



EUT Specification

FCC ID: 2BCJZ-WP3

Characteristics	Description
Product Name	Wireless Magnetic Charging Portable Power Bank
Model number	WP3
Series Model	UMPB-MF10K, PB-10K-3in1-WL MagCharge, GL-PX25
Power Supply	DC 5V / DC 9V / Battery 3.85V
Operating Frequency Range	113-205KHz for phone charging 300-350KHz for Watch charging 113-205KHz for Earphone charging
Modulation Technique	ASK
Antenna Type	Coil Antenna
Device category	☒ Portable (<20cm separation) ☐ Mobile (>20cm separation) ☐ Others ____
Antenna diversity	☒ Single antenna ☐ Multiple antennas ☐ Tx diversity ☐ Rx diversity ☐ Tx/Rx diversity
Evaluation applied	☒ MPE Evaluation ☐ SAR Evaluation

Applicable Standard:

FCC Part 1(1.1310) ,Part 2(2.1093) and KDB 680106 D01 Wireless Power Transfer v04

Applicable Requirement:

Three different categories of transmitters are defined by the FCC in OET Bulletin 65.

These categories are fixed installation, mobile, and portable and are defined as follows:

Fixed Installations: fixed location means that the device, including its antenna, is physically secured at a permanent location and is not able to be easily moved to another location. Additionally, distance to humans from the antenna is maintained to at least 2 meters.

Mobile Devices: a mobile device is defined as a transmitting device designed to be used in other than fixed locations and to be generally used in such a way that a separation distance of at least 20 centimeters is normally maintained between the transmitter's radiating structures and the body of the user or nearby persons. Transmitters designed to be used by consumers or workers that can be easily re-located, such as a wireless modem operating in a laptop computer, are considered mobile devices if they meet the 20 centimeter separation requirement. The FCC rules for evaluating mobile devices for RF compliance are found in 47 CFR §2.1091.

Portable Devices: a portable device is defined as a transmitting device designed to be used so that the radiating structure(s) of the device is/are within 20 centimeters of the body of the user. Portable device requirements are found in Section 2.1093 of the FCC's Rules (47 CFR§2.1093).

The FCC also categorizes the use of the device as based upon the user's awareness and ability to exercise control over his or her exposure. The two categories defined are Occupational/ Controlled Exposure and General Population/Uncontrolled Exposure.

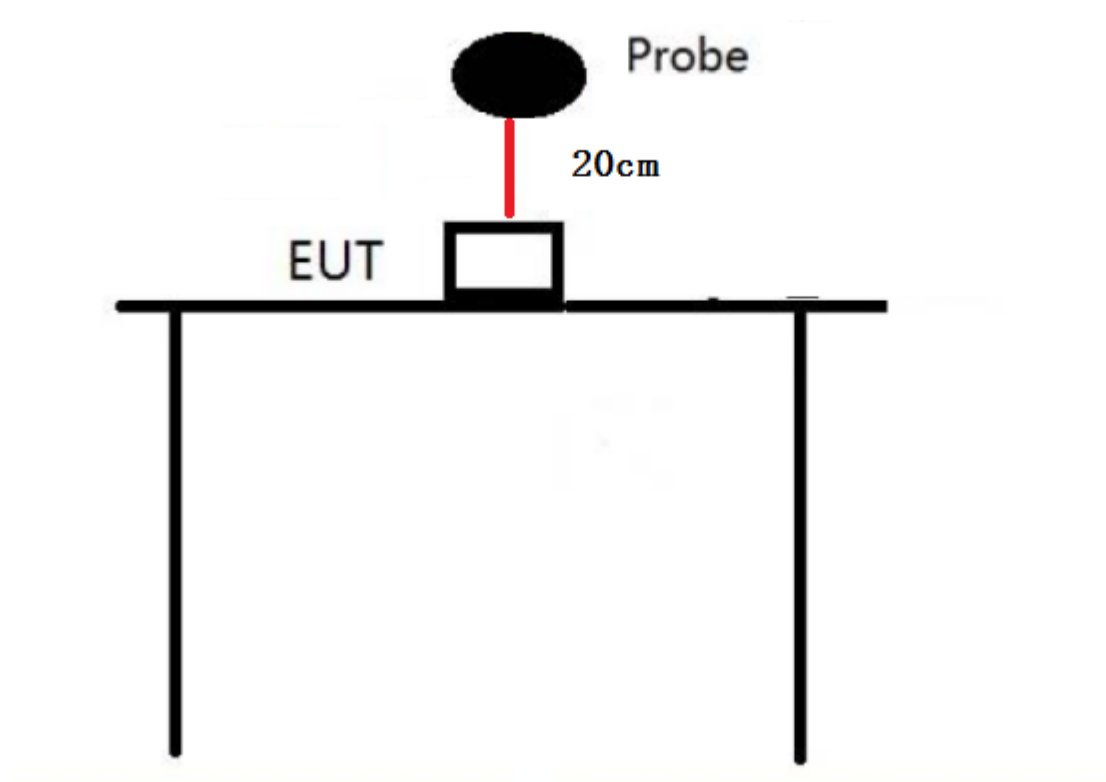
These two categories are defined as follows:

Occupational/controlled exposure limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when a person is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure. The phrase fully aware in the context of applying these exposure limits means that an exposed person has received written and/or verbal information fully explaining the potential for RF exposure resulting from his or her employment. With the exception of transient persons, this phrase also means that an exposed person has received appropriate training regarding work practices relating to controlling or mitigating his or her exposure. Such training is not required for transient persons, but they must receive written and/or verbal information and notification (for example, using signs) concerning their exposure potential and appropriate means available to mitigate their exposure. The phrase exercise control means that an exposed person is allowed to and knows how to reduce or avoid exposure by administrative or engineering controls and work practices, such as use of personal protective equipment or time averaging of exposure.

General population/uncontrolled exposure limits apply in situations in which the general public may be exposed, or in which persons who are exposed as a consequence of their employment may not be fully aware of the

potential for exposure or cannot exercise control over their exposure. Licensees and applicants are responsible for compliance with both the occupational/controlled exposure limits and the general population/uncontrolled exposure limits as they apply to transmitters under their jurisdiction. Licensees and applicants should be aware that the occupational/controlled exposure limits apply especially in situations where workers may have access to areas in very close proximity to antennas and access to the general public may be restricted. In lieu of evaluation with the general population/uncontrolled exposure limits, amateur licensees authorized under part 97 of this chapter and members of his or her immediate household may be evaluated with respect to the occupational/controlled exposure limits in this section, provided appropriate training and information has been provided to the amateur licensee and members of his/her household. Other nearby persons who are not members of the amateur licensee's household must be evaluated with respect to the general population/uncontrolled exposure limits.

Test Setup Block



Test Procedure

- 1.Connect the EUT and equipment as above diagram of test configuration.
- 2.EUT was placed on a table, and the measure probe was placed at a measurement distance of 20cm from the EUT to the center of the probe.
- 3.Power on the measuring probe, the EUT was set at the maximum field strength emission state.
- 4.The EUT was put in different directions (Left, Right, Front, Rear, Top and Bottom) toward to the measure probe. The distance from the top of the EUT to the probe is 20CM, and the distance from other directions is 20cm.Measure the value of field strength.
- 5.Record the worst data of the different directions.

Measuring Device And Test Equipment

Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
☒	E&H-Field Probe(9kHz-30M Hz)	Narda	EHP-200A	180ZX11012	2024/09/14	2025/09/13

Description of Support Device

phone	: Manufacturer: Apple Inc. M/N: A2404 S/N: N/A
phone	: Manufacturer: Xiaomi M/N: Xiaomi 9 S/N: N/A
phone	: Manufacturer: SAMSUNG M/N: Samsung Galaxy S9 S/N: N/A
Adapter	: Model number:580245A087 Input: AC 100-240V, 50/60Hz
Earphone	: Manufacturer: momax M/N: X5 S/N: N/A
Watch	: Manufacturer: Apple M/N: A1859 S/N: N/A

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
(A) Limits for Occupational/Control Exposures				
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
1500-100000	--	--	5	6
(B) Limits for General Population/Uncontrol Exposures				
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
1500-100000	--	--	1	30

Note: f denotes for frequency in MHz.

* denotes for plane-wave equivalent power density.

Measurement Result

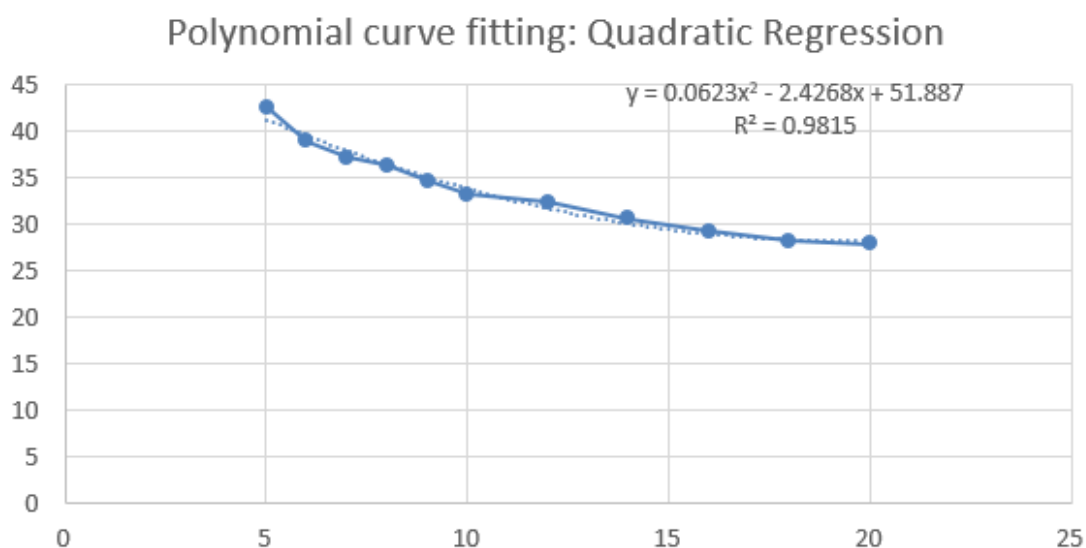
For phone

We tested 3 modes(15W load, 7.5W load,5W load) and 11 test distances(5cm, 6cm,7cm,8cm,9cm,10cm,12cm,14cm,16cm,18cm,20cm), only the worst mode(15W load) is recorded in the report.

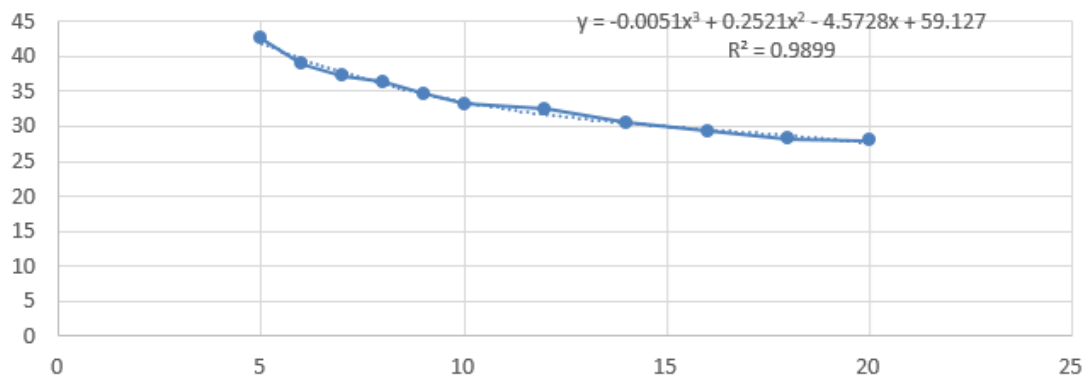
According to the pre-scan, the test value at the top of the product is the largest, and only the test value at the top of the product is recorded in the final report. A total of 11 measuring points were tested. The test distance and test results are shown in the table below.

Measuring Distance(cm)	E- Field(V/m)
5	42.62
6	38.96
7	37.25
8	36.33
9	34.66
10	33.28
12	32.44
14	30.62
16	29.34
18	28.22
20	27.96

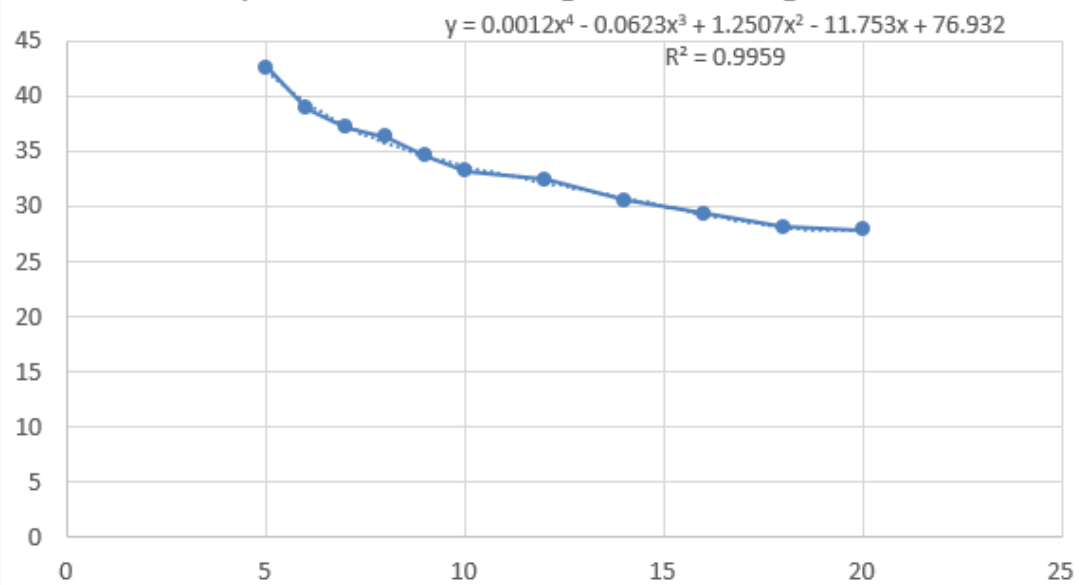
According to the curve fitting principle, a total of 5 models were selected. According to the results of the above table, the results are substituted into the five models, and the following data graph is obtained.



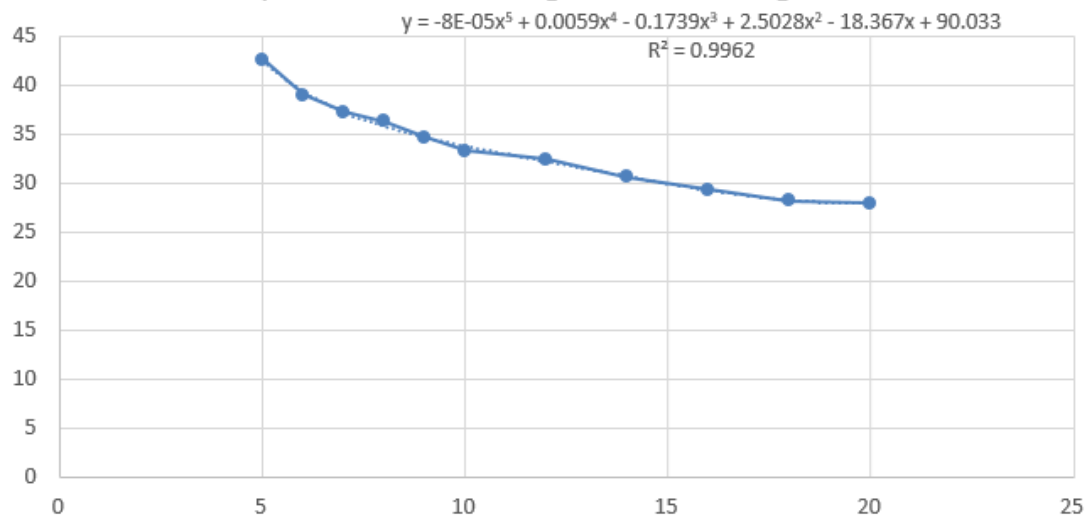
Polynomial curve fitting: Cubic Regression



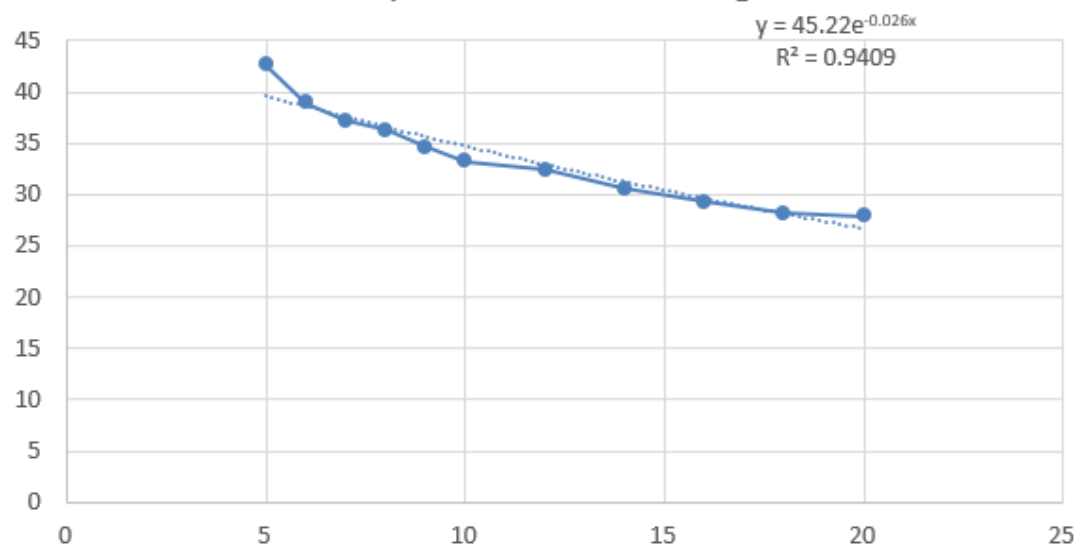
Polynomial curve fitting: Quartic Regression



Polynomial curve fitting: 5th Order Regression



Exponential curve fitting



Comparison of the data from the 5 regression models

Parameter	Quadratic Regression Model	Cubic Regression Model	Quartic Regression Model	5th Order Regression Model	Exponential curve fitting
R Square	0.9815	0.9899	0.9959	0.9962	0.9409
Multiple R	0.9907	0.9949	0.9979	0.9981	0.9700
Adjusted R Square	0.9794	0.9888	0.9954	0.9958	0.9343
Number of data points used	11	11	11	11	11
Estimated Electric field strength at touch position (V/m)	51.887	59.127	76.932	90.033	45.22

According to the above curve fitting results, when the test distance is 0cm, the maximum E- Field value is 90.033V/m. This value meets the requirements of the standard limit 614V/m.

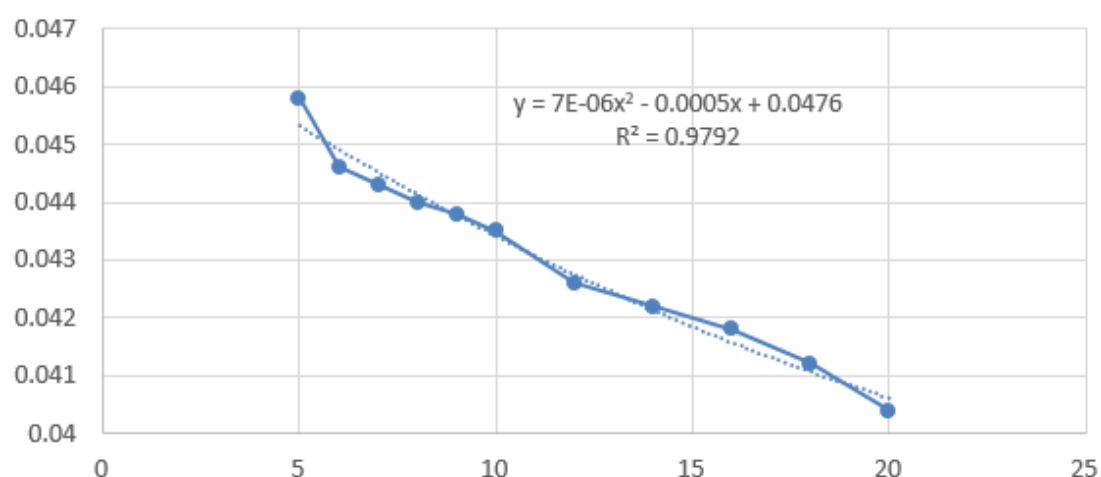
We tested 3 modes(15W load, 7.5W load,5W load) and 11 test distances(5cm, 6cm,7cm,8cm,9cm,10cm,12cm,14cm,16cm,18cm,20cm), only the worst mode(15W load) is recorded in the report.

According to the pre-scan, the test value at the top of the product is the largest, and only the test value at the top of the product is recorded in the final report. A total of 11 measuring points were tested. The test distance and test results are shown in the table below.

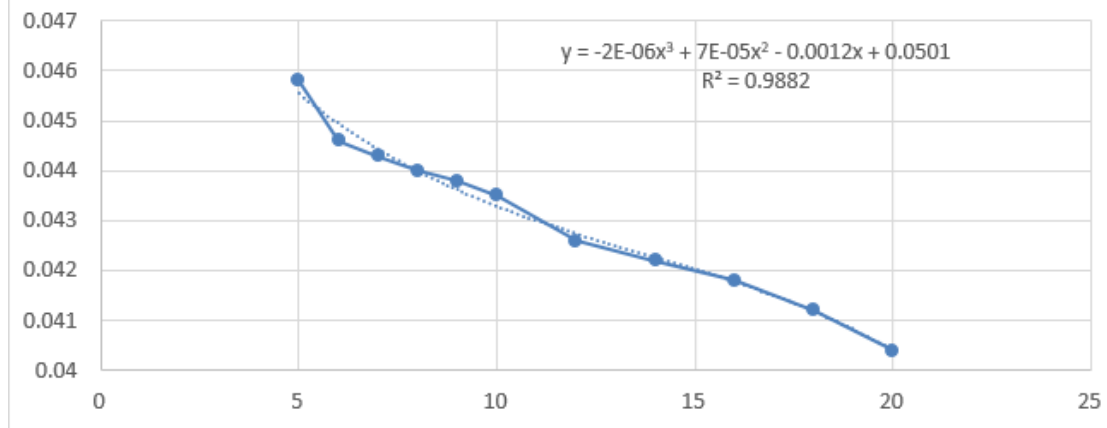
Measuring Distance(cm)	M-Field(A/m)
5	0.0458
6	0.0446
7	0.0443
8	0.0440
9	0.0438
10	0.0435
12	0.0426
14	0.0422
16	0.0418
18	0.0412
20	0.0404

According to the curve fitting principle, a total of 5 models were selected. According to the results of the above table, the results are substituted into the five models, and the following data graph is obtained.

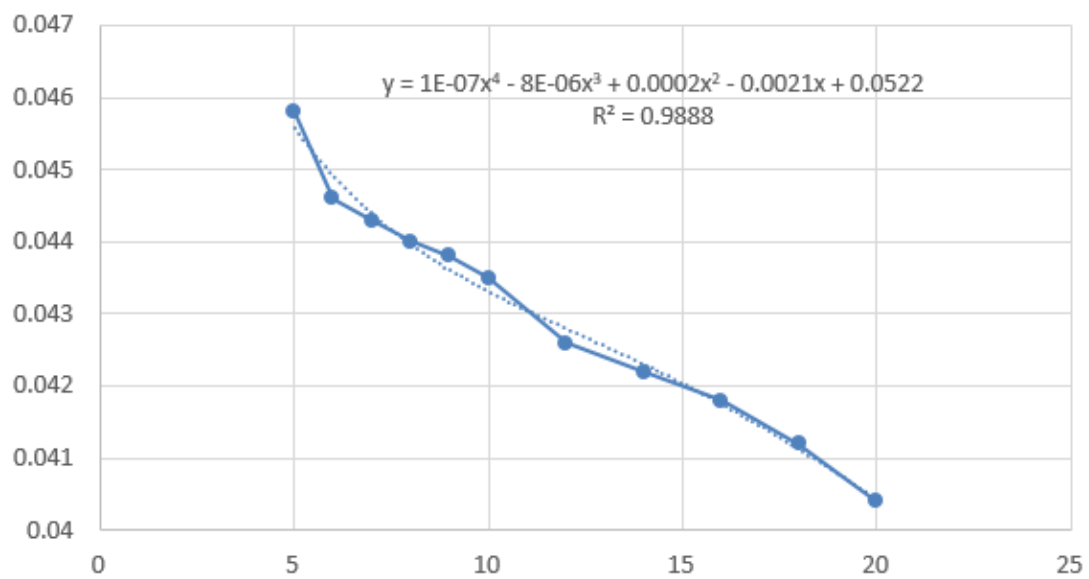
Polynomial curve fitting: Quadratic Regression



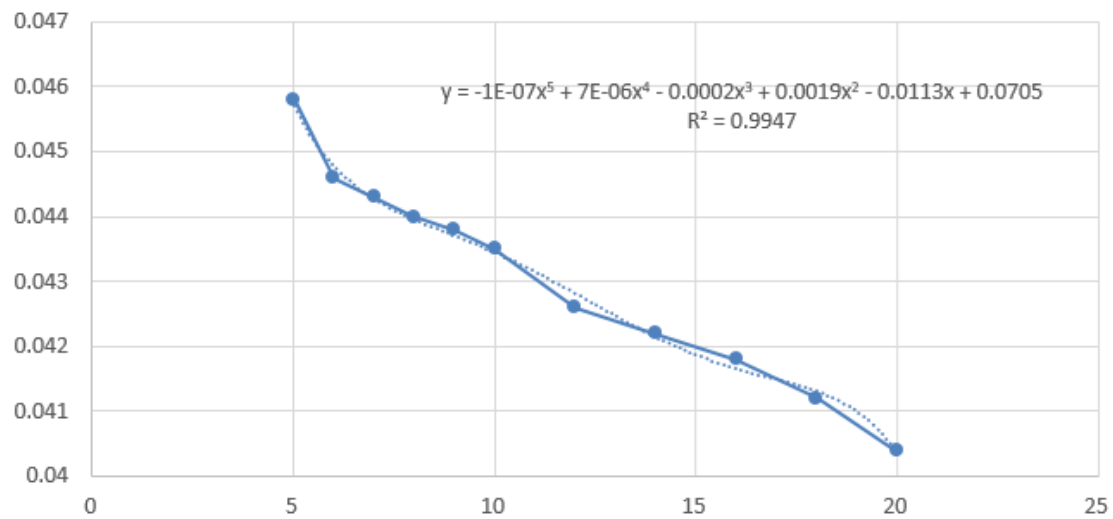
Polynomial curve fitting: Cubic Regression



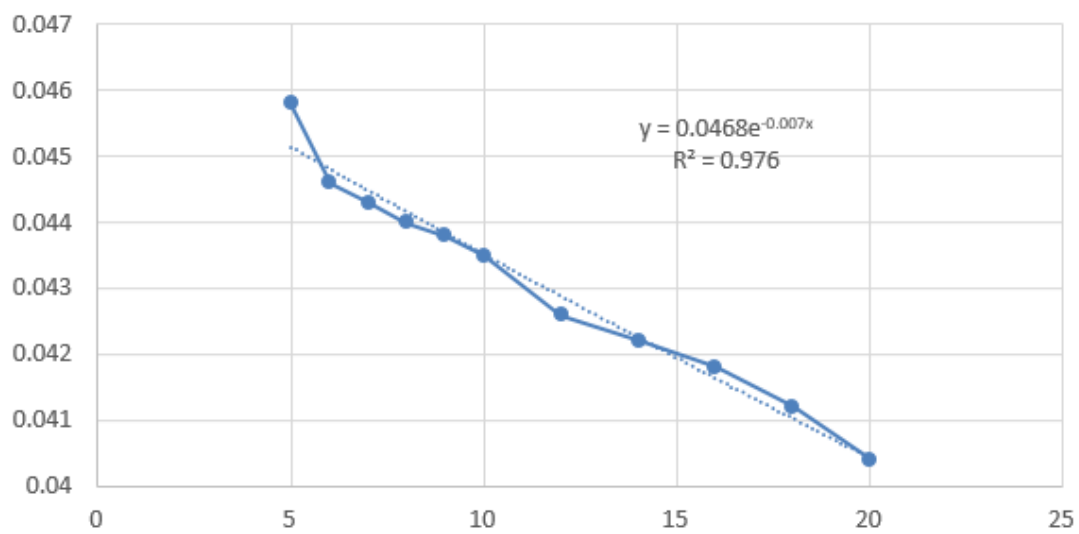
Polynomial curve fitting: Quartic Regression



Polynomial curve fitting: 5th Order Regression



Exponential curve fitting



Comparison of the data from the 5 regression models

Parameter	Quadratic Regression Model	Cubic Regression Model	Quartic Regression Model	5th Order Regression Model	Exponential curve fitting
R Square	0.9792	0.9882	0.9888	0.9947	0.9760
Multiple R	0.9895	0.9941	0.9944	0.9973	0.9879
Adjusted R Square	0.9769	0.9869	0.9876	0.9941	0.9880
Number of data points used	11	11	11	11	11
Estimated magnetic field strength at touch position (A/m)	0.0476	0.0501	0.0522	0.0705	0.0468

According to the above curve fitting results, when the test distance is 0cm, the maximum M-Field value is 0.0705A/m. This value meets the requirements of the standard limit 1.63A/m.

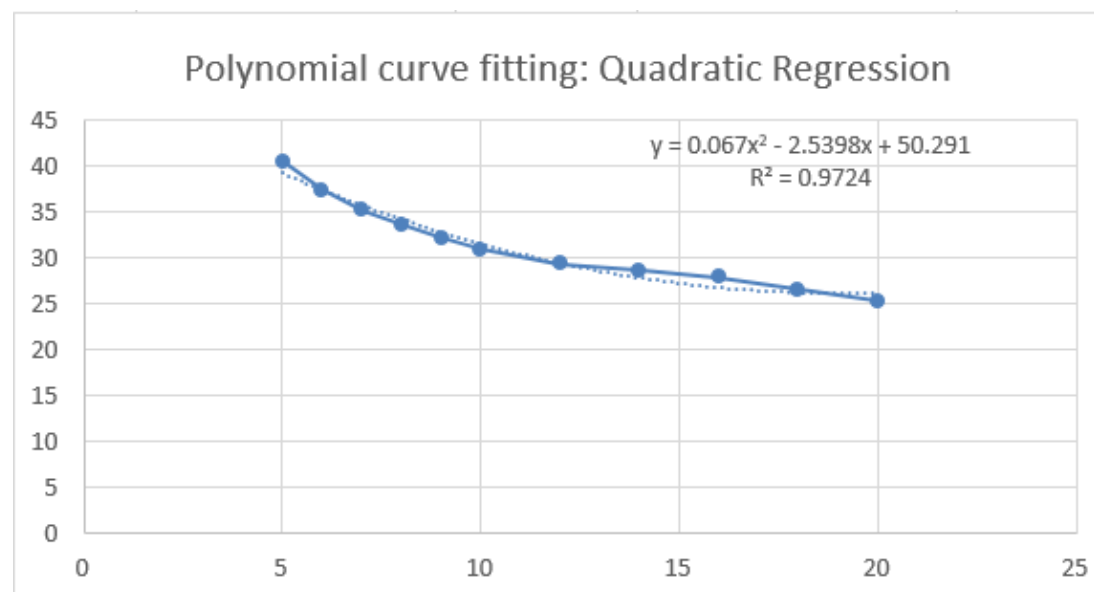
For Watch

We tested 1 mode(2.5W load) and 11 test distances(5cm,6cm,7cm,8cm,9cm, 10cm,12cm,14cm,16cm,18cm,20cm), only the worst mode(2.5W load) is recorded in the report.

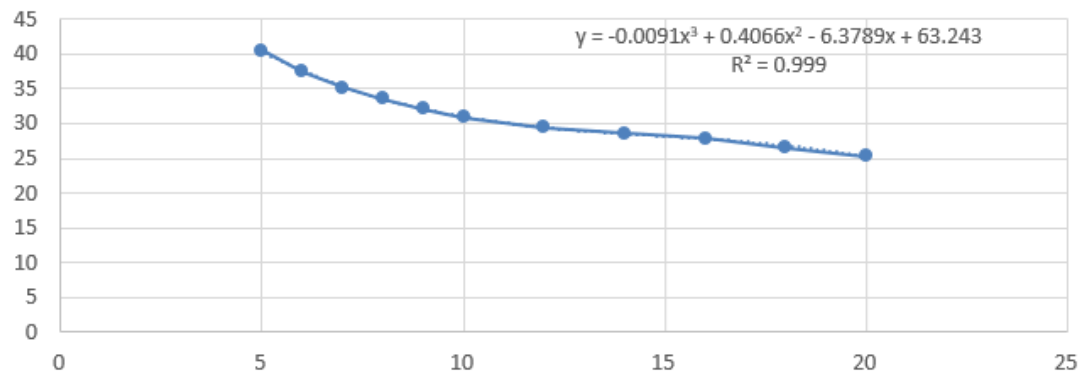
According to the pre-scan, the test value at the top of the product is the largest, and only the test value at the top of the product is recorded in the final report. A total of 11 measuring points were tested. The test distance and test results are shown in the table below.

Measuring Distance(cm)	E- Field(V/m)
5	40.55
6	37.46
7	35.22
8	33.62
9	32.16
10	30.98
12	29.44
14	28.66
16	27.93
18	26.58
20	25.33

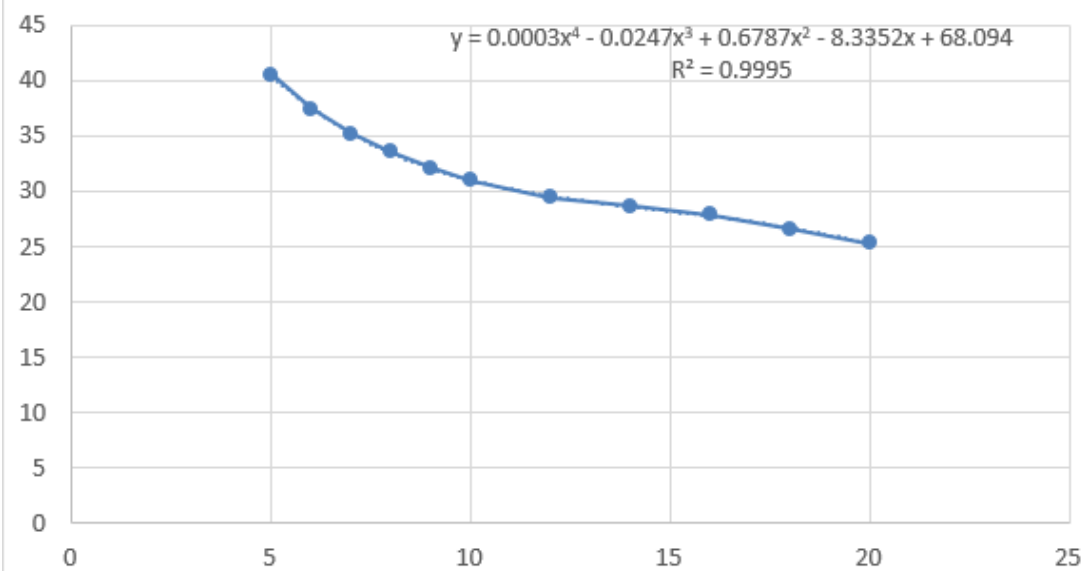
According to the curve fitting principle, a total of 5 models were selected. According to the results of the above table, the results are substituted into the five models, and the following data graph is obtained.



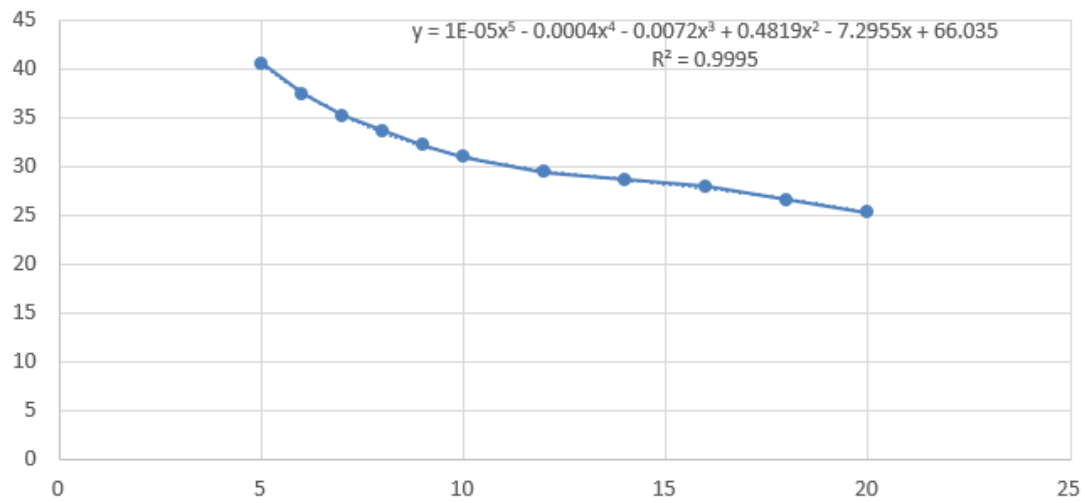
Polynomial curve fitting: Cubic Regression



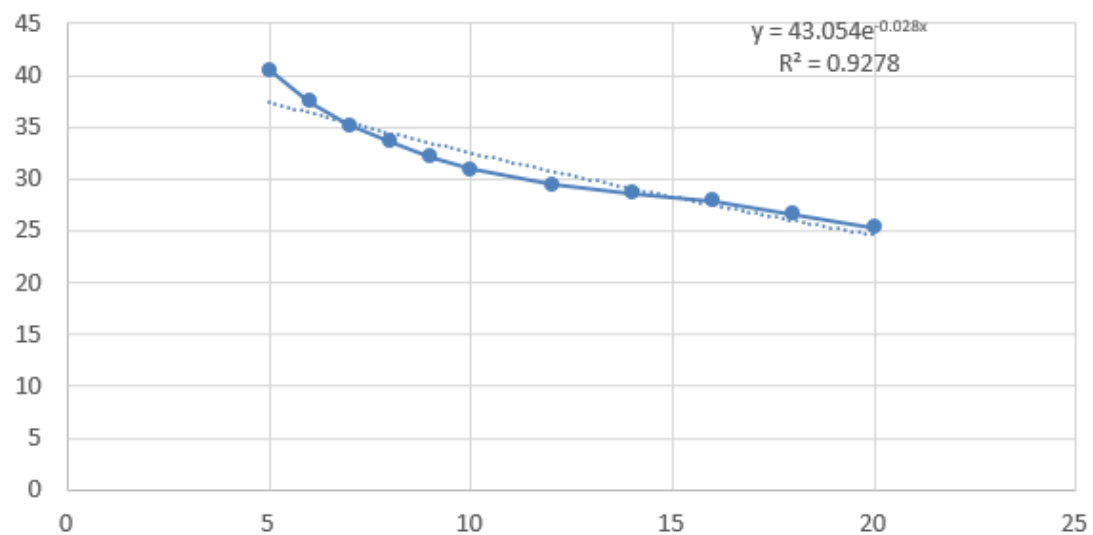
Polynomial curve fitting: Quartic Regression



Polynomial curve fitting: 5th Order Regression



Exponential curve fitting



Comparison of the data from the 5 regression models

Parameter	Quadratic Regression Model	Cubic Regression Model	Quartic Regression Model	5th Order Regression Model	Exponential curve fitting
R Square	0.9724	0.9990	0.9995	0.9995	0.9278
Multiple R	0.9861	0.9995	0.9997	0.9997	0.9632
Adjusted R Square	0.9693	0.9989	0.9994	0.9994	0.9198
Number of data points used	11	11	11	11	11
Estimated Electric field strength at touch position (V/m)	50.291	63.243	68.094	66.035	43.054

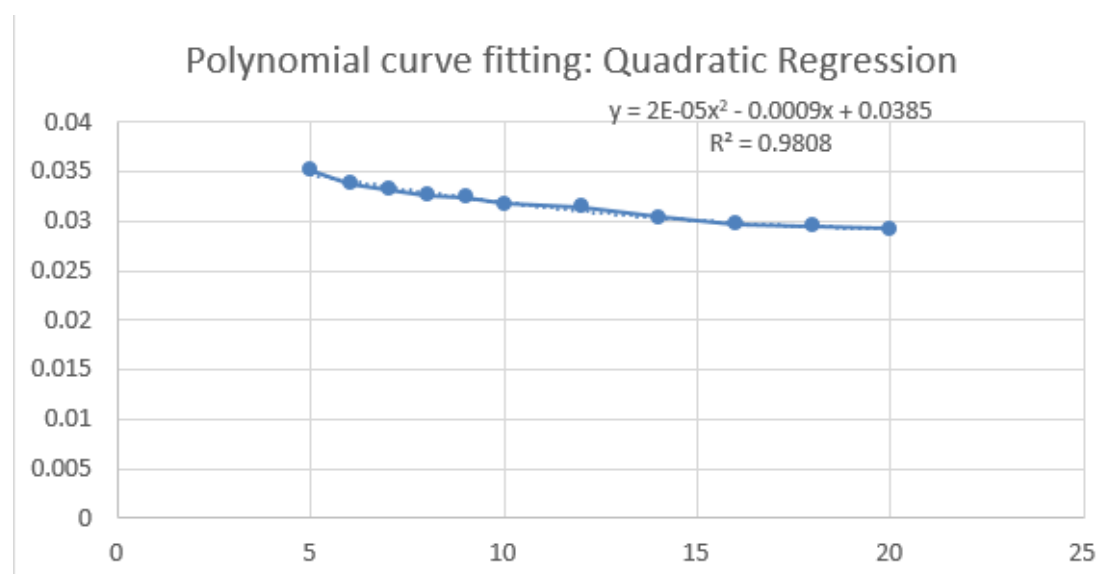
According to the above curve fitting results, when the test distance is 0cm, the maximum E- Field value is 68.094V/m. This value meets the requirements of the standard limit 614V/m.

We tested 1 mode(2.5W load) and 11 test distances(5cm,6cm,7cm,8cm,9cm, 10cm,12cm,14cm,16cm,18cm,20cm), only the worst mode(2.5W load) is recorded in the report.

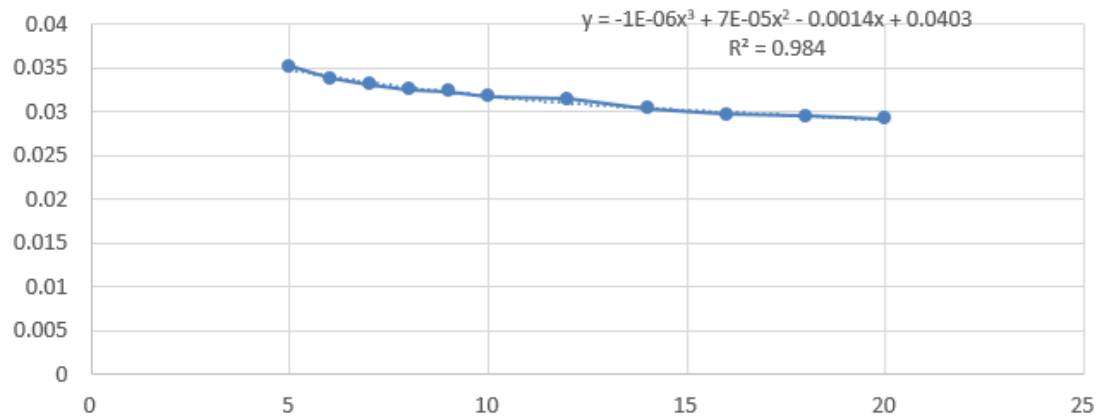
According to the pre-scan, the test value at the top of the product is the largest, and only the test value at the top of the product is recorded in the final report. A total of 11 measuring points were tested. The test distance and test results are shown in the table below.

Measuring Distance(cm)	M-Field(A/m)
5	0.0352
6	0.0338
7	0.0332
8	0.0326
9	0.0324
10	0.0318
12	0.0315
14	0.0304
16	0.0297
18	0.0295
20	0.0292

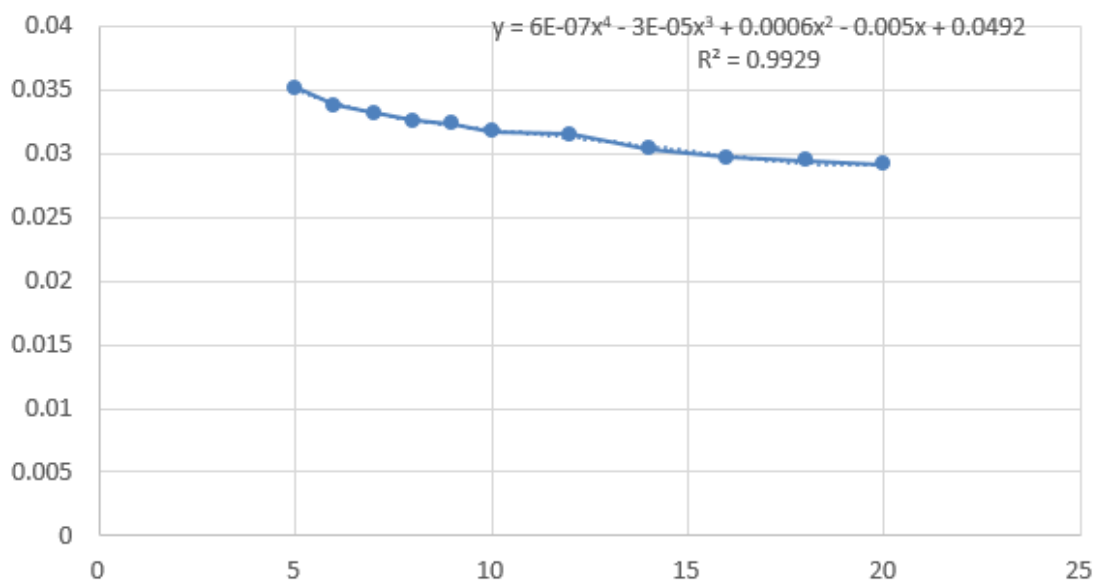
According to the curve fitting principle, a total of 5 models were selected. According to the results of the above table, the results are substituted into the five models, and the following data graph is obtained.



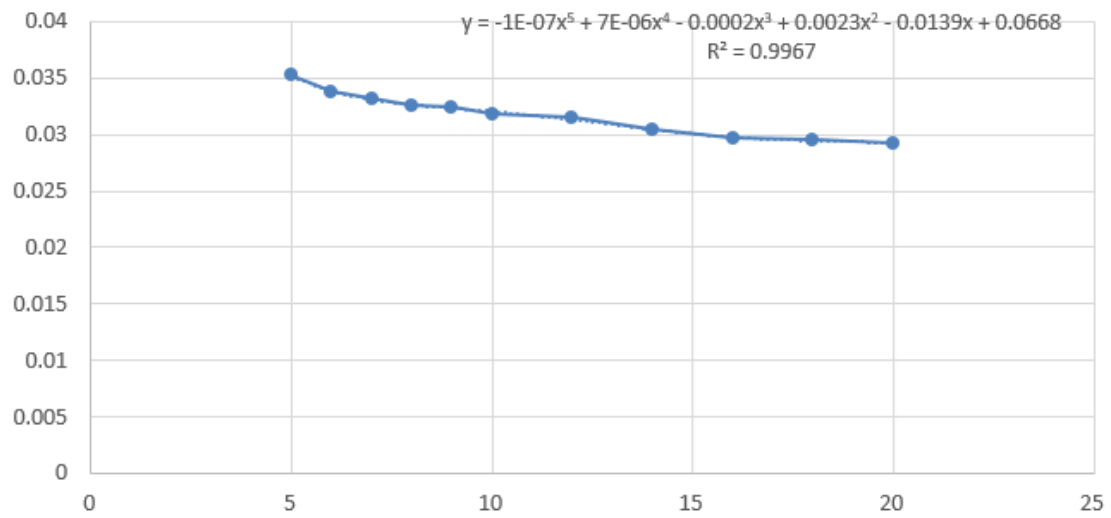
Polynomial curve fitting: Cubic Regression



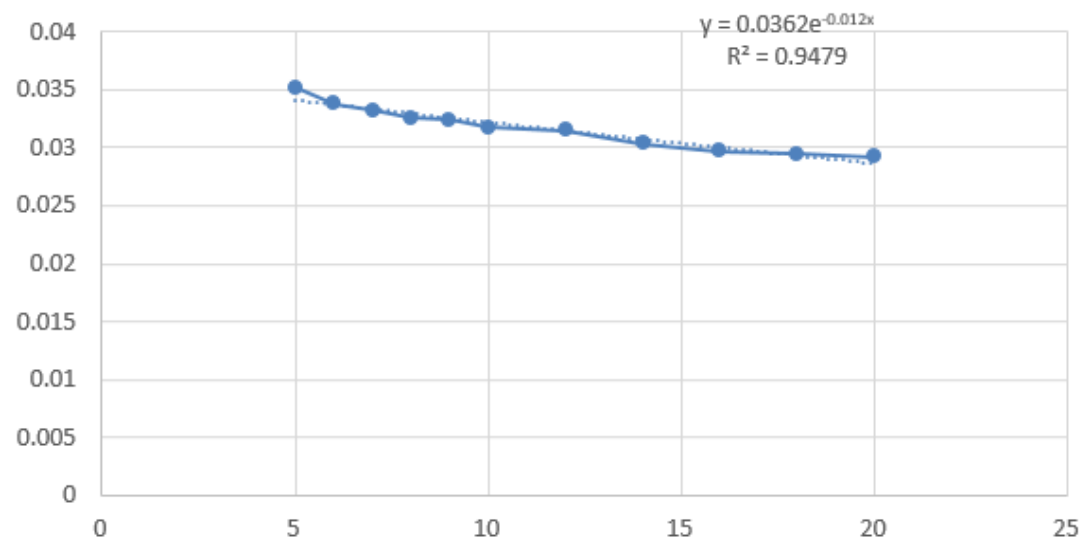
Polynomial curve fitting: Quartic Regression



Polynomial curve fitting: 5th Order Regression



Exponential curve fitting



Comparison of the data from the 5 regression models

Parameter	Quadratic Regression Model	Cubic Regression Model	Quartic Regression Model	5th Order Regression Model	Exponential curve fitting
R Square	0.9808	0.9840	0.9929	0.9967	0.9479
Multiple R	0.9904	0.9920	0.9964	0.9983	0.9736
Adjusted R Square	0.9787	0.9822	0.9921	0.9963	0.9740
Number of data points used	11	11	11	11	11
Estimated magnetic field strength at touch position (A/m)	0.0385	0.0403	0.0492	0.0668	0.0362

According to the above curve fitting results, when the test distance is 0cm, the maximum M-Field value is 0.0668A/m. This value meets the requirements of the standard limit 1.63A/m.

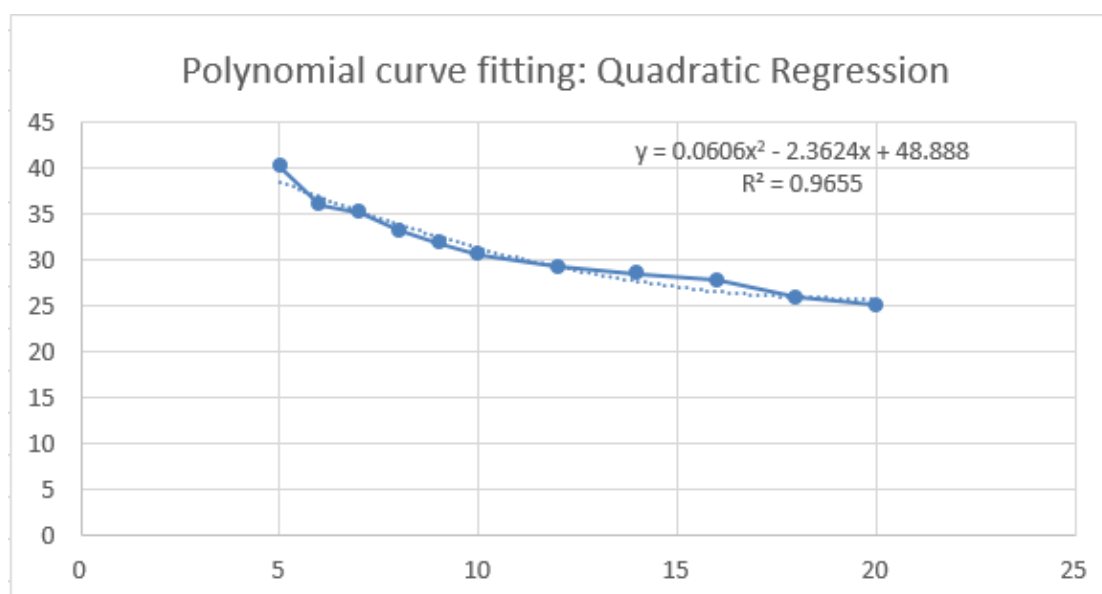
For Earphone

We tested 1 mode(2.5W load) and 11 test distances(5cm,6cm,7cm,8cm,9cm, 10cm,12cm,14cm,16cm,18cm,20cm), only the worst mode(2.5W load) is recorded in the report.

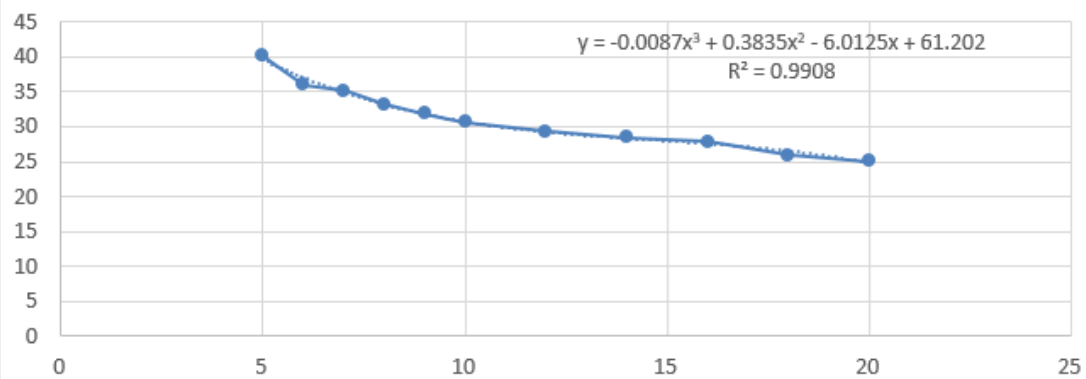
According to the pre-scan, the test value at the top of the product is the largest, and only the test value at the top of the product is recorded in the final report. A total of 11 measuring points were tested. The test distance and test results are shown in the table below.

Measuring Distance(cm)	E- Field(V/m)
5	40.22
6	36.07
7	35.18
8	33.22
9	31.94
10	30.66
12	29.28
14	28.53
16	27.82
18	25.93
20	25.12

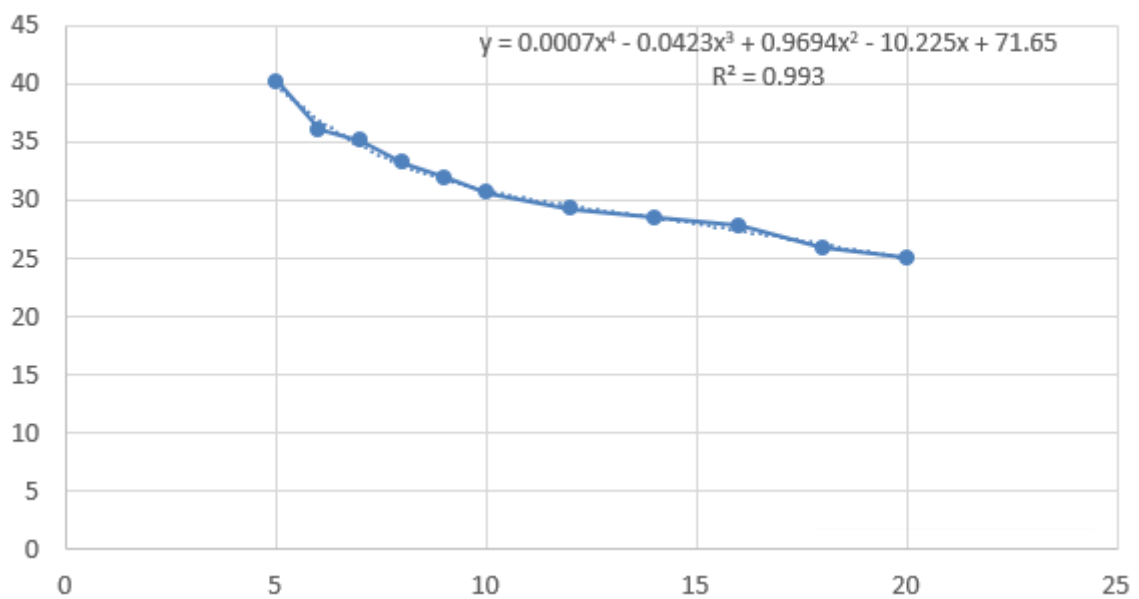
According to the curve fitting principle, a total of 5 models were selected. According to the results of the above table, the results are substituted into the five models, and the following data graph is obtained.



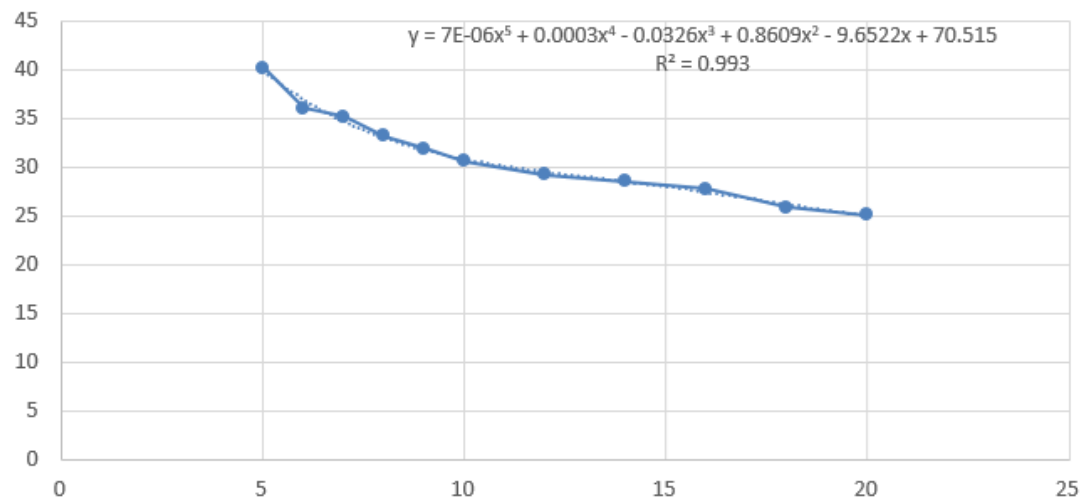
Polynomial curve fitting: Cubic Regression



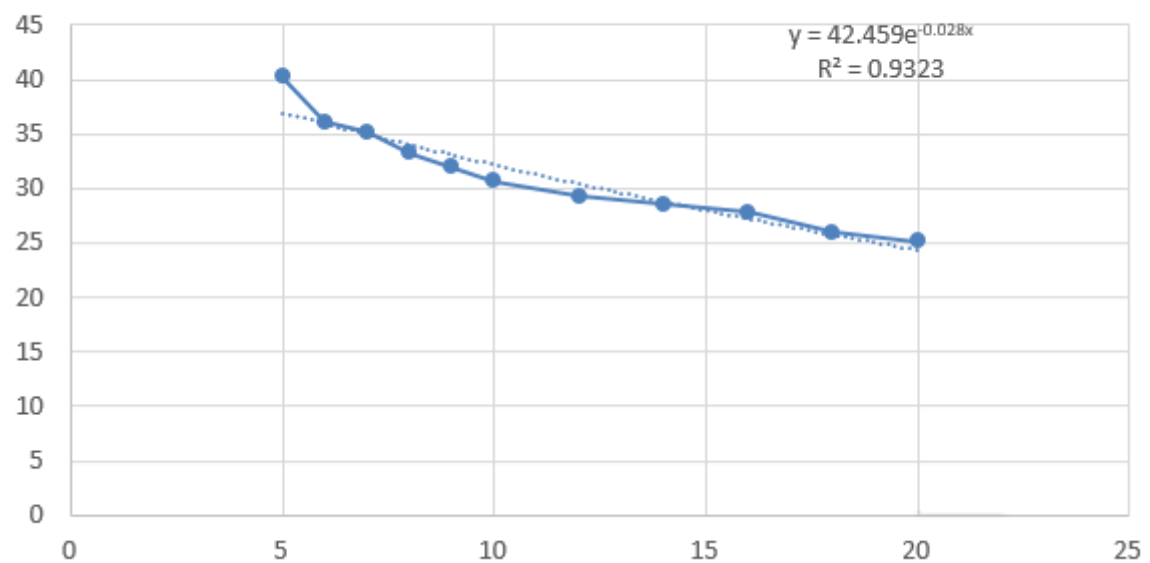
Polynomial curve fitting: Quartic Regression



Polynomial curve fitting: 5th Order Regression



Exponential curve fitting



Comparison of the data from the 5 regression models

Parameter	Quadratic Regression Model	Cubic Regression Model	Quartic Regression Model	5th Order Regression Model	Exponential curve fitting
R Square	0.9655	0.9908	0.9930	0.9930	0.9323
Multiple R	0.9826	0.9954	0.9965	0.9965	0.9656
Adjusted R Square	0.9617	0.9898	0.9922	0.9922	0.9248
Number of data points used	11	11	11	11	11
Estimated Electric field strength at touch position (V/m)	48.888	61.202	71.650	70.515	42.459

According to the above curve fitting results, when the test distance is 0cm, the maximum E- Field value is 71.650V/m. This value meets the requirements of the standard limit 614V/m.

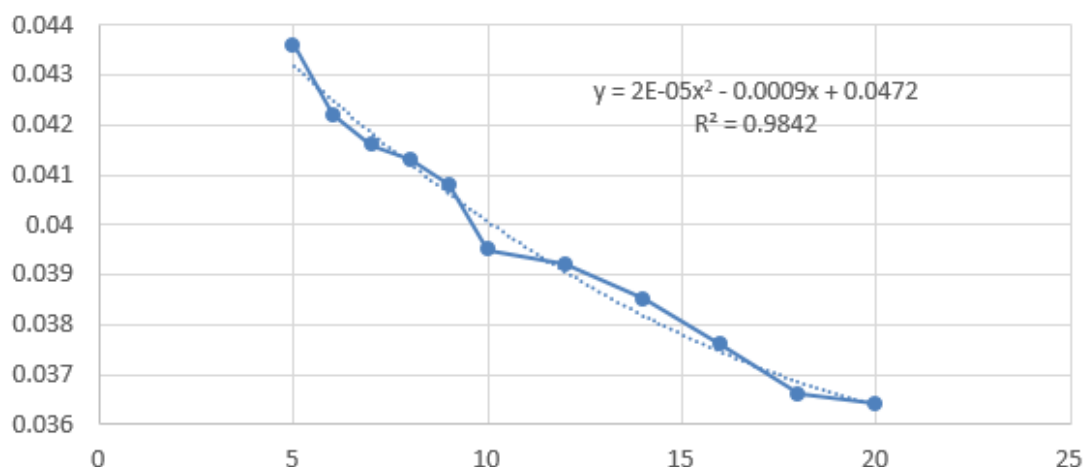
We tested 1 mode(2.5W load) and 11 test distances(5cm,6cm,7cm,8cm,9cm, 10cm,12cm,14cm,16cm,18cm,20cm), only the worst mode(2.5W load) is recorded in the report.

According to the pre-scan, the test value at the top of the product is the largest, and only the test value at the top of the product is recorded in the final report. A total of 11 measuring points were tested. The test distance and test results are shown in the table below.

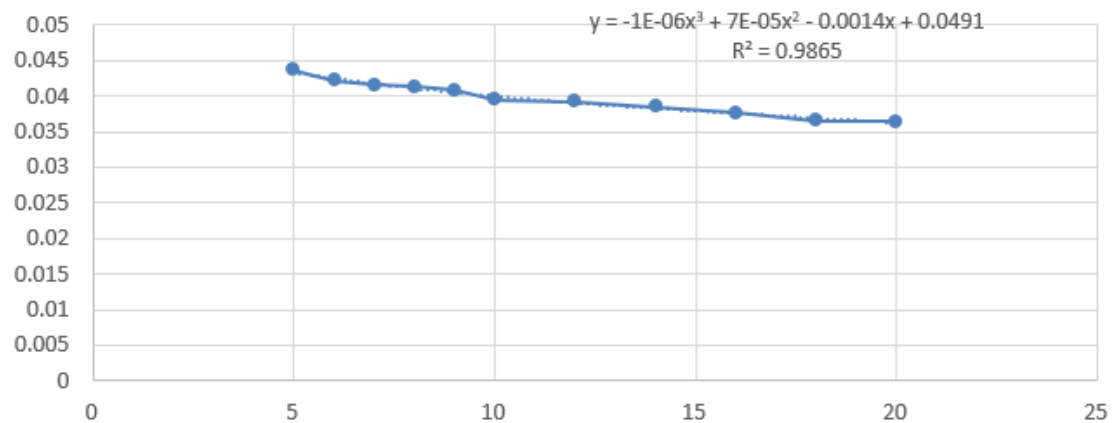
Measuring Distance(cm)	M-Field(A/m)
5	0.0436
6	0.0422
7	0.0416
8	0.0413
9	0.0408
10	0.0395
12	0.0392
14	0.0385
16	0.0376
18	0.0366
20	0.0364

According to the curve fitting principle, a total of 5 models were selected. According to the results of the above table, the results are substituted into the five models, and the following data graph is obtained.

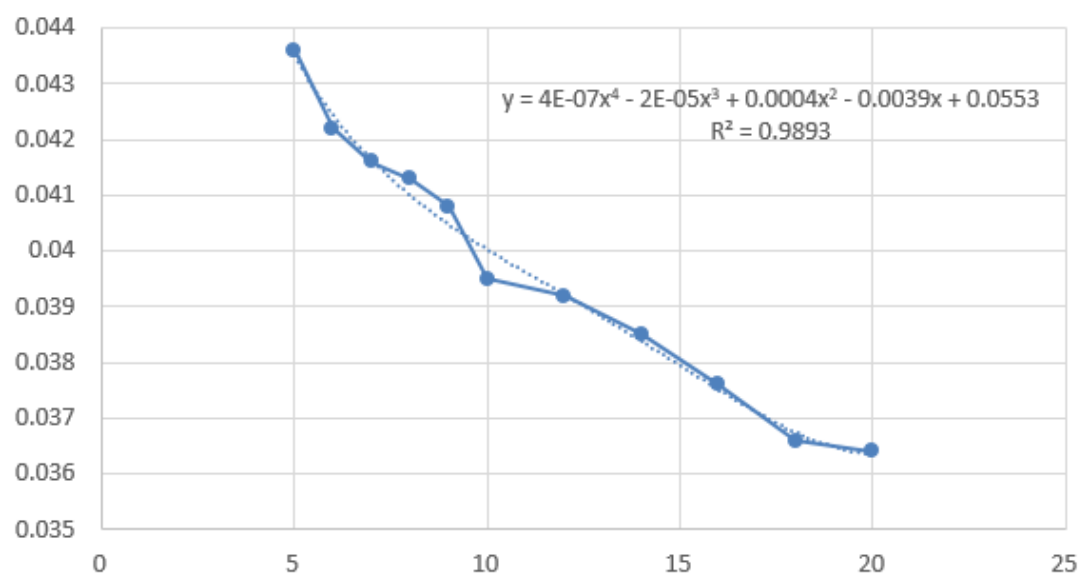
Polynomial curve fitting: Quadratic Regression



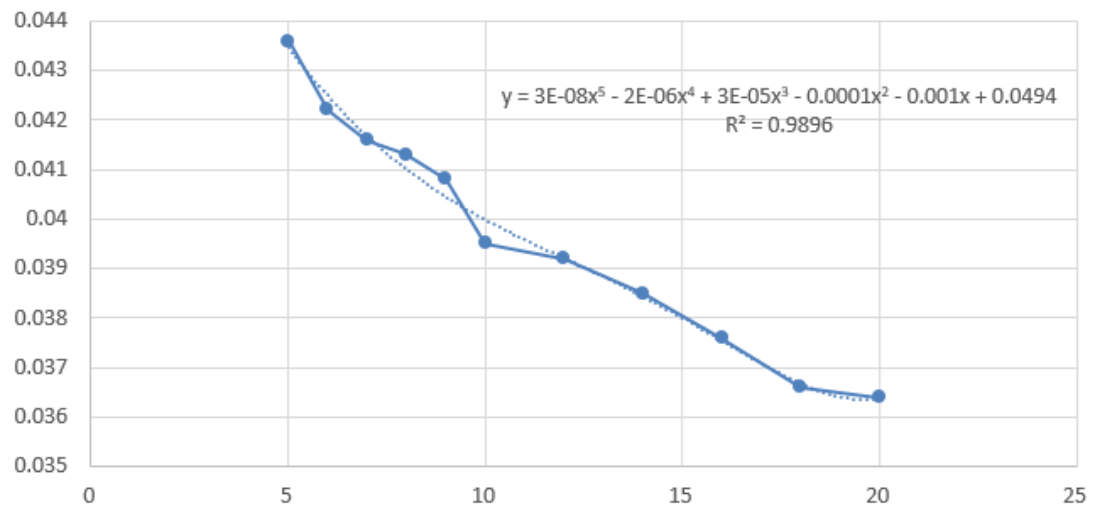
Polynomial curve fitting: Cubic Regression



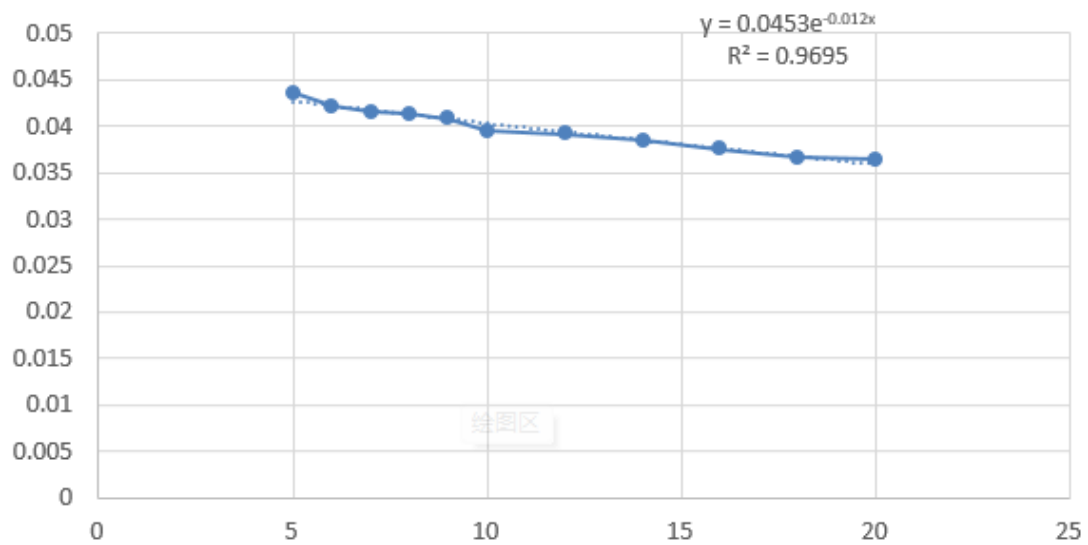
Polynomial curve fitting: Quartic Regression



Polynomial curve fitting: 5th Order Regression



Exponential curve fitting



Comparison of the data from the 5 regression models

Parameter	Quadratic Regression Model	Cubic Regression Model	Quartic Regression Model	5th Order Regression Model	Exponential curve fitting
R Square	0.9842	0.9865	0.9893	0.9896	0.9695
Multiple R	0.9921	0.9932	0.9946	0.9948	0.9846
Adjusted R Square	0.9824	0.9850	0.9881	0.9884	0.9848
Number of data points used	11	11	11	11	11
Estimated magnetic field strength at touch position (A/m)	0.0472	0.0491	0.0553	0.0494	0.0453

According to the above curve fitting results, when the test distance is 0cm, the maximum M-Field value is 0.0553A/m. This value meets the requirements of the standard limit 1.63A/m.

Signature



Shawn Wen
General Manager
Date: 2025-3-26