Test Report

Product: Power bank

Trade Mark: INIU

Model Number: P75-P1

FCC ID: 2A2ND-P75

Prepared for

Shenzhen Topstar Industry Co., Ltd.

Jiaxiye Plaza 931, 328 Minzhi Avenue, Longhua District, Shenzhen City, Guangdong Province, China

Prepared by

Shenzhen HongBiao Certification& Testing Co., Ltd

Room 102, 201, Building 2, Yuanwanggu RFID Industrial Park, Tongguan Road, Tianliao Community, Yutang Street, Guangming District, Shenzhen, China

Tel.: +86-755-2998 9321 Fax.: +86-755-2998 5110

Website: http://www.sz-hongbiao.com

Table of Contents

1 GENERAL DESCRIPTION 5

1.1 DESCRIPTION OF EUT 5
1.2 TEST MODE 5
1.3 TEST SETUP 6
1.4 POWER SETTING CONFIGURATION PARAMETERS 6
1.5 ANCILLARY EQUIPMENT 6

2 SUMMARY OF TEST RESULT 7

3 TEST FACILITIES AND ACCREDITATIONS 8

3.1 TEST LABORATORY 8
3.2 ENVIRONMENTAL CONDITIONS 8
3.3 MEASUREMENT UNCERTAINTY 8
3.4 TEST SOFTWARE 8

4 LIST OF TEST EQUIPMENT 10

5 TEST ITEM AND RESULTS 12

5.1 ANTENNA REQUIREMENT 12
5.2 CONDUCTED EMISSION 13
5.3 RADIATED EMISSION 19
5.4 OCCUPIED BANDWIDTH 35

6 PHOTOGRAPHS OF THE TEST SETUP 38

7 PHOTOGRAPHS OF THE EUT 43

TEST RESULT CERTIFICATION

Applicant's Name	:	Shenzhen Topstar Industry Co., Ltd.
Address	:	Jiaxiye Plaza 931, 328 Minzhi Avenue, Longhua District, Shenzhen City, Guangdong Province, China
Manufacturer's Name	:	Shenzhen Topstar Industry Co., Ltd.
Address	:	Jiaxiye Plaza 931, 328 Minzhi Avenue, Longhua District, Shenzhen City, Guangdong Province, China

Product description

Product name	:	Power bank
Model Number	:	P75-P1
Standards	:	FCC Part 15C
Test procedure	:	IEEE/ANSI C63.10-2020

This device described above has been tested by Shenzhen HongBiao Certification& Testing Co., Ltd and the test results show that the equipment under test (EUT) is in compliance with the EMC requirements. And it is applicable only to the tested sample identified in the report.

Date of Test	:	
Date (s) of performance of tests	:	Dec. 25, 2024~ Jan. 10, 2025
Test Result	:	**Pass**

Testing Engineer : Zoe Su

(Zoe Su)

Technical Manager : Gary Lu

(Gary Lu)

Authorized Signatory : Leo Su

(Leo Su)

Revision History

Revised No.	Date of Issue	Description
01	Jan. 13, 2025	Original

1 General Description

1.1 Description of EUT

Product name:	Power bank
Model name:	P75-P1
Series Model:	P71
Different of series model:	Except for differences in appearance color, model, and individual components in the battery display area, all models have the same RF circuits and modules.
Operation frequency:	115kHz-205kHz, 360kHz
Operational mode:	Wireless charging
Modulation type:	ASK
Antenna type:	Coil Antenna
Antenna gain:	0dBi
Hardware version:	V1.0
Software version:	V1.0
Battery:	DC 3.6V, 5000mAh, 18.0Wh
Power supply:	Input: DC 5V/3A, DC 9V/1.67A Output: DC 5V/3A, DC 9V/2.22A, DC 12V/1.67A Battery Capacity: DC 3.6V, 5000mAh, 18Wh Wireless output: 5W, 7.5W, 10W, 15W
Adapter information:	N/A

Note: The individual components in the power display area of the model P71 listed in the report are different from those of the model P75-P1, but the RF circuit and electronic structure have not changed. In response to this, we conducted a difference test on the model P71, and the final report only reflects the difference test data under the worst case.

1.2 Test Mode

Pretest Test Mode	Description of Mode
1	AC/DC Adapter + Wireless Output: 3W
2	Wireless Output: 5W
3	Wireless Output: 7.5W
4	Wireless Output: 10W
5	Wireless Output: 15W

Note: This EUT can only support 3W wireless power transmission when charging with an AC/DC adapter.

Test Item	Final Test Mode
Conducted Emissions	1
Radiated Emissions	1/4/5
20dB bandwidth	4/5

1.3 Test Setup

See photographs of the test setup in the report for the actual setup and connections between EUT and support equipment.

1.4 Power setting configuration parameters

Test Software Version	N/A	
Frequency	115-205kHz	360kHz
Parameters	Default	Default

RF cable			
Description	Connector	Length	Supplied by
Antenna Cable	SMA	10cm	Applicant

Note: Disclaimer: the loss of RF cable is too small and can be ignored.

1.5 Ancillary Equipment

Equipment	Model	S/N	Manufacturer
Adapter	CD289	35810	Ugreen Group Limited
Load	YBZ3.1	566733	YBZ

2 Summary of Test Result

Test procedures according to the technical standards:

FCC Part 15C				
No.	Standard Section	Test Item	Result	Remark
1	FCC Part 15.203	Antenna Requirement	Pass	
2	FCC Part 15.207	Conducted Emission	Pass	
3	FCC Part 15.209	Radiated Emission	Pass	
4	FCC Part 15.215	20dB Bandwidth	Pass	

Note:
1. “N/A” means the test case does not apply to the test object.

3 Test Facilities and Accreditations

3.1 Test Laboratory

Test Site	Shenzhen HongBiao Certification& Testing Co., Ltd
Test Site Location	Room 102, 201, Building 2, Yuanwanggu RFID Industrial Park, Tongguan Road, Tianliao Community, Yutang Street, Guangming District, Shenzhen, China
Telephone:	(86-755) 2998 9321
Fax:	(86-755) 2998 5110
FCC Registration No.:	CN1341
A2LA Certificate No.:	6765.01

3.2 Environmental Conditions

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

Temperature:	15ºC~35ºC
Relative Humidity:	20%~75%
Air Pressure:	98kPa~101kPa

3.3 Measurement Uncertainty

The reported uncertainty of measurement y ± U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 %.
The data and results quoted in this document are true and accurate values, and uncertainties are not involved in the calculations.
In addition, components and mass production processes that are similar to testing equipment may introduce additional deviations, and the manufacturer is solely responsible for the continued compliance of the equipment.

Measurement Frequency Range	U, (dB)	Note
RF frequency	2x 10^{-5}	
RF power, conducted	± 0.57 dB	
Conducted emission(150kHz~30MHz)	± 2.5 dB	
Radiated emission(9kHz-30MHz)	± 2.5 dB	
Radiated emission(30MHz~1GHz)	± 4.2 dB	
Occupied Bandwidth	±3%	
Temperature	±1 degree	
Humidity	± 5 %	

3.4 Test Software

Software name	Manufacturer	Model	Version
Conducted Emission test Software	Farad	EZ-EMC	EMC-CON 3A1.1+
Radiated Emission test Software	Farad	EZ-EMC	FA-03A2
RF Test System	MWRF	MTS 8310	2.0.0.0

4 List of Test Equipment

Radiation emission							
Item	Equipment No.	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	HB-E001	Horn Antenna	Schwarzbeck	BBHA 9120D	02592	2024-05-18	2026-05-17
2	HB-E002	Biconical log-periodic composite antenna	Schwarzbeck	VULB 9168	01340	2024-05-18	2026-05-17
3	HB-E003	SHF-EHF Horn	Schwarzbeck	BBHA 91270	01193	2024-05-18	2026-05-17
4	HB-E005	Preamplifier	Noyetec	LAN-0118	NYCM1420102	2024-05-17	2025-05-16
5	HB-E006	Preamplifier	Noyetec	LAN-1840	NYCM1420103	2024-05-17	2025-05-16
6	HB-E007	EMI TEST RECEIVER	R&S	ESR7	102520	2024-05-17	2025-05-16
7	HB-E009	POSITINAL COTROLLER	Noyetec	N/A	N/A	/	/
8	HB-E013	RF switch	Noyetec	NY-RF4	NY0CM1420204	/	/
9	HB-E066	Illuminance Tester	TASI	TA8121	N/A	2024-05-21	2025-05-20
10	HB-E075	Active loop antenna	Schwarzbeck	FMZB 1519B	1519B-245	2024-05-18	2026-05-17
11	HB-E076	Preamplifier	Hewlett Packard	8447D	1937A02278	2024-05-17	2025-05-16
Conduction emission							
Item	Equipment No.	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	HB-E014	4 Path V-LISN	Schwarzbeck	NNLK 8121	00770	2024-05-17	2025-05-16
2	HB-E015	Pulse Limiter	Schwarzbeck	VTSD 9561-F	00949	2024-05-17	2025-05-16
3	HB-E016	ZN23201	Noyetec	ZN23201	N/A	2024-05-21	2025-05-20
4	HB-E059	Attenuator	Xianghua	TS2-6-1	220215166	2024-05-17	2025-05-16
5	HB-E069	EMI TEST RECEIVER	R&S	ESCI	N/A	2024-05-17	2025-05-16

RF							
Item	Equipment No.	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	HB-E041	MXG Anaiog Signal Generator	Agilent	N5181A	MY47070421	2024-05-17	2025-05-16
2	HB-E042	WIDEBAND RADIO COMMUNICA	R&S	CMW500	132108	2024-05-17	2025-05-16

		TION TESTER					
3	HB-E043	MXG Anaiog Signal Generator	Agilent	N5182A	US46240335	2024-05-17	2025-05-16
4	HB-E044	Signal& spectrum Analyzer	R&S	FSV3044	101264	2024-05-17	2025-05-16
5	HB-E045	RF Control Box	Noyetec	NY100-R FCB	N/A	/	/
6	HB-E058	Thermometer Clock Humidity Monitor	N/A	HTC-1	N/A	/	/

Note: the calibration interval of the above test instruments is 12&24 months and the calibrations are traceable to international system unit (SI).

5 Test Item And Results

5.1 Antenna Requirement

5.1.1 Standard Requirement

15.203 requirement: For intentional device, according to 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

5.1.2 Test Result

The EUT antenna is Coil Antenna. It comply with the standard requirement. In case of replacement of broken antenna the same antenna type must be used.

5.2 Conducted Emission

5.2.1 Limits

Limits – Class A		
Frequency (MHz)	Limit (dBμV)	
	Quasi-Peak	Average
0.15 to 0.5	79	66
0.5 to 30	73	60
Limits – Class B		
Frequency (MHz)	Limit (dBμV)	
	Quasi-Peak	Average
0.15 to 0.5	66 to 56*	56 to 46*
0.5 to 5	56	46
5 to 30	60	50

Note:
1. the tighter limit applies at the band edges.
2. the limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

5.2.2 Test Procedures

a) The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipment powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.

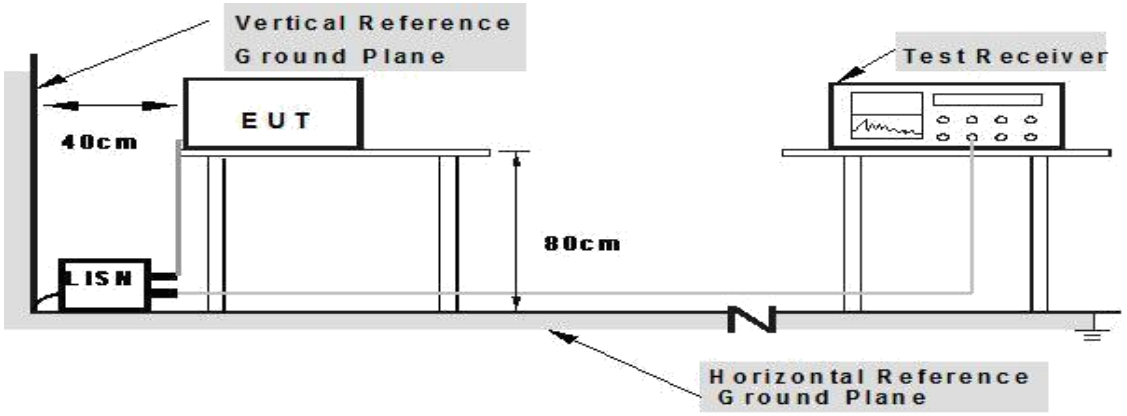
b) Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

c) I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

d) LISN is at least 80 cm from nearest part of EUT chassis.

e) For the actual test configuration, please refer to the related Item – photographs of the test setup.

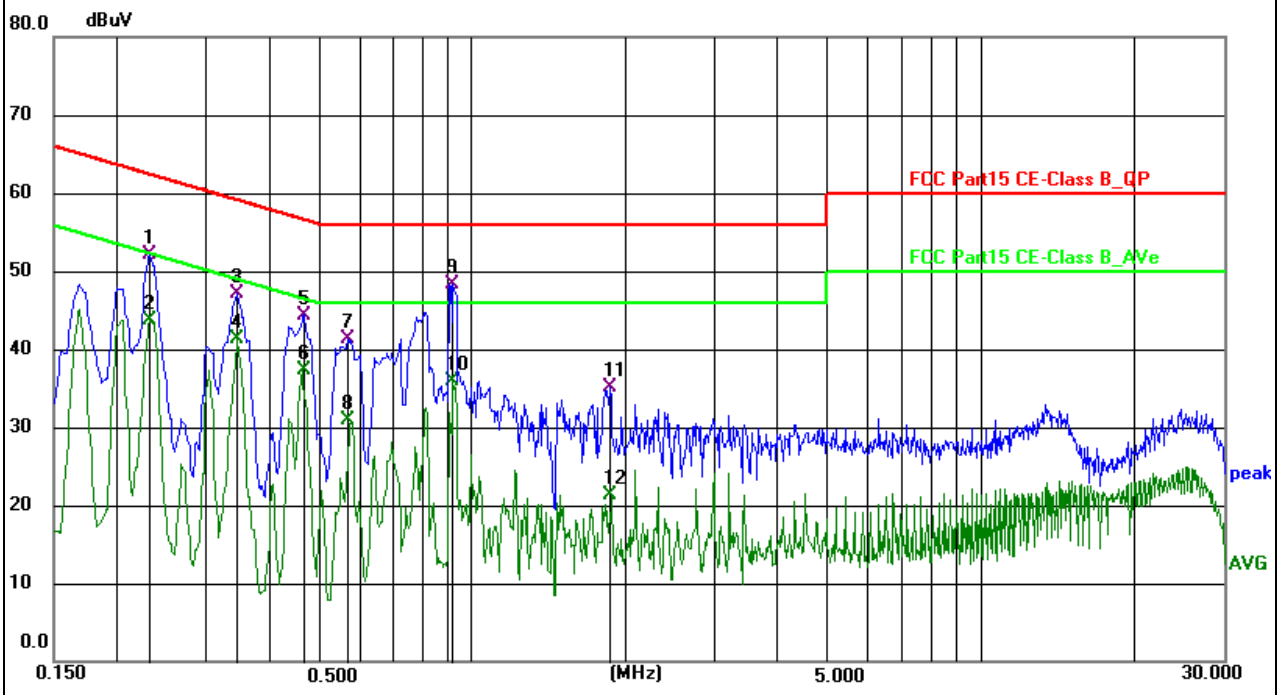
5.2.3 Test setup



5.2.4 Test Result

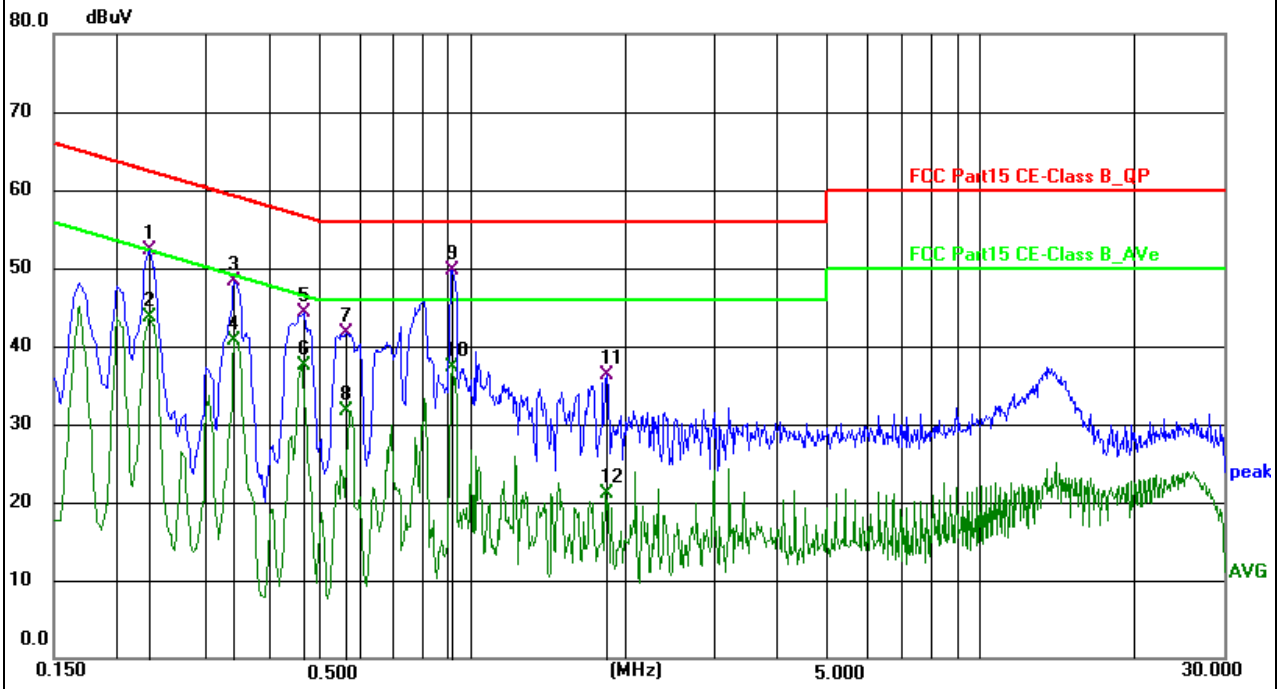
Model: P75-P1

EUT:	Power bank	Model Name:	P75-P1
Test Mode:	Mode 1	Phase:	L
Test Voltage:	DC 9V from adapter AC 120V/60Hz		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.231000	41.62	10.47	52.09	62.41	-10.32	QP
2	0.231000	33.19	10.47	43.66	52.41	-8.75	AVG
3	0.343500	36.70	10.49	47.19	59.12	-11.93	QP
4	0.343500	30.85	10.49	41.34	49.12	-7.78	AVG
5	0.465000	33.90	10.50	44.40	56.60	-12.20	QP
6	0.465000	26.74	10.50	37.24	46.60	-9.36	AVG
7	0.568500	30.77	10.51	41.28	56.00	-14.72	QP
8	0.568500	20.42	10.51	30.93	46.00	-15.07	AVG
9 *	0.915000	37.92	10.45	48.37	56.00	-7.63	QP
10	0.915000	25.50	10.45	35.95	46.00	-10.05	AVG
11	1.864500	24.68	10.47	35.15	56.00	-20.85	QP
12	1.864500	10.85	10.47	21.32	46.00	-24.68	AVG

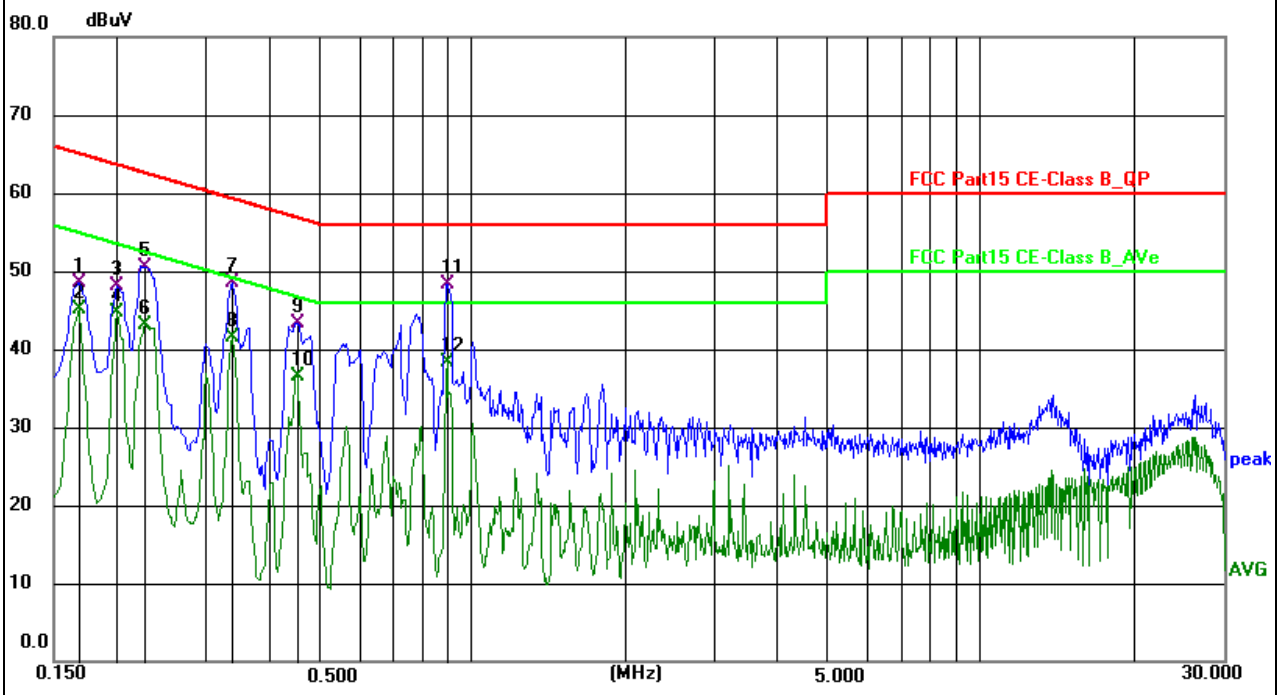
EUT:	Power bank	Model Name:	P75-P1
Test Mode:	Mode 1	Phase:	N
Test Voltage:	DC 9V from adapter AC 120V/60Hz		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.231000	41.69	10.53	52.22	62.41	-10.19	QP
2	0.231000	33.22	10.53	43.75	52.41	-8.66	AVG
3	0.339000	37.86	10.48	48.34	59.23	-10.89	QP
4	0.339000	30.24	10.48	40.72	49.23	-8.51	AVG
5	0.465000	33.83	10.41	44.24	56.60	-12.36	QP
6	0.465000	27.01	10.41	37.42	46.60	-9.18	AVG
7	0.563900	31.27	10.39	41.66	56.00	-14.34	QP
8	0.563900	21.22	10.39	31.61	46.00	-14.39	AVG
9 *	0.910400	39.34	10.36	49.70	56.00	-6.30	QP
10	0.910400	26.97	10.36	37.33	46.00	-8.67	AVG
11	1.837400	25.86	10.35	36.21	56.00	-19.79	QP
12	1.837400	10.74	10.35	21.09	46.00	-24.91	AVG

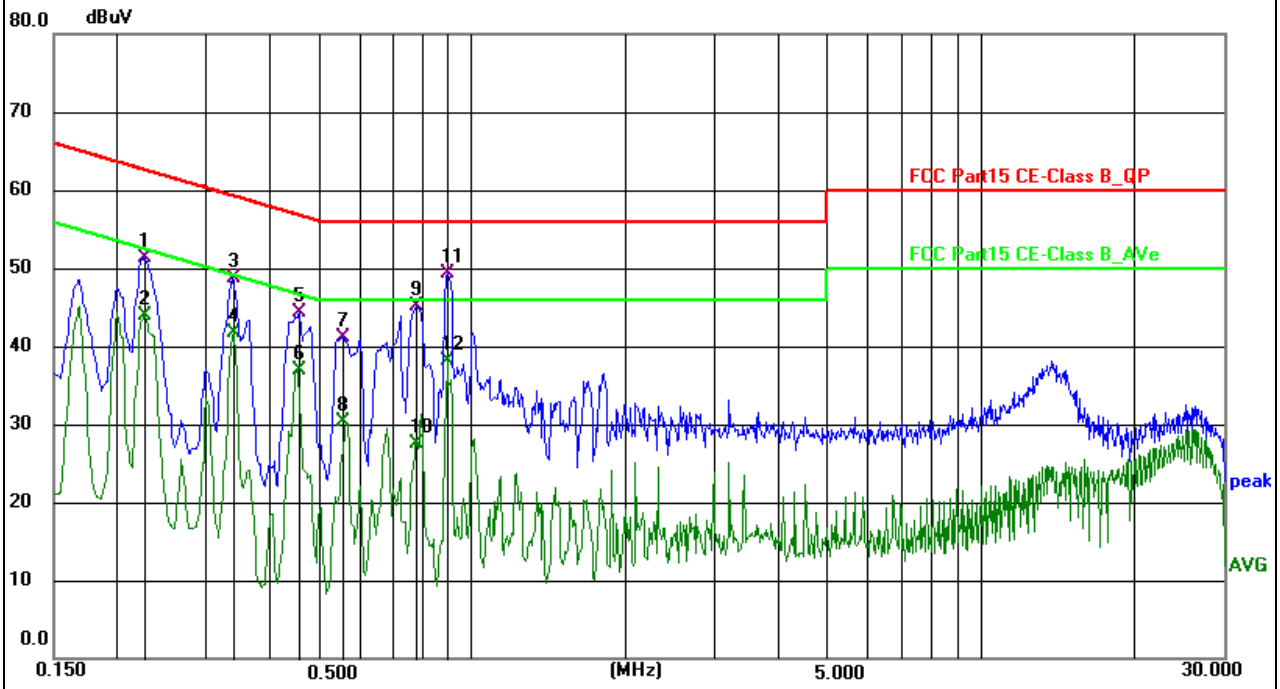
Model: P71

EUT:	Power bank	Model Name:	P71
Test Mode:	Mode 1 (115-205kHz)	Phase:	L
Test Voltage:	DC 9V from adapter AC 120V/60Hz		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.168000	38.05	10.47	48.52	65.06	-16.54	QP
2	0.168000	34.66	10.47	45.13	55.06	-9.93	AVG
3	0.199500	37.57	10.47	48.04	63.63	-15.59	QP
4	0.199500	34.30	10.47	44.77	53.63	-8.86	AVG
5	0.226500	40.02	10.47	50.49	62.58	-12.09	QP
6	0.226500	32.68	10.47	43.15	52.58	-9.43	AVG
7	0.334500	37.95	10.49	48.44	59.34	-10.90	QP
8	0.334500	30.95	10.49	41.44	49.34	-7.90	AVG
9	0.451500	32.80	10.50	43.30	56.85	-13.55	QP
10	0.451500	26.02	10.50	36.52	46.85	-10.33	AVG
11	0.892500	37.89	10.45	48.34	56.00	-7.66	QP
12 *	0.892500	27.95	10.45	38.40	46.00	-7.60	AVG

EUT:	Power bank	Model Name:	P71
Test Mode:	Mode 1 (115-205kHz)	Phase:	N
Test Voltage:	DC 9V from adapter AC 120V/60Hz		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.226500	40.80	10.53	51.33	62.58	-11.25	QP
2	0.226500	33.47	10.53	44.00	52.58	-8.58	AVG
3	0.339000	38.15	10.48	48.63	59.23	-10.60	QP
4	0.339000	31.14	10.48	41.62	49.23	-7.61	AVG
5	0.456000	33.86	10.41	44.27	56.77	-12.50	QP
6	0.456000	26.40	10.41	36.81	46.77	-9.96	AVG
7	0.555000	30.77	10.39	41.16	56.00	-14.84	QP
8	0.555000	19.98	10.39	30.37	46.00	-15.63	AVG
9	0.775500	34.65	10.37	45.02	56.00	-10.98	QP
10	0.775500	17.11	10.37	27.48	46.00	-18.52	AVG
11 *	0.892500	39.04	10.36	49.40	56.00	-6.60	QP
12	0.892500	27.67	10.36	38.03	46.00	-7.97	AVG

5.3 Radiated Emission

5.3.1 Limits

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

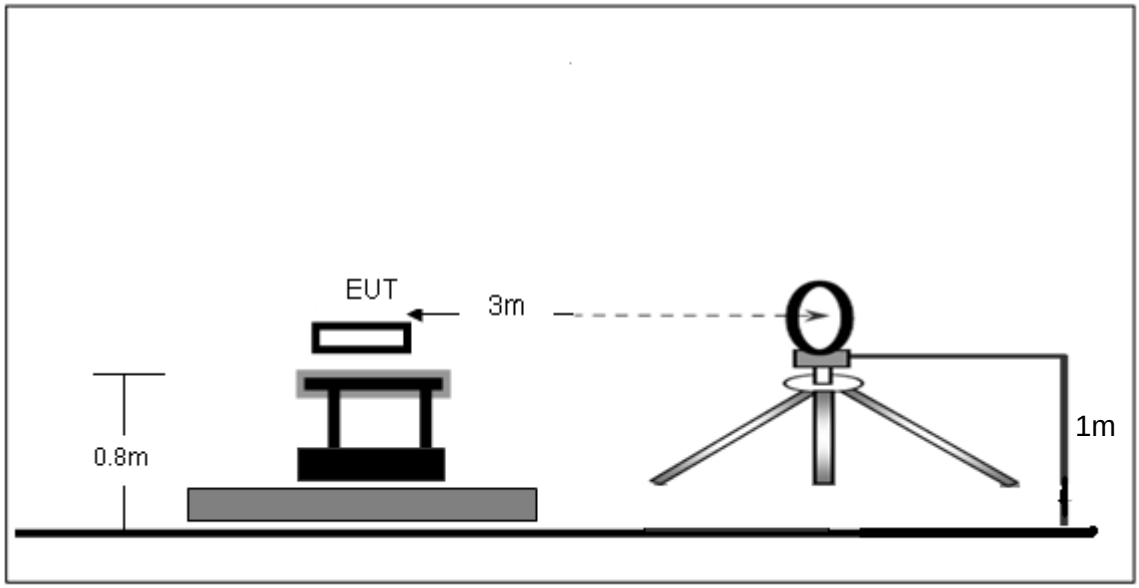
Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

5.3.2 Test Procedures

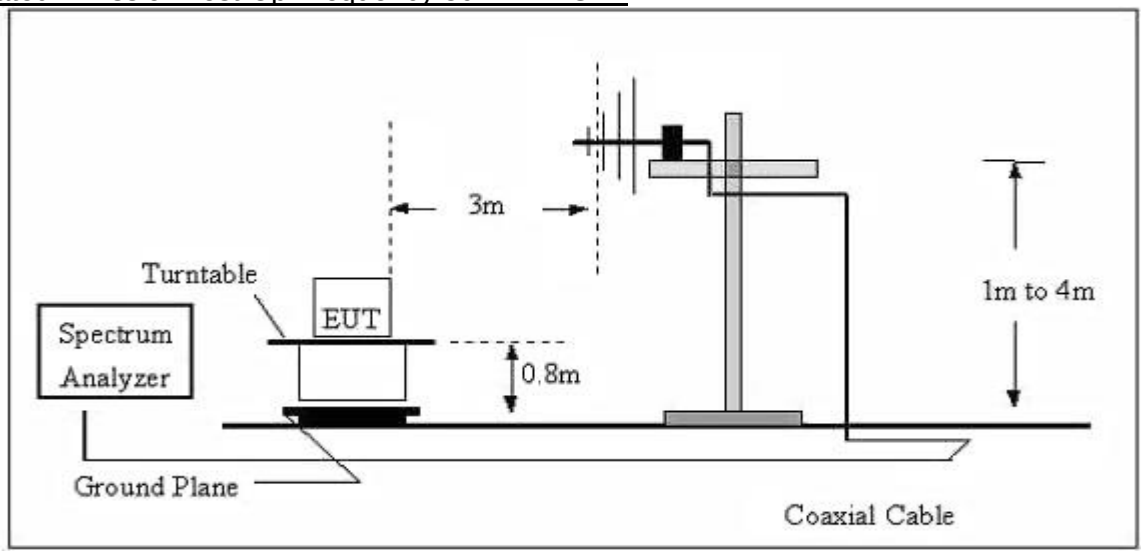
a) The radiated emission tests were performed in the 3 meters.
b) The EUT was placed on the top of a rotating table 0.8 meters above the ground. The table was rotated 360 degrees to determine the position of the highest radiation.
c) The height of the test antenna shall vary between 1m to 4m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d) If the peak mode measured value compliance with and lower than quasi peak mode limit, the EUT shall be deemed to meet QP limits and then no additional QP mode measurement performed.
e) If the peak mode measured value compliance with and lower than average mode limit, the EUT shall be deemed to meet average limits and then no additional average mode measurement performed.
f) For the actual test configuration, please refer to the related item – EUT test photos.

5.3.3 Test Setup

Radiated Emission Test-Up Frequency Below 30MHz



Radiated Emission Test-Up Frequency 30MHz~1GHz

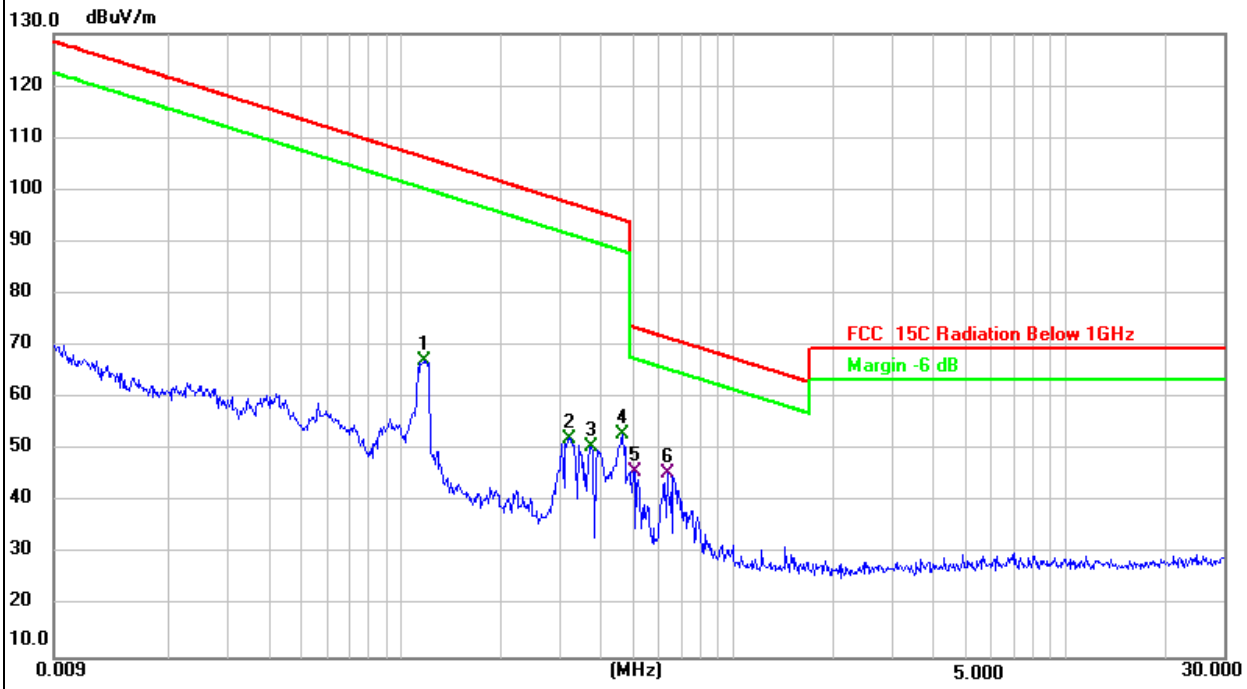


5.3.4 Test Result

Model: P75-P1

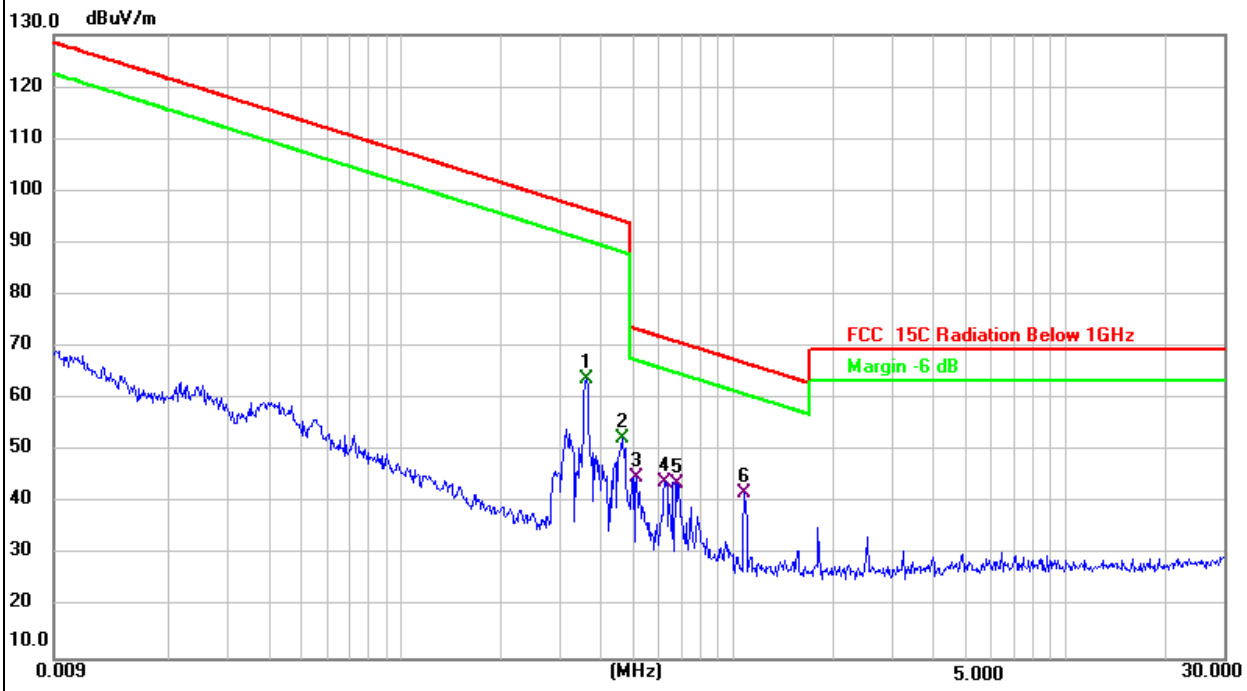
Frequency range (9kHz – 30MHz)

EUT:	Power bank	Model Name:	P75-P1
Test Mode:	Mode 1 (115-205kHz)	Phase:	Coaxial
Test Voltage:	DC 9V from adapter AC 120V/60Hz		



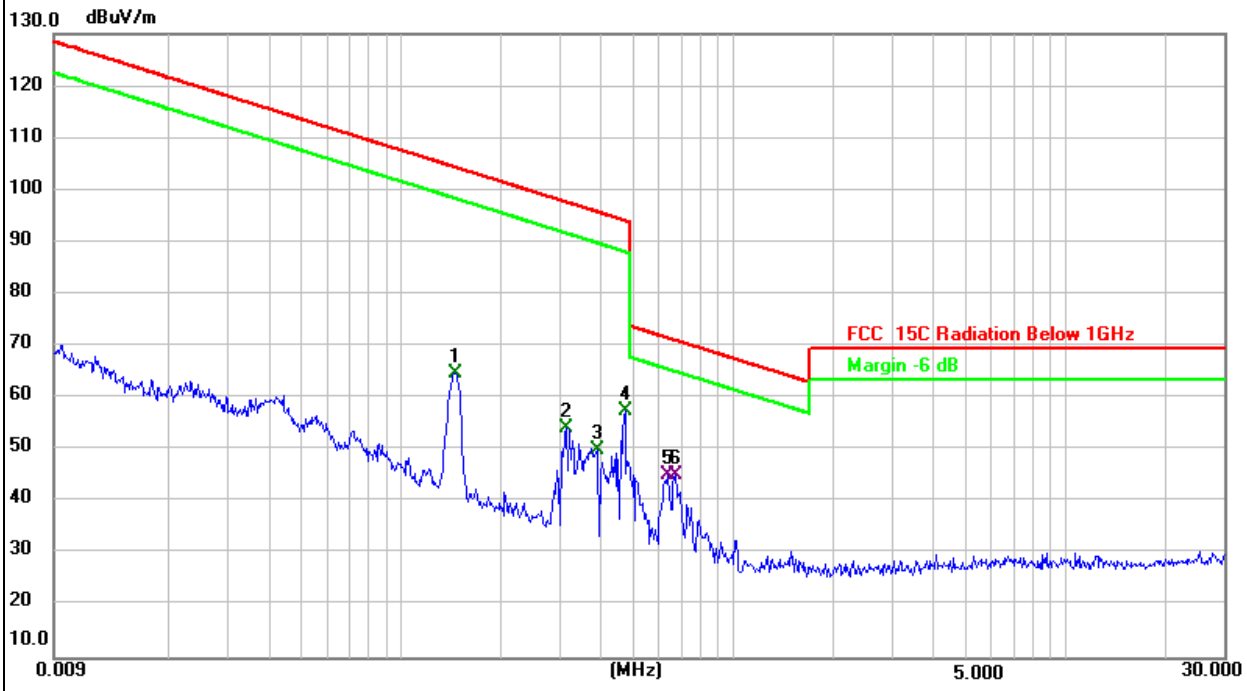
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.1174	46.79	20.50	67.29	106.23	-38.94	AVG
2	0.3219	32.16	20.09	52.25	97.46	-45.21	AVG
3	0.3726	30.59	20.07	50.66	96.18	-45.52	AVG
4	0.4638	32.92	20.05	52.97	94.28	-41.31	AVG
5	0.5030	25.88	20.04	45.92	73.57	-27.65	QP
6 *	0.6312	25.54	20.10	45.64	71.61	-25.97	QP

EUT:	Power bank	Model Name:	P75-P1
Test Mode:	Mode 5 (360kHz)	Phase:	Coaxial
Test Voltage:	DC 3.6V from battery		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.3607	43.88	20.07	63.95	96.47	-32.52	AVG
2	0.4638	32.46	20.05	52.51	94.28	-41.77	AVG
3	0.5113	24.89	20.04	44.93	73.43	-28.50	QP
4	0.6211	24.01	20.10	44.11	71.75	-27.64	QP
5	0.6790	22.32	21.48	43.80	70.97	-27.17	QP
6 *	1.0783	21.61	20.24	41.85	66.97	-25.12	QP

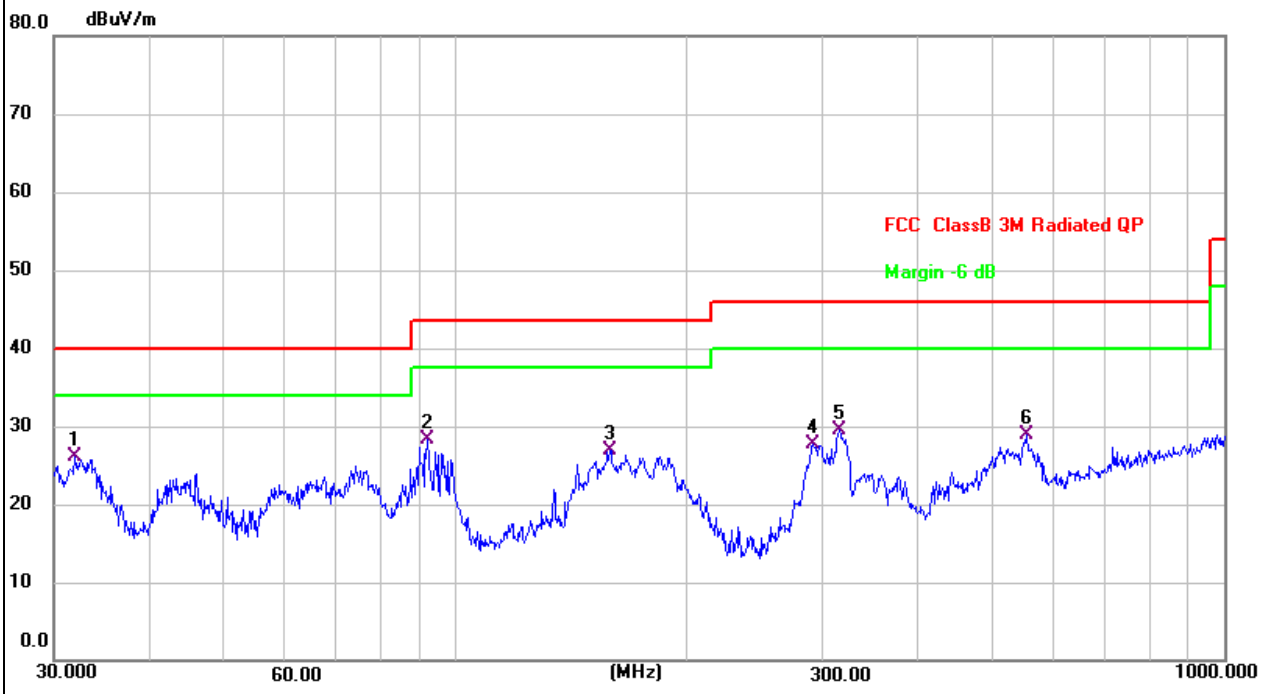
EUT:	Power bank	Model Name:	P75-P1
Test Mode:	Mode 4 (115-205kHz)	Phase:	Coaxial
Test Voltage:	DC 3.6V from battery		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.1454	44.47	20.21	64.68	104.37	-39.69	AVG
2	0.3141	34.30	20.09	54.39	97.67	-43.28	AVG
3	0.3880	29.94	20.06	50.00	95.83	-45.83	AVG
4	0.4714	37.59	20.05	57.64	94.14	-36.50	AVG
5	0.6313	25.29	20.10	45.39	71.61	-26.22	QP
6 *	0.6682	25.11	20.12	45.23	71.11	-25.88	QP

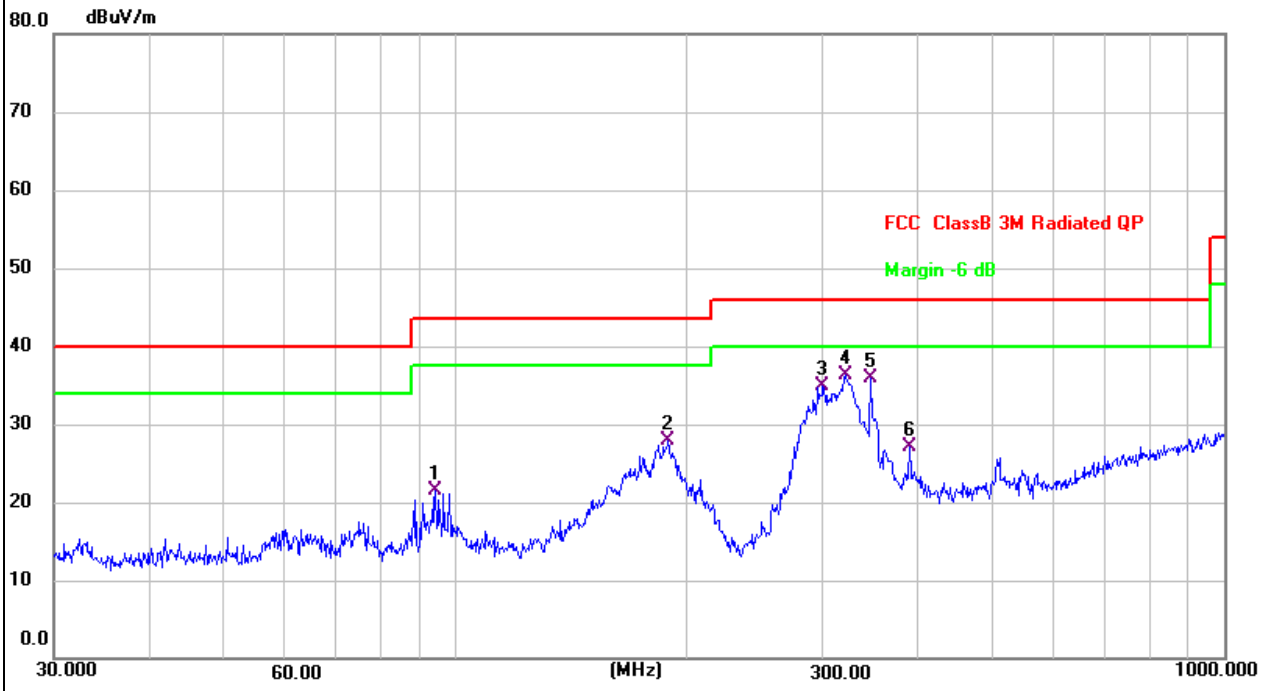
Frequency range (30MHz – 1GHz)

EUT:	Power bank	Model Name:	P75-P1
Test Mode:	Mode 1 (115-205kHz)	Phase:	Vertical
Test Voltage:	DC 9V from adapter AC 120V/60Hz		



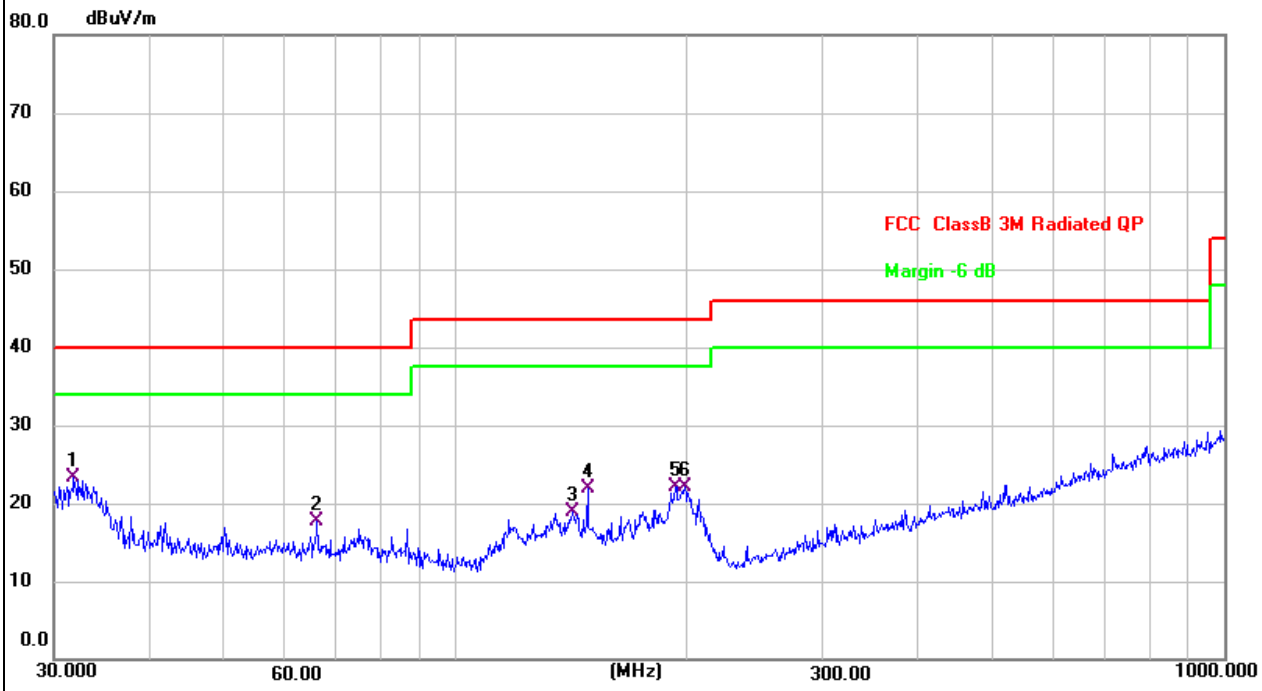
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	31.9546	41.26	-15.10	26.16	40.00	-13.84	QP
2	91.8163	46.43	-18.19	28.24	43.50	-15.26	QP
3	158.6677	40.29	-13.36	26.93	43.50	-16.57	QP
4	291.0360	40.64	-12.90	27.74	46.00	-18.26	QP
5	315.4808	41.75	-12.21	29.54	46.00	-16.46	QP
6	552.8832	35.57	-6.57	29.00	46.00	-17.00	QP

EUT:	Power bank	Model Name:	P75-P1
Test Mode:	Mode 1 (115-205kHz)	Phase:	Horizontal
Test Voltage:	DC 9V from adapter AC 120V/60Hz		



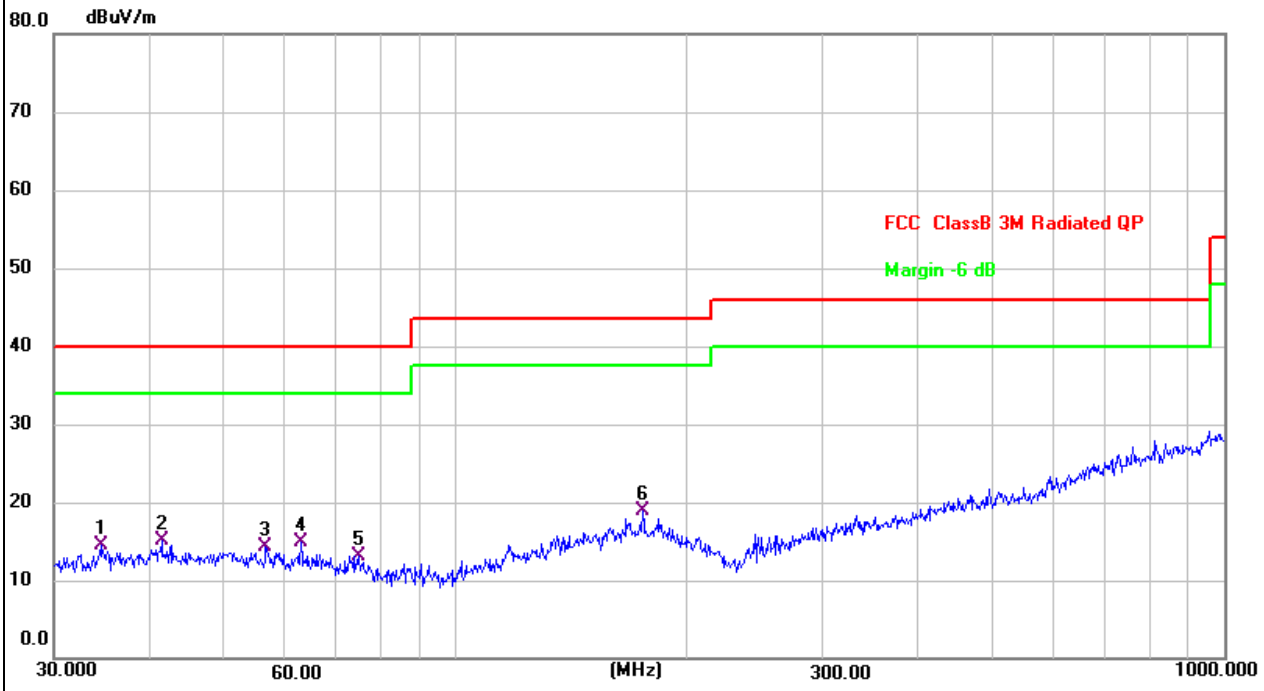
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	94.0979	39.41	-17.86	21.55	43.50	-21.95	QP
2	189.0743	44.08	-16.12	27.96	43.50	-15.54	QP
3	300.3672	47.49	-12.56	34.93	46.00	-11.07	QP
4 *	321.0608	48.44	-12.08	36.36	46.00	-9.64	QP
5	346.8092	47.18	-11.20	35.98	46.00	-10.02	QP
6	389.3549	37.26	-10.12	27.14	46.00	-18.86	QP

EUT:	Power bank	Model Name:	P75-P1
Test Mode:	Mode 5 (360kHz)	Phase:	Vertical
Test Voltage:	DC 3.6V from battery		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	31.8427	38.38	-15.13	23.25	40.00	-16.75	QP
2	66.0342	33.11	-15.43	17.68	40.00	-22.32	QP
3	141.8262	33.00	-14.11	18.89	43.50	-24.61	QP
4	148.4410	35.52	-13.61	21.91	43.50	-21.59	QP
5	193.0945	38.56	-16.39	22.17	43.50	-21.33	QP
6	198.5880	38.69	-16.64	22.05	43.50	-21.45	QP

EUT:	Power bank	Model Name:	P75-P1
Test Mode:	Mode 5 (360kHz)	Phase:	Horizontal
Test Voltage:	DC 3.6V from battery		

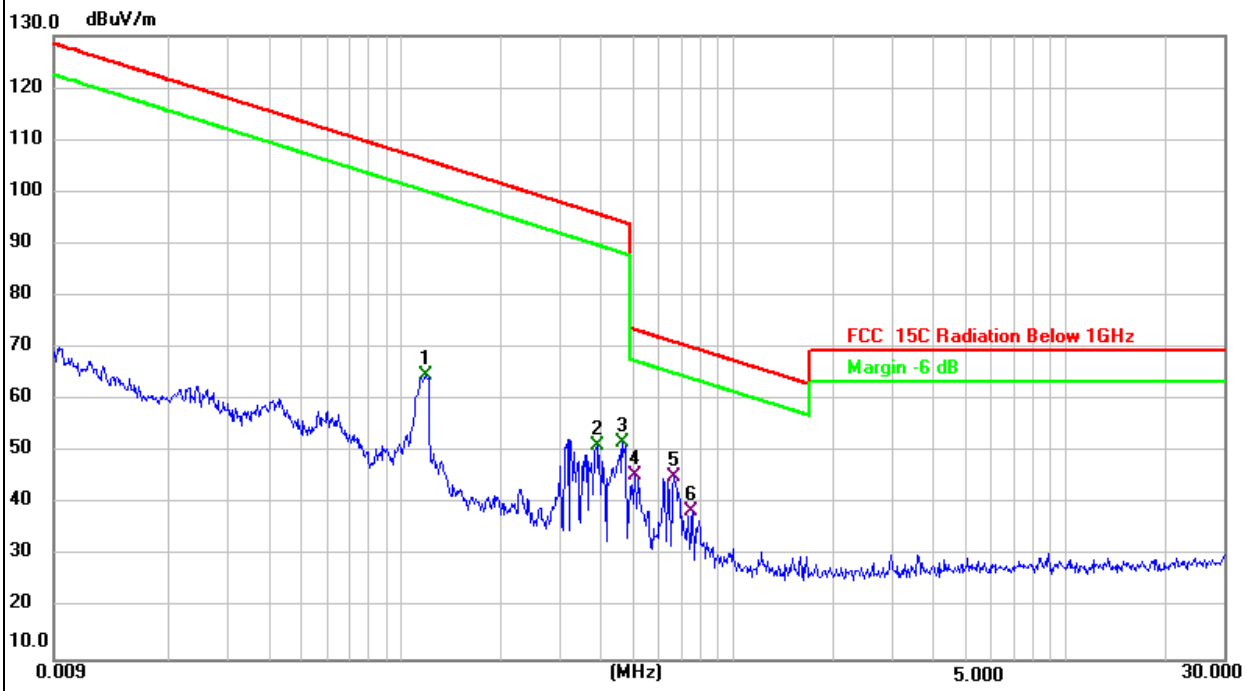


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	34.5173	29.33	-14.79	14.54	40.00	-25.46	QP
2	41.4215	29.15	-14.03	15.12	40.00	-24.88	QP
3	56.5929	28.95	-14.61	14.34	40.00	-25.66	QP
4	62.8708	29.96	-15.05	14.91	40.00	-25.09	QP
5	74.6569	29.81	-16.63	13.18	40.00	-26.82	QP
6 *	175.0368	33.21	-14.40	18.81	43.50	-24.69	QP

Model: P71

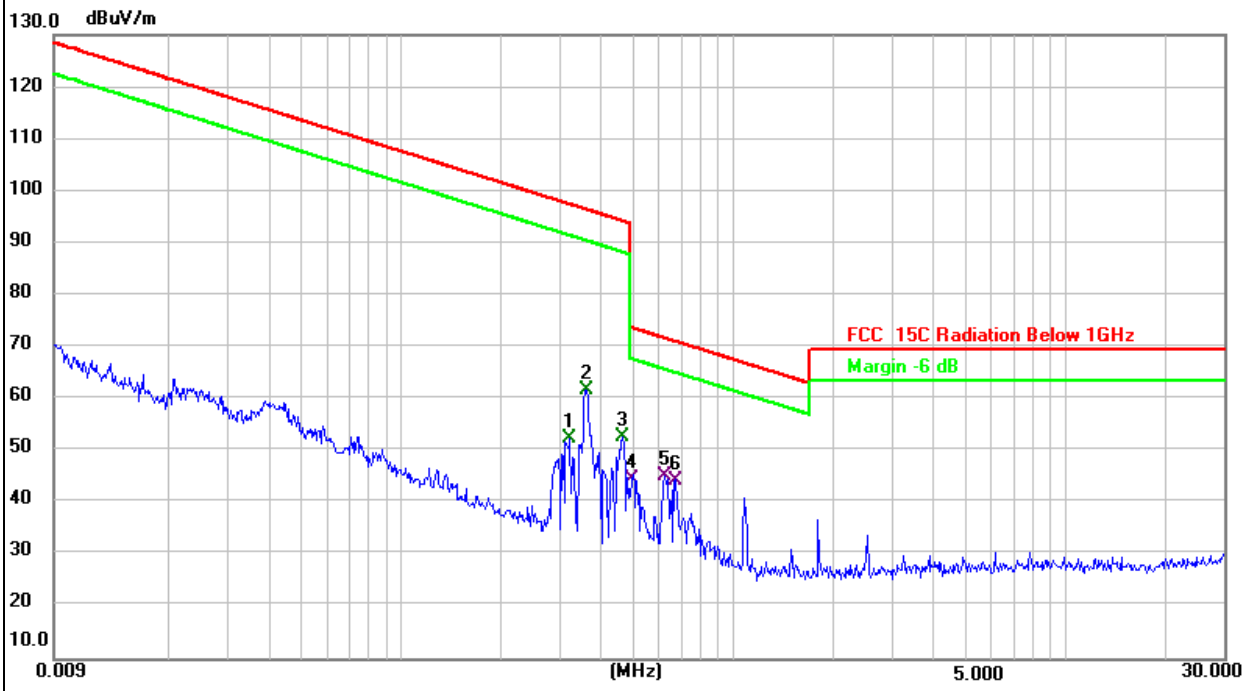
Frequency range (9kHz – 30MHz)

EUT:	Power bank	Model Name:	P71
Test Mode:	Mode 1 (115-205kHz)	Phase:	Coaxial
Test Voltage:	DC 9V from adapter AC 120V/60Hz		



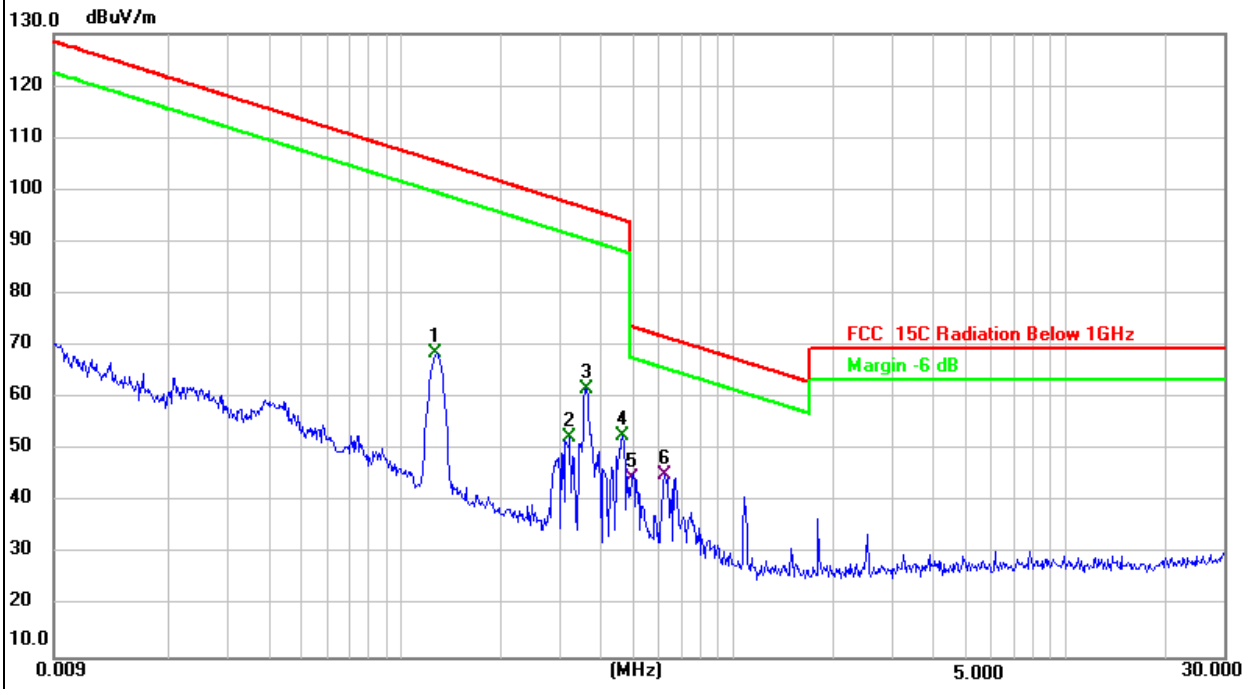
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.1184	44.21	20.50	64.71	106.16	-41.45	AVG
2	0.3880	31.21	20.06	51.27	95.83	-44.56	AVG
3	0.4637	31.81	20.05	51.86	94.28	-42.42	AVG
4	0.5070	25.63	20.04	45.67	73.50	-27.83	QP
5 *	0.6623	24.99	20.11	45.10	71.19	-26.09	QP
6	0.7545	16.91	21.64	38.55	70.06	-31.51	QP

EUT:	Power bank	Model Name:	P71
Test Mode:	Mode 5 (360kHz)	Phase:	Coaxial
Test Voltage:	DC 3.6V from battery		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.3220	32.49	20.09	52.58	97.45	-44.87	AVG
2	0.3607	41.80	20.07	61.87	96.47	-34.60	AVG
3	0.4638	32.56	20.05	52.61	94.28	-41.67	AVG
4	0.4949	24.74	20.04	44.78	73.71	-28.93	QP
5 *	0.6211	25.09	20.10	45.19	71.75	-26.56	QP
6	0.6681	24.38	20.12	44.50	71.11	-26.61	QP

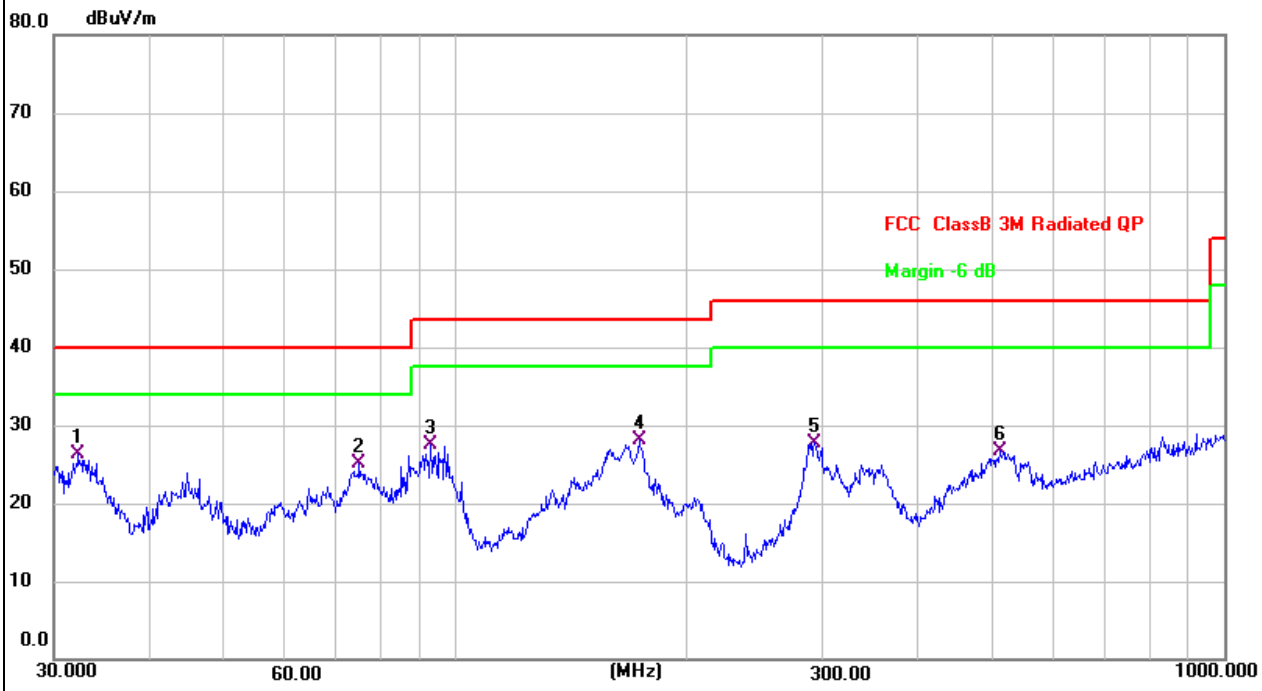
EUT:	Power bank	Model Name:	P71
Test Mode:	Mode 4 (115-205kHz)	Phase:	Coaxial
Test Voltage:	DC 3.6V from battery		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.1454	43.39	20.21	63.60	104.37	-40.77	AVG
2	0.3220	32.36	20.09	52.45	97.45	-45.00	AVG
3	0.3818	31.26	20.06	51.32	95.97	-44.65	AVG
4	0.4638	32.77	20.05	52.82	94.28	-41.46	AVG
5	0.4909	25.59	20.04	45.63	73.78	-28.15	QP
6 *	0.6628	25.21	20.12	45.33	71.18	-25.85	QP

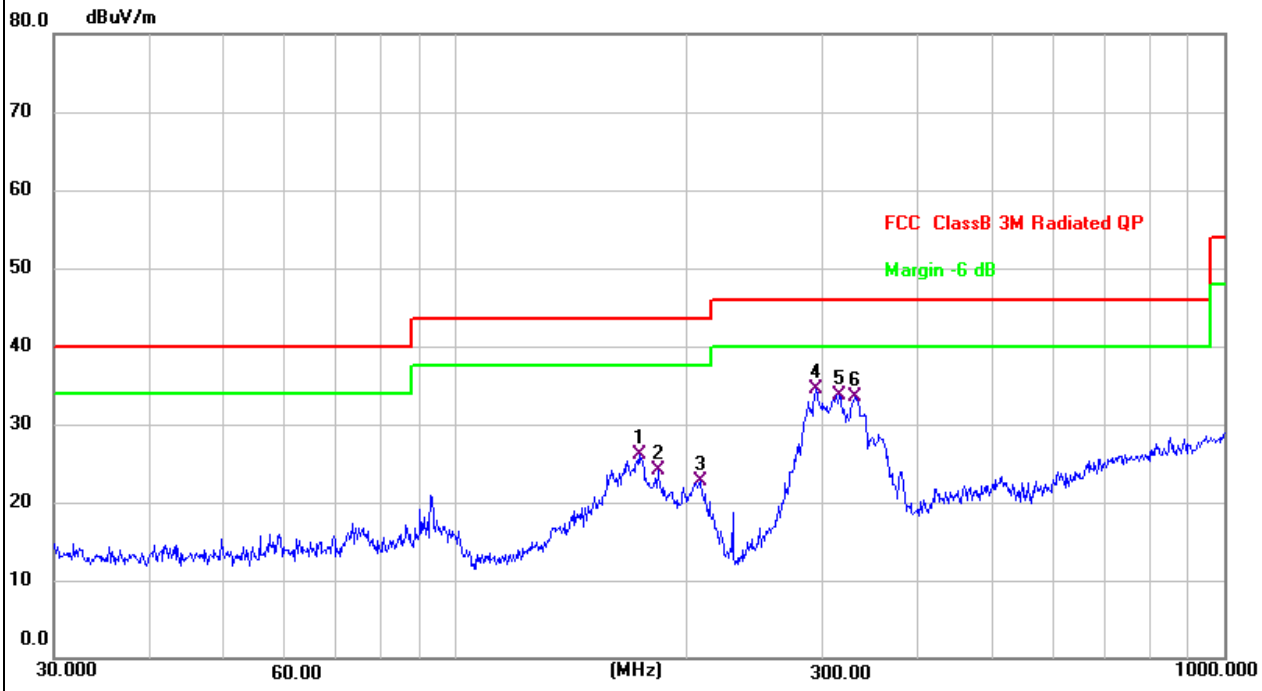
Frequency range (30MHz – 1GHz)

EUT:	Power bank	Model Name:	P71
Test Mode:	Mode 1 (115-205kHz)	Phase:	Vertical
Test Voltage:	DC 9V from adapter AC 120V/60Hz		



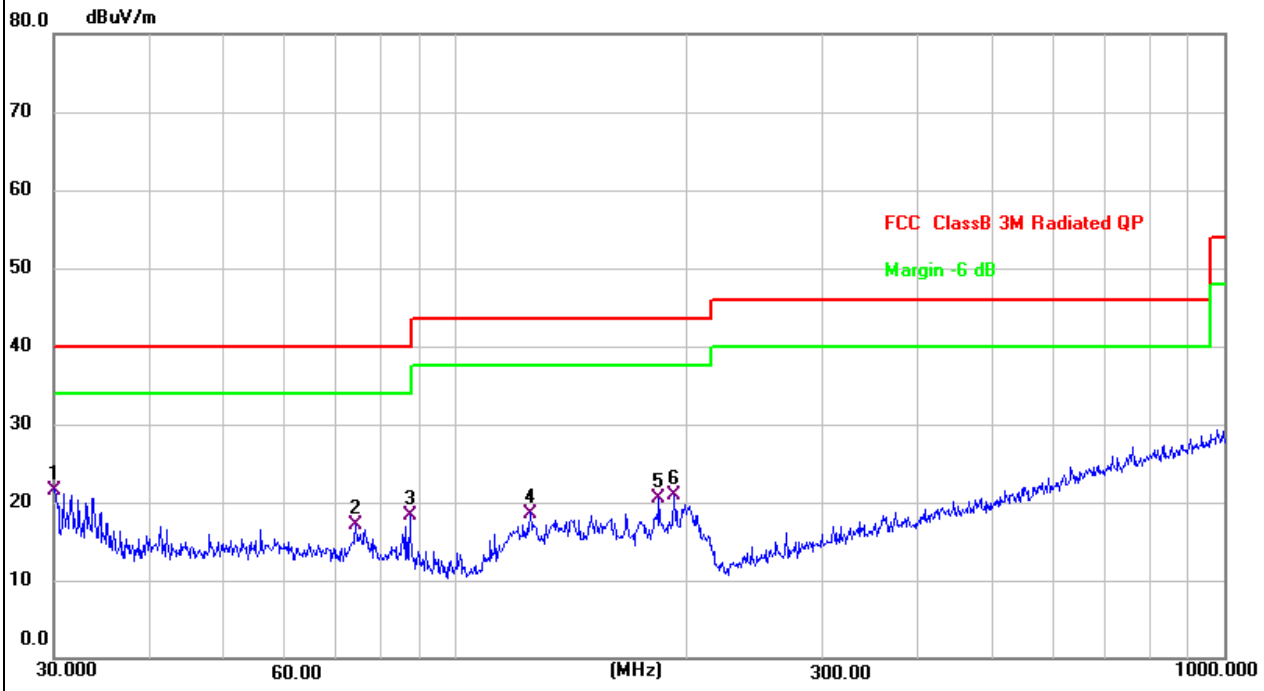
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	32.2925	41.33	-15.09	26.24	40.00	-13.76	QP
2	74.9191	41.69	-16.65	25.04	40.00	-14.96	QP
3	92.7871	45.42	-18.00	27.42	43.50	-16.08	QP
4	173.2051	42.13	-13.94	28.19	43.50	-15.31	QP
5	293.0842	40.62	-12.83	27.79	46.00	-18.21	QP
6	510.0436	33.70	-7.08	26.62	46.00	-19.38	QP

EUT:	Power bank	Model Name:	P71
Test Mode:	Mode 1 (115-205kHz)	Phase:	Horizontal
Test Voltage:	DC 9V from adapter AC 120V/60Hz		



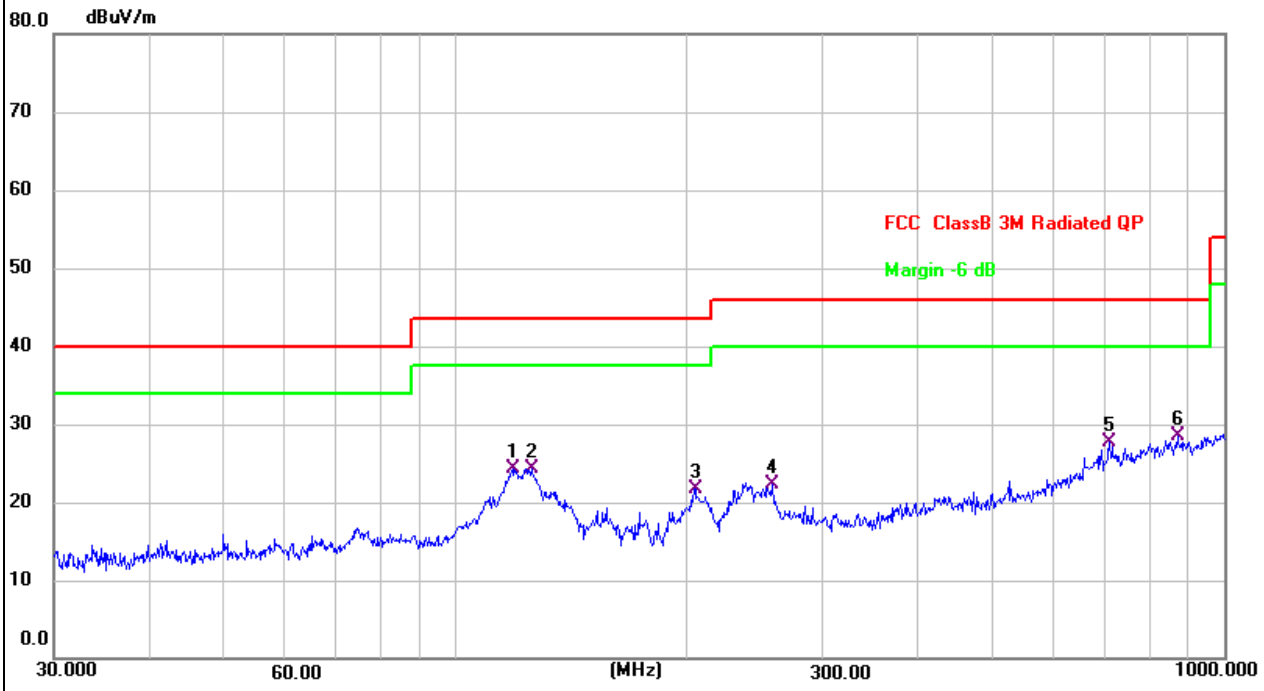
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	173.2051	40.10	-13.94	26.16	43.50	-17.34	QP
2	183.2005	39.71	-15.53	24.18	43.50	-19.32	QP
3	207.8501	39.51	-16.87	22.64	43.50	-20.86	QP
4 *	294.1137	47.32	-12.79	34.53	46.00	-11.47	QP
5	315.4808	46.01	-12.21	33.80	46.00	-12.20	QP
6	331.3546	45.21	-11.66	33.55	46.00	-12.45	QP

EUT:	Power bank	Model Name:	P71
Test Mode:	Mode 5 (360kHz)	Phase:	Vertical
Test Voltage:	DC 3.6V from battery		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	30.1054	36.94	-15.34	21.60	40.00	-18.40	QP
2	74.1351	33.78	-16.58	17.20	40.00	-22.80	QP
3	87.1117	36.49	-18.21	18.28	40.00	-21.72	QP
4	125.0066	33.79	-15.19	18.60	43.50	-24.90	QP
5	183.8440	36.09	-15.58	20.51	43.50	-22.99	QP
6	192.4186	37.15	-16.33	20.82	43.50	-22.68	QP

EUT:	Power bank	Model Name:	P71
Test Mode:	Mode 5 (360kHz)	Phase:	Horizontal
Test Voltage:	DC 3.6V from battery		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	118.6014	40.00	-15.73	24.27	43.50	-19.23	QP
2	125.4457	39.50	-15.19	24.31	43.50	-19.19	QP
3	204.9551	38.59	-16.84	21.75	43.50	-21.75	QP
4	258.3264	36.55	-14.21	22.34	46.00	-23.66	QP
5	709.1823	29.85	-2.18	27.67	46.00	-18.33	QP
6 *	869.1302	28.18	0.40	28.58	46.00	-17.42	QP

5.4 Occupied Bandwidth

5.4.1 Test method

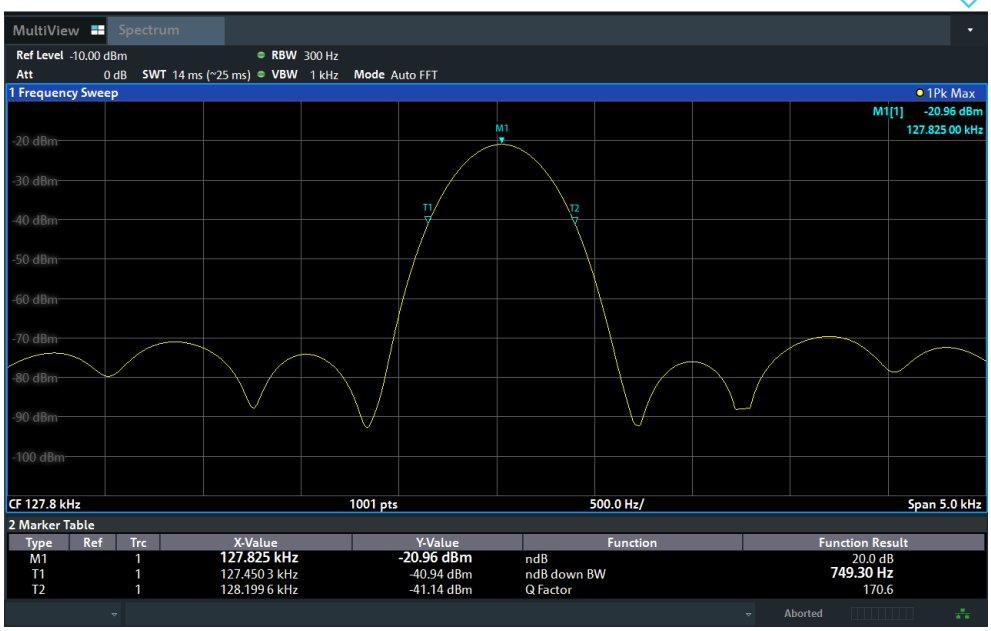
Use the following spectrum analyzer settings:
Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel
RBW ≥1% of the 20 dB bandwidth
VBW ≥RBW
Sweep = auto
Detector function = peak
Trace = max hold
The EUT should be transmitting at its maximum data rate. Allow the trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. Use the marker-delta function to measure 20 dB down one side of the emission. Reset the marker-delta function, and move the marker to the other side of the emission, until it is (as close as possible to) even with the reference marker level. The marker-delta reading at this point is the 20 dB bandwidth and 99% occupied bandwidth of the emission.

5.4.2 Test result

Model: P75-P1

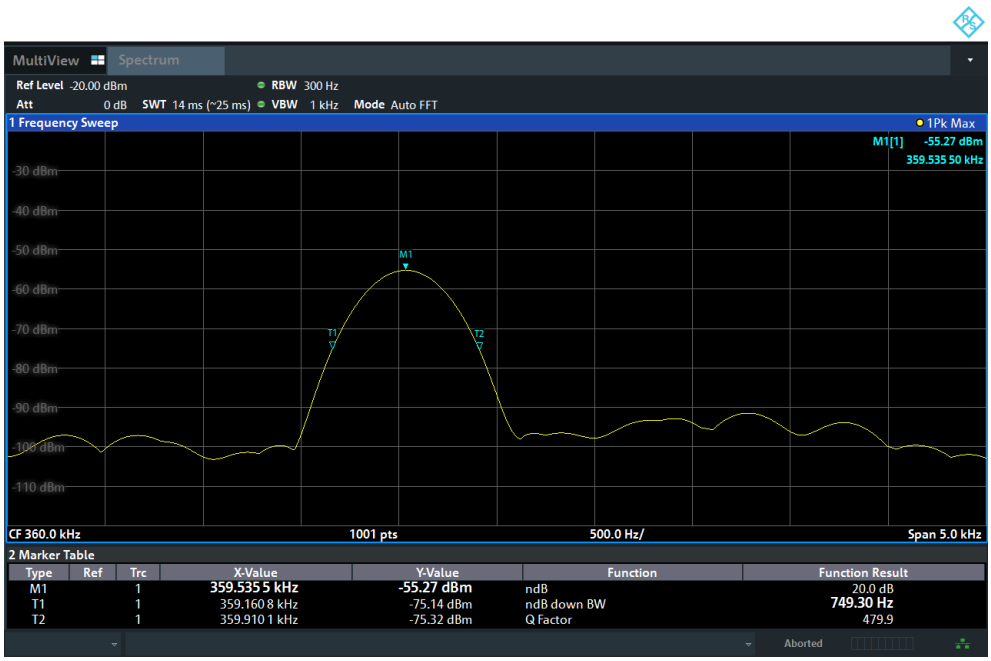
Frequency (kHz)	20dB emission bandwidth (Hz)
128	749.30

Test plots as below:



Frequency (kHz)	20dB emission bandwidth (Hz)
360	749.30

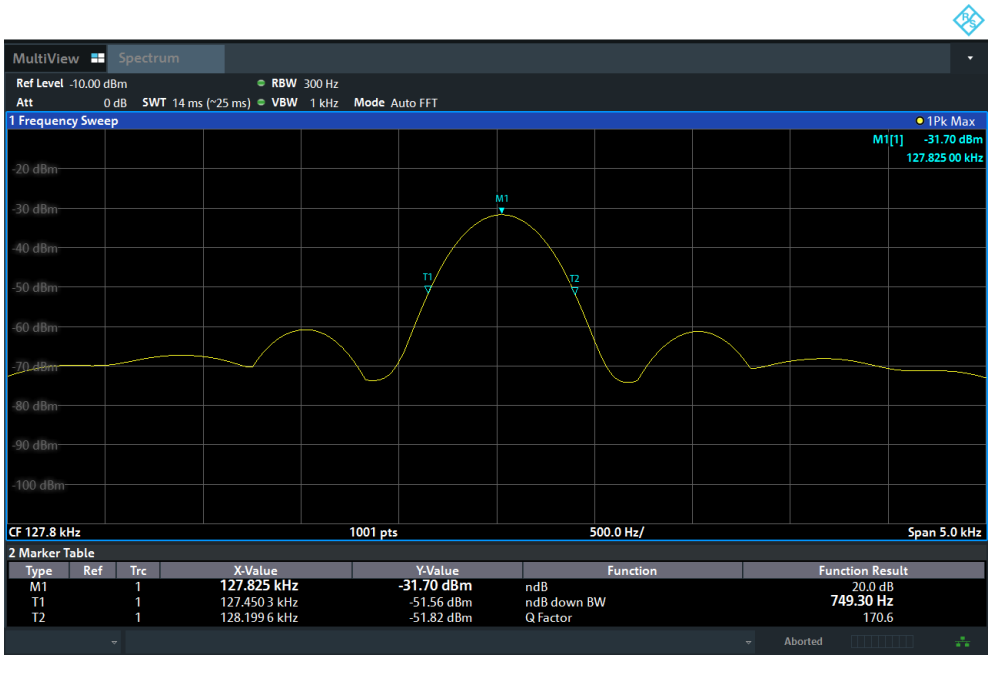
Test plots as below:



Model: P71

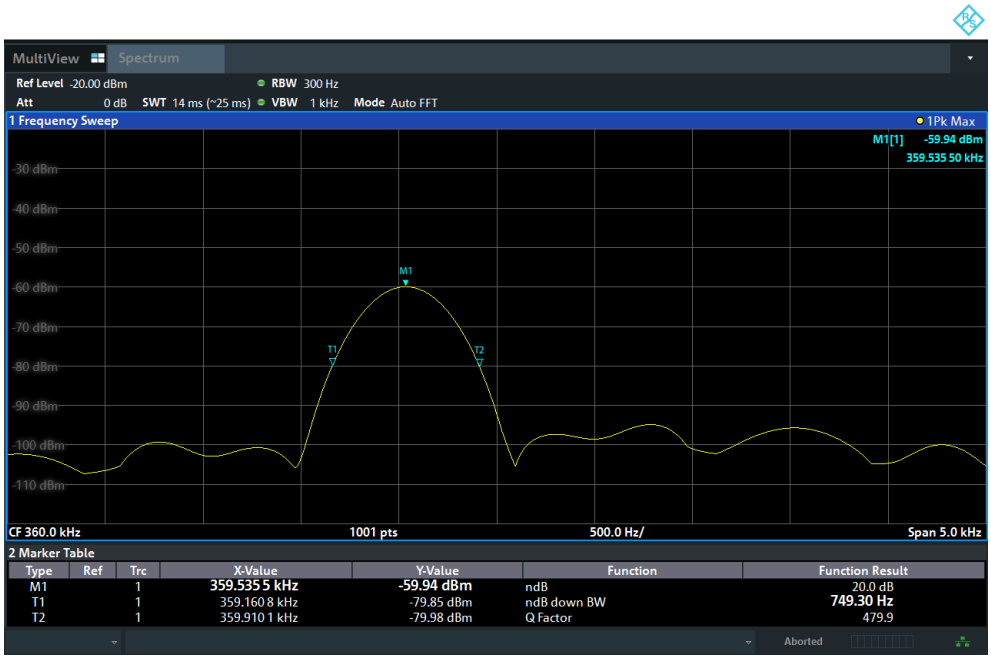
Frequency (kHz)	20dB emission bandwidth (Hz)
128	749.30

Test plots as below:

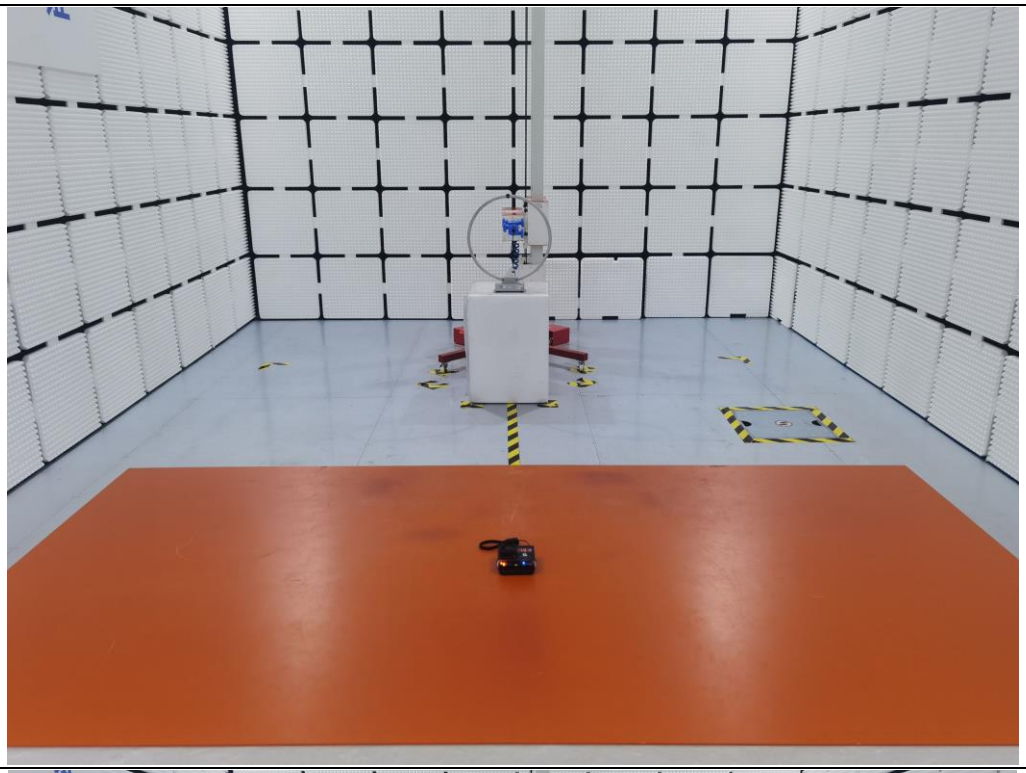


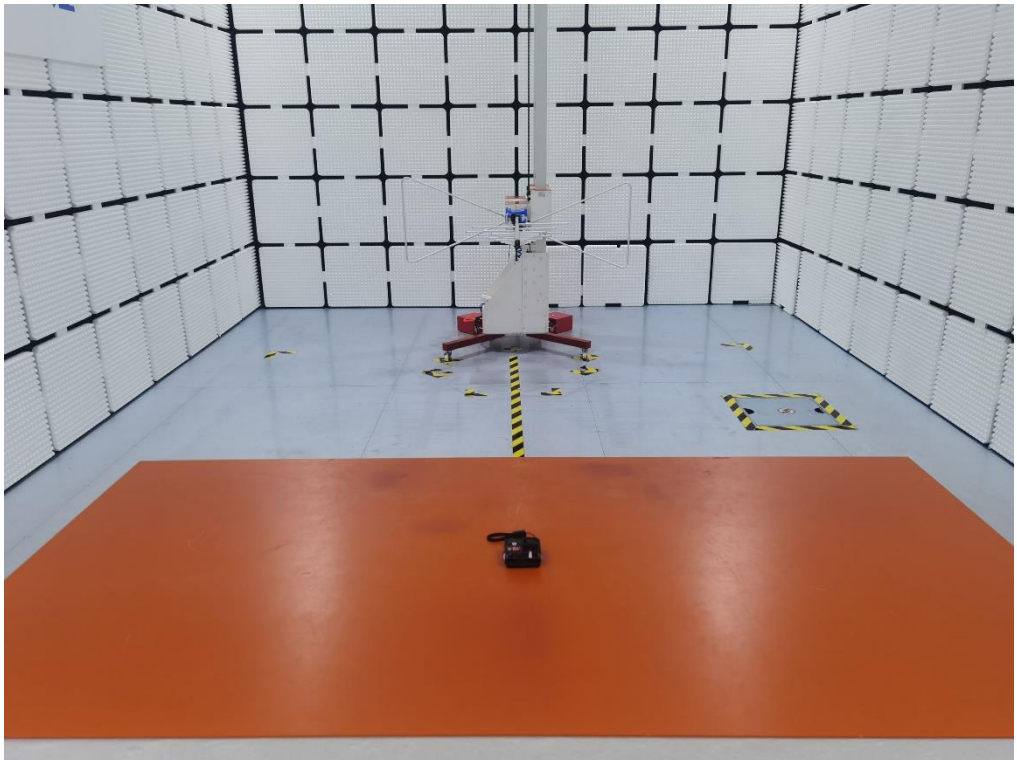
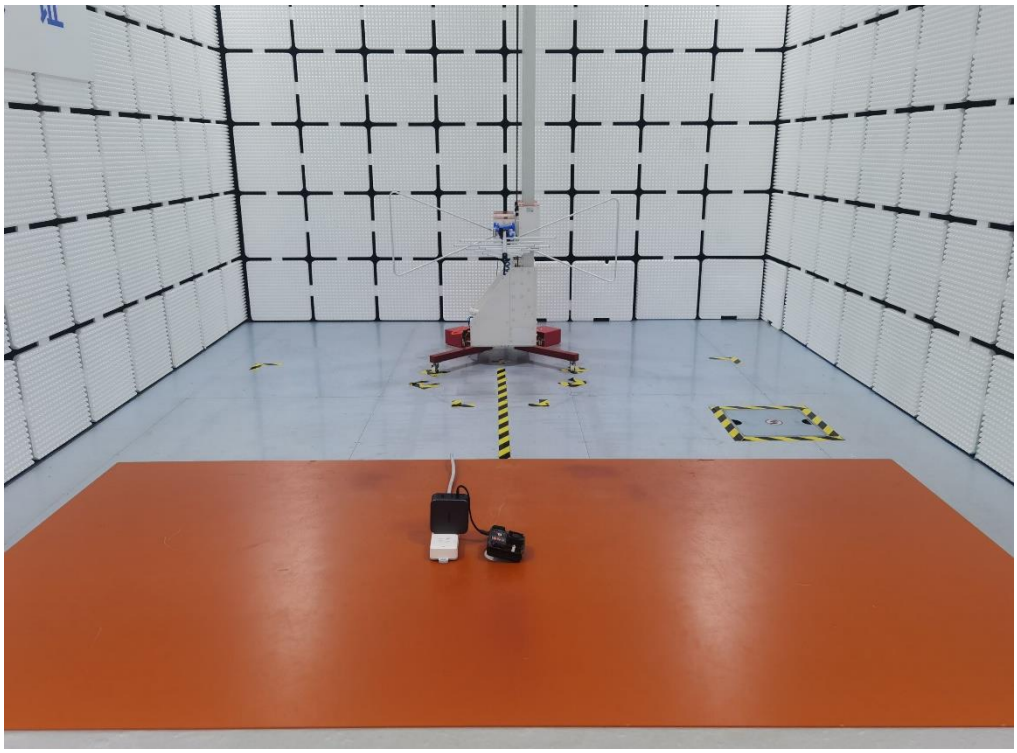
Frequency (kHz)	20dB emission bandwidth (Hz)
360	749.30

Test plots as below:

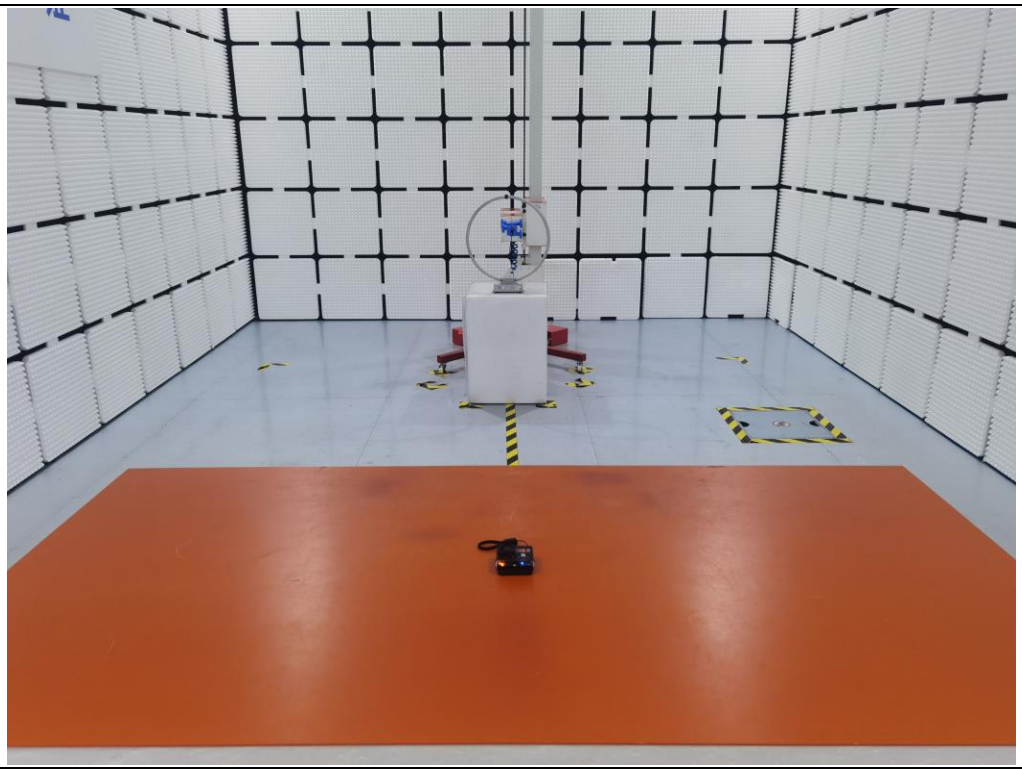


6 Photographs of the Test Setup

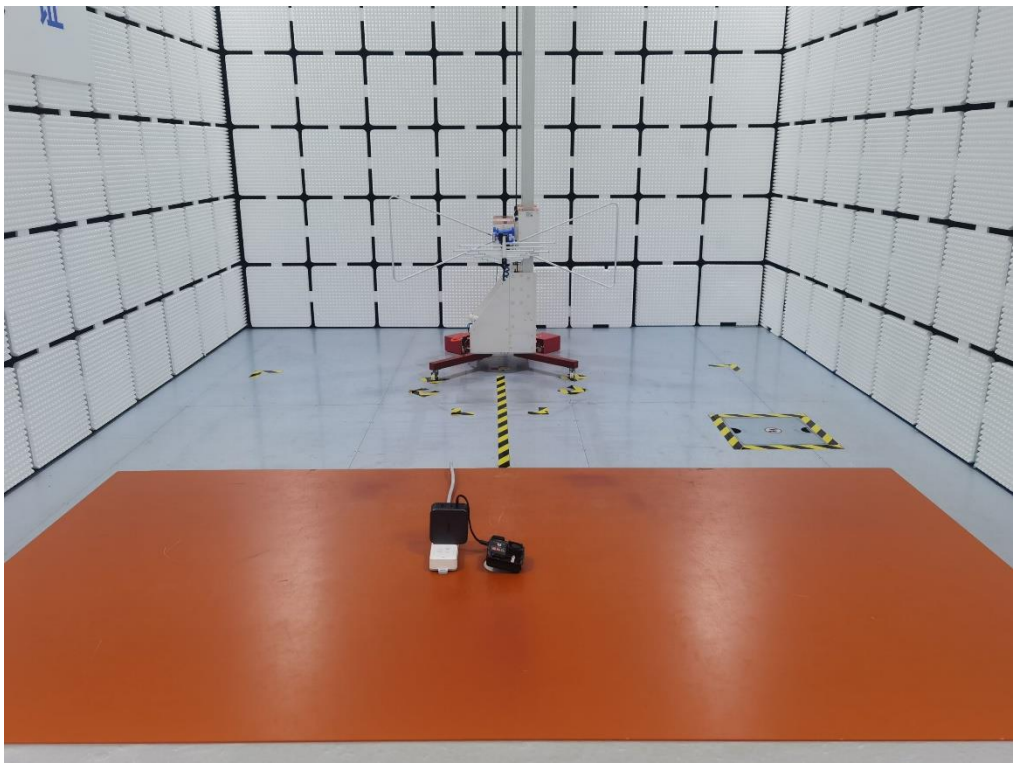
Model: P75-P1
Radiated Emission Below 30MHz


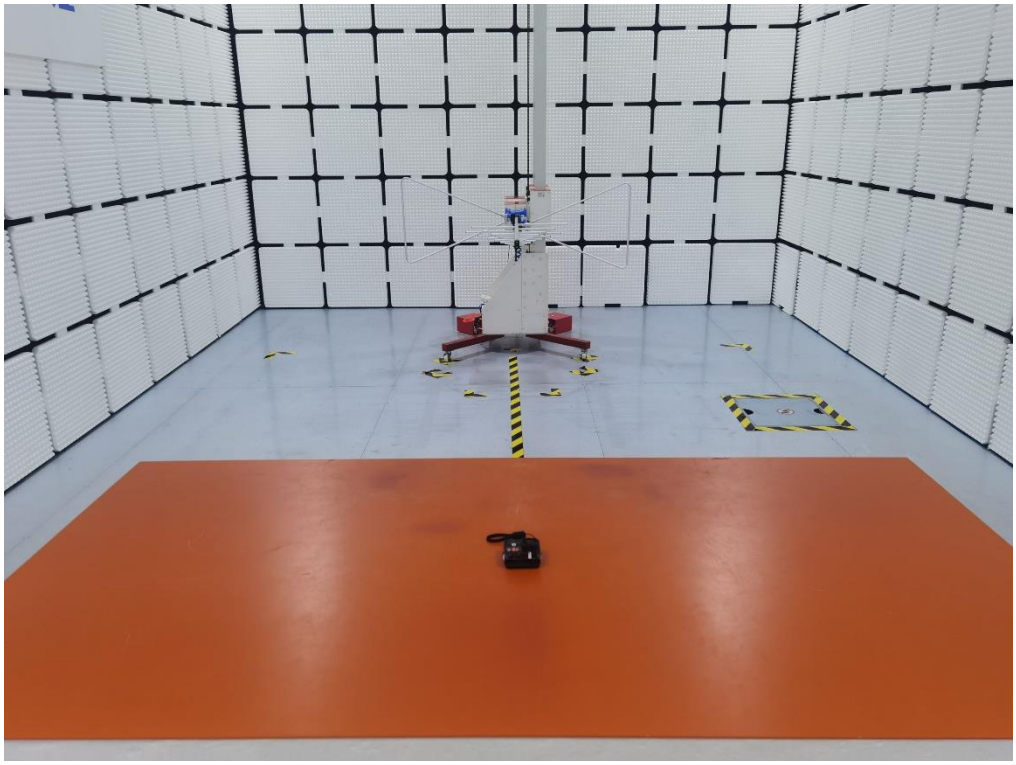

Radiated Emission Above 30MHz



Conducted Emission

Model: P71
Radiated Emission Below 30MHz


Radiated Emission Above 30MHz





Conducted Emission

7 Photographs of the EUT

Photo 1

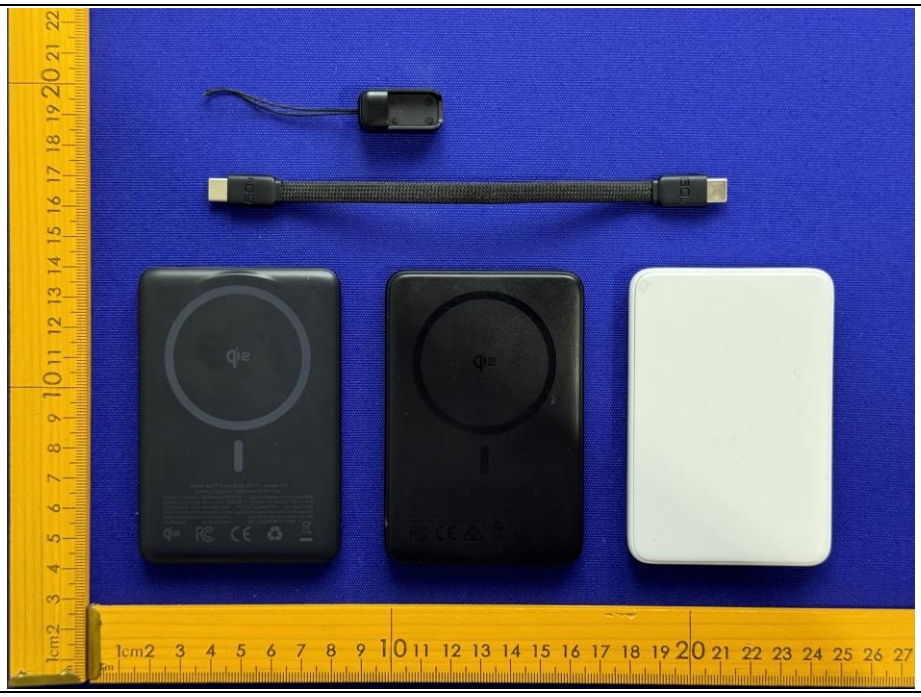



Photo 2


Photo 3

Photo 4

Photo 5

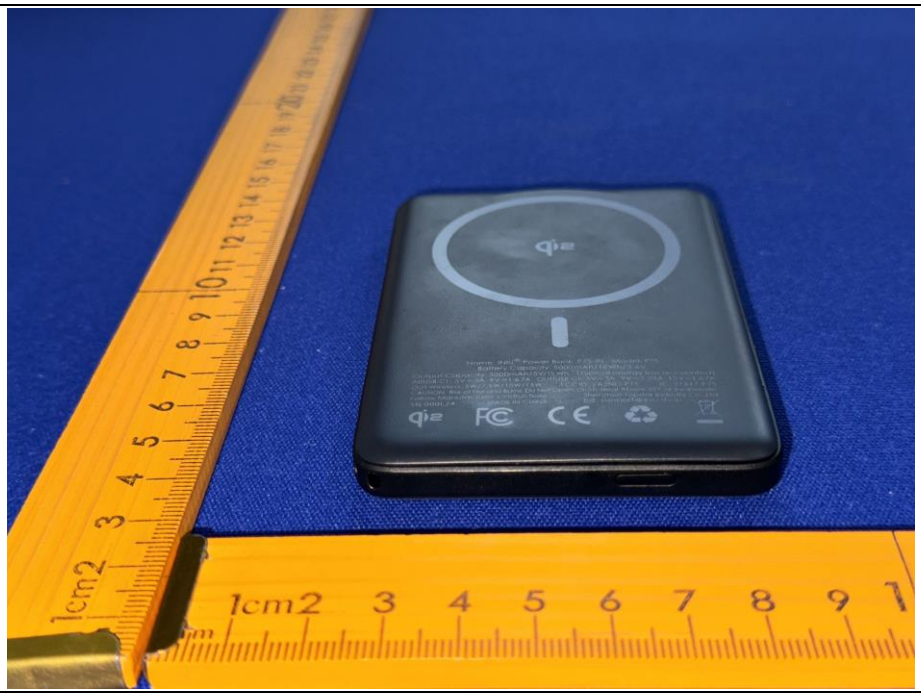



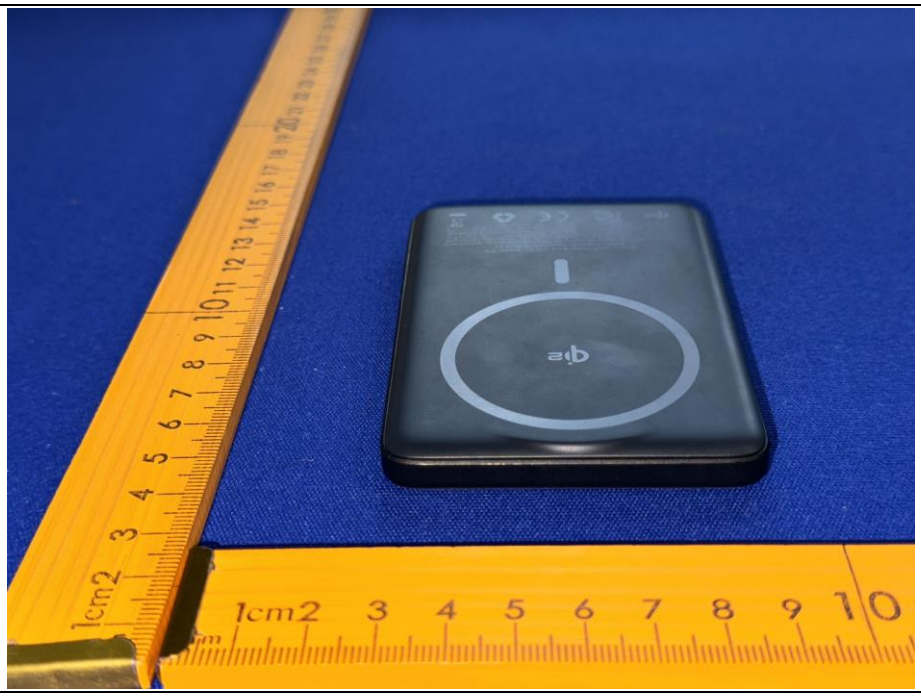
Photo 6


Photo 7

Photo 8


Photo 9

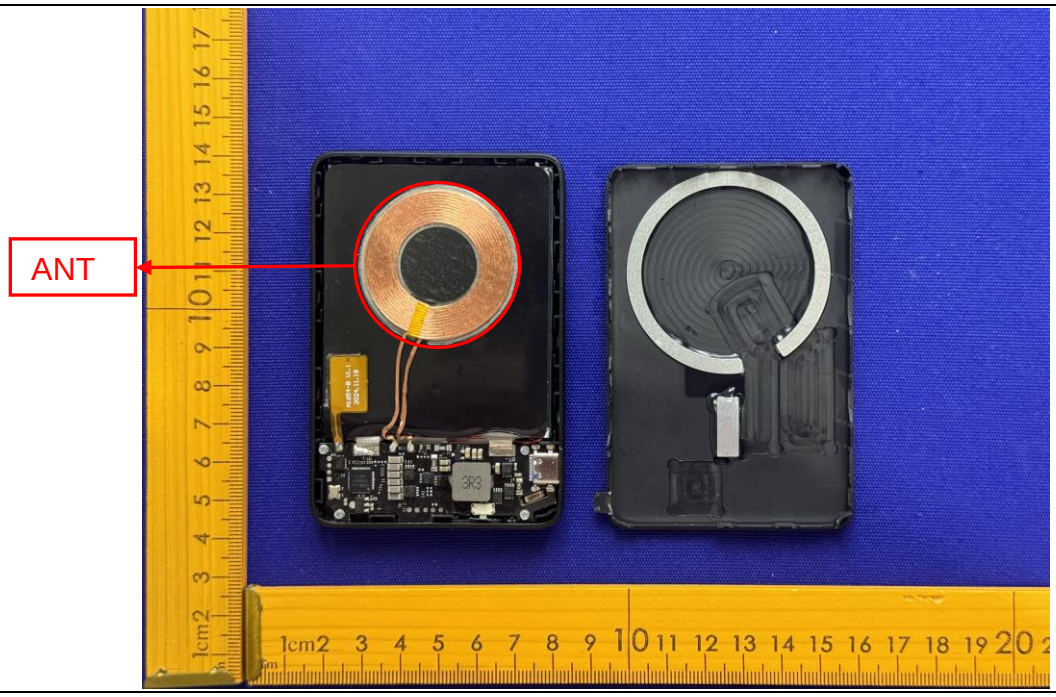



Photo 10


Photo 11

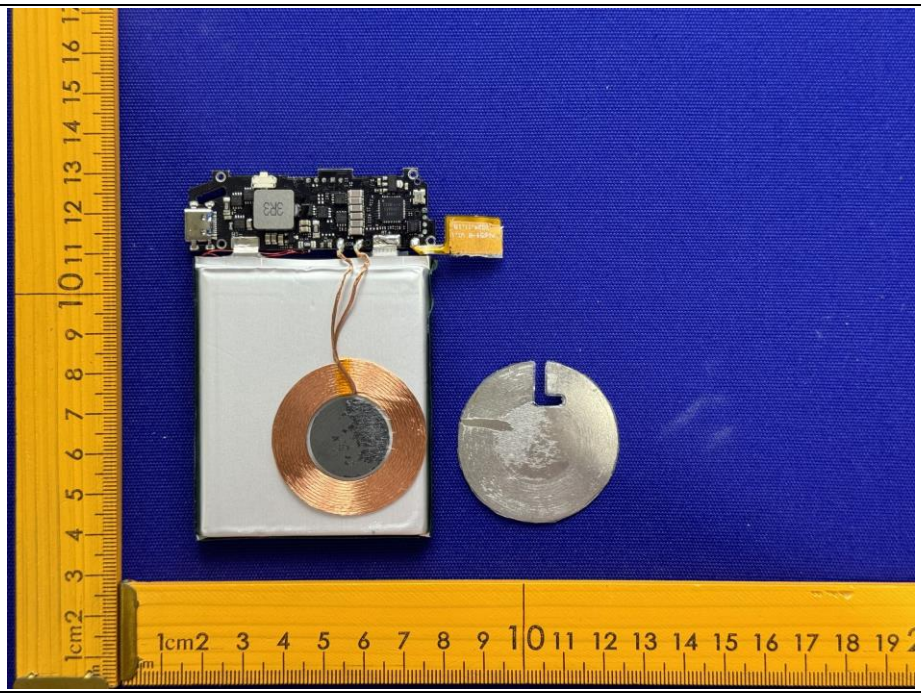
Photo 12


Photo 13

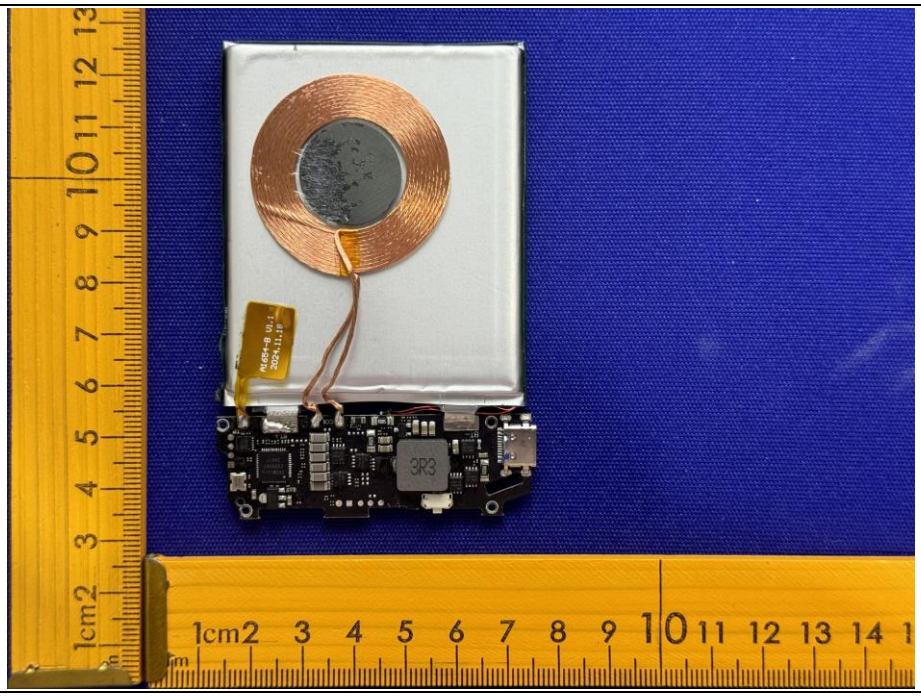



Photo 14


******* END OF REPORT *******