

RF Exposure Evaluation

FCCID: 2BB8Q-Y21

1 Measuring Standard

KDB 680106 Wireless Power Transfer D01 V04

2 Requirements

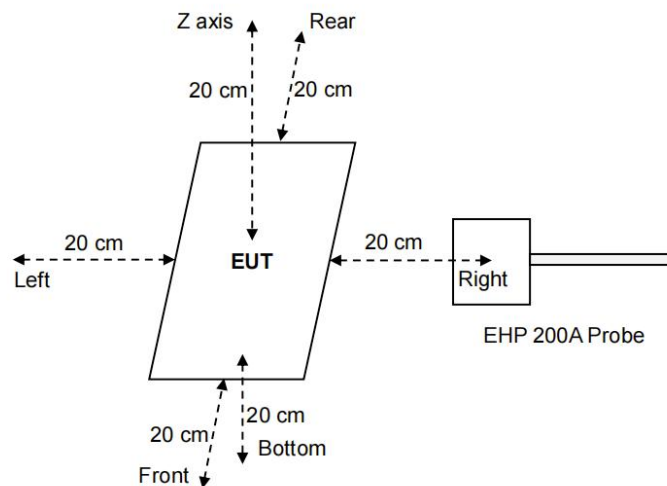
All requirements refer to Section 3 of KDB 680106 D01V04:

- 1.The devices may be considered to meet the § 2.1091-Mobile conditions (“generally be used in such a way that a separation distance of at least 20 centimeters is normally maintained between the RF source’s radiating structure(s) and [the nearest person]”)
- 2.Devices Operating at Frequencies Below 4 MHz.
- 3.For § 2.1091-Mobile devices, the MPE limits between 100 kHz to 300 kHz are to be considered the same as those at 300 kHz in Table 1 of § 1.1310, that is, 614 V/m and 1.63 A/m, for the electric field and magnetic field, respectively.

3 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)

4 Test Setup



5 Test Procedure

- 1) The RF exposure test was performed in anechoic chamber.
- 2) The measurement probe was placed at test distance (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 Wireless Power Transfer v04.

6. Measurement Uncertainty

(95% confidence levels, k=2)

Item	Uncertainty
Uncertainty for H-Field	2.36dB
Uncertainty for E-Field	2.42dB
Uncertainty for conducted RF Power	0.62dB
Uncertainty for temperature	0.2°C
Uncertainty for humidity	1.1%
Uncertainty for DC and low frequency voltages	0.06%

7. Equipment list

Test Equipment	Manufacturer	Model No.	SN.	Last calibration	Calibrated until
Electric and Magnetic field probe-Analyzer	Narda	EHP-200A	N03565	Aug 29,2023	Aug 28,2024

7 Placement Mode 1 Photo



8 Test mode

Mode 1	iWatch(2.5W)
Mode 2	Earbuds(3W)
Mode 3	Phone(5W)
Mode 4	Phone(7.5W)
Mode 5	Phone(10W)
Mode 6	Phone(15W)
Mode 7	iWatch(2.5W)+Earbuds(3W)+Phone(5W)
Mode 8	iWatch(2.5W)+Earbuds(3W)+Phone(7.5W)
Mode 9	iWatch(2.5W)+Earbuds(3W)+Phone(10W)
Mode 10	iWatch(2.5W)+Phone(5W)

Mode 11	iWatch(2.5W)+Phone(7.5W)
Mode 12	iWatch(2.5W)+Phone(10W)
Mode 13	iWatch(2.5W)+Phone(15W)
Mode 14	Earbuds(3W)+Phone(5W)
Mode 15	Earbuds(3W)+Phone(7.5W)
Mode 16	Earbuds(3W)+Phone(10W)
Mode 17	Earbuds(3W)+Phone(15W)
Mode 18	iWatch(2.5W)+Earbuds(3W)

9 Necessary accessories

	Equipment	Mfr/Brand	Model/Type No.	Serial No.	Note
1	Phone	Apple	iPhone 12	N/A	This is for testing only in report.
2	Earbuds	Apple AirPods	AirPods 2	N/A	This is for testing only in report.
3	Watch	Apple Watch	S7	N/A	This is for testing only in report.
4	Adapter	Xiaomi	MDY-11-EB	N/A	This is for testing only in report.

10 Test Result

Placement Mode 9(Worst)

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

Battery power	Frequency Range(MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Limits (V/m)	50%MPE limit (V/m)	Result
1%	0.115-0.205	1.42	1.50	0.62	0.48	614	307	PASS
50%	0.115-0.205	1.53	1.40	0.50	0.65	614	307	PASS
95%	0.115-0.205	1.30	1.57	0.45	0.63	614	307	PASS
Stand-by	0.115-0.205	1.45	1.39	0.62	0.66	614	307	PASS

E-Filed Strength at 20 cm from the top of the EUT (V/m)

Battery power	Frequency Range(MHz)	Test Position E	Limits (V/m)	50%MPE limit(V/m)	Result
1%	0.115-0.205	1.25	614	307	PASS
50%	0.115-0.205	1.29	614	307	PASS
95%	0.115-0.205	1.33	614	307	PASS
Stand-by	0.115-0.205	1.48	614	307	PASS

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

Battery power	Frequency Range(MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Limits (A/m)	50%MPE limit (A/m)	Result
1%	0.115-0.205	0.63	0.65	0.64	0.65	1.63	0.815	PASS
50%	0.115-0.205	0.62	0.60	0.63	0.66	1.63	0.815	PASS
95%	0.115-0.205	0.67	0.61	0.59	0.63	1.63	0.815	PASS
Stand-by	0.115-0.205	0.64	0.58	0.63	0.65	1.63	0.815	PASS

H-Filed Strength at 20 cm from the top of the EUT (A/m)

Battery power	Frequency Range(MHz)	Test Position E	Limits (A/m)	50%MPE limit (A/m)	Result
1%	0.115-0.205	0.55	1.67	0.815	PASS
50%	0.115-0.205	0.48	1.66	0.815	PASS
95%	0.115-0.205	0.50	1.65	0.815	PASS
Stand-by	0.115-0.205	0.65	1.64	0.815	PASS

Tested by: _____ *Duke*Reviewed by: _____ *Jakob*

*****END OF THE REPORT*****