

FCC - TEST REPORT

Report Number : **6895025175801** Date of Issue: **2025-09-06**

Model : **PB769**

Product Type : 100W Multi-Functional Fast Charging Power Bank

Applicant : Ugreen Group Limited

Address : Ugreen Building, Longcheng Industrial Park Longguanxi Road,
Longhua 518000 ShenZhen, PEOPLE'S REPUBLIC OF CHINA

Manufacturer : Ugreen Group Limited

Address : Ugreen Building, Longcheng Industrial Park Longguanxi Road,
Longhua 518000 ShenZhen, PEOPLE'S REPUBLIC OF CHINA

Factory1 : Shenzhen Firststar Battery Co., Limited

Address : Building 3 and Building 5, Jinxiu Industrial Park, Xitian Community,
Gongming Sub-district, Guangming District, 518106 Shenzhen
City, PEOPLE'S REPUBLIC OF CHINA.

Factory2 : Shenzhen Joway Power Supply Co., Ltd.

Address : 1-5/F of No.10 Workshop & 1-5/F of No.11 Workshop, AnTuoShan
High-Tech Industrial Park, Sha'Er Community, ShaJing Street,
Bao'An District, 518103 Shenzhen City, Guangdong Province,
PEOPLE'S REPUBLIC OF CHINA.

Factory3 : DONGGUAN ARUN INDUSTRIAL CO., LTD.

Address : NO. 13, Xinfeng Street, Changlong, Huangjiang Town, 523000
Dongguan City, Guangdong Province, PEOPLE'S REPUBLIC OF
CHINA.

Factory4 : Shenzhen HKC Technology Co., LTD. Dongguan branch

Address : NO.28, Shahu Road, Tangxia Town, 523710 Dongguan City,

PEOPLE'S REPUBLIC OF CHINA.

Test Result : ☒ **Positive** ☐ **Negative**

Total pages including
Appendices : 22

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2 Details about the Test Laboratory

Details about the Test Laboratory

Test Site 1

Company name: TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch

Address: Building 12&13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District, Shenzhen, Guangdong, China

Telephone: +86 755 8828 6998

Fax: +86 755 8828 5299

FCC Registration No.: 174744

FCC Designation Number: CN1453

3 Description of the Equipment Under Test

Product:	100W Multi-Functional Fast Charging Power Bank
Model no.:	PB769
Brand Name:	UGREEN 绿联
PN Code:	75066,75066P,75066X,75066A,75066B,75066U,75066JP,75066ZD
FCC ID:	2AQI5-PB769
Rating:	USB-C Cable (IN 1) Input: 5V=3A/9V=3A/12V=3A/15V=3A/20V=3.25A 65W Max USB-C (IN 2) Input: 5V=3A/9V=3A/12V=3A/15V=3A/20V=3.25A 65W Max USB-C Cable (OUT 1) Output: 10V=2.25A/5V=3A/9V=3A/12V=3A/15V=3A/20V=5A 100W Max USB- C (OUT 2) Output: 10V=2.25A/5V=3A/9V=3A/12V=3A/15V=3A/20V=3.25A USB- A (OUT 3) Output: 5V=2A Wireless Charing Output Power: iPhone 25W Max, AirPods 5W Max Total Output: 5V=8A/9V=6A/12V=5.5A/15V=4A/20V=3A + 30W Total Cell Capacity: 20000mAh Battery Capacity: 5000mAh (Four Cells in Series) Lithium-ion Battery Rated Energy: 72Wh 14.4V Rated Capacity: 11000mAh (TYP 5V 8A)
RF Transmission Frequency:	111-148.5KHz, 360KHz
Antenna Type:	Coil Antenna
Modulation Type:	FSK
WPT Type:	Magnetic Induction
Description of the EUT:	The EUT is a Power Bank with WPT function. The TX and RX range is: For iPhone:111-148.5kHz, 5W/7.5W/10W & 360kHz, 15W/25W For AirPods: 111-148.5kHz, 5W

4 Summary of Test Standards

Test Standards	
FCC Part 15 Subpart C 10-1-2024 Edition	PART 15 - RADIO FREQUENCY DEVICES Subpart C - Intentional Radiators

All the test methods were according to ANSI C63.10 (2020).

5 Summary of Test Results

Technical Requirements					
FCC Part 15 Subpart C					
Test Condition		Test Site	Test Result		
			Pass	Fail	N/A
§15.207	Conducted emission AC power port	Site 1	☒	☐	☐
§15.215(c)	20dB bandwidth	Site 1	☒	☐	☐
§15.209	Radiated emission	Site 1	☒	☐	☐
§15.203	Antenna requirement	See note 1	☒	☐	☐

Note 1: The EUT uses an integrated coil antenna. In accordance to §15.203, it is considered sufficiently to comply with the provisions of this section.

6 General Remarks

Remarks

This submittal(s) (test report) is intended for FCC ID: 2AQI5-PB769 complies with Section 15.207, 15.209, 15.205 of the FCC Part 15, Subpart C rules.

Only worst case test data of charge to iPhone 25W Max and AirPods 5W Max simultaneously was included in this test report.

SUMMARY:

All tests according to the regulations cited on page 5 were

■ - Performed

□ - **Not** Performed

The Equipment under Test

■ - **Fulfills** the general approval requirements.

□ - **Does not** fulfill the general approval requirements.

Sample Received Date: 2025-07-31

Testing Start Date: 2025-07-31

Testing End Date: 2025-08-30

- TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch -

Reviewed by:



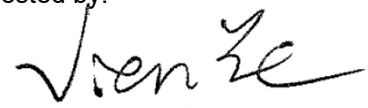
John Zhu
Project Manager

Prepared by:



Hayden Hu
Project Engineer

Tested by:

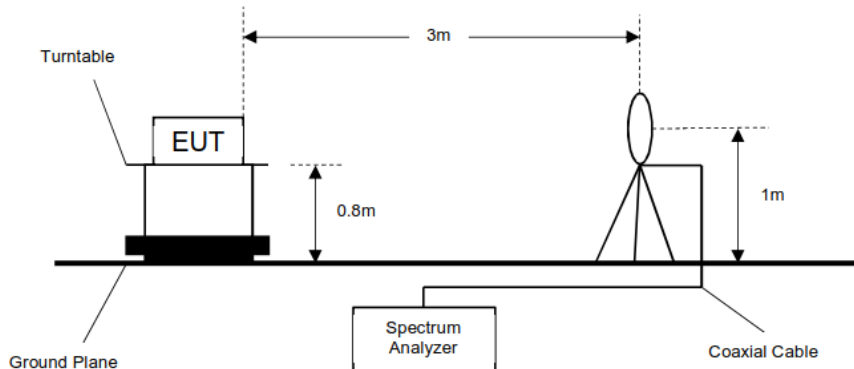


Vier Ye
Test Engineer

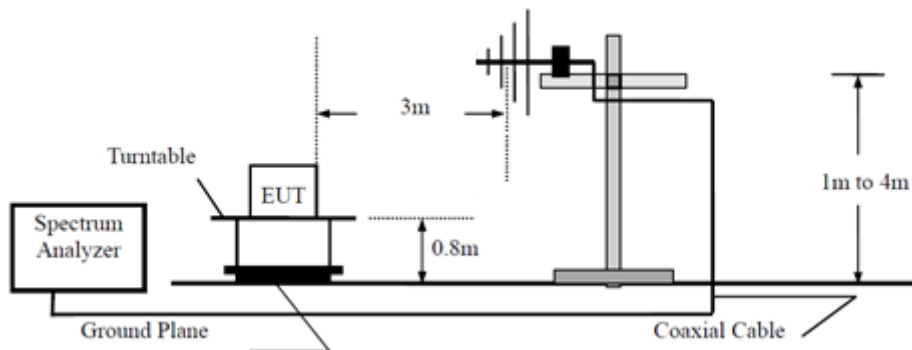
7 Test Setups

7.1 Radiated test setups

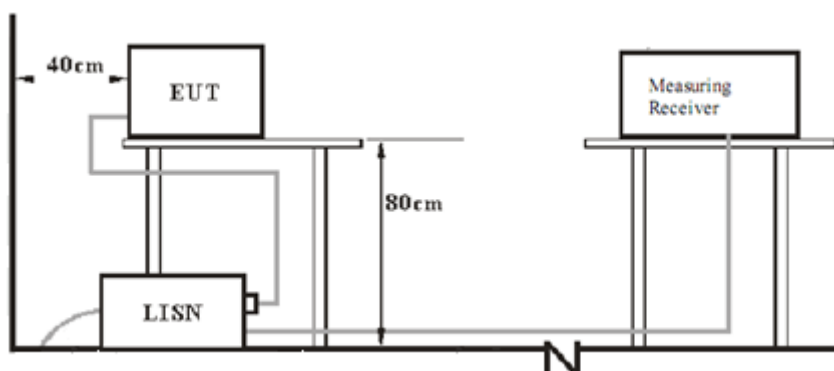
Below 30MHz



30MHz-1GHz



7.2 AC Power Conducted test setups



8 Systems test configuration

Auxiliary Equipment Used during Test:

Description	Manufacturer	Model NO.	S/N
Adaptor	Apple	---	---
RX Full function test module	YBZ	F18/F19	---
AirPods	Apple	A2968	---
iPhone	Apple	iPhone 16Pro	---

9 Technical Requirement

9.1 Conducted Emission Test

Test Method

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. Both sides of AC line were checked for maximum conducted interference.
6. The frequency range from 150 kHz to 30 MHz was searched.
7. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.

Limit

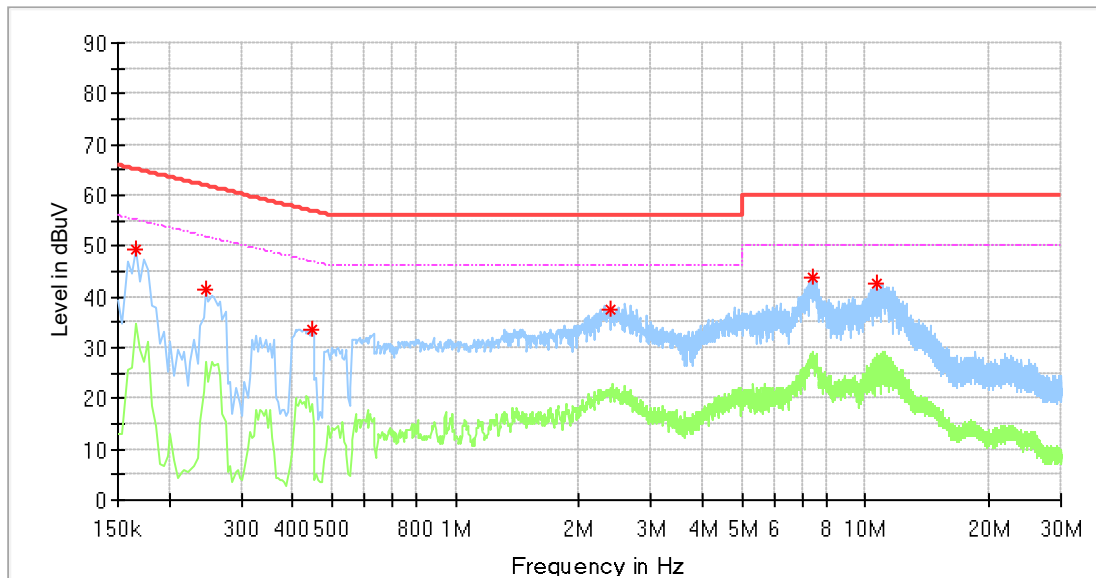
According to §15.207, conducted emissions limit as below:

Frequency MHz	QP Limit dBμV	AV Limit dBμV
0.150-0.500	66-56*	56-46*
0.500-5	56	46
5-30	60	50

*Decreasing linearly with logarithm of the frequency

Conducted Emission

Model: PB769
 Operating Condition: Wireless Power Transfer
 Test Specification: Power Line, Live
 Remark: iPhone 25W & AirPods 5W



Critical Freqs

Frequency (MHz)	MaxPeak (dBuV)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Line	Corr. (dB)
0.166000	49.28	---	65.16	15.88	L1	10.04
0.246000	41.53	---	61.89	20.36	L1	10.01
0.446000	33.42	---	56.95	23.53	L1	10.04
2.378000	37.65	---	56.00	18.35	L1	10.05
7.454000	43.83	---	60.00	16.17	L1	10.28
10.614000	42.65	---	60.00	17.35	L1	10.55

Final Result

Frequency (MHz)	QuasiPeak (dBuV)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Line	Corr. (dB)
---	---	---	---	---	---	---

Remark:

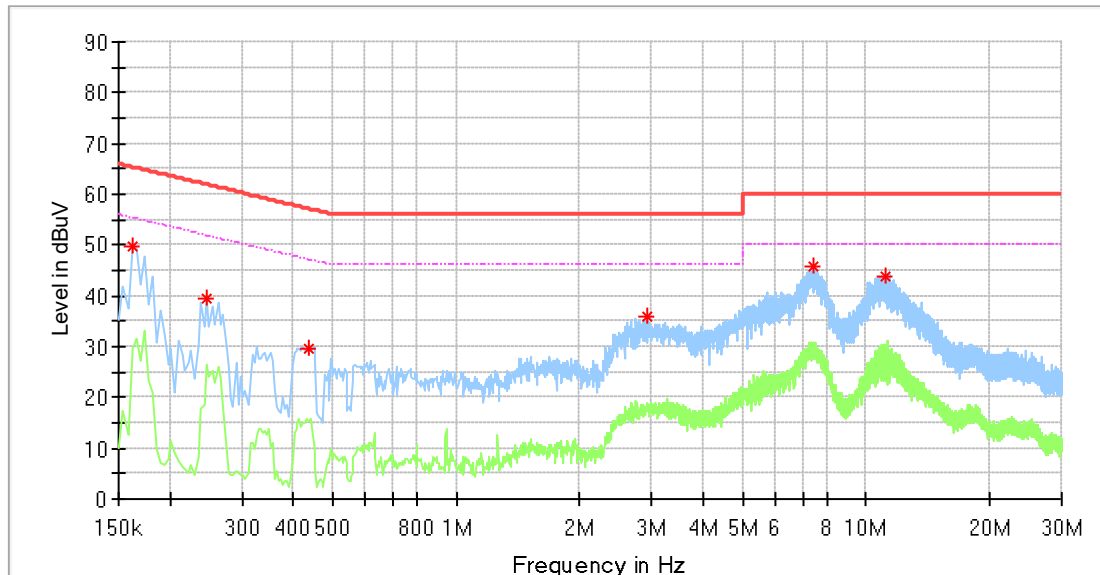
Level=Reading Level + Correction Factor

Correction Factor=Cable Loss + LISN Factor

(The Reading Level is recorded by software which is not shown in the sheet)

Conducted Emission

Model: PB769
 Operating Condition: Wireless Power Transfer
 Test Specification: Power Line, Neutral
 Remark: iPhone 25W & AirPods 5W



Critical Freqs

Frequency (MHz)	MaxPeak (dBuV)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Line	Corr. (dB)
0.162000	49.84	---	65.36	15.52	N	10.11
0.246000	39.33	---	61.89	22.56	N	10.06
0.438000	29.77	---	57.10	27.33	N	10.05
2.938000	36.10	---	56.00	19.90	N	10.11
7.406000	45.82	---	60.00	14.18	N	10.36
11.086000	43.78	---	60.00	16.22	N	10.64

Final Result

Frequency (MHz)	QuasiPeak (dBuV)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Line	Corr. (dB)
---	---	---	---	---	---	---

Remark:

Level=Reading Level + Correction Factor

Correction Factor=Cable Loss + LISN Factor

(The Reading Level is recorded by software which is not shown in the sheet)

9.2 20 dB Bandwidth

Test Method

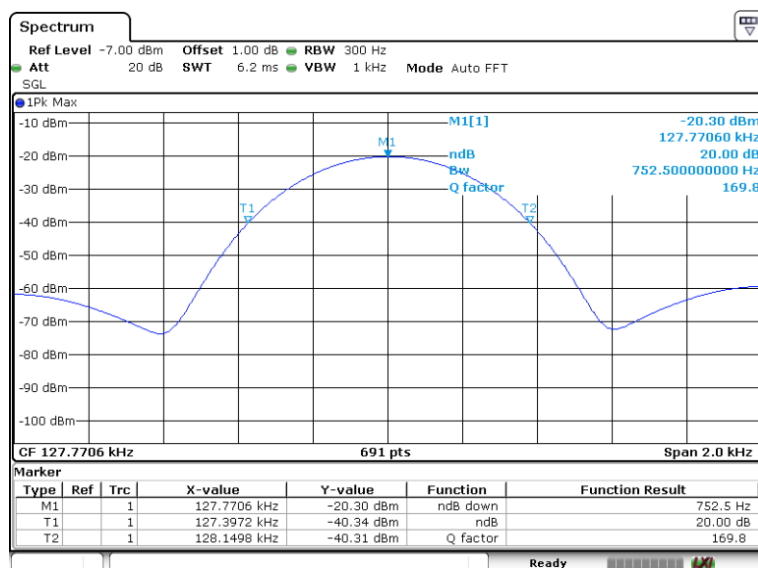
1. The RF output of EUT was connected to the spectrum analyzer by RF cable. The path loss was compensated to the results for each measurement.
2. Set to the maximum power setting and enable the EUT transmit continuously.
3. Use the following test receiver settings:
Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel
RBW $\geq$ 1% to 5% of the 20 dB bandwidth, VBW $\geq$ 3RBW, Sweep = auto,
Detector function = peak, Trace = max hold
4. Allow the trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. Measure the frequency difference of two frequencies that were attenuated 20 dB from the reference level. Record the frequency difference as the emission bandwidth. Record the results.

Limit

Intentional radiators must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

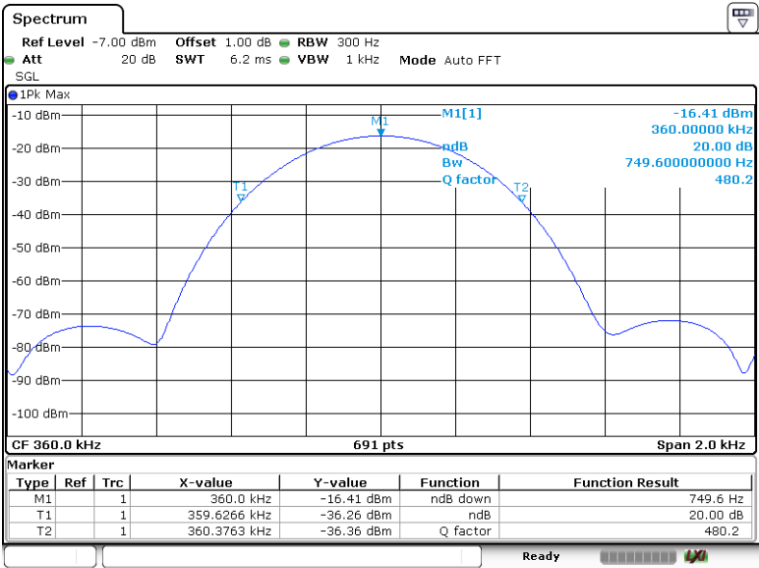
Test Result

Frequency	20dB bandwidth	Result
kHz	kHz	
127.77kHz	0.753	Pass





Frequency	20dB bandwidth	Result
kHz	kHz	
360kHz	0.750	Pass



The device didn't operate in the 90-110 kHz band.

9.3 Radiated Emission Test

Test Method

1. The EUT was placed on a turn table which is 0.8m above ground plane. The table was rotated 360 degrees to determine the position of the highest radiation.
2. Set to the maximum power setting and enable the EUT transmit continuously
3. The EUT was set 3 meters away from the interference – receiving antenna, which was mounted on the top of a variable – height antenna tower.
4. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
5. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

Use the following test receiver settings According to C63.10:

For Below 9kHz-1GHz, use the following spectrum analyzer settings:

Span = wide enough to capture the peak level of the in-band emission and all spurious

9kHz -150kHz

RBW = 200Hz, VBW = 600Hz for peak measurement, Sweep = auto, Detector function = peak, Trace = max hold.

150kHz - 30MHz

RBW = 10 kHz, VBW = 30 kHz for peak measurement, Sweep = auto, Detector function = peak, Trace = max hold.

30MHz - 1GHz

RBW = 10 kHz, VBW = 30 kHz for peak measurement, Sweep = auto, Detector function = peak, Trace = max hold.

Limit

The emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

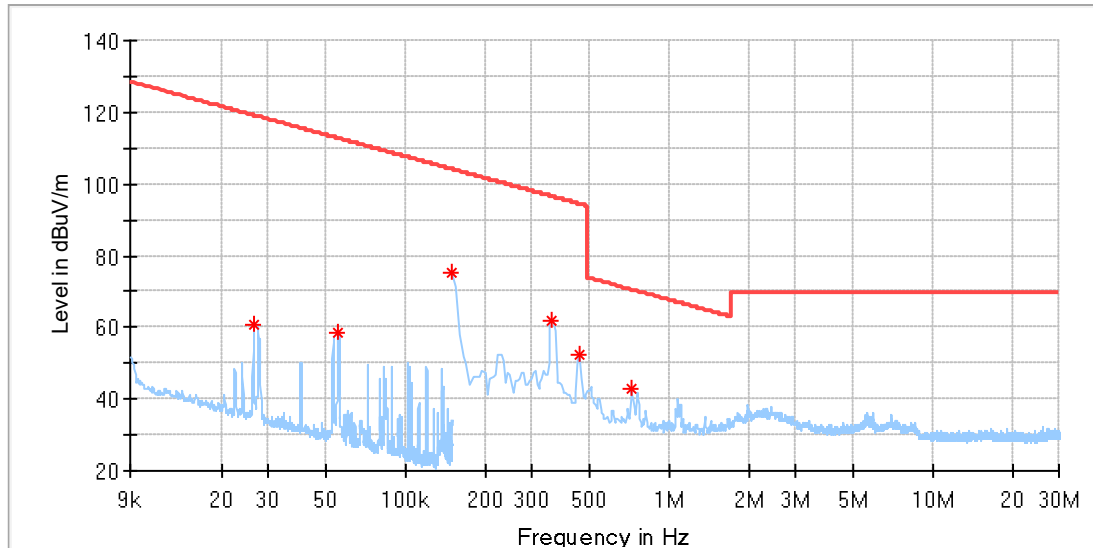
Frequency MHz	Field Strength $\mu\text{V/m}$	Field Strength $\text{dB}\mu\text{V/m}$	Detector	Measurement distance meters
0.009-0.490	2400/F(kHz)	48.5-13.8	QP	300
0.490-1.705	24000/F(kHz)	33.8-23.0	QP	30
1.705-30	30	29.5	QP	30
30-88	100	40	QP	3
88-216	150	43.5	QP	3
216-960	200	46	QP	3
960-1000	500	54	QP	3
Above 1000	500	54	AV	3
Above 1000	5000	74	PK	3

Note 1: Limit $3\text{m}(\text{dB}\mu\text{V/m}) = \text{Limit } 300\text{m}(\text{dB}\mu\text{V/m}) + 40\text{Log}(300\text{m}/3\text{m})$ (Below 30MHz)

Note 2: Limit $3\text{m}(\text{dB}\mu\text{V/m}) = \text{Limit } 30\text{m}(\text{dB}\mu\text{V/m}) + 40\text{Log}(30\text{m}/3\text{m})$ (Below 30MHz)

Radiated emissions test (9KHz-30MHz)

Model: PB769
 Test Mode: Wireless Power Transfer
 Test Voltage: AC 120V/60Hz
 Remark: iPhone 25W & AirPods 5W



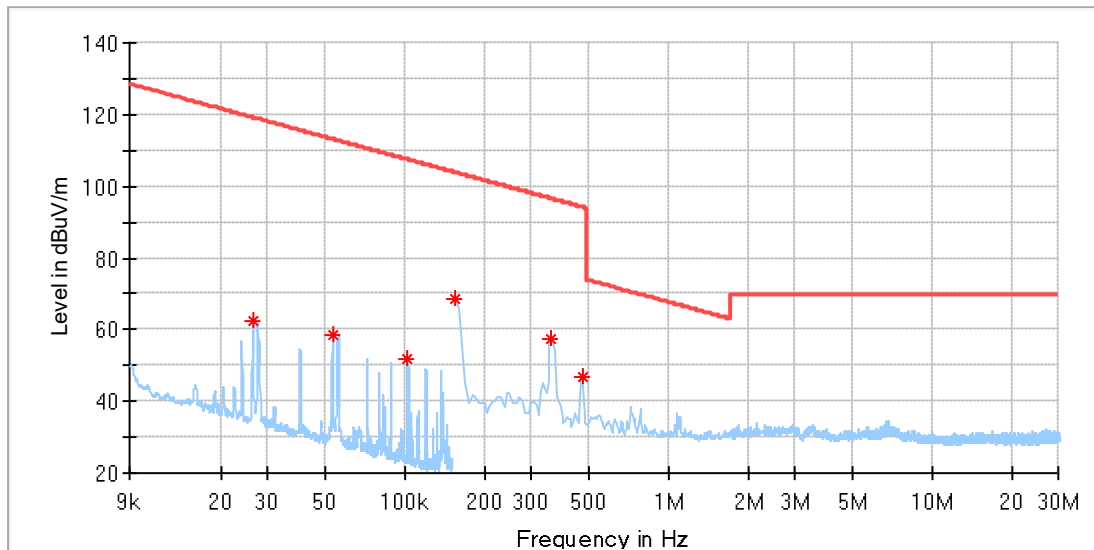
Critical_Freqs

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol	Azimuth (deg)	Corr. (dB/m)
0.026484	60.99	119.13	58.14	H	252.0	19.37
0.055201	58.57	112.76	54.19	H	202.0	19.41
0.150000	75.17	104.08	28.91	H	324.0	19.41
0.358950	61.98	96.50	34.53	H	270.0	19.40
0.453475	52.19	94.47	42.28	H	329.0	19.39
0.717150	43.13	70.50	27.37	H	109.0	19.43

Final_Result

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---		---	---

Model: PB769
 Test Mode: Wireless Power Transfer
 Test Voltage: AC 120V/60Hz
 Remark: iPhone 25W & AirPods 5W



Critical_Freqs

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol	Azimuth (deg)	Corr. (dB/m)
0.026484	62.56	119.13	56.57	V	355.0	19.37
0.053039	58.60	113.10	54.50	V	259.0	19.40
0.101449	51.76	107.47	55.71	V	131.0	19.42
0.154975	68.65	103.79	35.14	V	255.0	19.40
0.358950	57.62	96.50	38.88	V	212.0	19.40
0.468400	46.93	94.19	47.26	V	230.0	19.39

Final_Result

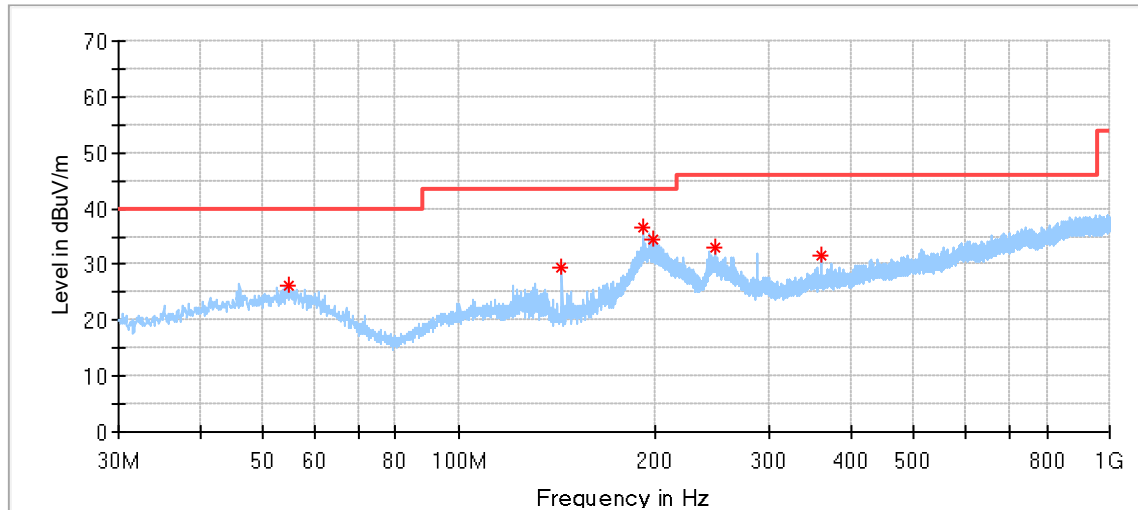
Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---		---	---

Remark:

- (1) within this frequency range shown "--" in the table above means the reading of emissions are the noise floor or attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (2) Below 1GHz: Corrector factor = Antenna Factor + Cable Loss.

Radiated emissions test (30MHz-1000MHz)

Model: PB769
 Test Mode: Wireless Power Transfer
 Test Voltage: AC 120V/60Hz
 Remark: iPhone 25W & AirPods 5W



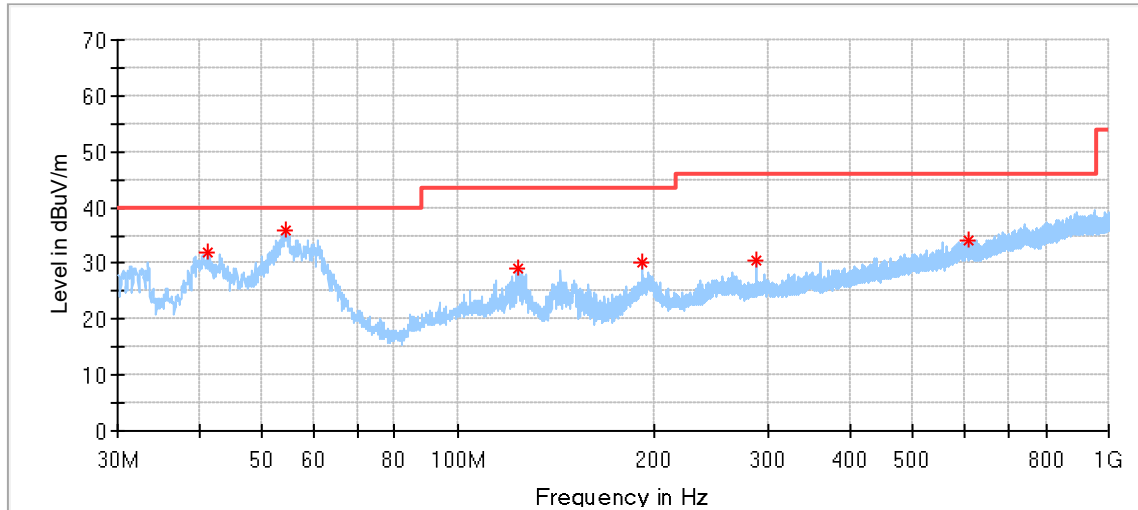
Critical Freqs

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
54.788889	26.31	40.00	13.69	100.0	H	183.0	17.62
143.975000	29.57	43.50	13.93	200.0	H	295.0	12.52
191.990000	36.44	43.50	7.06	100.0	H	294.0	15.65
198.941667	34.50	43.50	9.00	200.0	H	295.0	16.32
247.872778	32.85	46.00	13.15	100.0	H	112.0	17.78
360.015556	31.48	46.00	14.52	100.0	H	61.0	19.75

Final Result

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

Model: PB769
 Test Mode: Wireless Power Transfer
 Test Voltage: AC 120V/60Hz
 Remark: iPhone 25W & AirPods 5W



Critical_Freqs

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
41.208889	32.08	40.00	7.92	100.0	V	216.0	17.36
54.519444	35.91	40.00	4.09	100.0	V	311.0	17.67
124.090000	29.18	43.50	14.32	100.0	V	47.0	13.89
191.990000	30.15	43.50	13.35	100.0	V	287.0	15.65
287.966111	30.63	46.00	15.37	100.0	V	279.0	18.22
608.012222	34.24	46.00	11.76	200.0	V	80.0	25.24

Final_Result

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---

Remark:

- (3) within this frequency range shown "--" in the table above means the reading of emissions are the noise floor or attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (4) Below 1GHz: Corrector factor = Antenna Factor + Cable Loss.

10 Test Equipment List

List of Test Instruments

Radiated Emission Test (9kHz-30MHz)

DESCRIPTION	MANUFACTURER	MODEL NO.	EQUIPMENT ID	SERIAL NO.	CAL INTERVAL (YEAR)	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 7	68-4-74-19-001	102176	1	2026-4-25
Loop Antenna	Rohde & Schwarz	HFH2-Z2	68-4-80-14-006	100398	1	2026-7-17
Cable	HUBER-SUHNER	RG214	68-4-90-14-001-A21	----	----	----
3m Semi-anechoic chamber	TDK	SAC-3 #1	68-4-90-14-001	----	3	2026-10-25
Test software	Rohde & Schwarz	EMC32	68-4-90-14-001-A10	Version10.35.02	N/A	N/A

Radiated Emission Test (30MHz-1GHz)

DESCRIPTION	MANUFACTURER	MODEL NO.	EQUIPMENT ID	SERIAL NO.	CAL INTERVAL (YEAR)	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 26	68-4-74-14-002	101269	1	2026-4-25
Trilog Super Broadband Test Antenna	Schwarzbeck	VULB 9162	68-4-80-19-003	284	1	2026-2-11
Attenuator	Mini-circuits	UNAT-6+	68-4-81-21-002	15542	1	2026-4-19
Cable	OUQIAO	18DLB5-NMNM-7000	68-4-90-19-006-A22	----	----	----
3m Semi-anechoic chamber	TDK	SAC-3 #2	68-4-90-19-006	----	3	2026-10-25
Test software	Rohde & Schwarz	EMC32	68-4-90-19-006-A01	Version10.35.02	N/A	N/A

Conducted Emission Test (AMN)

DESCRIPTION	MANUFACTURER	MODEL NO.	EQUIPMENT ID	SERIAL NO.	CAL INTERVAL (YEAR)	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 3	68-4-74-14-001	101782	1	2026-4-25
LISN	Rohde & Schwarz	ENV432	68-4-87-16-001	101318	1	2026-4-25
LISN	Rohde & Schwarz	ENV4200	68-4-87-14-001	100249	1	2026-4-25
Attenuator	Shanghai Huaxiang	TS2-26-3	68-4-81-16-003	080928189	1	2026-4-19
Cable	OUQIAO	RG142	68-4-90-19-005-A20	----	----	----
Test software	Rohde & Schwarz	EMC32	68-4-90-19-005-A01	Version10.35.02	N/A	N/A
Shielding Room	TDK	CSR #2	68-4-90-19-005	----	3	2027-10-07

RF Test(FCC Part15 C)

DESCRIPTION	MANUFACTURER	MODEL NO.	EQUIPMENT ID	SERIAL NO.	CAL INTERVAL (YEAR)	CAL. DUE DATE
Signal Analyzer	Rohde & Schwarz	FSV40	68-4-74-14-004	101030	1	2026-4-18
Cable	JUNFLON	J12J103539	68-4-90-19-003-A22	----	----	----
Shielding Room	TDK	TS8997	68-4-90-19-003	----	3	2027-10-07

11 System Measurement Uncertainty

For a 95% confidence level, the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 were:

System Measurement Uncertainty	
Test Items	Extended Uncertainty
Uncertainty for Radiated Emission in 3m chamber 9kHz-30MHz	4.69dB
Uncertainty for Radiated Emission in new 3m chamber 30MHz-1000MHz	Horizontal: 4.79dB Vertical: 5.86dB
Uncertainty for Conducted Emission in new shielding room 150kHz-30MHz	3.14dB
Uncertainty Evaluation for Carrier Frequency	4.44PPM
Uncertainty Evaluation for OBW	2.32%
Uncertainty Evaluation for Humidity	1.32%
Uncertainty Evaluation for Temperature	0.26 °C

Measurement Uncertainty Decision Rule

Determination of conformity with the specification limits is based on the decision rule according to IEC Guide 115: 2023, clause 4.3.3 and 4.

---END OF TEST REPORT---