



RF Exposure Evaluation

1 Product Information

Report Number	AIT22022505W2
EUT Name:	pop-up power strip
Model No:	TF14231201F15
Serial Model:	TF14231101F15, TF14241201F15C, TF14241101F15C
Test sample(s) ID:	22022505
Sample(s) Status:	Engineer sample
Serial No.:	N/A
Operation frequency:	113kHz-205kHz
Modulation Technology:	FSK
Antenna Type:	loop coil Antenna
Antenna gain:	0dBi
Hardware version.:	N/A
Software version.:	N/A
Power supply:	AC 120/60Hz
Maximum Rated Power of WPC	5W Max.
Model different:	Only model name different, others are all the same.
Note:	For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
Exposure category	General population/uncontrolled environment
EUT Type	Production Unit
Device Type	Mobile Device

2 Measuring Standard

KDB 680106 RF Exposure Wireless Charging Apps v03r01

3 Requirements

According to the item 5 of KDB 680106 v03r01:

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 1MHz.

(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.

Remark: Meet all the above requirements.

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).

Test Facility and Accreditation

Dongguan Yaxu (AiT) Technology Limited

No.22, Jinqianling 3rd Street, Jitigang, Huangjiang,Dongguan,
Guangdong, China

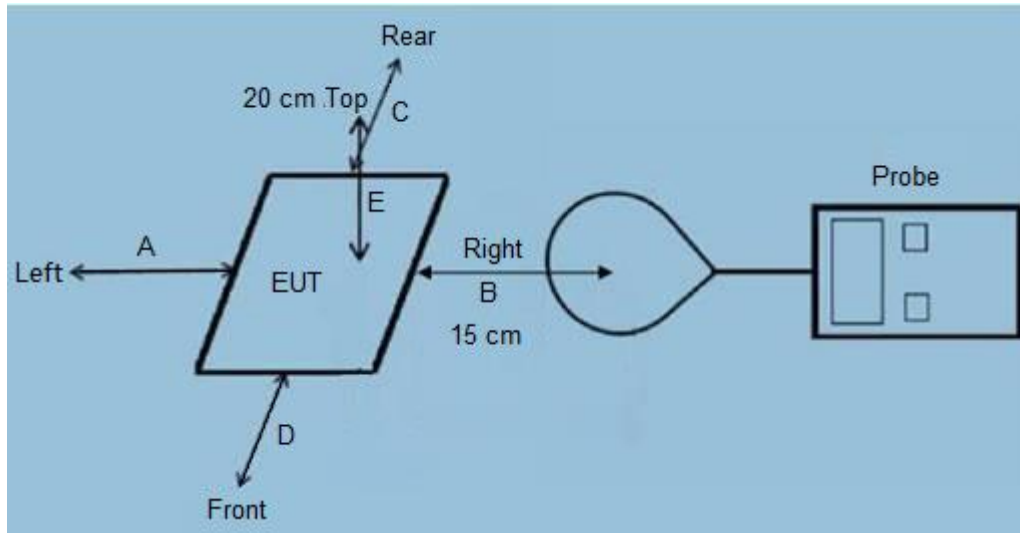
CNAS- Registration No: L6177

FCC-Registration No.: 703111 Designation Number: CN1313

IC —Registration No.: 6819A CAB identifier: CN0122

A2LA-Lab Cert. No.: 6317.01

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 (15 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 D01v03.

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

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	M-0155/M-0170	2021.08.30	2022.08.29
Magnetic field probe 100cm ²	Narda	ELT probe 100cm ²	M0675	2021.08.30	2022.08.29

7 Description of the test mode

Equipment under test was operated during the measurement under the following conditions:

☒ Charging and communication mode

Test Conditions	Description	
TM1	EUT(AC 120/60Hz) + Wireless Charger tester (mobile phone 5W)	Recorded

8 Test Result

E-Filed Strength at 15 cm from the edges surrounding the EUT (V/m)

Unit	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)
V/m	0.120	90.61	93.65	92.97	63.52	90.86	307.0	614.0

Note: $V/m = A/m * 377$

H-Filed Strength at 15 cm from the edges surrounding the EUT (A/m)

Unit	Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	50% Limits (A/m)	Limits (A/m)
uT	0.120	0.300	0.311	0.308	0.211	0.301	--	--
A/m		0.240	0.248	0.247	0.168	0.241	0.815	1.63

Note: $A/m = uT/1.25$

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

Unit	Frequency Range (MHz)	Test Position E	50% Limits (A/m)	Limits (A/m)
uT	0.120	0.225	--	--
A/m		0.180	0.815	1.63

Note: $A/m = uT/1.25$

9 Conclusion

The detected emissions with a distance of 15cm surrounding the device and 20 cm above the top surface of the device are below the FCC E-Field Strength & H-Field Strength limits; and comply with the requirements of FCC KDB 680106 D01.

10 Test Set-up Photo

