

FCC TEST REPORT

FCC ID: 2BOB5-Q22

On Behalf of

Yiwu EnjoyCharm Trading Co.,Ltd.

Power Bank

Model No.: Q22, Black, White, Beige, Blue, Pink, Purple

Prepared for	:	Yiwu EnjoyCharm Trading Co.,Ltd.
Address	:	Room 1101, unit 1, building 2, yimeiwangzu, Jiangdong Street, Yiwu City. Zhejiang Province, P.R. China.

Prepared By	:	Shenzhen Alpha Product Testing Co., Ltd.
Address	:	Building i, No.2, Lixin Road, Fuyong Street, Bao'an District, 518103, Shenzhen, Guangdong, China

Report Number	:	A2503113-C01-R01
Date of Receipt	:	March 14, 2025
Date of Test	:	March 14, 2025 - April 8, 2025
Date of Report	:	April 8, 2025
Version Number	:	V0
Test Result	:	Pass

ALPHA's reports is using a digital certificate that is trusted on Adobe's official server. If there is no digital certificate or the digital certificate shows damaged in your report. Please do not accept the report. E-mail: service@a-lab.cn Tel: 4008300895 Website: http://www.a-lab.cn/certificate

TABLE OF CONTENTS

	Description	Page
1.	Test Result Summary	5
2.	General Information	6
	2.1. DESCRIPTION OF DEVICE (EUT)	6
	2.2. Accessories of Device (EUT)	
	2.3. TESTED SUPPORTING SYSTEM DETAILS	7
	2.4. BLOCK DIAGRAM OF CONNECTION BETWEEN EUT AND SIMULATORS	7
	2.5. DESCRIPTION OF TEST MODES	7
	2.6. TEST CONDITIONS	
	2.7. TEST FACILITY	
	2.8. MEASUREMENT UNCERTAINTY	
	2.9. TEST EQUIPMENT LIST	9
3.	Test Results and Measurement Data	10
	3.1. CONDUCTED EMISSION	
	3.2. RADIATED SPURIOUS EMISSION MEASUREMENT	14
	3.3. OCCUPIED BANDWIDTH	
4.	Photos of test setup	25
5.	Photographs of EUT	27

TEST REPORT DECLARATION	ЛС
--------------------------------	----

Applicant	:	Yiwu EnjoyCharm Trading Co.,Ltd.			
Address	:	Room 1101, unit 1, building 2, yimeiwangzu, Jiangdong Street, Yiwu City. Zhejiang Province, P.R. China.			
Manufacturer	:	Shenzhen Meiyu Electronic Technology Co., Ltd.			
Address	:	605, Building 14, No. 62, Nanchang Road, Nanchang Community, Xixiang Street, Bao'an District, Shenzhen, China			
EUT Description	:	Power Bank			
		(A) Model No. : Q22, Black, White, Beige, Blue, Pink, Purple			
		(B) Trademark : Qecvec			

Measurement Standard Used: FCC CFR Title 47 Part 15 Subpart C Section 15.209

The device described above is tested by Shenzhen Alpha Product Testing Co., Ltd. to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The test results are contained in this test report and Shenzhen Alpha Product Testing Co., Ltd. is assumed full responsibility for the accuracy and completeness of test. Also, this report shows that the EUT is technically compliant with the FCC CFR Title 47 Part 15 Subpart C Section 15.209 requirements.

This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Shenzhen Alpha Product Testing Co., Ltd.

Tested by (name + signature)	Yannis Wen Project Engineer	Yanniz wen
Approved by (name + signature):	Jack Xu Project Manager	Janes
Date of issue	April 8, 2025	

Revision History

Revision	Issue Date	Revisions	Revised By
V0	April 8, 2025	Initial released Issue	Yannis Wen

1. Test Result Summary

Requirement	CFR 47 Section	Result
Antenna requirement	§15.203	PASS
AC Power Line Conducted Emission	§15.207	PASS
Spurious Emission	§15.209(a)(f)	PASS
Occupied Bandwidth	§15.215 (c)	PASS

Note:

1. PASS: Test item meets the requirement.

2. Fail: Test item does not meet the requirement.

3. N/A: Test case does not apply to the test object.

4. The test result judgment is decided by the limit of test standard.

5. Decision rules for the conclusion of this test report: decision by actual test data without considering measurement uncertainty.

2. General Information

2.1. Description of Device (EUT)						
EUT Name	:	Power Bank				
Model No.	:	Q22, Black, White, Beige, Blue, Pink, Purple				
DIFF.	:	There is no difference except the name of the model. All tests are made with the Q22 model.				
Power supply	:	Input: Type-C 5V 3A, 9V 2A 18W(Max)				
EUT information		Input: Type-C 5V 3A, 9V 2A 18W(Max) Output : Type-C 5V 3A, 9V 2.22A 12V 1.67A 20W(Max) Wireless Charging Output: 5W, 7.5W, 10W, 15W				
Radio Technology	:	Wireless power transmission systems				
Operation frequency	:	115-205KHz				
Modulation	:	ASK				
Antenna Type	:	Coil Antenna, Maximum Gain is 0dBi (Antenna information is provided by applicant.).				
Software version	:	V1.0				
Hardware version	:	V1.0				
Intend use environment	:	Residential, commercial and light industrial environment				

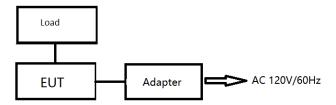
2.2. Accessories of Device (EUT)

Accessories	:	/
Manufacturer	:	/
Model	:	/
specifications	:	/

2.3. Tested Supporting System Details

No.	Description	Manufacturer	Model	Serial Number	Certification or SDoC
1	N/A	N/A	N/A	N/A	N/A

2.4. Block Diagram of connection between EUT and simulators



2.5. Description of Test Modes

Channel	Frequency (KHz)
1	128

2.6. Test Conditions

Items	Required	Actual			
Temperature range:	15-35 ℃	23 ℃			
Humidity range:	25-75%	55%			
Pressure range:	86-106kPa	98kPa			

2.7. Test Facility

Shenzhen Alpha Product Testing Co., Ltd Building i, No.2, Lixin Road, Fuyong Street, Bao'an District, 518103, Shenzhen, Guangdong, China

2.8. Measurement Uncertainty

(95% confidence levels, k=2)

Item	Uncertainty			
Uncertainty for Power point Conducted Emissions Test	1.63dB			
Uncertainty for Radiation Emission test in 3m chamber (below 30MHz)	3.5dB			
Uncertainty for Radiation Emission test in 3m chamber	3.74dB(Polarize: V)			
(30MHz to 1GHz)	3.76dB(Polarize: H)			
Uncertainty for Radiation Emission test in 3m chamber	3.77dB(Polarize: V)			
(1GHz to 25GHz)	3.80dB(Polarize: H)			
Uncertainty for Radiation Emission test in 3m chamber	4.31 dB(Polarize: V)			
(18GHz to 40GHz)	4.30 dB(Polarize: H)			
Uncertainty for radio frequency	5.06×10 ⁻⁸ GHz			
Uncertainty for conducted RF Power	0.40dB			
Uncertainty for temperature	0.2 °C			
Uncertainty for humidity	1%			
Uncertainty for DC and low frequency voltages	0.06%			

Equipment	Manufacture	Model No.	Firmware version	Serial No.	Last cal.	Cal Interval
9*6*6 anechoic chamber	CHENYU	9*6*6	/	N/A	2025.03.09	4Year
4*4*3 Shielded room	CHENYU	4*4*3	/	N/A	2025.03.09	4Year
Spectrum analyzer	ROHDE&SCHWARZ	FSV40-N	2.3	102137	2024.08.08	1Year
Spectrum analyzer	Agilent	N9020A	A.14.16	MY499100060	2024.08.08	1Year
Receiver	ROHDE&SCHWARZ	ESR	2.28 SP1	1316.3003K03-10 2082-Wa	2024.08.08	1Year
Receiver	R&S	ESCI	4.42 SP1	101165	2024.08.08	1Year
Bilog Antenna	Schwarzbeck	VULB 9168	/	VULB 9168#627	2023.08.28	2Year
Horn Antenna	SCHWARZBECK	BBHA 9120 D	/	2106	2023.08.19	2Year
Loop Antenna	SCHWARZBECK	FMZB 1519B	/	00128	2023.08.19	2Year
RF Cable	Resenberger	Cable 1	/	RE1	2024.08.08	1Year
RF Cable	Resenberger	Cable 2	/	RE2	2024.08.08	1Year
RF Cable	Resenberger	Cable 3	/	CE1	2024.08.08	1Year
Pre-amplifier	HP	HP8347A	/	2834A00455	2024.08.08	1Year
Pre-amplifier	Agilent	8449B	/	3008A02664	2024.08.08	1Year
L.I.S.N.#1	Schwarzbeck	NSLK8126	/	8126-466	2024.08.08	1Year
L.I.S.N.#2	ROHDE&SCHWARZ	ENV216	/	101043	2024.08.08	1Year
Horn Antenna	SCHWARZBECK	BBHA 9170	/	00946	2023.08.19	2Year
Preamplifier	SKET	LNPA_1840 -50	/	SK2018101801	2024.08.08	1 Year
Power Meter	Agilent	E9300A	/	MY41496628	2024.08.08	1 Year
Power Sensor	DARE	RPR3006W	/	15100041SNO91	2024.08.08	1 Year
Temp. & Humid. Chamber	Teelong	TL-HW408S	/	TL-20191205-01	2024.07.15	1 Year
Thermo-Hygrome ter			/	N/A	2024.08.11	1 Year
Switching Mode Power Supply	JUNKE	JK12010S	/	20140927-6	2024.08.08	1 Year
Adjustable attenuator	MWRFtest	N/A	/	N/A	N/A	N/A
10dB Attenuator	Mini-Circuits	DC-6G	/	N/A	N/A	N/A

2.9. Test Equipment List

Software Information										
Test Item Software Name Manufacturer Version										
RE	EZ-EMC	Farad	Alpha-3A1							
CE	EZ-EMC	Farad	Alpha-3A1							
RF-CE	MTS 8310	MWRFtest	2.0.0.0							

3. Test Results and Measurement Data

3.1. Conducted Emission

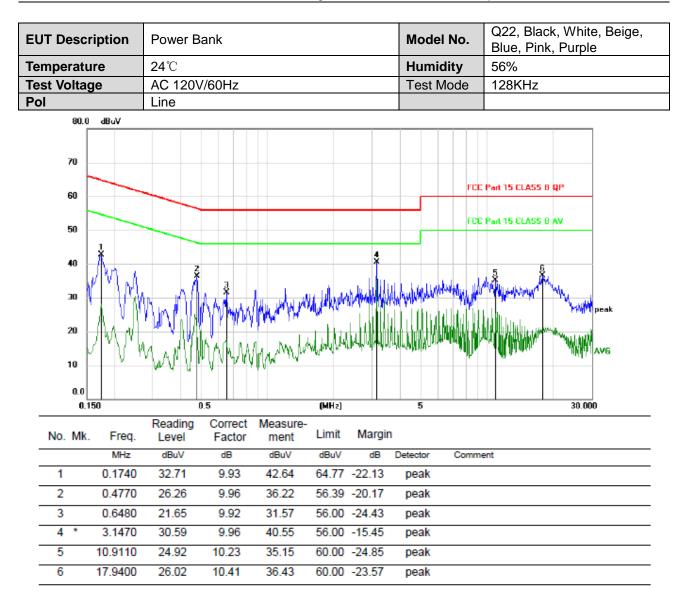
3.1.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.20	07	1				
· · · · · · · · · · · · · · · · · · ·							
Test Method:	ANSI C63.10:2013						
Frequency Range:	150 kHz to 30 MHz						
Receiver setup:	RBW=9 kHz, VBW=30 kHz,	Sweep time=auto					
	Frequency range (MHz)		nit (dBuV)				
		Quasi-peak	Average				
Limits:	0.15-0.5 0.5-5	66 to 56* 56	56 to 46* 46				
	5-30	60	50				
		00					
	Referen	nce Plane					
Test Setup:	40cm 80cm Filter AC p E.U.T Adapter Filter AC p E.U.T EMI Receiver Remark: E.U.T: Equipment Under Test LISN: Line Impedence Stabilization Network Test table height=0.8m						
Test Mode:	Transmitting Mode						
Test Procedure:	 The E.U.T is connected to an adapter through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs). Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10: 2013 on conducted measurement. 						
Test Result:	PASS						

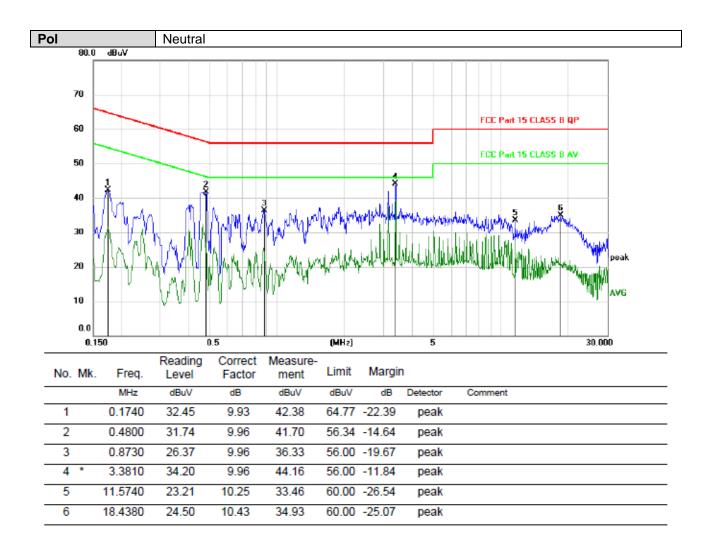
3.1.2. Test data

Please refer to following diagram for individual

Test Mo	ode : 128KHz
Test Re	esults : PASS
Note:	The test results are listed in next pages. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector and quasi-peak detector need not be carried out. If the limits for the measurement with the average detector are met when using a receiver with a quasi-peak detector, the test unit shall be deemed to meet both limits and the measurement with a quasi-peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector are met when using a receiver with a quasi-peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector need not be carried out.



*:Maximum data	x:Over limit	I:over margin	(Reference Only
Note: Measureme	nt=Reading Le	vel+Correc Factor.	Factor=(LISN or ISN or PLC or Current Probe)Factor+Cable



*:Maximum data x:Over limit I:over margin

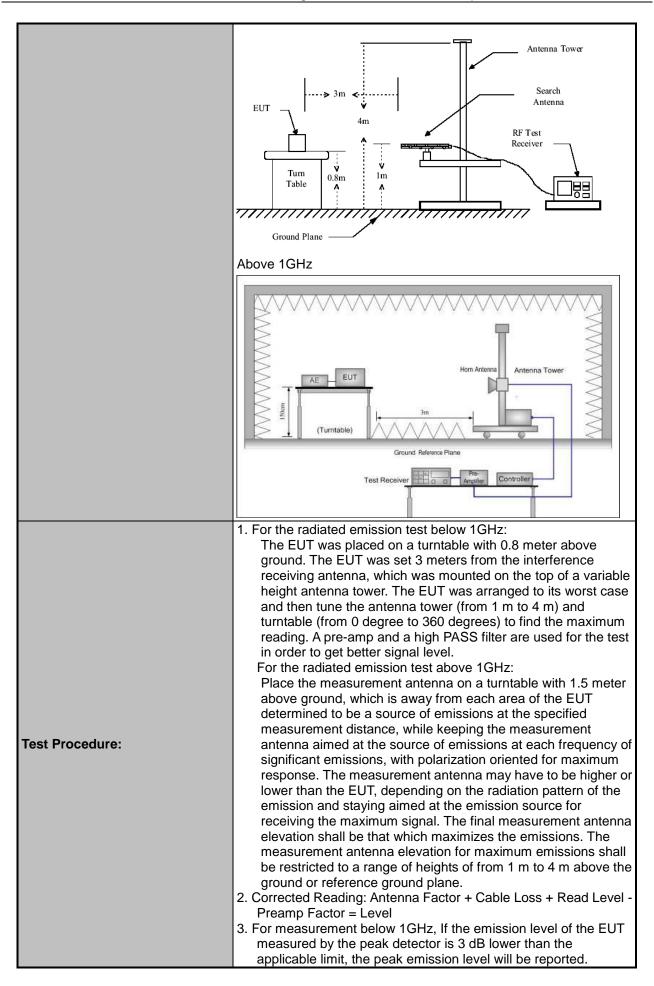
(Reference Only

Note: Measurement=Reading Level+Correc Factor. Factor=(LISN or ISN or PLC or Current Probe)Factor+Cable

3.2. Radiated Spurious Emission Measurement

3.2.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.209							
Test Method:	ANSI C63.10: 2013							
Frequency Range:	9 kHz to 25 GHz							
Measurement Distance:	3 m							
Antenna Polarization:	Horizontal & Vertical							
Operation mode:	Refer to item 4.1							
Receiver Setup:	Frequency 9kHz- 150kHz 150kHz- 30MHz	Detector Quasi-peal Quasi-peal		ak ak	RBW 200Hz 9kHz			Remark si-peak Value si-peak Value
	30MHz-1GHz		si-pea Peak	ak	100KHz 1MHz	300KHz 3MHz		si-peak Value eak Value
	Above 1GHz		^r eak Peak		1MHz	10Hz		erage Value
Limit:	Frequency (microvolts/meter) Distance (0.009-0.490 2400/F(KHz) 300 0.490-1.705 24000/F(KHz) 300 1.705-30 30 30 30-88 100 3 88-216 150 3 216-960 200 3 Above 960 500 3 Frequency Field Strength (microvolts/meter) Measurement Distance (meters) Above 1GHz 500 3 Av					3 3		
Test setup:	For radiated emissions below 30MHz Distance = 3m Computer Pre - Amplifier Pre - Amplifier Receiver 30MHz to 1GHz						plifier	



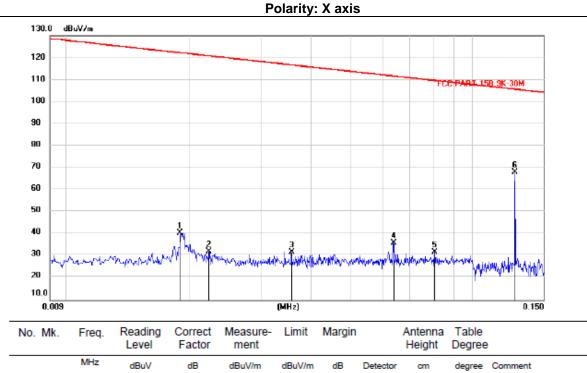
Test mode: Test results:	 (1) Span shall wide enough to fully capture the emission being measured; (2) Set RBW=100 kHz for f < 1 GHz; VBW ≥RBW; Sweep = auto; Detector function = peak; Trace = max hold; (3) Set RBW = 1 MHz, VBW= 3MHz for f 1 GHz for peak measurement. For average measurement: VBW = 10 Hz, when duty cycle is no less than 98 percent. VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation. Refer to section 4.1 for details
	For average measurement: VBW = 10 Hz, when duty cycle is no less than 98 percent. VBW \geq 1/T, when duty cycle is less
	(3) Set RBW = 1 MHz, VBW= 3MHz for f 1 GHz for peak
	(2) Set RBW=100 kHz for f < 1 GHz; VBW ≥RBW; Sweep =
	4. Use the following spectrum analyzer settings:(1) Span shall wide enough to fully capture the emission being
	Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

3.2.2. Test Data

Please refer to following diagram for individual

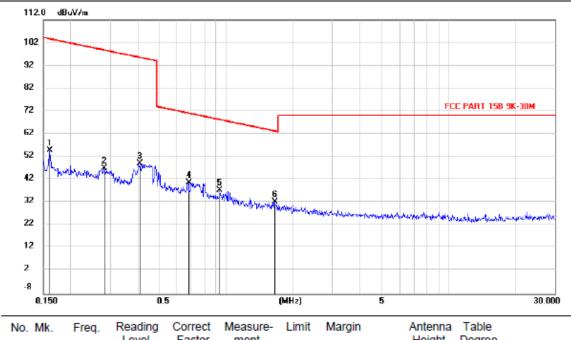
Freque	ncy Range	:	9KHz~30MHz					
Test Mode		:	TX: 128kHz					
Test Re	esults	:	PASS					
Note:	1. The test	resu	ults are listed in next pages.					
	2. This mode is worst case mode, so this report only reflected the worst mode.							
	3. If the limits for the measurement with the average detector are met when using a receiver with							
			r, the test unit shall be deemed to meet both limits and the measurement with the ector need not be carried out.					

Test Mode : TX: 128kHz



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		Antenna Height	Table Degree	
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	0.0189	19.18	21.27	40.45	122.1	-81.73	peak			
2	0.0223	10.99	21.19	32.18	120.7	-88.57	peak			
3	0.0357	11.07	20.68	31.75	116.6	-84.93	peak			
4	0.0638	15.90	20.11	36.01	111.6	-75.64	peak			
5	0.0806	11.80	20.04	31.84	109.6	-77.79	peak			
6 *	0.1275	48.22	19.88	68.10	105.6	-37.56	peak			

Note:1. *:Maximum data; x:Over limit; !:over margin. 2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



NO. MK.	Freq.	Level	Factor	ment	Limit	margin		Height	Degree	
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	0.1600	34.56	20.19	54.75	103.6	-48.94	peak			
2	0.2818	27.02	20.01	47.03	98.79	-51.76	peak			
3	0.4087	29.20	19.83	49.03	95.57	-46.54	peak			
4 *	0.6751	21.08	19.80	40.88	71.17	-30.29	peak			
5	0.9346	17.37	19.96	37.33	68.30	-30.97	peak			
6	1.6502	12.22	20.16	32.38	63.29	-30.91	peak			

Note:1. *:Maximum data; x:Over limit; !:over margin.

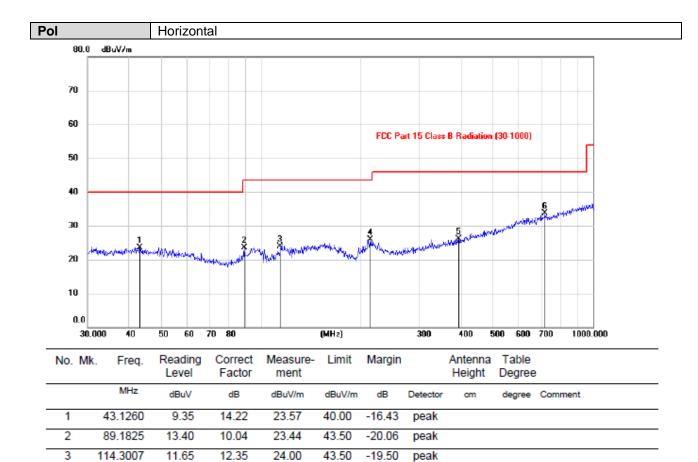
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

Frequer	ncy Range	:	30MHz~1000MHz						
Test Mode		:	128KHz						
Test Results			PASS						
Note:	1. The test results are listed in next pages.								
	2. All test modes has been tested, this report only reflected the worst mode.								
	 If the limits for the measurement with the average detector are met when using a receiver will a peak detector, the test unit shall be deemed to meet both limits and the measurement with the quasi-peak detector need not be carried out. 								

Frequenc	cy Range	:	Above 1GHz			
EUT		:	/	Test Date	:	/
M/N		:	/	Temperature	:	/
Test Engineer		:	/	Humidity	:	/
Test Mod	le	:	/			
Test Res	ults	:	N/A			
Note:	•	nt	st frequency of the internal sources of shall only be made up to 1 GHz. So the fr			

			3	0MHz-1	GHz						
EUT Description	Power Bank						odel No	. В	Q22, Black, White, Beige, Blue, Pink, Purple		
Temperature	24 ℃					H	umidity	5	6%		
Test Voltage	AC 120V/	/60Hz				Te	est Mode	1	128KHz		
Pol	Vertical										
80.0 dBuV/m											
70											
60					FCC Pa	rt 15 Class	B Radiation	(30-1000)			
50											
40										المراجع	
30 1 2 20 20	unud and	hours	and have a	an a		1. Marina Marina	naldeniden	and the second second	CARLES STATE		
10											
30.000 40	50 60	70 80		(MHz)		300	400 5	00 600	700 1	000.000	
No. Mk. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		Antenna Height	Table Degree	,		
MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Commen	t	
1 30.0808	16.50	13.52	30.02	40.00	-9.98	peak					
2 * 34.8578	16.85	13.74	30.59	40.00	-9.41	peak					
3 62.2929	12.67	12.77	25.44	40.00	-14.56	peak					
4 115.5364	17.34	12.50	29.84	43.50	-13.66	peak					
5 205.2668	18.23	10.99	29.22	43.50	-14.28	peak					
6 235.5409	15.10	12.44	27.54	46.00	-18.46	peak					

Note:1. *:Maximum data; x:Over limit; !:over margin. 2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Note:1. *:Maximum data; x:Over limit; !:over margin.

14.53

9.99

11.65

11.32

16.14

21.99

4

5

6

*

213.6385

393.8405

718.1915

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

25.85

26.13

33.64

43.50

46.00

46.00

-17.65

-19.87

-12.36

peak

peak

peak

3.3. Occupied Bandwidth

3.3.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.215(c)
Test Method:	ANSI C63.10: 2013
Limit:	N/A
Test Procedure:	 According to the follow Test-setup, keep the relative position between the artificial antenna and the EUT. Set to the maximum power setting and enable the EUT transmit continuously. Use the following spectrum analyzer settings for 20dB Bandwidth measurement. Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel; RBW≥1% of the 20 dB bandwidth; VBW≥RBW; Sweep = auto; Detector function = peak; Trace = max hold. Measure and record the results in the test report.
Test setup:	Spectrum Analyzer EUT
Test Mode:	Refer to section 4.1 for details
Test results:	PASS

3.3.2. Test data

For Airpods:

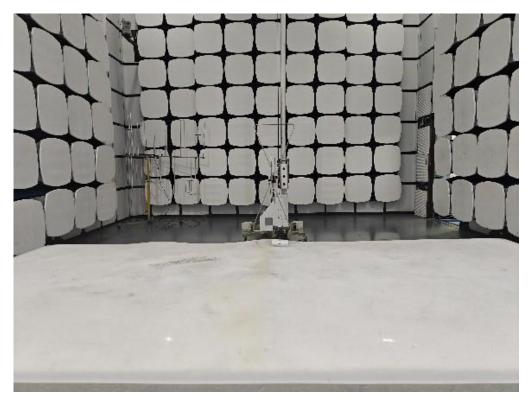
Frequency(kHz)	20dB Occupy Bandwidth (kHz)	Limit (kHz)	Conclusion	
128	0.305		Pass	

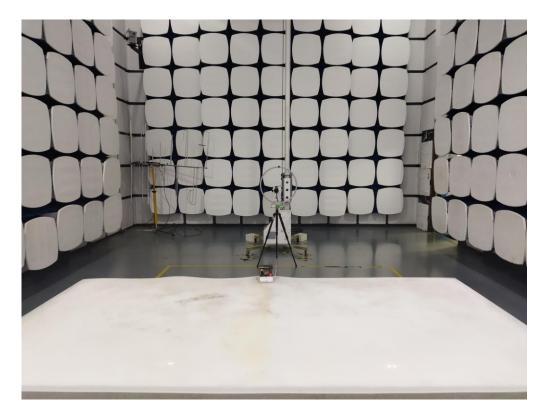
		16	est plots a	IS TOHOW	vs.			
Keysight Spect	trum Analyzer - Occupied BW							
LXI	RF 50 Ω AC		SENSE:PULSE SOURC			:09 PM Apr 08, 2025 Std: None	Fr	equency
Center Fre	eq 128.000 kHz		j: Free Run	Avg Hold:>1		Sta. None		
	#16		ten: 10 dB		Radio	Device: BTS		
10 dB/div	Ref Offset 15 dB Ref 10.00 dBm							
Log 0.00								anton From
-10.0								enter Freq 128.000 kHz
								128.000 KHZ
-20.0								
-30.0								
-40.0								
-50.0				\frown				
-60.0								
-70.0				/				
-80.0								
Center 12 #Res BW			#VBW 300 Hz	z		Span 2 kHz Sweep FFT		CF Step 200 Hz
Occup	ied Bandwidth		Total Po	ower	-48.9 dBm		<u>Auto</u>	Man
Cocap	ioa Banamatin							
		257 Hz					1	Freq Offset
Transm	it Freq Error	332 Hz	% of OB	W Power	99.00 %	6		0 Hz
	Indwidth	305 Hz	x dB		-20.00 dE	-		
хивва	inawiath	305 HZ	хав		-20.00 de	•		
MSG					STATUS 🥂 AC	coupled: Accy ι	inspec'd	< 10MHz

Test plots as follows:

4. Photos of test setup

Radiated Emission





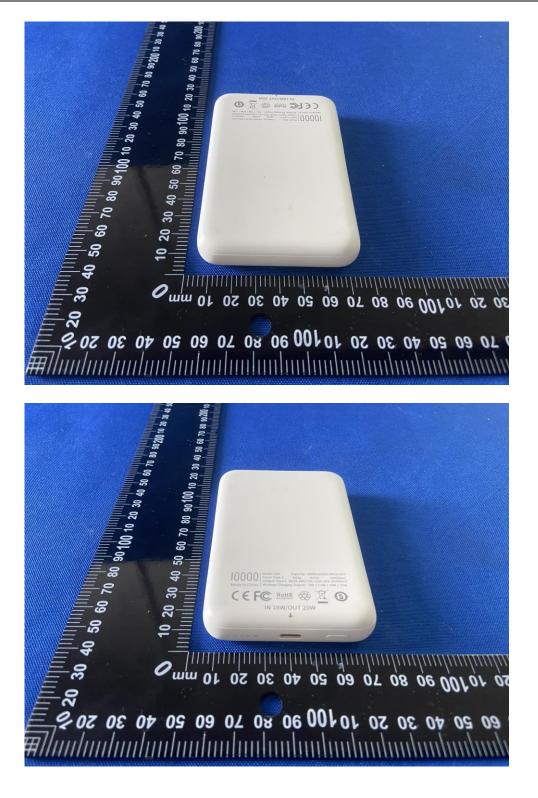


Conducted Emission

5. Photographs of EUT



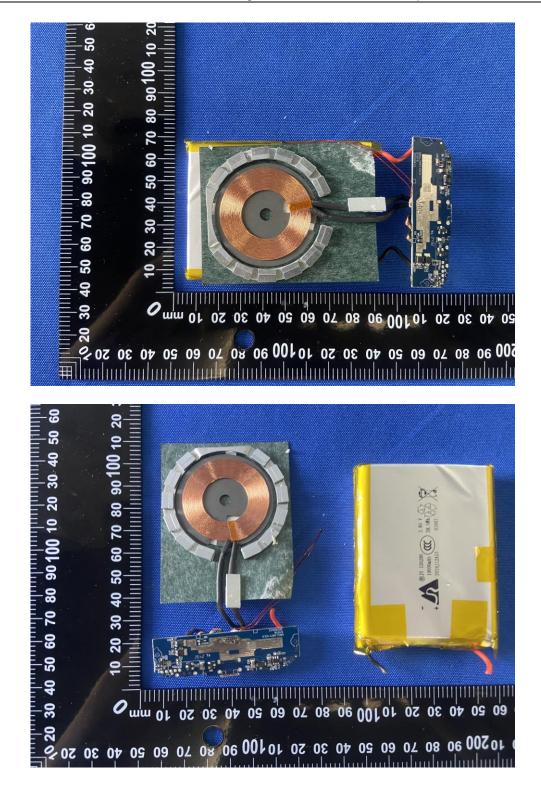


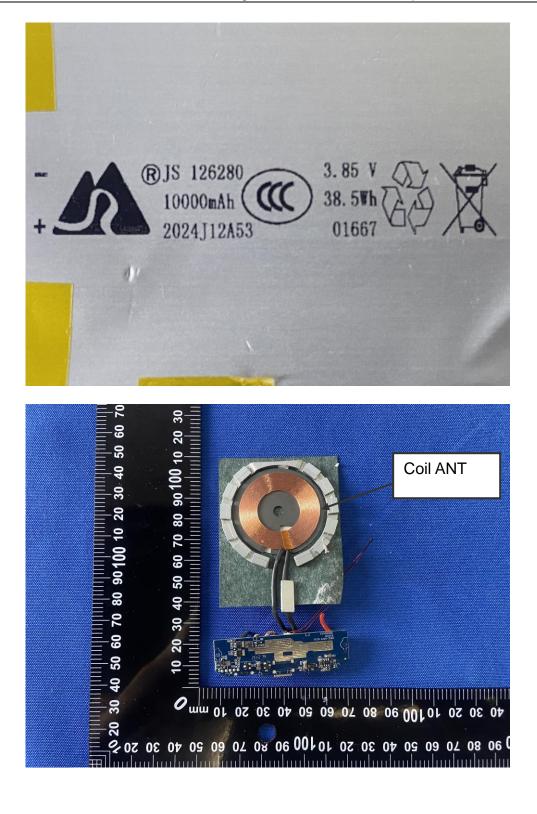


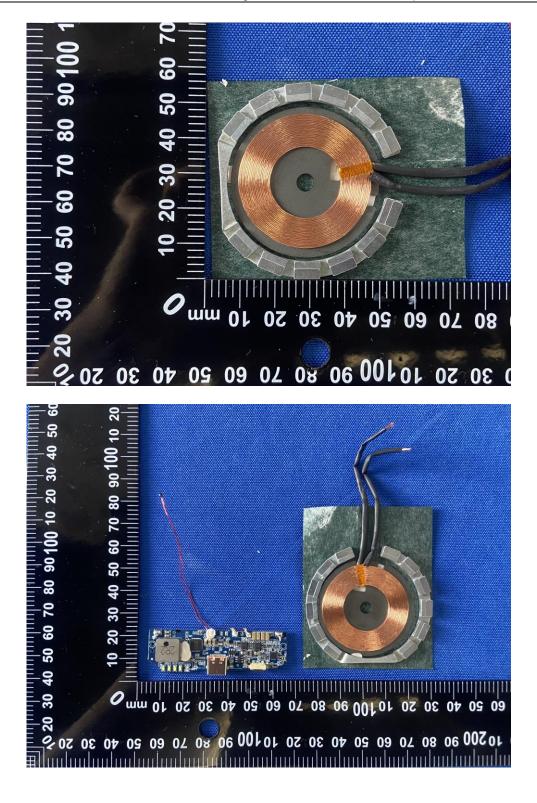


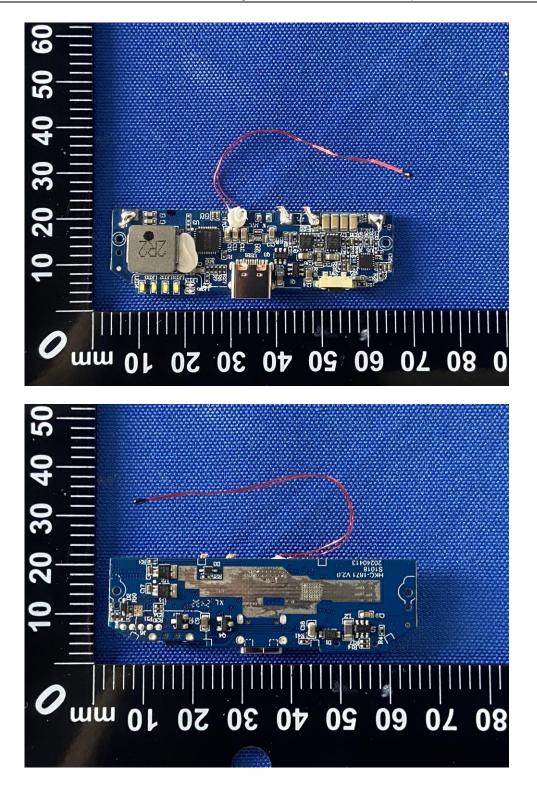












----- END OF REPORT------