

RF Exposure Evaluation

FCC ID: 2A4QD-SM-D30

1. Client Information

Applicant	:	Shenzhen Skymee Technology Co., Ltd
Address	:	Room 1119, 11/F, Department Store East Building, Shennan East Road No.123, Dongmen Street, Luohu District, Shenzhen City China
Manufacturer	:	Chengdu Weizheng Digital Technology Co., Ltd.
Address	:	69 Chuangye Road, Xindu Industrial East Area, Chengdu City, Sichuan Province China

2. General Description of EUT

EUT Name	:	Petalk AI II
Models No.	:	SM-D30, AI-D20, AI-D30, AI-D40, AI-D50, SM-D20, AI-D60, AI-D70, AI-D80, AI-D90, AI-D100, AI-D110, AI-D120, AI-D130, AI-D140, AI-D150, AI-D160, AI-D170, AI-D180, AI-D190, AI-D200, Petalk AI, Petalk AI II, Petalk AI III, Petalk AI IV, Petalk AI V, Petalk AI VI, Petalk AI VII, Petalk AI VIII, Petalk AI IX
Sample ID	:	RW-C-202202-0042-5-2#
Model Difference	:	All these models are identical in the same PCB, layout and electrical circuit, the only difference is model name.
Product Description	Operation Frequency:	113KHz-205KHz
	Modulation Type:	ASK
	Antenna:	Coil Antenna
Power Supply	:	Adapter(BI12T-050200-IU) Input: 100-240V 50/60Hz 0.5A Output: 5V2A 10.0W
Software Version	:	40.3.12.011
Hardware Version	:	ai-d30_ak3918ev3_main_v2
Connecting I/O Port(S)	:	Please refer to the User's Manual

Note: More test information about the EUT please refer the RF Test Report.

TB-RF-074-1.0

RF Exposure Considerations

1. Measuring Standard

KDB 680106 D01 RF Exposure Wireless Charging App v03.

2. Requirements

According to the item 5.2 of KDB 680106 D01v03:

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

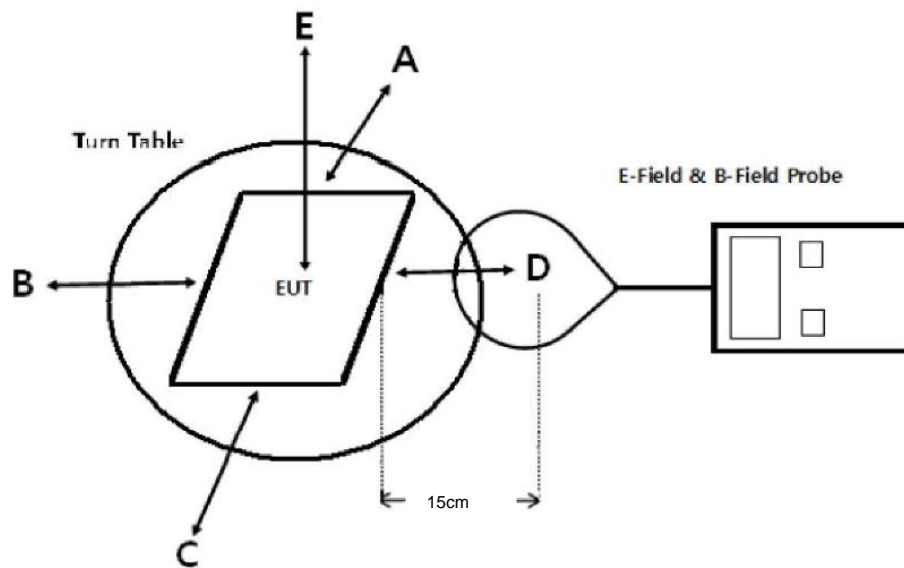
- (1) Power transfer frequency is less than 1 MHz.
- (2) Output power from each primary coil is less than or equal to 15 watts.
- (3) The system may consist of more than one source primary coils, charging one or more clients. If more than one primary coil is present, the coil pairs may be powered on at the same time.
- (4) Client device is 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 anywhere at or beyond 15 cm surrounding the device, and 20 cm away from the surface from all coils that by design can simultaneously transmit, and while those coils are simultaneously energized, are demonstrated to be less than 50% of the applicable MPE limit.

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



Note: The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface.

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.

5. Test Equipment List

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Magnetic field meter	NARDA	ELT-400	EE030	Aug. 27, 2021	Aug. 26, 2022

6. Deviation From Test Standard

No deviation

7. Description of Support Units

Equipment Information				
Name	Model	FCC ID/SDOC	Manufacturer	Used “√”
iPhone11	MWN72CH/A	----	APPLE	√

8. Mode of operation during the test / Test peripherals used

Test Modes:		
TM1	AC Power Supply + EUT(Output: 10W) Mobile Phone (Battery Status: <1%)	Record
TM2	AC Power Supply + EUT(Output: 10W)Mobile Phone (Battery Status: <50%)	Record
TM3	AC Power Supply + EUT(Output: 10W)Mobile Phone (Battery Status: <99%)	Record
Note: All test modes were pre-tested, but we only recorded the worst case (TM1, TM2, TM3) in this report.		

9. Test Result

E-Filed Strength at 15 cm from the edges surrounding the EUT and 15 cm above the top surface

Charging Battery Level	Frequency Range (MHz)	Measured E-Field Strength Values (V/m)					E-Field Strength 50% Limits (V/m)	E-Field Strengt h Limits (V/m)
		Test Position						
		A	B	C	D	E		
1%	0.1278	64.5424	65.4472	64.2408	44.3352	46.1448	307.0	614.0
50%	0.1278	76.6064	69.6696	70.876	43.732	45.8432	307.0	614.0
99%	0.1278	79.3208	63.336	77.2096	45.8432	43.732	307.0	614.0

Note: V/m= A/m *377

H-Filed Strength at 15 cm from the edges surrounding the EUT and 15 cm above the top surface

Charging Battery Level	unit	Frequency Range (MHz)	Measured H-Field Strength Values (A/m)					H-Field Strength 50% Limits (A/m)	H-Field Strength Limits (A/m)
			Test Position						
			A	B	C	D	E		
1%	uT	0.1278	0.214	0.217	0.213	0.147	0.153	--	--
1%	A/m	0.1278	0.1712	0.1736	0.1704	0.1176	0.1224	0.815	1.63
50%	uT	0.1278	0.254	0.231	0.235	0.145	0.152	--	--
50%	A/m	0.1278	0.2032	0.1848	0.188	0.116	0.1216	0.815	1.63
99%	uT	0.1278	0.263	0.210	0.256	0.152	0.145	--	--
99%	A/m	0.1278	0.2104	0.168	0.2048	0.1216	0.116	0.815	1.63

H-Field Strength at 20cm from the top surface of the EUT

Charging Battery Level	Unit	Frequency Range (MHz)	Measured H-Field Strength Values (A/m)	FCC H-Field Strength 50% Limits (A/m)	FCC H-Field Strength Limits (A/m)
			Test Position E		
1%	uT	0.1278	0.232	--	--
1%	A/m	0.1278	0.1856	0.815	1.63
50%	uT	0.1278	0.246	--	--
50%	A/m	0.1278	0.1968	0.815	1.63
99%	uT	0.1278	0.213	--	--
99%	A/m	0.1278	0.1704	0.815	1.63

Note: A/m=uT/1.25

10. Test Set-up Photo**Test Set-up Photo**

-----END OF REPORT-----