




FCC ID:2BKO4GI-CS20W-3D-WH

Product Name:	3-in-1 Rotating wireless charger
Product Model No.:	GI-CS20W-3D-WH
Test Auxiliary:	Wireless charging
Transmitting mode:	Keep the EUT in continuously wireless charging mode
Power supply:	Input: 9 V  2.7 A Max Mobile phone output:15W/ 10W /7.5W /5W Air pods output: 3 W (MAX) Watch output: 2.5 W (MAX)

Test Modes:

Mode 1	AC Adapter+Wireless charging mode (Phone: Battery Status:≤1%)
Mode 2	AC Adapter+Wireless charging mode (Phone: Battery Status:50%)
Mode 3	AC Adapter+Wireless charging mode (Phone: Battery Status:≥98)
Mode 4	AC Adapter+Wireless charging mode (Air Pods: Battery Status:≤1%)
Mode 5	AC Adapter+Wireless charging mode (Air Pods: Battery Status:50%)
Mode 6	AC Adapter+Wireless charging mode (Air Pods: Battery Status:≥98)
Mode 7	AC Adapter+Wireless charging mode (iWatch: Battery Status:≤1%)
Mode 8	AC Adapter+Wireless charging mode (iWatch: Battery Status:50%)
Mode 9	AC Adapter+Wireless charging mode (iWatch: Battery Status:≥98)
Mode 10	AC Adapter+ Phone (Battery Status:≤1%) + Air Pods (Battery Status:≤1%)
Mode 11	AC Adapter+ Phone (Battery Status:≤1%) + iWatch (Battery Status:≤1%)
Mode 12	AC Adapter+ Phone (Battery Status:≤1%) + Air Pods (Battery Status:≤1%) + iWatch (Battery Status:≤1%)

Note: All modes and coil were tested, only the worst-case was recorded in the report. Mode 12 is the worst mode.

Description Of Support Units:

Item	Equipment	Mfr/Brand	Model/Type No.	Wireless charging power parameters	Note
E-1	Mobile phone	Xiaomi Communications Co., Ltd.	Xiaomi 12S Pro	N/A	AE
E-2	Earphone	Apple	A2031	N/A	AE
E-3	Apple watch	Apple Inc.	ultra 2	N/A	AE
E-4	AC Adapter	HUAWEI	HW-050450C00	N/A	AE



RF Exposure Evaluation

1 Measuring Standard

KDB 680106 D01 Wireless Power Transfer v04

2 Requirements

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: 110.4-205KHz Earphone: 110.4-205KHz Watch: 300-350KHz
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 aggregate H-field and E-field strengths anywhere at or beyond 20 cm surrounding the device, and 20 cm away from the top surface.

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)

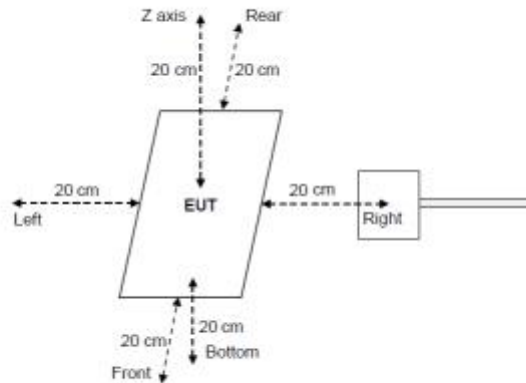
Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f ²)	6
30-300	61.4	0.163	1.0	6
300-1500	/	/	f/300	6
1500-100,000	/	/	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
 E=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, F) 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, E and F is valid for the E and H field measurements.

5 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expanded 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)
Exposure Level Tester	Narda	ELT-400	N-0231	Sep. 29, 2024	Sep. 28, 2025
Magnetic field probe 100cm2	Narda	ELT probe 100cm2	M0675	Sep. 29, 2024	Sep. 28, 2025
Isotropic Electric field probe	Narda	EP-601	611WX70332	Sep. 29, 2024	Sep. 28, 2025

7 Test Result

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

Frequency Range (MHz)	Test Position A (uT)	Test Position A (A/m)	Test Position B (uT)	Test Position B (A/m)	Test Position C (uT)	Test Position C (A/m)	50%Limits (A/m)	Limits (A/m)	test result
0.1104-0.205	0.58	0.46	0.48	0.38	0.56	0.45	0.815	1.63	PASS
0.1104-0.205	0.56	0.45	0.45	0.36	0.51	0.41	0.815	1.63	PASS
0.300-0.350	0.51	0.41	0.41	0.33	0.53	0.42	0.815	1.63	PASS

Frequency Range (MHz)	Test Position D (uT)	Test Position D (A/m)	Test Position E (uT)	Test Position E (A/m)	Test Position F (uT)	Test Position F (A/m)	50%Limits (A/m)	Limits (A/m)	test result
0.1104-0.205	0.20	0.16	0.64	0.51	0.54	0.43	0.815	1.63	PASS
0.1104-0.205	0.19	0.15	0.68	0.54	0.50	0.40	0.815	1.63	PASS
0.300-0.350	0.19	0.15	0.69	0.55	0.56	0.45	0.815	1.63	PASS

The device could support transmission with ANT1, ANT2, ANT3 simultaneously.

$MPE1/LIMIT + MPE2/LIMIT + MPE3/LIMIT = 0.51/1.63 + 0.54/1.63 + 0.55/1.63 = 0.9816 \leq 1$

Note: Calculation: $A/m = uT/1.25$



8 Test Set-up Photo

