

FCC ID:2A5YX-HY-029

Product Name:	3 in 1 Multi-function Wireless Charger
Product Model No.:	HY-029
Model Difference:	HY-029 is tested model, other models are derivative models .The models are identical in circuit, only different on the model names. So the test data of HY-029 can represent the remaining models.
Test Auxiliary:	Smartphone and Power adapter
Transmitting mode:	Keep the EUT in continuously wireless charging mode
Power supply:	Input: DC5V/3A, DC9V/3A Output1: 5W/10W/15W Max (Mobile phone) Output2: 5W Max (Earphone) Output3: 2.5W Max (Watch)

Test Modes:	
Mode 1	AC Adapter+Wireless charging mode (Mobile phone: 15W)
Mode 2	AC Adapter+Wireless charging mode (Mobile phone: 10W)
Mode 3	AC Adapter+Wireless charging mode (Mobile phone: 5W)
Mode 4	AC Adapter+Wireless charging mode (Earphone charging case: 5W)
Mode 5	AC Adapter+Wireless charging mode (Watch: 2.5W)
Mode 6	AC Adapter+Mobile phone (15W)+Watch (2.5W)
Mode 7	AC Adapter+Mobile phone (15W)+Earphone charging case (5W)
Mode 8	AC Adapter+Earphone charging case (5W)+Watch (2.5W)
Mode 9	AC Adapter+Mobile phone (15W)+Earphone charging case (5W)+Watch (2.5W)
Remark: All full load, half load, and no-load tests have been conducted in each mode, only the worst-case was recorded in the report. Mode 9 full load is the worst mode.	

Auxiliary equipment						
Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note	
E-1	Adapter	HUAWEI	HW-059200CHQ	/	AE	
E-2	Wireless charging load	/	EESON	/	AE	
E-3	Wireless headset	Hege Technology Co.,Ltd	EA125	Wired headset	AE	
E-4	Wireless charging load	/	YBZ	/	AE	

1 Measuring Standard

KDB 680106 D01 Wireless Power Transfer v04

2 Requirements

According to the item 5 of KDB 680106 D01 v04:

Inductive wireless power transfer applications that meet all of the following requirements are excluded from submitting an RF exposure evaluation.

Requirements of section 3 of KDB 680106 D01	Yes/ No	Description
Mobile Device and Portable Device Configurations	Yes	Mobile Device
Equipment Authorization Procedures for Devices Operating at Frequencies Below 4 MHz	Yes	The device operate in the frequency range Mobile phone: 110.2-205KHz Earphone: 110.2-205KHz Watch: 110.2-370KHz
RF Exposure compliance may be ensured only for a minimum conditions at smaller distances can still be considered unlikely separation distance that is greater than 20 cm, while use	Yes	The EUT H-field and E-field strengths at 20 cm surrounding the device.

Limits

The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

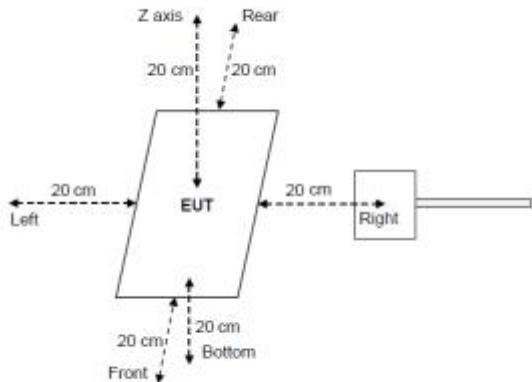
Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f ²)	6
30-300	61.4	0.163	1.0	6
300-1500	/	/	f/300	6
1500-100,000	/	/	5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

F=frequency in MHz
*=Plane-wave equivalent power density
RF exposure compliance will need to be determined with respect to 1.1307(c) and (d) of the FCC rules. The emissions should be within the limits at 300kHz in Table 1 of 1.1310(use the 300kHz limits for 150kHz:614V/m,1.63A/m).

3 Test Setup

For mobile exposure conditions:



4 Test Procedure

- 1) The RF exposure test was performed in anechoic chamber.
- 2) The measurement probe was placed at test distance (20 cm from all sides and 20 cm from the top) which is between the edge of the charger and the geometric center of probe.
- 3) The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E) were completed.
- 4) The EUT was measured according to the dictates of KDB 680106 D01 v04.

Remark: The EUT's test position A, B, C, D and E is valid for the E and H field measurements.

5 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95 %.

No.	Item	Uncertainty
1	H-field	$\pm 0.7\text{dB}$
2	E-field	$\pm 1.06\text{dB}$

Decision Rule

Uncertainty is not included
 Uncertainty is included

6 Test Instruments list

Test Equipment	Manufacturer	Model No.	SN.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
Near-field Electric and Electric Field Sensor System	SPEAG	MAGPy-8H3D+ED3 V2	3101	Feb. 26, 2024	Feb. 25, 2025

7 Test Result

We have evaluated mode 1 to mode 9 and the worst mode 9 is showed in this report.

E-Filed Strength at 20 cm from the edges surrounding the EUT (V/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	50%Limits (V/m)	Limits (V/m)	test result
0.1102-0.370	0.45	0.12	0.47	0.56	0.34	307	614	PASS

H-Filed Strength at 20 cm from the edges surrounding the EUT (A/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	50%Limits (V/m)	Limits (A/m)	test result
0.1102-0.370	0.32	0.21	0.67	0.35	0.61	0.815	1.63	PASS

7. Test Photo

