



Shenzhen CTA Testing Technology Co., Ltd.

Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China

FCC PART 15 SUBPART C TEST REPORT

Report Reference No.....: CTA26070900101

FCC ID.....: 2BXLH-APB50001-S

Compiled by

(position+printed name+signature) :: File administrators Zoey Cao

Supervised by

(position+printed name+signature) :: Project Engineer Ace Chai

Approved by

(position+printed name+signature) :: RF Manager Eric Wang

Date of issue: Jul. 22, 2026

Testing Laboratory Name.....: Shenzhen CTA Testing Technology Co., Ltd.

Address.....: Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China

Applicant's name.....: ATECH INNOVATION CORP.

Address.....: 2198 Oakdale Avenue, Suite 110, San Francisco, CA 94124

Test specification

Standard: FCC Rules and Regulations Part 15 Subpart C (Section 15.209), ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024

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Test item description: 5000mAh Semi-Solid Aluminum Alloy Power Bank

Trade Mark: ATECH

Manufacturer: Zhongshan Yongjiu Electronic Technology Co., LTD

Model/Type reference: APB50001-S

Listed Models: APB50001-C, APB50001-GG, APB50001, APB50002, APB50002-S, APB50002-DT, APB50003, APB50004, APB50005, APB50006

Modulation Type.....: ASK

Operation Frequency.....: From 110KHz~205KHz

Ratings: Input: 5V --- 3A

Battery: 3.7V 5000mAh 18.5Wh

Wireless Output: 15W(Max)

Result: PASS

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Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China
Tel:+86-755 2322 5875 E-mail:cta@cta-test.cn Web:http://www.cta-test.cn

TEST REPORT

Equipment under Test : 5000mAh Semi-Solid Aluminum Alloy Power Bank

Model /Type : APB50001-S

Listed Models : APB50001-C, APB50001-GG, APB50001, APB50002, APB50002-S, APB50002-DT, APB50003, APB50004, APB50005, APB50006

Model Difference : The PCB board, circuit, structure and internal of these models are the same, only model number and colour are different for these model. So the tests were performed on model APB50001-S and the test results for the main test model can cover the listed models.

Applicant : ATECH INNOVATION CORP.

Address : 2198 Oakdale Avenue, Suite 110, San Francisco, CA 94124

Manufacturer : Zhongshan Yongjiu Electronic Technology Co., LTD

Address : 8th Floor of Building 7, 9th Floor of Building 7, 8th Floor of Building 8, and 9th Floor of Building 8, Plot 1, Futing Street, Banfu Town, Zhongshan City, China

Test Result:	PASS
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The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

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1 TEST STANDARDS

The tests were performed according to following standards:

[FCC Rules and Regulations Part 15 Subpart C \(Section 15.207\)](#): Conducted limits.

[FCC Rules and Regulations Part 15 Subpart C \(Section 15.209\)](#): Radiated emission limits; general requirements.

[ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024](#): American National Standard for Testing Unlicensed Wireless Devices

2 SUMMARY

2.1 General Remarks

Date of receipt of test sample	:	Jul. 09, 2026
Testing commenced on	:	Jul. 09, 2026
Testing concluded on	:	Jul. 22, 2026

2.2 Product Description

Product Name:	5000mAh Semi-Solid Aluminum Alloy Power Bank
Model/Type reference:	APB50001-S
Power supply:	Input: 5V $\overline{\text{---}}$ 3A Battery: 3.7V 5000mAh 18.5Wh Wireless Output: 15W(Max)
Test samples ID:	CTA260709001-1# (Engineer sample) CTA260709001-2# (Normal sample)
Hardware version:	V1.0
Software version:	V1.0
Operation frequency:	110KHz - 205KHz
Modulation type:	ASK
Antenna type:	Loop coil antenna
ANT Gain:	0.12 dBi

2.3 Description of the test mode

Equipment under test was operated during the measurement under the following conditions:

☒ Charging and communication mode

Test Modes:		
Mode 1	Wireless Charging	Recorded
Mode 2	Standby	Pre-tested

Note: All test modes were pre-tested, but we only recorded the worst case in this report.

2.4 Special Accessories

Follow auxiliary equipment(s) test with EUT that provided by the laboratory is listed as follow:

Description	Manufacturer	Model	Technical Parameters	Certificate	Provided by
Intelligent wireless charging full function test module	/	/	/	/	laboratory
Adapter	/	/	Input: AC 100-240V 50/60Hz Output: DC 5V 3A	/	laboratory

2.5 Modifications

No modifications were implemented to meet testing criteria.

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Tel: +86-755 2322 5875 E-mail: cta@cta-test.cn Web: http://www.cta-test.cn

3 TEST ENVIRONMENT

3.1 Address of the test laboratory

Shenzhen CTA Testing Technology Co., Ltd.

Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community,
Fuhai Street, Bao'an District, Shenzhen, China

3.2 Test Facility

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

FCC-Registration No.: 517856 Designation Number: CN1318

Shenzhen CTA Testing Technology Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

A2LA-Lab Cert. No.: 6534.01

Shenzhen CTA Testing Technology Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement.

The 3m-Semi anechoic test site fulfils CISPR 16-1-4 according to ANSI C63.10 and CISPR 16-1-4:2010.

3.3 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Radiated Emission:

Temperature:	24 ° C
Humidity:	45 %
Atmospheric pressure:	950-1050mbar

AC Power Conducted Emission:

Temperature:	25 ° C
Humidity:	46 %
Atmospheric pressure:	950-1050mbar

Conducted testing:

Temperature:	25 ° C
Humidity:	44 %
Atmospheric pressure:	950-1050mbar

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Tel:+86-755 2322 5875 E-mail:cta@cta-test.cn Web:http://www.cta-test.cn

3.4 Summary of measurement results

Description of test	Result
Conducted emissions test	Compliant
Radiated emission test	Compliant
The 20dB bandwidth measurement	Compliant
Antenna requirement	Compliant

3.5 Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01 "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 2" and is documented in the Shenzhen CTA Testing Technology Co., Ltd. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device. Hereafter the best measurement capability for Shenzhen CTA Testing Technology Co., Ltd. :

Test	Range	Measurement Uncertainty	Notes
Radiated Emission	9KHz~30MHz	3.02 dB	(1)
Radiated Emission	30~1000MHz	4.06 dB	(1)
Radiated Emission	1~18GHz	5.14 dB	(1)
Radiated Emission	18-40GHz	5.38 dB	(1)
Conducted Disturbance	0.15~30MHz	2.14 dB	(1)
Output Peak power	30MHz~18GHz	0.55 dB	(1)
Power spectral density	/	0.57 dB	(1)
Spectrum bandwidth	/	1.1%	(1)
Radiated spurious emission (30MHz-1GHz)	30~1000MHz	4.10 dB	(1)
Radiated spurious emission (1GHz-18GHz)	1~18GHz	4.32 dB	(1)
Radiated spurious emission (18GHz-40GHz)	18-40GHz	5.54 dB	(1)
Time	/	± 2%	(1)

- (1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

3.6 Equipments Used during the Test

Item.	Test Equipment	Manufacturer	Model No.	Equipment No.	Calibration Date	Calibration Due Date
AC Conducted Test Equipment						
☒ 1	LISN	R&S	ENV216	CTA-308	2025/08/04	2026/08/03
☒ 2	LISN	R&S	ENV216	CTA-314	2025/07/30	2026/07/29
☒ 3	EMI Test Receiver	R&S	ESPI	CTA-307	2025/07/30	2026/07/29
☒ 4	CE Cable	SKET	RF Cable (9kHz-30MHz)	CTA-367	2025/07/30	2026/07/29
☒ 5	Temperature and humidity meter	Chigo	ZG-7020	CTA-327	2025/07/31	2026/07/30
☒ 6	EMI Test Software	Tonscend	TS@JS32-CE	5.0.0.1	N/A	N/A
RF Radiation Test Equipment						
☒ 1	EMI Test Receiver	R&S	ESCI	CTA-306	2025/07/30	2026/07/29
☒ 2	Spectrum analyzer	R&S	FSV40-N	CTA-344	2026/05/16	2027/05/15
☒ 3	Ultra-Broadband Antenna	Schwarzbeck	VULB9163	CTA-310	2023/10/17	2026/10/16
☐ 4	Horn Antenna	Schwarzbeck	BBHA 9120D	CTA-309	2023/10/13	2026/10/12
☒ 5	Loop Antenna	Zhinan	ZN30900C	CTA-311	2023/10/17	2026/10/16
☐ 6	Horn Antenna	Schwarzbeck	BBHA 9170	CTA-346	2025/05/18	2028/05/17
☒ 7	Amplifier	Schwarzbeck	BBV9745	CTA-312	2025/07/30	2026/07/29
☒ 8	Amplifier	Tonscend	TAP-011840	CTA-313	2025/07/30	2026/07/29
☐ 9	Amplifier	SKET	LNPA 1840G-50	CTA-345	2026/05/16	2027/05/15
☒ 10	6dB attenuator	Shanghaihuaxiang	GZL-TS5-6-6	CTA-347	2026/05/16	2027/05/15
☒ 11	RF cable	SKET	RF Cable (9kHz-1GHz)	CTA-360	2025/09/25	2026/09/24
☒ 12	RF cable	SKET	RF Cable (1GHz-18GHz)	CTA-361	2025/09/25	2026/09/24
☒ 13	Coaxialcable (1GHz-40GHz)	SKET	RE-04-D	CTA-348	2026/05/19	2027/05/18
☒ 14	Coaxialcable (1GHz-40GHz)	SKET	RE-04-M	CTA-349	2026/05/19	2027/05/18
☒ 15	Coaxialcable (1GHz-40GHz)	SKET	RE-04-L	CTA-350	2026/05/19	2027/05/18
☒ 16	Temperature and humidity meter	Chigo	ZG-7020	CTA-328	2025/07/31	2026/07/30
☐ 17	2.4GFilter	HX Microwave	HXLBQ-DZA61	CTA-365	2025/07/31	2026/07/30
☐ 18	5GFilter	CONCEPT	CNF05150M058 50Q16A	CTA-366	2025/07/31	2026/07/30
☐ 19	High-Pass Filter	XingBo	XBLBQ-GTA18	CTA-402	2025/07/30	2026/07/29
☐ 20	High-Pass Filter	XingBo	XBLBQ-GTA27	CTA-403	2025/07/30	2026/07/29
☐ 21	High-Pass Filter	XingBo	XBLBQ-GTA10	CTA-364	2025/07/30	2026/07/29
☒ 22	EMI Test Software	Tonscend	TS@JS32-RE	5.0.0.2	N/A	N/A
RF Conducted Test Equipment						
☒ 1	Spectrum Analyzer	Agilent	N9020A	CTA-342	2025/07/30	2026/07/29
☐ 2	Spectrum analyzer	R&S	FSV40-N	CTA-344	2026/05/16	2027/05/15
☒ 3	RF Coaxial Cable	SKET	RF Cable (9kHz-40GHz)	CTA-368	2025/07/30	2026/07/29
☒ 4	Temperature and humidity meter	ZG-7020	Chigo	CTA-329	2025/07/31	2026/07/30

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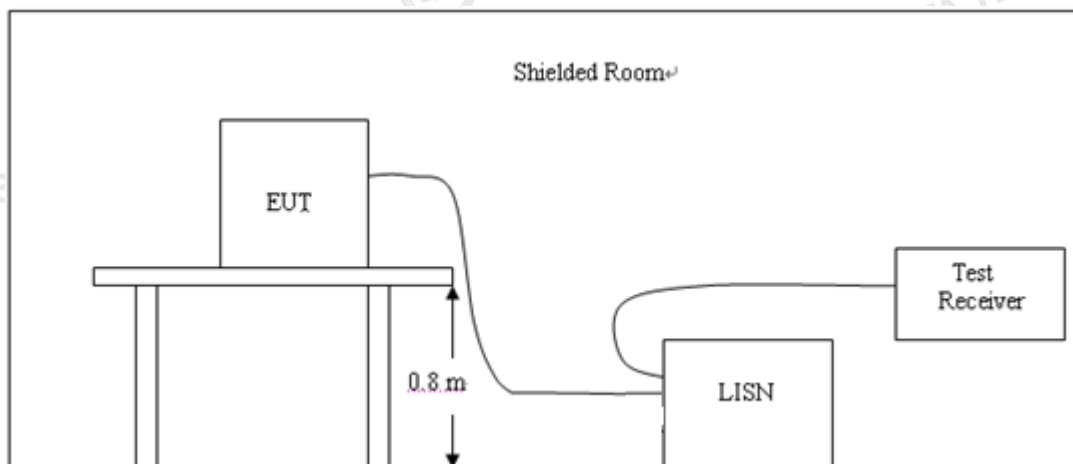
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☐ 5	Programmable Constant Temperature And Humidity Test Chamber	DONGGUAN JINGYU	HT-H-408	CTA-053	2025/07/30	2026/07/29
☐ 6	Vector Signal generator	Agilent	N5182A	CTA-305	2025/07/30	2026/07/29
☐ 7	Analog Signal Generator	R&S	E4421B	CTA-304	2025/07/30	2026/07/29
☐ 8	WIDEBAND RADIO COMMUNICATION TESTER	R&S	CMW500	CTA-302	2025/07/30	2026/07/29
☒ 9	Automatic control unit	Tonscend	JS0806-2	CTA-351	2025/07/30	2026/07/29
☒ 10	RF Test Software	Tonscend	TS@JS1120-3	3.1.65	N/A	N/A
☒ 11	RF Test Software	Tonscend	TS@JS1120	3.1.46	N/A	N/A
☒ 12	RF Connection Cable	N/A	N/A	1#	Each time	N/A

4 TEST CONDITIONS AND RESULTS

4.1 AC Power Conducted Emission

TEST CONFIGURATION



TEST PROCEDURE

- 1, The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10.
- 2, Support equipment, if needed, was placed as per ANSI C63.10.
- 3, All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.
- 4, If a EUT received DC power from the USB Port of Notebook PC, the PC's adapter received power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
- 5, All support equipments received AC power from a second LISN, if any.
- 6, The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
- 7, Analyzer / Receiver scanned from 150 KHZ to 30MHz for emissions in each of the test modes.

AC Power Conducted Emission Limit

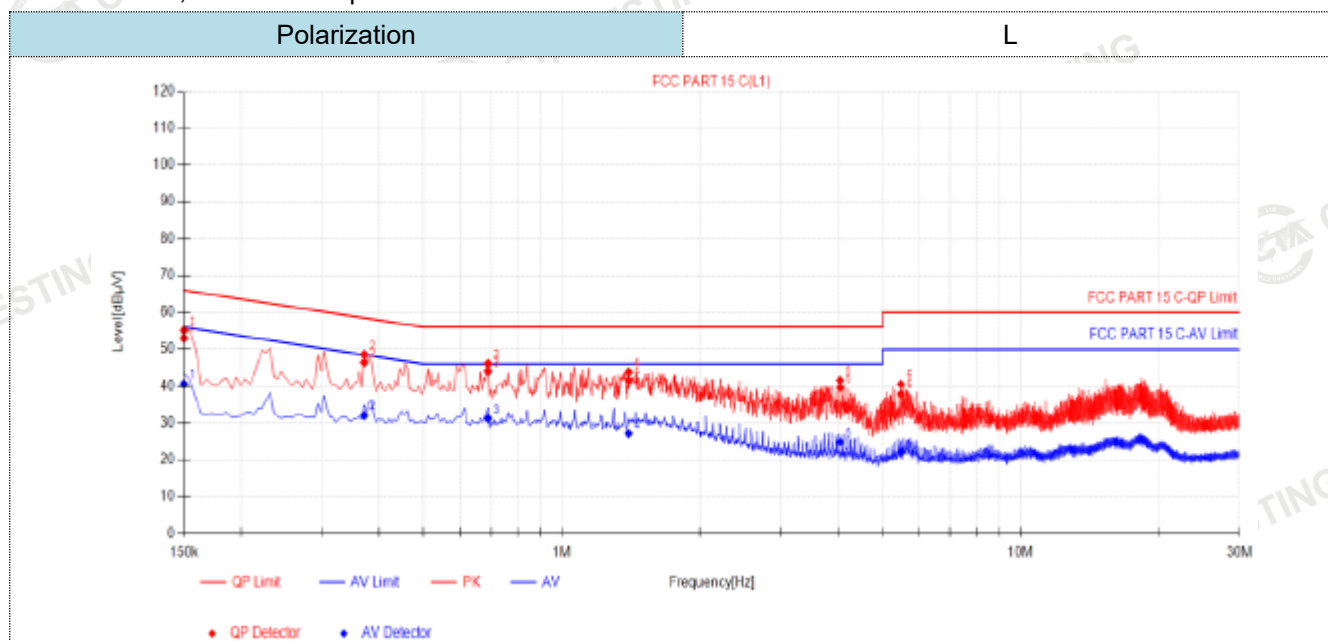
For intentional device, according to § 15.207(a) AC Power Conducted Emission Limits is as following :

Frequency range (MHz)	Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

TEST RESULTS

1. Both 120 VAC, 50/60 Hz and 240 VAC, 50/60 Hz power supply have been tested, only the worst result of 120 VAC, 60 Hz was reported as below:

**Final Data List**

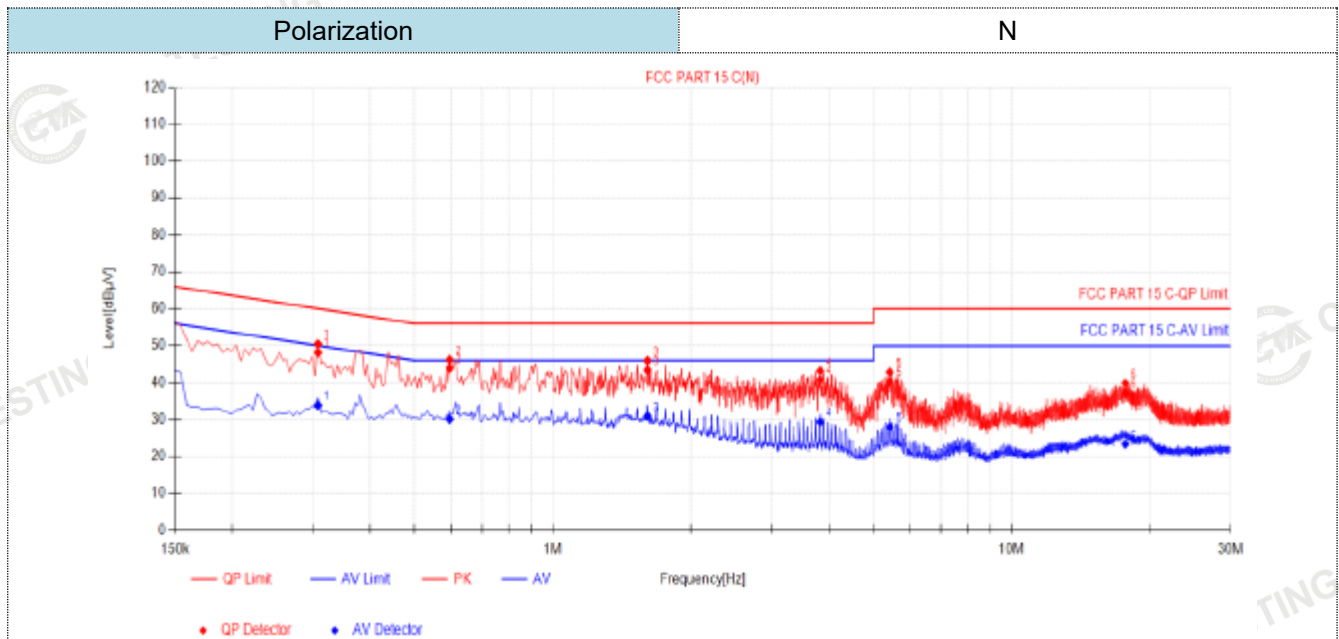
NO.	Freq. [MHz]	Factor [dB]	QP Reading [dBμV]	QP Value [dBμV]	QP Limit [dBμV]	QP Margin [dB]	AV Reading [dBμV]	AV Value [dBμV]	AV Limit [dBμV]	AV Margin [dB]	Verdict
1	0.15	9.98	43.00	52.98	66.00	13.02	30.59	40.57	56.00	15.43	PASS
2	0.3705	10.15	36.29	46.44	58.49	12.05	21.86	32.01	48.49	16.48	PASS
3	0.69	10.40	33.56	43.96	56.00	12.04	20.82	31.22	46.00	14.78	PASS
4	1.3965	10.45	31.17	41.62	56.00	14.38	16.66	27.11	46.00	18.89	PASS
5	4.038	10.75	28.80	39.55	56.00	16.45	14.06	24.81	46.00	21.19	PASS
6	5.4825	10.92	26.97	37.89	60.00	22.11	11.13	22.05	50.00	27.95	PASS

Note: 1). QP Value (dBμV) = QP Reading (dBμV) + Factor (dB)

2). Factor (dB) = insertion loss of LISN (dB) + Cable loss (dB)

3). QPMargin (dB) = QP Limit (dBμV) - QP Value (dBμV)

4). AVMargin (dB) = AV Limit (dBμV) - AV Value (dBμV)



Final Data List

NO.	Freq. [MHz]	Factor [dB]	QP Reading[dB μV]	QP Value [dBμV]	QP Limit [dBμV]	QP Margin [dB]	AV Reading [dBμV]	AV Value [dBμV]	AV Limit [dBμV]	AV Margin [dB]	Verdict
1	0.3075	10.02	38.15	48.17	60.04	11.87	23.83	33.85	50.04	16.19	PASS
2	0.5955	10.22	33.67	43.89	56.00	12.11	19.92	30.14	46.00	15.86	PASS
3	1.608	10.42	32.93	43.35	56.00	12.65	20.52	30.94	46.00	15.06	PASS
4	3.8265	10.77	30.08	40.85	56.00	15.15	18.63	29.40	46.00	16.60	PASS
5	5.4285	10.98	29.32	40.30	60.00	19.70	16.98	27.96	50.00	22.04	PASS
6	17.691	12.72	24.53	37.25	60.00	22.75	10.60	23.32	50.00	26.68	PASS

Note:1). QP Value (dBμV) = QP Reading (dBμV) + Factor (dB)

2). Factor (dB) = insertion loss of LISN (dB) + Cable loss (dB)

3). QPMargin(dB) = QP Limit (dBμV) - QP Value (dBμV)

4). AVMargin(dB) = AV Limit (dBμV) - AV Value (dBμV)

4.2 Radiated Emission

Limit

For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emission out of authorized band shall not exceed the following table at a 3 meters measurement distance.

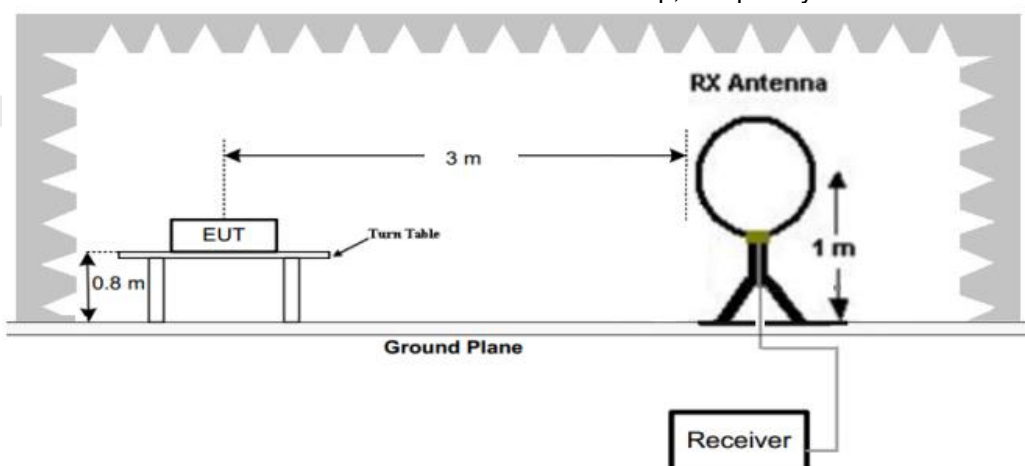
In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a)

Radiated emission limits

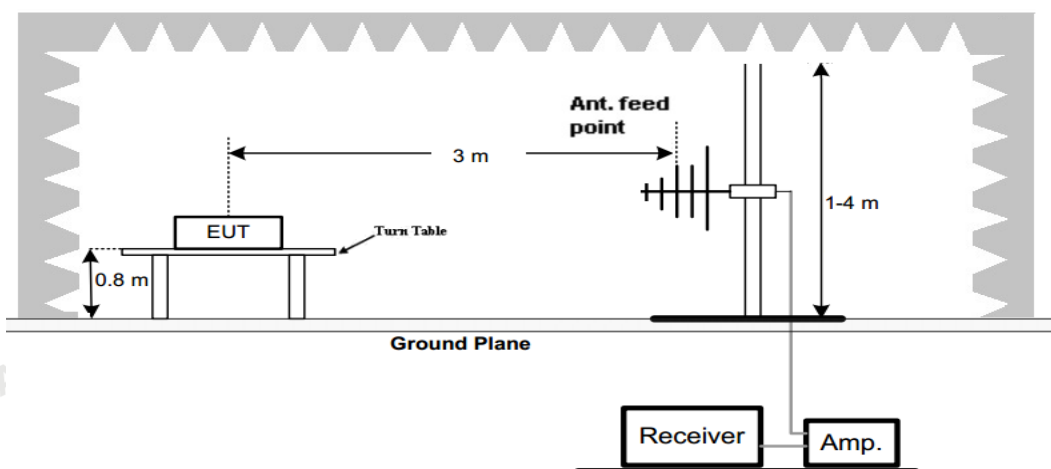
Frequency (MHz)	Distance (Meters)	Radiated (dBμV/m)	Radiated (μV/m)
0.009-0.49	3	$20\log(2400/F(\text{KHz}))+40\log(300/3)$	$2400/F(\text{KHz})$
0.49-1.705	3	$20\log(24000/F(\text{KHz}))+40\log(30/3)$	$24000/F(\text{KHz})$
1.705-30	3	$20\log(30)+40\log(30/3)$	30
30-88	3	40.0	100
88-216	3	43.5	150
216-960	3	46.0	200
Above 960	3	54.0	500

TEST CONFIGURATION

1. Radiated Emission Test Set-Up, Frequency Below 30MHz



2. Radiated Emission Test Set-Up, Frequency below 1000MHz



Test Procedure

Shenzhen CTA Testing Technology Co., Ltd.

Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China
Tel: +86-755 2322 5875 E-mail: cta@cta-test.cn Web: http://www.cta-test.cn

- Below 1GHz measurement the EUT is placed on a turntable which is 0.8m above ground plane.
- Maximum procedure was performed by raising the receiving antenna from 1m to 4m and rotating the turntable from 0° to 360° to acquire the highest emissions from EUT
- And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- Repeat above procedures until all frequency measurements have been completed.
- Radiated emission test frequency band from 9KHz to 1000MHz.
- The distance between test antenna and EUT as following table states:

Test Frequency range	Test Antenna Type	Test Distance
9KHz-30MHz	Active Loop Antenna	3
30MHz-1GHz	Bilog Antenna	3

- Setting test receiver/spectrum as following table states:

Test Frequency range	Test Receiver/Spectrum Setting	Detector
9KHz-150KHz	RBW=200Hz/VBW=3KHz, Sweep time=Auto	QP
150KHz-30MHz	RBW=9KHz/VBW=100KHz, Sweep time=Auto	QP
30MHz-1GHz	RBW=120KHz/VBW=1000KHz, Sweep time=Auto	QP

TEST RESULTS

For 9 KHz-30MHz

WORST-CASE RADIATED EMISSION BELOW 30 MHz

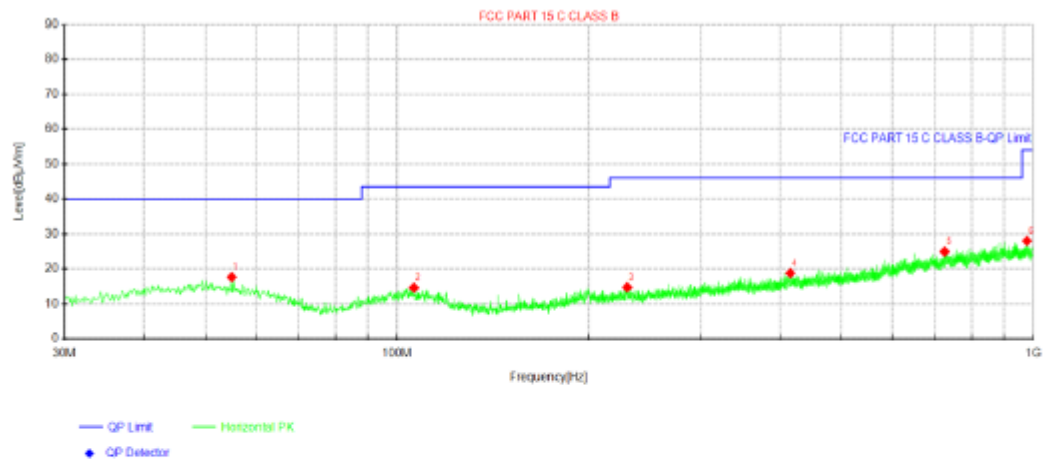
Frequency (MHz)	Reading (dBμV/m)	Polar Loop	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Levels (dBμV/m)	Limits at 3m (dBμV/m)	Margin (dB)	Detector Mode
0.1483(F)	75.14	Loop	23.63	0.02	98.79	104.18	5.39	PK
0.1483(F)	55.28	Loop	23.63	0.02	78.93	84.18	5.25	AV
0.110	54.26	Loop	23.51	0.02	77.79	106.78	28.99	PK
0.110	47.52	Loop	23.51	0.02	71.05	86.78	15.73	AV
0.247	45.78	Loop	23.82	-0.17	69.43	99.75	30.32	QP
0.436	42.45	Loop	24.21	-0.28	66.38	94.81	28.43	QP
0.557	36.70	Loop	24.32	-0.3	60.72	72.69	11.97	QP
--	--	--	--	--	--	--	--	--

Remark:

- Data of measurement within this frequency range shown "-- in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits and not recorded.
- The test limit distance is 3m limit.
- PK means Peak Value, QP means Quasi Peak Value, AV means Average Value.
- F means Fundamental Frequency.
- Emission level (dBμV/m) = Reading + Antenna Factor + Cable Loss.
- Margin value = Limit value - Emission level.

For 30MHz-1GHz

Horizontal



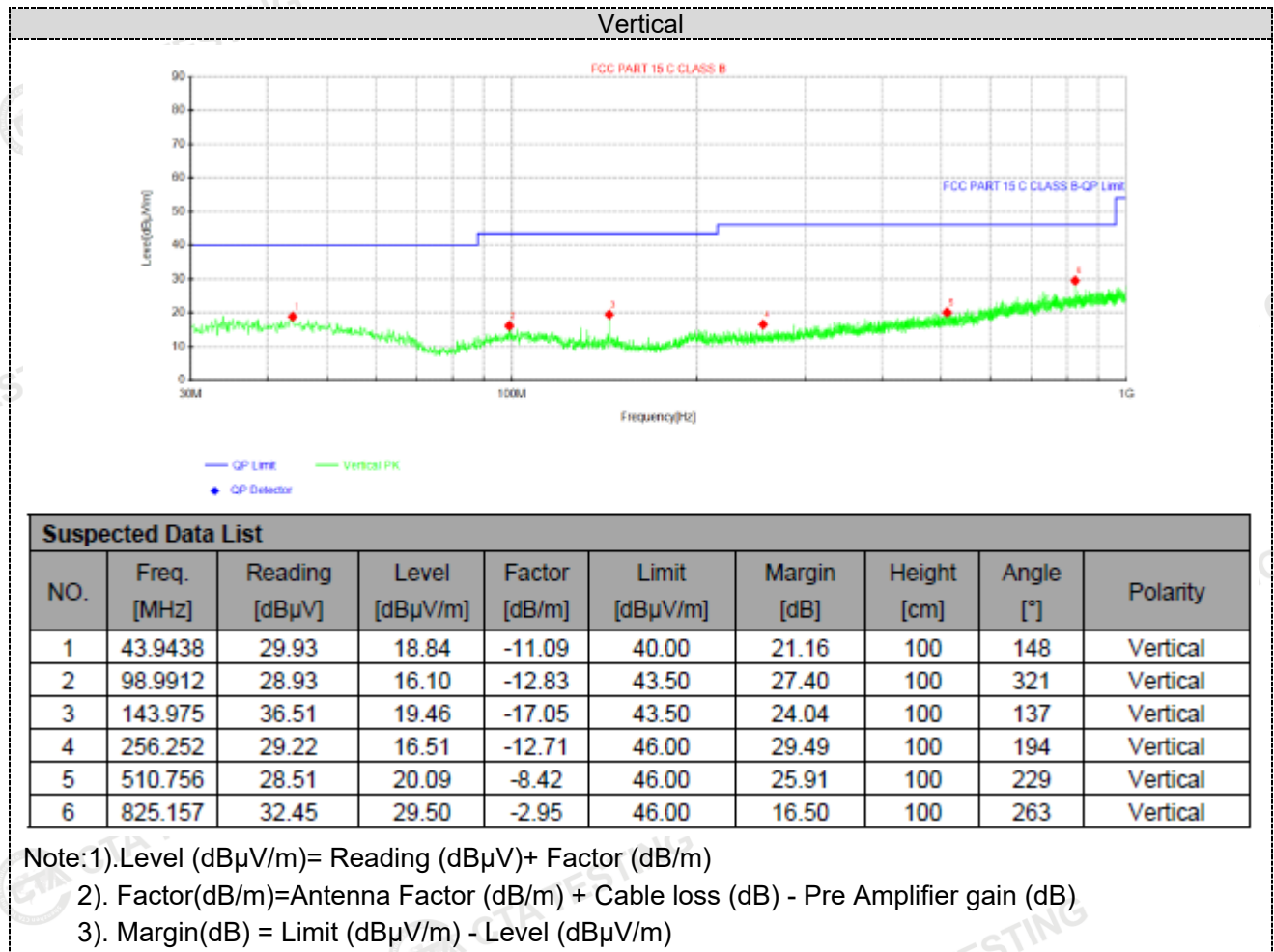
Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	54.9775	28.52	17.61	-10.91	40.00	22.39	100	19	Horizontal
2	106.266	27.27	14.60	-12.67	43.50	28.90	100	75	Horizontal
3	230.062	27.78	14.72	-13.06	46.00	31.28	100	318	Horizontal
4	415.09	28.48	18.77	-9.71	46.00	27.23	100	19	Horizontal
5	725.49	29.03	24.95	-4.08	46.00	21.05	100	1	Horizontal
6	977.69	29.33	28.02	-1.31	54.00	25.98	100	0	Horizontal

Note:1). Level (dBμV/m)= Reading (dBμV)+ Factor (dB/m)

2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB)

3). Margin(dB) = Limit (dBμV/m) - Level (dBμV/m)



4.3 The 20dB bandwidth

TEST CONFIGURATION



TEST PROCEDURE

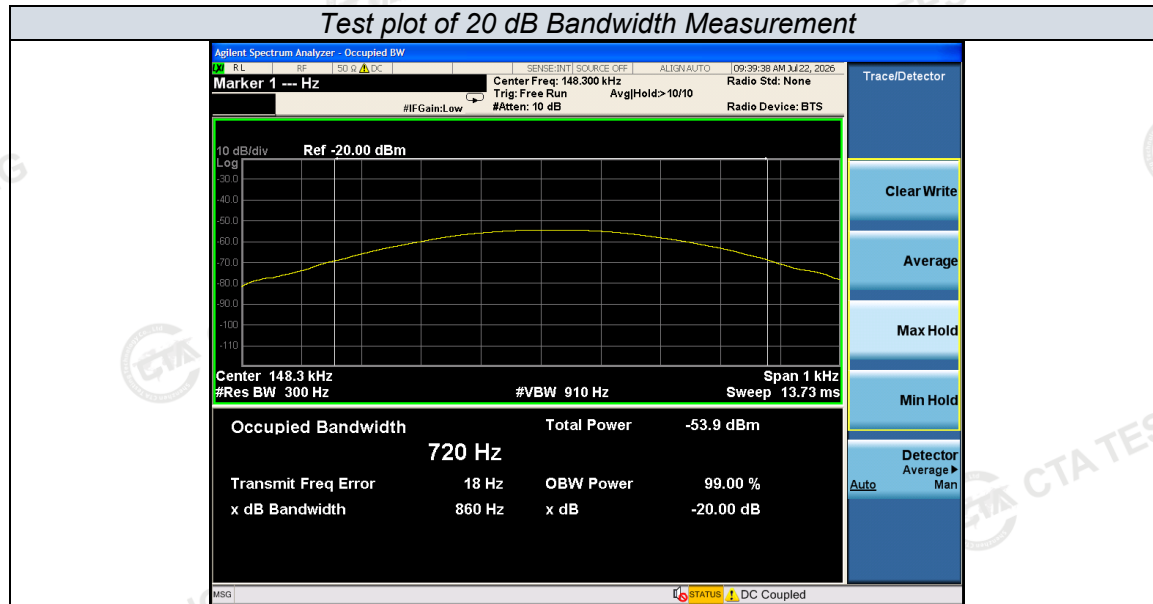
Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§15.217 through 15.257 and in subpart E of this part, must be designed to ensure that 20dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equip compliance with the 20dB attenuation specification may base on measurement at the intentional radiator's antenna output terminal unless the intentional radiator uses a permanently attached antenna, in which case compliance shall be demonstrated by measuring the radiated emissions.

LIMIT

The 20dB bandwidth shall be less than 80% of the permitted frequency band.

TEST RESULTS

Mode	Freq (MHz)	20dB Bandwidth (Hz)	Conclusion
Tx Mode	0.1483	860	PASS



4.4 Antenna Requirement

Standard Applicable

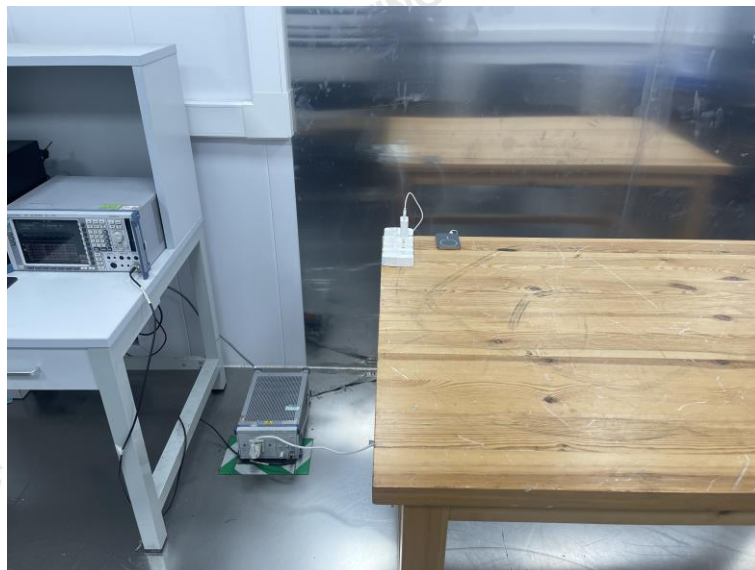
Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

Antenna Information

The antenna used in this product is a Coil Antenna, The directional gains of antenna used for transmitting is 0.12 dBi.

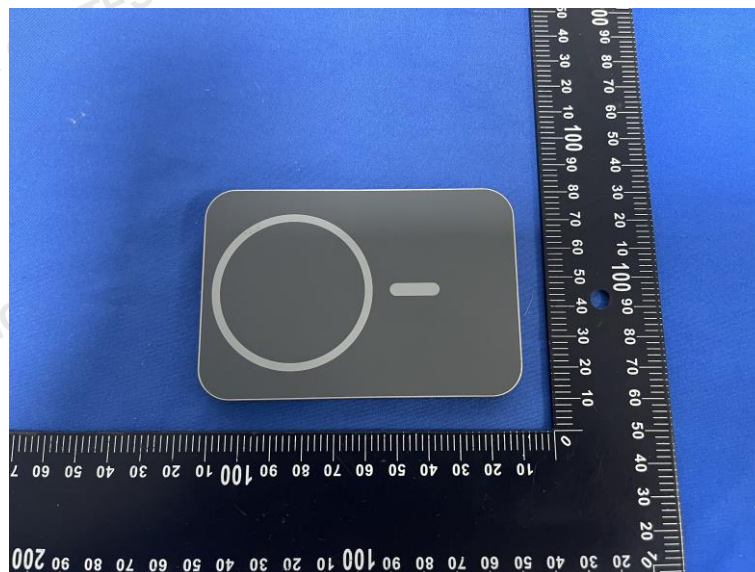
5 Test Setup Photos of the EUT



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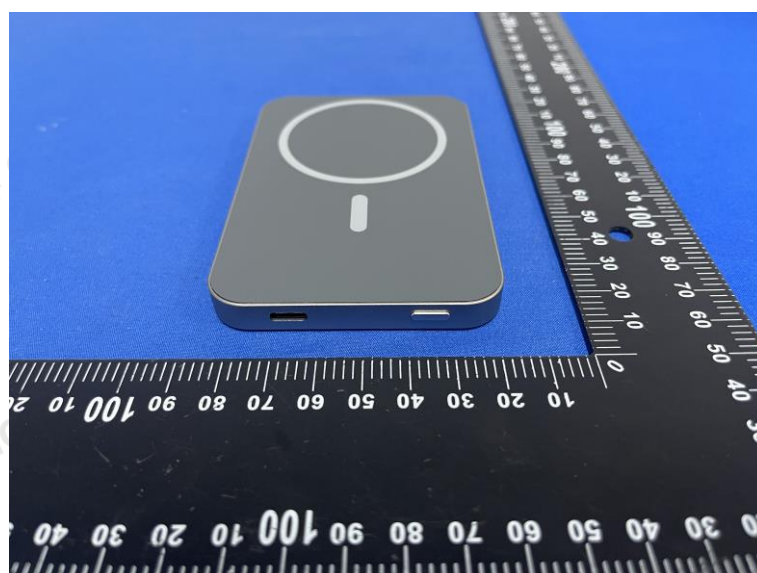
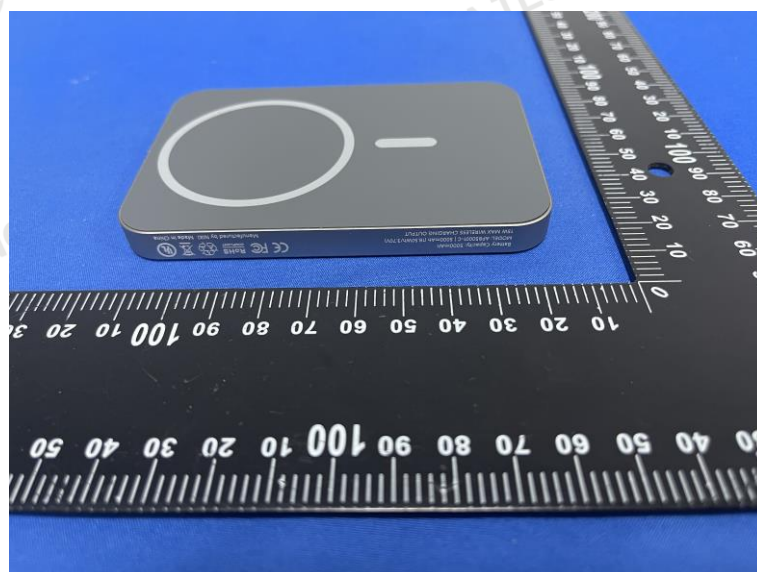
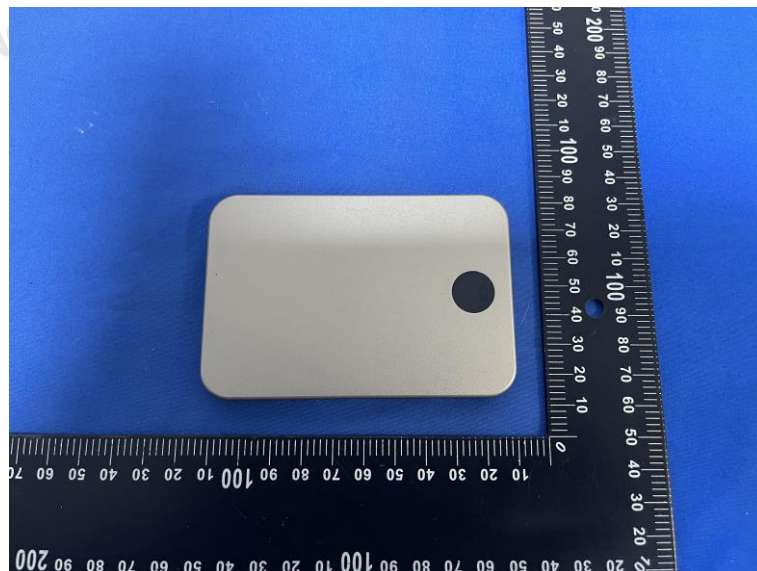
Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China
Tel: +86-755 2322 5875 E-mail: cta@cta-test.cn Web: <http://www.cta-test.cn>

6 PHOTOS OF THE EUT



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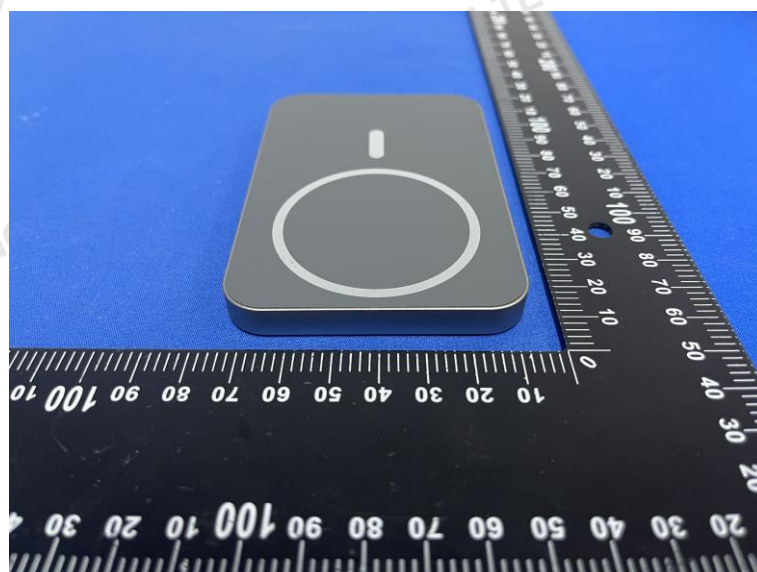
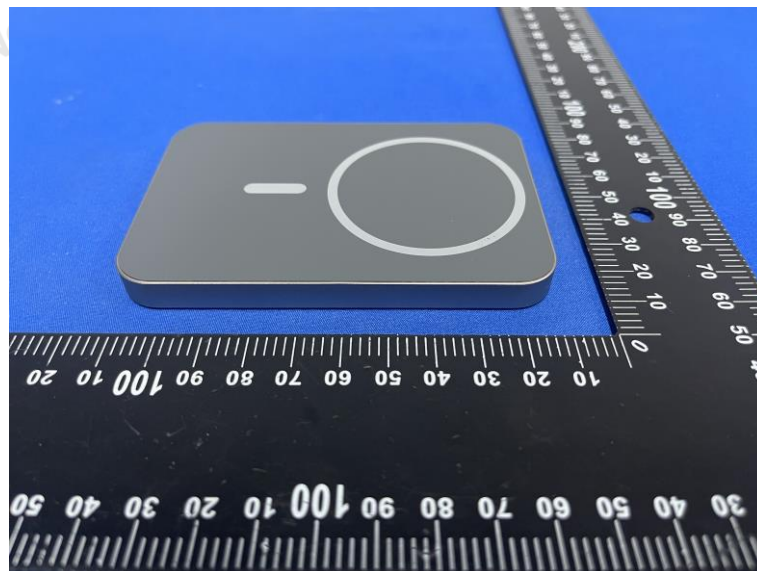
Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China
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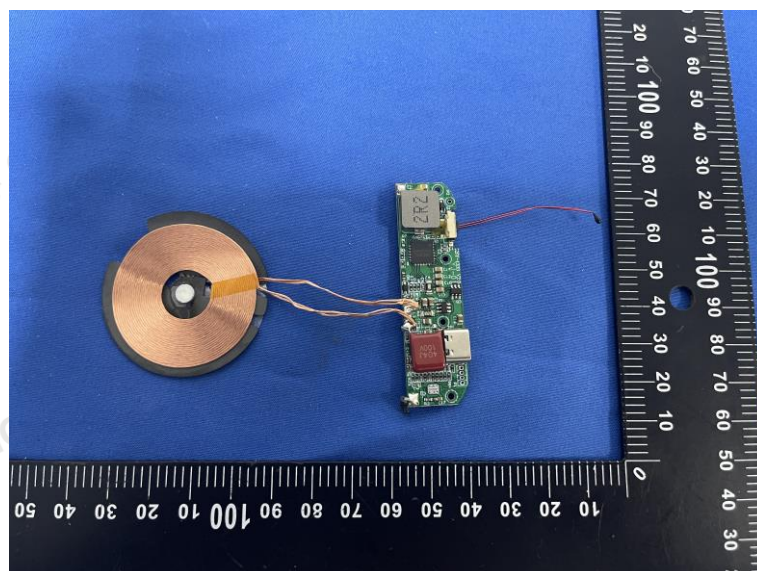
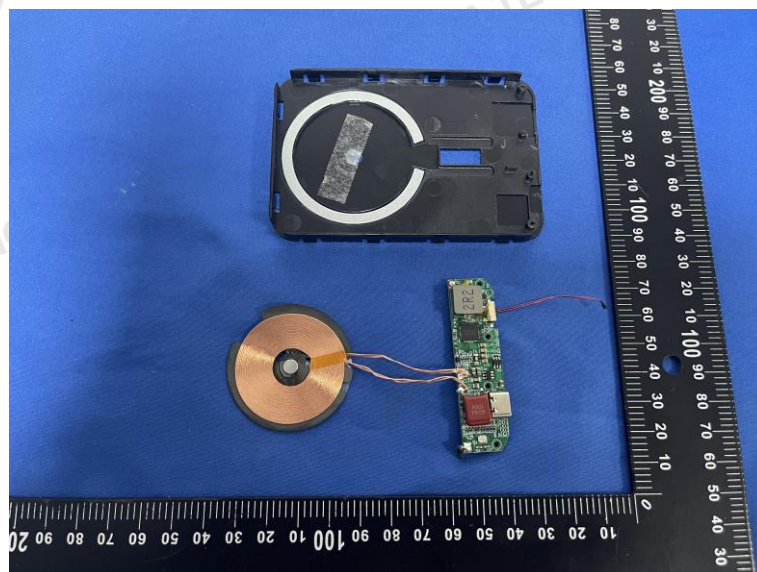
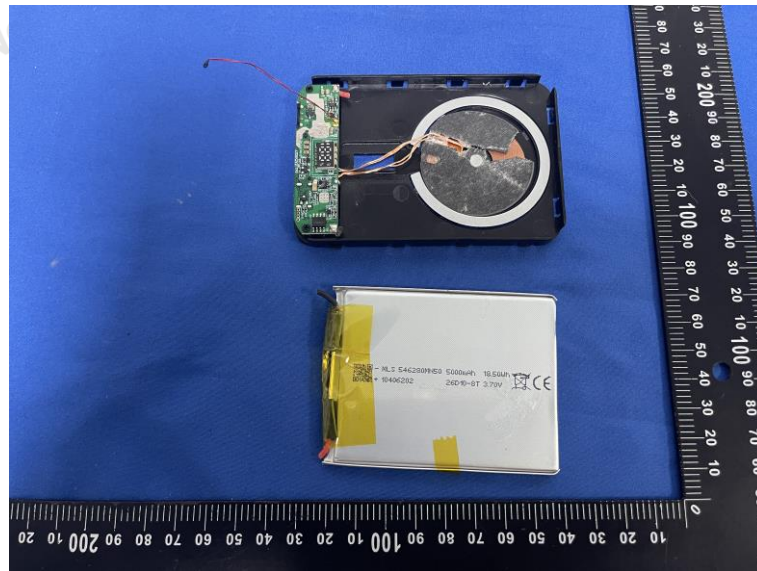
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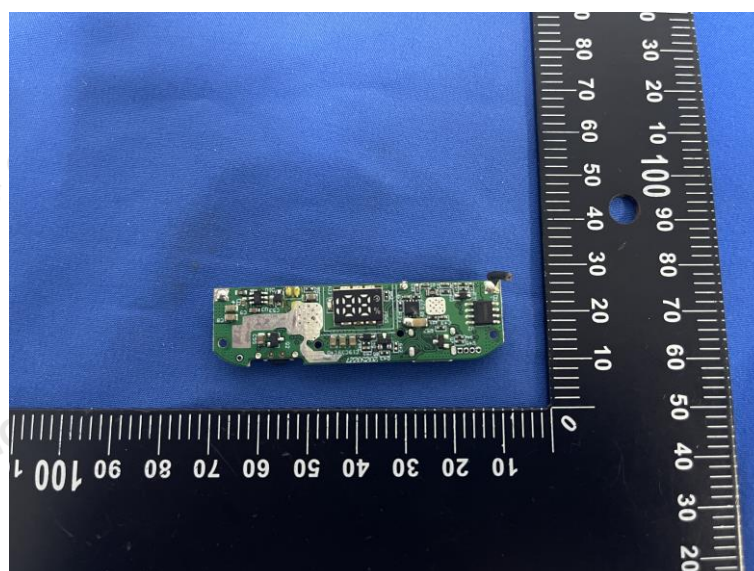
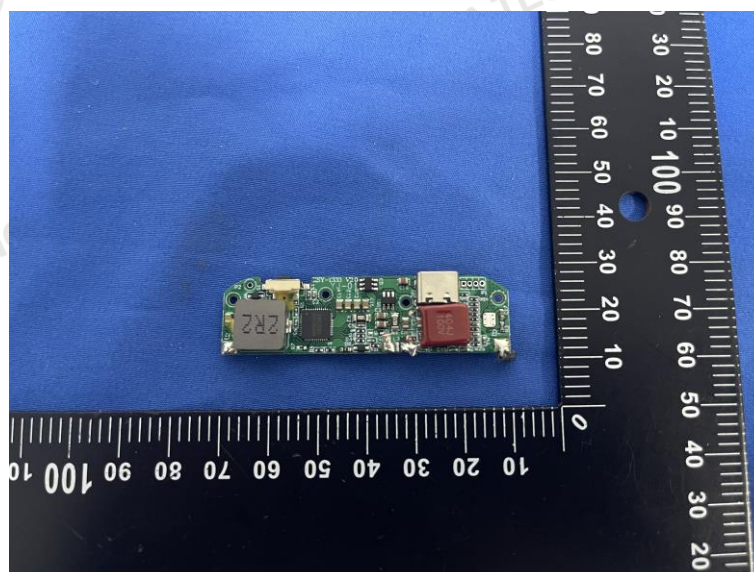
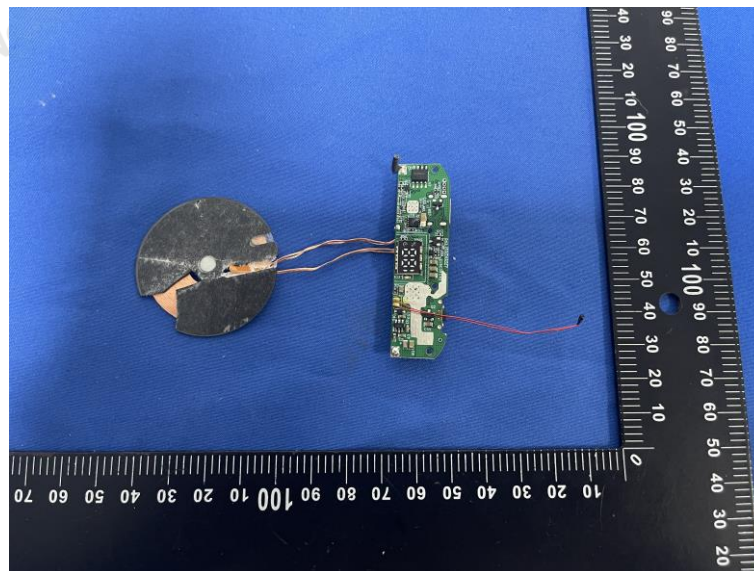
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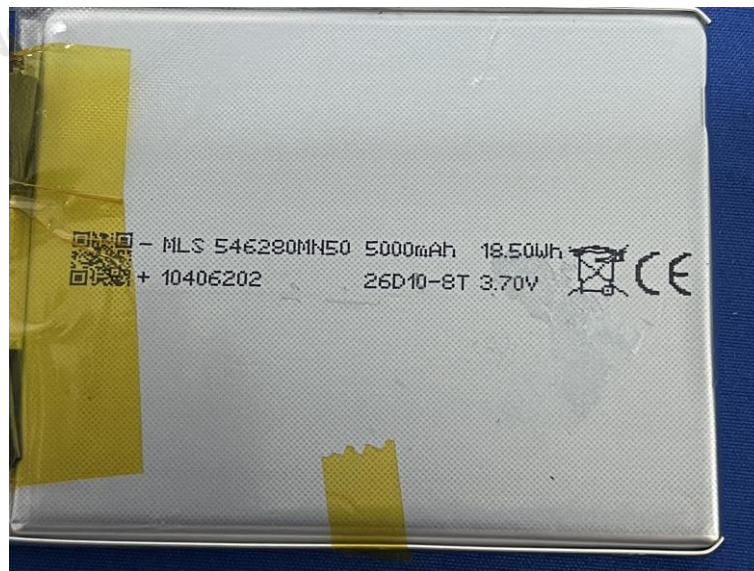
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***** End of Report *****

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