

TEST REPORT

of

FCC CFR 47 part1, 1.1307(b), 1.1310

FCC ID: 2AV76-NMOK-371W

Equipment Under Test : WIRELESS POWER CHARGING SYSTEM

Model Name : NMOK-371W

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.

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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:



Finn Nam

Technical
Manager:



Jinhyoung Cho

SGS Korea Co., Ltd. Gunpo Laboratory



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Report Number: F690501-RF-RTL007034

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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-371W	
Serial Number	96560-BQ011	
Power Supply	DC 12.0 V	
Operation Mode	5 W, 10 W	
Frequency Range	5 W	126.7 kHz ~ 128.7 kHz
	10 W	126.7 kHz ~ 128.7 kHz
	Idle	126.7 kHz ~ 128.7 kHz
Antenna Type	Coil Antenna	
Antenna Part Number	95560-L1310	
H/W Version	A.00	
S/W Version	A.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-RTL007034	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-N950	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>52.479</u>	<u>1.414</u>
	50 %		52.244	1.325
	99 %		52.403	1.326
10 W	1 %		<u>63.033</u>	<u>1.225</u>
	50 %		62.972	1.205
	99 %		62.810	1.096

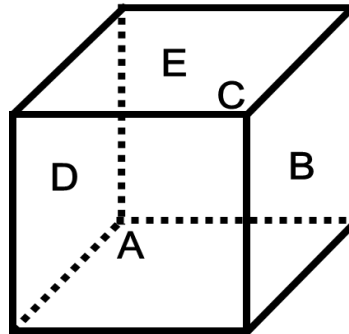
Note;

- 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.

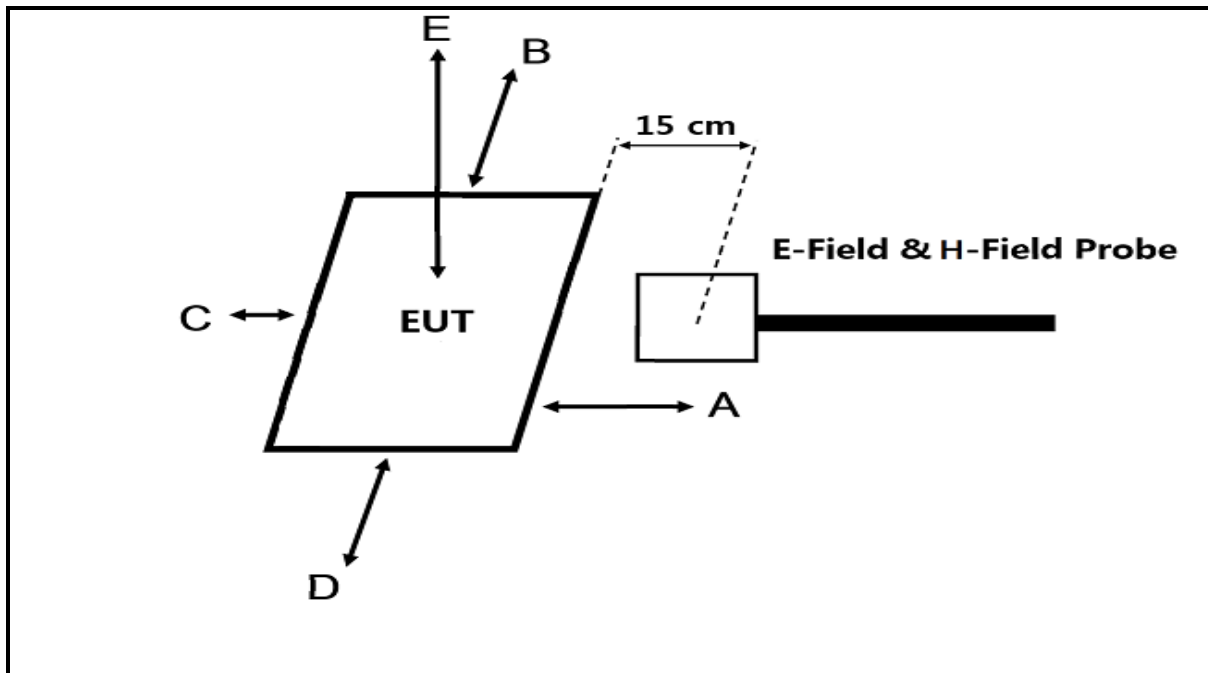
Measurement Point	A	B	C	D	E
Direction	Front	Right	Rear	Left	Top
Measurement Point	A to B	B to C	C to D	D to A	N/A
Direction	Front to Right	Right to Rear	Rear to Left	Left to Front	-
Measurement Point	A to E	B to E	C to E	D to E	N/A
Direction	Front to Top	Right to Top	Rear to Top	Left to Top	-

- 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	3.101	15	4.532	15	3.447	15	2.862	15	6.468
	10	4.732	10	8.094	11.8 (78 mm)	4.764	10	5.164	10	13.665
	8	6.025	8.1 (41 mm)	11.089	-	-	8.5 (45 mm)	6.963	8	18.697
	6.2 (22 mm)	10.695	-	-	-	-	-	-	6	45.408
	-	-	-	-	-	-	-	-	Contact (4 cm)	<u>52.565</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	5.319	15	4.492	15	5.989	15	4.721	15	6.849
	10	8.359	10	8.937	11.8 (78 mm)	9.103	10	9.280	10	14.404
	8	9.303	8.1 (41 mm)	11.348	-	-	8.5 (45 mm)	10.805	8	20.389
	6.2 (22 mm)	11.875	-	-	-	-	-	-	6	28.811
	-	-	-	-	-	-	-	-	Contact (4 cm)	<u>60.375</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	0.373	15	0.381	15	0.373	15	0.373	15	0.373
	10	0.373	10	0.362	11.8 (78 mm)	0.362	10	0.371	10	0.373
	8	0.373	8.1 (41 mm)	0.398	-	-	8.5 (45 mm)	0.381	8	0.373
	6.2 (22 mm)	0.362	-	-	-	-	-	-	6	0.381
	-	-	-	-	-	-	-	-	Contact (4 cm)	<u>0.506</u>

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	0.180	15	0.211	15	0.163	15	0.161	15	0.166
	10	0.263	10	0.484	11.8 (78 mm)	0.251	10	0.238	10	0.188
	8	0.390	8.1 (41 mm)	0.910	-	-	8.5 (45 mm)	0.280	8	0.314
	6.2 (22 mm)	0.610	-	-	-	-	-	-	6	0.736
	-	-	-	-	-	-	-	-	Contact (4 cm)	<u>1.147</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	0.276	15	0.211	15	0.188	15	0.188	15	0.166
	10	0.653	10	0.560	11.8 (78 mm)	0.343	10	0.277	10	0.191
	8	1.069	8.1 (41 mm)	0.819	-	-	8.5 (45 mm)	0.503	8	0.206
	6.2 (22 mm)	1.243	-	-	-	-	-	-	6	0.361
	-	-	-	-	-	-	-	-	Contact (4 cm)	<u>1.365</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	0.152	15	0.157	15	<u>0.160</u>	15	0.154	15	0.153
	10	0.157	10	0.150	11.8 (78 mm)	0.157	10	0.157	10	0.156
	8	0.154	8.1 (41 mm)	0.154	-	-	8.5 (45 mm)	0.156	8	0.156
	6.2 (22 mm)	0.154	-	-	-	-	-	-	6	0.157
	-	-	-	-	-	-	-	-	Contact (4 cm)	0.154

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	10	12	14	16	18	20	22	24	26	28	
5 W	54.851	52.481	50.067	47.635	45.283	43.706	41.722	39.472	38.211	36.705	34.742	613
10 W	63.573	57.810	52.510	47.793	43.965	40.100	38.587	36.104	34.562	32.875	31.320	

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	0.999	0.999	0.999	0.999	1.000	1.000	1.000	1.000	1.000
Standard Error (S)*	0.584	0.218	0.226	0.223	0.243	0.222	0.232	0.207	0.059	0.087
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated E-field strength (V/m)	62.01	<u>65.98</u>	67.10	61.63	65.92	-19.04	176.79	1484.47	-5855.24	-315.46

The validation of E-field strength

Distance [mm]	Estimated E-field [V/m]	Measured E-field [V/m]	Deviation (%)	Result
8.00	54.878	54.851	0.05	Sufficient
10.00	52.383	52.481	0.19	Sufficient
12.00	49.999	50.067	0.14	Sufficient
14.00	47.728	47.635	0.20	Sufficient
16.00	45.568	45.283	0.63	Sufficient
18.00	43.520	43.706	0.43	Sufficient
20.00	41.584	41.722	0.33	Sufficient
22.00	39.760	39.472	0.73	Sufficient
24.00	38.048	38.211	0.43	Sufficient
26.00	36.448	36.705	0.70	Sufficient
28.00	34.959	34.742	0.62	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	0.942	0.998	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Standard Error (S)*	2.702	0.546	0.364	0.305	0.321	0.345	0.395	0.461	0.627	0.000
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated E-field strength (V/m)	71.68	90.96	99.69	<u>85.90</u>	70.61	124.69	216.95	-765.61	-5397.45	-660.01

The validation of E-field strength

Distance [mm]	Estimated E-field [V/m]	Measured E-field [V/m]	Deviation (%)	Result
8.00	63.594	63.573	0.03	Sufficient
10.00	57.793	57.810	0.03	Sufficient
12.00	52.473	52.510	0.07	Sufficient
14.00	47.793	47.793	0	Sufficient
16.00	43.841	43.965	0.28	Sufficient
18.00	40.631	40.100	1.32	Sufficient
20.00	38.109	38.587	1.24	Sufficient
22.00	36.146	36.104	0.12	Sufficient
24.00	34.541	34.562	0.06	Sufficient
26.00	33.025	32.875	0.46	Sufficient
28.00	31.252	31.320	0.22	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	10	12	14	16	18	20	22	24	26	28	
5 W	1.188	1.157	1.086	1.028	1.003	0.972	0.917	0.879	0.840	0.815	0.783	1.63
10 W	1.343	1.297	1.249	1.201	1.153	1.105	1.06	1.018	0.979	0.946	0.918	

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	0.989	0.996	0.996	0.996	0.996	0.999	0.999	1.000	1.000	1.000
Standard Error (S)*	0.015	0.010	0.011	0.012	0.012	0.006	0.006	0.006	0.004	0.003
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated H-field strength (A/m)	1.34	<u>1.42</u>	1.43	1.49	0.62	-5.74	-12.25	10.85	211.17	20.14

The validation of H-field strength

Distance [mm]	Estimated H-field [A/m]	Measured H-field [A/m]	Deviation (%)	Result
8.00	1.193	1.188	0.42	Sufficient
10.00	1.141	1.157	1.38	Sufficient
12.00	1.092	1.086	0.55	Sufficient
14.00	1.045	1.028	1.65	Sufficient
16.00	1.000	1.003	0.30	Sufficient
18.00	0.958	0.972	1.44	Sufficient
20.00	0.918	0.917	0.11	Sufficient
22.00	0.881	0.879	0.23	Sufficient
24.00	0.845	0.840	0.60	Sufficient
26.00	0.813	0.815	0.25	Sufficient
28.00	0.783	0.783	0	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.

- 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	0.993	0.997	0.998	0.998	0.998	0.999	0.999	1.000	1.000	1.000
Standard Error (S)*	0.013	0.009	0.008	0.009	0.008	0.009	0.007	0.004	0.005	0.005
Number of data points used	11	11	11	11	11	11	11	11	11	11
Estimated H-field strength (A/m)	1.51	1.58	<u>1.49</u>	1.44	0.53	-0.95	-13.61	-63.80	-138.11	-20.65

The validation of H-field strength

Distance [mm]	Estimated H-field [A/m]	Measured H-field [A/m]	Deviation (%)	Result
8.00	1.337	1.343	0.45	Sufficient
10.00	1.312	1.297	1.14	Sufficient
12.00	1.239	1.249	0.81	Sufficient
14.00	1.200	1.201	0.08	Sufficient
16.00	1.156	1.153	0.26	Sufficient
18.00	1.099	1.105	0.55	Sufficient
20.00	1.064	1.060	0.38	Sufficient
22.00	1.021	1.018	0.29	Sufficient
24.00	0.980	0.979	0.10	Sufficient
26.00	0.941	0.946	0.53	Sufficient
28.00	0.920	0.918	0.22	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.

- End of the Test Report -