EUT Specification

FCC ID: 2BE6K-WIMAG

Characteristics	Description
Product Name	Magnetic Wireless Powerbank
Trade Mark:	eFones
Model number	WiMag
Series number	N/A
Ratings	Capacity: 5000mAh/3.8V(19Wh) Lightning Input: 5V 2A Type-C Input: 5V 3A, 9V 2A (PD 18W) Type-C Output: 5V 3A, 9V 2.22A, 12V 1.67A (PD 20W) Wireless Output: 15W/10W/7.5W/5W
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:

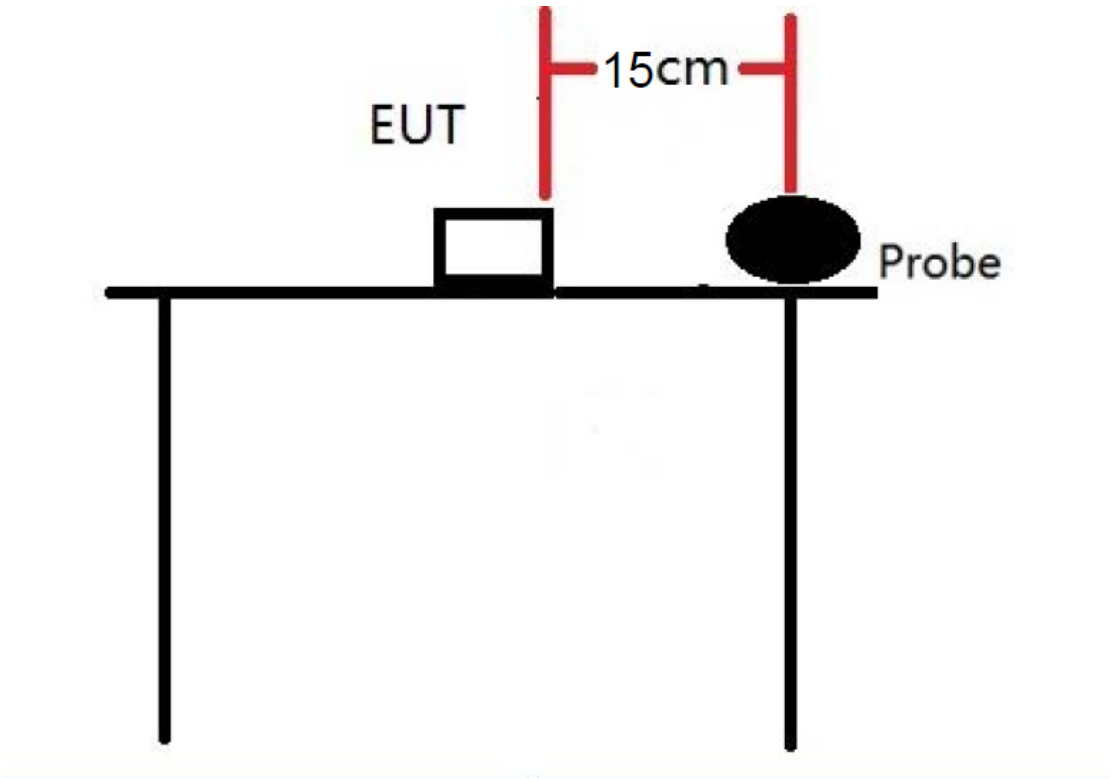
FCC Part 1(1.1310), Part 2(2.1093) and KDB 680106 D01 RF Exposure Wireless Charging Apps v04

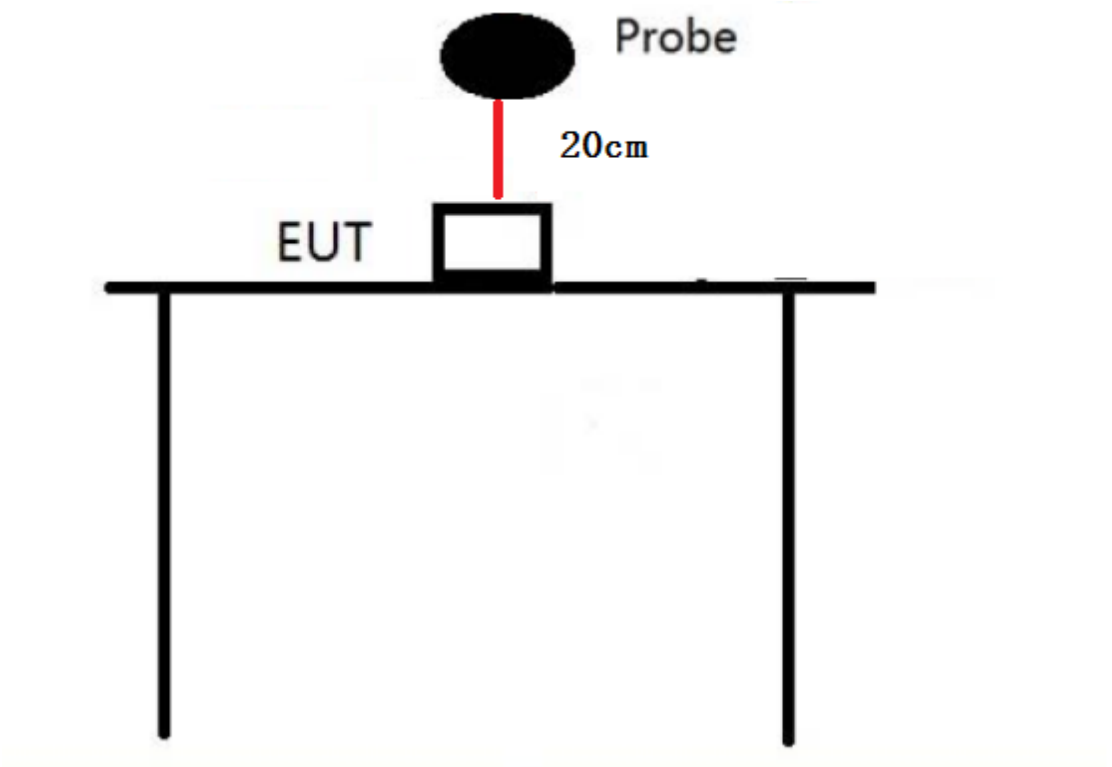
Applicable Requirement:

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 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-30MHz)	Narda	EHP-200A	180ZX11012	Sep. 21, 2024	1 Year

Description of Support Device

Phone : Manufacturer: Apple Inc.
M/N: A2176
S/N: N/A

Adapter : Manufacturer: XIAOMI
M/N: MDY-11-EX
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

The data of Probe's X,Y and Z axes were tested respectively, and only the worst data recorded in the report.

The test probe radius is 5cm.
The measurement distance from 0cm—6cm test results are calculated through the counting formula.

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	0.311	0.156	1.63	0.815
Measurement Point 2	Back	0	0.210	0.105		
Measurement Point 3	Left	0	0.067	0.034		
Measurement Point 4	Right	0	0.133	0.067		
Measurement Point 5	Bottom	0	0.241	0.121		
Measurement Point 6	Top	0	0.106	0.053		

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	4.180	2.090	614	307
Measurement Point 2	Back	0	1.321	0.661		
Measurement Point 3	Left	0	1.211	0.606		
Measurement Point 4	Right	0	3.220	1.610		
Measurement Point 5	Bottom	0	2.781	1.391		
Measurement Point 6	Top	0	1.102	0.551		

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	0.216	0.108	1.63	0.815
Measurement Point 2	Back	2	0.105	0.053		
Measurement Point 3	Left	2	0.045	0.023		
Measurement Point 4	Right	2	0.201	0.101		
Measurement Point 5	Bottom	2	0.100	0.050		
Measurement Point 6	Top	2	0.086	0.043		

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	3.920	1.960	614	307
Measurement Point 2	Back	2	1.255	0.628		
Measurement Point 3	Left	2	2.145	1.073		
Measurement Point 4	Right	2	1.234	0.617		
Measurement Point 5	Bottom	2	2.631	1.316		
Measurement Point 6	Top	2	3.001	1.501		

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	0.216	0.108	1.63	0.815
Measurement Point 2	Back	4	0.147	0.074		
Measurement Point 3	Left	4	0.201	0.101		
Measurement Point 4	Right	4	0.119	0.060		
Measurement Point 5	Bottom	4	0.179	0.090		
Measurement Point 6	Top	4	0.200	0.100		

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	3.650	1.825	614	307
Measurement Point 2	Back	4	1.241	0.621		
Measurement Point 3	Left	4	2.052	1.026		
Measurement Point 4	Right	4	3.040	1.520		
Measurement Point 5	Bottom	4	1.614	0.807		
Measurement Point 6	Top	4	2.178	1.089		

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	0.202	0.101	1.63	0.815
Measurement Point 2	Back	6	0.109	0.055		
Measurement Point 3	Left	6	0.080	0.040		
Measurement Point 4	Right	6	0.188	0.094		
Measurement Point 5	Bottom	6	0.192	0.096		
Measurement Point 6	Top	6	0.117	0.059		

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	3.621	1.811	614	307
Measurement Point 2	Back	6	1.124	0.562		
Measurement Point 3	Left	6	2.352	1.176		
Measurement Point 4	Right	6	3.140	1.570		
Measurement Point 5	Bottom	6	1.554	0.777		
Measurement Point 6	Top	6	2.578	1.289		

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	0.109	0.055	1.63	0.815
Measurement Point 2	Back	8	0.042	0.021		
Measurement Point 3	Left	8	0.056	0.028		
Measurement Point 4	Right	8	0.077	0.039		
Measurement Point 5	Bottom	8	0.058	0.029		
Measurement Point 6	Top	8	0.083	0.042		

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	2.300	1.150	614	307
Measurement Point 2	Back	8	1.109	0.555		
Measurement Point 3	Left	8	1.185	0.593		
Measurement Point 4	Right	8	1.211	0.606		
Measurement Point 5	Bottom	8	1.098	0.549		
Measurement Point 6	Top	8	1.202	0.601		

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	0.073	0.037	1.63	0.815
Measurement Point 2	Back	10	0.059	0.030		
Measurement Point 3	Left	10	0.025	0.013		
Measurement Point 4	Right	10	0.068	0.034		
Measurement Point 5	Bottom	10	0.043	0.022		
Measurement Point 6	Top	10	0.027	0.014		

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	2.070	1.035	614	307
Measurement Point 2	Back	10	1.032	0.516		
Measurement Point 3	Left	10	1.015	0.508		
Measurement Point 4	Right	10	1.034	0.517		
Measurement Point 5	Bottom	10	1.015	0.508		
Measurement Point 6	Top	10	1.004	0.502		

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	0.056	0.028	1.63	0.815
Measurement Point 2	Back	12	0.045	0.023		
Measurement Point 3	Left	12	0.028	0.014		
Measurement Point 4	Right	12	0.029	0.015		
Measurement Point 5	Bottom	12	0.029	0.015		
Measurement Point 6	Top	12	0.012	0.006		

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	1.900	0.950	614	307
Measurement Point 2	Back	12	0.748	0.374		
Measurement Point 3	Left	12	0.549	0.275		
Measurement Point 4	Right	12	0.845	0.423		
Measurement Point 5	Bottom	12	0.642	0.321		
Measurement Point 6	Top	12	0.692	0.346		

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	0.044	0.022	1.63	0.815
Measurement Point 2	Back	14	0.039	0.020		
Measurement Point 3	Left	14	0.041	0.021		
Measurement Point 4	Right	14	0.029	0.015		
Measurement Point 5	Bottom	14	0.031	0.016		
Measurement Point 6	Top	14	0.027	0.014		

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	1.830	0.915	614	307
Measurement Point 2	Back	14	0.453	0.227		
Measurement Point 3	Left	14	0.352	0.176		
Measurement Point 4	Right	14	0.553	0.277		
Measurement Point 5	Bottom	14	0.496	0.248		
Measurement Point 6	Top	14	0.601	0.301		

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	0.044	0.022	1.63	0.815
Measurement Point 2	Back	16	0.019	0.010		
Measurement Point 3	Left	16	0.024	0.012		
Measurement Point 4	Right	16	0.014	0.007		
Measurement Point 5	Bottom	16	0.009	0.005		
Measurement Point 6	Top	16	0.031	0.016		

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	1.345	0.673	614	307
Measurement Point 2	Back	16	0.512	0.256		
Measurement Point 3	Left	16	0.469	0.235		
Measurement Point 4	Right	16	0.263	0.132		
Measurement Point 5	Bottom	16	0.339	0.170		
Measurement Point 6	Top	16	0.468	0.234		

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	0.041	0.021	1.63	0.815
Measurement Point 2	Back	18	0.021	0.011		
Measurement Point 3	Left	18	0.030	0.015		
Measurement Point 4	Right	18	0.024	0.012		
Measurement Point 5	Bottom	18	0.019	0.010		
Measurement Point 6	Top	18	0.027	0.014		

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	1.090	0.545	614	307
Measurement Point 2	Back	18	0.444	0.222		
Measurement Point 3	Left	18	0.368	0.184		
Measurement Point 4	Right	18	0.420	0.210		
Measurement Point 5	Bottom	18	0.339	0.170		
Measurement Point 6	Top	18	0.298	0.149		

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	0.039	0.020	1.63	0.815
Measurement Point 2	Back	20	0.025	0.013		
Measurement Point 3	Left	20	0.019	0.010		
Measurement Point 4	Right	20	0.030	0.015		
Measurement Point 5	Bottom	20	0.024	0.012		
Measurement Point 6	Top	20	0.031	0.016		

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	0.980	0.490	614	307
Measurement Point 2	Back	20	0.394	0.197		
Measurement Point 3	Left	20	0.325	0.163		
Measurement Point 4	Right	20	0.249	0.125		
Measurement Point 5	Bottom	20	0.129	0.065		
Measurement Point 6	Top	20	0.228	0.114		

PHOTOGRAPHS OFTEST SETUP