

TEST REPORT

Report No.: BCTC2211062954-2E

Applicant: Shenzhen Baseus Technology Co., Ltd.

Product Name: Power Bank

Model/Type
reference: PPCXM20

Tested Date: 2022-11-24 to 2022-12-01

Issued Date: 2022-12-01

Shenzhen BCTC Testing Co., Ltd.



FCC ID: 2A482-PPCXM20

Product Name: Power Bank
Trademark: Baseus
Model/Type reference: PPCXM20
Prepared For: Shenzhen Baseus Technology Co., Ltd.
Address: 2nd Floor, Building B, Baseus Intelligence Park, No.2008, Xuegang Rd, Gangtou Community, Bantian Street, Longgang District, Shenzhen, China.
Manufacturer: Shenzhen Baseus Technology Co., Ltd.
Address: 2nd Floor, Building B, Baseus Intelligence Park, No.2008, Xuegang Rd, Gangtou Community, Bantian Street, Longgang District, Shenzhen, China.
Prepared By: Shenzhen BCTC Testing Co., Ltd.
Address: 1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Zhancheng, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China.
Sample Received Date: 2022-11-24
Sample tested Date: 2022-11-24 to 2022-12-01
Issue Date: 2022-12-01
Report No.: BCTC2211062954-2E
Test Standards: FCC CFR 47 part1, 1.1307(b), 1.1310
Test Results: PASS

Tested by:



Brave Zeng/ Project Handler

Approved by:



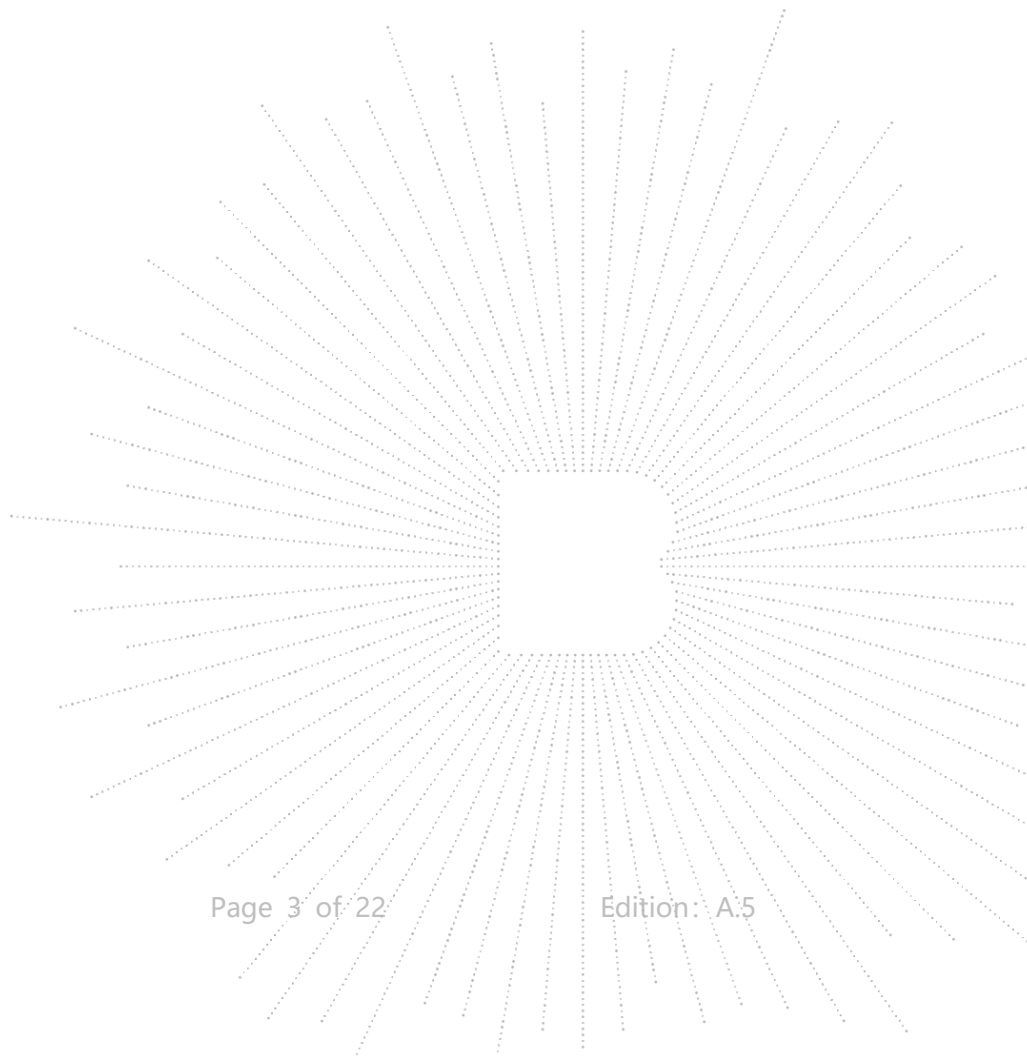
Zero Zhou/Reviewer

The test report is effective only with both signature and specialized stamp. This result(s) shown in this report refer only to the sample(s) tested. Without written approval of Shenzhen BCTC Testing Co., Ltd, this report can't be reproduced except in full. The tested sample(s) and the sample information are provided by the client.

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(Note: N/A Means Not Applicable)



1. Version

Report No.	Issue Date	Description	Approved
BCTC2211062954-2E	2022-12-01	Original	Valid

2. Product Information

2.1 Product Information

Model/Type reference: PPCXM20
Model differences: N/A
Hardware Version: N/A
Software Version: N/A
Product Description: Power Bank
Operation Frequency: 115kHz-205kHz
Antenna installation: loop coil antenna
Ratings: Type-C Input: 5V/3A;9V/2.0A
Type-C Output:5V/2.4A;9V/2.22A;12V/1.5A
Wireless Output:5W,7.5W,10W,15W

2.2 Support Equipment

Device Type	Brand	Model	Series No.	Note
Power Bank	N/A	PPCXM20	N/A	EUT

Notes:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

2.3 Test Mode

Mode 1	Charging +Wireless (5W)
Mode 2	Charging +Wireless (7.5W)
Mode 3	Charging +Wireless (10W)
Mode 4	Charging +Wireless (15W)
Mode 5	Wireless Charging 5W
Mode 6	Wireless Charging 7.5W
Mode 7	Wireless Charging 10W
Mode 8	Wireless Charging 15W
Mode 9	Type-C Output 5V2.4A
Mode 10	Type-C Output 9V2.22A
Mode 11	Type-C Output 12V 1.5A

3. Test Facility And Test Instrument Used

3.1 Test Facility

All measurement facilities used to collect the measurement data are located at Shenzhen BCTC Testing Co., Ltd. Address:1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Zhancheng, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China. The site and apparatus are constructed in conformance with the requirements of ANSI C63.4 and CISPR 16-1-1 other equivalent standards.

FCC Test Firm Registration Number: 712850

IC Registered No.: 23583

3.2 Test Instrument Used

EMF Test					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
Electromagnet -ic radiation tester	Wavecontrol	SMP160	19SN0980	May 26, 2022	May 25, 2023
Electromagnet -ic field probe	Wavecontrol	WP400-3	20WP120082	Sept. 08, 2022	Sept. 07, 2023
843 Chamber	ETS	843	84301	Aug. 27, 2020	Aug. 26, 2023
Software	Frad	EZ-EMC	EMC-CON 3A1	\	\

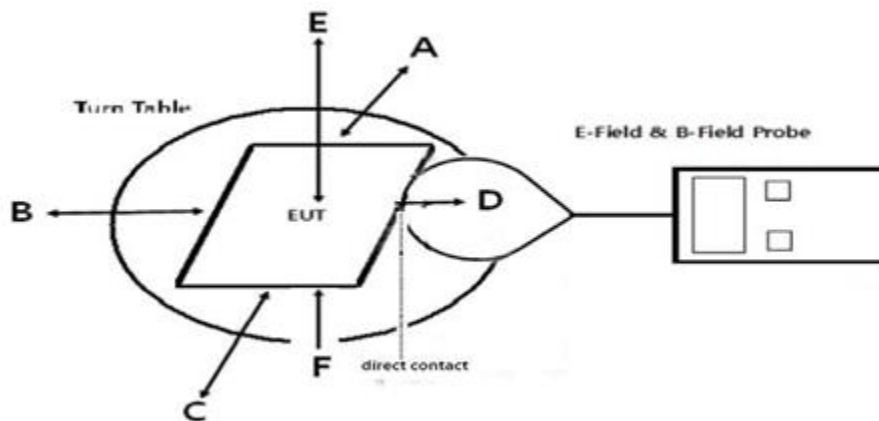
4. Method Of Measurement

4.1 Applicable Standard

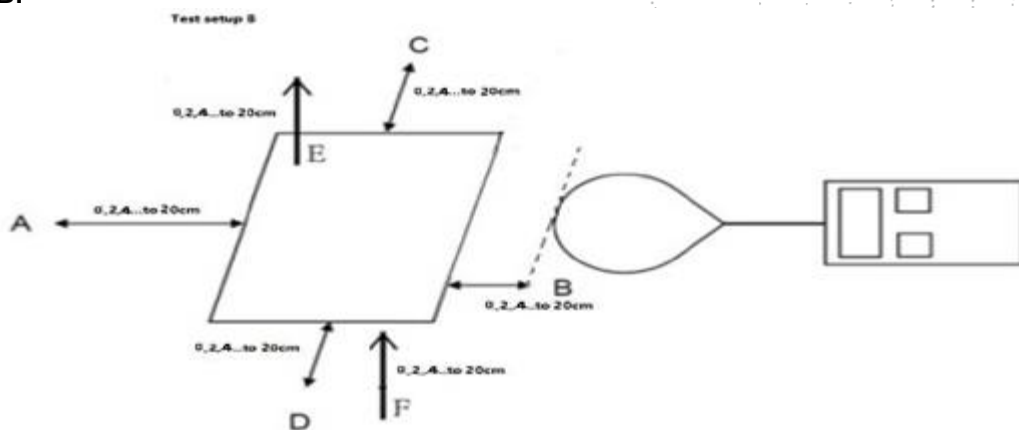
According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines. According to §1.1310 and §2.1093 RF exposure is calculated. According KDB680106 D01v03: RF Exposure Wireless Charging Apps v02.

4.2 Block Diagram Of Test Setup

A:



B:



4.3 Limit

Limits for Occupational / Controlled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	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/ cm ²)	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

4.4 Test procedure

- a) he RF exposure test was performed in anechoic chamber.
- b)The measurement probe was placed at 0 cm surrounding the device for test setup A; and the measurement Probe was placed from 0 cm to 20 cm, in 2 cm maximum increment measured from the edge of the device For the test setup B.
- c)The highest emission level was recorded and compared with limit as soon as measurement of eachd) The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E) were completed.
- d)The EUT was measured according to the dictates of KDB680106 D01v03r01
- f)Remark:The EUT's test position A, B, C, D , E and F is valid for the E and H field measurements.

4.5 Equipment Approval Considerations

The EUT does comply with item 5(b) of KDB 680106 D01v03

1) Power transfer frequency is less than 1MHz

Yes, the device operate in the frequency range from 115-205KHz

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 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 able to detect and allow coupling onlybetween individual pair of coils.

No, the prototype has only a single coil.

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).

No,The product is portable

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 10% x MPE limit.

4.6 E and H field Strength

For setup A:
Worst Case Operating Mode: Mode 10

H-Filed Strength at 0 cm from edges surrounding the EUT (A/m)

Frequency Range (KHz)	Operation condition	Test Position A (uT)	Test Position B (uT)	Test Position C (uT)	Test Position D (uT)	Test Position E (uT)	Test Position F (uT)	Limits (uT)
115kHz-205kHz	1% battery	0.080	0.070	0.065	0.065	0.061	0.074	2.038
115kHz-205kHz	50% battery	0.073	0.073	0.072	0.076	0.064	0.061	2.038
115kHz-205kHz	99% battery	0.064	0.070	0.061	0.076	0.068	0.073	2.038

Frequency Range (KHz)	Operation condition	Test Position A (A/m)	Test Position B (A/m)	Test Position C (A/m)	Test Position D (A/m)	Test Position E (A/m)	Test Position F (A/m)	Limits (A/m)
115kHz-205kHz	1% battery	0.064	0.056	0.052	0.052	0.048	0.059	1.63
115kHz-205kHz	50% battery	0.059	0.059	0.057	0.061	0.051	0.049	1.63
115kHz-205kHz	99% battery	0.051	0.056	0.049	0.061	0.055	0.059	1.63

Note: A/m=uT/1.25

E-Filed Strength at 0 cm from edges surrounding the EUT (V/m)

Frequency Range (KHz)	Operation condition	Test Position A (V/m)	Test Position B (V/m)	Test Position C (V/m)	Test Position D (V/m)	Test Position E (V/m)	Test Position F (V/m)	Limits (V/m)
115kHz-205kHz	1% battery	0.065	0.069	0.080	0.066	0.066	0.073	614
115kHz-205kHz	50% battery	0.074	0.079	0.073	0.079	0.064	0.077	614
115kHz-205kHz	99% battery	0.074	0.079	0.080	0.074	0.070	0.065	614

For setup B:
Worst Case Operating Mode: Mode 10

1% battery

H-Filed Strength at (distance from 0cm to 20cm at 2cm iteration) surrounding the EUT (A/m)

Test distance (cm)	Test Position A(uT)	Test Position B(uT)	Test Position C(uT)	Test Position D(uT)	Test Position E(uT)	Test Position F(uT)	Limits (uT)
0	0.092	0.091	0.106	0.097	0.102	0.093	2.038
2	0.106	0.094	0.106	0.096	0.110	0.105	2.038
4	0.091	0.100	0.100	0.096	0.108	0.096	2.038
6	0.096	0.093	0.107	0.095	0.096	0.095	2.038
8	0.110	0.099	0.109	0.104	0.092	0.107	2.038
10	0.109	0.095	0.100	0.098	0.094	0.106	2.038
12	0.094	0.097	0.093	0.104	0.106	0.104	2.038
14	0.105	0.095	0.092	0.107	0.093	0.098	2.038
16	0.109	0.106	0.105	0.091	0.091	0.095	2.038
18	0.099	0.091	0.090	0.090	0.100	0.099	2.038
20	0.106	0.097	0.103	0.096	0.107	0.106	2.038

Test distance (cm)	Test Position A(A/m)	Test Position B(A/m)	Test Position C(A/m)	Test Position D(A/m)	Test Position E(A/m)	Test Position F(A/m)	Limits (A/m)
0	0.073	0.072	0.085	0.078	0.082	0.074	1.63
2	0.085	0.075	0.085	0.077	0.088	0.084	1.63
4	0.073	0.080	0.080	0.077	0.087	0.076	1.63
6	0.077	0.075	0.086	0.076	0.077	0.076	1.63
8	0.088	0.079	0.087	0.083	0.074	0.086	1.63
10	0.087	0.076	0.080	0.078	0.075	0.085	1.63
12	0.075	0.078	0.075	0.083	0.085	0.083	1.63
14	0.084	0.076	0.074	0.085	0.075	0.079	1.63
16	0.087	0.085	0.084	0.073	0.073	0.076	1.63
18	0.079	0.073	0.072	0.072	0.080	0.079	1.63
20	0.085	0.078	0.082	0.077	0.085	0.085	1.63

Note: A/m=uT/1.25

E-Filed Strength at (distance from 0cm to 20cm at 2cm iteration) surrounding the EUT (V/m)

Test distance (cm)	Test Position A(V/m)	Test Position B(V/m)	Test Position C(V/m)	Test Position D(V/m)	Test Position E(V/m)	Test Position F(V/m)	Limits (V/m)
0	0.092	0.097	0.106	0.099	0.103	0.093	614
2	0.094	0.101	0.096	0.105	0.103	0.094	614
4	0.107	0.097	0.096	0.100	0.100	0.099	614
6	0.099	0.099	0.098	0.106	0.108	0.092	614
8	0.104	0.095	0.100	0.101	0.105	0.102	614
10	0.109	0.108	0.100	0.105	0.104	0.091	614
12	0.110	0.099	0.099	0.109	0.105	0.108	614
14	0.103	0.095	0.094	0.108	0.097	0.102	614
16	0.101	0.107	0.095	0.091	0.103	0.091	614
18	0.091	0.099	0.100	0.106	0.093	0.091	614
20	0.101	0.103	0.101	0.096	0.097	0.106	614

50% battery

H-Filed Strength at (distance from 0cm to 20cm at 2cm iteration) surrounding the EUT (A/m)

Test distance (cm)	Test Position A(uT)	Test Position B(uT)	Test Position C(uT)	Test Position D(uT)	Test Position E(uT)	Test Position F(uT)	Limits (uT)
0	0.096	0.106	0.094	0.107	0.101	0.103	2.038
2	0.100	0.108	0.093	0.098	0.107	0.096	2.038
4	0.100	0.100	0.110	0.094	0.096	0.104	2.038
6	0.094	0.106	0.108	0.108	0.091	0.106	2.038
8	0.100	0.107	0.095	0.104	0.103	0.101	2.038
10	0.103	0.098	0.091	0.103	0.105	0.109	2.038
12	0.095	0.096	0.100	0.104	0.097	0.096	2.038
14	0.090	0.094	0.091	0.095	0.101	0.091	2.038
16	0.098	0.109	0.091	0.104	0.095	0.093	2.038
18	0.097	0.100	0.097	0.097	0.103	0.105	2.038
20	0.094	0.107	0.100	0.096	0.101	0.094	2.038

Test distance (cm)	Test Position A(A/m)	Test Position B(A/m)	Test Position C(A/m)	Test Position D(A/m)	Test Position E(A/m)	Test Position F(A/m)	Limits (A/m)
0	0.076	0.085	0.075	0.085	0.081	0.082	1.63
2	0.080	0.086	0.074	0.078	0.085	0.077	1.63
4	0.080	0.080	0.088	0.075	0.077	0.083	1.63
6	0.075	0.085	0.087	0.086	0.073	0.085	1.63
8	0.080	0.086	0.076	0.083	0.082	0.080	1.63
10	0.082	0.078	0.072	0.082	0.084	0.087	1.63
12	0.076	0.077	0.080	0.083	0.077	0.077	1.63
14	0.072	0.076	0.073	0.076	0.081	0.073	1.63
16	0.079	0.087	0.073	0.083	0.076	0.074	1.63
18	0.078	0.080	0.078	0.078	0.082	0.084	1.63
20	0.075	0.086	0.080	0.077	0.081	0.075	1.63

Note: $A/m = uT/1.25$

E-Filed Strength at (distance from 0cm to 20cm at 2cm iteration) surrounding the EUT (V/m)

Test distance (cm)	Test Position A(V/m)	Test Position B(V/m)	Test Position C(V/m)	Test Position D(V/m)	Test Position E(V/m)	Test Position F(V/m)	Limits (V/m)
0	0.091	0.103	0.105	0.097	0.098	0.092	614
2	0.101	0.092	0.105	0.105	0.107	0.105	614
4	0.110	0.103	0.091	0.097	0.100	0.097	614
6	0.106	0.102	0.095	0.105	0.096	0.103	614
8	0.098	0.100	0.107	0.096	0.099	0.097	614
10	0.100	0.092	0.108	0.100	0.103	0.105	614
12	0.095	0.110	0.104	0.097	0.108	0.092	614
14	0.103	0.093	0.101	0.104	0.101	0.109	614
16	0.095	0.101	0.097	0.105	0.107	0.094	614
18	0.100	0.107	0.104	0.102	0.099	0.102	614
20	0.103	0.096	0.104	0.101	0.102	0.107	614

99% battery

H-Filed Strength at (distance from 0cm to 20cm at 2cm iteration) surrounding the EUT (A/m)

Test distance (cm)	Test Position A(uT)	Test Position B(uT)	Test Position C(uT)	Test Position D(uT)	Test Position E(uT)	Test Position F(uT)	Limits (uT)
0	0.095	0.109	0.091	0.095	0.101	0.091	2.038
2	0.091	0.092	0.105	0.109	0.101	0.103	2.038
4	0.102	0.099	0.100	0.109	0.099	0.105	2.038
6	0.107	0.095	0.093	0.099	0.108	0.106	2.038
8	0.102	0.095	0.103	0.102	0.096	0.102	2.038
10	0.099	0.090	0.093	0.108	0.093	0.097	2.038
12	0.094	0.099	0.093	0.108	0.095	0.094	2.038
14	0.095	0.098	0.108	0.092	0.094	0.108	2.038
16	0.109	0.107	0.104	0.108	0.103	0.102	2.038
18	0.110	0.093	0.093	0.092	0.100	0.105	2.038
20	0.101	0.108	0.099	0.101	0.109	0.092	2.038

Test distance (cm)	Test Position A(A/m)	Test Position B(A/m)	Test Position C(A/m)	Test Position D(A/m)	Test Position E(A/m)	Test Position F(A/m)	Limits (A/m)
0	0.076	0.088	0.073	0.076	0.081	0.073	1.63
2	0.073	0.074	0.084	0.087	0.080	0.082	1.63
4	0.082	0.080	0.080	0.087	0.079	0.084	1.63
6	0.085	0.076	0.075	0.079	0.086	0.085	1.63
8	0.082	0.076	0.083	0.082	0.077	0.082	1.63
10	0.080	0.072	0.075	0.086	0.074	0.078	1.63
12	0.076	0.079	0.075	0.086	0.076	0.075	1.63
14	0.076	0.078	0.087	0.074	0.075	0.086	1.63
16	0.087	0.086	0.084	0.086	0.083	0.082	1.63
18	0.088	0.074	0.074	0.074	0.080	0.084	1.63
20	0.081	0.087	0.079	0.081	0.087	0.073	1.63

Note: A/m=uT/1.25

E-Filed Strength at (distance from 0cm to 20cm at 2cm iteration) surrounding the EUT (V/m)

Test distance (cm)	Test Position A(V/m)	Test Position B(V/m)	Test Position C(V/m)	Test Position D(V/m)	Test Position E(V/m)	Test Position F(V/m)	Limits (V/m)
0	0.094	0.093	0.093	0.103	0.104	0.092	614
2	0.106	0.106	0.099	0.099	0.098	0.102	614
4	0.095	0.107	0.102	0.104	0.105	0.096	614
6	0.099	0.106	0.091	0.104	0.090	0.100	614
8	0.106	0.104	0.106	0.105	0.106	0.093	614
10	0.099	0.104	0.107	0.095	0.101	0.101	614
12	0.106	0.102	0.093	0.101	0.096	0.097	614
14	0.105	0.101	0.100	0.095	0.109	0.092	614
16	0.102	0.107	0.094	0.102	0.097	0.108	614
18	0.095	0.103	0.108	0.096	0.109	0.096	614
20	0.105	0.094	0.093	0.094	0.105	0.107	614

Note: In the frequency range of 1k-10M, except the fundamental frequency, other transmissions of the power transmission system are less than 20dB lower than the maximum fundamental transmission, so it is not necessary to evaluate.

5. Photographs Of Test Set-Up

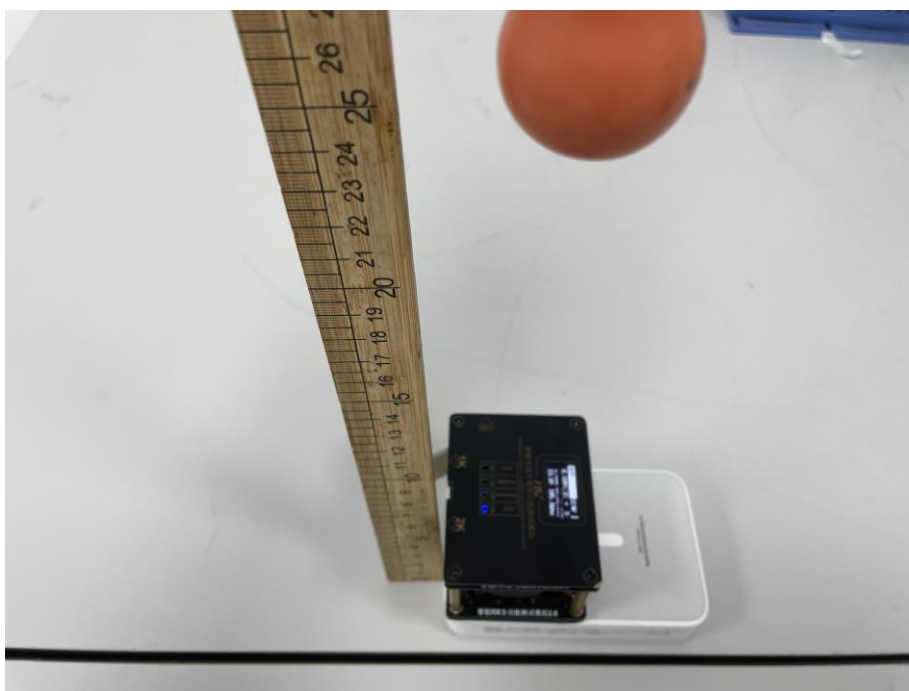
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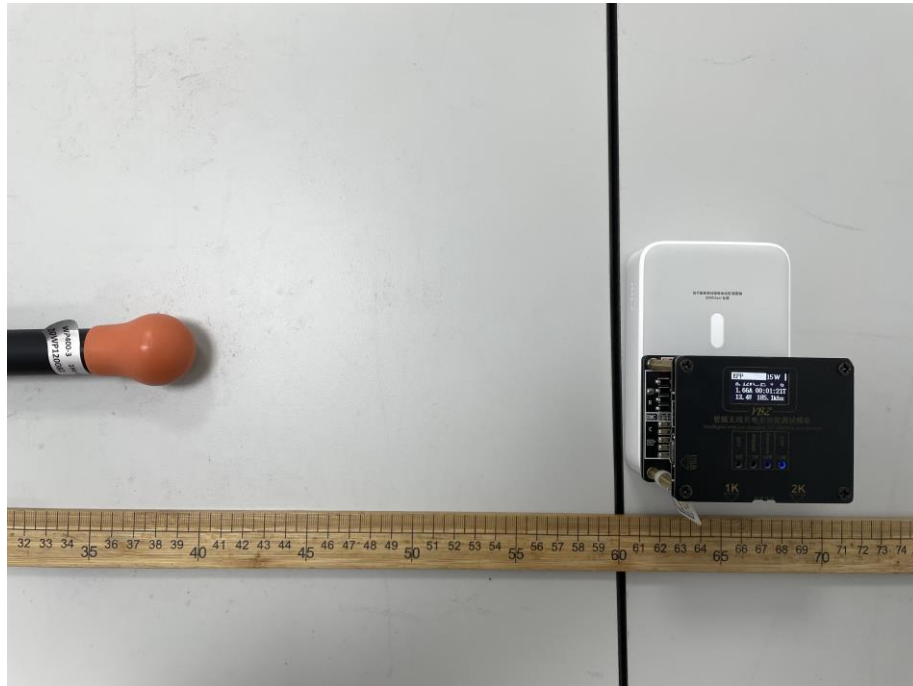




20cm







STATEMENT

1. The equipment lists are traceable to the national reference standards.
2. The test report can not be partially copied unless prior written approval is issued from our lab.
3. The test report is invalid without the "special seal for inspection and testing".
4. The test report is invalid without the signature of the approver.
5. The test process and test result is only related to the Unit Under Test.
6. Sample information is provided by the client and the laboratory is not responsible for its authenticity.
7. The test report without CMA mark is only used for scientific research, teaching, enterprise product development and internal quality control purposes.
8. The quality system of our laboratory is in accordance with ISO/IEC17025.
9. If there is any objection to this test report, the client should inform issuing laboratory within 15 days from the date of receiving test report.

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***** END *****