

TEST REPORT

Applicant Name: JEM ACCESSORIES INC.
Address: 32 Brunswick Avenue, Edison, New Jersey, United States, 08817
Manufacturer Name: Shenzhen Tilv Technology Co., Ltd.
Address: 3/F Dongshan No.8 factory, Difu Rd., Gushu Community,
Xixiang St., Baoan District, Shenzhen, China.
Report Number: 2401V50912E-EM-00M1
FCC ID: 2AHAS-PWC81039

Test Standard (s)

FCC PART 18

Sample Description

Product Type: 10W Magnet snap wireless charger mount
Model No.: PWC8-1039-BLK
Multiple Model(s) No.: N/A
Trade Mark: N/A
Date Received: 2024/07/26
Issue Date: 2025/02/18

Test Result:	Pass▲
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▲ In the configuration tested, the EUT complied with the standards above.

Prepared and Checked By:

Joson Xiao

Joson Xiao
EMC Engineer

Approved By:

Moon Liu

Moon Liu
EMC Supervisor

Note: The information marked # is provided by the applicant, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report. Customer model name, addresses, names, trademarks etc. are included.

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TABLE OF CONTENTS

DOCUMENT REVISION HISTORY	3
GENERAL INFORMATION.....	4
PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)	4
OBJECTIVE	4
MEASUREMENT UNCERTAINTY.....	4
TEST FACILITY	5
OPERATING CONDITION/TEST CONFIGURATION.....	6
DESCRIPTION OF TEST CONFIGURATION	6
EUT EXERCISE SOFTWARE	6
SPECIAL ACCESSORIES.....	6
EQUIPMENT MODIFICATIONS	6
SUPPORT EQUIPMENT LIST AND DETAILS	6
EXTERNAL CABLE LIST AND DETAILS	6
BLOCK DIAGRAM OF TEST SETUP	7
SUMMARY OF TEST RESULTS	8
TEST EQUIPMENT LIST	9
FCC §1.1310, §2.1091- MAXIMUM PERMISSIBLE EXPOSURE (MPE)	10
APPLICABLE STANDARD	10
BLOCK DIAGRAM OF TEST SETUP	11
TEST PROCEDURES.....	11
TEST DATA	11
FCC §18.305 - FIELD STRENGTH TEST	13
APPLICABLE STANDARD	13
EUT SETUP	14
EMI TEST RECEIVER SETUP.....	15
LEVEL & OVER LIMIT CALCULATION	15
TEST DATA	15
EXHIBIT A - EUT PHOTOGRAPHS.....	18
EXHIBIT B - TEST SETUP PHOTOGRAPHS	19

DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	2401V50912E-EM-00	Original Report	2024/08/14
1	2401V50912E-EM-00M1	Updated Report	2025/02/18

Note: This is an updated report based on the report 2401V50912E-EM-00, the details as following:

- (1) Changing the applicant name to “JEM ACCESSORIES INC.”.
- (2) Changing the applicant address to “32 Brunswick Avenue, Edison, New Jersey, United States,08817”.
- (3) Added FCC ID: 2AHAS-PWC81039.

The previous report 2401V50912E-EM-00 issued on 2024-08-14, is replaced by this report 2401V50912E-EM-00M1 issued on 2025-02-18.

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product	10W Magnet snap wireless charger mount
Tested Model	PWC8-1039-BLK
Multiple Model(s)	N/A
Voltage Range	DC 5-12V from adapter
Highest operating frequency [#]	110.5-205kHz
Wireless Output Power	5Watts/7.5Watts/10Watts
Sample number	2P0A-1 (Assigned by BACL, Shenzhen)
Sample/EUT Status	Good condition
Adapter Information	N/A

Objective

This report is in accordance with Part 2-Subpart J, and Part 18-Subparts A, B and C of the Federal Communication Commissions rules and regulations and FCC OST MP-5(1986) FCC Methods of Measurements of Radio Noise Emissions from Industrial, Scientific, and Medical Equipment.

The objective of the manufacturer is to determine compliance with FCC Part 18 limits.

Measurement Uncertainty

Item	Frequency Range		Expanded Measurement uncertainty
Conducted Emissions	AC Mains	150kHz ~30MHz	3.66dB(k=2, 95% level of confidence)
Radiated Emissions	0.009MHz~30MHz	/	3.60dB(k=2, 95% level of confidence)
	30MHz~200MHz	Horizontal	5.32dB(k=2, 95% level of confidence)
	30MHz~200MHz	Vertical	5.43dB(k=2, 95% level of confidence)
	200MHz~1000MHz	Horizontal	5.77dB(k=2, 95% level of confidence)
	200MHz~1000MHz	Vertical	5.73dB(k=2, 95% level of confidence)
Nerve Simulation	H-Field		0.74dB(k=2, 95% level of confidence)
	E-Field		1.14dB(k=2, 95% level of confidence)

Note: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on the 5F(B-West), 6F, 7F, the 3rd Phase of Wan Li Industrial Building D, Shihua Rd, FuTian Free Trade Zone, Shenzhen, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 715558, the FCC Designation No. : CN5045.

Each test item follows test standards and with no deviation.

OPERATING CONDITION/TEST CONFIGURATION

Description of Test Configuration

The EUT was operated at maximum (continuous) RF output power.

Test Mode: Full load

EUT Exercise Software

No exercise software was used.

Special Accessories

No special accessory was used.

Equipment Modifications

No modifications were made to the EUT tested.

Support Equipment List and Details

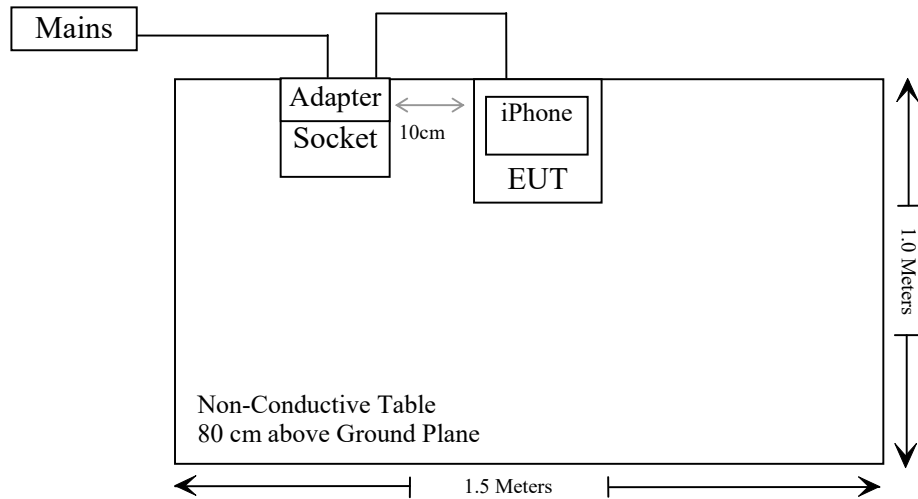
Manufacturer	Description	Model	Serial Number
Apple	iPhone	iPhone8plus	F17W17UJJCLM
Energizer	Adapter	A65MUC	/

External Cable List and Details

Cable Description	Length (m)	From/Port	To
Unshielded Un-detachable AC cable	1.0	Socket	Mains
Unshielded detachable DC cable	1.0	EUT	Adapter

Block Diagram of Test Setup

Radiated Emissions:



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
FCC§1.1310 & §2.1091	Maximum Permissible Exposure(MPE)	Compliant
FCC §18.307	AC Line Conducted Emission	Not Applicable
FCC §18.305	Field strength	Compliant

Not Applicable: This device is for vehicle use so it is not suitable for conducted interference.

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emission/Disturbances Test					
Rohde & Schwarz	EMI Test Receiver	ESR3	102455	2024/01/16	2025/01/15
BACL	Active Loop Antenna	1313-1A	4031911	2024/05/14	2027/05/13
Unknown	Cable	2Y194	0735	2024/05/21	2025/05/20
Audix	EMI Test software	E3	19821b(V9)	NCR	NCR
MPE Test					
SPEAG	Probe	MAGPy-8H3D-E3D	3106	2024/03/04	2025/03/03
SPEAG	Data Acquisition System	MAPGPY-DAS	3089	2024/03/04	2025/03/03

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

FCC §1.1310, §2.1091- MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Applicable Standard

According to subpart §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Limits for Maximum Permissible Exposure (MPE)

(B) Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm²)	Averaging Time (minutes)
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f ²)	30
30–300	27.5	0.073	0.2	30
300–1500	/	/	f/1500	30
1500–100,000	/	/	1.0	30

f = frequency in MHz; * = Plane-wave equivalent power density;

According with 680106 D01 Wireless Power Transfer v04 clause 3.2

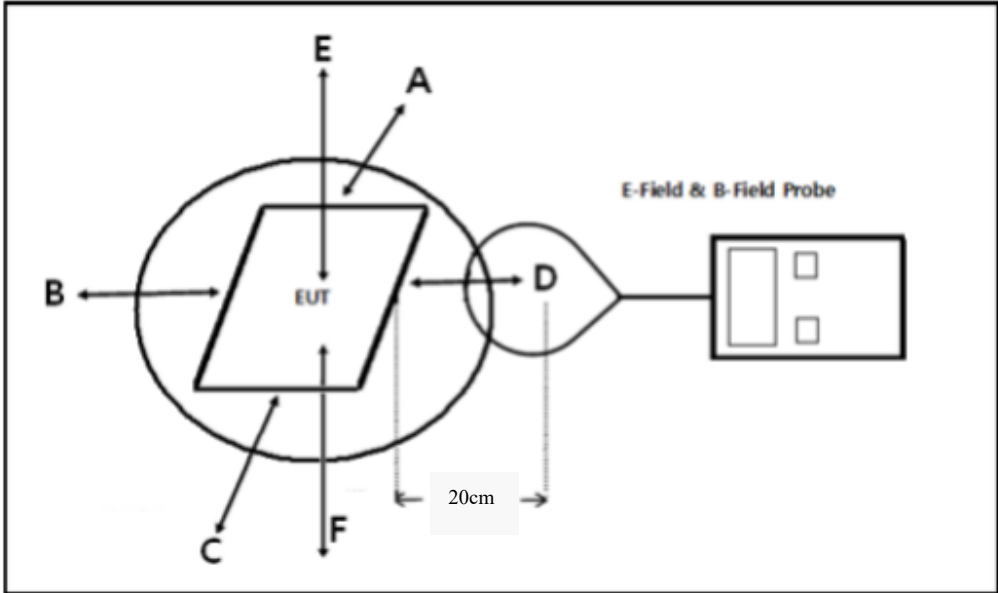
Accordingly, for § 2.1091-Mobile devices, the MPE limits between 100 kHz to 300 kHz are to be considered the same as those at 300 kHz in Table 1 of § 1.1310, that is, 614 V/m and 1.63 A/m, for the electric field and magnetic field, respectively. For § 2.1093-Portable devices below 4 MHz and down to 100 kHz, the MPE limits in § 1.1310 (with the 300 kHz limit applicable all the way down to 100 kHz) can be used for the purpose of equipment authorization in lieu of SAR evaluations.

There might be situations where the WPT RF emissions are limited enough that even operations in a “crowded” environment, where many similar WPT devices are present, do not pose significant EMC and RF exposure concerns. In this scenario, and for devices operating within a one-meter distance from the receiver, as defined above, a manufacturer will not have to submit an “Equipment Compliance Review” KDB, and receive FCC concurrence before proceeding with equipment authorization. This exception to the requirement of submitting the ECR to obtain FCC concurrence only applies when all the following criteria (1) through (6) are met:

- (1) The power transfer frequency is below 1 MHz.
- (2) The output power from each transmitting element (e.g., coil) is less than or equal to 15 watts.
- (3) A client device providing the maximum permitted load is placed in physical contact with the transmitter (i.e., the surfaces of the transmitter and client device enclosures need to be in physical contact)
- (4) Only § 2.1091-Mobile exposure conditions apply (i.e., this provision does not cover § 2.1093-Portable exposure conditions).
- (5) The E-field and H-field strengths, at and beyond 20 cm surrounding the device surface, are demonstrated to be less than 50% of the applicable MPE limit, per KDB 447498, Table 1. These measurements shall be taken along the principal axes of the device, with one axis oriented along the direction of the estimated maximum field strength, and for three points per axis or until a 1/d (inverse distance from the emitter structure) field strength decay is observed. Symmetry considerations may be used for test reduction purposes. The device shall be operated in documented worst-case compliance scenarios (i.e., the ones that lead to the maximum field components), and while all the radiating structures (e.g., coils or antennas) that by design can simultaneously transmit are energized at their nominal maximum power.
- (6) For systems with more than one radiating structure, the conditions specified in (5) must be met when the system is fully loaded (i.e., clients absorbing maximum power available), and with all the radiating structures operating at maximum power at the same time, as per design conditions. If the design allows one or more radiating structures to be powered at a higher level while other radiating

structures are not powered, then those cases must be tested as well. For instance, a device may use three RF coils powered at 5 W, or one coil powered at 15 W: in this case, both scenarios shall be tested.

Block Diagram of Test Setup



Test Procedures

- 1) Perform H-field and E-field measurements for each all sides of the EUT at 20cm, along all the principal axes defined with respect to the orientation of the transmitting element (e.g., coil or antenna).
- 2) The highest emission level was recorded and compared with limit.
- 3) The EUT was measured according to 680106 D01 Wireless Power Transfer v04.

Test Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	53 %
ATM Pressure:	101 kPa

The testing was performed by Rainbow Zhu on 2024-08-07.

Test Mode: Full load

H-Filed Strength

Frequency (kHz)	Position A (A/m)	Position B (A/m)	Position C (A/m)	Position D (A/m)	Position E (A/m)	Position F (A/m)	50% Limit (A/m)	Limit (A/m)
110.5-205	0.01	0.01	0.00506	0.00399	0.00917	0.01	0.815	1.63

E-Filed Strength

Frequency (kHz)	Position A (V/m)	Position B (V/m)	Position C (V/m)	Position D (V/m)	Position E (V/m)	Position F (V/m)	50% Limit (V/m)	Limit (V/m)
110.5-205	2.36	1.74	1.84	1.95	2.17	1.62	307	614

Note: Test with 20cm distance from all the sides.

- (1) The power transfer frequency is below 1 MHz.

The operation frequency is 110.5-205 kHz.

- (2) The output power from each transmitting element (e.g., coil) is less than or equal to 15 watts.

The maximum output power is 10 watts.

- (3) A client device providing the maximum permitted load is placed in physical contact with the transmitter (i.e., the surfaces of the transmitter and client device enclosures need to be in physical contact)

The load is physical contact with the EUT.

- (4) Only § 2.1091-Mobile exposure conditions apply (i.e., this provision does not cover § 2.1093-Portable exposure conditions).

The EUT is used in the mobile exposure condition.

- (5) The E-field and H-field strengths, at and beyond 20 cm surrounding the device surface, are demonstrated to be less than 50% of the applicable MPE limit, per KDB 447498, Table 1. These measurements shall be taken along the principal axes of the device, with one axis oriented along the direction of the estimated maximum field strength, and for three points per axis or until a 1/d (inverse distance from the emitter structure) field strength decay is observed. Symmetry considerations may be used for test reduction purposes. The device shall be operated in documented worst-case compliance scenarios (i.e., the ones that lead to the maximum field components), and while all the radiating structures (e.g., coils or antennas) that by design can simultaneously transmit are energized at their nominal maximum power.

The E-field and H-field strengths are less than 50% of the limit.

- (6) For systems with more than one radiating structure, the conditions specified in (5) must be met when the system is fully loaded (i.e., clients absorbing maximum power available), and with all the radiating structures operating at maximum power at the same time, as per design conditions. If the design allows one or more radiating structures to be powered at a higher level while other radiating structures are not powered, then those cases must be tested as well. For instance, a device may use three RF coils powered at 5 W, or one coil powered at 15 W: in this case, both scenarios shall be tested.

The EUT has only one coil.

FCC §18.305 - FIELD STRENGTH TEST

Applicable Standard

As per FCC Part 18.305

(a) ISM equipment operating on a frequency specified in §18.301 is permitted unlimited radiated energy in the band specified for that frequency.

(b) The field strength levels of emissions which lie outside the bands specified in §18.301, unless otherwise indicated, shall not exceed the following:

Equipment	Operating frequency	RF Power generated by equipment (watts)	Field strength limit (uV/m)	Distance (meters)
Any type unless otherwise specified (miscellaneous)	Any ISM frequency	Below 500	25	300
		500 or more	$25 \times \sqrt{\text{power}/500}$	¹ 300
	Any non-ISM frequency	Below 500	15	300
		500 or more	$15 \times \sqrt{\text{power}/500}$	¹ 300
Industrial heaters and RF stabilized arc welders	On or below 5,725 MHz	Any	10	1,600
	Above 5,725 MHz	Any	(²)	(²)
Medical diathermy	Any ISM frequency	Any	25	300
	Any non-ISM frequency	Any	15	300
Ultrasonic	Below 490 kHz	Below 500	$2,400/F(\text{kHz})$	300
		500 or more	$2,400/F(\text{kHz}) \times \sqrt{\text{power}/500}$	³ 300
	490 to 1,600 kHz	Any	$24,000/F(\text{kHz})$	30
	Above 1,600 kHz	Any	15	30
Induction cooking ranges	Below 90 kHz	Any	1,500	⁴ 30
	On or above 90 kHz	Any	300	⁴ 30

¹Field strength may not exceed 10 µV/m at 1600 meters. Consumer equipment operating below 1000 MHz is not permitted the increase in field strength otherwise permitted here for power over 500 watts.

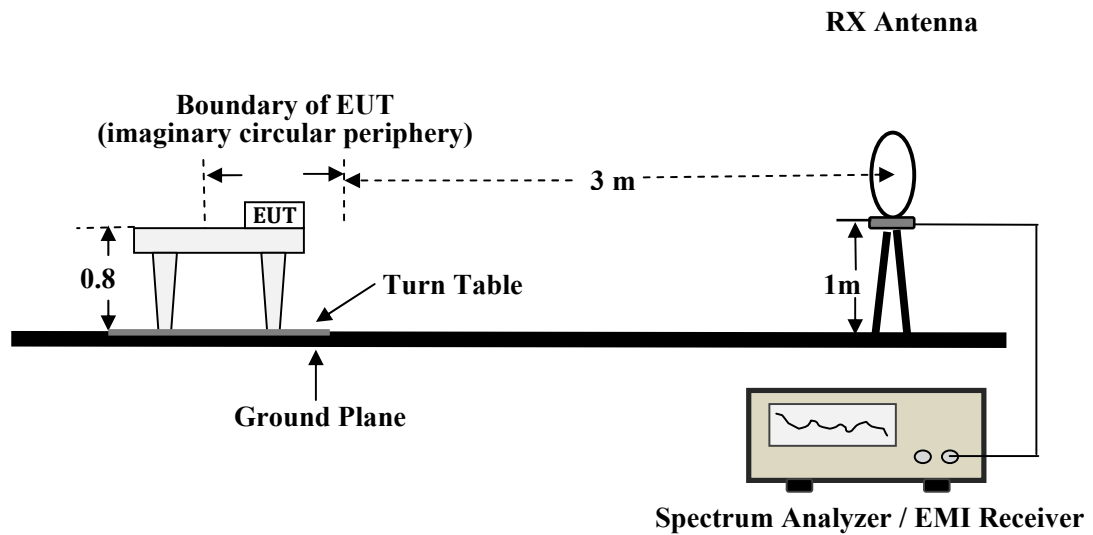
²Reduced to the greatest extent possible.

³Field strength may not exceed 10 µV/m at 1600 meters. Consumer equipment is not permitted the increase in field strength otherwise permitted here for over 500 watts.

⁴Induction cooking ranges manufactured prior to February 1, 1980, shall be subject to the field strength limits for miscellaneous ISM equipment.

EUT Setup

Below 30MHz for Radiated Emissions



The radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the FCC OST MP-5(1986). The related limit was specified in Part 18.305.

The spacing between the peripherals was 10 cm.

EMI Test Receiver Setup

The system was investigated from 9 kHz to 30 MHz.

During the radiated emission test, the EMI test Receiver was set with the following configurations:

Frequency Range	RBW	Video B/W	Measurement
9 kHz – 150 kHz	200 Hz	1 kHz	QP
150 kHz – 30 MHz	9 kHz	30 kHz	QP

The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector.

If the maximized peak measured value complies with the limit, then it is unnecessary to perform an QP/Average measurement

Level & Over Limit Calculation

The Level is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Read Level. The basic equation is as follows:

$$\text{Factor} = \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

$$\text{Level} = \text{Read Level} + \text{Factor}$$

The “**Over Limit**” Column of the following data tables indicates the degree of compliance with the applicable limit. For example, an Over Limit of -6 dB means the emission is 6 dB below the limit. The equation for margin calculation is as follows:

$$\text{Over limit} = \text{Level} - \text{Limit}$$

Test Data

Environmental Conditions

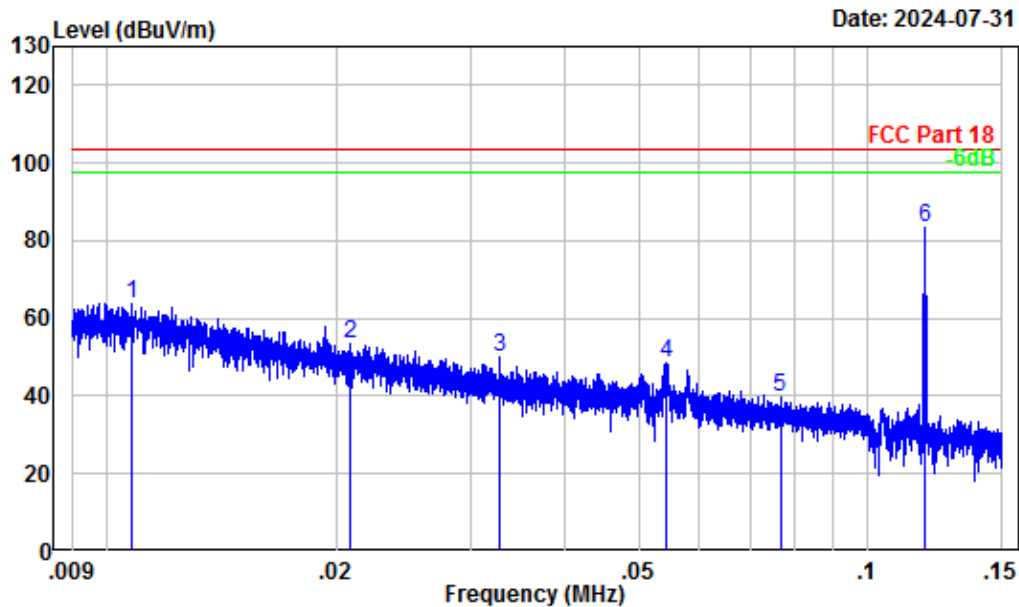
Temperature:	26 °C
Relative Humidity:	56 %
ATM Pressure:	101 kPa

The testing was performed by Shy Jiang on 2024-07-31.

Test Mode: Full load

For 9 kHz~30 MHz test, Pre-scan in the parallel, perpendicular and ground parallel, just the worst case parallel was recorded in the report.

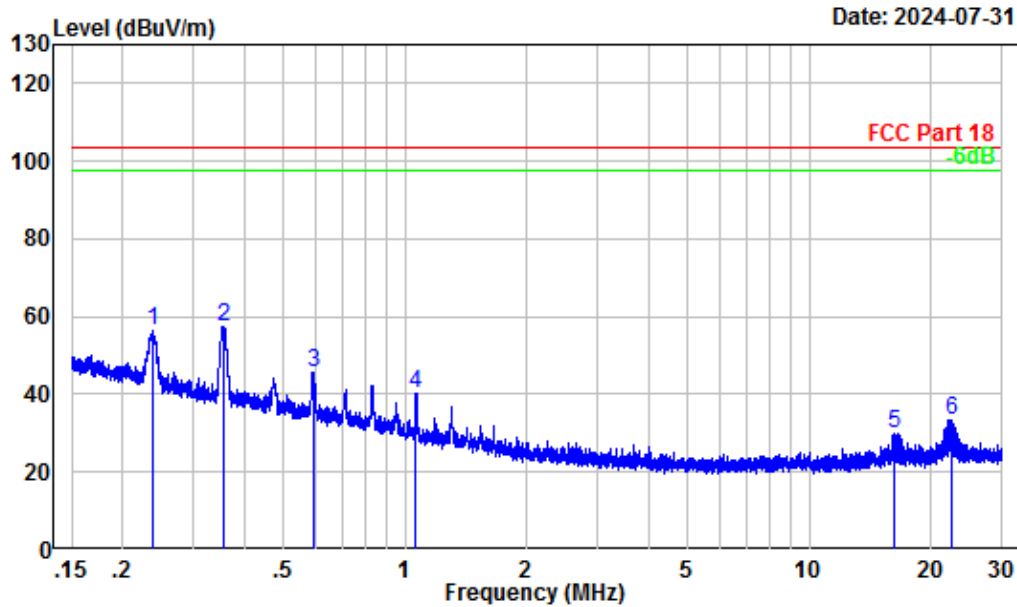
9 kHz – 150 kHz:



Site : Chamber A
Condition : 3m
Project Number: 2401V50912E-EM
Test Mode : Full load
Tester : Shy Jiang

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.01	37.29	26.67	63.96	103.52	-39.56	Peak
2	0.02	32.15	21.19	53.34	103.52	-50.18	Peak
3	0.03	26.87	23.30	50.17	103.52	-53.35	Peak
4	0.05	22.50	26.03	48.53	103.52	-54.99	Peak
5	0.08	19.47	20.38	39.85	103.52	-63.67	Peak
6	0.12	16.17	67.01	83.18	103.52	-20.34	Peak

150 kHz – 30 MHz:



Site : Chamber A
Condition : 3m
Project Number: 2401V50912E-EM
Test Mode : Full load
Tester : Shy Jiang

	Freq	Factor	Read Level	Level	Limit	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.24	10.59	45.83	56.42	103.52	-47.10	Peak
2	0.36	6.54	51.05	57.59	103.52	-45.93	Peak
3	0.59	2.36	43.43	45.79	103.52	-57.73	Peak
4	1.07	-1.82	42.11	40.29	103.52	-63.23	Peak
5	16.27	-5.20	35.37	30.17	103.52	-73.35	Peak
6	22.45	-4.87	38.25	33.38	103.52	-70.14	Peak

EXHIBIT A - EUT PHOTOGRAPHS

Please refer to the attachment 2401V50912E-EMM1 External photo and 2401V50912E-EMM1 Internal photo.

EXHIBIT B - TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2401V50912E-EMM1 Test Setup photo.

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