

# **Test Report**

Report No. : MTi241220015-01E1

Date of issue : 2025-03-21

Applicant : Shenzhen Yifeng Intelligent Technology Co., Ltd.

Product : Magnetic wireless charging power bank

Model(s) : P21, P21-5K, P21-10K, EK-4009BK, EK-4010BK

FCC ID : 2AXY5-P21

Shenzhen Microtest Co., Ltd.



Report No.: MTi241220015-01E1

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#### **Table of contents**

		Table of contents	
1	Gene	eral Description	4
((田)))"	1.1	Description of the EUT	4
	1.2	Description of test modes	
	1.3	Environmental Conditions	5
	1.4	Description of support units	5
	1.5	Measurement uncertainty	5
2 3		mary of Test ResultFacilities and accreditations	6
	3.1	Test laboratory	7
4 5	List (	of test equipmentuation Results (Evaluation)	9
	5.1	Antenna requirement	9
6	Radi	io Spectrum Matter Test Results (RF)	10
	6.1	Conducted Emission at AC power line	
	6.2	20dB Occupied Bandwidth	
	6.3	Emissions in frequency bands (below 30MHz)	17
	6.4	Emissions in frequency bands (30MHz - 1GHz)	22
Ph	otogra	aphs of the test setupaphs of the EUT	28 29
	VICIE		



Report No.: MTi241220015-01E1

Test Result Certifica	ation			
Applicant	Shenzhe	n Yifeng Intelligent Technology	y Co., Ltd.	
Applicant Address		201, Building 4, Sanwei Chaxi Industrial Zone, Sanwei Community, Hang Cheng Street, Bao An District, Shenzhen.		
Manufacturer	Shenzhe	n Yifeng Intelligent Technology	y Co., Ltd.	
Manufacturer Address		ding 4, Sanwei Chaxi Industria eng Street, Bao An District, St		
Product description	1			
Product name	Magnetio	wireless charging power bank	k	
Trademark	YFZN			
Model name	P21			
Series Model(s)	P21-5K,	P21-5K, P21-10K, EK-4009BK, EK-4010BK		
Standards	47 CFR F	47 CFR Part 15C		
Test Method	ANSI C6	3.10-2013	otest	
Testing Information			Micro	
Date of test	2025-01-	06 to 2025-02-08		
Test result	Pass			
Prepared by	/:	James Qin	James Qui	
Reviewed by	y:	David Lee	James ark Dowid. Lee Lewis lion	
Approved by	<i></i> /:	Lewis Lian	lewis lion	



Report No.: MTi241220015-01E1

### 1 General Description

### 1.1 Description of the EUT

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Product name:	Magnetic wireless charging power bank
Model name:	P21
Series Model(s):	P21-5K, P21-10K, EK-4009BK, EK-4010BK
Model difference:	All the models are the same circuit and module, except the model name and capacity.
Electrical rating:	Input Type-C port or Type-C cable: DC 5V/ 3A, 9V/ 2A, 12V/ 1.5A Wireless Output Phone: 15W MAX Cable: DC 5V/ 3A, 9V/ 2.22A, 12V/ 1.65A C port: DC 5V/ 3A, 9V/ 2.22A, 12V/ 1.65A Battery capacity: 10000mAh&5000mAh
Accessories:	N/A
Hardware version:	V1.2
Software version:	003B91A8
Test sample(s) number:	MTi241220015-01S1001 MTi241220015-01S1002
RF specification	
Operating frequency range:	115-205kHz(5W/ 7.5W/ 10W) 360kHz(15W)
Modulation type:	ASK

#### 1.2 Description of test modes

No.	Emission test modes
Mode1	Charging with C port+Wireless Output(5W)
Mode2	Charging with C port+Wireless Output(7.5W)
Mode3	Charging with C port+Wireless Output(10W)
Mode4	Charging with Type-c cable+Wireless Output(5W)
Mode5	Charging with Type-c cable+Wireless Output(7.5W)
Mode6	Charging with Type-c cable+Wireless Output(10W)
Mode7	Wireless Output(5W)
Mode8	Wireless Output(7.5W)
Mode9	Wireless Output(10W)
Mode10	Wireless Output(15W MPP)
Mode11	Stand by



Report No.: MTi241220015-01E1

#### 1.3 Environmental Conditions

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

		VIV 3-4-5/17
Temperature:	15°C ~ 35°C	
Humidity:	20% RH ~ 75% RH	
Atmospheric pressure:	98 kPa ~ 101 kPa	

#### 1.4 Description of support units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Support equipment li	st		"Cloy
Description	Model	Serial No.	Manufacturer
HUAWEI QUICK CHARGE(65W)	HW-200200ZP1	JN67LSN7N03451	HUAWEI
wireless charging load	YBZ3.0	/	YBZ
Support cable list		LOS <sup>L</sup>	
Description	Length (m)	From	То
/	100	/	/

#### 1.5 Measurement uncertainty

Uncertainty
±3.1dB
±3 %
±4.3dB
±4.7dB
±1 °C
±5%

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



Report No.: MTi241220015-01E1

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#### **Summary of Test Result** 2

No.	Item	Standard	Requirement	Result	
1	Antenna requirement	47 CFR Part 15C	47 CFR Part 15.203	Pass	
2	Conducted Emission at AC power line	47 CFR Part 15C	47 CFR Part 15.207(a)	Pass	
3	20dB Occupied Bandwidth	47 CFR Part 15C	47 CFR Part 15.215(c)	Pass	
4	Emissions in frequency bands (below 30MHz)	47 CFR Part 15C	47 CFR Part 15.209	Pass	
5	Emissions in frequency bands (30MHz - 1GHz)	47 CFR Part 15C	47 CFR Part 15.209	Pass	



Report No.: MTi241220015-01E1

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#### 3 Test Facilities and accreditations

### 3.1 Test laboratory

Test laboratory:	Shenzhen Microtest Co., Ltd.
Test site location:	101, No.7, Zone 2, Xinxing Industrial Park, Fuhai Avenue, Xinhe Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
Telephone:	(86-755)88850135
Fax:	(86-755)88850136
CNAS Registration No.:	CNAS L5868
FCC Registration No.:	448573
IC Registration No.:	21760
CABID:	CN0093
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Report No.: MTi241220015-01E1

### 4 List of test equipment

No.	Equipment	Manufacturer	Model	Serial No.	Cal. date	Cal. Due
1	Ote	Conducted Emiss	ion at AC power	line		
Alle.	EMI Test Receiver	Rohde&schwarz	ESCI3	101368	2024-03- 20	2025-03- 19
2	Artificial mains network	Schwarzbeck	NSLK 8127	183	2024-03- 21	2025-03- 20
3	Artificial Mains Network	Rohde & Schwarz	ESH2-Z5	100263	2024-03- 20	2025-03- 19
		20dB Occup	ied Bandwidth		2.0	10 C
1	Wideband Radio Communication Tester	Rohde&schwarz	CMW500	149155	2024-03- 20	2025-03- 19
2	ESG Series Analog Ssignal Generator	Agilent	E4421B	GB400512 40	2024-03- 21	2025-03- 20
3	PXA Signal Analyzer	Agilent	N9030A	MY513502 96	2024-03- 21	2025-03- 20
4	Synthesized Sweeper	Agilent	83752A	3610A019 57	2024-03- 21	2025-03- 20
5	MXA Signal Analyzer	Agilent	N9020A	MY501434 83	2024-03- 21	2025-03- 20
6	RF Control Unit	Tonscend	JS0806-1	19D80601 52	2024-03- 21	2025-03- 20
7	Band Reject Filter Group	Tonscend	JS0806-F	19D80601 60	2024-03- 21	2025-03- 20
8	ESG Vector Signal Generator	Agilent	N5182A	MY501437 62	2024-03- 20	2025-03- 19
9	DC Power Supply	Agilent	E3632A	MY400276 95	2024-03- 21	2025-03- 20
	Em	nissions in frequenc	y bands (below	30MHz)		
10	EMI Test Receiver	Rohde&schwarz	ESCI7	101166	2024-03- 20	2025-03- 19
2	Active Loop Antenna	Schwarzbeck	FMZB 1519 B	00066	2024-03- 23	2025-03- 22
3	Amplifier	Hewlett-Packard	8447F	3113A0618 4	2024-03- 20	2025-03- 19
	Em	issions in frequency	y bands (30MHz	- 1GHz)		477
1	EMI Test Receiver	Rohde&schwarz	ESCI7	101166	2024-03- 20	2025-03- 19
2	TRILOG Broadband Antenna	schwarabeck	VULB 9163	9163-1338	2023-06-11	2025-06- 10
3	Active Loop Antenna	Schwarzbeck	FMZB 1519 B	00066	2024-03- 23	2025-03- 22
4	Amplifier	Hewlett-Packard	8447F	3113A0618 4	2024-03- 20	2025-03- 19



Report No.: MTi241220015-01E1

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### 5 Evaluation Results (Evaluation)

#### 5.1 Antenna requirement

Tres.	Refer to 47 CFR Part 15.203, an intentional radiator shall be designed
	to ensure that no antenna other than that furnished by the responsible
Test Requirement:	party shall be used with the device. The use of a permanently attached
iest ivedalienient.	antenna or of an antenna that uses a unique coupling to the intentional
X.	radiator shall be considered sufficient to comply with the provisions of
	this section.

#### 5.1.1 Conclusion:

The antenna of the EUT is permanently attached.

The EUT complies with the requirement of FCC PART 15.203.



Report No.: MTi241220015-01E1

### 6 Radio Spectrum Matter Test Results (RF)

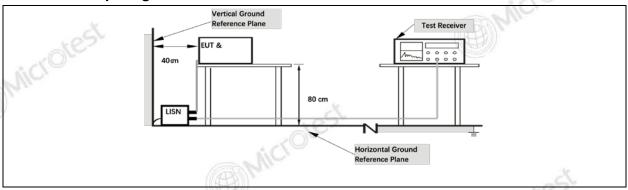
### 6.1 Conducted Emission at AC power line

Test Requirement:	Except as shown in paragraphs (b)and (c)of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 µH/50 ohms line impedance stabilization network (LISN).				
Test Limit:	Frequency of emission (MHz)	Conducted limit (dBµV)			
		Quasi-peak	Average		
	0.15-0.5	66 to 56*	56 to 46*		
	0.5-5	56	46		
	5-30 60 50				
12-	*Decreases with the logarithm of the frequency.				
Test Method:	ANSI C63.10-2013 section 6.2				
Procedure:	Refer to ANSI C63.10-2013 section 6.2, standard test method for ac power-line conducted emissions from unlicensed wireless devices				

### 6.1.1 E.U.T. Operation:

Operating Environment:							
Temperature:	Temperature: 25 °C Humidity: 59 % Atmospheric Pressure: 100 kPa						
Pre test mode:	Mode1, Mode2, Mode3, Mode4, Mode5, Mode6						
Final test mode:		All of the listed pre-test mode were tested, only the data of the worst					
Final lest mode.		mode (Mode5) is recorded in the report					

#### 6.1.2 Test Setup Diagram:

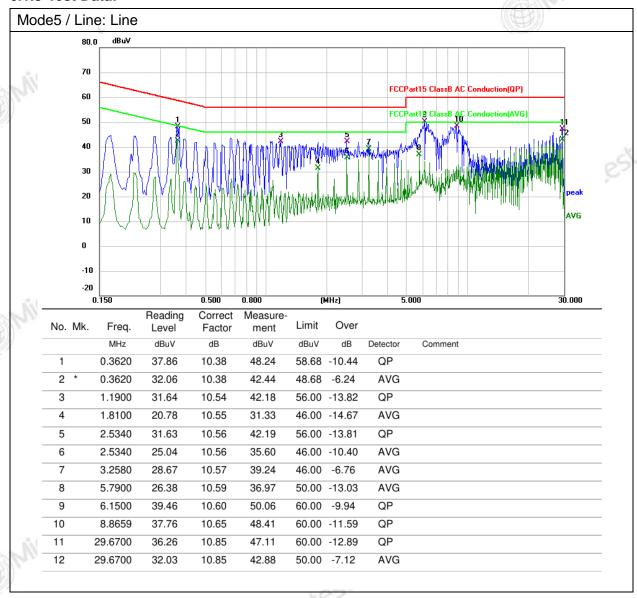




Report No.: MTi241220015-01E1

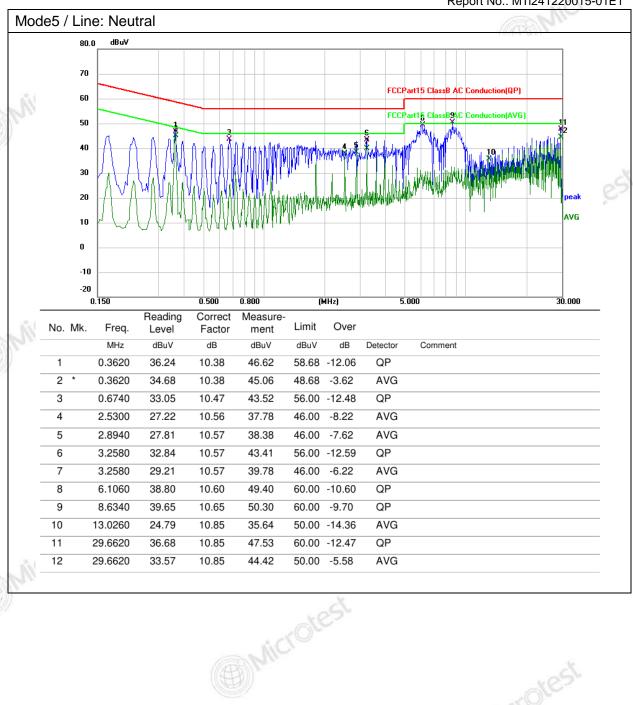
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#### 6.1.3 Test Data:





Report No.: MTi241220015-01E1





Report No.: MTi241220015-01E1

#### 6.2 20dB Occupied Bandwidth

Test Requirement:	47 CFR Part 15.215(c)	
Test Limit:	Refer to 47 CFR 15.215(c), intential alternative provisions to the gener 15.217 through 15.257 and in subto ensure that the 20 dB bandwidt bandwidth may otherwise be specunder which the equipment operate band designated in the rule section operated.	sified in the specific rule section tes, is contained within the frequency
Test Method:	ANSI C63.10-2013, section 6.9.2	-010
Procedure:	channel center frequency. The spa spectrum analyzer shall be between OBW. b) The nominal IF filter bandwidth	en two times and five times the (3 dB RBW) shall be in the range of
Microtest	signal from exceeding the maximul operation. In general, the peak of	unless otherwise specified by the strument as required, keeping the
Microtest	more than 10 dB below the target if the requirement calls for measur noise floor at the selected RBW streference value.	ument at the selected RBW shall be "-xx dB down" requirement; that is, ring the -20 dB OBW, the instrument hall be at least 30 dB below the
Mich	<ul><li>xx]. Alternatively, this calculation n delta function of the instrument.</li><li>i) If the reference value is determined.</li></ul>	Set the EUT to transmit an I signal, as applicable. Allow the n analyzer marker to the highest the reference value). In a signal, as applicable. Allow the normal property is the reference value) in a signal property in
Microtest	a new trace on the spectrum analy stabilize. Otherwise, the trace from j) Place two markers, one at the longhest frequency of the envelope each marker is at or slightly below determined in step h). If a marker amplitude" value, then it shall be at The occupied bandwidth is the fremarkers. Alternatively, set a marker envelope of the spectral display, s	n step g) shall be used for step j).  west frequency and the other at the of the spectral display, such that the "-xx dB down amplitude" is below this "-xx dB down as close as possible to this value. quency difference between the two



Report No.: MTi241220015-01E1

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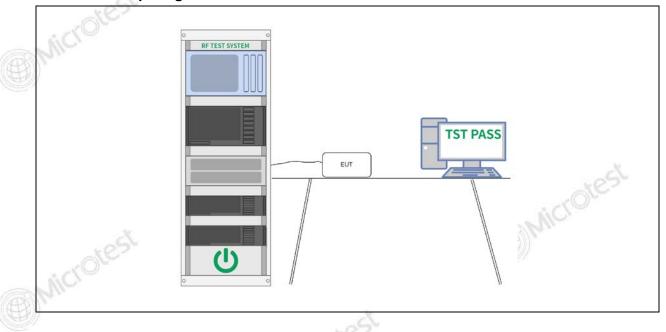
marker-delta function and move the marker to the other side of the
emission until the delta marker amplitude is at the same level as the
reference marker amplitude. The marker-delta frequency reading at
this point is the specified emission bandwidth.
k) The occupied bandwidth shall be reported by providing plot(s) of the
measuring instrument display; the plot axes and the scale units per
division shall be clearly labeled. Tabular data may be reported in

#### 6.2.1 E.U.T. Operation:

Operating Environment:						
Temperature: 22.8 °C Humidity: 42 % Atmospheric Pressure: 101 kPa						
Pre test mode: Mode1, Mode3, Mode4, Mode6, Mode7, Mode9, Mode10, Mode11					10, Mode11	
Final test mode:  All of the listed pre-test mode were tested, only the data of the wors mode (Mode10) is recorded in the report					a of the worst	

addition to the plot(s).

#### 6.2.2 Test Setup Diagram:





Report No.: MTi241220015-01E1

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#### 6.2.3 Test Data:

**Note:** Because the measured signal is CW-like, adjusting the RBW per C63.10 would not be practical since measurement bandwidth will always follow the RBW. The RBW is set to 300 Hz to perform the occupied bandwidth test.

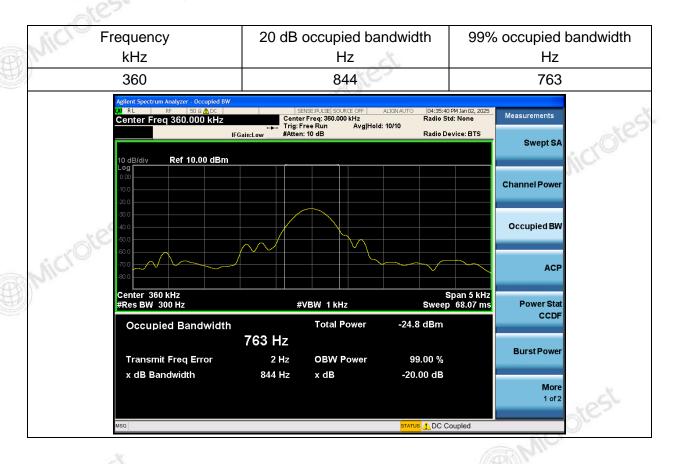




Report No.: MTi241220015-01E1

Microtest

**Note:** Because the measured signal is CW-like, adjusting the RBW per C63.10 would not be practical since measurement bandwidth will always follow the RBW. The RBW is set to 300 Hz to perform the occupied bandwidth test.





Report No.: MTi241220015-01E1

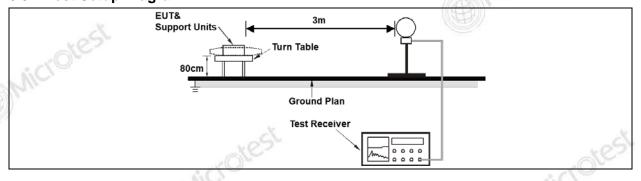
#### 6.3 Emissions in frequency bands (below 30MHz)

Test Requirement:	47 CFR Part 15.209			
Test Limit:	Frequency (MHz)	Field strength (microvolts/meter)	Measuremen t 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	
Microtest stest	806 MHz. However, oppermitted under other sin the emission table all The emission limits shownessurements employ frequency bands 9–90 Radiated emission limit measurements employ As shown in § 15.35(b) strength limits in paragraverage limits. However not exceed the maximumore than 20 dB under operation under paragr	eration within these frequence ections of this part, e.g., §§ cove, the tighter limit applies within the above table are based on a CISPR quasi-peak detaction and the above table are based on a CISPR quasi-peak detaction and a city and above in these three bands are based on a verage detector.  If or frequencies above 1000 applies (a) and (b) of this section, the peak field strength of a city any condition of modulation applies (b) of this section, the peak field strength of a city any condition of modulation applies (b) of this section, the peak field strength of a city and condition of modulation applies (b) of this section, the peak field strength of a city and condition of modulation applies (b) of this section, the peak field strength of a city and city	cy bands is 15.231 and 15.241. at the band edges. ased on ector except for the e 1000 MHz. ased on  O MHz, the field on are based on any emission shall specified above by a. For point-to-point eak field strength	
Test Method:	ANSI C63.10-2013 sec	tion 6.4		
Procedure:	ANSI C63.10-2013 sec	tion 6.4		

### 6.3.1 E.U.T. Operation:

Operating Environment:							
Temperature: 23 °C Humidity: 59 % Atmospheric Pressure: 101 kPa						101 kPa	
Pre test mode: Mode1, Mode3, Mode4, Mode6, Mo				e6, Mode7, Mode9, Mode	10, Mode11		
I FINGI TOST MOND:					e were tested, only the dat ecorded in the report	a of the worst	

#### 6.3.2 Test Setup Diagram:

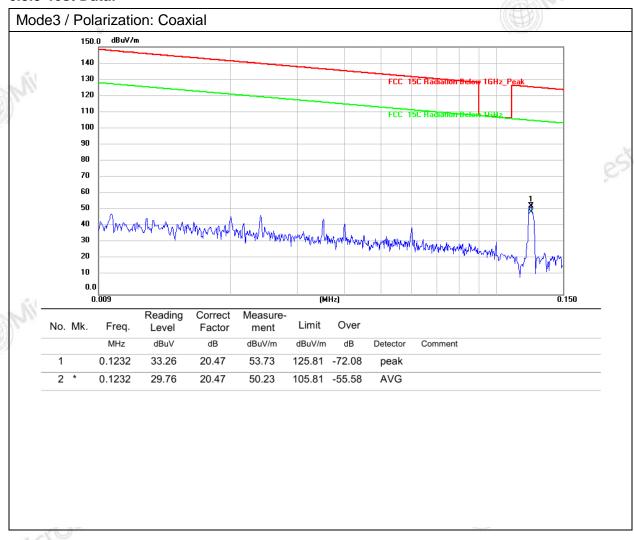




Report No.: MTi241220015-01E1

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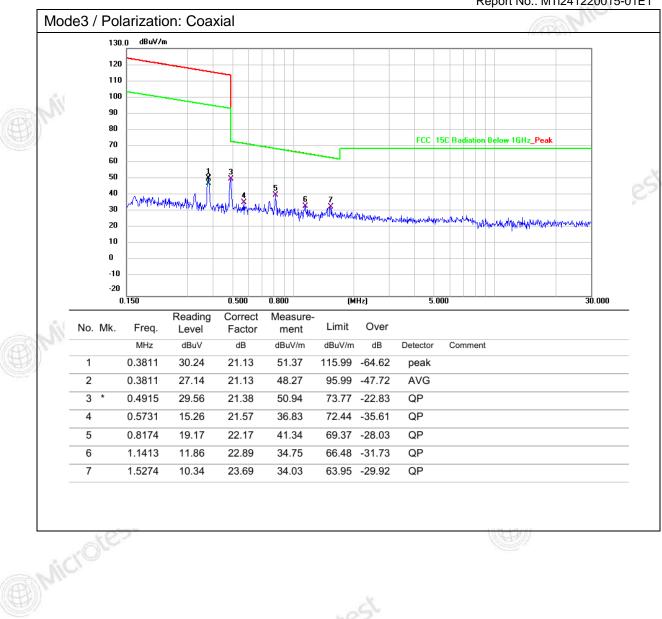
#### 6.3.3 Test Data:





Report No.: MTi241220015-01E1

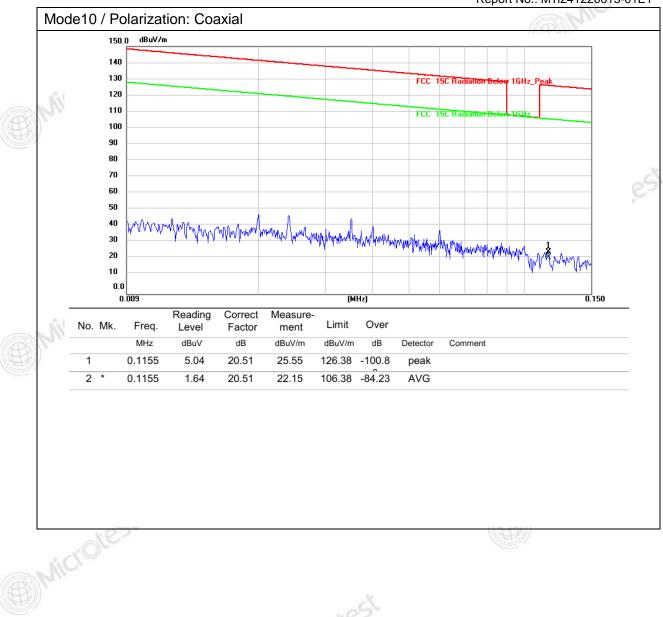
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Report No.: MTi241220015-01E1

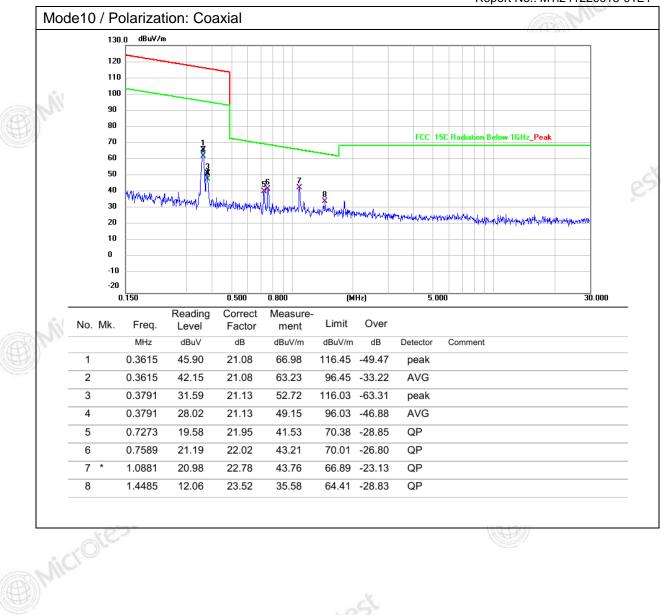
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Report No.: MTi241220015-01E1

(B) Microtest





Report No.: MTi241220015-01E1

#### 6.4 Emissions in frequency bands (30MHz - 1GHz)

Test Requirement:	47 CFR Part 15.209		(((母)))	
Test Limit:	Frequency (MHz)	Field strength (microvolts/meter)	Measuremen t 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	
Microtest	In the emission table a The emission limits sho measurements employ frequency bands 9–90 Radiated emission limi measurements employ As shown in § 15.35(b) strength limits in parag average limits. Howeve not exceed the maximu more than 20 dB unde operation under parag	sections of this part, e.g., §§ bove, the tighter limit applies own in the above table are being a CISPR quasi-peak detactor. Alternative the section of the peak field strength of a cum permitted average limits of any condition of modulation raph (b)of this section of the peak field strength of a cum permitted average limits of any condition of modulation raph (b)of this section, the peak field strength of a cum permitted average limits of any condition of modulation raph (b)of this section, the peak field strength (c) section (c) s	s at the band edges ased on ector except for the re 1000 MHz. based on 0 MHz, the field on are based on any emission shall specified above by a. For point-to-point eak field strength	
Test Method:	ANSI C63.10-2013 sed	ction 6.5		
Procedure:	ANSI C63.10-2013 sed	ation 6.5		

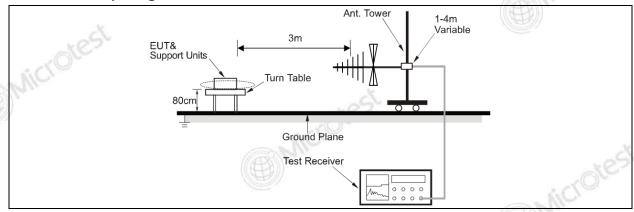
### 6.4.1 E.U.T. Operation:

Operating Environment:						
Temperature:	Temperature: 22.5 °C Humidity: 43 % Atmospheric Pressure: 101 kPa					
Pre test mode: Mode1, Mode2, Mode3, Mode4, Mode5, Mode6, Mode7, Mode10, Mode11				7, Mode9,		
I Final tost modo.			f the listed p e (Mode3) is		e were tested, only the dat the report	a of the worst



Report No.: MTi241220015-01E1

#### 6.4.2 Test Setup Diagram:





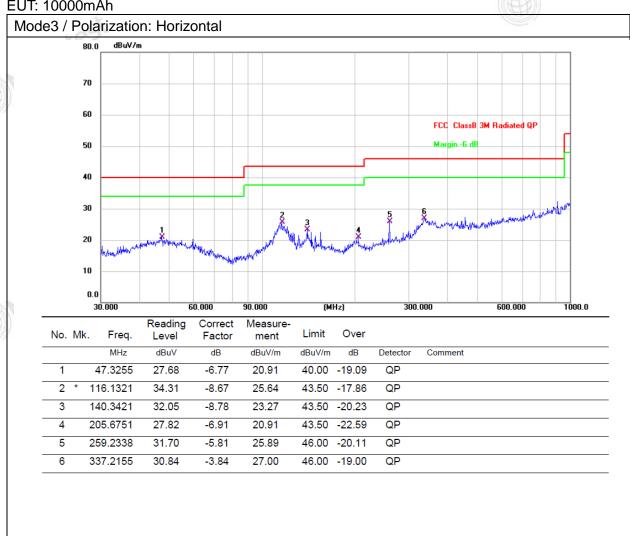


Report No.: MTi241220015-01E1

(I) Microtest

#### 6.4.3 Test Data:

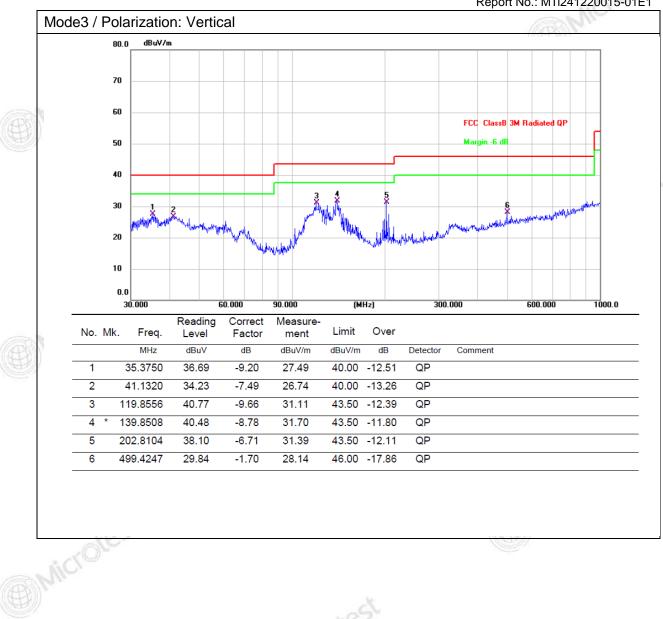
EUT: 10000mAh





Report No.: MTi241220015-01E1

(B))Microtest

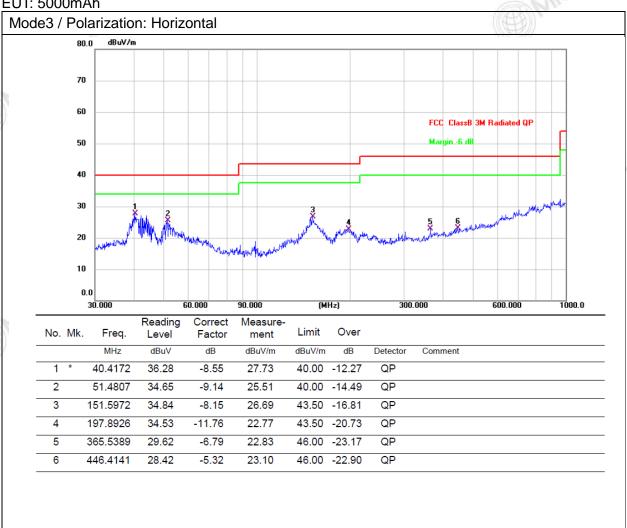




Report No.: MTi241220015-01E1

(B) Microtest

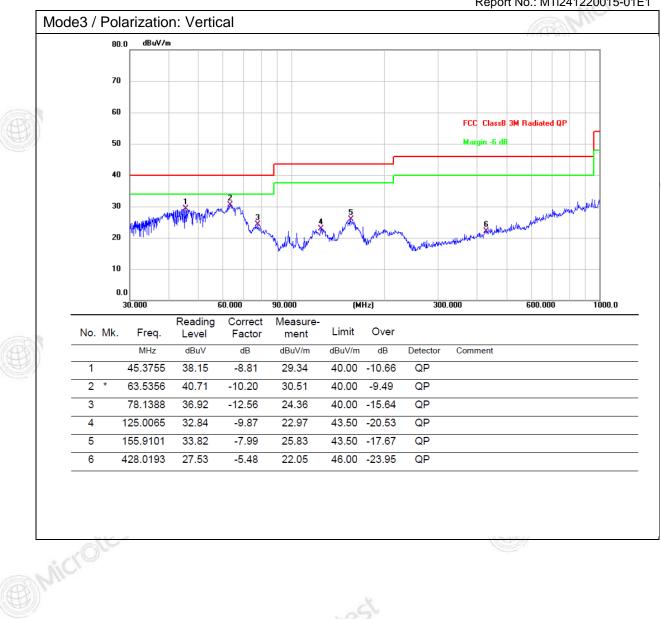
#### EUT: 5000mAh





Report No.: MTi241220015-01E1

(B) Microtest





Report No.: MTi241220015-01E1

### Photographs of the test setup

Refer to Appendix - Test Setup Photos





















Report No.: MTi241220015-01E1

### Photographs of the EUT

Refer to Appendix - EUT Photos





















Report No.: MTi241220015-01E1



- 1. This report is invalid without the seal and signature of the laboratory.
- 2. The test results of this report are only responsible for the samples submitted. Client shall be responsible for representativeness of the sample and authenticity of the material.
- 3. The report shall not be partially reproduced without the written consent of the Laboratory.
- 4. This report is invalid if transferred, altered or tampered with in any form without authorization.
- 5. The observations or tests with special mark fall outside the scope of accreditation, and are only used for purpose of commission, research, training, internal quality control etc.
- 6. Any objection to this report shall be submitted to the laboratory within 15 days from the date of receipt of the report.

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

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