT Sides	Distance (cm)	EUT Sides	Distance (cm)	EUT Sides	Distance (cm)	EUT Sides	Distance (cm)	EUT Sides
		A (A/m)		B (A/m)		C (A/m)		D (A/m)		E (A/m)
127.7	15	0.262	15	0.228	15	0.178	15	0.163	15	0.166
	10	0.565	10	0.464	11.8 (78 mm)	0.327	10	0.277	10	0.186
	8	1.020	8.1 (41 mm)	0.865	-	-	8.5 (45 mm)	0.529	8	0.179
	6.2 (22 mm)	1.197	-	-	-	-	-	-	6	0.368
	-	-	-	-	-	-	-	-	Contact (4 cm)	<u>1.344</u>

Test Condition: Idle

Frequency (kHz)	Distance (cm)	EUT Sides	Distance (cm)	EUT Sides	Distance (cm)	EUT Sides	Distance (cm)	EUT Sides	Distance (cm)	EUT Sides
		A (A/m)		B (A/m)		C (A/m)		D (A/m)		E (A/m)
127.7	15	0.154	15	0.166	15	0.156	15	0.163	15	0.157
	10	0.160	10	0.154	11.8 (78 mm)	0.150	10	0.157	10	<u>0.274</u>
	8	0.150	8.1 (41 mm)	0.161	-	-	8.5 (45 mm)	0.156	8	0.160
	6.2 (22 mm)	0.156	-	-	-	-	-	-	6	0.150
	-	-	-	-	-	-	-	-	Contact (4 cm)	0.169

2.6. E-Field Strength estimation of the EUT

2.6.1. Curve-fitting techniques related measurements

Operating Frequency: 127.7 (kHz)												Limits (V/m)
Mode	Distance (mm)											
	8	13	18	23	28	33	38	43	48	53	58	
5 W	54.509	52.170	49.915	47.743	45.655	43.651	41.731	39.894	38.141	36.472	34.886	613
10 W	63.521	58.682	53.848	48.784	44.732	41.050	39.027	36.235	34.809	32.991	31.098	

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	0.995	0.999	0.999	0.999	0.999	0.999	1.000	1.000	1.000	1.000
Standard Error (S)*	0.487	0.281	0.300	0.313	0.304	0.334	0.262	0.129	0.182	0.192
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated E-field strength (V/m)	61.73	<u>64.70</u>	64.62	69.30	96.08	129.13	647.90	2616.69	3014.99	582.19

The validation of E-field strength

Distance [mm]	Estimated E-field [V/m]	Measured E-field [V/m]	Deviation (%)	Result
8.00	54.728	54.509	0.40	Sufficient
10.00	51.626	52.170	1.05	Sufficient
12.00	50.290	49.915	0.75	Sufficient
14.00	47.646	47.743	0.20	Sufficient
16.00	45.669	45.655	0.03	Sufficient
18.00	43.748	43.651	0.22	Sufficient
20.00	41.893	41.731	0.39	Sufficient
22.00	39.605	39.894	0.73	Sufficient
24.00	38.093	38.141	0.13	Sufficient
26.00	36.593	36.472	0.33	Sufficient
28.00	34.874	34.886	0.03	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.

- 10 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	0.999	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Standard Error (S)*	2.388	0.469	0.468	0.260	0.265	0.296	0.320	0.379	0.488	0.462
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated E-field strength (V/m)	72.94	90.00	93.45	<u>69.35</u>	51.84	61.01	283.54	937.14	-4725.42	-402.33

The validation of E-field strength

Distance [mm]	Estimated E-field [V/m]	Measured E-field [V/m]	Deviation (%)	Result
8.00	63.554	63.521	0.05	Sufficient
10.00	58.675	58.682	0.01	Sufficient
12.00	53.669	53.848	0.33	Sufficient
14.00	48.939	48.784	0.32	Sufficient
16.00	44.762	44.732	0.07	Sufficient
18.00	41.291	41.050	0.59	Sufficient
20.00	38.551	39.027	1.22	Sufficient
22.00	36.444	36.235	0.58	Sufficient
24.00	34.745	34.809	0.18	Sufficient
26.00	33.104	32.991	0.34	Sufficient
28.00	31.045	31.098	0.17	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.

2.7. H-Field Strength estimation of the EUT

2.7.1. Curve-fitting techniques related measurements

Operating Frequency: 127.7 (kHz)												Limits (A/m)
Mode	Distance (mm)											
	8	13	18	23	28	33	38	43	48	53	58	
5 W	1.152	1.142	1.088	1.029	0.981	0.968	0.914	0.875	0.857	0.817	0.764	1.63
10 W	1.353	1.308	1.232	1.205	1.164	1.117	1.074	1.027	0.967	0.936	0.912	

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	0.990	0.991	0.991	0.995	0.996	0.998	0.998	0.999	0.999	0.999
Standard Error (S)*	0.014	0.014	0.015	0.012	0.012	0.010	0.011	0.009	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)	1.31	<u>1.35</u>	1.36	0.77	-0.04	-4.62	-6.08	68.36	-75.32	2.38

The validation of H-field strength

Distance [mm]	Estimated H-field [A/m]	Measured H-field [A/m]	Deviation (%)	Result
8.00	1.165	1.152	1.13	Sufficient
10.00	1.122	1.142	1.75	Sufficient
12.00	1.079	1.088	0.83	Sufficient
14.00	1.038	1.029	0.87	Sufficient
16.00	0.998	0.981	1.73	Sufficient
18.00	0.958	0.968	1.03	Sufficient
20.00	0.919	0.914	0.55	Sufficient
22.00	0.881	0.875	0.69	Sufficient
24.00	0.845	0.857	1.40	Sufficient
26.00	0.809	0.817	0.98	Sufficient
28.00	0.773	0.764	1.18	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.

- 10 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	0.994	0.996	0.996	0.998	0.998	0.999	0.999	1.000	1.000	1.000
Standard Error (S)*	0.012	0.011	0.012	0.009	0.009	0.009	0.009	0.001	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)	1.52	<u>1.57</u>	1.55	2.02	1.40	-1.52	-8.83	-84.31	-121.72	-18.57

The validation of H-field strength

Distance [mm]	Estimated H-field [A/m]	Measured H-field [A/m]	Deviation (%)	Result
8.00	1.351	1.353	0.15	1.351
10.00	1.301	1.308	0.54	1.301
12.00	1.252	1.232	1.62	1.252
14.00	1.204	1.205	0.08	1.204
16.00	1.157	1.164	0.60	1.157
18.00	1.111	1.117	0.54	1.111
20.00	1.067	1.074	0.65	1.067
22.00	1.024	1.027	0.29	1.024
24.00	0.983	0.967	1.65	0.983
26.00	0.942	0.936	0.64	0.942
28.00	0.903	0.912	0.99	0.903

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.

- End of the Test Report -