

EUT Specification

FCC ID: 2BGX5-5000

Characteristics	Description
Product Name	Magnetic Wireless Powerbank
Model number	YDDY01-5, CDB01-5
Power Supply	DC 5V / DC 9V / Battery 3.85V
Operating Frequency Range	110-205KHz for phone charging
Modulation Technique	ASK for phone charging
Antenna Type	Coil Antenna
Device category	<input checked="" type="checkbox"/> Portable (<20cm separation) <input type="checkbox"/> Mobile (>20cm separation) <input type="checkbox"/> Others ____
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(2.1093) 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.

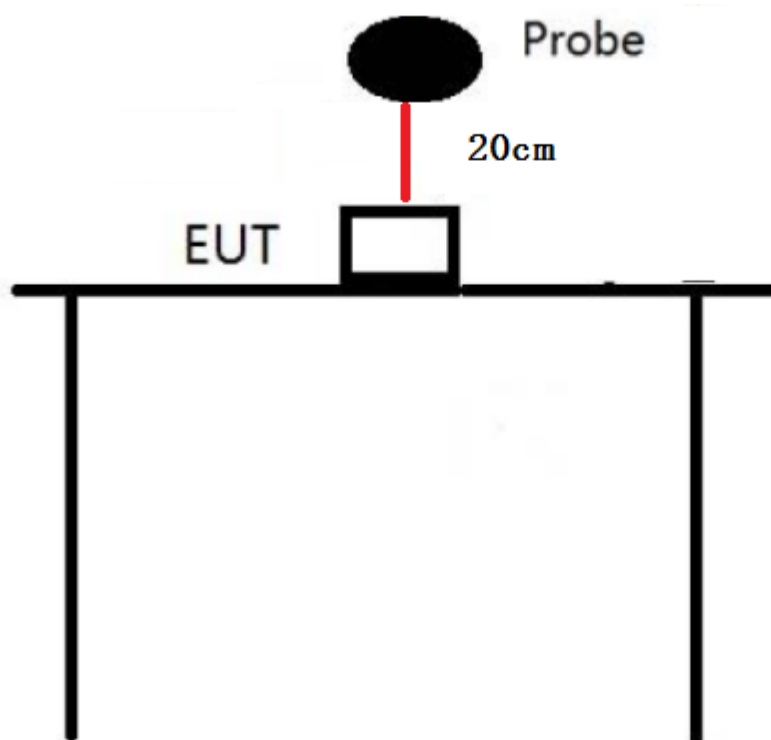
General population/uncontrolled exposure limits apply in situations in which the general public may be exposed, or in which persons who are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

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 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.	Cal. Interval
<input checked="" type="checkbox"/>	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

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For phone

We tested 3 modes(15W load, 7.5W load,5W load) and 11 test distances(0cm, 2cm,4cm,6cm,8cm,10cm,12cm,14cm,16cm,18cm,20cm), only the worst mode and the worst 4 test distances were recorded in the report. The worst mode and test distance of 20cm were also recorded in the report.

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

Test Mode: Wireless Charging 15W				
		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)
Measurement Point 1	Front	0	0.544	1.63
Measurement Point 2	Back	0	0.419	
Measurement Point 3	Left	0	0.286	
Measurement Point 4	Right	0	0.495	
Measurement Point 5	Bottom	0	0.583	
Measurement Point 6	Top	0	1.129	

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)	Limit(V/m)
Measurement Point 1	Front	0	3.309	614
Measurement Point 2	Back	0	4.003	
Measurement Point 3	Left	0	3.130	
Measurement Point 4	Right	0	1.141	
Measurement Point 5	Bottom	0	4.580	
Measurement Point 6	Top	0	5.840	

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)	Limit(A/m)
Measurement Point 1	Front	2	0.569	1.63
Measurement Point 2	Back	2	0.392	
Measurement Point 3	Left	2	0.348	
Measurement Point 4	Right	2	0.189	
Measurement Point 5	Bottom	2	0.891	
Measurement Point 6	Top	2	0.914	

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)	Limit(V/m)
Measurement Point 1	Front	2	2.577	614
Measurement Point 2	Back	2	2.090	
Measurement Point 3	Left	2	2.228	
Measurement Point 4	Right	2	0.787	
Measurement Point 5	Bottom	2	2.297	
Measurement Point 6	Top	2	3.225	

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)	Limit(A/m)
Measurement Point 1	Front	4	0.206	1.63
Measurement Point 2	Back	4	0.255	
Measurement Point 3	Left	4	0.229	
Measurement Point 4	Right	4	0.145	
Measurement Point 5	Bottom	4	0.466	
Measurement Point 6	Top	4	0.753	

Test Mode: Wireless Charging 15W				
		Measuring Distance(cm)	E- Field(V/m)	Limit(V/m)
Measurement Point 1	Front	4	1.978	614
Measurement Point 2	Back	4	1.906	
Measurement Point 3	Left	4	2.204	
Measurement Point 4	Right	4	0.650	
Measurement Point 5	Bottom	4	2.115	
Measurement Point 6	Top	4	2.265	

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

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

Test Mode: Wireless Charging 15W				
		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)
Measurement Point 1	Front	6	0.115	1.63
Measurement Point 2	Back	6	0.128	
Measurement Point 3	Left	6	0.213	
Measurement Point 4	Right	6	0.079	
Measurement Point 5	Bottom	6	0.280	
Measurement Point 6	Top	6	0.692	

Test Mode: Wireless Charging 15W				
		Measuring Distance(cm)	E- Field(V/m)	Limit(V/m)
Measurement Point 1	Front	6	1.158	614
Measurement Point 2	Back	6	1.766	
Measurement Point 3	Left	6	1.254	
Measurement Point 4	Right	6	0.576	
Measurement Point 5	Bottom	6	1.076	
Measurement Point 6	Top	6	2.079	

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

Test Mode: Wireless Charging 15W					
		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	20	0.102	1.63	0.815
Measurement Point 2	Back	20	0.092		
Measurement Point 3	Left	20	0.064		
Measurement Point 4	Right	20	0.022		
Measurement Point 5	Bottom	20	0.078		
Measurement Point 6	Top	20	0.134		

Test Mode: Wireless Charging 15W					
		Measuring Distance(cm)	E- Field(V/m)	Limit(V/m)	50% Limit(V/m)
Measurement Point 1	Front	20	0.286	614	307
Measurement Point 2	Back	20	0.184		
Measurement Point 3	Left	20	0.266		
Measurement Point 4	Right	20	0.098		
Measurement Point 5	Bottom	20	0.142		
Measurement Point 6	Top	20	0.352		

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For phone

We tested 3 modes(15W load, 7.5W load,5W load) and 11 test distances(0cm, 2cm,4cm,6cm,8cm,10cm,12cm,14cm,16cm,18cm,20cm), only the worst mode and the worst 4 test distances were recorded in the report.

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

Test Mode: Wireless Charging 15W				
		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)
Measurement Point 1	Front	0	0.302	1.63
Measurement Point 2	Back	0	0.505	
Measurement Point 3	Left	0	0.427	
Measurement Point 4	Right	0	0.211	
Measurement Point 5	Bottom	0	0.552	
Measurement Point 6	Top	0	0.860	

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)	Limit(V/m)
Measurement Point 1	Front	0	3.342	614
Measurement Point 2	Back	0	4.517	
Measurement Point 3	Left	0	4.395	
Measurement Point 4	Right	0	1.189	
Measurement Point 5	Bottom	0	4.494	
Measurement Point 6	Top	0	5.932	

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)	Limit(A/m)
Measurement Point 1	Front	2	0.439	1.63
Measurement Point 2	Back	2	0.064	
Measurement Point 3	Left	2	0.274	
Measurement Point 4	Right	2	0.057	
Measurement Point 5	Bottom	2	0.450	
Measurement Point 6	Top	2	0.626	

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)	Limit(V/m)
Measurement Point 1	Front	2	2.581	614
Measurement Point 2	Back	2	1.750	
Measurement Point 3	Left	2	1.868	
Measurement Point 4	Right	2	0.803	
Measurement Point 5	Bottom	2	2.588	
Measurement Point 6	Top	2	2.631	

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)	Limit(A/m)
Measurement Point 1	Front	4	0.344	1.63
Measurement Point 2	Back	4	0.077	
Measurement Point 3	Left	4	0.259	
Measurement Point 4	Right	4	0.018	
Measurement Point 5	Bottom	4	0.302	
Measurement Point 6	Top	4	0.418	

Test Mode: Wireless Charging 15W				
		Measuring Distance(cm)	E- Field(V/m)	Limit(V/m)
Measurement Point 1	Front	4	1.752	614
Measurement Point 2	Back	4	1.588	
Measurement Point 3	Left	4	1.781	
Measurement Point 4	Right	4	0.643	
Measurement Point 5	Bottom	4	1.815	
Measurement Point 6	Top	4	1.821	

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

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

Test Mode: Wireless Charging 15W				
		Measuring Distance(cm)	H- Field(A/m)	Limit(A/m)
Measurement Point 1	Front	6	0.243	1.63
Measurement Point 2	Back	6	0.042	
Measurement Point 3	Left	6	0.147	
Measurement Point 4	Right	6	0.013	
Measurement Point 5	Bottom	6	0.271	
Measurement Point 6	Top	6	0.351	

Test Mode: Wireless Charging 15W				
		Measuring Distance(cm)	E- Field(V/m)	Limit(V/m)
Measurement Point 1	Front	6	1.181	614
Measurement Point 2	Back	6	1.529	
Measurement Point 3	Left	6	1.237	
Measurement Point 4	Right	6	0.510	
Measurement Point 5	Bottom	6	1.176	
Measurement Point 6	Top	6	1.660	

PHOTOGRAPHS OF TEST SETUP

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Signature

Shawn Wen

Shawn Wen
General Manager
Date: 2024-06-12