

TEST REPORT

Reference No..... : WTX20X10076314W-2
FCC ID : 2AXY7-KW11
Applicant : FreeThink Technique (Shenzhen) Co. LTD
Address..... : 218, No. 2-16, Huancheng Road, Huaguoshan community, Songgang Street, Bao 'an district, Shenzhen City
Product Name : Modular Elite wireless power bank
Test Model. : KW11
Standards : KDB 680106 D01 V03
Date of Receipt sample : Oct.20, 2020
Date of Test..... : Oct.20, 2020 to Oct.28, 2020
Date of Issue : Oct.28, 2020
Test Result..... : Pass

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

Prepared By:

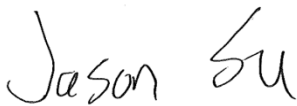
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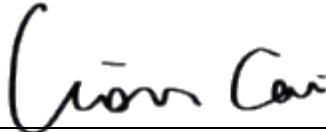
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Report version

Version No.	Date of issue	Description
Rev.00	Oct.28, 2020	Original
/	/	/

1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant: FreeThink Technique (Shenzhen) Co. LTD
Address of applicant: 218, No. 2-16, Huancheng Road, Huaguoshan community, Songgang Street, Bao 'an district, Shenzhen City

Manufacturer: FreeThink Technique (Shenzhen) Co. LTD
Address of manufacturer: 218, No. 2-16, Huancheng Road, Huaguoshan community, Songgang Street, Bao 'an district, Shenzhen City

General Description of EUT	
Product Name:	Modular Elite wireless power bank
Trade Name:	/
Model No.:	KW11
Adding Model(s):	/
Note: The test data is gathered from a production sample, provided by the manufacturer.	

Technical Characteristics of EUT	
Frequency Range:	110~250kHz
Modulation Type:	ASK
Antenna Type:	Coil Antenna
Rated Voltage:	DC5V / DC9V
Rated Current:	1A / 1.1A
Rated Power:	5W / 10W

1.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial No.	Cal Date	Due Date
MPE Measuring Instrument	Narda	ELT-400	M-0155/M-0170	2020-07-15	2021-07-14
Broadband Field Meter	Narda	NBM-520	D-1699	2020-06-21	2021-06-20

2. RF Exposure Test Report

2.1 Standard Applicable

According to § 1.1310 system operating under the provisions of this section shall be operating in a manner that the public is not exposed to radio frequency energy level in excess limit for maximum permissible exposure.

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

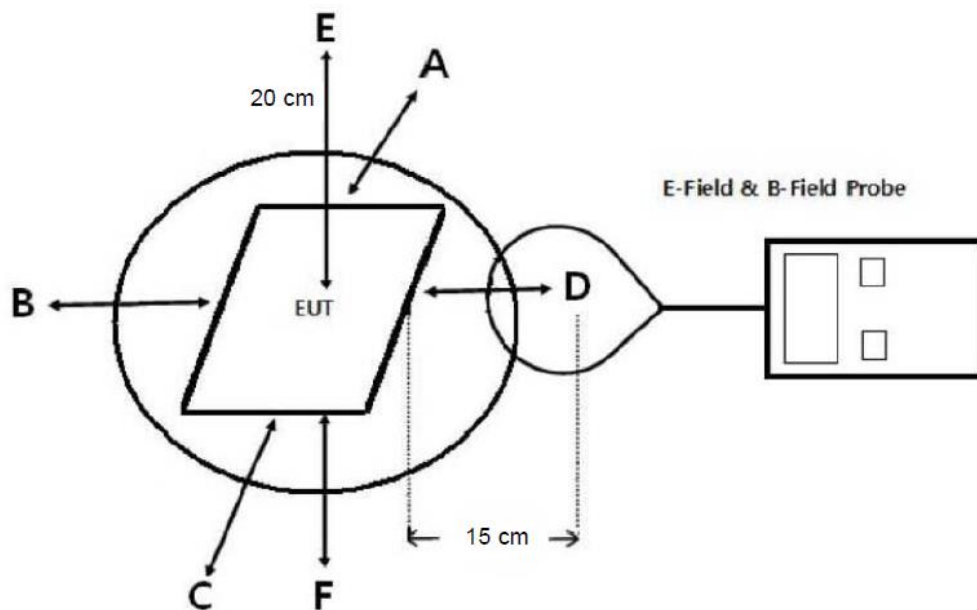
Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f ²	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			5	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
300-1,500			f/1500	30
1,500-100,000			1.0	30

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

2.2 Test Conditions

Test Mode	Description	Remark
TM1	Wireless Charging	Input DC5V/2A; Output:DC5V/1A
TM2	Wireless Charging	Input DC9V/2A; Output:DC9V/1.1A
Measurement Distance:	15 cm	

2.3 Test Procedure



- The measurement probe was placed at test distance (15 cm for A, B, C, D, F and 20 cm for E) which is between the edge of the charger and the geometric center of probe.
- The highest emission level was recorded at the measurement points (A, B, C, D, E, F).
- The EUT was measured according to the distance of KDB 680106 D01 V03.

2.4 Test Result

The EUT dose comply with item 5.2 of KDB 680106 D01V03

- Power transfer frequency is less than 1 MHz
Yes, the device operates in the frequency range from 110kHz to 250kHz.
- Output power from each primary coil is less than or equal to 15 watts
Yes, the maximum output power of the primary coil is less than 15W.
- The transfer system includes only single primary and secondary coils. This includes charging systems that may have multiple primary coils and clients that are able to detect and allow coupling only between individual pairs of coils
Yes, the client device includes only single primary coils.
- Client device is inserted in or placed directly in contact with the transmitter
Yes, Client device is placed directly in contact with the transmitter.
- Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).

Yes, It is mobile exposure conditions only.

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.

Yes, The EUT field strength levels are less than 50% of the MPE limit, refer to test TM1, TM2 list, and the coils can't transmitted simultaneous.

Test Mode: TM1

Electric Field Emissions			
Test Position	Measure Value (V/m)	Limit(V/m)	50% Limit (V/m)
Top	35	614	307
Bottom	39	614	307
Side 1	41	614	307
Side 2	36	614	307
Side 3	37	614	307
Side 4	38	614	307
Magnetic Field Emissions			
Test Position	Measure Value (A/m)	Limit(A/m)	50% Limit (A/m)
Top	0.19	1.63	0.815
Bottom	0.21	1.63	0.815
Side 1	0.17	1.63	0.815
Side 2	0.18	1.63	0.815
Side 3	0.20	1.63	0.815
Side 4	0.21	1.63	0.815

Test Mode: TM2

Electric Field Emissions			
Test Position	Measure Value (V/m)	Limit(V/m)	50% Limit (V/m)
Top	35	614	307
Bottom	32	614	307
Side 1	32	614	307
Side 2	31	614	307
Side 3	29	614	307
Side 4	33	614	307
Magnetic Field Emissions			
Test Position	Measure Value (A/m)	Limit(A/m)	50% Limit (A/m)
Top	0.31	1.63	0.815
Bottom	0.32	1.63	0.815
Side 1	0.32	1.63	0.815
Side 2	0.35	1.63	0.815
Side 3	0.31	1.63	0.815
Side 4	0.32	1.63	0.815

2.5 Test Photos



APPENDIX PHOTOGRAPHS

Please refer to “ANNEX”

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