

TEST REPORT

Reference No..... : WTX22X03036231W-2
FCC ID : 2APQD-Z6
Applicant : Shenzhen Aodehong Electronic Technology Co.,Ltd.
Address..... : 5th Floor, Elegant Industrial Park, No.8 Liuhe Road, Liuyue, Henggang Street, Longgang District, Shenzhen ,518173
Manufacturer : The same as Applicant
Address..... : The same as Applicant
Product Name : Wireless Charger
Model No..... : Z6
Standards : KDB 680106 D01 V03
Date of Receipt sample : 2022-03-07
Date of Test..... : 2022-03-07 to 2022-04-15
Date of Issue : 2022-04-15
Test Report Form No. : WTX_KDB 680106_D01_V03W
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.

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Report version

Version No.	Date of issue	Description
Rev.00	2022-04-15	Original
/	/	/

1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

General Description of EUT	
Product Name:	Wireless Charger
Trade Name:	/
Model No.:	Z6
Adding Model(s):	Z1, Z2, Z3, Z4, Z5, Z8, Z9, Z10, F1, F2, F4, F5, F6, F7, F8, F9, F12, F13, F15, F15B, F16, F17, F21, M35, M50, M51, M52, M54, M62, M63, M65, M66, M67
Battery Capacity	/
<p><i>Note: The test data is gathered from a production sample, provided by the manufacturer. The appearance of others models listed in the report is different from main-test model Z6, but the circuit and the electronic construction do not change, declared by the manufacturer.</i></p>	

Technical Characteristics of EUT	
Frequency Range:	112~205kHz; 300-350kHz
Modulation Type:	/
Antenna Type:	Coil Antenna
Antenna Gain:	0dBi
Rated Voltage:	QC/PD Input: 18W Type-C
Rated Current:	/
Rated Power:	Output: 5W/ 7.5W/ 10W/ 15W (Smart phone) Output: 5W (TWS) Output:2.5W (Smart watch)

1.2 Auxiliary Equipment List and Details

EUT Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
/	/	/	/

Special Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
USB Cable	1.20	Unshielded	Without Ferrite

Auxiliary Equipment List and Details			
Description	Manufacturer	Model	Serial Number
iWatch	Apple	MKJP3CH/A	/
iPhone	Apple	MGC33CH/A	/
Ar pods	Apple	A2190	/
Adapter	Xiaomi	MDY-08-ES	/

1.3 Test Equipment List and Details

Description	Manufacturer	Model	Serial No.	Cal Date	Due Date
ELECTRIC AND MAGNETIC FIELD ANALYZER	Narda	EHP-200AC	180ZX10226	2021-05-20	2024-05-19
Note: The deviation response is 0.8dB.					

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)

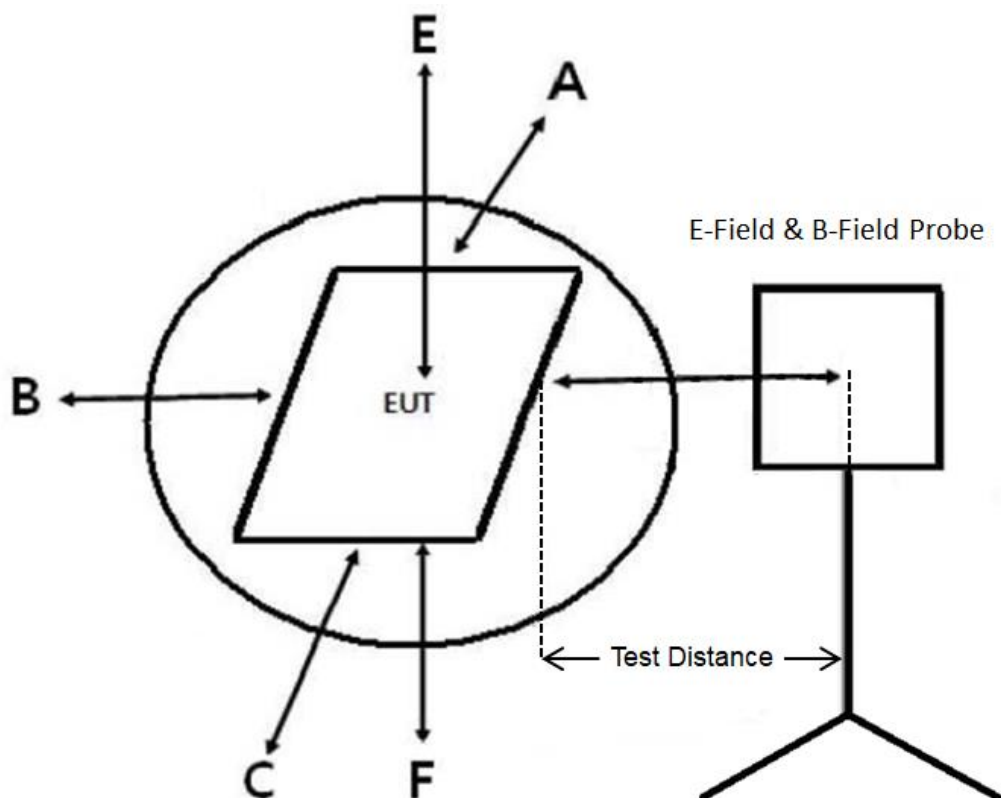
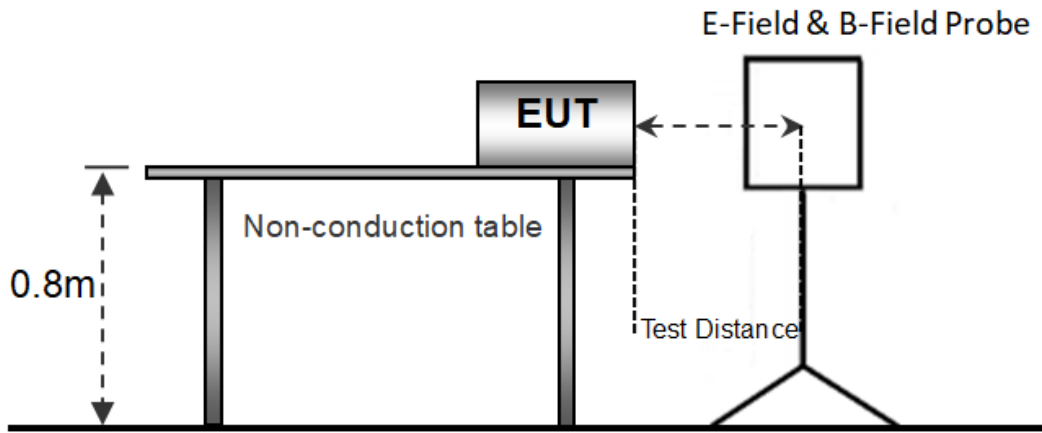
Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f ²	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			5	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	Power Supply Mode
TM1	Wireless Charging	Output 5W (Smart phone)	QC/PD Input: 18W Type-C
TM2	Wireless Charging	Output 10W (Smart phone)	QC/PD Input: 18W Type-C
TM3	Wireless Charging	Output 15W (Smart phone)	QC/PD Input: 18W Type-C
TM4	Wireless Charging	Output 5W (Air pods)	QC/PD Input: 18W Type-C
TM5	Wireless Charging	Output 2.5W (Apple Watch)	QC/PD Input: 18W Type-C
TM6	Wireless Charging	Output 15W (Smart phone) + Output 5W (Air pods) + Output 2.5W (Apple Watch)	QC/PD Input: 18W Type-C
Measurement Distance:	15 cm and 20 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 complies with item 5.2 of KDB 680106 D01V03

1. Power transfer frequency is less than 1 MHz
Yes, the device operates in the frequency range from 112kHz to 205kHz.
2. 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.
3. 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.
4. Client device is inserted in or placed directly in contact with the transmitter
Yes, Client device is placed directly in contact with the transmitter.
5. 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, TM3, TM4, TM5, TM6 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)
Point E	1.4288	614	307
Point F	0.6544	614	307
Point A	1.0036	614	307
Point B	0.8793	614	307
Point C	0.4562	614	307
Point D	0.9921	614	307
Magnetic Field Emissions			
Test Position	Measure Value (A/m)	Limit(A/m)	50% Limit (A/m)
Point E	0.2667	1.63	0.815
Point F	0.1203	1.63	0.815
Point A	0.0468	1.63	0.815
Point B	0.2004	1.63	0.815
Point C	0.0987	1.63	0.815
Point D	0.1324	1.63	0.815

Test Mode: TM2

Electric Field Emissions			
Test Position	Measure Value (V/m)	Limit(V/m)	50% Limit (V/m)
Point E	2.2289	614	307
Point F	1.5942	614	307
Point A	0.9846	614	307
Point B	1.0365	614	307
Point C	2.0034	614	307
Point D	0.7825	614	307
Magnetic Field Emissions			
Test Position	Measure Value (A/m)	Limit(A/m)	50% Limit (A/m)
Point E	0.6478	1.63	0.815
Point F	0.0645	1.63	0.815
Point A	0.2357	1.63	0.815
Point B	0.3492	1.63	0.815
Point C	0.6001	1.63	0.815
Point D	0.5978	1.63	0.815

Test Mode: TM3

Electric Field Emissions			
Test Position	Measure Value (V/m)	Limit(V/m)	50% Limit (V/m)
Point E	2.6441	614	307
Point F	1.2164	614	307
Point A	0.8460	614	307
Point B	1.3362	614	307
Point C	2.0984	614	307
Point D	0.9987	614	307
Magnetic Field Emissions			
Test Position	Measure Value (A/m)	Limit(A/m)	50% Limit (A/m)
Point E	0.6697	1.63	0.815
Point F	0.6304	1.63	0.815
Point A	0.2616	1.63	0.815
Point B	0.7478	1.63	0.815
Point C	0.7119	1.63	0.815
Point D	0.7367	1.63	0.815

Test Mode: TM4

Electric Field Emissions			
Test Position	Measure Value (V/m)	Limit(V/m)	50% Limit (V/m)
Point E	0.3574	614	307
Point F	0.3210	614	307
Point A	0.1257	614	307
Point B	0.2454	614	307
Point C	0.1987	614	307
Point D	0.2461	614	307
Magnetic Field Emissions			
Test Position	Measure Value (A/m)	Limit(A/m)	50% Limit (A/m)
Point E	0.2363	1.63	0.815
Point F	0.1235	1.63	0.815
Point A	0.1489	1.63	0.815
Point B	0.2004	1.63	0.815
Point C	0.0568	1.63	0.815
Point D	0.0987	1.63	0.815

Test Mode: TM5

Electric Field Emissions			
Test Position	Measure Value (V/m)	Limit(V/m)	50% Limit (V/m)
Point E	0.4053	614	307
Point F	0.1246	614	307
Point A	0.3320	614	307
Point B	0.0421	614	307
Point C	0.2951	614	307
Point D	0.0892	614	307
Magnetic Field Emissions			
Test Position	Measure Value (A/m)	Limit(A/m)	50% Limit (A/m)
Point E	0.2400	1.63	0.815
Point F	0.1238	1.63	0.815
Point A	0.1756	1.63	0.815
Point B	0.2014	1.63	0.815
Point C	0.2135	1.63	0.815
Point D	0.7368	1.63	0.815

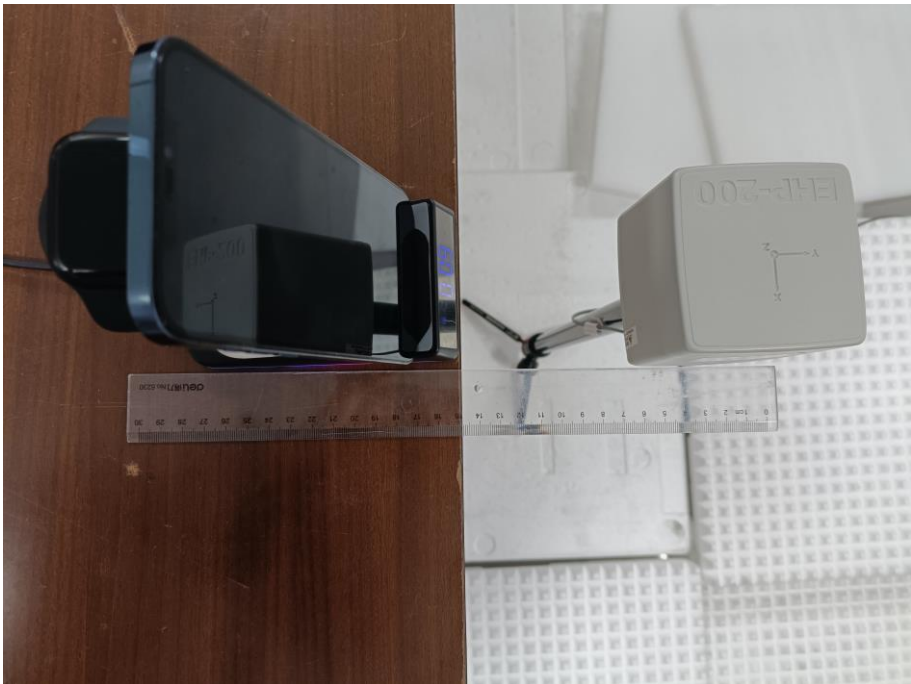
Test Mode: TM6

Electric Field Emissions			
Test Position	Measure Value (V/m)	Limit(V/m)	50% Limit (V/m)
Point E	3.1317	614	307
Point F	2.1460	614	307
Point A	0.9876	614	307
Point B	1.0145	614	307
Point C	2.0031	614	307
Point D	1.5309	614	307
Magnetic Field Emissions			
Test Position	Measure Value (A/m)	Limit(A/m)	50% Limit (A/m)
Point E	0.8051	1.63	0.815
Point F	0.7651	1.63	0.815
Point A	0.3927	1.63	0.815
Point B	0.6169	1.63	0.815
Point C	0.6545	1.63	0.815
Point D	0.7226	1.63	0.815

2.5 Measurement Uncertainty

Measurement uncertainty		
Parameter	Conditions	Uncertainty
Electric Field Emissions	Radiated	± 1.56 (V/m)
Magnetic Field Emissions	Radiated	± 0.08 (A/m)

2.6 Test Photos



APPENDIX PHOTOGRAPHS

Please refer to “ANNEX”

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