

Prüfbericht-Nr.: Test report no.:	CN24FUUJ 002	Auftrags-Nr.: Order no.:	168481673	Seite 1 von 33 Page 1 of 33
Kunden-Referenz-Nr.: Client reference no.:	N/A	Auftragsdatum: Order date:	2024-05-06	
Auftraggeber: Client:	GOPOD GROUP HOLDING LIMITED 301, 4/F, 5/F, 6/F, Building#8 & 6/F, 7/F, Tower#C, Lian Jian Industrial Park II, Shang Henglang Community, DaLang St, LongHua Dist, Shenzhen			
Prüfgegenstand: Test item:	4-in-1 Wireless Charging Stand with Qi2			
Bezeichnung / Typ-Nr.: Identification / Type no.:	NS-MQ341S25			
Auftrags-Inhalt: Order content:	Test Report			
Prüfgrundlage: Test specification:	CFR47 FCC Part 2.1091			
Wareneingangsdatum: Date of sample receipt:	2024-05-08	Please refer to Photo Document		
Prüfmuster-Nr.: Test sample no:	A003711582-001			
Prüfzeitraum: Testing period:	2024-05-08 - 2024-07-10			
Ort der Prüfung: Place of testing:	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüflaboratorium: Testing laboratory:	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüfergebnis*: Test result*:	Pass			
geprüft von: tested by:			genehmigt von: authorized by:	
Datum: Date:	2024-07-21	Ausstellungsdatum: Issue date:		2024-07-21
Stellung / Position: Sachverständige(r)/Expert		Stellung / Position: Sachverständige(r)/Expert		
Sonstiges / Other:	FCC ID: 2AQZH-MQ341S25			
Zustand des Prüfgegenstandes bei Anlieferung: Condition of the test item at delivery:		Prüfmuster vollständig und unbeschädigt Test item complete and undamaged		
* Legende: P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet * Legend: P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested				
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

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Anmerkungen
Remarks

1	Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben. Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden. <i>The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system. Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.</i>
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3	Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben. Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt. <i>Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report. Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.</i>
4	Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnissen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2021, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezüglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019. <i>The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2021, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019.</i>

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1 General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

N/A.

2 Test Sites

2.1 Test Facilities

TÜV Rheinland (Shenzhen) Co., Ltd.
No.362, Huanguan Middle Road, Songyuansha Community, Guanhu Subdistrict, Longhua District,
Shenzhen 518110, Guangdong, China

FCC Accreditation Designation No.: CN1260

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

EMF					
Equip. No.	Description	Manufacturer	Model	Serial No.	Calibrated until (DD.MM.YYYY)
9050046	Electric and Magnetic Field Analyzer	Narda	EHP200A	180ZX20517	21.09.2024

2.3 Traceability

All measurement equipment calibrations are traceable to NIM (National Institute of Metrology) or where calibration is performed in other countries, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

2.5 Measurement Uncertainty

The estimated combined standard uncertainty for radiated emissions and conducted emissions measurements as below table.

Table 2: Measurement Uncertainty

Parameter	Uncertainty
Magnetic Field Emissions (A/m)	±1.2µT
Electric Field Emissions (V/m)	±18%
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

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2.6 Location of Original Data

N/A

2.7 Status of Facility Used for Testing

The TÜV Rheinland (Shenzhen) Co., Ltd. Test facility located at No.362, Huanguan Middle Road, Songyuansha Community, Guanhu Subdistrict, Longhua District, Shenzhen 518110, Guangdong, China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

3 General Product Information

3.1 Product Function and Intended Use

The EUT is a 4-in-1 Wireless Charging Stand with Qi2, which supports wireless charging (WPT) function.

For details refer to the User Manual, Technical Description and Circuit Diagram.

3.2 Ratings and System Details

Table 3: Technical Specification of EUT

General Information of EUT	Value
Kind of Equipment:	4-in-1 Wireless Charging Stand with Qi2
Type Designation:	NS-MQ341S25
FCC ID:	2AQZH-MQ341S25
Operating Voltage:	AC 120V, 60Hz
Testing Voltage:	AC 120V, 60Hz
Technical Specification of WPT	
Frequency Range1:	360kHz for apple magsafe
Type of Modulation:	FSK
Antenna Type:	Inducted Coil antenna
Antenna Gain:	0dBi
Antenna number:	1
Wireless output power:	15W Max
Frequency Range2:	111-205kHz for Qi
Type of Modulation:	FSK
Antenna Type:	Inducted Coil antenna
Antenna Gain:	0dBi
Antenna number:	1
Wireless output power:	10W Max
Frequency Range3:	111-205kHz for Qi
Type of Modulation:	FSK
Antenna Type:	Inducted Coil antenna
Antenna Gain:	0dBi
Antenna number:	1
Wireless output power:	5W Max
Frequency Range4:	326.5kHz for Apple Watch
Type of Modulation:	FSK
Antenna Type:	Inducted Coil antenna
Antenna Gain:	0dBi
Antenna number:	1
Wireless output power:	5W Max
Note:The coil antennas of Frequency Range3 and Frequency Range4 are the same.	

3.3 Independent Operation Modes

The basic operation modes are:

- A. On, Operating/standby@ 360kHz for apple magsafe, 15W max
- B. On, Operating/standby@ 111-205kHz for Qi, 10W max
- C. On, Operating/standby@ 111-205kHz for Qi, 5W max
- D. On, Operating/standby@ 326.5kHz for Apple Watch, 5W max
- E. On, A+B+C+D, Operating/standby(simultaneously)

3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

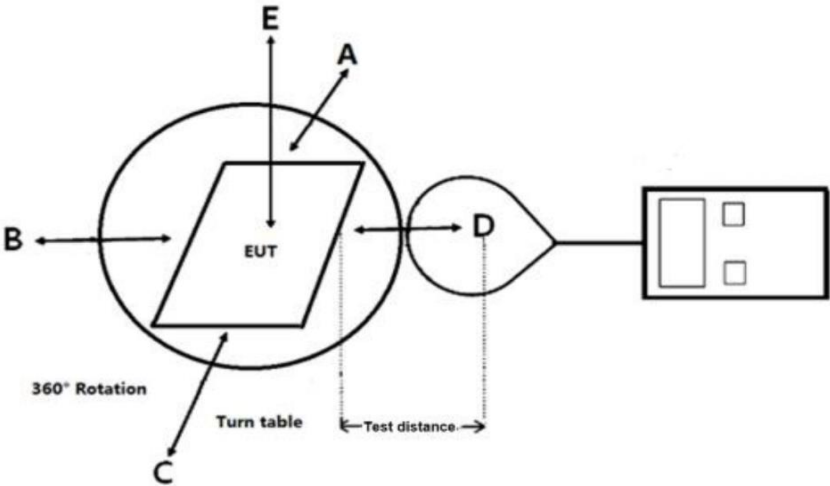
3.5 Submitted Documents

- Application Form

- ID Label and Location Info

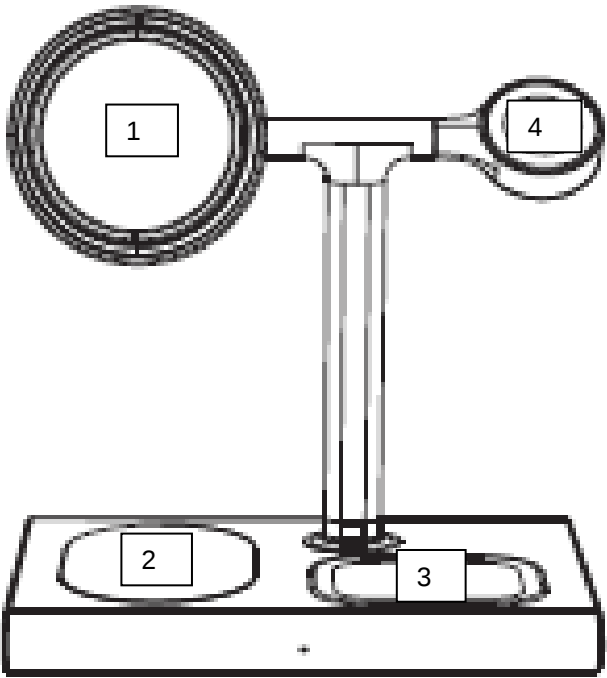
3.6 Test Setup Diagram

Diagram of Measurement Configuration



3.7 Coil Description

1	Operating/standby@ 360kHz for apple magsafe, 15W max	EUT powered by AC/DC adapter, Wireless Charging to WPT Client
2	Operating/standby@ 111-205kHz for Qi, 10W max	EUT powered by AC/DC adapter, Wireless Charging to WPT Client
3	Operating/standby@ 111-205kHz for Qi, 5W max	EUT powered by AC/DC adapter, Wireless Charging to WPT Client
4	Operating/standby@ 326.5kHz for Qi, 5W max	EUT powered by AC/DC adapter, Wireless Charging to WPT Client



3.8 Coil Size

Refer to Antenna specification Info.

4 RF exposure information

4.1 Test procedures according to the technical standards:

FCC KDB 680106 D01 RF Exposure Wireless Charging Apps v03

Standard Section	Test Item	Judgment	Remark
FCC CFR 47 part1, 1.1310 KDB680106 D01v03	Electric Field Strength (E) (V/m)	PASS	
	Magnetic Field Strength (H) (A/m)	PASS	

4.2 Limit of Maximum Permissible Exposure

Limit of Maximum Permissible Exposure

Limits for Occupational / Controlled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100,000			5	6

Limits for General Population / Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180 / f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1	30

Note 1: f = frequency in MHz ; *Plane-wave equivalent power density

Note 2: For the applicable limit, see FCC 1.1310, 680106 D01 RF Exposure Wireless Charging Apps v03

Note 3: Emissions between 100 kHz to 1340 kHz should be assessed versus the limits in above Table 1 of Section 1.1310: 614 V/m and 1.63 A/m. A KDB inquiry is required to determine the applicable exposure limits below 100 kHz.

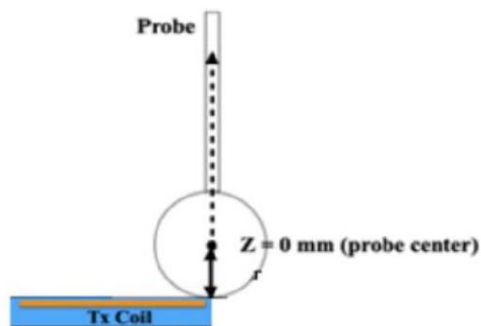
4.3 Test result

The Probe parameters as below:

Probe: EHP-200AC	Probe Center to edge	46mm
	E-field Sensor Dp	52mm
	H-field Sensor Dp	76mm
	1.7Dp E-field	88mm
	1.7Dp H-field	129mm

E-field and H-field Test Procedures

1. The grid of 10mm by 10mm is used as the size between the EUT and the probe when measurement.
2. The probe is used to measure the E-field and H-field from the EUT;
3. These initial measurements are made at $Z = 70$ mm from the surface of the XY plane;
4. Measurements are made perpendicular to the XY plane;
5. Locate the MFS in the XY plane;
6. Probe located in the MFS location



7. Test was performed on operating mode with client device, 1 %, 50%, 99% battery status of client device, here the worst-case status data are shown)
8. The test were performed all the test mode, and the worst case mode E mode was recorded.

A. Operating/standby@ 360kHz for apple magsafe, 15W max

Curve-fitting Analysis

1) Locating the MFS

The coil parameters as below:

Outer radius: 40.5 mm

Inner radius: 20.5 mm

Number of turns: 10

Frequency: 360kHz

The test was performed on Top/Front/Rear/Left/Right position from the edge of coil 1 of the EUT and found the position of the MFS which is 5 mm from the centre of the coil.

E-field Data Collecting Process

Test Distance (mm)	Operating mode(Battery Status: <1%) E-Field (V/m)	Standby Mode E-Field (V/m)	Direct exposure during device removal E-Field (V/m)
70	10.48	10.05	10.22
80	8.563	8.423	8.623
90	7.181	7.086	7.106
100	6.447	6.227	6.235
110	5.547	5.448	5.501
120	4.875	4.831	4.847
130	4.293	4.152	4.168
140	3.792	3.226	3.467
150	3.405	2.849	3.226
160	2.979	2.546	2.633
170	2.634	2.338	2.438
180	2.532	1.994	2.312
190	2.353	1.868	2.227
200	2.338	1.772	1.995

H-field Data Collecting Process

Test Distance (mm)	Operating mode(Battery Status: <1%) H-Field (A/m)	Standby Mode H-Field (A/m)	Direct exposure during device removal H-Field (A/m)
70	0.318	0.312	0.314
80	0.256	0.265	0.250
90	0.219	0.222	0.232
100	0.157	0.176	0.183
110	0.126	0.119	0.121
120	0.084	0.081	0.083
130	0.048	0.043	0.044
140	0.036	0.033	0.032
150	0.032	0.029	0.031
160	0.028	0.023	0.024
170	0.022	0.021	0.023
180	0.020	0.019	0.020
190	0.018	0.018	0.019
200	0.016	0.016	0.017

2) Performing Curve-fitting

we use Four (4) regression techniques to validate their model errors.

Model 1: Linear Regression

Model 2: Quadratic Regression

Model 3: Cubic Regression

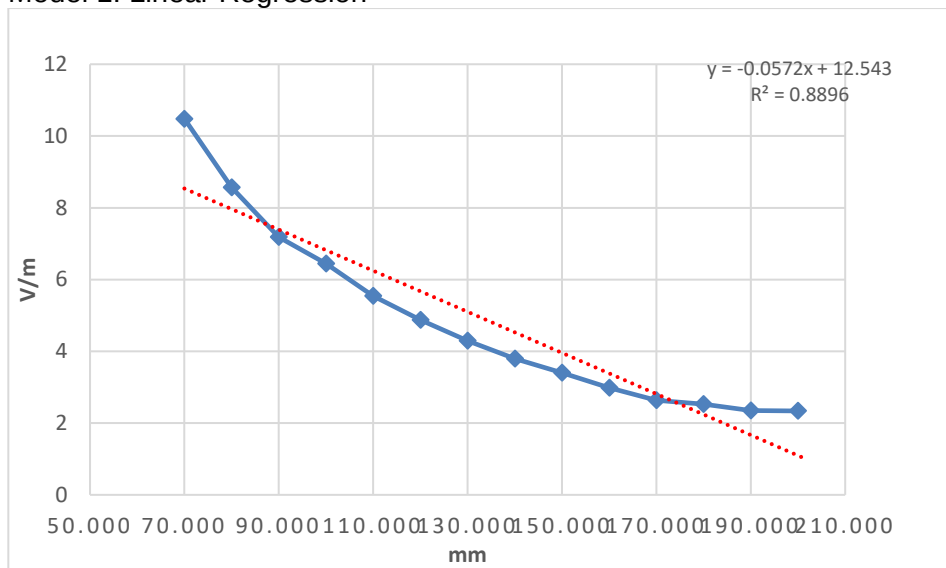
Model 4: Quartic Regression

The Data Analysis package included in MS Excel was used to perform the regression analyses.

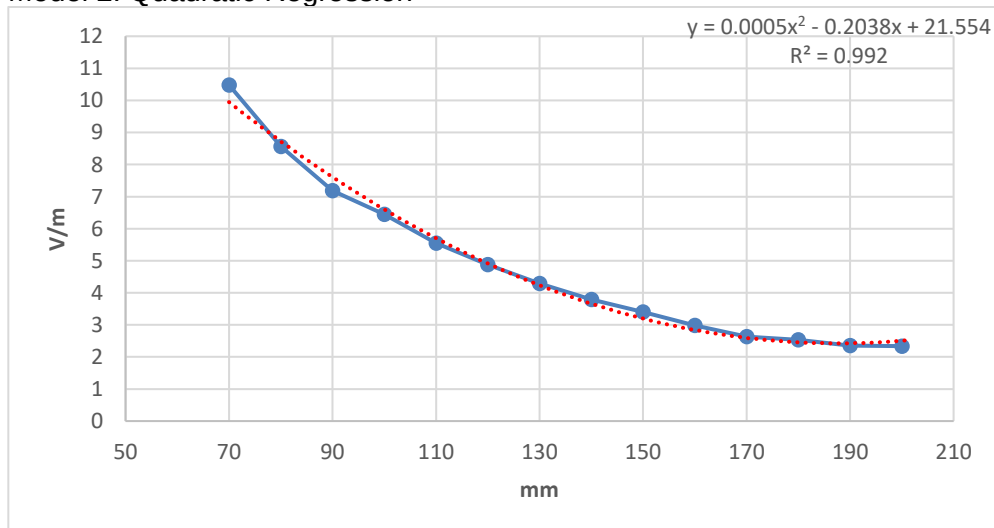
Operating mode(Battery Status: <1%))-Worst case

E-field Data

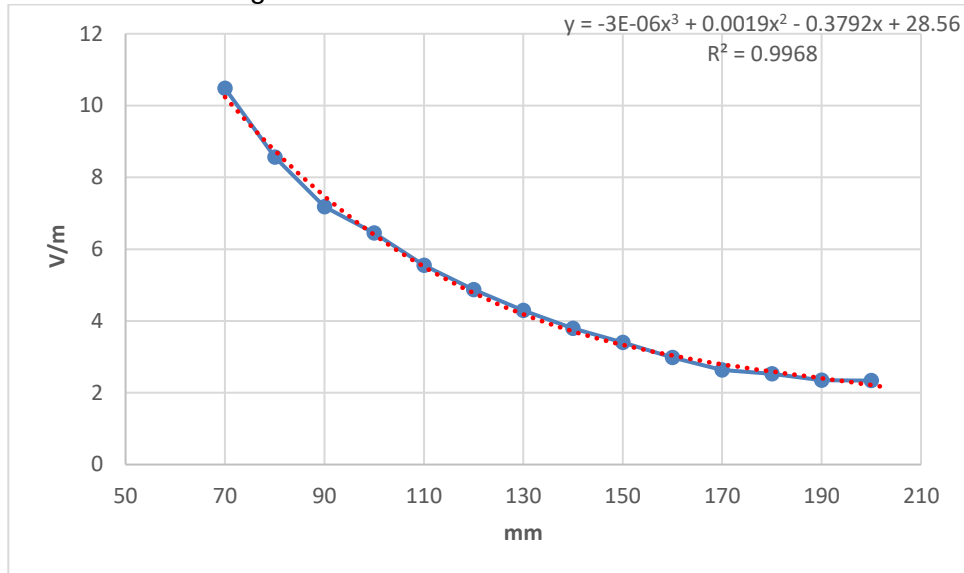
Model 1: Linear Regression



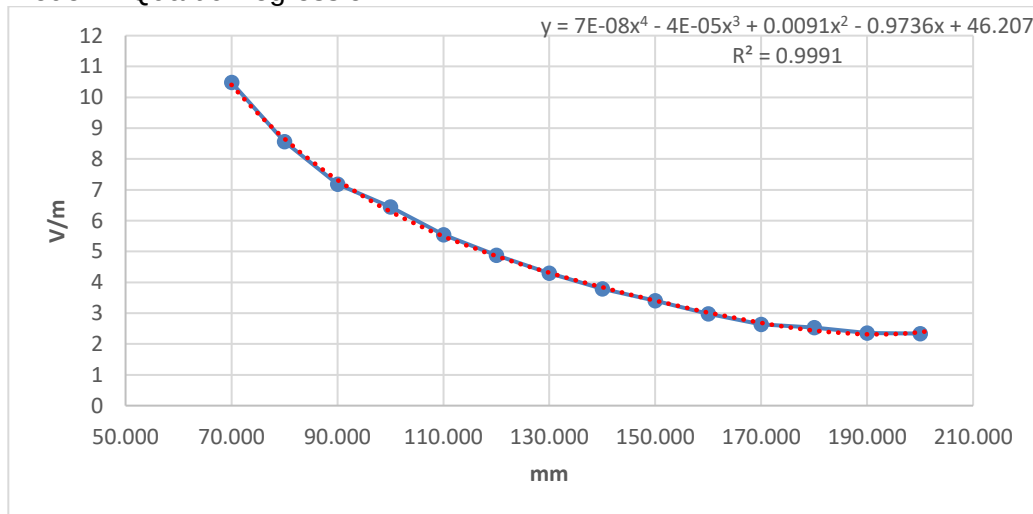
Model 2: Quadratic Regression



Model 3: Cubic Regression



Model 4: Quartic Regression



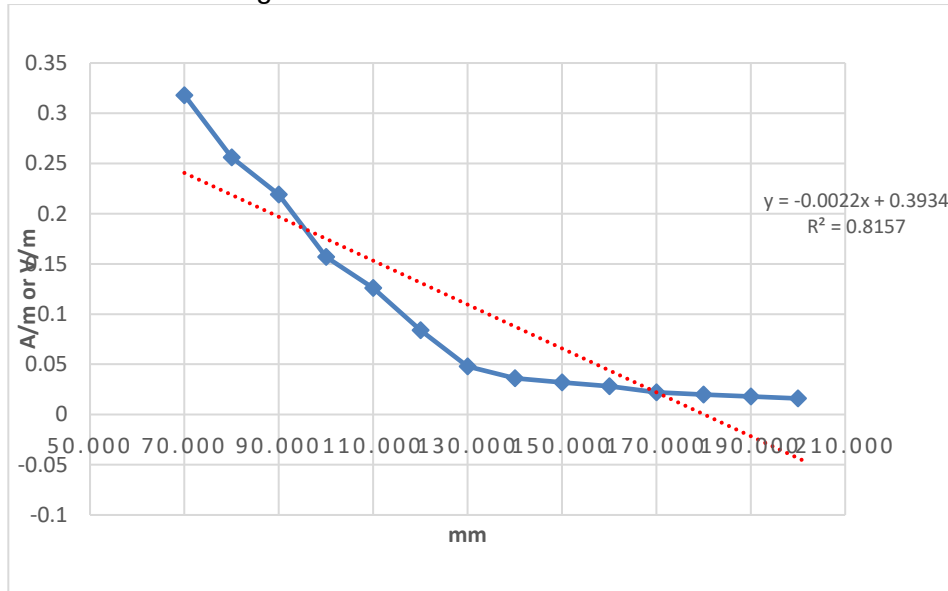
Analyzing Results

Comparison of the data from the 3 regression models

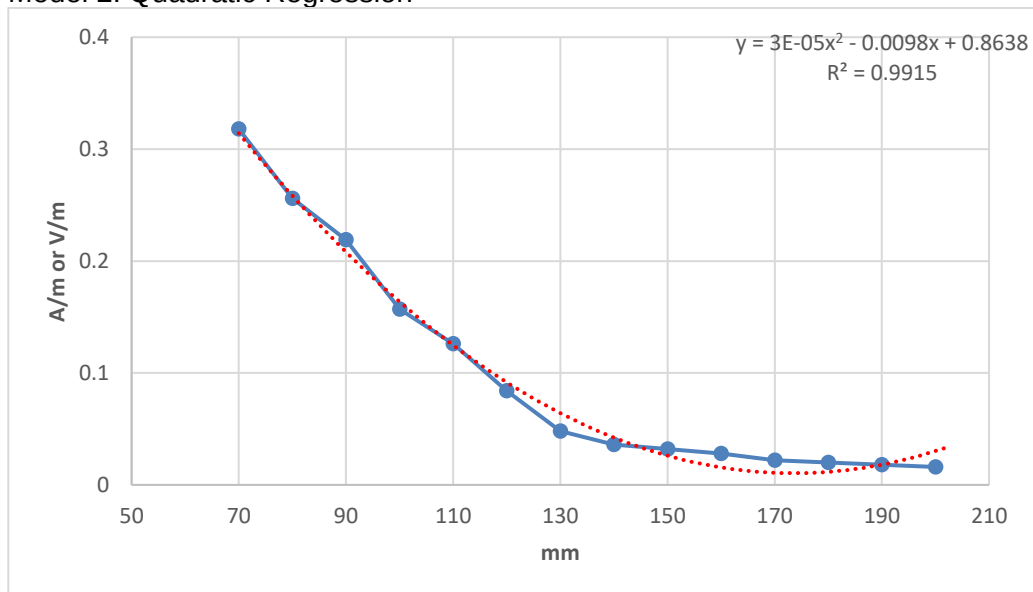
Parameter	Linear Regression	Quadratic Regression	Cubic Regression	Quartic Regression
Multiple R	0.943200119	0.99601704	0.998420821	0.999528177
R Square	0.889626464	0.992049945	0.996844137	0.999056576
Adjusted R Square	0.880428669	0.99060448	0.995897378	0.998637276
Standard Error (S)	0.877856101	0.246076538	0.1626075	0.093716004
Number of data points used	14	14	14	14
Estimated electric field strength at touch position (V/m)	12.53	21.55	28.56	46.21
Limit(V/m)		614		
Result		Pass		

H-field data

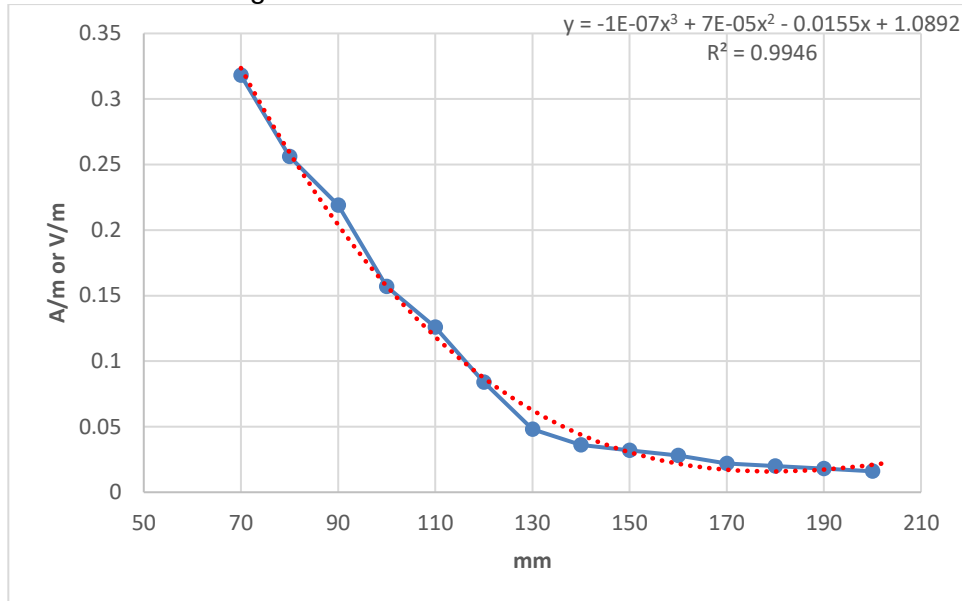
Model 1: Linear Regression



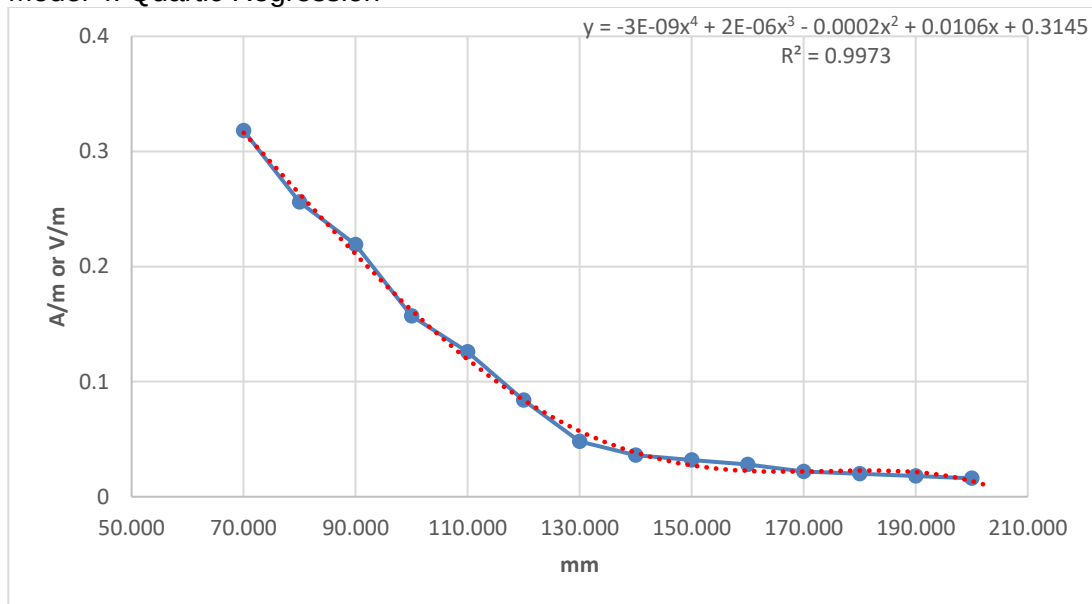
Model 2: Quadratic Regression



Model 3: Cubic Regression



Model 4: Quartic Regression



Analyzing Results

Parameter	Linear Regression	Quadratic Regression	Cubic Regression	Quartic Regression
Multiple R	0.943200119	0.995746966	0.997314711	0.998660063
R Square	0.889626464	0.991512021	0.994636633	0.997321922
Adjusted R Square	0.880428669	0.989968752	0.993027623	0.996131665
Standard Error (S)	0.877856101	0.010132247	0.008447316	0.006292024
Number of data points used	14	14	14	14
Estimated magnetic field strength at touch position (A/m)	0.4	0.86	1.08	0.315
Limit(A/m)		1.63		
Result		Pass		

B. Operating/standby@ 111-205kHz for Qi, 10W max

Curve-fitting Analysis

1) Locating the MFS

The coil parameters as below:

Outer radius: 42.5 mm

Inner radius: 20.5 mm

Number of turns: 10

Frequency: 111-205kHz

The test was performed on Top/Front/Rear/Left/Right from position the edge of coil 2 of the EUT and found the position of the MFS which is 3.5 mm from the centre of the coil.

E-field Data Collecting Process

Test Distance (mm)	Operating mode(Battery Status: <1%)) E-Field (V/m)	Standby Mode E-Field (V/m)	Direct exposure during device removal E-Field (V/m)
70	3.969	2.743	2.423
80	3.214	2.391	2.087
90	2.848	2.338	1.772
100	2.341	2.485	1.748
110	2.084	2.269	1.734
120	1.978	1.902	1.498
130	1.875	1.827	1.223
140	1.706	1.616	1.223
150	1.584	1.552	1.263
160	1.548	1.469	1.174
170	1.532	1.470	1.028
180	1.511	1.442	1.018
190	1.469	1.473	0.997
200	1.443	1.442	0.996

H-field Data Collecting Process

Test Distance (mm)	Operating mode(Battery Status: <1%)) H-Field (A/m)	Standby Mode H-Field (A/m)	Direct exposure during device removal H-Field (A/m)
70	0.318	0.312	0.314
80	0.286	0.275	0.280
90	0.239	0.222	0.232
100	0.187	0.176	0.183
110	0.126	0.119	0.121
120	0.084	0.081	0.083
130	0.048	0.043	0.044
140	0.036	0.033	0.032
150	0.032	0.029	0.031
160	0.028	0.023	0.024
170	0.022	0.021	0.023
180	0.02	0.019	0.020
190	0.018	0.018	0.019
200	0.016	0.016	0.017

2) Performing Curve-fitting

we use Four (4) regression techniques to validate their model errors.

Model 1: Linear Regression

Model 2: Quadratic Regression

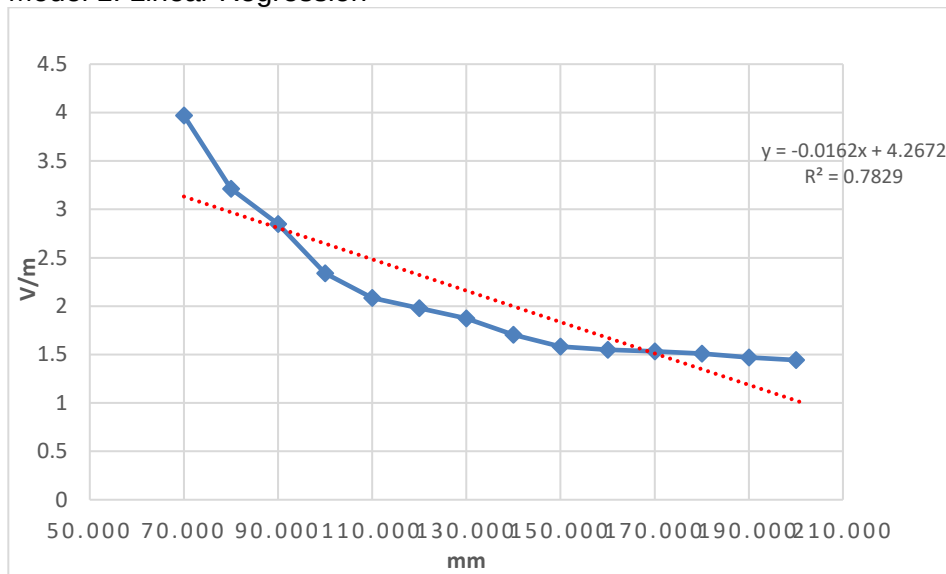
Model 3: Cubic Regression

Model 4: Quartic Regression

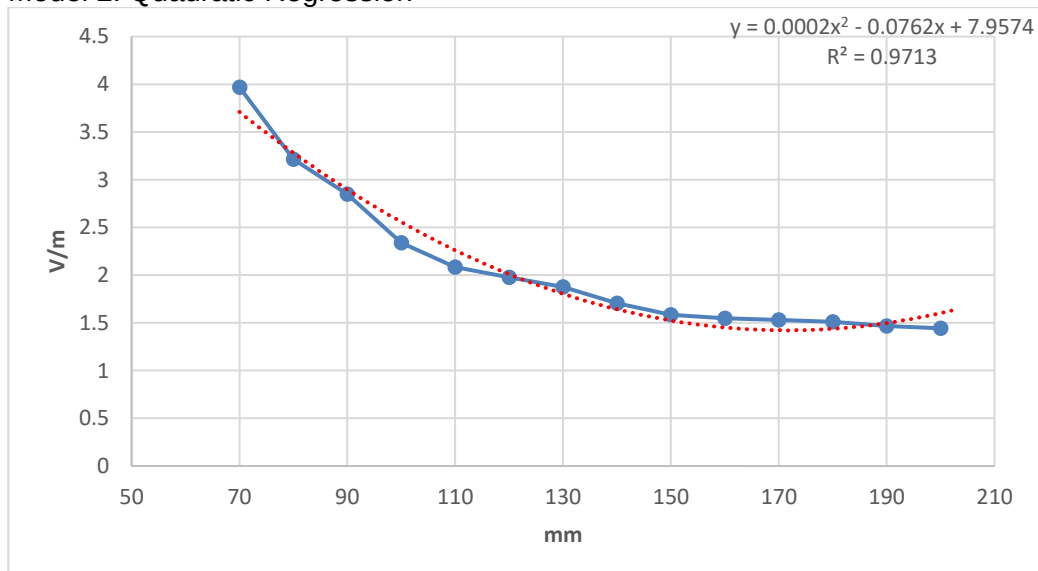
The Data Analysis package included in MS Excel was used to perform the regression analyses.

Operating mode(Battery Status: <1%)-Worst case

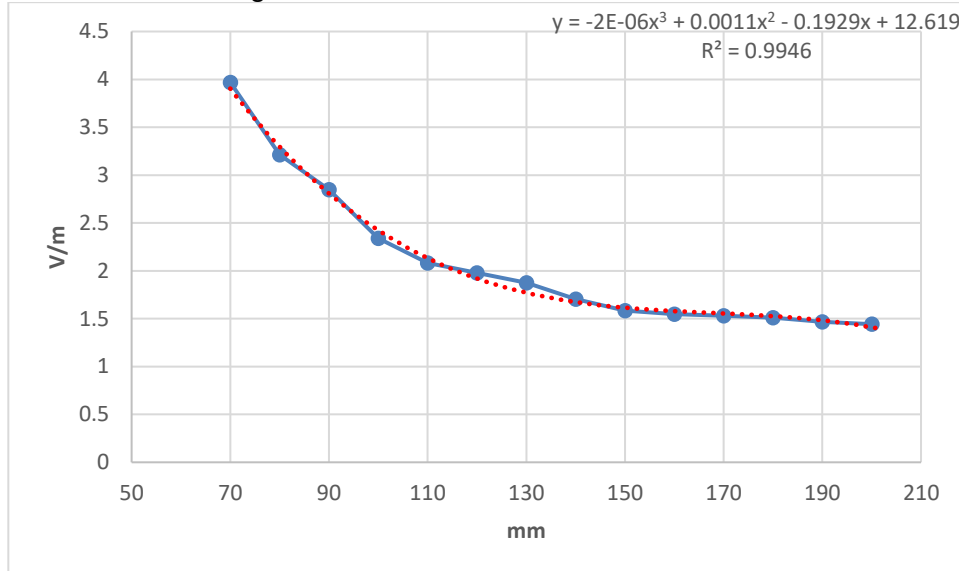
Model 1: Linear Regression



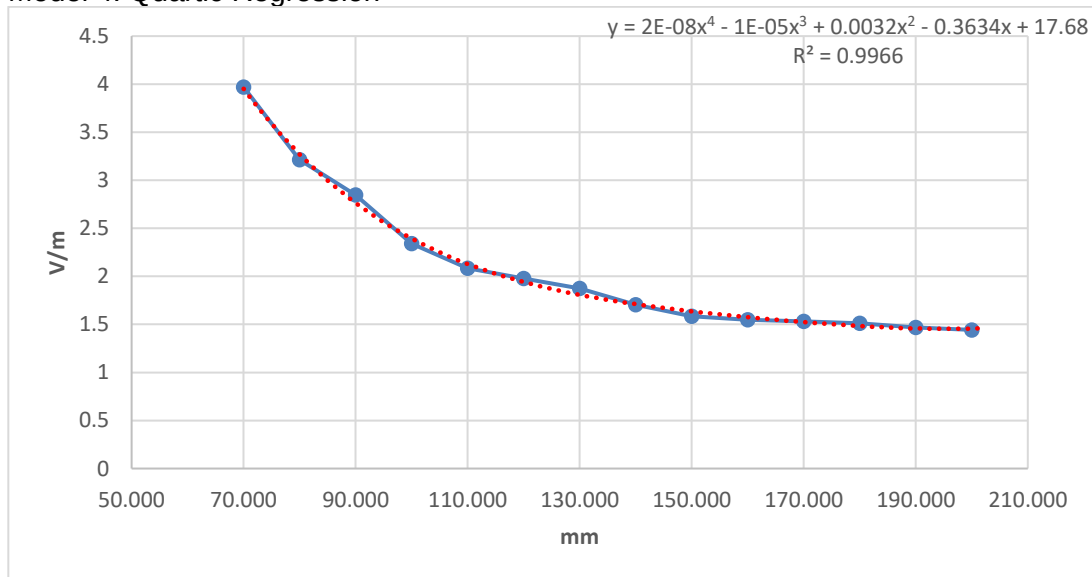
Model 2: Quadratic Regression



Model 3: Cubic Regression



Model 4: Quartic Regression



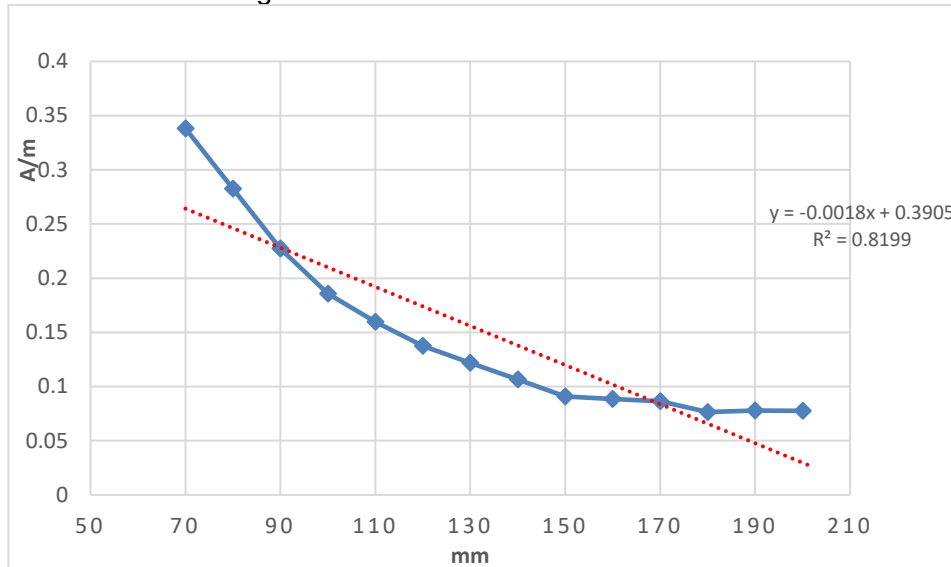
Analyzing Results

Comparison of the data from the 3 regression models

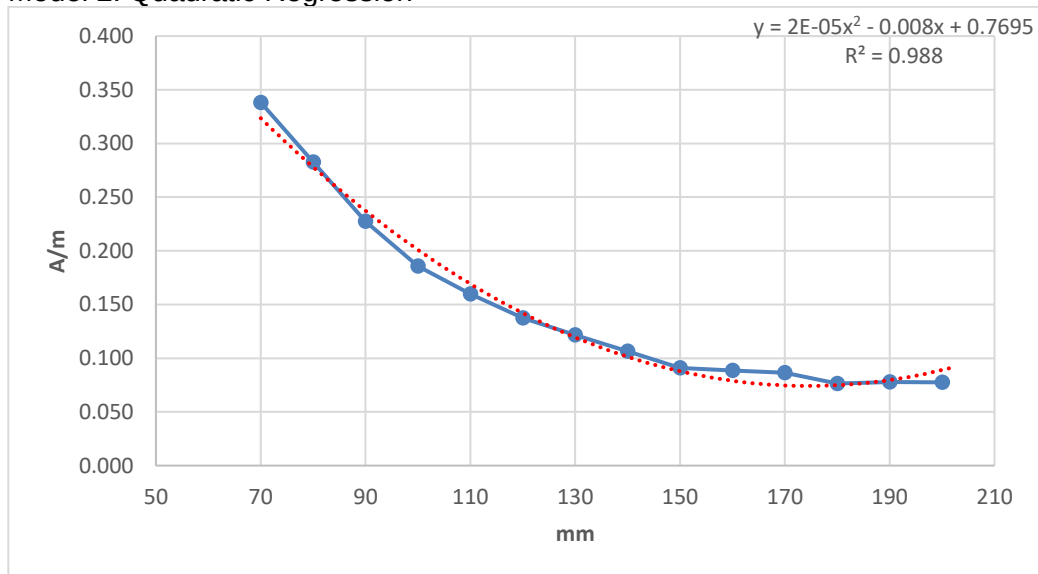
Parameter	Linear Regression	Quadratic Regression	Cubic Regression	Quartic Regression
Multiple R	0.884803688	0.985553092	0.997299595	0.998300045
R Square	0.782877567	0.971314897	0.994606482	0.99660298
Adjusted R Square	0.764784031	0.966099423	0.992988427	0.995093193
Standard Error (S)	0.371719216	0.141118891	0.064178468	0.053688478
Number of data points used	14	14	14	14
Estimated electric field strength at touch position (V/m)	4.26	7.96	12.62	17.68
Limit(V/m)		614		
Result		Pass		

H-field data

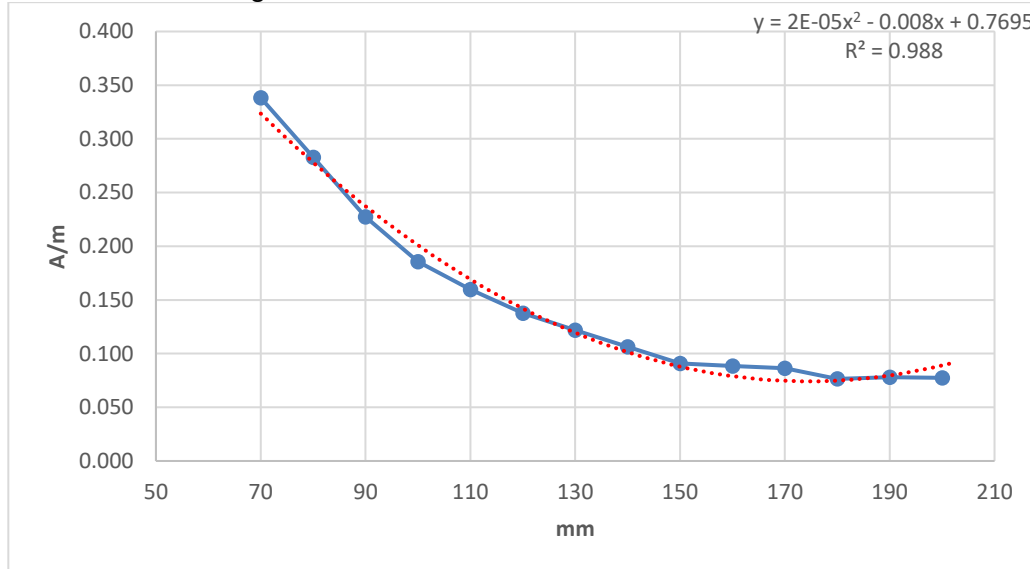
Model 1: Linear Regression



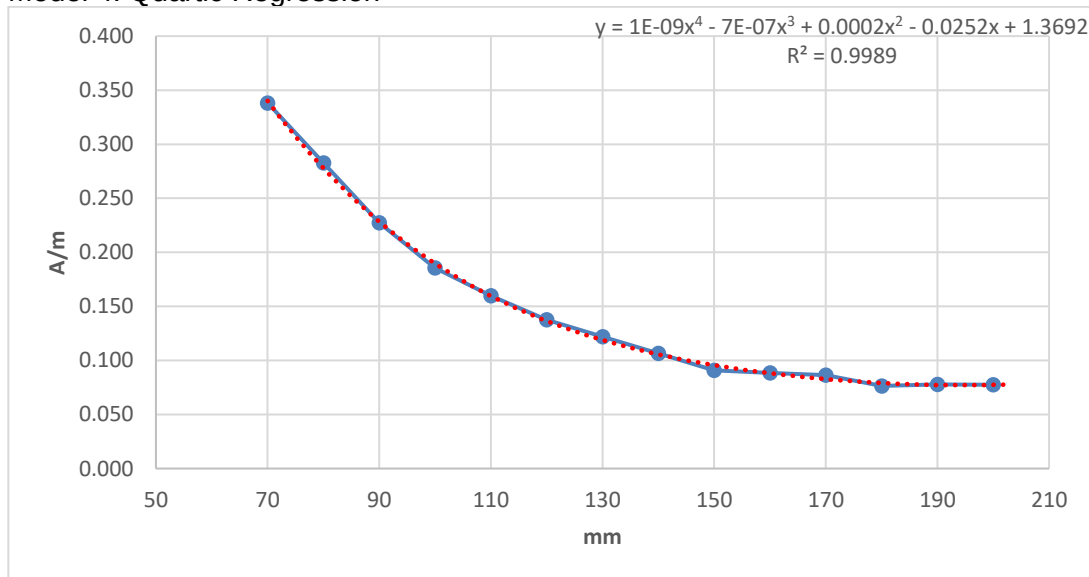
Model 2: Quadratic Regression



Model 3: Cubic Regression



Model 4: Quartic Regression



Comparison of the data from the 3 regression models

Parameter	Linear Regression	Quadratic Regression	Cubic Regression	Quartic Regression
Multiple R	0.905464483	0.993969102	0.997299595	0.998300045
R Square	0.81986593	0.987974576	0.994606482	0.99660298
Adjusted R Square	0.804854758	0.985788135	0.992988427	0.995093193
Standard Error (S)	0.036815647	0.009935254	0.064178468	0.053688478
Number of data points used	14	14	14	14
Estimated electric field strength at touch position (A/m)	0.39	0.77	0.77	1.37
Limit(A/m)		1.63		
Result		Pass		

C. Operating/standby@ 111-205kHz for Qi, 5W max

Curve-fitting Analysis

3) Locating the MFS

The coil parameters as below:

Outer radius: 39 mm

Inner radius: 20.5 mm

Number of turns: 10

Frequency: 111-205kHz

The test was performed on Top/Front/Rear/Left/Right position from the edge of coil 3 of the EUT and found the position of the MFS which is 1.0 mm from the centre of the coil.

E-field Data Collecting Process

Test Distance (mm)	Operating mode(Battery Status: <1%)) E-Field (V/m)	Standby Mode E-Field (V/m)	Direct exposure during device removal E-Field (V/m)
70	2.453	1.974	1.759
80	2.346	1.885	1.668
90	2.238	1.862	1.573
100	1.996	1.774	1.356
110	1.874	1.680	1.294
120	1.680	1.584	1.236
130	1.558	1.506	1.208
140	1.465	1.467	1.176
150	1.334	1.304	1.145
160	1.276	1.216	1.124
170	1.118	1.096	1.046
180	1.075	1.053	1.023
190	1.036	1.010	1.016
200	1.022	0.945	0.976

H-field Data Collecting Process

Test Distance (mm)	Operating mode(Battery Status: <1%)) H-Field (A/m)	Standby Mode H-Field (A/m)	Direct exposure during device removal H-Field (A/m)
70	0.287	0.256	0.266
80	0.257	0.243	0.254
90	0.232	0.222	0.217
100	0.205	0.195	0.200
110	0.189	0.176	0.165
120	0.175	0.164	0.156
130	0.158	0.153	0.155
140	0.143	0.134	0.132
150	0.131	0.126	0.127
160	0.117	0.108	0.103
170	0.099	0.089	0.094
180	0.085	0.076	0.088
190	0.064	0.055	0.057
200	0.045	0.036	0.041

4) Performing Curve-fitting

we use Four (4) regression techniques to validate their model errors.

Model 1: Linear Regression

Model 2: Quadratic Regression

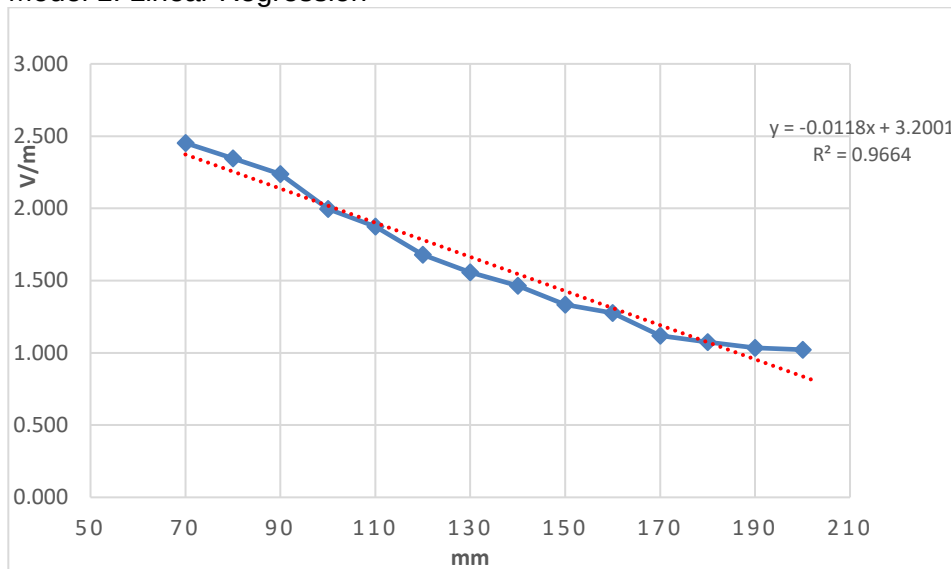
Model 3: Cubic Regression

Model 4: Quartic Regression

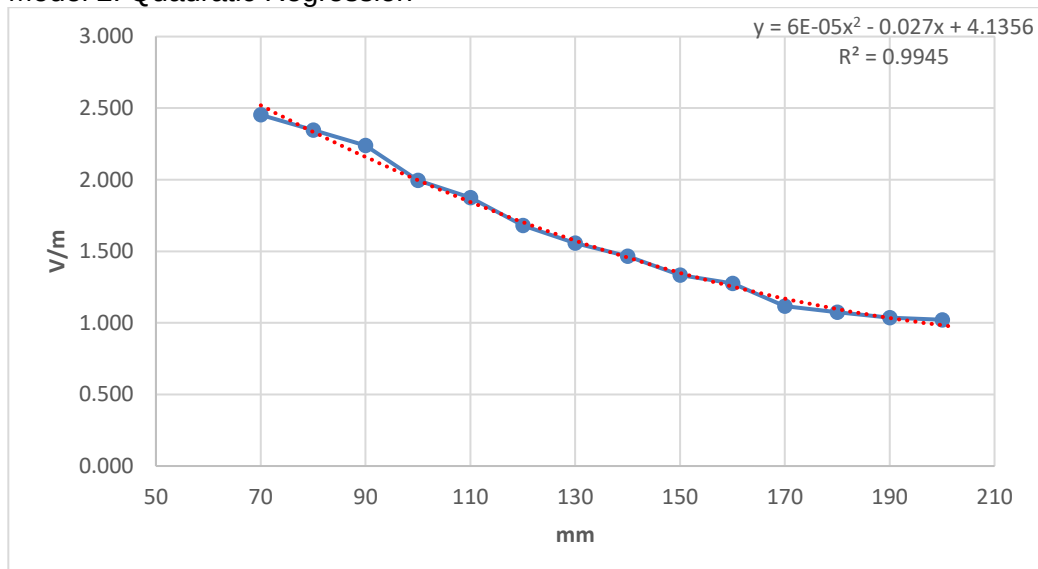
The Data Analysis package included in MS Excel was used to perform the regression analyses.

Operating mode(Battery Status: <1%))-Worst case

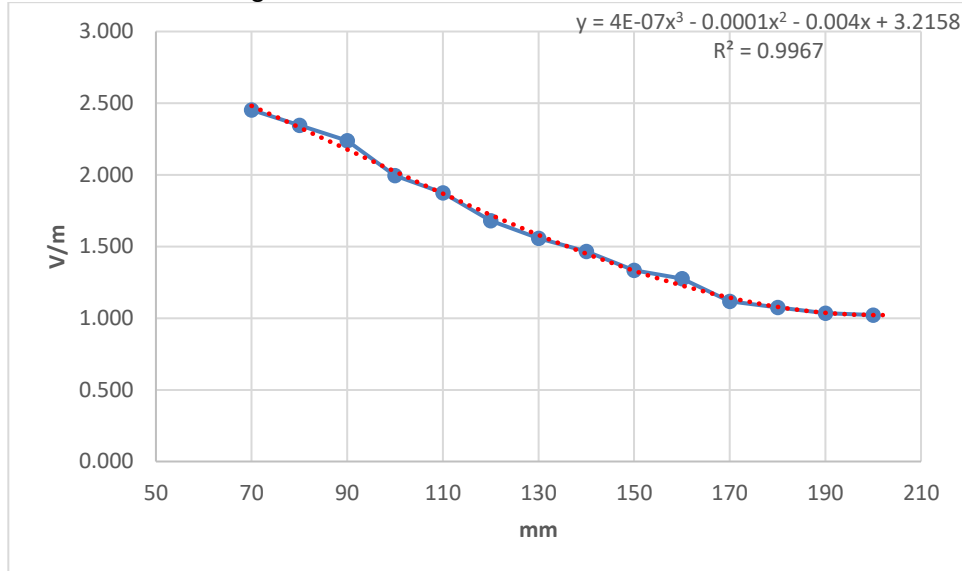
Model 1: Linear Regression



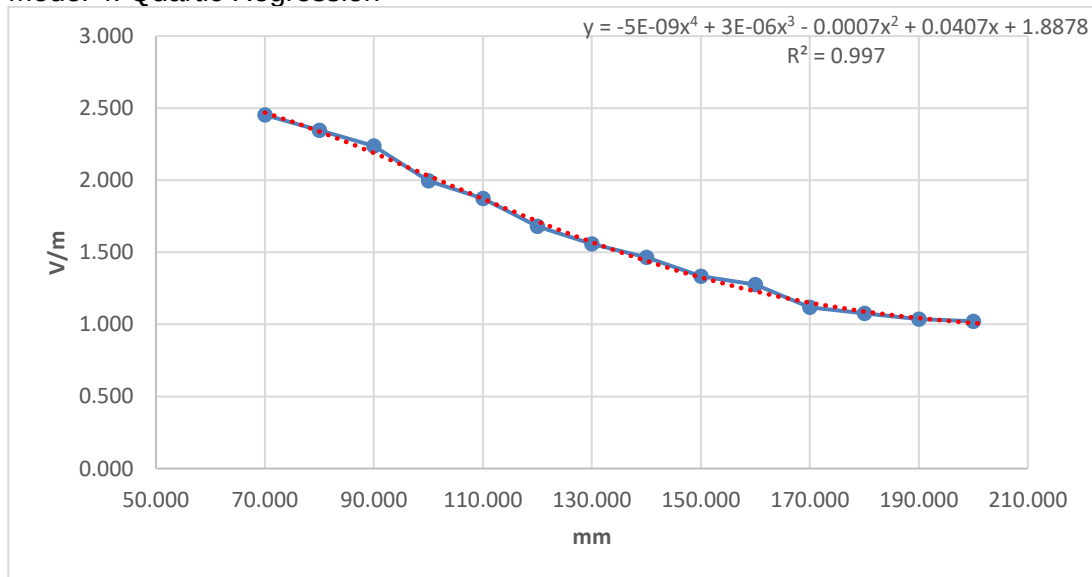
Model 2: Quadratic Regression



Model 3: Cubic Regression



Model 4: Quartic Regression



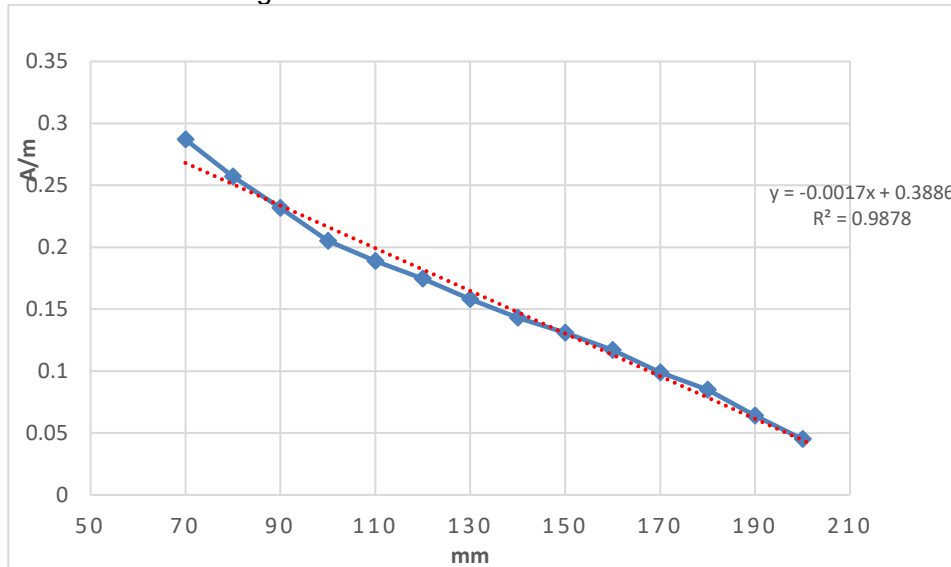
Analyzing Results

Comparison of the data from the 3 regression models

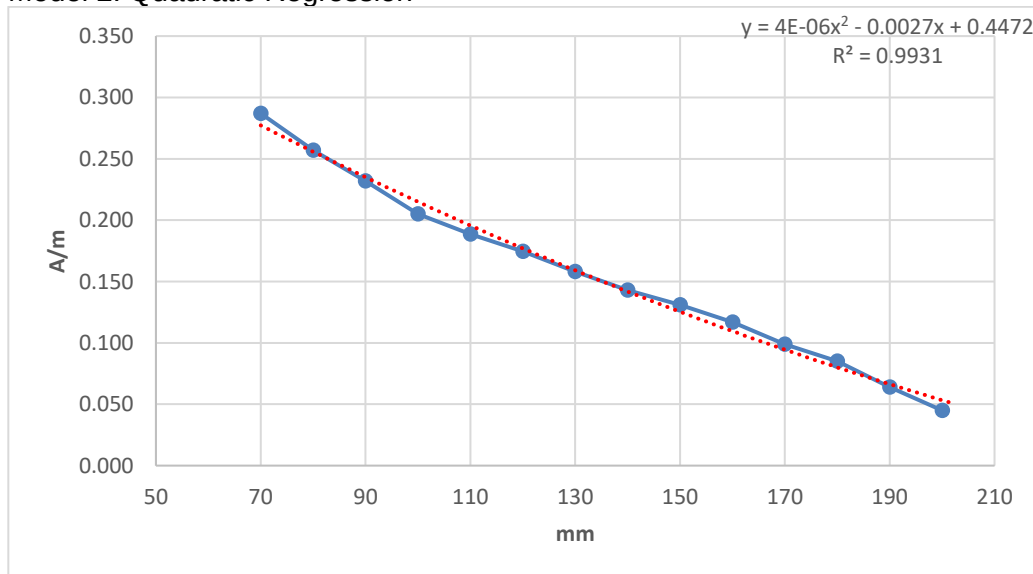
Parameter	Linear Regression	Quadratic Regression	Cubic Regression	Quartic Regression
Multiple R	0.983058998	0.9972701	0.998325936	0.99848593
R Square	0.966404994	0.994547652	0.996654675	0.996974152
Adjusted R Square	0.963605411	0.993556316	0.995651077	0.99562933
Standard Error (S)	0.095911744	0.040357151	0.033154634	0.033237425
Number of data points used	14	14	14	14
Estimated electric field strength at touch position (V/m)	3.2	4.14	3.21	1.89
Limit(V/m)		614		
Result		Pass		

H-field data

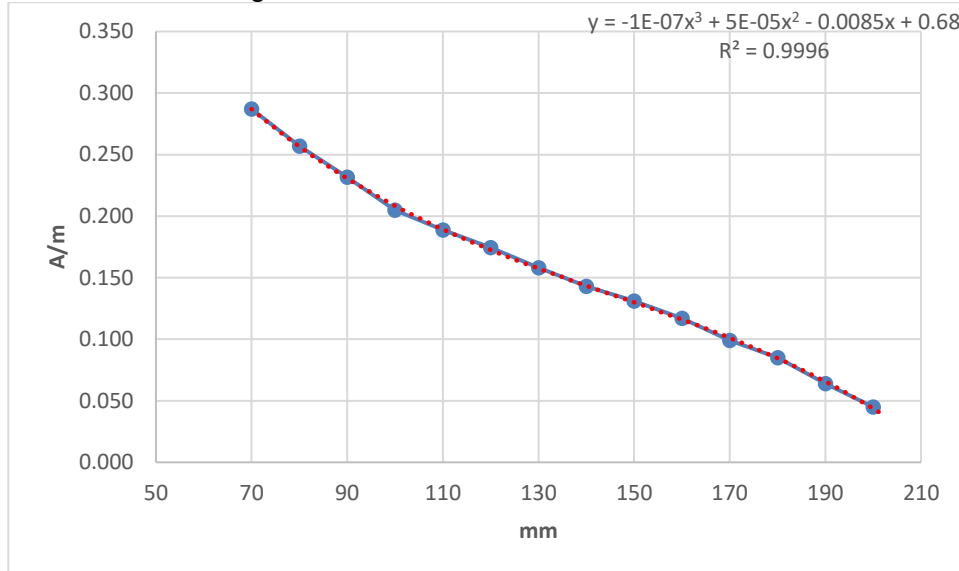
Model 1: Linear Regression



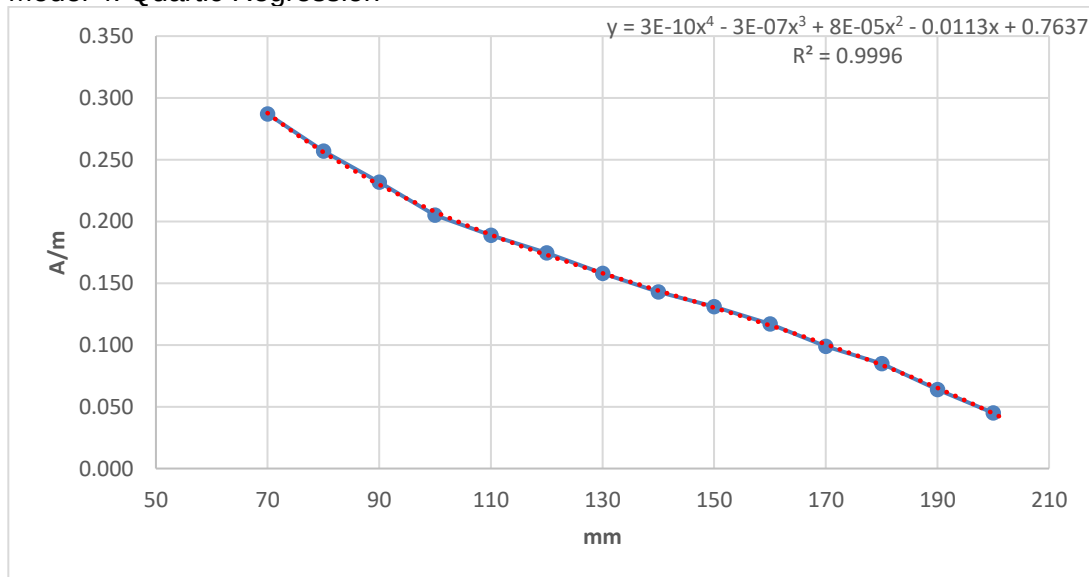
Model 2: Quadratic Regression



Model 3: Cubic Regression



Model 4: Quartic Regression



Comparison of the data from the 3 regression models

Parameter	Linear Regression	Quadratic Regression	Cubic Regression	Quartic Regression
Multiple R	0.99387163	0.996536448	0.999787644	0.999787644
R Square	0.987780817	0.993084892	0.999575333	0.999575333
Adjusted R Square	0.986762552	0.991827599	0.999447933	0.999447933
Standard Error (S)	0.008340363	0.006553264	0.001703252	0.001703252
Number of data points used	14	14	14	14
Estimated electric field strength at touch position (A/m)	0.39	0.44	0.68	0.76
Limit(A/m)		1.63		
Result		Pass		

D. Operating/standby@ 326.5kHz for Qi, 5W max

Curve-fitting Analysis

5) Locating the MFS

The coil parameters as below:

Outer radius: 20.7 mm

Inner radius: 14.5 mm

Number of turns: 12

Frequency: 326.5kHz

The test was performed on Top/Front/Rear/Left/Right position from the edge of coil 4 of the EUT and found the position of the MFS which is 0.5 mm from the centre of the coil.

E-field Data Collecting Process

Test Distance (mm)	Operating mode(Battery Status: <1%) E-Field (V/m)	Standby Mode E-Field (V/m)	Direct exposure during device removal E-Field (V/m)
70	2.223	2.075	2.108
80	2.108	1.984	1.862
90	1.862	1.886	1.725
100	1.725	1.682	1.763
110	1.763	1.447	1.645
120	1.645	1.336	1.558
130	1.558	1.286	1.474
140	1.474	1.226	1.342
150	1.342	1.218	1.247
160	1.247	1.207	1.264
170	1.264	1.215	1.267
180	1.267	1.226	1.254
190	1.254	1.236	1.283
200	1.243	1.247	1.221

H-field Data Collecting Process

Test Distance (mm)	Operating mode(Battery Status: <1%) H-Field (A/m)	Standby Mode H-Field (A/m)	Direct exposure during device removal H-Field (A/m)
70	0.246	0.223	0.243
80	0.201	0.212	0.234
90	0.190	0.198	0.213
100	0.192	0.187	0.195
110	0.178	0.171	0.184
120	0.165	0.162	0.156
130	0.157	0.153	0.144
140	0.134	0.138	0.126
150	0.127	0.124	0.117
160	0.122	0.108	0.111
170	0.108	0.092	0.098
180	0.092	0.081	0.089
190	0.068	0.055	0.067
200	0.054	0.032	0.044

6) Performing Curve-fitting

we use Four (4) regression techniques to validate their model errors.

Model 1: Linear Regression

Model 2: Quadratic Regression

Model 3: Cubic Regression

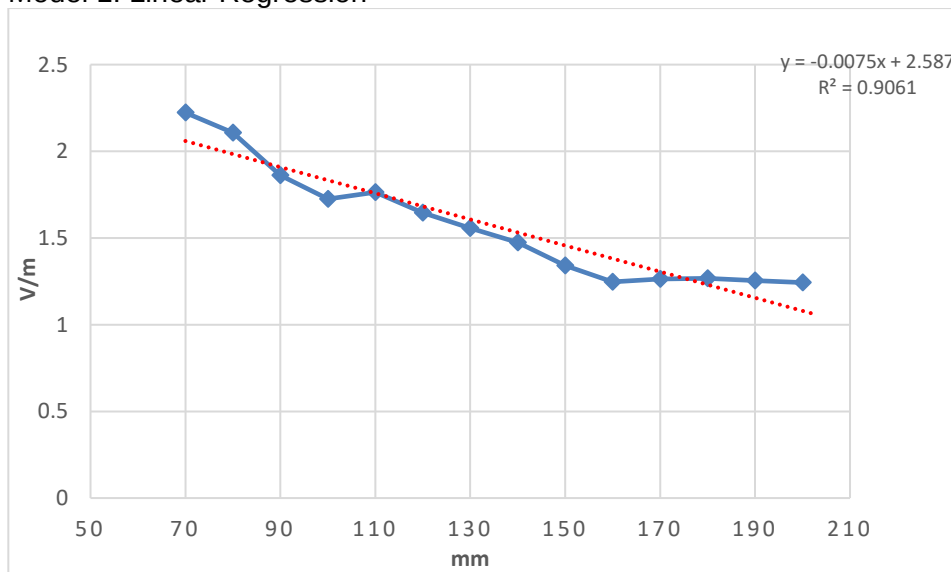
Model 4: Quartic Regression

The Data Analysis package included in MS Excel was used to perform the regression analyses.

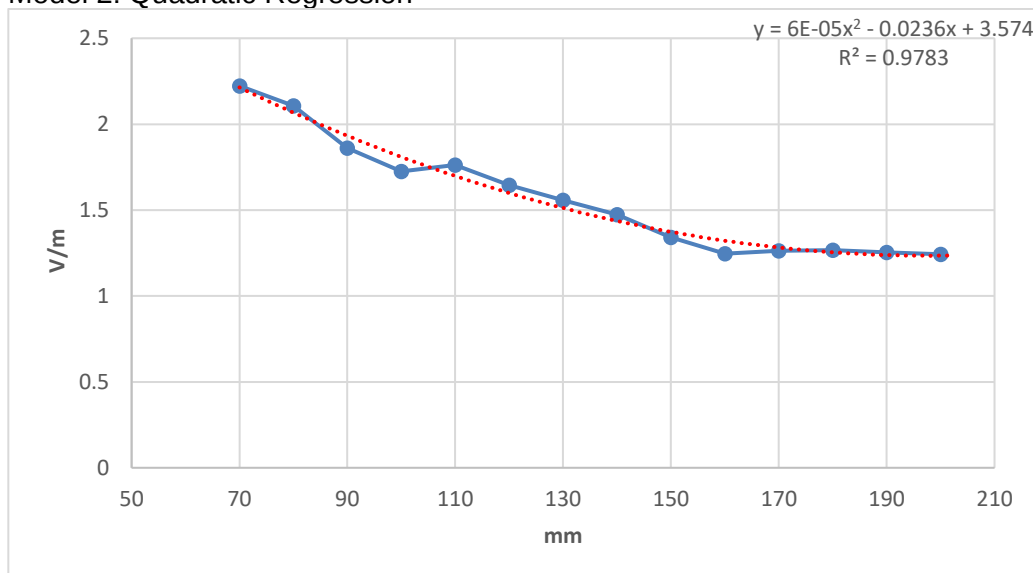
Operating mode(Battery Status: <1%)-Worst case

E-field Data Collecting Process

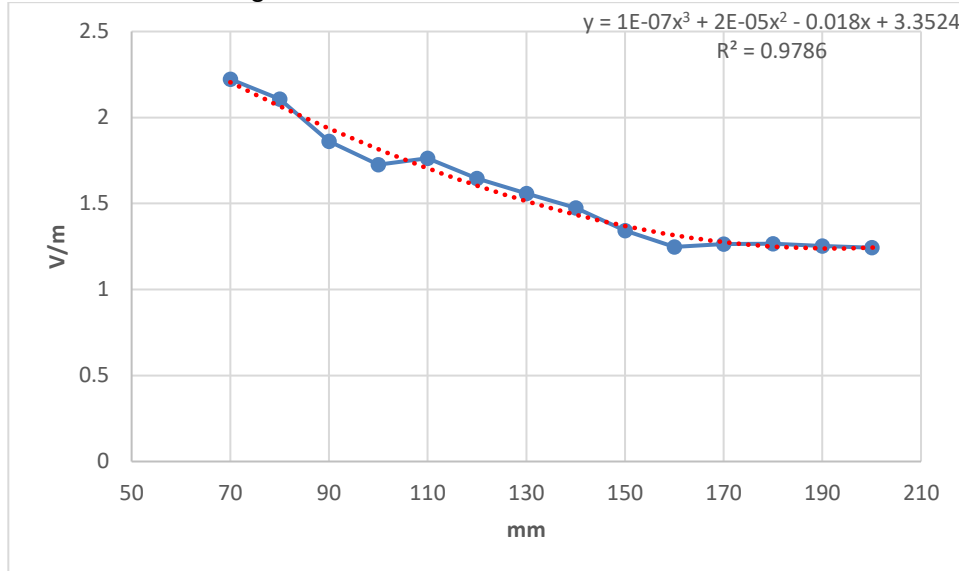
Model 1: Linear Regression



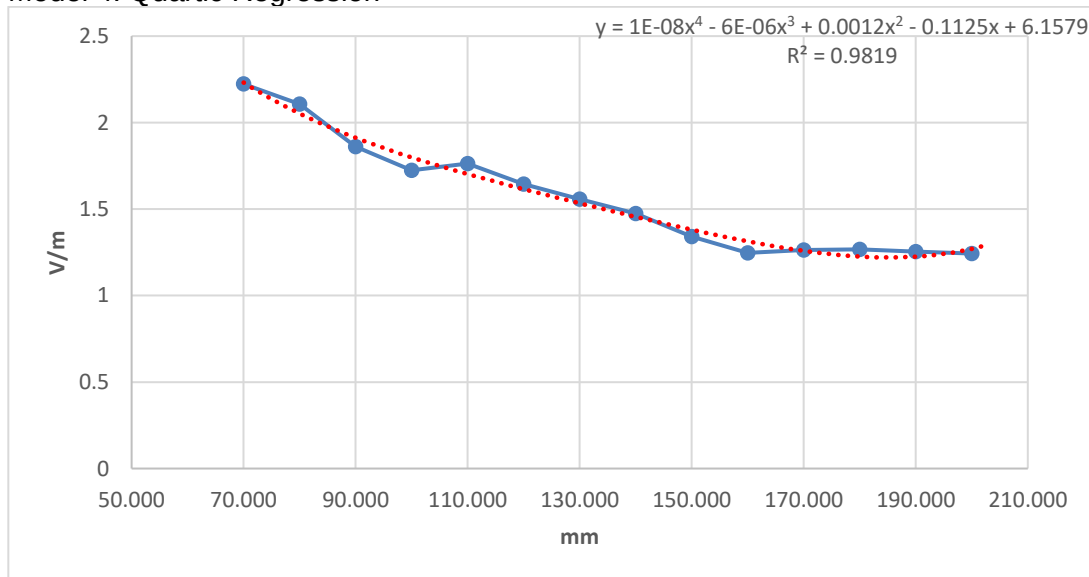
Model 2: Quadratic Regression



Model 3: Cubic Regression



Model 4: Quartic Regression



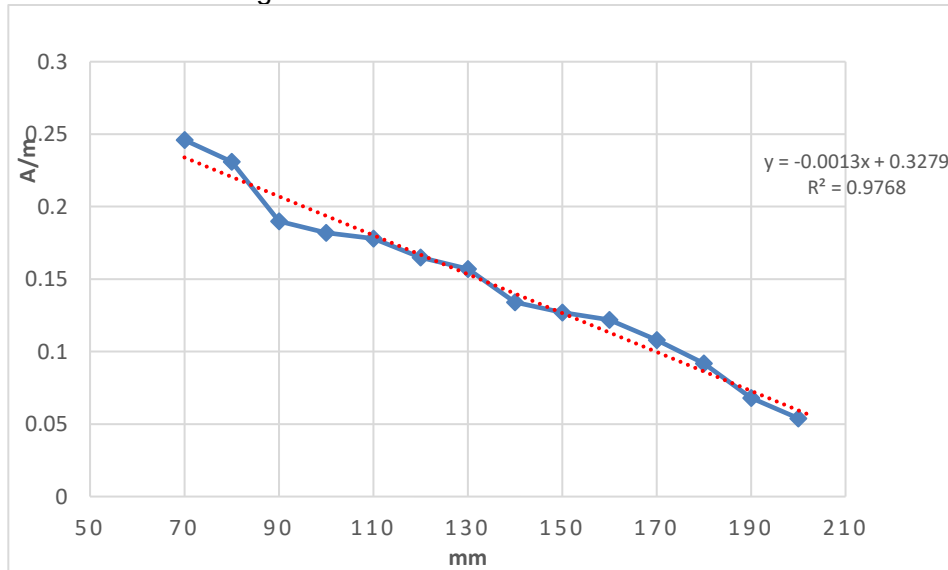
Analyzing Results

Comparison of the data from the 3 regression models

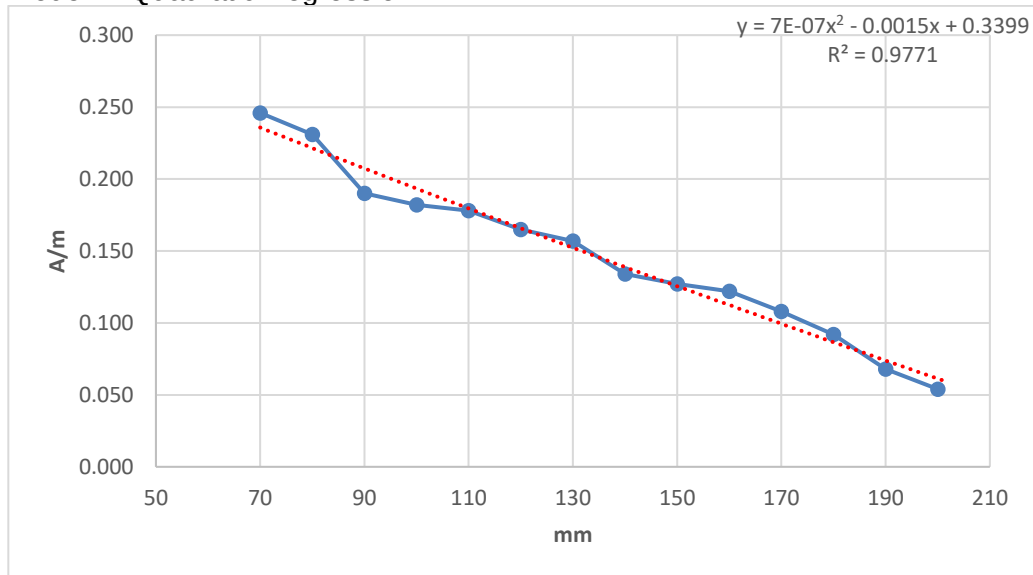
Parameter	Linear Regression	Quadratic Regression	Cubic Regression	Quartic Regression
Multiple R	0.951890445	0.989085818	0.989228269	0.990887614
R Square	0.906095419	0.978290756	0.978572568	0.981858264
Adjusted R Square	0.898270037	0.97434362	0.972144338	0.97379527
Standard Error (S)	0.105633075	0.053048507	0.055275442	0.053612409
Number of data points used	14	14	14	14
Estimated electric field strength at touch position (V/m)	2.59	3.57	3.35	6.16
Limit(V/m)		614		
Result		Pass		

H-field data

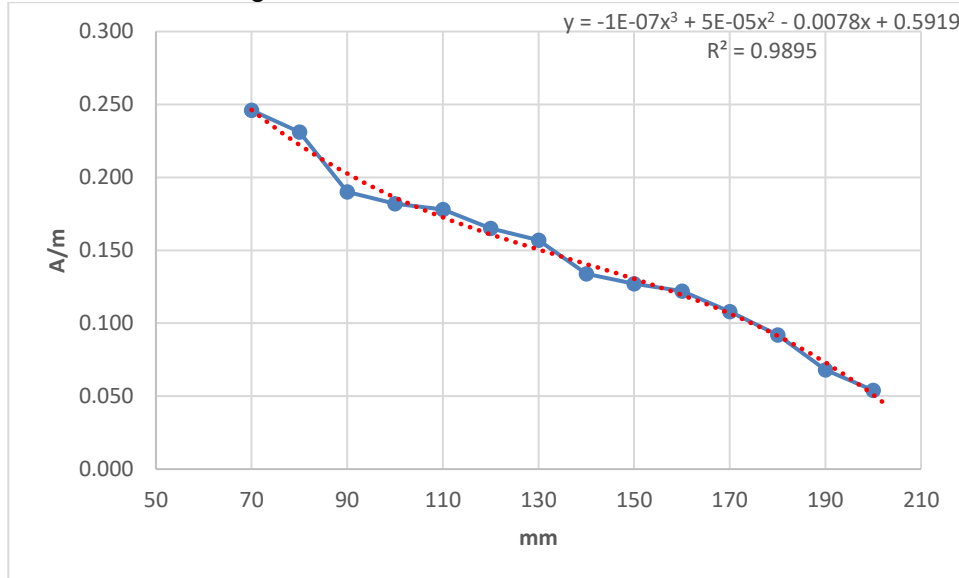
Model 1: Linear Regression



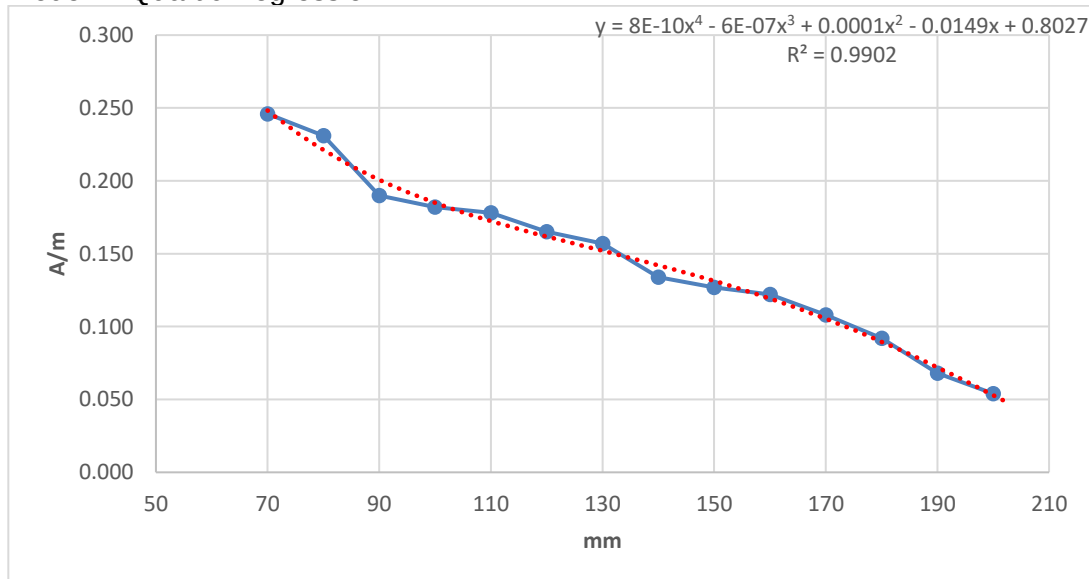
Model 2: Quadratic Regression



Model 3: Cubic Regression



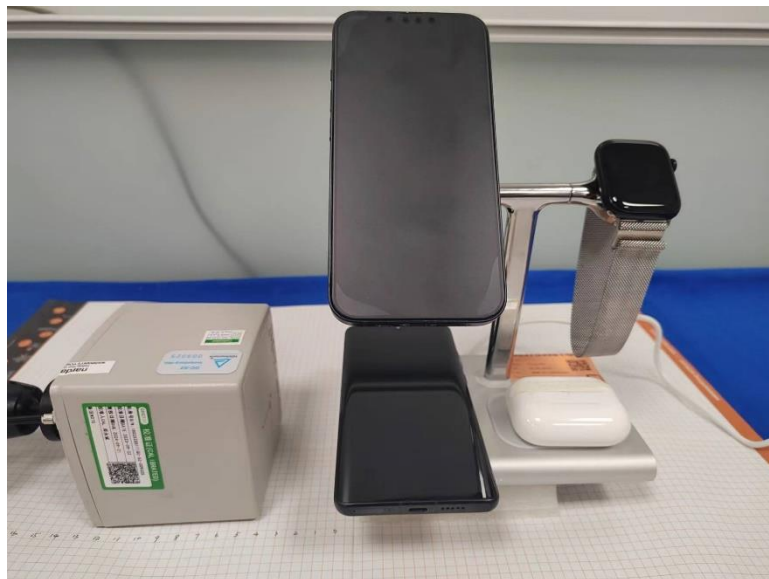
Model 4: Quartic Regression



Comparison of the data from the 3 regression models

Parameter	Linear Regression	Quadratic Regression	Cubic Regression	Quartic Regression
Multiple R	0.988318088	0.988500731	0.994751877	0.995068592
R Square	0.976772644	0.977133695	0.989531297	0.990161503
Adjusted R Square	0.974837031	0.972976185	0.986390686	0.985788838
Standard Error (S)	0.009010494	0.009337724	0.006626524	0.006771462
Number of data points used	14	14	14	14
Estimated electric field strength at touch position (A/m)	0.33	0.34	0.59	0.80
Limit(A/m)		1.63		
Result		Pass		

5 Photographs of the Test Set-Up



-----END OF REPORT-----