

# FCC ID : 2ADI9-WP-1055A

## 1.1.Measuring Standard

FCC CFR 47 Part 1(1.1310) KDB 680106 D01 v03

## 1.2.Requirements

The EUT does comply with item 5(b) of KDB 680106 D01 v03

- 1) Power transfer frequency is less than 1MHz
- 2) Output power from each primary coil is less than or equal to 15 watts.
- 3) The transfer system includes only single primary and secondary coils. This includes charging systems that may have multiple primary coils and clients that able to detect and allow coupling only between individual pair of coils.
- 4) Client device is inserted in or placed directly in contact with the transmitter.
- 5) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion)
- 6) The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit.

## 1.3.Test Configuration

- 1) The field strength of both E-field and H-field was measured at 15cm using the equipment list above for determining compliance with the MPE requirements of FCC Part 1.1310.
- 2) The RF power density was measured at Under maximum load test
- 3) Maximum E-field and H-field measurements were made 15cm from each side of the EUT. Along the side of the EUT and still 15cm away from the edge of the EUT, the field probes were positioned at the location where there is maximum field strength. The maximum E-field and H-field is reported below.
- 4) This device uses a wireless charging circuit for power transfer operating at the frequency of 110.5–205kHz. Thus, the 300kHz limits were used: E-field Limit = 614 (V/m); H-field limit = 1.63 (A/m).

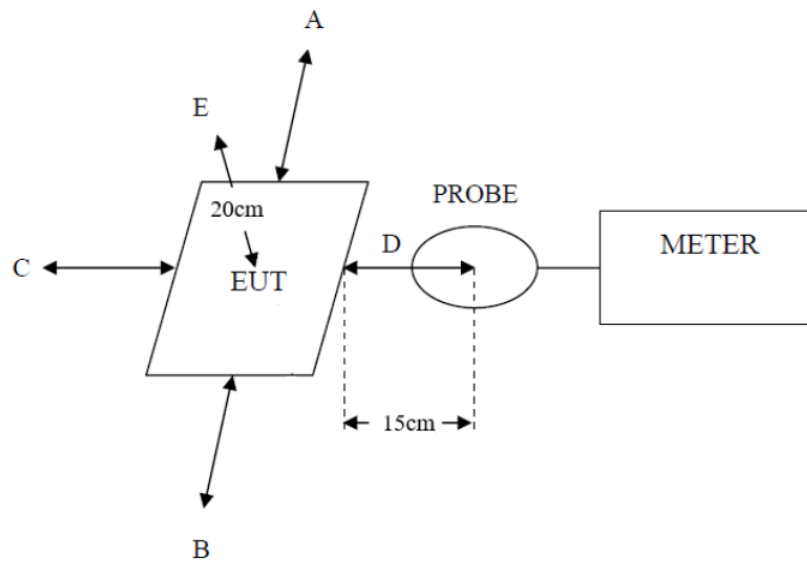
#### 1.4. Test Procedure

- 1) The RF exposure test was performed in anechoic chamber.
- 2) The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface
- 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 v03.

Remark:

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

#### 1.5. Test Setup



## 1.6.Limits

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
<b>(A) Limits for Occupational/Controlled Exposure</b>				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f <sup>2</sup>	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			5	6
<b>(B) Limits for General Population/Uncontrolled Exposure</b>				
0.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	*180/f <sup>2</sup>	30
30-300	27.5	0.073	0.2	30
300-1,500			f/1500	30
1,500-100,000			1.0	30

f = frequency in MHz \* = Plane-wave equivalent power density

Remark: Emissions between 100 kHz to 300 kHz should be assessed versus the limits at 300 kHz in Table 1 of Section 1.1310: 614 V/m and 1.63 A/m

## 1.7.Measuring Device and Test Equipment

For MPE Measurement

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	E-Field Probe (100kHz-60GHz)	Narda	NBM-520	D-0830	Oct. 18, 2018	1 Year
2.	H-Field Probe (300KHz-30MHz)	Narda	2300/90.10	B-0137	Jan. 05, 2019	1 Year
3.	Broadband Field Meter	Narda	NBM-550	Q201455	Jan. 05, 2019	1 Year

## 1.8.Measuring Results

Table 1: E-Field Strength at 15 cm from the edges surrounding the EUT and 20cm from the top surface of the EUT

EUT Test Mode	Measured E-Field Strength Values (V/m)					50% Limit (V/m)	Limit (V/m)
	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E		
1% Battery Level	0.75	0.69	0.64	0.70	0.65	307	614
50% Battery Level	0.68	0.76	0.65	0.69	0.72	307	614
99% Battery Level	0.74	0.65	0.69	0.62	0.73	307	614

Table 2: H-Field Strength at 15 cm from the edges surrounding the EUT and 20cm from the top surface of the EUT

EUT Test Mode	Measured H-Field Strength Values (A/m)					50% Limit (A/m)	Limit (A/m)
	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E		
1% Battery Level	0.437	0.456	0.442	0.436	0.452	0.815	1.63
50% Battery Level	0.443	0.460	0.455	0.437	0.438	0.815	1.63
99% Battery Level	0.453	0.476	0.443	0.460	0.449	0.815	1.63

Remark:

The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit.

## 1.9.Result

The EUT does comply with item 5(b) of KDB 680106 D01 v03

a) Power transfer frequency is less than 1MHz

Yes, the device operates in the frequency 110kHz-205kHz.

b) Output power from each primary coil is less than or equal to 15 watts.

Yes, the maximum output power of the primary coil is 10W.

c) The transfer system includes only single primary and secondary coils. This includes charging systems that may have multiple primary coils and clients that able to detect and allow coupling only between individual pair of coils.

Yes, the transfer system including a charging system with only single primary coils is to detect and allow only between individual of coils.

d) Client device is inserted in or placed directly in contact with the transmitter.

Yes, client device is placed directly in contact with the transmitter.

e) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion)

Yes, this is a mobile device.

f) The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit.

The EUT H-field strength levels at 15cm surrounding the device and 20cm above the top surface are less than 50% the MPE limit.

## 1.10. Photographs of Test Setup



\*\*\*\*\* End of Test Report \*\*\*\*\*