

EUT Specification

FCC ID: 2A7Z4-FHS

Characteristics	Description
Product Name	5000mAh Magnetic Wireless Power Bank
Model number	FHS
Series Model	FHSB0, FHSL0, FHSP0, FHSW0
Power Supply	DC 5V / DC 9V / DC 12V / Battery 3.7V
Operating Frequency Range	110-205kHz
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 RF Exposure
Wireless Charging Apps v03

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:

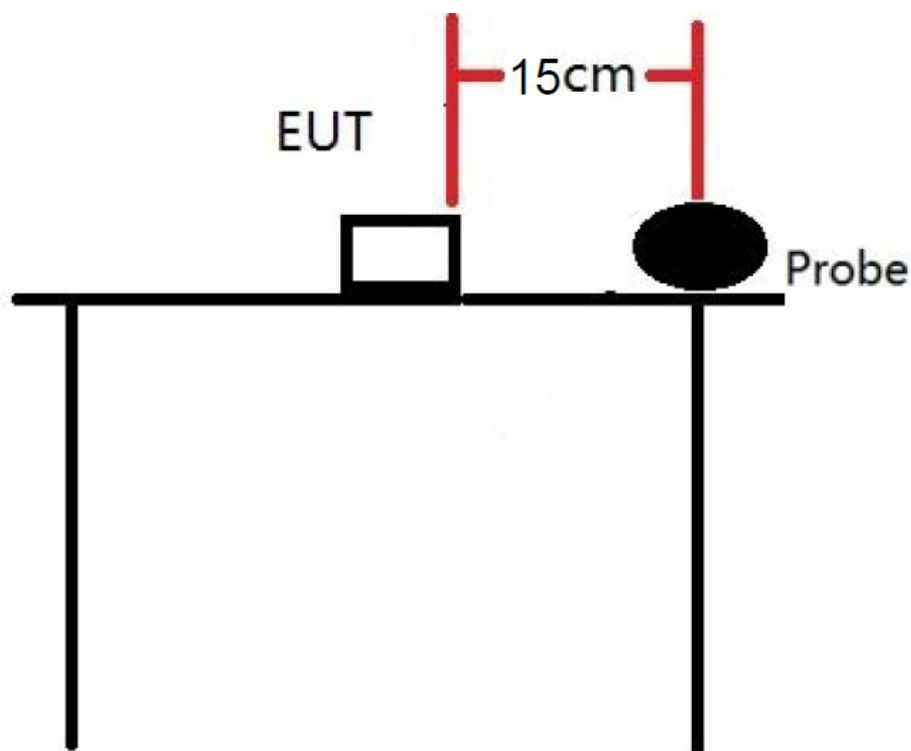
Occupational/controlled exposure limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations 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.

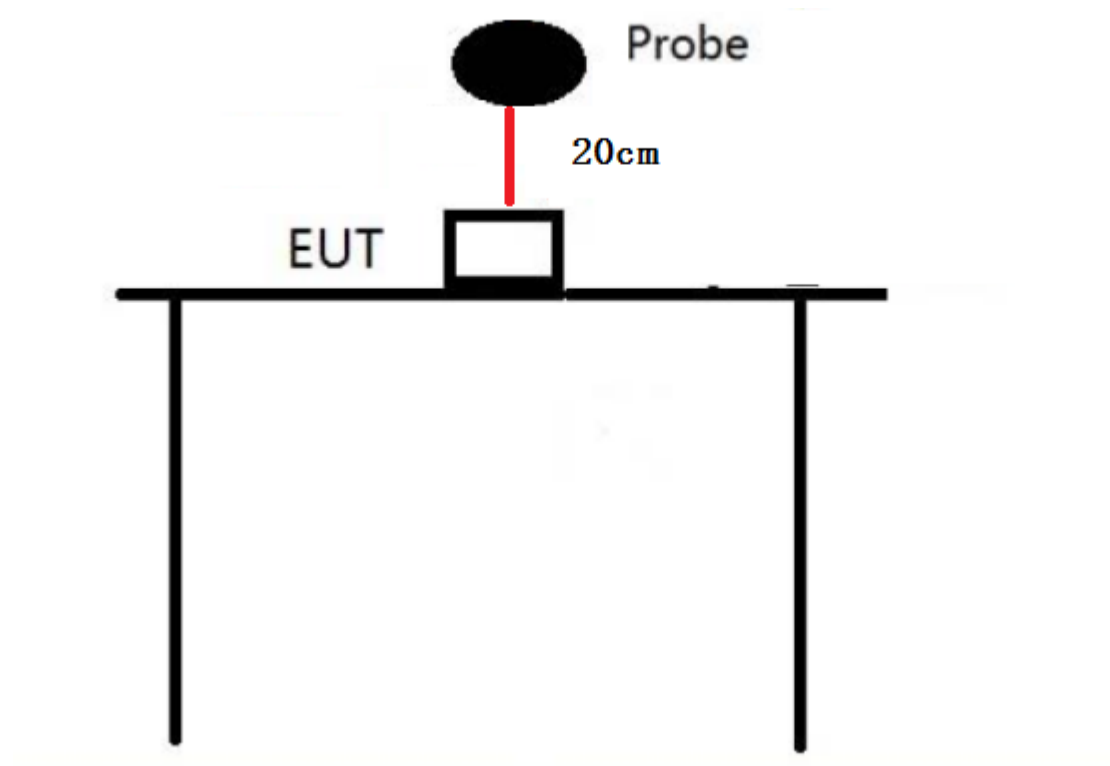
General population/uncontrolled exposure limits apply in situations in which the general public may be exposed, or in which persons who are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

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 15cm 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 15cm. 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.	Cal. Interval
☒	E&H-Field Probe(9kHz-30M Hz)	Narda	EHP-200A	180ZX11012	Oct. 28, 2023	1 Year

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

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

We tested three modes (15W load, 7.5W load, 5W load) for EUT, the worst test data see the following.

Magnetic Field (H-Field) strength at 0cm from the boundaries of EUT.

Test Mode: Wireless Charging 15W						
		Measuring Distance(cm)	H-Field(A/m)	50% H-Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	0	0.9406	0.4703	1.63	0.815
Measurement Point 2	Back	0	0.8436	0.4218		
Measurement Point 3	Left	0	0.8792	0.4396		
Measurement Point 4	Right	0	0.8822	0.4411		
Measurement Point 5	Bottom	0	0.7816	0.3908		
Measurement Point 6	Top	0	0.9844	0.4922		

Note: The results of the data in the above table are calculated and evaluated.

Test Mode: Wireless Charging 15W						
		Measuring Distance(cm)	E-Field(V/m)	50% E-Field(V/m)	Limit(V/m)	50% Limit(V/m)
Measurement Point 1	Front	0	1.1434	0.5717	614	307
Measurement Point 2	Back	0	1.1348	0.5674		
Measurement Point 3	Left	0	1.1482	0.5741		
Measurement Point 4	Right	0	1.1634	0.5817		
Measurement Point 5	Bottom	0	1.1412	0.5706		
Measurement Point 6	Top	0	1.6768	0.8384		

Note: The results of the data in the above table are calculated and evaluated.

Magnetic Field (H-Field) strength at 2cm from the boundaries of EUT.

Test Mode: Wireless Charging 15W						
		Measuring Distance(cm)	H-Field(A/m)	50% H-Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	2	0.9342	0.4671	1.63	0.815
Measurement Point 2	Back	2	0.8084	0.4042		
Measurement Point 3	Left	2	0.8706	0.4353		
Measurement Point 4	Right	2	0.8798	0.4399		
Measurement Point 5	Bottom	2	0.7793	0.3897		
Measurement Point 6	Top	2	0.9782	0.4891		

Note: The results of the data in the above table are calculated and evaluated.

Test Mode: Wireless Charging 15W						
		Measuring Distance(cm)	E-Field(V/m)	50% E-Field(V/m)	Limit(V/m)	50% Limit(V/m)
Measurement Point 1	Front	2	1.1286	0.5643	614	307
Measurement Point 2	Back	2	1.1206	0.5603		
Measurement Point 3	Left	2	1.1276	0.5638		
Measurement Point 4	Right	2	1.1282	0.5641		
Measurement Point 5	Bottom	2	1.1066	0.5533		
Measurement Point 6	Top	2	1.5116	0.7558		

Note: The results of the data in the above table are calculated and evaluated.

Magnetic Field (H-Field) strength at 4cm from the boundaries of EUT.

Test Mode: Wireless Charging 15W						
		Measuring Distance(cm)	H-Field(A/m)	50% H-Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	4	0.9306	0.4653	1.63	0.815
Measurement Point 2	Back	4	0.8068	0.4034		
Measurement Point 3	Left	4	0.8682	0.4341		
Measurement Point 4	Right	4	0.8784	0.4392		
Measurement Point 5	Bottom	4	0.7776	0.3888		
Measurement Point 6	Top	4	0.9753	0.4877		

Test Mode: Wireless Charging 15W						
		Measuring Distance(cm)	E-Field(V/m)	50% E-Field(V/m)	Limit(V/m)	50% Limit(V/m)
Measurement Point 1	Front	4	1.1228	0.5614	614	307
Measurement Point 2	Back	4	1.1193	0.5597		
Measurement Point 3	Left	4	1.1212	0.5606		
Measurement Point 4	Right	4	1.1206	0.5603		
Measurement Point 5	Bottom	4	1.0845	0.5423		
Measurement Point 6	Top	4	1.4964	0.7482		

Magnetic Field (H-Field) strength at 6cm from the boundaries of EUT.

Test Mode: Wireless Charging 15W						
		Measuring Distance(cm)	H-Field(A/m)	50% H-Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	6	0.9272	0.4636	1.63	0.815
Measurement Point 2	Back	6	0.8033	0.4017		
Measurement Point 3	Left	6	0.8674	0.4337		
Measurement Point 4	Right	6	0.8763	0.4382		
Measurement Point 5	Bottom	6	0.7748	0.3874		
Measurement Point 6	Top	6	0.9736	0.4868		

Test Mode: Wireless Charging 15W						
		Measuring Distance(cm)	E-Field(V/m)	50% E-Field(V/m)	Limit(V/m)	50% Limit(V/m)
Measurement Point 1	Front	6	1.1184	0.5592	614	307
Measurement Point 2	Back	6	1.1168	0.5584		
Measurement Point 3	Left	6	1.1193	0.5597		
Measurement Point 4	Right	6	1.1108	0.5554		
Measurement Point 5	Bottom	6	1.0763	0.5382		
Measurement Point 6	Top	6	1.4884	0.7442		

Magnetic Field (H-Field) strength at 8cm from the boundaries of EUT.

Test Mode: Wireless Charging 15W						
		Measuring Distance(cm)	H-Field(A/m)	50% H-Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	8	0.9264	0.4632	1.63	0.815
Measurement Point 2	Back	8	0.8024	0.4012		
Measurement Point 3	Left	8	0.8652	0.4326		
Measurement Point 4	Right	8	0.8735	0.4368		
Measurement Point 5	Bottom	8	0.7724	0.3862		
Measurement Point 6	Top	8	0.9722	0.4861		

Test Mode: Wireless Charging 15W						
		Measuring Distance(cm)	E-Field(V/m)	50% E-Field(V/m)	Limit(V/m)	50% Limit(V/m)
Measurement Point 1	Front	8	1.1176	0.5588	614	307
Measurement Point 2	Back	8	1.1143	0.5572		
Measurement Point 3	Left	8	1.1178	0.5589		
Measurement Point 4	Right	8	1.1076	0.5538		
Measurement Point 5	Bottom	8	1.0662	0.5331		
Measurement Point 6	Top	8	1.4326	0.7163		

Magnetic Field (H-Field) strength at 10cm from the boundaries of EUT.

Test Mode: Wireless Charging 15W						
		Measuring Distance(cm)	H-Field(A/m)	50% H-Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	10	0.9192	0.4596	1.63	0.815
Measurement Point 2	Back	10	0.7988	0.3994		
Measurement Point 3	Left	10	0.8642	0.4321		
Measurement Point 4	Right	10	0.8726	0.4363		
Measurement Point 5	Bottom	10	0.7668	0.3834		
Measurement Point 6	Top	10	0.9676	0.4838		

Test Mode: Wireless Charging 15W						
		Measuring Distance(cm)	E-Field(V/m)	50% E-Field(V/m)	Limit(V/m)	50% Limit(V/m)
Measurement Point 1	Front	10	1.1112	0.5556	614	307
Measurement Point 2	Back	10	1.1088	0.5544		
Measurement Point 3	Left	10	1.1172	0.5586		
Measurement Point 4	Right	10	1.1045	0.5523		
Measurement Point 5	Bottom	10	1.0556	0.5278		
Measurement Point 6	Top	10	1.4233	0.7117		

Magnetic Field (H-Field) strength at 12cm from the boundaries of EUT.

Test Mode: Wireless Charging 15W						
		Measuring Distance(cm)	H-Field(A/m)	50% H-Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	12	0.9178	0.4589	1.63	0.815
Measurement Point 2	Back	12	0.7976	0.3988		
Measurement Point 3	Left	12	0.8558	0.4279		
Measurement Point 4	Right	12	0.8694	0.4347		
Measurement Point 5	Bottom	12	0.7692	0.3846		
Measurement Point 6	Top	12	0.9648	0.4824		

Test Mode: Wireless Charging 15W						
		Measuring Distance(cm)	E-Field(V/m)	50% E-Field(V/m)	Limit(V/m)	50% Limit(V/m)
Measurement Point 1	Front	12	1.1083	0.5542	614	307
Measurement Point 2	Back	12	1.1074	0.5537		
Measurement Point 3	Left	12	1.1164	0.5582		
Measurement Point 4	Right	12	1.1022	0.5511		
Measurement Point 5	Bottom	12	1.0448	0.5224		
Measurement Point 6	Top	12	1.3924	0.6962		

Magnetic Field (H-Field) strength at 14cm from the boundaries of EUT.

Test Mode: Wireless Charging 15W						
		Measuring Distance(cm)	H-Field(A/m)	50% H-Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	14	0.9164	0.4582	1.63	0.815
Measurement Point 2	Back	14	0.7964	0.3982		
Measurement Point 3	Left	14	0.8492	0.4246		
Measurement Point 4	Right	14	0.8672	0.4336		
Measurement Point 5	Bottom	14	0.7686	0.3843		
Measurement Point 6	Top	14	0.9652	0.4826		

Test Mode: Wireless Charging 15W						
		Measuring Distance(cm)	E-Field(V/m)	50% E-Field(V/m)	Limit(V/m)	50% Limit(V/m)
Measurement Point 1	Front	14	1.1068	0.5534	614	307
Measurement Point 2	Back	14	1.1032	0.5516		
Measurement Point 3	Left	14	1.1152	0.5576		
Measurement Point 4	Right	14	1.0966	0.5483		
Measurement Point 5	Bottom	14	1.0342	0.5171		
Measurement Point 6	Top	14	1.3843	0.6922		

Magnetic Field (H-Field) strength at 16cm from the boundaries of EUT.

Test Mode: Wireless Charging 15W						
		Measuring Distance(cm)	H-Field(A/m)	50% H-Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	16	0.9062	0.4531	1.63	0.815
Measurement Point 2	Back	16	0.7894	0.3947		
Measurement Point 3	Left	16	0.8488	0.4244		
Measurement Point 4	Right	16	0.8656	0.4328		
Measurement Point 5	Bottom	16	0.7686	0.3843		
Measurement Point 6	Top	16	0.9638	0.4819		

Test Mode: Wireless Charging 15W						
		Measuring Distance(cm)	E-Field(V/m)	50% E-Field(V/m)	Limit(V/m)	50% Limit(V/m)
Measurement Point 1	Front	16	1.1042	0.5521	614	307
Measurement Point 2	Back	16	1.0996	0.5498		
Measurement Point 3	Left	16	1.1146	0.5573		
Measurement Point 4	Right	16	1.0846	0.5423		
Measurement Point 5	Bottom	16	0.9694	0.4847		
Measurement Point 6	Top	16	1.3668	0.6834		

Magnetic Field (H-Field) strength at 18cm from the boundaries of EUT.

Test Mode: Wireless Charging 15W						
		Measuring Distance(cm)	H-Field(A/m)	50% H-Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	18	0.8996	0.4498	1.63	0.815
Measurement Point 2	Back	18	0.7882	0.3941		
Measurement Point 3	Left	18	0.8464	0.4232		
Measurement Point 4	Right	18	0.8638	0.4319		
Measurement Point 5	Bottom	18	0.7676	0.3838		
Measurement Point 6	Top	18	0.9624	0.4812		

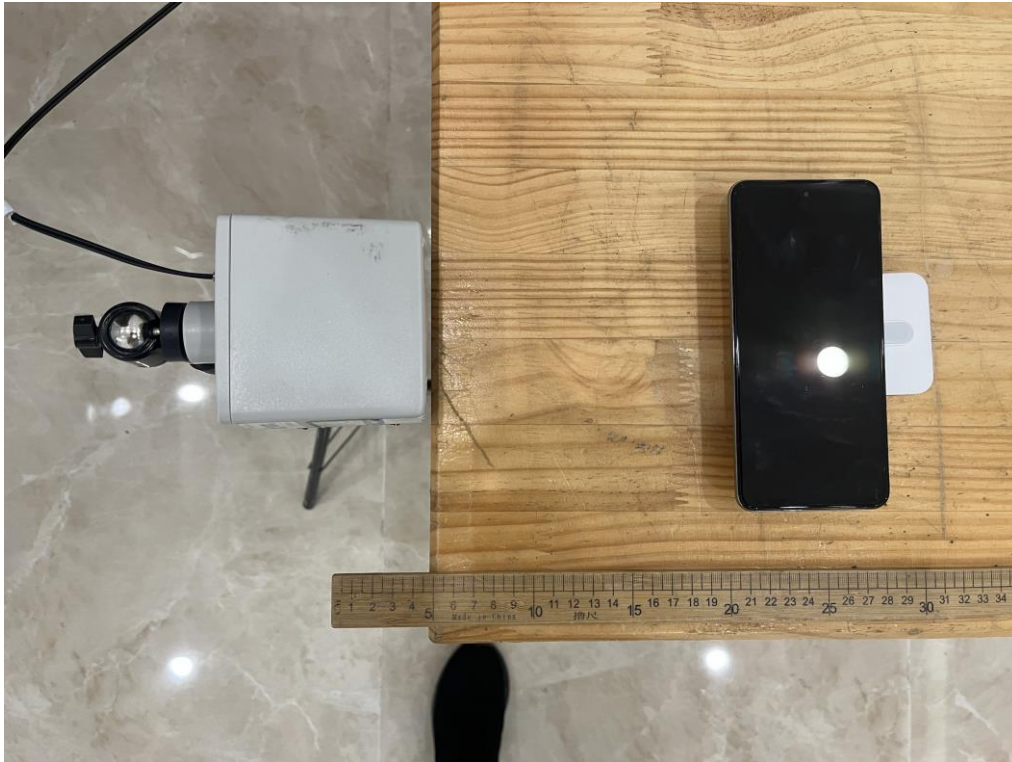
Test Mode: Wireless Charging 15W						
		Measuring Distance(cm)	E-Field(V/m)	50% E-Field(V/m)	Limit(V/m)	50% Limit(V/m)
Measurement Point 1	Front	18	1.0964	0.5482	614	307
Measurement Point 2	Back	18	1.0894	0.5447		
Measurement Point 3	Left	18	1.1086	0.5543		
Measurement Point 4	Right	18	1.0764	0.5382		
Measurement Point 5	Bottom	18	0.9658	0.4829		
Measurement Point 6	Top	18	1.3426	0.6713		

Magnetic Field (H-Field) strength at 20cm from the boundaries of EUT.

Test Mode: Wireless Charging 15W						
		Measuring Distance(cm)	H-Field(A/m)	50% H-Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	20	0.8994	0.4497	1.63	0.815
Measurement Point 2	Back	20	0.7864	0.3932		
Measurement Point 3	Left	20	0.8432	0.4216		
Measurement Point 4	Right	20	0.8626	0.4313		
Measurement Point 5	Bottom	20	0.7666	0.3833		
Measurement Point 6	Top	20	0.9616	0.4808		

Test Mode: Wireless Charging 15W						
		Measuring Distance(cm)	E-Field(V/m)	50% E-Field(V/m)	Limit(V/m)	50% Limit(V/m)
Measurement Point 1	Front	20	1.0743	0.5372	614	307
Measurement Point 2	Back	20	1.0366	0.5183		
Measurement Point 3	Left	20	1.0899	0.5450		
Measurement Point 4	Right	20	1.0624	0.5312		
Measurement Point 5	Bottom	20	0.9662	0.4831		
Measurement Point 6	Top	20	1.2576	0.6288		

PHOTOGRAPHS OF TEST SETUP



Signature

Shawn Wen

Shawn Wen
General Manager
Date: 2024-04-16