



# FCC Test Report

Report No: FCS20250556H01

## Issued for

Applicant:	Shenzhen Aiyinbao Technology Co.Ltd.
Address:	3F floor Building B, Zhaofuda Industrial park, Hongqiaotou Community, Yanluo Street, Baoan District Shenzhen, China.
Product Name:	mouse pad with wireless charging
Brand Name:	N/A
Model Name:	H18
Series Model:	H8, H9, H10, H11, H12, H13, H15, H16
FCC ID:	2A7DS-H18
Test Standard:	FCC CFR 47 PART 1, § 1.1310 KDB 680106 D01 Wireless Power Transfer v04
Issued By: Flux Compliance Service Laboratory Add: Room 105 Floor Bao hao Technology Building 1 NO.15 Gong ye West Road Hi-Tech Industrial, Song shan lake Dongguan Tel: 769-27280901 Fax:769-27280901 <a href="http://www.fcs-lab.com">http://www.fcs-lab.com</a>	

## TEST RESULT CERTIFICATION

Applicant's Name .....: Shenzhen Aiyinbao Technology Co.Ltd.  
Address.....: 3F floor Building B, Zhaofuda Industrial park, Hongqiaotou Community, Yanluo Street, Baoan District Shenzhen, China.  
Manufacture's Name .....: Shenzhen Aiyinbao Technology Co.Ltd.  
Address.....: 3F floor Building B, Zhaofuda Industrial park, Hongqiaotou Community, Yanluo Street, Baoan District Shenzhen, China.

### Product Description

Product Name .....: mouse pad with wireless charging  
Brand Name .....: N/A  
Model Name .....: H18  
Series Model.....: H8, H9, H10, H11, H12, H13, H15, H16  
Test Standards.....: FCC CFR 47 PART 1, § 1.1310  
KDB 680106 D01 Wireless Power Transfer v04

This device described above has been tested FCS, the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Date of Test .....:

Date (s) of performance of tests : May 26, 2025 ~ May 30, 2025

Date of Issue .....: May 30, 2025

Test Result .....: Pass

Tested by : Scott Shen

(Scott Shen)

Reviewed by : Duke Qian

(Duke Qian)

Approved by : Jack Wang

(Jack Wang)



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**Revision History**

Rev.	Issue Date	Effect Page	Contents
00	May. 30, 2025	ALL	Initial Issue

## 1. TEST FACTORY

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<p>FCC Test Firm Registration Number: 514908 Designation number: CN0127 A2LA accreditation number: 5545.01 CNAS: L15566</p>	

## 2. GENERAL INFORMATION

### 2.1 GENERAL DESCRIPTION OF THE EUT

Product Name	mouse pad with wireless charging
Trade Name	N/A
Model Name	H18
Series Model	H8, H9, H10, H11, H12, H13, H15, H16
Model Difference	The appearance and color are different.
Operation frequency	110.5kHz-148.5kHz
Modulation Technology	ASK
Antenna Type	Loop coil antenna
Antenna gain	0dBi
Power Supply	Input: DC 5V-2A, 9V-2A Output (Phone): 15W/10W/7.5W/5W
Hardware version number	V1.0
Software version number	V1.0
Connecting I/O Port(s)	Please refer to the User's Manual

### 3 TEST METHODOLOGY

#### 3.1 Measuring Standard

According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines. According to §1.1310 and §2.1091 RF exposure is calculated. According KDB680106 D01: KDB 680106 D01 Wireless Power Transfer v04.

#### 3.2 Requirements

According to the item 3 of KDB 680106 D01v04:

Inductive wireless power transfer applications that meet all of the following requirements are excluded from submitting an RF exposure evaluation.

- (1) Mobile Device and Portable Device Configurations
- (2) Equipment Authorization Procedures for Devices Operating at Frequencies Below 4 MHz
- (3) The EUT H-field strengths is tested 2cm increments from 0 ~ 20 cm for all sides.

#### 3.1 Limits

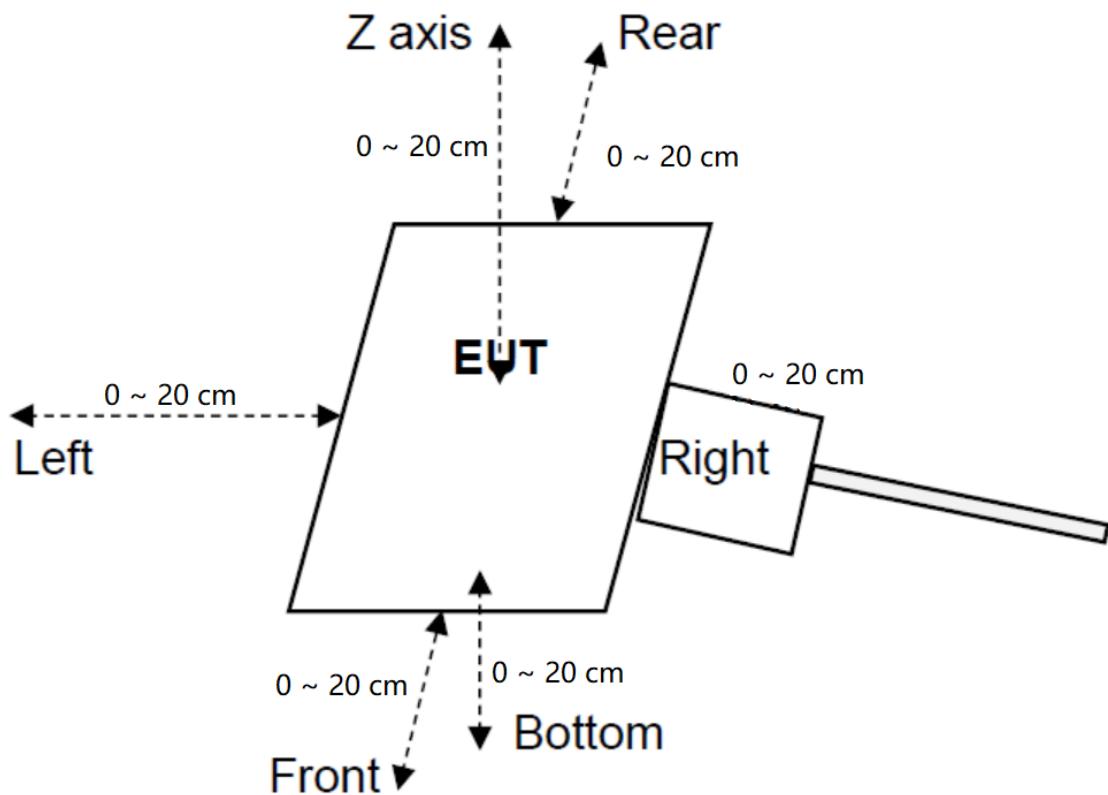
The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
<b>(A) Limits for Occupational/Controlled Exposures</b>				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f <sup>2</sup> )	6
30-300	61.4	0.163	1.0	6
300-1500	/	/	f/300	6
1500-100,000	/	/	5	6
<b>(B) Limits for General Population/Uncontrolled Exposure</b>				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f <sup>2</sup> )	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

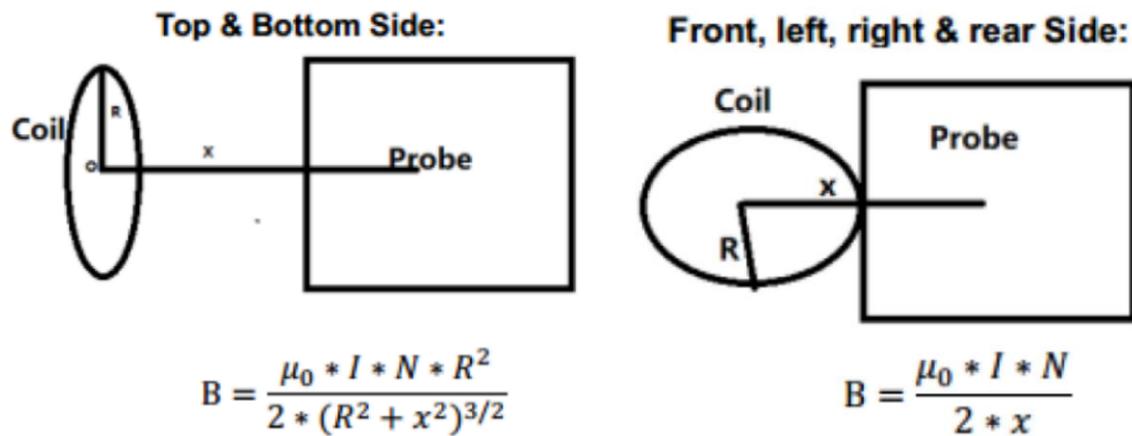
F=frequency in MHz  
\*=Plane-wave equivalent power density  
RF exposure compliance will need to be determined with respect to 1.1307(c) and (d) of the FCC rules. The emissions should be within the limits at 300kHz in Table 1 of 1.1310(use the 300kHz limits for 150kHz:614V/m,1.63A/m).

### 3.2 Test Setup



### 3.3 Test Procedure

- 1) The RF exposure test was performed in anechoic chamber.
- 2) The measurement probe was placed at test distance (2cm increments from 0 ~ 20 cm for all sides for portable mode) which is between the edge of the charger and the geometric edge of probe.
- 3) The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E, F) were completed.
- 4) The EUT was measured according to the dictates of KDB 680106 D01 Wireless Power Transfer v04.
- 5) According to the requirements if KDB 680106 D01 v04, If the center of the probe sensing element is located more than 5mm from the probe outer surface, the field strengths need to be estimated through modeling for those positions that are not reachable. (The sensitive elements are located approximately 8 mm below the external surface specified in user manual of EHP-200A)
- 6) Use Biot-Savart Law, the value of 0/2/4 cm can be estimated through the results of 6 cm, according to the formula:



Remark:

B: H-field (Unit:T)

$\mu_0$ : Space permeability =  $4\pi \times 10^{-7}$

I (Unit: A): The current element passing through a radiated coil

R: Radius of radiated coil, according to the coil specification: R=0.019m

X: The distance from the sensing elements of the probe to the edge of the radiated coil (the dimensions of EUT and load are taken into account), (Unit: m)

N: Turns of the radiated coil, according to the coil specification: N=10.

For validation purposes: If the value to show a 30% agreement between the mode and the (E- and/or H-field) probemeasurements for the two closest points to the device surface, and with 2cm increments. Then this extrapolation method is reasonable.

## 4 Equipment Approval Considerations

The EUT does comply with KDB 680106 D01 as follow table.

Requirements of section 5 of KDB 680106 D01	Yes / No	Description
Mobile Device and Portable Device Configurations	Yes	Portable Device
Equipment Authorization Procedures for Devices Operating at Frequencies Below 4 MHz	Yes	The device operate in the frequency range 110.5kHz-148.5kHz
RF Exposure compliance may be ensured only for a minimum separation distance that is greater than 20 cm, while use conditions at smaller distances can still be considered unlikely.	No	The EUT H-field strengths is tested 2cm increments from 0 ~ 20 cm for all sides.

#### 4.1 Description of the test mode

Equipment under test was operated during the measurement under the following conditions:

Test Mode	Description	
Mode 1	AC Adapter + EUT + phone (15W)	Record
Mode 2	AC Adapter + EUT + phone (10W)	Pre-tested
Mode 3	AC Adapter + EUT + phone (7.5W)	Pre-tested
Mode 4	AC Adapter + EUT + phone (5W)	Pre-tested
Mode 5	Test the EUT in idle mode.	Pre-tested

Note: All test modes were pre-tested, but we only recorded the worst case in this report.

#### 4.2 Peripheral List

No.	Equipment	Manufacturer	Model No.	Serial No.	Power cord	signal cable
1	Phone	OSCAL	PILOT2	N/A	N/A	N/A
2	Adapter	HNT	HNT-QC530	N/A	N/A	N/A

#### 4.3 Test Instruments list

Test Equipment	Manufacturer	Model No.	SN.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
Electric and Magnetic Field Analyzer	Narda	EHP-200A	180ZX10 505	20.06.2024	21.06.2025

## Technical specifications of the EHP-200A Electric and Magnetic Field Analyzer

Table 1-1 Technical specifications of the EHP-200A Electric and Magnetic Field Analyzer

	Electric Field	Magnetic Field Mode A	Magnetic Field Mode B	AUX Input
<b>Frequency range</b>	9 kHz ÷ 30 MHz	9 kHz ÷ 3 MHz	300 kHz ÷ 30 MHz	9 kHz ÷ 30 MHz
<b>Measurement range</b>				
@10kHz RBW	0.1 ÷ 1000 V/m	30 mA/m ÷ 300 A/m	3 mA/m ÷ 30 A/m	-80 ÷ 0 dBm
with preamplifier ON	0.02 ÷ 200 V/m	6 mA/m ÷ 60 A/m	0.6 mA/m ÷ 6 A/m	-94 ÷ -14 dBm
<b>Dynamic range</b>		> 80 dB		
<b>Measurement range</b>		> 94 dB		
<b>Resolution</b>	0.01 V/m	1 mA/m	0.1 mA/m	0.01 dB
<b>Sensitivity @10kHz RBW (*)</b>	0.1 V/m	30 mA/m	3 mA/m	-80 dBm
with preamplifier ON	0.02 V/m	6 mA/m	0.6 mA/m	-94 dBm
<b>Flatness</b>	0.5 dB 9 kHz ÷ 30 MHz @ 20 V/m	0.8 dB 100 kHz ÷ 3 MHz @ 166 mA/m	0.8 dB 300 kHz ÷ 30 MHz @ 53 mA/m	0.4 dB 9 kHz ÷ 30 MHz @ -20dBm
<b>Anisotropicity @1MHz</b>		0.8 dB		---
<b>Reference frequency</b>		< 25 ppm		
<b>Linearity @1MHz</b>		0.5 dB from FS to -60 dBFS		
<b>SPAN</b>		0 to FULL SPAN		
<b>RBW</b>		1 kHz – 3 kHz – 10 kHz – 30 kHz – 100 kHz – 300 kHz		
<b>Rejection to E fields</b>	---	> 20 dB		---
<b>Rejection to H fields</b>	> 20 dB	---		---
<b>Calibration</b>		internal E <sup>2</sup> PROM		
<b>Temperature error</b>		0.02 dB/°C		
<b>Dimensions</b>		92 x 92 x 109 mm		
<b>Weight</b>		550 g		
<b>Environmental protection</b>		IP42		
<b>Preamplifier</b>		selectable ON/OFF, 14dB		
<b>Units</b>		V/m, A/m, uT, mW/cm <sup>2</sup> , W/m <sup>2</sup>		
<b>Internal battery</b>		3.7 V – 5.55 Ah Li-Ion, rechargeable		
<b>Operation</b>		> 12 hours		
<b>Recharging time</b>		< 8 hours		
<b>External supply</b>		10 ÷ 15 VDC, I = approx. 560 mA		
<b>Optical fiber connection</b>		up to 10 m (USB-OC) up to 80 m (8053-OC)		
<b>Firmware updating</b>		through the optical link		
<b>Self test</b>		automatic at power on		
<b>Operating temperature</b>		-10 ÷ +50°C		
<b>Storage temperature</b>		-20 ÷ +70°C		

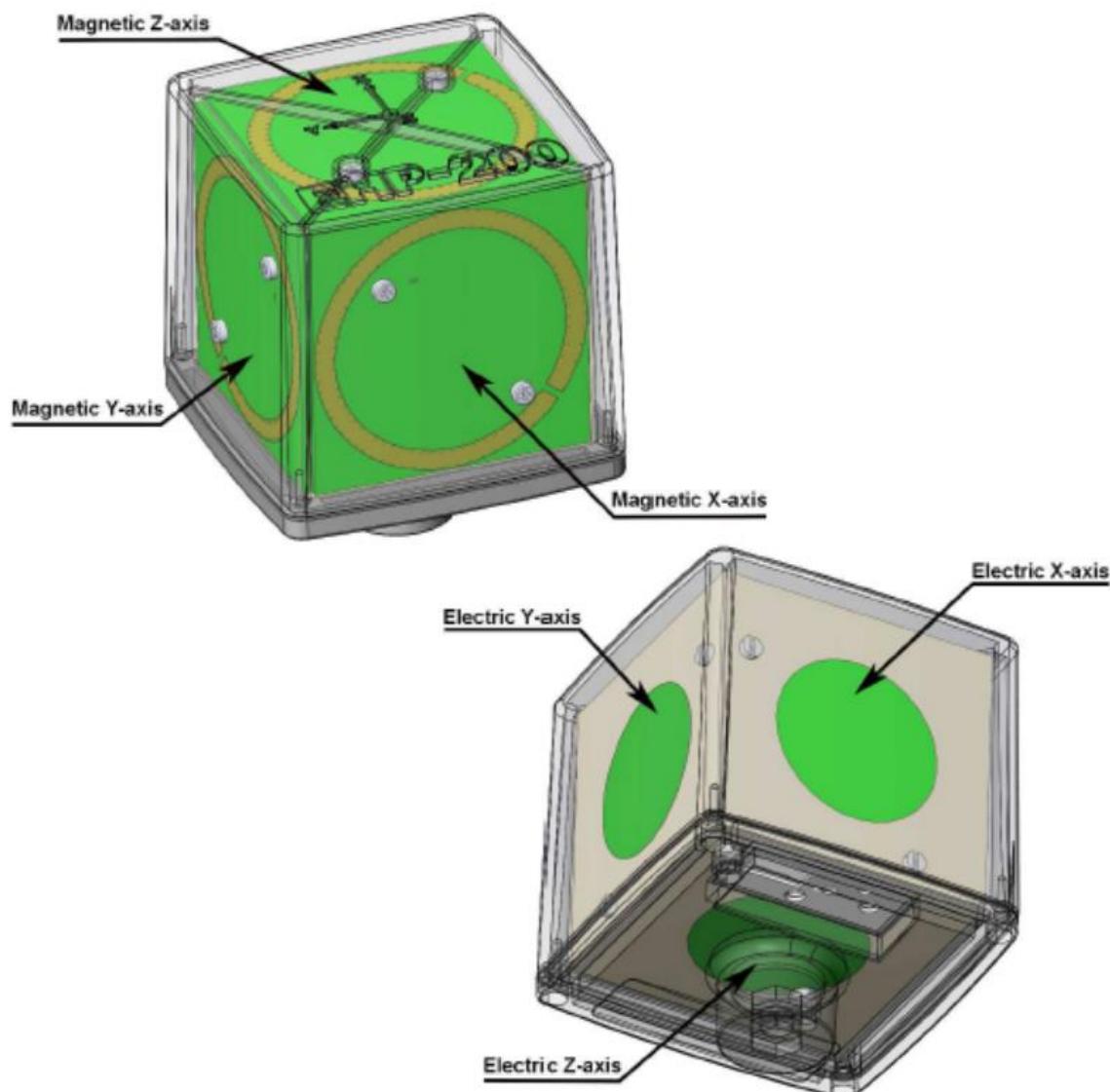


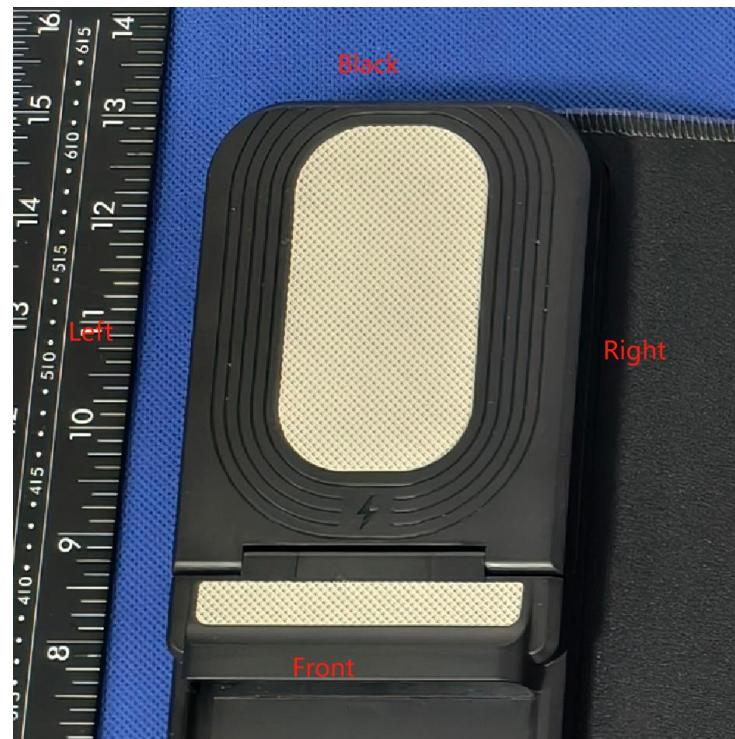
Fig. 1-4 EHP-200A/EHP-200AC axes

The sensitive elements are located approximately 8 mm below the external surface

#### 4.4 Antenna to EUT Side

Unit: mm

TOP	Left	Right	Front	Rear	BOTTOM
1	10	10	22	10	9



Top view

## 4.5 Test Result

Note: <1%, 50%, >95% load all have been tested, only worse case (mode 1) is reported. H-Filed Strength at (distance 0cm to 20cm at 2cm iteration, i.e. at a distance of 20cm, 18cm, 16cm, ... 0cm, Which is between the edge of the charger and the center of of probe,) surrounding the EUT (A/m)

Test Distance (cm)	Top (A/m)	Left (A/m)	Right (A/m)	Front (A/m)	Back (A/m)	Bottom (A/m)	Conclusion
6cm(measured)	0.0391	0.0216	0.0213	0.0215	0.0213	0.0385	Compliance (Within 30%)
6cm(estimated)	0.0510	0.0279	0.0277	0.0258	0.0264	0.0465	
Agreement-2cm	23.35%	22.66%	23.20%	16.61%	19.22%	17.15%	

Test Distance (cm)	Top (A/m)	Left (A/m)	Right (A/m)	Front (A/m)	Back (A/m)	Bottom (A/m)	Conclusion
8cm(measured)	0.0231	0.0143	0.0142	0.0132	0.0135	0.0226	Compliance (Within 30%)
8cm(estimated)	0.0296	0.0178	0.0178	0.0180	0.0183	0.0280	
Agreement-2cm	21.94%	19.66%	20.22%	26.55%	26.30%	19.39%	

Test Distance (cm)	Measured H-Field Strength Values (A/m)						Limit (A/m)
	Top (A/m)	Left (A/m)	Right (A/m)	Front (A/m)	Back (A/m)	Bottom (A/m)	
6	0.0391	0.0216	0.0213	0.0215	0.0213	0.0385	1.63
8	0.0231	0.0143	0.0142	0.0132	0.0135	0.0226	
10	0.0157	0.0103	0.0103	0.0104	0.0106	0.0156	
12	0.0147	0.0097	0.0099	0.0097	0.0095	0.0141	
14	0.0141	0.0092	0.0093	0.0090	0.0084	0.0132	
16	0.0135	0.0081	0.0088	0.0082	0.0085	0.0128	
18	0.0127	0.0085	0.0084	0.0085	0.0081	0.0124	
20	0.0121	0.0081	0.0077	0.0079	0.0075	0.0116	

Test Distance (cm)	Estimated H-Field Strength Values (A/m)						Limit (A/m)
	Top (A/m)	Left (A/m)	Right (A/m)	Front (A/m)	Back (A/m)	Bottom (A/m)	
0	1.4803	1.3824	1.3632	1.3768	1.3632	1.5185	1.63
2	0.4489	0.1728	0.1704	0.1721	0.1704	0.3386	
4	0.1105	0.0512	0.0505	0.0510	0.0505	0.0972	

#### 4.6 Test Setup photo

Front



Left



Rear



Right



Top



Bottom



\*\*\*End of report\*\*\*