EUT Specification

FCC ID: 2BGX5-10000

Characteristics	Description
Product Name	Magnetic Wireless Powerbank
Model number	YDDY01-10
Series Model	CDB01-10
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	☒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

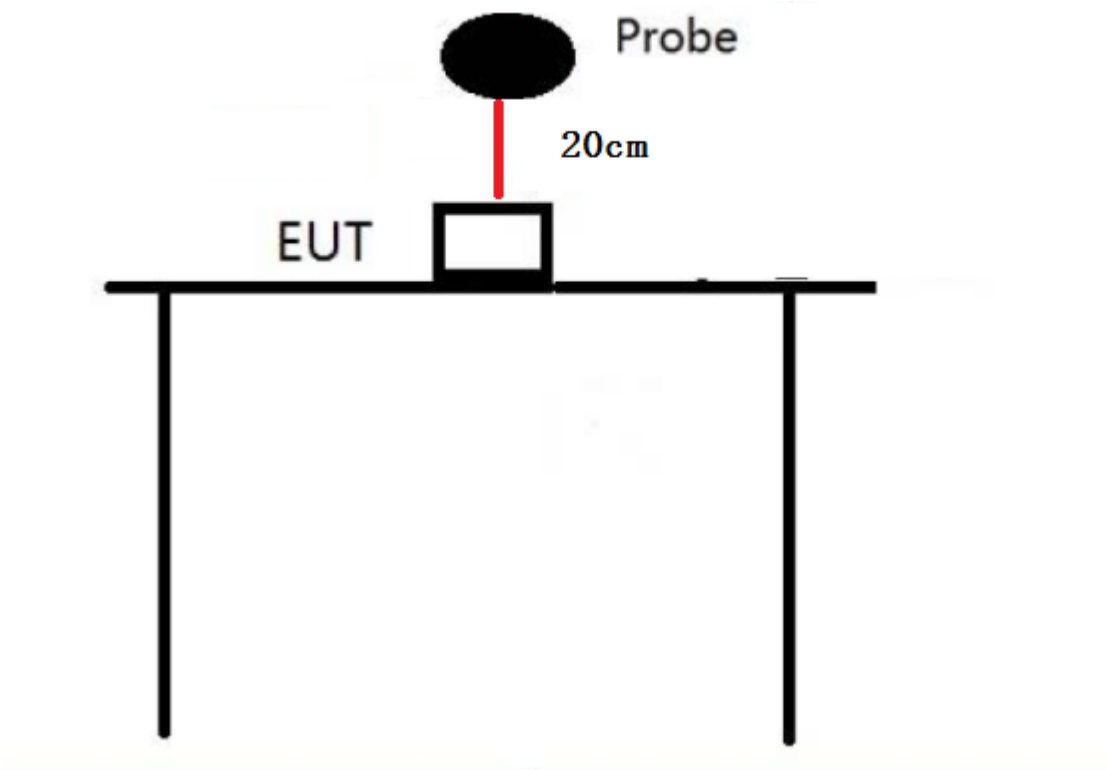
Applicable Requirement:

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 oftransient 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
☑	E&H-Field Probe(9kHz-30MHz)	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

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	0.543	1.63
Measurement Point 2	Back	0	0.894	
Measurement Point 3	Left	0	0.547	
Measurement Point 4	Right	0	0.205	
Measurement Point 5	Bottom	0	1.204	
Measurement Point 6	Top	0	1.350	

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	4.055	614
Measurement Point 2	Back	0	4.183	
Measurement Point 3	Left	0	3.174	
Measurement Point 4	Right	0	2.364	
Measurement Point 5	Bottom	0	5.565	
Measurement Point 6	Top	0	6.091	

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	0.769	1.63
Measurement Point 2	Back	2	0.926	
Measurement Point 3	Left	2	1.164	
Measurement Point 4	Right	2	0.244	
Measurement Point 5	Bottom	2	1.238	
Measurement Point 6	Top	2	1.587	

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	3.364	614
Measurement Point 2	Back	2	3.842	
Measurement Point 3	Left	2	2.906	
Measurement Point 4	Right	2	2.030	
Measurement Point 5	Bottom	2	4.579	
Measurement Point 6	Top	2	4.716	

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	0.662	1.63
Measurement Point 2	Back	4	0.867	
Measurement Point 3	Left	4	1.137	
Measurement Point 4	Right	4	0.225	
Measurement Point 5	Bottom	4	0.448	
Measurement Point 6	Top	4	1.219	

Test Mode: Wireless Charging 15W				
		Measuring Distance(cm)	E- Field(V/m)	Limit(V/m)
Measurement Point 1	Front	4	2.803	614
Measurement Point 2	Back	4	3.727	
Measurement Point 3	Left	4	3.753	
Measurement Point 4	Right	4	2.017	
Measurement Point 5	Bottom	4	3.421	
Measurement Point 6	Top	4	3.795	

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	0.343	1.63
Measurement Point 2	Back	6	0.814	
Measurement Point 3	Left	6	0.757	
Measurement Point 4	Right	6	0.118	
Measurement Point 5	Bottom	6	0.303	
Measurement Point 6	Top	6	1.077	

Test Mode: Wireless Charging 15W				
		Measuring Distance(cm)	E- Field(V/m)	Limit(V/m)
Measurement Point 1	Front	6	1.924	614
Measurement Point 2	Back	6	2.717	
Measurement Point 3	Left	6	2.640	
Measurement Point 4	Right	6	1.969	
Measurement Point 5	Bottom	6	2.513	
Measurement Point 6	Top	6	3.305	

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	0.118	1.63	0.815
Measurement Point 2	Back	20	0.082		
Measurement Point 3	Left	20	0.078		
Measurement Point 4	Right	20	0.042		
Measurement Point 5	Bottom	20	0.096		
Measurement Point 6	Top	20	0.228		

Test Mode: Wireless Charging 15W					
		Measuring Distance(cm)	E- Field(V/m)	Limit(V/m)	50% Limit(V/m)
Measurement Point 1	Front	20	0.786	614	307
Measurement Point 2	Back	20	0.633		
Measurement Point 3	Left	20	0.584		
Measurement Point 4	Right	20	0.516		
Measurement Point 5	Bottom	20	0.624		
Measurement Point 6	Top	20	0.866		

PHOTOGRAPHS OFTEST SETUP

Signature

Shawn Wen
General Manager
Date: 2024-06-12