

EUT Specification

FCC ID: YJW-10644PG

Characteristics	Description
Product Name	portable power source
Model number	10644PG
Series number	N/A
Ratings	TypeC: 5V/2A
Operating Frequency Range	110-205KHz for phone charging
Modulation Technique	FSK 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 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 of transient persons, this phrase also means that an exposed person has received appropriate training

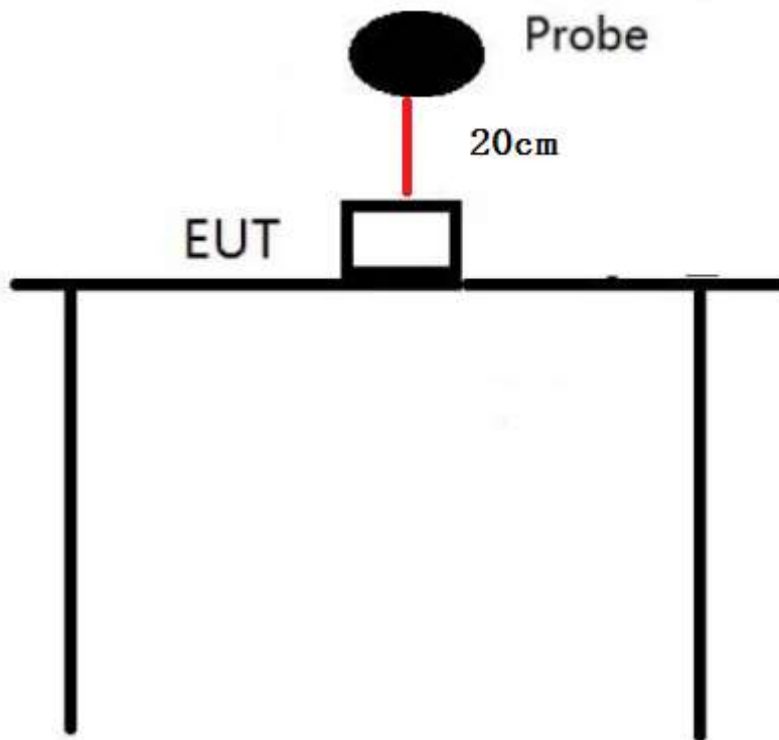
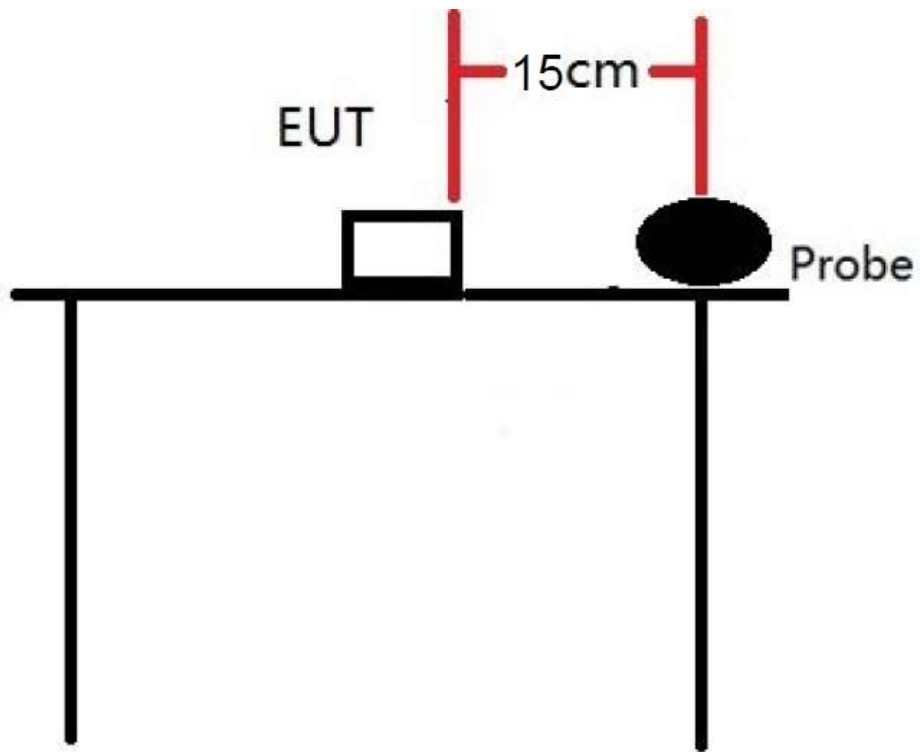
regarding work practices relating to controlling or mitigating his or her exposure. Such training is not required for transient persons, but they must receive written and/or verbal information and notification (for example, using signs) concerning their exposure potential and appropriate means available 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
<input checked="" type="checkbox"/>	E&H-Field Probe(9kHz-30M Hz)	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 5W						
		Measuring Distance(cm)	H-Field(A/m)	50% H-Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	0	0.997	0.513	1.63	0.815
Measurement Point 2	Back	0	0.782	0.357		
Measurement Point 3	Left	0	0.595	0.261		
Measurement Point 4	Right	0	0.771	0.393		
Measurement Point 5	Bottom	0	0.660	0.351		
Measurement Point 6	Top	0	0.635	0.326		

Test Mode: Wireless Charging 5W						
		Measuring Distance(cm)	E-Field(V/m)	50% E-Field(V/m)	Limit(V/m)	50% Limit(V/m)
Measurement Point 1	Front	0	7.447	3.733	614	307
Measurement Point 2	Back	0	6.384	3.187		
Measurement Point 3	Left	0	5.243	2.632		
Measurement Point 4	Right	0	4.251	2.134		
Measurement Point 5	Bottom	0	5.815	2.919		
Measurement Point 6	Top	0	5.134	2.573		

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

Test Mode: Wireless Charging 5W						
		Measuring Distance(cm)	H-Field(A/m)	50% H-Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	2	0.980	0.495	1.63	0.815
Measurement Point 2	Back	2	0.664	0.337		
Measurement Point 3	Left	2	0.475	0.243		
Measurement Point 4	Right	2	0.740	0.374		
Measurement Point 5	Bottom	2	0.639	0.324		
Measurement Point 6	Top	2	0.616	0.313		

Test Mode: Wireless Charging 5W						
		Measuring Distance(cm)	E-Field(V/m)	50% E-Field(V/m)	Limit(V/m)	50% Limit(V/m)
Measurement Point 1	Front	2	7.365	3.687	614	307
Measurement Point 2	Back	2	6.284	3.147		
Measurement Point 3	Left	2	5.175	2.593		
Measurement Point 4	Right	2	4.163	2.086		
Measurement Point 5	Bottom	2	5.661	2.836		
Measurement Point 6	Top	2	5.001	2.511		

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

Test Mode: Wireless Charging 5W						
		Measuring Distance(cm)	H-Field(A/m)	50% H-Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	4	0.969	0.489	1.63	0.815
Measurement Point 2	Back	4	0.643	0.326		
Measurement Point 3	Left	4	0.461	0.235		
Measurement Point 4	Right	4	0.731	0.371		
Measurement Point 5	Bottom	4	0.664	0.337		
Measurement Point 6	Top	4	0.609	0.309		

Test Mode: Wireless Charging 5W						
		Measuring Distance(cm)	E-Field(V/m)	50% E-Field(V/m)	Limit(V/m)	50% Limit(V/m)
Measurement Point 1	Front	4	7.359	3.684	614	307
Measurement Point 2	Back	4	6.271	3.141		
Measurement Point 3	Left	4	5.081	2.545		
Measurement Point 4	Right	4	4.070	2.040		
Measurement Point 5	Bottom	4	5.643	2.826		
Measurement Point 6	Top	4	5.007	2.508		

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

Test Mode: Wireless Charging 5W						
		Measuring Distance(cm)	H-Field(A/m)	50% H-Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	6	0.957	0.483	1.63	0.815
Measurement Point 2	Back	6	0.628	0.321		
Measurement Point 3	Left	6	0.391	0.199		
Measurement Point 4	Right	6	0.717	0.363		
Measurement Point 5	Bottom	6	0.647	0.328		
Measurement Point 6	Top	6	0.598	0.304		

Test Mode: Wireless Charging 5W						
		Measuring Distance(cm)	E-Field(V/m)	50% E-Field(V/m)	Limit(V/m)	50% Limit(V/m)
Measurement Point 1	Front	6	7.239	3.624	614	307
Measurement Point 2	Back	6	6.154	3.082		
Measurement Point 3	Left	6	4.381	2.195		
Measurement Point 4	Right	6	3.170	1.590		
Measurement Point 5	Bottom	6	5.583	2.796		
Measurement Point 6	Top	6	4.607	2.308		

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

Test Mode: Wireless Charging 5W						
		Measuring Distance(cm)	H-Field(A/m)	50% H-Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	8	0.127	0.099	1.63	0.815
Measurement Point 2	Back	8	0.071	0.041		
Measurement Point 3	Left	8	0.086	0.048		
Measurement Point 4	Right	8	0.106	0.057		
Measurement Point 5	Bottom	8	0.087	0.048		
Measurement Point 6	Top	8	0.113	0.061		

Test Mode: Wireless Charging 5W						
		Measuring Distance(cm)	E-Field(V/m)	50% E-Field(V/m)	Limit(V/m)	50% Limit(V/m)
Measurement Point 1	Front	8	1.331	0.669	614	307
Measurement Point 2	Back	8	1.139	0.574		
Measurement Point 3	Left	8	1.144	0.577		
Measurement Point 4	Right	8	1.231	0.621		
Measurement Point 5	Bottom	8	1.227	0.619		
Measurement Point 6	Top	8	1.252	0.630		

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

Test Mode: Wireless Charging 5W						
		Measuring Distance(cm)	H-Field(A/m)	50% H-Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	10	0.104	0.057	1.63	0.815
Measurement Point 2	Back	10	0.089	0.051		
Measurement Point 3	Left	10	0.075	0.043		
Measurement Point 4	Right	10	0.097	0.054		
Measurement Point 5	Bottom	10	0.083	0.046		
Measurement Point 6	Top	10	0.076	0.044		

Test Mode: Wireless Charging 15W + 2.5W						
		Measuring Distance(cm)	E-Field(V/m)	50% E-Field(V/m)	Limit(V/m)	50% Limit(V/m)
Measurement Point 1	Front	10	1.100	0.555	614	307
Measurement Point 2	Back	10	1.062	0.536		
Measurement Point 3	Left	10	1.034	0.522		
Measurement Point 4	Right	10	1.064	0.537		
Measurement Point 5	Bottom	10	1.084	0.548		
Measurement Point 6	Top	10	1.093	0.551		

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

Test Mode: Wireless Charging 5W						
		Measuring Distance(cm)	H-Field(A/m)	50% H-Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	12	0.085	0.048	1.63	0.815
Measurement Point 2	Back	12	0.075	0.043		
Measurement Point 3	Left	12	0.067	0.039		
Measurement Point 4	Right	12	0.059	0.034		
Measurement Point 5	Bottom	12	0.078	0.045		
Measurement Point 6	Top	12	0.062	0.036		

Test Mode: Wireless Charging 5W						
		Measuring Distance(cm)	E-Field(V/m)	50% E-Field(V/m)	Limit(V/m)	50% Limit(V/m)
Measurement Point 1	Front	12	0.830	0.420	614	307
Measurement Point 2	Back	12	0.688	0.349		
Measurement Point 3	Left	12	0.518	0.264		
Measurement Point 4	Right	12	0.775	0.392		
Measurement Point 5	Bottom	12	0.671	0.341		
Measurement Point 6	Top	12	0.822	0.415		

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

Test Mode: Wireless Charging 5W						
		Measuring Distance(cm)	H-Field(A/m)	50% H-Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	14	0.074	0.042	1.63	0.815
Measurement Point 2	Back	14	0.068	0.040		
Measurement Point 3	Left	14	0.071	0.040		
Measurement Point 4	Right	14	0.058	0.036		
Measurement Point 5	Bottom	14	0.061	0.035		
Measurement Point 6	Top	14	0.056	0.034		

Test Mode: Wireless Charging 15W + 2.5W						
		Measuring Distance(cm)	E-Field(V/m)	50% E-Field(V/m)	Limit(V/m)	50% Limit(V/m)
Measurement Point 1	Front	14	0.660	0.335	614	307
Measurement Point 2	Back	14	0.481	0.246		
Measurement Point 3	Left	14	0.382	0.196		
Measurement Point 4	Right	14	0.582	0.296		
Measurement Point 5	Bottom	14	0.525	0.268		
Measurement Point 6	Top	14	0.631	0.321		

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

Test Mode: Wireless Charging 5W						
		Measuring Distance(cm)	H-Field(A/m)	50% H-Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	16	0.074	0.042	1.63	0.815
Measurement Point 2	Back	16	0.059	0.035		
Measurement Point 3	Left	16	0.064	0.036		
Measurement Point 4	Right	16	0.053	0.032		
Measurement Point 5	Bottom	16	0.048	0.031		
Measurement Point 6	Top	16	0.071	0.041		

Test Mode: Wireless Charging 5W						
		Measuring Distance(cm)	E-Field(V/m)	50% E-Field(V/m)	Limit(V/m)	50% Limit(V/m)
Measurement Point 1	Front	16	0.620	0.315	614	307
Measurement Point 2	Back	16	0.542	0.276		
Measurement Point 3	Left	16	0.498	0.254		
Measurement Point 4	Right	16	0.293	0.152		
Measurement Point 5	Bottom	16	0.378	0.189		
Measurement Point 6	Top	16	0.497	0.254		

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

Test Mode: Wireless Charging 5W						
		Measuring Distance(cm)	H-Field(A/m)	50% H-Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	18	0.073	0.042	1.63	0.815
Measurement Point 2	Back	18	0.061	0.036		
Measurement Point 3	Left	18	0.069	0.040		
Measurement Point 4	Right	18	0.063	0.036		
Measurement Point 5	Bottom	18	0.058	0.035		
Measurement Point 6	Top	18	0.067	0.039		

Test Mode: Wireless Charging 5W						
		Measuring Distance(cm)	E-Field(V/m)	50% E-Field(V/m)	Limit(V/m)	50% Limit(V/m)
Measurement Point 1	Front	18	0.510	0.265	614	307
Measurement Point 2	Back	18	0.474	0.242		
Measurement Point 3	Left	18	0.397	0.203		
Measurement Point 4	Right	18	0.449	0.230		
Measurement Point 5	Bottom	18	0.368	0.191		
Measurement Point 6	Top	18	0.327	0.168		

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

Test Mode: Wireless Charging 5W						
		Measuring Distance(cm)	H-Field(A/m)	50% H-Field(A/m)	Limit(A/m)	50% Limit(A/m)
Measurement Point 1	Front	20	0.072	0.042	1.63	0.815
Measurement Point 2	Back	20	0.065	0.037		
Measurement Point 3	Left	20	0.058	0.034		
Measurement Point 4	Right	20	0.069	0.041		
Measurement Point 5	Bottom	20	0.062	0.036		
Measurement Point 6	Top	20	0.061	0.034		

Test Mode: Wireless Charging 5W						
		Measuring Distance(cm)	E-Field(V/m)	50% E-Field(V/m)	Limit(V/m)	50% Limit(V/m)
Measurement Point 1	Front	20	0.440	0.225	614	307
Measurement Point 2	Back	20	0.424	0.217		
Measurement Point 3	Left	20	0.355	0.181		
Measurement Point 4	Right	20	0.277	0.145		
Measurement Point 5	Bottom	20	0.159	0.084		
Measurement Point 6	Top	20	0.256	0.134		

PHOTOGRAPHS OF TEST SETUP



Signature

Shawn Wen

Shawn Wen
General Manager
Date: 2023-01-15

