

TEST REPORT

Report No.: BCTC2304716048-2E

Applicant: Shenzhen Daikang Technology Co., Ltd.

Product Name: OPEN TWS EARPHONE

Model/Type Ref.: OpenBuds

Tested Date: 2023-04-20 to 2023-05-23

Issued Date: 2023-06-01

Shenzhen BCTC Testing Co., Ltd.

FCC ID: 2BA4B-OPENBUDS-BOX

Product Name: OPEN TWS EARPHONE

Trademark: Dacom

Model/Type Ref.: OpenBuds, OpenBuds Air, OpenBuds Pro, G136, G137

Prepared For: Shenzhen Daikang Technology Co., Ltd.

Address: Building i, No. 10, East District, Shangxue S&T Park, Bantian Street, Longgang District, Shenzhen Guangdong China 518000

Manufacturer: Shenzhen Sande Dacom Electronics Co., Ltd.

Address: Building i, No. 10, East District, Shangxue S&T Park, Bantian Street, Longgang District, Shenzhen Guangdong China 518000

Prepared By: Shenzhen BCTC Testing Co., Ltd.

Address: 1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Tangwei, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China

Sample Received Date: 2023-04-20

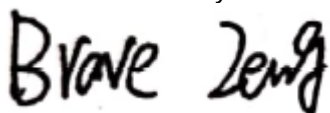
Sample tested Date: 2023-04-20 to 2023-05-23

Report No.: BCTC2304716048-2E

Test Standards: FCC CFR 47 part1, 1.1307(b), 1.1310

Test Results: PASS

Tested by:



Brave Zeng/ Project Handler

Approved by:

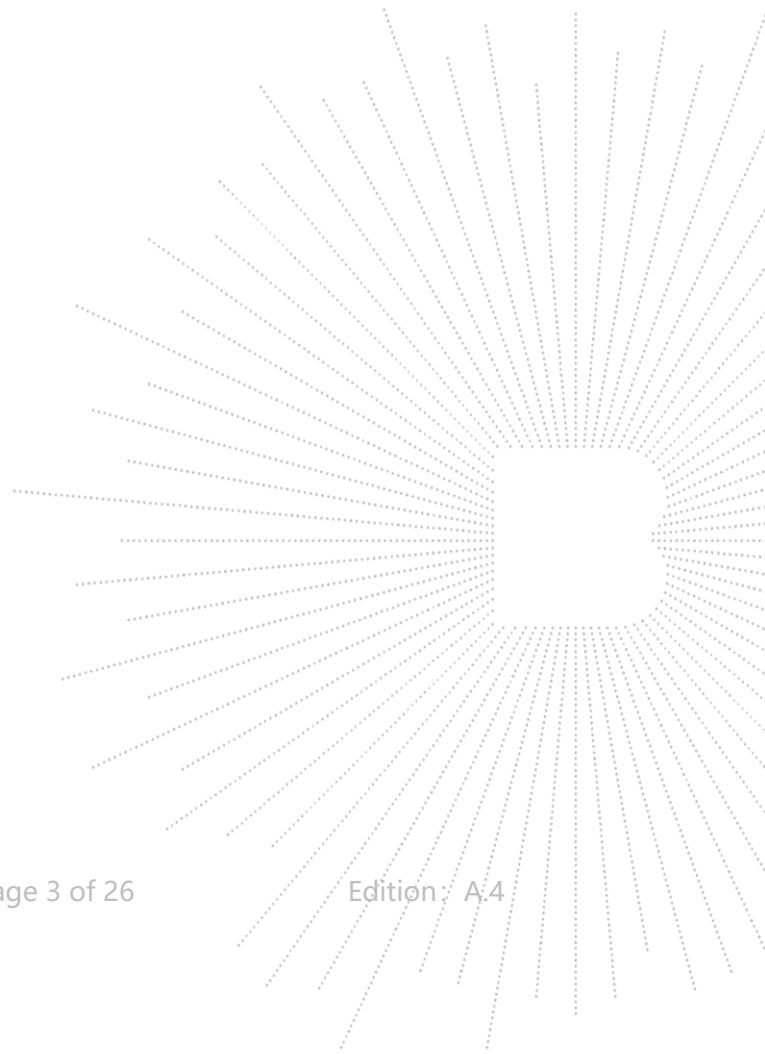


Zero Zhou/Reviewer

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.

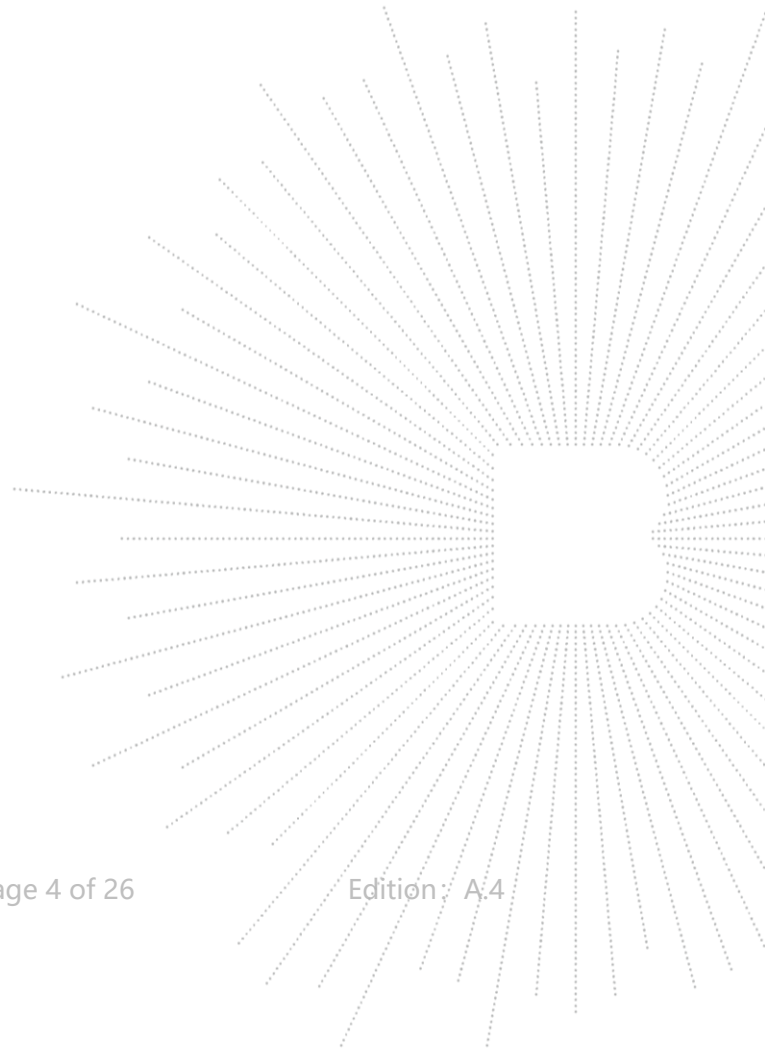
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1. Version

Report No.	Issue Date	Description	Approved
BCTC2304716048-2E	2023-06-01	Original	Valid



2. Product Information

2.1 Product Information

Model/Type Ref.:	OpenBuds, OpenBuds Air, OpenBuds Pro, G136, G137
Model differences:	Our production units bearing the following model numbers are identical in circuitry and electrical, mechanical and physical construction; The difference is only in model names.
Operation Frequency:	850-950KHz
Antenna installation:	Loop coil antenna
Ratings:	Input DC 5V from the adapter Output Wireless : 5W+5W
Hardware Version:	N/A
Software Version:	N/A

2.2 Support Equipment

No.	Device Type	Brand	Model	Series No.	Note
E-1	Earphone	N/A	N/A	N/A	Auxiliary
E-2	Earphone	N/A	N/A	N/A	Auxiliary
E-4	OPEN TWS EARPHONE	N/A	OpenBuds	N/A	EUT
E-5	Adapter	N/A	N/A	N/A	Auxiliary

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

Test Modes 1	Output Wireless : 5W+5W
Test Modes 2	Charge+ Outpu Wireless : 5W+5W

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, Tangwei, 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

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Electromagnetic radiation tester	Wavecontrol	SMP160	19SN0980	May 15, 2023	May 14, 2024
Electromagnetic field probe	Wavecontrol	WP400-3	20WP120082	Sept. 08, 2022	Sept. 07, 2023
843 Chamber	ETS	843	84301	Aug. 27, 2020	Aug. 26, 2023

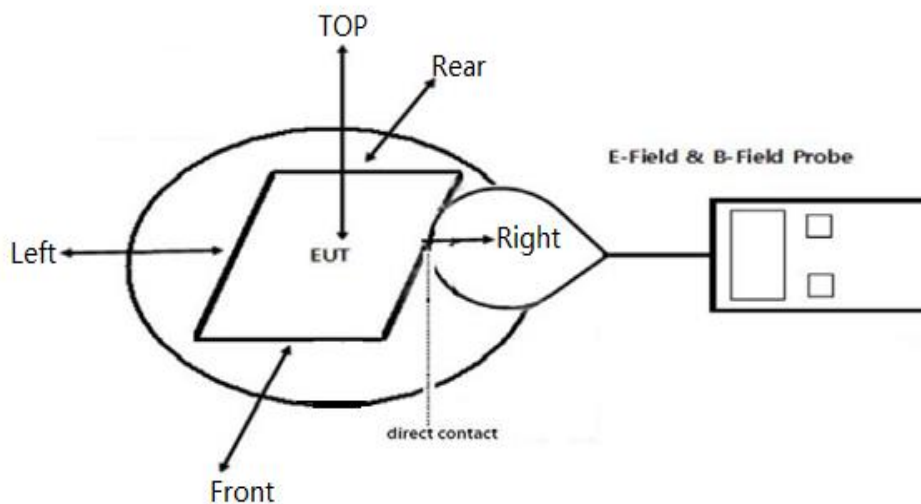
4. Method Of Measurement

4.1 Applicable Standard

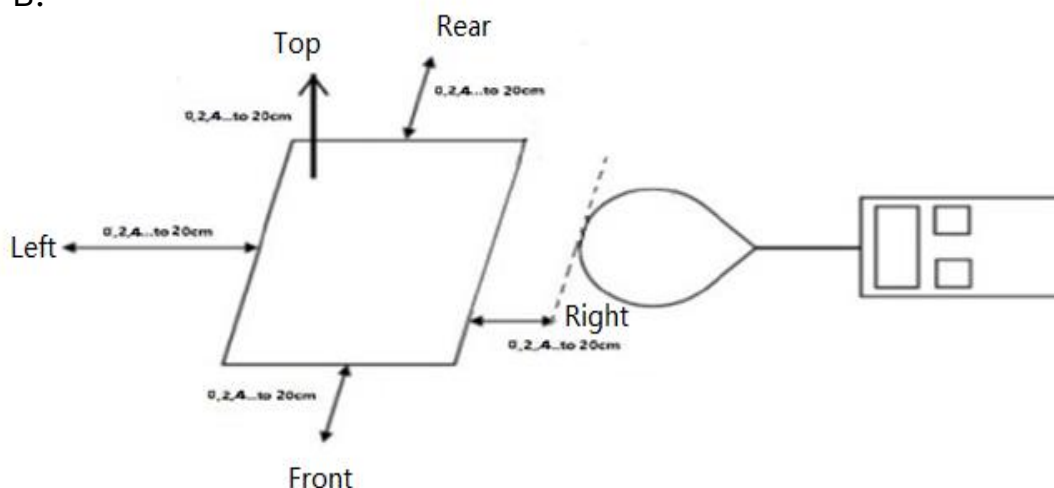
According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines. According to §1.1310 and §2.1093 RF exposure is calculated. According KDB 680106 D01 RF Exposure Wireless Charging.

4.2 Block Diagram Of Test Setup

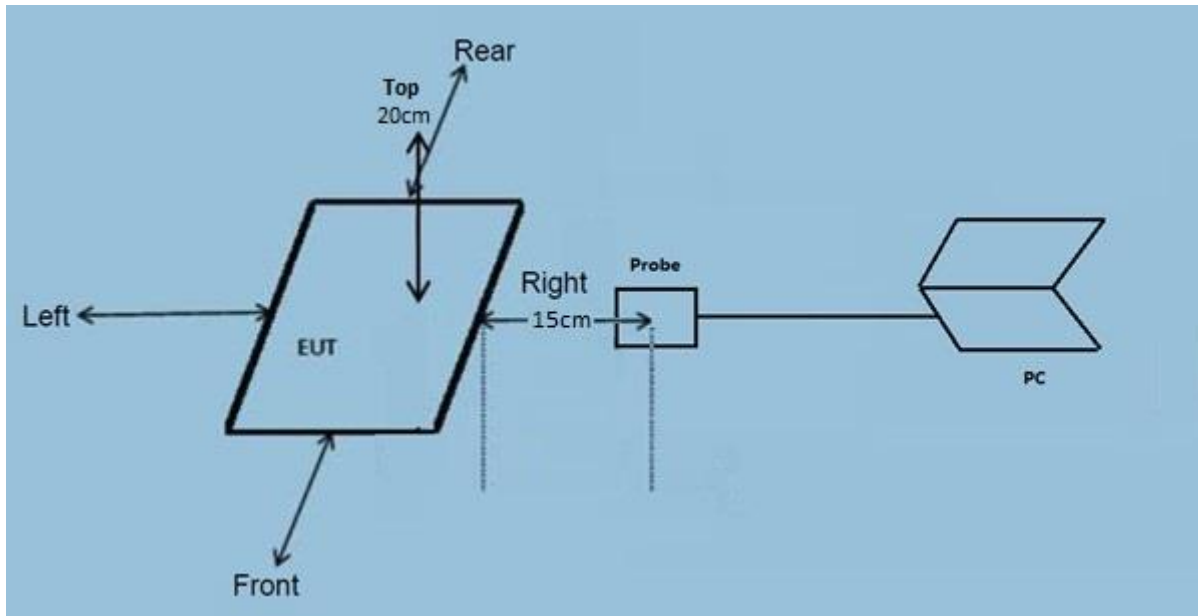
A:



B:



C:



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

- 1) RF exposure test was performed in anechoic chamber.
- 2) 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.
- 3) 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 (left, right, front, rear and top) were completed.
- 4) The EUT was measured according to the dictates of KDB680106 D01
- 5) Remark:

The EUT's test position left, right, front, rear and top is valid for the E and H field measurements.

4.5 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 850- 950khz
- 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 5W.
- 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.
Yes, the product is composed of 2 primary coils, which can be powered on at the same time to charge 2 clients
- 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 T E And H Field Strength

For setup A: Mode 1

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

Frequency Range (KHz)	Operation condition	Test Position Front (uT)	Test Position Rear (uT)	Test Position Left (uT)	Test Position Right (uT)	Test Position Top (uT)	Limits (uT)
850-950KHz	Full load	0.063	0.071	0.075	0.076	0.065	2.0375
850-950KHz	Half load	0.076	0.069	0.075	0.069	0.076	2.0375
850-950KHz	No load	0.080	0.074	0.064	0.073	0.074	2.0375

Note: A/m=uT÷1.25

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

Frequency Range (KHz)	Operation condition	Test Position Front (A/m)	Test Position Rear (A/m)	Test Position Left (A/m)	Test Position Right (A/m)	Test Position Top (A/m)	Limits (A/m)
850-950KHz	Full load	0.050	0.057	0.060	0.061	0.052	1.63
850-950KHz	Half load	0.061	0.055	0.060	0.055	0.061	1.63
850-950KHz	No load	0.064	0.059	0.051	0.058	0.059	1.63

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

Frequency Range (KHz)	Operation condition	Test Position Front (V/m)	Test Position Rear (V/m)	Test Position Left (V/m)	Test Position Right (V/m)	Test Position Top (V/m)	Limits (V/m)
850-950KHz	Full load	0.062	0.077	0.067	0.066	0.072	614
850-950KHz	Half load	0.067	0.073	0.066	0.067	0.074	614
850-950KHz	No load	0.077	0.072	0.064	0.080	0.079	614

**For setup B:
Mode 1**

Full Load

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

Test distance (cm)	Test Position Front (V/m)	Test Position Rear (V/m)	Test Position Left (V/m)	Test Position Right (V/m)	Test Position Top (V/m)	Limits (V/m)
2	0.110	0.096	0.101	0.104	0.106	614
4	0.090	0.105	0.091	0.108	0.095	614
6	0.094	0.091	0.098	0.104	0.100	614
8	0.096	0.092	0.109	0.110	0.108	614
10	0.104	0.107	0.107	0.093	0.092	614
12	0.101	0.107	0.098	0.093	0.101	614
14	0.098	0.102	0.090	0.102	0.100	614
16	0.095	0.103	0.093	0.108	0.103	614
18	0.095	0.091	0.094	0.098	0.102	614
20	0.102	0.103	0.091	0.096	0.106	614

Test distance (cm)	Test Position Front (uT)	Test Position Rear (uT)	Test Position Left (uT)	Test Position Right (uT)	Test Position Top (uT)	Limits (uT)
2	0.095	0.101	0.101	0.109	0.098	2.0375
4	0.091	0.103	0.098	0.093	0.106	2.0375
6	0.094	0.104	0.103	0.093	0.103	2.0375
8	0.094	0.106	0.103	0.103	0.101	2.0375
10	0.091	0.104	0.091	0.106	0.099	2.0375
12	0.109	0.108	0.110	0.103	0.104	2.0375
14	0.095	0.094	0.095	0.106	0.096	2.0375
16	0.094	0.095	0.109	0.090	0.093	2.0375
18	0.099	0.108	0.099	0.108	0.098	2.0375
20	0.093	0.103	0.106	0.095	0.104	2.0375

Note: A/m = uT $\times$ 1.25

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

Test distance (cm)	Test Position Front (A/m)	Test Position Rear(A/m)	Test Position Left (A/m)	Test Position Right (A/m)	Test Position Top (A/m)	Limits (A/m)
2	0.076	0.081	0.081	0.087	0.078	1.63
4	0.073	0.082	0.078	0.074	0.085	1.63
6	0.075	0.083	0.082	0.074	0.082	1.63
8	0.075	0.085	0.082	0.082	0.081	1.63
10	0.073	0.083	0.073	0.085	0.079	1.63
12	0.087	0.086	0.088	0.082	0.083	1.63
14	0.076	0.075	0.076	0.085	0.077	1.63
16	0.075	0.076	0.087	0.072	0.074	1.63
18	0.079	0.086	0.079	0.086	0.078	1.63
20	0.074	0.082	0.085	0.076	0.083	1.63

Half Load

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

Test distance (cm)	Test Position Front (V/m)	Test Position Rear (V/m)	Test Position Left (V/m)	Test Position Right (V/m)	Test Position Top (V/m)	Limits (V/m)
2	0.103	0.092	0.110	0.093	0.105	614
4	0.110	0.098	0.098	0.101	0.091	614
6	0.098	0.109	0.098	0.098	0.098	614
8	0.108	0.091	0.095	0.099	0.099	614
10	0.097	0.104	0.094	0.106	0.092	614
12	0.092	0.105	0.095	0.097	0.105	614
14	0.103	0.101	0.104	0.104	0.100	614
16	0.092	0.099	0.094	0.098	0.095	614
18	0.090	0.093	0.097	0.106	0.106	614
20	0.101	0.097	0.102	0.101	0.108	614

Test distance (cm)	Test Position Front (uT)	Test Position Rear(uT)	Test Position Left (uT)	Test Position Right (uT)	Test Position Top (uT)	Limits (uT)
2	0.105	0.093	0.105	0.103	0.090	2.0375
4	0.099	0.095	0.096	0.104	0.095	2.0375
6	0.094	0.094	0.104	0.103	0.103	2.0375
8	0.090	0.104	0.104	0.098	0.104	2.0375
10	0.090	0.101	0.105	0.106	0.093	2.0375
12	0.104	0.100	0.090	0.096	0.098	2.0375
14	0.095	0.103	0.098	0.110	0.090	2.0375
16	0.095	0.103	0.108	0.100	0.096	2.0375
18	0.094	0.100	0.098	0.095	0.096	2.0375
20	0.091	0.091	0.098	0.096	0.104	2.0375

Note: A/m = uT ÷ 1.25

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

Test distance (cm)	Test Position Front (A/m)	Test Position Rear(A/m)	Test Position Left (A/m)	Test Position Right (A/m)	Test Position Top (A/m)	Limits (A/m)
2	0.084	0.074	0.084	0.082	0.072	1.63
4	0.079	0.076	0.077	0.083	0.076	1.63
6	0.075	0.075	0.083	0.082	0.082	1.63
8	0.072	0.083	0.083	0.078	0.083	1.63
10	0.072	0.081	0.084	0.085	0.074	1.63
12	0.083	0.080	0.072	0.077	0.078	1.63
14	0.076	0.082	0.078	0.088	0.072	1.63
16	0.076	0.082	0.086	0.080	0.077	1.63
18	0.075	0.080	0.078	0.076	0.077	1.63
20	0.073	0.073	0.078	0.077	0.083	1.63

NO-load

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

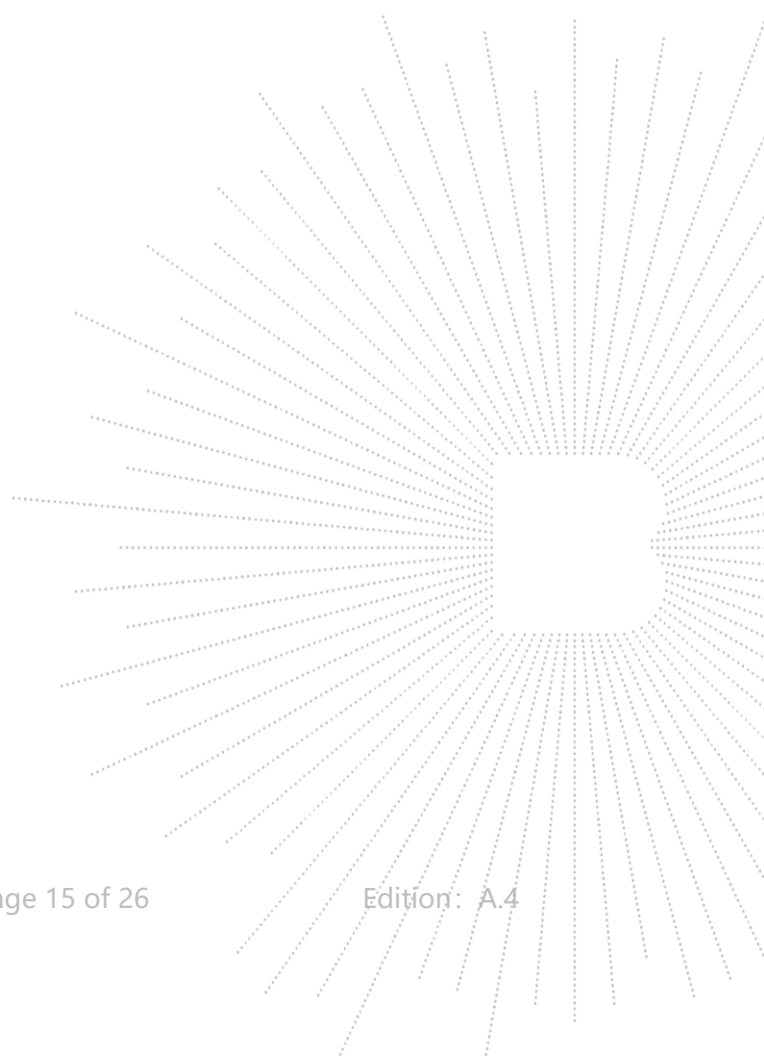
Test distance (cm)	Test Position Front (V/m)	Test Position Rear (V/m)	Test Position Left (V/m)	Test Position Right (V/m)	Test Position Top (V/m)	Limits (V/m)
2	0.091	0.100	0.109	0.094	0.093	614
4	0.105	0.109	0.108	0.095	0.093	614
6	0.106	0.101	0.102	0.102	0.110	614
8	0.093	0.107	0.096	0.093	0.100	614
10	0.100	0.090	0.102	0.103	0.090	614
12	0.093	0.096	0.105	0.096	0.109	614
14	0.095	0.103	0.107	0.090	0.097	614
16	0.095	0.093	0.099	0.107	0.105	614
18	0.091	0.103	0.104	0.106	0.092	614
20	0.092	0.109	0.093	0.101	0.100	614

Test distance (cm)	Test Position Front (uT)	Test Position Rear (uT)	Test Position Left (uT)	Test Position Right (uT)	Test Position Top (uT)	Limits (uT)
2	0.109	0.110	0.101	0.104	0.100	2.0375
4	0.104	0.106	0.105	0.099	0.093	2.0375
6	0.094	0.096	0.108	0.099	0.099	2.0375
8	0.106	0.103	0.101	0.099	0.104	2.0375
10	0.099	0.103	0.101	0.090	0.105	2.0375
12	0.096	0.109	0.103	0.103	0.094	2.0375
14	0.095	0.093	0.106	0.104	0.104	2.0375
16	0.103	0.101	0.090	0.103	0.100	2.0375
18	0.106	0.099	0.103	0.110	0.105	2.0375
20	0.106	0.108	0.093	0.091	0.108	2.0375

Note: A/m = $\mu\text{T} \div 1.25$

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

Test distance (cm)	Test Position Front (A/m)	Test Position Rear(A/m)	Test Position Left (A/m)	Test Position Right (A/m)	Test Position Top (A/m)	Limits (A/m)
2	0.087	0.088	0.081	0.083	0.080	1.63
4	0.083	0.085	0.084	0.079	0.074	1.63
6	0.075	0.077	0.086	0.079	0.079	1.63
8	0.085	0.082	0.081	0.079	0.083	1.63
10	0.079	0.082	0.081	0.072	0.084	1.63
12	0.077	0.087	0.082	0.082	0.075	1.63
14	0.076	0.074	0.085	0.083	0.083	1.63
16	0.082	0.081	0.072	0.082	0.080	1.63
18	0.085	0.079	0.082	0.088	0.084	1.63
20	0.085	0.086	0.074	0.073	0.086	1.63



**For setup C:
Mode 2**

H-Field Strength at 15 cm surrounding the EUT and 20cm above the top surface of the EUT

Frequency Range (KHz)	Operation condition	Test Position Front (uT)	Test Position Rear (uT)	Test Position Left (uT)	Test Position Right (uT)	Test Position Top (uT)	Limits (uT)
850-950KHz	Full load	0.109	0.088	0.102	0.119	0.115	2.0375
850-950KHz	Half load	0.078	0.107	0.113	0.095	0.108	2.0375
850-950KHz	No load	0.109	0.116	0.072	0.116	0.119	2.0375

Note: A/m = uT ÷ 1.25

Frequency Range (KHz)	Operation condition	Test Position Front (A/m)	Test Position Rear (A/m)	Test Position Left (A/m)	Test Position Right (A/m)	Test Position Top (A/m)	Limits (A/m)
850-950KHz	Full load	0.087	0.070	0.082	0.095	0.092	1.63
850-950KHz	Half load	0.062	0.086	0.090	0.076	0.086	1.63
850-950KHz	No load	0.087	0.093	0.058	0.093	0.095	1.63

E-Field Strength at 15 cm surrounding the EUT and 20cm above the top surface of the EUT

Frequency Range (KHz)	Operation condition	Test Position Front (V/m)	Test Position Rear (V/m)	Test Position Left (V/m)	Test Position Right (V/m)	Test Position Top (V/m)	Limits (V/m)
850-950KHz	Full load	0.255	0.205	0.210	0.194	0.189	614
850-950KHz	Half load	0.201	0.199	0.199	0.194	0.185	614
850-950KHz	No load	0.199	0.186	0.185	0.184	0.171	614

5. Photographs of Test Set-Up

Left - 0CM



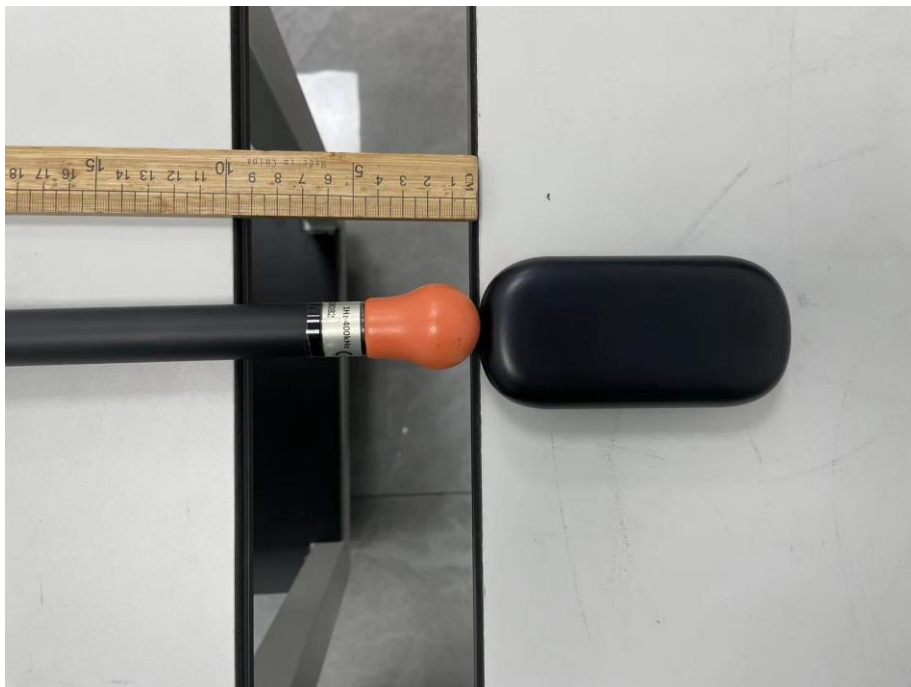
Front- 0CM



Right- 0CM



Rear - 0CM



Top - 0CM



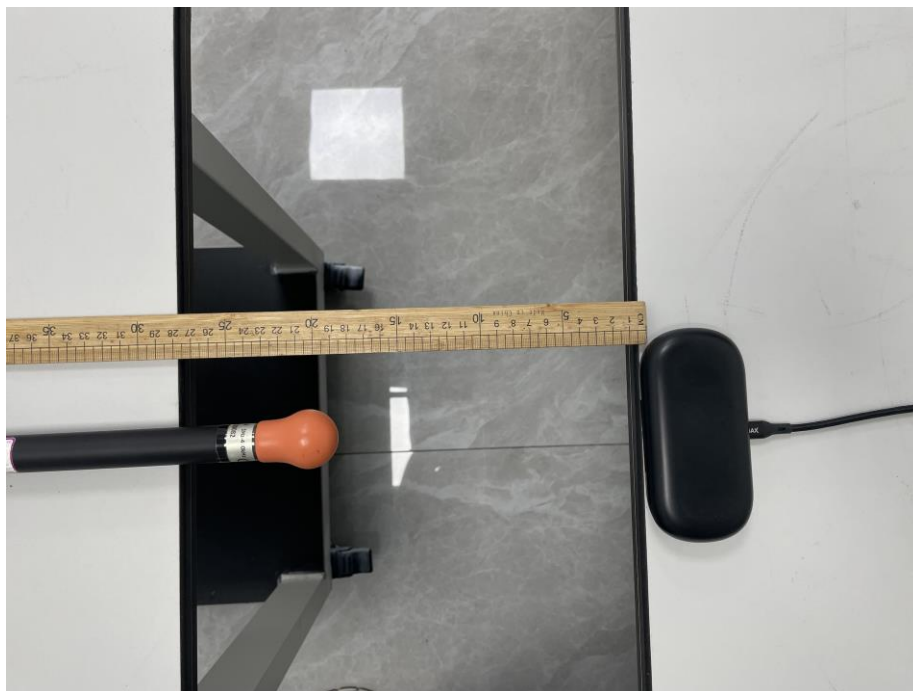
Left - 20CM



Front - 20CM



Right - 20CM



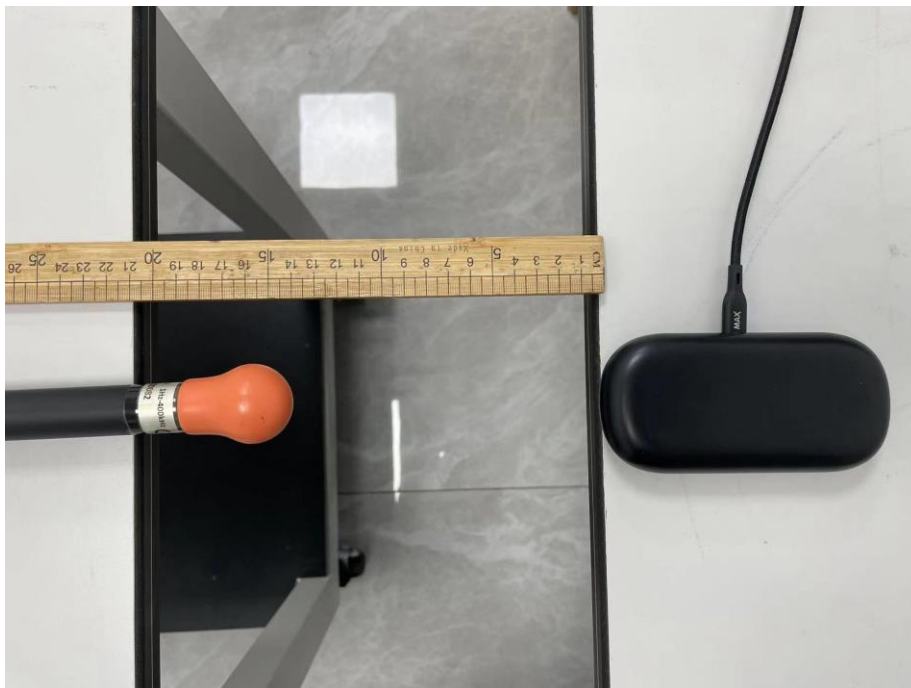
Rear - 20CM



Top - 20CM



Left - 15CM



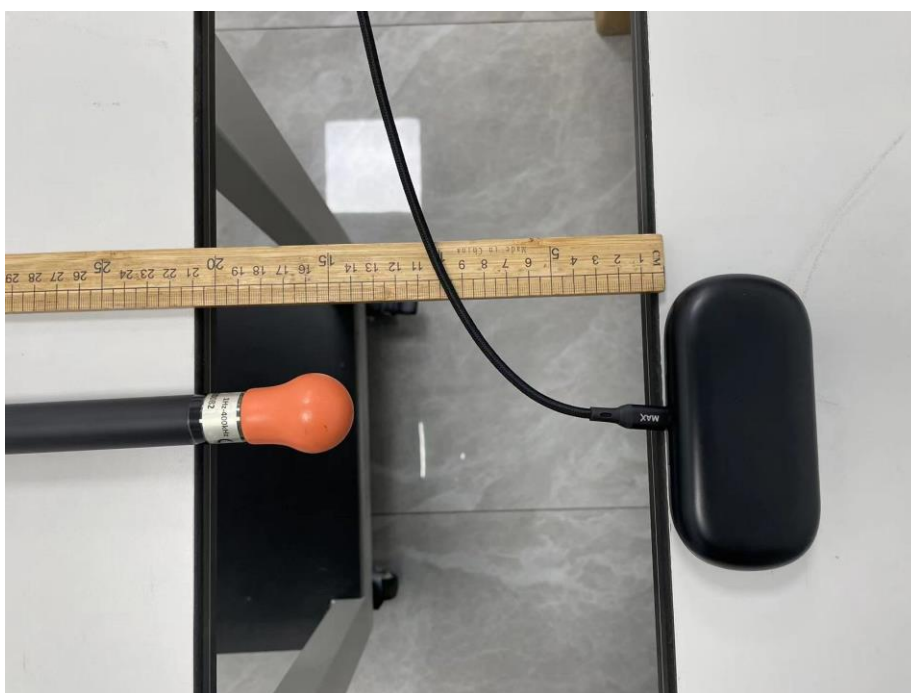
Front - 15CM



Right - 15CM



Rear - 15CM



Top - 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 quality system of our laboratory is in accordance with ISO/IEC17025.
8. 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.

Address:

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***** END *****