Radio Test Report

Report No.:CTA231109004H01

Issued for

Shenzhen Yize Innovation Technology Co., Ltd.

201, 2nd Floor, Building 3, Yunli Smart Park, Bantian Street, Longgang District, Shenzhen, CN

Product Name:	3-in-1 charging station
Brand Name:	N/A
Model Name:	E8
Series Model(s):	N/A
FCC ID:	2BA6N-E8
Test Standards:	FCC CFR 47 part 1, 1.1310

TEST REPORT

Applicant's Name..... :	Shenzhen Yize Innovation Technology Co., Ltd.
Address..... :	201, 2nd Floor, Building 3, Yunli Smart Park, Bantian Street, Longgang District, Shenzhen, CN
Manufacturer's Name ..... :	Shenzhen Yuanwangxing Technology Co., LTD.
Address..... :	Second floor, No. 7, Honghua Lane, Chihua Ling, Guihua Community, Guanlan Street, Longhua District, Shenzhen

Product Description

Product Name..... :	3-in-1 charging station
Brand Name ..... :	N/A
Model Name ..... :	E8
Series Model(s) ..... :	N/A
Test Standards..... :	FCC CFR 47 part 1, 1.1310
Test Procedure ..... :	680106 D01 Wireless Power Transfer v04

This device described above has been tested by CTA, the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Date of Test..... :	
Date of receipt of test item ..... :	24 Oct. 2023
Date of performance of tests.. :	24 Oct. 2023 ~ 04 Nov. 2023
Date of Issue ..... :	04 Nov. 2023
Test Result..... :	**Pass**

Testing Engineer : Zoey Cao

(Zoey Cao)

Technical Manager : Amy Wen

(Amy Wen)

Authorized Signatory : Eric Wang

(Eric Wang)

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Revision History

Rev.	Issue Date	Report No.	Effect Page	Contents
00	04 Nov. 2023	CTA231109004H01	ALL	Initial Issue

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:
FCC KDB 680106 D01 Wireless Power Transfer v04

FCC CFR 47			
Standard Section	Test Item	Judgment	Remark
FCC CFR 47 part1, 1.1310 KDB680106 D01v04	Electric Field Strength (E) (V/m)	PASS	
	Magnetic Field Strength (H) (A/m)	PASS	

1.1 TEST FACTORY

Shenzhen CTA Testing Technology Co., Ltd.
Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community,Fuhai Street, Bao'an District, Shenzhen, China
FCC test Firm Registration Number: 517856
IC test Firm Registration Number: 27890
A2LA Certificate No.: 6534.01
IC CAB ID: CN0127

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement **y** ±**U**, where expended uncertainty **U** is based on a standard uncertainty multiplied by a coverage factor of **k=2**, providing a level of confidence of approximately **95** %.

No.	Item	Uncertainly
1	H-filed	±0.83dB
2	E-filed	±0.91dB

1.3 GENERAL DESCRIPTION OF THE EUT

Product Name	3-in-1 charging station
Brand	N/A
Model Number	E8
Series Model(s)	N/A
Model Difference	N/A
Equipemnt Category	Non-ISM frequency
Antenna Type	Please refer to the Note 2.
Operating frequency	110.5-205KHz
Modulation Type	PFM
Rating	Input: 12V 3A DC Output: Output 1 for iPhone: DC 5V 3A, DC 9V 2.77A, DC 3.3-11V 2.75A Output 2 for Watch: DC 5V 0.6A Output 3 for earphone: DC 5V 1A
Adapter	Input: 100-240V~ 50/60Hz, 1.0A MAX Output: 12V 3A
Hardware version number	N/A
Software version number	N/A
Connecting I/O Port(s)	Please refer to the Note 1.

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User Manual.
2.

Test channel list	
Coil	Frequency(KHz)
1	126.7

3.Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	NOTE
1	N/A	E8	Coil	N/A	Antenna

The EUT antenna is Coil Antenna. No antenna other than that furnished by the responsible party shall be used with the device.

1.4 EQUIPMENTS LIST FOR ALL TEST ITEMS

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Electric and Magnetic field Probe - Analyzer	Narda	EHP 200A	180ZX10220	2023.02.28	2024.02.27

1.5 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS

Necessary accessories

Item	Equipment	Mfr/Brand	Model/Type No.	Length	Note
	Adapter	N/A	HH0024Z-090200-AG	N/A	N/A
	DC Cable	N/A	N/A	100cm	NO
	phone	Xiao mi	12 Pro	N/A	N/A
	Watch	Samsung	Active2(E060)	N/A	N/A
	Headphone charging box	Samsung	SM-R180	N/A	N/A

Support units

Item	Equipment	Mfr/Brand	Model/Type No.	Length	Note
N/A	N/A	N/A	N/A	N/A	N/A

Note:

(1) For detachable type I/O cable should be specified the length in cm in『Length』column.
(2) “YES” is means “with core”; “NO” is means “without core”.

2. MAXIMUM PERMISSIBLE EXPOSURE

2.1 MAXIMUM PERMISSIBLE EXPOSURE

Limit of Maximum Permissible Exposure

Limits for Occupational / Controlled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm²)	Averaging Time |E|²,|H|² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100,000			5	6

Limits for General Population / Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm²)	Averaging Time |E|²,|H|² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180 / f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1	30

Note 1: f = frequency in MHz ; *Plane-wave equivalent power density

Note 2: For the applicable limit, see FCC 1.1310, 680106 D01 Wireless Power Transfer v04

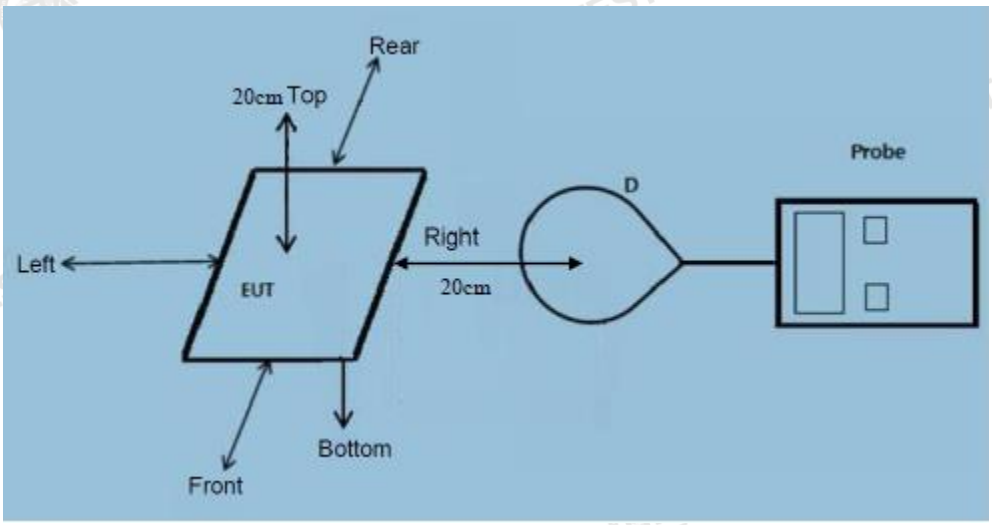
Note 3: Emissions between 100 kHz to 300 kHz should be assessed versus the limits at 300 kHz in Table 1 of Section 1.1310: 614 V/m and 1.63 A/m. A KDB inquiry is required to determine the applicable exposure limits below 100 kHz.

Note 4: The aggregate H-field strengths at 20 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.

2.2 TEST PROCEDURE

a. For devices designed for typical desktop applications, such a wireless charging pads, RF exposure evaluation should be conducted assuming a user separation distance of 20 cm (Top) and 20cm (Edge). E and H field strength measurements or numerical modeling may be used to demonstrate compliance. Measurements should be made from all sides and the top of the primary/client pair, with the 20cm (Top) and 20cm (Edge) measured from the center of the probe(s) to the edge of the device.

2.3 TEST SETUP



Remark: The EHP 200A probe antenna diameter is less than 11.5cm.

2.4 TEST RESULTS

Equipment Approval Considerations:

(1) The power transfer frequency is below 1 MHz.
(conform)

(2) The output power from each transmitting element (e.g., coil) is less than or equal to 15 watts.
(conform)

(3) A client device providing the maximum permitted load is placed in physical contact with the transmitter (i.e., the surfaces of the transmitter and client device enclosures need to be in physical contact)
(conform)

(4) Only § 2.1091-Mobile exposure conditions apply (i.e., this provision does not cover § 2.1093-Portable exposure conditions).
(conform)

(5) The E-field and H-field strengths, at and beyond 20 cm surrounding the device surface, are demonstrated to be less than 50% of the applicable MPE limit, per KDB 447498, Table 1. These measurements shall be taken along the principal axes of the device, with one axis oriented along the direction of the estimated maximum field strength, and for three points per axis or until a 1/d (inverse distance from the emitter structure) field strength decay is observed. Symmetry considerations may be used for test reduction purposes. The device shall be operated in documented worst-case compliance scenarios (i.e., the ones that lead to the maximum field components), and while all the radiating structures (e.g., coils or antennas) that by design can simultaneously transmit are energized at their nominal maximum power.
(conform)

(6) For systems with more than one radiating structure, the conditions specified in (5) must be met when the system is fully loaded (i.e., clients absorbing maximum power available), and with all the radiating structures operating at maximum power at the same time, as per design conditions. If the design allows one or more radiating structures to be powered at a higher level while other radiating structures are not powered, then those cases must be tested as well. For instance, a device may use three RF coils powered at 5 W, or one coil powered at 15 W: in this case, both scenarios shall be tested.
(conform)

2.5 MAXIMUM PERMISSIBLE EXPOSURE

Watch Wireless charging+ Phone charging+earphone charging

Maximum Permissible Exposure				
Charging	Separation	Probe from EUT Side	E-field (V/m)	H-field (A/m)
< 1% Battery	20cm	Front	0.365	0.11
< 1% Battery	20cm	Rear	0.358	0.119
< 1% Battery	20cm	Left	0.386	0.129
< 1% Battery	20cm	Right	0.386	0.116
< 1% Battery	20cm	Top	0.41	0.16
Limit			614	1.63
Margin Limit (%)			0.07%	9.82%

Maximum Permissible Exposure				
Charging	Separation	Probe from EUT Side	E-field (V/m)	H-field (A/m)
50% Battery	20cm	Front	0.36	0.127
50% Battery	20cm	Rear	0.364	0.125
50% Battery	20cm	Left	0.369	0.112
50% Battery	20cm	Right	0.39	0.134
50% Battery	20cm	Top	0.414	0.154
Limit			614	1.63
Margin Limit (%)			0.07%	9.45%

Maximum Permissible Exposure				
Charging	Separation	Probe from EUT Side	E-field (V/m)	H-field (A/m)
＞99% Battery	20cm	Front	0.353	0.122
＞99% Battery	20cm	Rear	0.355	0.122
＞99% Battery	20cm	Left	0.373	0.11
＞99% Battery	20cm	Right	0.384	0.119
＞99% Battery	20cm	Top	0.425	0.146
Limit			614	1.63
Margin Limit (%)			0.07%	8.96%

Note:

1. The test for watch frequency is 126.7 KHz.

2. The fundamental is at least 20dB higher than the other spursious, so the strength and signal strength of the extra points of the frequency point are directly judged, and there is no need to measure the strength of multiple ranges to calculate the combined value.

3. The human exposure time is 6 minutes and the test value is the maximum of the normal exposure time.

4. All modes have been tested, the worst mode1, only show the worst case.

All test combinations :

Mode1: Watch Wireless charging+ Phone charging+earphone charging

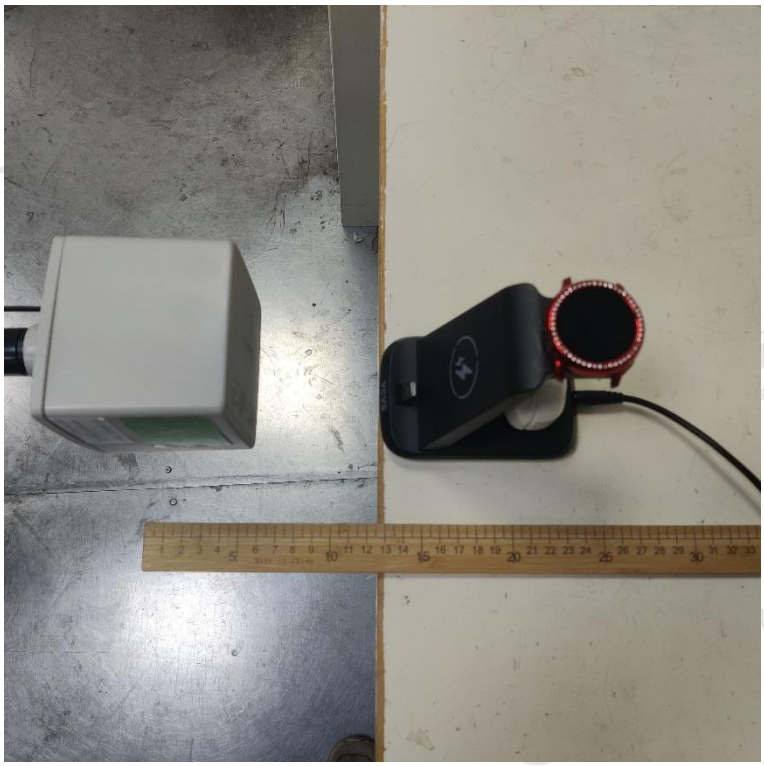
Mode2: Watch Wireless charging + Phone charging

Mode3: Watch Wireless charging +earphone charging

Mode4: Watch Wireless charging only

MPE SETUP PHOTO

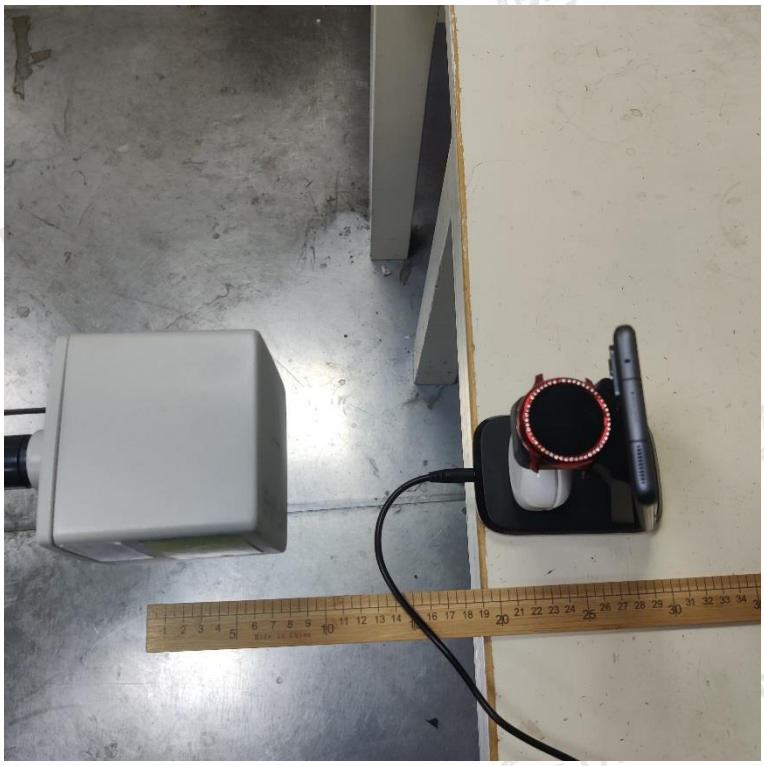
coil distance



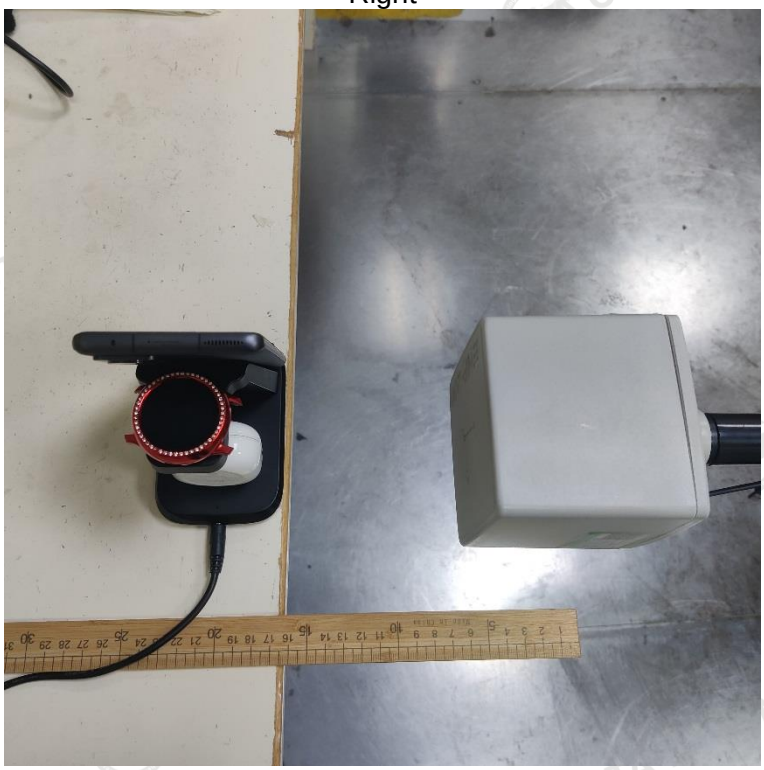
Front

Left

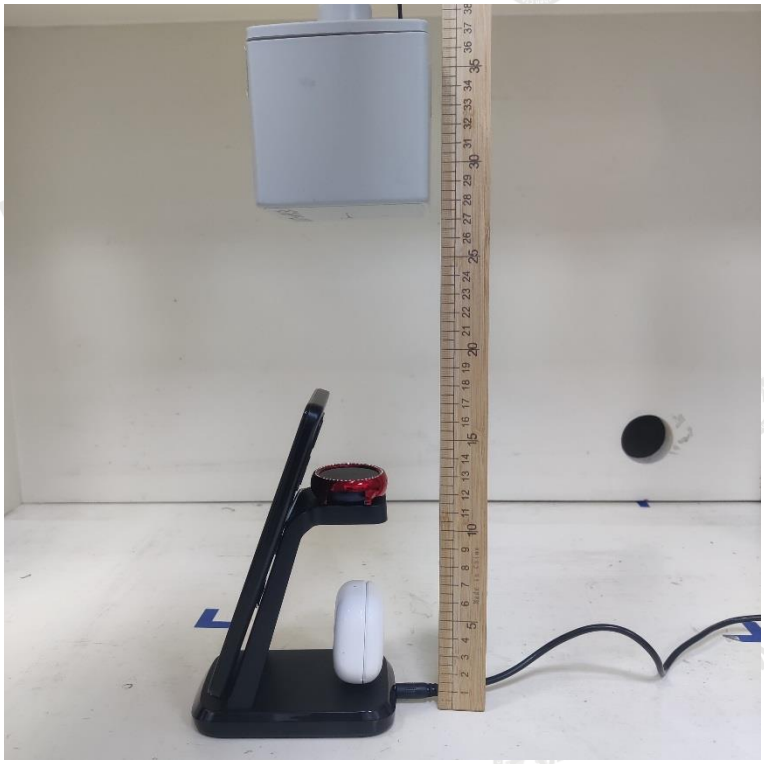
Rear



Right



Top



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