

Health Test Report

For

Applicant name: Shenzhen Torras Technology Co., Ltd.
Address: RM1215, BLK C, Zhantao Technology BLDG, Minzhi Avenue, Minzhi ST, Longhua DIST, Shenzhen, China
EUT name: Power Bank
Brand name: N/A
Model number: PB27
Series model number: Refer to section 2
FCC ID: 2AN4Y-PB27

Issued By

Company name: BTF Testing Lab (Shenzhen) Co., Ltd.
Address: Plant 101, 201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Street, Bao'an District, Shenzhen, Guangdong, China
Report number: BTF251218R00202
Test standards: 47 CFR Part 1 Subpart I Section 1.1310
Test conclusion: Pass
Date of sample receipt: 2025-12-18
Test date: 2025-12-18 to 2025-12-29
Date of issue: 2026-01-30

Prepared by:



Chris Liu /Project engineer

Approved by



Ryan.C/EMC manager

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Revision History		
Version	Issue date	Revisions content
R_V0	2026-01-30	Original

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1 Introduction

1.1 Laboratory Location

Test location:	BTF Testing Lab (Shenzhen) Co., Ltd.
Address:	Plant 101, 201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Street, Bao'an District, Shenzhen, Guangdong, China
Description:	All measurement facilities used to collect the measurement data are located at Plant 101, 201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Street, Bao'an District, Shenzhen, Guangdong, China
Phone number:	+86-0755-23146130
Fax number:	+86-0755-23146130

1.2 Laboratory Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **FCC - Designation No.: CN1409**
BTF Testing Lab (Shenzhen) Co., Ltd. has been accredited as a testing laboratory by FCC (Federal Communications Commission). The test firm Registration No. is 695374.
- **CNAS - Registration No.: CNAS L17568**
BTF Testing Lab (Shenzhen) Co., Ltd. is accredited to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L17568.
- **A2LA - Registration No.: 6660.01**
BTF Testing Lab (Shenzhen) Co., Ltd. is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories.

1.3 Announcement

- (1) The test report reference to the report template version v0.
- (2) The test report is invalid if not marked with the signatures of the persons responsible for preparing, reviewing and approving the test report.
- (3) The test report is invalid if there is any evidence and/or falsification.
- (4) This document may not be altered or revised in any way unless done so by BTF and all revisions are duly noted in the revisions section.
- (5) Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.
- (6) The laboratory is only responsible for the data released by the laboratory, except for the part provided by the applicant.
- (7) All entrusted information in this report is provided by the client and has been confirmed through consultation with the client; The testing items for this report have been discussed and confirmed with the client, and our company is only responsible for the content reflected in the report.

2 Product Information

2.1 Application Information

Company name:	Shenzhen Torras Technology Co., Ltd.
Address:	RM1215, BLK C, Zhantao Technology BLDG, Minzhi Avenue, Minzhi ST, Longhua DIST, Shenzhen, China

2.2 Manufacturer Information

Company name:	Shenzhen Torras Technology Co., Ltd.
Address:	RM1215, BLK C, Zhantao Technology BLDG, Minzhi Avenue, Minzhi ST, Longhua DIST, Shenzhen, China

2.3 Factory Information

Company name:	Shenzhen Torras Technology Co., Ltd.
Address:	RM1215, BLK C, Zhantao Technology BLDG, Minzhi Avenue, Minzhi ST, Longhua DIST, Shenzhen, China

2.4 General Description of Equipment under Test (EUT)

EUT name	Power Bank
Under test model name	PB27
Series model name	N/A
Description of model name differentiation	N/A
Hardware Version	N/A
Software Version	N/A
Rating:	USB-C Input: 5.0V $\Rightarrow$ 3.0A / 9.0V $\Rightarrow$ 2.0A USB-C Output: 5.0V $\Rightarrow$ 2.0A / 9.0V $\Rightarrow$ 2.22A Wireless Charging Output: 7.5W MAX USB-C+Wireless Charging Output: 10W MAX Output Power: 20W MAX Lithium Battery: DC 3.92V 5000mAh 19.6Wh

2.5 Technical Information

Operation frequency:	110.1kHz ~ 200kHz and 300kHz ~ 400kHz
Modulation technology:	ASK
Antenna type:	Coil Antenna

3 Test Equipment List

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Electric and Magnetic Field Analyzer	Narda	EHP-200A	180ZX11001	2025/11/21	2026/11/20

4 Applied Reference Documents

Identity	Document Title
47 CFR Part 1 Subpart I Section 1.1310	Radio frequency radiation exposure limits.

5 Test Auxiliary Equipment

Description	Manufacturer	Model	Serial No.	Length	Description
Phone	HONOR	PGT-AN10	/	/	/

6 Test Requirement

KDB 680106 D01 RF Exposure Wireless Charging App v03

According to the item 5.2 of KDB 680106 D01v03:

Inductive wireless power transfer applications that meet all of the following requirements are excluded from submitting an RF exposure evaluation.

a) Power transfer frequency is less than 1 MHz.

Yes, the device operate in the frequency range from 110kHz ~ 200kHz and 300kHz ~ 400kHz

b) Client device is placed directly in contact with the transmitter.

Yes, client device is placed directly in contact with the transmitter.

c) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).

Yes, the EUT is a Wireless Charging mobile.

d) 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 50% X MPE limit.

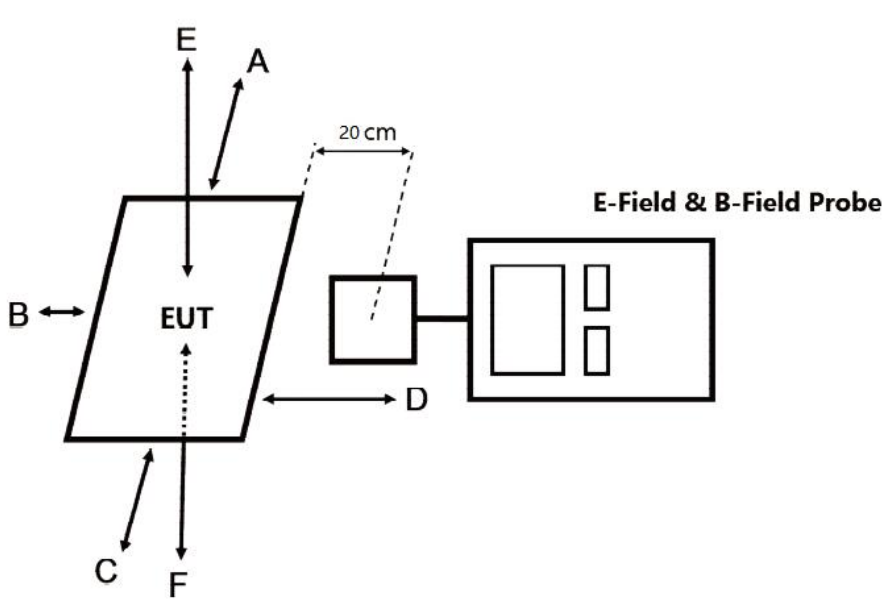
TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

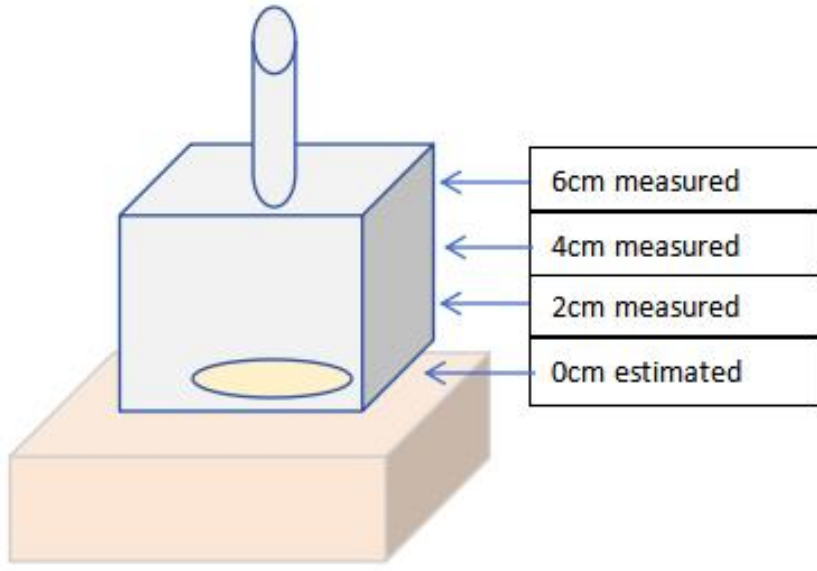
Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f ²	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			5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

7 Test Settings

Test Setup





Note1: The sensitive elements are located approximately 8mm below the exxternal surface

Note2: Measurements should be made from all sides and the top of the primary/client pair, with the 0/2/4/6/8/10/12/14/16/18/20cm measured from the center of the probe(s) to the edge of the device.

The RF exposure test was performed in anechoic chamber.

The measurement probe was placed at test distance (0/2/4/6/8/10/12/14/16/18/20cm) which is between the edge of the charger and the geometric center of probe.

The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E, F) were completed.

The EUT was measured according to the dictates of KDB 680106 D01 v04.

8 Exposure Assessment

8.1 E-Field Strength Test Date

➤ E-Field Strength at 2/4/6/8/10/12/14/16/18/20cm from the edges surrounding the EUT:

Charging Battery Level	Measured E-Field Strength Values (V/m)							FCC E-Field Strength Limits (V/m)
	Measured Distance (cm)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F	
99%	2	4.4341	4.8639	4.4281	4.5595	7.4658	7.3267	614
50%	2	4.3232	5.1225	4.7542	4.7644	7.8579	7.4974	614
1%	2	4.6342	5.1255	4.6243	4.4576	7.6875	7.6240	614
99%	4	4.0235	4.5472	4.1358	4.2209	7.2845	6.9463	614
50%	4	3.9129	4.7457	4.3092	4.2496	7.4935	7.1190	614
1%	4	4.2244	4.8796	4.3956	4.2542	7.5906	7.2897	614
99%	6	3.6632	4.4061	3.9520	3.9495	7.1469	6.7795	614
50%	6	3.7854	4.5453	4.1061	3.9973	7.3894	6.9509	614
1%	6	4.0123	4.7052	4.2152	4.1160	7.5203	7.1774	614
99%	8	3.5164	4.3559	3.8289	3.8291	7.0618	6.6653	614
50%	8	3.7045	4.4690	3.9791	3.9412	7.2880	6.8550	614
1%	8	3.8939	4.6202	4.0928	4.0544	7.5135	7.0820	614
99%	10	2.7624	3.7154	3.3006	3.2635	6.0805	5.7244	614
50%	10	2.9128	3.8666	3.4147	3.3755	6.3073	5.9115	614
1%	10	3.0645	3.9797	3.5279	3.4890	6.4965	6.1013	614
99%	12	2.0841	3.2260	2.8492	2.8102	5.2516	4.9321	614
50%	12	2.1962	3.3021	2.9239	2.8867	5.4401	5.0835	614
1%	12	2.3479	3.4144	3.0376	2.9994	5.5917	5.2348	614
99%	14	1.4817	2.7728	2.4333	2.4329	4.5364	4.2162	614
50%	14	1.5940	2.8484	2.5093	2.5090	4.6871	4.3680	614
1%	14	1.7080	2.9249	2.5844	2.5858	4.8364	4.5179	614
99%	16	0.9902	2.3593	2.0961	2.0939	3.9323	3.6501	614
50%	16	1.0658	2.4332	2.1713	2.1333	4.0449	3.7637	614
1%	16	1.1782	2.5094	2.2446	2.2079	4.1599	3.8760	614
99%	18	0.5385	2.0197	1.7931	1.7924	3.4054	3.1228	614
50%	18	0.6517	2.0945	1.8689	1.8310	3.4810	3.2350	614
1%	18	0.7259	2.1697	1.9065	1.9056	3.5933	3.3102	614
99%	20	0.1613	1.7553	1.5283	1.5288	2.9522	2.6704	614
50%	20	0.2372	1.7918	1.6031	1.5667	3.0273	2.7828	614
1%	20	0.3126	1.8691	1.6427	1.5937	3.1043	2.8589	614

Note: V/m= A/m *377

8.2 H-Field Strength Test Date:

➤ H-Field Strength at 2/4/6 8/10/12/14/16/18/20cm from the edges surrounding the EUT

Charging Battery Level	Measured E-Field Strength Values (V/m)								FCC H-Field Strength Limits (A/m)
	Measured Distance (cm)	Unit	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F	
99%	2	uT	0.0398	0.0432	0.0339	0.0289	0.0630	0.0693	--
99%	2	A/m	0.0319	0.0345	0.0271	0.0231	0.0504	0.0554	1.63
50%	2	uT	0.0471	0.0405	0.0336	0.0304	0.0632	0.0725	--
50%	2	A/m	0.0377	0.0324	0.0268	0.0243	0.0505	0.0580	1.63
1%	2	uT	0.0418	0.0414	0.0339	0.0358	0.0591	0.0690	--
1%	2	A/m	0.0334	0.0331	0.0271	0.0286	0.0473	0.0552	1.63
99%	4	uT	0.0314	0.0266	0.0219	0.0256	0.0374	0.0422	--
99%	4	A/m	0.0251	0.0213	0.0175	0.0205	0.0299	0.0338	1.63
50%	4	uT	0.0344	0.0261	0.0228	0.0255	0.0376	0.0461	--
50%	4	A/m	0.0275	0.0209	0.0182	0.0204	0.0301	0.0369	1.63
1%	4	uT	0.0358	0.0307	0.0255	0.0249	0.0360	0.0455	--
1%	4	A/m	0.0286	0.0246	0.0204	0.0200	0.0288	0.0364	1.63
99%	6	uT	0.0242	0.0226	0.0192	0.0164	0.0343	0.0424	--
99%	6	A/m	0.0194	0.0180	0.0154	0.0131	0.0274	0.0339	1.63
50%	6	uT	0.0255	0.0225	0.0185	0.0181	0.0341	0.0455	--
50%	6	A/m	0.0204	0.0180	0.0148	0.0145	0.0273	0.0364	1.63
1%	6	uT	0.0237	0.0220	0.0195	0.0224	0.0334	0.0425	--
1%	6	A/m	0.0190	0.0176	0.0156	0.0179	0.0267	0.0340	1.63
99%	8	uT	0.0223	0.0175	0.0146	0.0169	0.0271	0.0255	--
99%	8	A/m	0.0179	0.0140	0.0117	0.0135	0.0217	0.0204	1.63
50%	8	uT	0.0237	0.0177	0.0149	0.0159	0.0278	0.0274	--
50%	8	A/m	0.0190	0.0142	0.0119	0.0127	0.0222	0.0219	1.63
1%	8	uT	0.0236	0.0180	0.0153	0.0168	0.0283	0.0267	--
1%	8	A/m	0.0189	0.0144	0.0122	0.0134	0.0227	0.0214	1.63
99%	10	uT	0.0207	0.0144	0.0134	0.0133	0.0236	0.0237	--
99%	10	A/m	0.0165	0.0115	0.0107	0.0107	0.0189	0.0189	1.63
50%	10	uT	0.0199	0.0155	0.0131	0.0134	0.0254	0.0218	--
50%	10	A/m	0.0159	0.0124	0.0105	0.0107	0.0204	0.0174	1.63
1%	10	uT	0.0214	0.0154	0.0121	0.0142	0.0253	0.0248	--

1%	10	A/m	0.0171	0.0123	0.0097	0.0114	0.0202	0.0198	1.63
99%	12	uT	0.0166	0.0138	0.0103	0.0110	0.0207	0.0200	--
99%	12	A/m	0.0133	0.0111	0.0083	0.0088	0.0165	0.0160	1.63
50%	12	uT	0.0181	0.0121	0.0116	0.0107	0.0216	0.0194	--
50%	12	A/m	0.0145	0.0097	0.0093	0.0086	0.0173	0.0155	1.63
1%	12	uT	0.0175	0.0149	0.0114	0.0126	0.0212	0.0208	--
1%	12	A/m	0.0140	0.0120	0.0091	0.0101	0.0169	0.0167	1.63
99%	14	uT	0.0145	0.0113	0.0107	0.0103	0.0178	0.0179	--
99%	14	A/m	0.0116	0.0091	0.0086	0.0082	0.0142	0.0143	1.63
50%	14	uT	0.0151	0.0106	0.0095	0.0100	0.0181	0.0178	--
50%	14	A/m	0.0121	0.0085	0.0076	0.0080	0.0145	0.0143	1.63
1%	14	uT	0.0149	0.0129	0.0107	0.0116	0.0190	0.0191	--
1%	14	A/m	0.0119	0.0103	0.0086	0.0093	0.0152	0.0153	1.63
99%	16	uT	0.0131	0.0087	0.0091	0.0084	0.0165	0.0148	--
99%	16	A/m	0.0105	0.0070	0.0072	0.0067	0.0132	0.0119	1.63
50%	16	uT	0.0120	0.0104	0.0096	0.0090	0.0169	0.0148	--
50%	16	A/m	0.0096	0.0084	0.0077	0.0072	0.0135	0.0119	1.63
1%	16	uT	0.0139	0.0107	0.0100	0.0090	0.0170	0.0156	--
1%	16	A/m	0.0111	0.0086	0.0080	0.0072	0.0136	0.0125	1.63
99%	18	uT	0.0124	0.0082	0.0072	0.0077	0.0145	0.0140	--
99%	18	A/m	0.0099	0.0065	0.0057	0.0061	0.0116	0.0112	1.63
50%	18	uT	0.0113	0.0085	0.0077	0.0081	0.0132	0.0124	--
50%	18	A/m	0.0090	0.0068	0.0062	0.0065	0.0106	0.0099	1.63
1%	18	uT	0.0116	0.0099	0.0078	0.0074	0.0143	0.0142	--
1%	18	A/m	0.0093	0.0079	0.0062	0.0059	0.0114	0.0114	1.63
99%	20	uT	0.0099	0.0082	0.0063	0.0087	0.0110	0.0118	--
99%	20	A/m	0.0079	0.0066	0.0050	0.0070	0.0088	0.0095	1.63
50%	20	uT	0.0094	0.0095	0.0079	0.0074	0.0124	0.0121	--
50%	20	A/m	0.0075	0.0076	0.0063	0.0060	0.0099	0.0097	1.63
1%	20	uT	0.0098	0.0091	0.0070	0.0076	0.0130	0.0107	--
1%	20	A/m	0.0079	0.0073	0.0056	0.0061	0.0104	0.0086	1.63

Note: A/m=uT/1.25

8.3 Estimated Model

According to the formula:

The formula for the magnetic field strength at a distance r from the coil is

$$H = I / (2\pi r) * \mu$$

H is A/m

I is the current intensity

μ is the permeability, and its value depends on the medium.

The other parameters are fixed, so H is inversely proportional to r.

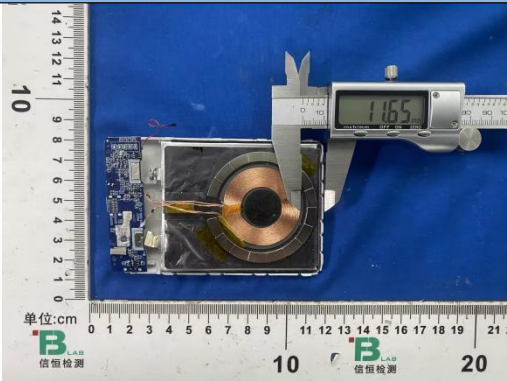
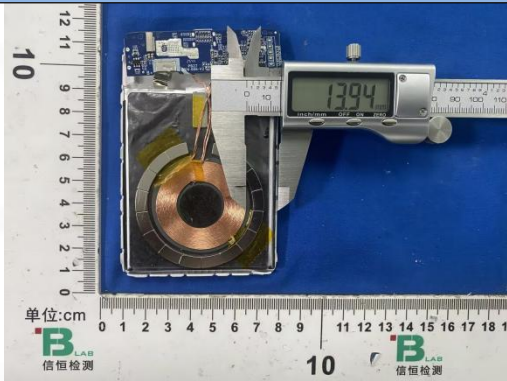
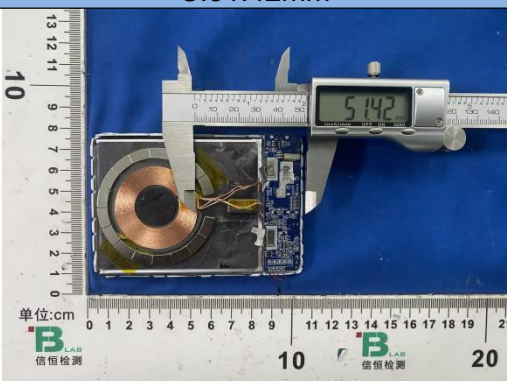
Therefore, From the measurement H6 we can estimate the values of H4, H2, H0:

$$H4 = H6 * r6 / r4$$

$$H2 = H6 * r6 / r2$$

$$H0 = H6 * r6 / r0$$

The values of "r" are shown in the following table:

A:11.65mm	B:13.94mm
	
C:51.42mm	D:14.55mm
	
E:3.50mm	F:8.45mm
	

➤ **ABCDEF direction The actual distance(r) to the antenna coil:**

measured distance(cm)	Actual distance r to the antenna (cm)					
	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F
0	1.17	1.39	5.14	1.46	0.35	0.85
2	3.17	3.39	7.14	3.46	2.35	2.85
4	5.17	5.39	9.14	5.46	4.35	4.85
6	7.17	7.39	11.14	7.46	6.35	6.85
8	9.17	9.39	13.14	9.46	8.35	8.85
10	11.17	11.39	15.14	11.46	10.35	10.85
12	13.17	13.39	17.14	13.46	12.35	12.85
14	15.17	15.39	19.14	15.46	14.35	14.85
16	17.17	17.39	21.14	17.46	16.35	16.85
18	19.17	19.39	23.14	19.46	18.35	18.85
20	21.17	21.39	25.14	21.46	20.35	20.85

➤ **The result is calculated by the above formula:**

H-Field Strength at 0/2/4cm from the edges surrounding the EUT

Charging Battery Level	Measured E-Field Strength Values (V/m)								FCC H-Field Strength Limits (A/m)
	Measured Distance (cm)	Unit	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F	
99%	0	A/m	0.1193	0.1110	0.0945	0.0806	0.1687	0.2087	1.63
50%	0	A/m	0.1253	0.1108	0.0910	0.0892	0.1677	0.2239	1.63
1%	0	A/m	0.1167	0.1080	0.0957	0.1101	0.1642	0.2089	1.63
99%	2	A/m	0.0439	0.0409	0.0348	0.0297	0.0621	0.0768	1.63
50%	2	A/m	0.0461	0.0408	0.0335	0.0328	0.0617	0.0824	1.63
1%	2	A/m	0.0430	0.0398	0.0352	0.0405	0.0604	0.0769	1.63
99%	4	A/m	0.0269	0.0250	0.0213	0.0182	0.0380	0.0471	1.63
50%	4	A/m	0.0283	0.0250	0.0205	0.0201	0.0378	0.0505	1.63
1%	4	A/m	0.0263	0.0244	0.0216	0.0248	0.0370	0.0471	1.63

8.4 Comparison of evaluation data and test data

➤ We compare the test value of 4cm/2cm with the estimated value:

Test Value									
Charging Battery Level	Measured E-Field Strength Values (V/m)								FCC H-Field Strength Limits (A/m)
	Measured Distance (cm)	Unit	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F	
99%	2	A/m	0.0319	0.0345	0.0271	0.0231	0.0504	0.0554	1.63
50%	2	A/m	0.0377	0.0324	0.0268	0.0243	0.0505	0.0580	1.63
1%	2	A/m	0.0334	0.0331	0.0271	0.0286	0.0473	0.0552	1.63
99%	4	A/m	0.0251	0.0213	0.0175	0.0205	0.0299	0.0338	1.63
50%	4	A/m	0.0275	0.0209	0.0182	0.0204	0.0301	0.0369	1.63
1%	4	A/m	0.0286	0.0246	0.0204	0.0200	0.0288	0.0364	1.63
Estimated Value									
Charging Battery Level	Measured E-Field Strength Values (V/m)								FCC H-Field Strength Limits (A/m)
	Measured Distance (cm)	Unit	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F	
99%	2	A/m	0.0439	0.0409	0.0348	0.0297	0.0621	0.0768	1.63
50%	2	A/m	0.0461	0.0408	0.0335	0.0328	0.0617	0.0824	1.63
1%	2	A/m	0.0430	0.0398	0.0352	0.0405	0.0604	0.0769	1.63
99%	4	A/m	0.0269	0.0250	0.0213	0.0182	0.0380	0.0471	1.63
50%	4	A/m	0.0283	0.0250	0.0205	0.0201	0.0378	0.0505	1.63
1%	4	A/m	0.0263	0.0244	0.0216	0.0248	0.0370	0.0471	1.63

➤ The corresponding deviation value is calculated:

Charging Battery Level	Deviation value								Limits
	Measured Distance (cm)	Unit	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F	
99%	2	A/m	-27.41%	-15.46%	-22.07%	-21.99%	-18.79%	-27.88%	30%
50%	2	A/m	-18.27%	-20.66%	-19.85%	-26.00%	-18.12%	-29.59%	30%
1%	2	A/m	-22.24%	-16.73%	-23.00%	-29.37%	-21.79%	-28.22%	30%
99%	4	A/m	-6.74%	-14.88%	-17.67%	12.70%	-21.29%	-28.26%	30%
50%	4	A/m	-2.56%	-16.35%	-11.31%	1.26%	-20.47%	-26.99%	30%
1%	4	A/m	8.81%	0.80%	-5.41%	-19.65%	-22.30%	-22.68%	30%

➤ Conclusion:

A minimum safety distance of 0 cm to the antenna is required when the device is charging a smart phone for mobile exposure. The detected emissions are below the limitations according FCC KDB 680106.

The model was established with a 30% agreement, so it was considered to be approved.

The estimated test distances of 0cm are reliable.

9 Test Setup Photos



Side(C)



Side(A)



Side(B)



Side(D)



Top(E)



Bottom(F)



BTF Testing Lab (Shenzhen) Co., Ltd.

Plant 101, 201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Street,
Bao'an District, Shenzhen, Guangdong, China

www.btf-lab.com

--END OF REPORT--