



EUT Specification

FCC ID: 2AW54-WP-1023A-Z1

Characteristics	Description
Product Name	Magnetic Wireless Power Bank
Model number	WP-1023A-Z1
Power Supply	AC120V/60Hz for adapter
Operating Frequency Range	110-205KHz
Modulation Technique	ASK
Antenna Type	Induction coil
Device category	<input checked="" type="checkbox"/> Portable (<20cm separation) <input type="checkbox"/> Mobile (>20cm separation) <input type="checkbox"/> Others ____
Exposure classification	<input type="checkbox"/> Occupational/Controlled exposure (S = 5mW/cm ²) <input checked="" type="checkbox"/> General Population/Uncontrolled exposure (S=1mW/cm ²)
Antenna diversity	<input checked="" type="checkbox"/> Single antenna <input type="checkbox"/> Multiple antennas <input type="checkbox"/> Tx diversity <input type="checkbox"/> Rx diversity <input type="checkbox"/> Tx/Rx diversity
Evaluation applied	<input checked="" type="checkbox"/> MPE Evaluation <input type="checkbox"/> SAR Evaluation

Applicable Standard:

FCC Part 1(1.1310) ,Part 2(2.1091) 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 Procedure

- 1.EUT was placed on a table, and the measure probe was placed at a measurement distance of 0~10cm from the EUT to the center of the probe.
- 2.Power on the measuring probe, the EUT was set at the maximum field strength emission state.
- 3.The EUT was put in different directions (Left, Right, Front, Rear, Top and Bottom) toward to the measure probe.The distance from the EUT to the probe starts from 0cm, and measures every 2cm until the distance is 10cm.
- 4.Record the worst data of the different directions.

Measuring Device And Test Equipment

Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
<input checked="" type="checkbox"/>	E-Field &H-Field Probe(9kHz-30M Hz)	Narda	EHP-200A	180ZX11012	2022.01.19	1 Year

Description of Support Device

adapter	Model number: CD217 : Input: AC 100-240V, 50/60Hz Output: DC 9V/3A,DC 12V/2.5A
iPhone	Manufacturer: Apple Inc. : M/N: A1524 S/N: N/A
Wireless Charger Receiver Module	Manufacturer: Universal : M/N: N/A S/N: N/A
SAMSUNG S9	Manufacturer: SAMSUNG : M/N:Samsung Galaxy S9 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

We pretested four modes (max load, mid load, Standby) for EUT. The worst mode (max load, mid load, Standby) and worst test frequency(frequency: 141.7KHz)test data see the following.

Test Mode: Wireless Charging 10W use SAMSUNG S9 for 1% battery					
		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	10% Limit(A/m)
Measurement Point 1	Front	0	0.167	1.63	0.163
Measurement Point 2	Back	0	0.156		
Measurement Point 3	Left	0	0.153		
Measurement Point 4	Right	0	0.152		
Measurement Point 5	Bottom	0	0.145		
Measurement Point 6	Top	0	0.182		

Test Mode: Wireless Charging 10W use SAMSUNG S9 for 1% battery					
		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	2	0.162	1.63	0.163
Measurement Point 2	Back	2	0.154		
Measurement Point 3	Left	2	0.158		
Measurement Point 4	Right	2	0.149		
Measurement Point 5	Bottom	2	0.142		
Measurement Point 6	Top	2	0.178		

Test Mode: Wireless Charging 10W use SAMSUNG S9 for 1% battery					
		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	4	0.159	1.63	0.163
Measurement Point 2	Back	4	0.150		
Measurement Point 3	Left	4	0.154		
Measurement Point 4	Right	4	0.144		
Measurement Point 5	Bottom	4	0.139		
Measurement Point 6	Top	4	0.173		

Test Mode: Wireless Charging 10W use SAMSUNG S9 for 1% battery					
		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	6	0.151	1.63	0.163
Measurement Point 2	Back	6	0.148		
Measurement Point 3	Left	6	0.147		
Measurement Point 4	Right	6	0.140		
Measurement Point 5	Bottom	6	0.137		
Measurement Point 6	Top	6	0.168		

Test Mode: Wireless Charging 10W use SAMSUNG S9 for 1% battery					
		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	8	0.148	1.63	0.163
Measurement Point 2	Back	8	0.144		
Measurement Point 3	Left	8	0.140		
Measurement Point 4	Right	8	0.135		
Measurement Point 5	Bottom	8	0.132		
Measurement Point 6	Top	8	0.161		

Test Mode: Wireless Charging 10W use SAMSUNG S9 for 1% battery					
		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	10	0.142	1.63	0.163
Measurement Point 2	Back	10	0.140		
Measurement Point 3	Left	10	0.136		
Measurement Point 4	Right	10	0.132		
Measurement Point 5	Bottom	10	0.129		
Measurement Point 6	Top	10	0.157		

Test Mode: Wireless Charging 10W use SAMSUNG S9 for 1% battery					
		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	12	0.141	1.63	0.163
Measurement Point 2	Back	12	0.138		
Measurement Point 3	Left	12	0.134		
Measurement Point 4	Right	12	0.131		
Measurement Point 5	Bottom	12	0.127		
Measurement Point 6	Top	12	0.155		

Test Mode: Wireless Charging 10W use SAMSUNG S9 for 1% battery					
		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	14	0.139	1.63	0.163
Measurement Point 2	Back	14	0.137		
Measurement Point 3	Left	14	0.132		
Measurement Point 4	Right	14	0.129		
Measurement Point 5	Bottom	14	0.126		
Measurement Point 6	Top	14	0.154		



Test Mode: Wireless Charging 10W use SAMSUNG S9 for 1% battery					
		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	16	0.137	1.63	0.163
Measurement Point 2	Back	16	0.135		
Measurement Point 3	Left	16	0.131		
Measurement Point 4	Right	16	0.128		
Measurement Point 5	Bottom	16	0.125		
Measurement Point 6	Top	16	0.152		

Test Mode: Wireless Charging 10W use SAMSUNG S9 for 1% battery					
		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	18	0.135	1.63	0.163
Measurement Point 2	Back	18	0.133		
Measurement Point 3	Left	18	0.130		
Measurement Point 4	Right	18	0.126		
Measurement Point 5	Bottom	18	0.124		
Measurement Point 6	Top	18	0.150		

Test Mode: Wireless Charging 10W use SAMSUNG S9 for 1% battery					
		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	20	0.134	1.63	0.163
Measurement Point 2	Back	20	0.132		
Measurement Point 3	Left	20	0.129		
Measurement Point 4	Right	20	0.125		
Measurement Point 5	Bottom	20	0.122		
Measurement Point 6	Top	20	0.149		

Test Mode: Wireless Charging 10W use SAMSUNG S9 for 50% battery					
		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	10% Limit(A/m)
Measurement Point 1	Front	0	0.176	1.63	0.163
Measurement Point 2	Back	0	0.162		
Measurement Point 3	Left	0	0.167		
Measurement Point 4	Right	0	0.164		
Measurement Point 5	Bottom	0	0.154		
Measurement Point 6	Top	0	0.192		

Test Mode: Wireless Charging 10W use SAMSUNG S9 for 50% battery					
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		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	2	0.168	1.63	0.163
Measurement Point 2	Back	2	0.159		
Measurement Point 3	Left	2	0.163		
Measurement Point 4	Right	2	0.154		
Measurement Point 5	Bottom	2	0.147		
Measurement Point 6	Top	2	0.182		

Test Mode: Wireless Charging 10W use SAMSUNG S9 for 50% battery					
		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	4	0.162	1.63	0.163
Measurement Point 2	Back	4	0.154		
Measurement Point 3	Left	4	0.158		
Measurement Point 4	Right	4	0.147		
Measurement Point 5	Bottom	4	0.145		
Measurement Point 6	Top	4	0.176		

Test Mode: Wireless Charging 10W use SAMSUNG S9 for 50% battery					
		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	6	0.154	1.63	0.163
Measurement Point 2	Back	6	0.151		
Measurement Point 3	Left	6	0.149		
Measurement Point 4	Right	6	0.142		
Measurement Point 5	Bottom	6	0.141		
Measurement Point 6	Top	6	0.170		

Test Mode: Wireless Charging 10W use SAMSUNG S9 for 50% battery					
		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	8	0.149	1.63	0.163
Measurement Point 2	Back	8	0.146		
Measurement Point 3	Left	8	0.141		
Measurement Point 4	Right	8	0.138		
Measurement Point 5	Bottom	8	0.134		
Measurement Point 6	Top	8	0.162		

Test Mode: Wireless Charging 10W use SAMSUNG S9 for 50% battery



		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	10	0.145	1.63	0.163
Measurement Point 2	Back	10	0.141		
Measurement Point 3	Left	10	0.138		
Measurement Point 4	Right	10	0.136		
Measurement Point 5	Bottom	10	0.130		
Measurement Point 6	Top	10	0.159		

Test Mode: Wireless Charging 10W use SAMSUNG S9 for 50% battery					
		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	12	0.144	1.63	0.163
Measurement Point 2	Back	12	0.140		
Measurement Point 3	Left	12	0.136		
Measurement Point 4	Right	12	0.134		
Measurement Point 5	Bottom	12	0.129		
Measurement Point 6	Top	12	0.157		

Test Mode: Wireless Charging 10W use SAMSUNG S9 for 50% battery					
		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	14	0.142	1.63	0.163
Measurement Point 2	Back	14	0.139		
Measurement Point 3	Left	14	0.135		
Measurement Point 4	Right	14	0.132		
Measurement Point 5	Bottom	14	0.128		
Measurement Point 6	Top	14	0.155		

Test Mode: Wireless Charging 10W use SAMSUNG S9 for 50% battery					
		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	16	0.141	1.63	0.163
Measurement Point 2	Back	16	0.137		
Measurement Point 3	Left	16	0.134		
Measurement Point 4	Right	16	0.130		
Measurement Point 5	Bottom	16	0.127		
Measurement Point 6	Top	16	0.153		

Test Mode: Wireless Charging 10W use SAMSUNG S9 for 50% battery

		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	18	0.139	1.63	0.163
Measurement Point 2	Back	18	0.135		
Measurement Point 3	Left	18	0.132		
Measurement Point 4	Right	18	0.129		
Measurement Point 5	Bottom	18	0.125		
Measurement Point 6	Top	18	0.151		

Test Mode: Wireless Charging 10W use SAMSUNG S9 for 50% battery					
		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	20	0.137	1.63	0.163
Measurement Point 2	Back	20	0.134		
Measurement Point 3	Left	20	0.130		
Measurement Point 4	Right	20	0.128		
Measurement Point 5	Bottom	20	0.123		
Measurement Point 6	Top	20	0.149		

Test Mode: Wireless Charging 10W use SAMSUNG S9 for 99% battery					
		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	10% Limit(A/m)
Measurement Point 1	Front	0	0.178	1.63	0.163
Measurement Point 2	Back	0	0.163		
Measurement Point 3	Left	0	0.166		
Measurement Point 4	Right	0	0.163		
Measurement Point 5	Bottom	0	0.155		
Measurement Point 6	Top	0	0.191		

Test Mode: Wireless Charging 10W use SAMSUNG S9 for 99% battery					
		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	2	0.169	1.63	0.163
Measurement Point 2	Back	2	0.160		
Measurement Point 3	Left	2	0.162		
Measurement Point 4	Right	2	0.155		
Measurement Point 5	Bottom	2	0.145		
Measurement Point 6	Top	2	0.180		

Test Mode: Wireless Charging 10W use SAMSUNG S9 for 99% battery					
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		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	4	0.164	1.63	0.163
Measurement Point 2	Back	4	0.155		
Measurement Point 3	Left	4	0.157		
Measurement Point 4	Right	4	0.146		
Measurement Point 5	Bottom	4	0.147		
Measurement Point 6	Top	4	0.179		

Test Mode: Wireless Charging 10W use SAMSUNG S9 for 99% battery					
		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	6	0.156	1.63	0.163
Measurement Point 2	Back	6	0.152		
Measurement Point 3	Left	6	0.148		
Measurement Point 4	Right	6	0.144		
Measurement Point 5	Bottom	6	0.143		
Measurement Point 6	Top	6	0.171		

Test Mode: Wireless Charging 10W use SAMSUNG S9 for 99% battery					
		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	8	0.150	1.63	0.163
Measurement Point 2	Back	8	0.148		
Measurement Point 3	Left	8	0.142		
Measurement Point 4	Right	8	0.137		
Measurement Point 5	Bottom	8	0.135		
Measurement Point 6	Top	8	0.164		

Test Mode: Wireless Charging 10W use SAMSUNG S9 for 99% battery					
		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	10	0.147	1.63	0.163
Measurement Point 2	Back	10	0.143		
Measurement Point 3	Left	10	0.139		
Measurement Point 4	Right	10	0.135		
Measurement Point 5	Bottom	10	0.133		
Measurement Point 6	Top	10	0.161		

Test Mode: Wireless Charging 10W use SAMSUNG S9 for 99% battery



		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	12	0.145	1.63	0.163
Measurement Point 2	Back	12	0.142		
Measurement Point 3	Left	12	0.137		
Measurement Point 4	Right	12	0.134		
Measurement Point 5	Bottom	12	0.131		
Measurement Point 6	Top	12	0.159		

Test Mode: Wireless Charging 10W use SAMSUNG S9 for 99% battery					
		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	14	0.144	1.63	0.163
Measurement Point 2	Back	14	0.141		
Measurement Point 3	Left	14	0.135		
Measurement Point 4	Right	14	0.132		
Measurement Point 5	Bottom	14	0.130		
Measurement Point 6	Top	14	0.157		

Test Mode: Wireless Charging 10W use SAMSUNG S9 for 99% battery					
		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	16	0.143	1.63	0.163
Measurement Point 2	Back	16	0.140		
Measurement Point 3	Left	16	0.133		
Measurement Point 4	Right	16	0.131		
Measurement Point 5	Bottom	16	0.129		
Measurement Point 6	Top	16	0.155		

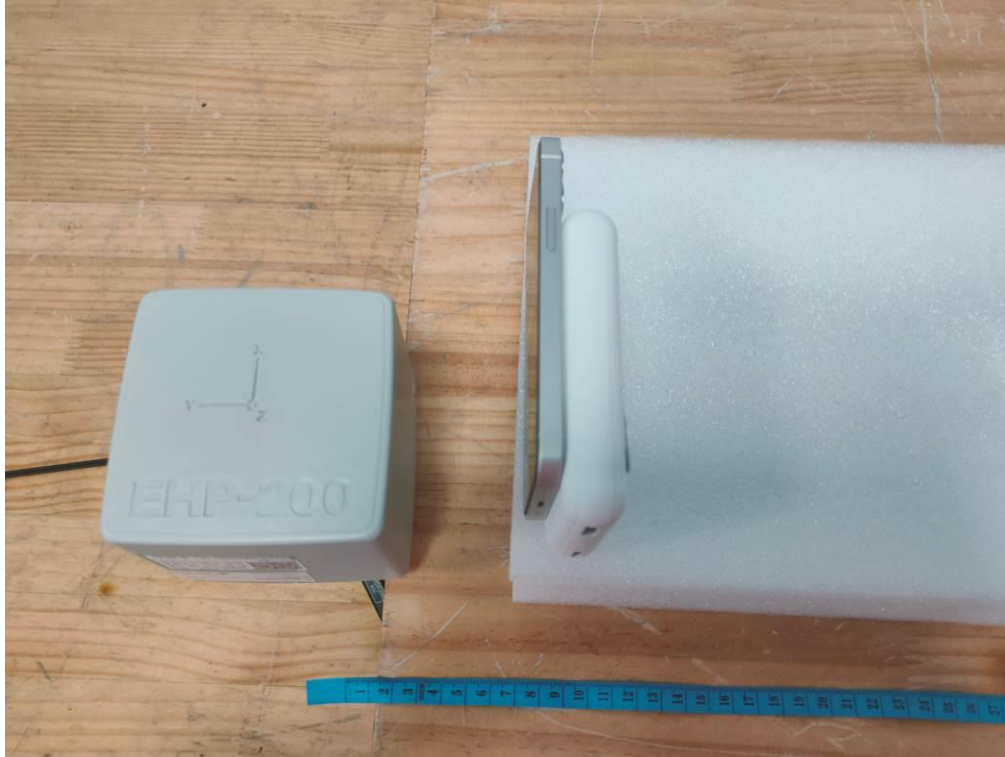
Test Mode: Wireless Charging 10W use SAMSUNG S9 for 99% battery					
		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	18	0.141	1.63	0.163
Measurement Point 2	Back	18	0.139		
Measurement Point 3	Left	18	0.132		
Measurement Point 4	Right	18	0.130		
Measurement Point 5	Bottom	18	0.127		
Measurement Point 6	Top	18	0.153		

Test Mode: Wireless Charging 10W use SAMSUNG S9 for 99% battery



		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	20	0.140	1.63	0.163
Measurement Point 2	Back	20	0.137		
Measurement Point 3	Left	20	0.131		
Measurement Point 4	Right	20	0.128		
Measurement Point 5	Bottom	20	0.125		
Measurement Point 6	Top	20	0.151		

PHOTOGRAPHS OF TEST SETUP



Signature

A handwritten signature in black ink that reads 'Tomas yang'.

Tomas yang

Manager

Date: 2022-06-13