



FCC PART 15C TEST REPORT FOR CERTIFICATION On Behalf of

mophie LLC

mophie Wireless Charging Car Vent Mount

Model Number: QI2-CAR-VNT-A

FCC ID: 2ACWB-VNTMA

Applicant:	mophie LLC
Address:	6244 Technology Ave.Kalamazoo.MI49009, USA
Prepared By:	EST Technology Co., Ltd.
	Chilingxiang, Qishantou, Santun, Houjie, Dongguan, Guangdong, China
Tel: 86-769-83081888-808	

Report Number:	ESTE-R2408038
Date of Test:	Aug. 07, 2024~Aug. 12, 2024
Date of Report:	Aug. 14, 2024

TABLE OF CONTENTS

Description	Page
TEST REPORT VERIFICATION.....	3
1. GENERAL INFORMATION	4
1.1. Description of Device (EUT).....	4
2. SUMMARY OF TEST	5
2.1. Summary of test result	5
2.2. Test Facilities.....	6
2.3. Measurement uncertainty	7
2.4. Assistant equipment used for test	7
2.5. Block Diagram	7
2.6. The test mode was selected for the final test as listed below.....	8
2.7. Test Equipment List.....	8
3. RADIATED EMISSION	9
3.1. Limit.....	9
3.2. Test Setup.....	10
3.3. Spectrum Analyzer Setting	11
3.4. Test Procedure.....	11
3.5. Test Result.....	13
4. ANTENNA REQUIREMENTS	27
4.1. Limit.....	27
4.2. Test Result.....	27
5. TEST SETUP PHOTO.....	28
6. EUT PHOTO	29

Applicant: mophie LLC
Address: 6244 Technology Ave.Kalamazoo.MI49009, USA

Manufacturer: mophie LLC
Address: 6244 Technology Ave.Kalamazoo.MI49009, USA

E.U.T: mophie Wireless Charging Car Vent Mount

Model Number: QI2-CAR-VNT-A

Power Supply: Input (Type-C): 9V---2.22A
Output: 15W

Trade Name: mophie **Serial No.:** -----

Date of Receipt: Aug. 07, 2024 **Date of Test:** Aug. 07, 2024~ Aug. 12, 2024

Test Specification: FCC Part 15 Subpart C
ANSI C63.10:2013

Test Result: The device described above is tested by EST Technology Co., Ltd. The measurement results were contained in this test report and EST Technology Co., Ltd. was assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliance with the FCC Rules and Regulations Part 15 Subpart C requirements.

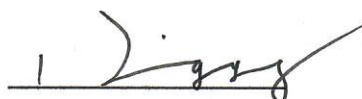
This report applies to above tested sample only and shall not be reproduced in part without written approval of EST Technology Co., Ltd.

Date: Aug. 14, 2024

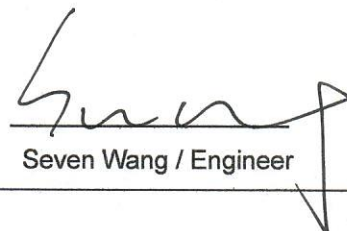
Prepared by:

Reviewed by:

Approved by:



Ring Yang / Assistant



Seven Wang / Engineer



Iceman Hu / Manager

Other Aspects:
None.

Abbreviations: OK/P=passed fail/F=failed n.a/N=not applicable E.U.T=equipment under tested

This test report is based on a single evaluation of one sample of above mentioned products ,It is not permitted to be duplicated in extracts without written approval of EST Technology Co., Ltd.

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Product Name	:	mophie Wireless Charging Car Vent Mount
Model Number	:	QI2-CAR-VNT-A
Operation Frequency	:	110.5KHz-205KHz; 360KHz
Max Wireless Charge Power	:	15W Max
Max Field Strength of Fundamental	:	67.66dB μ V/m
Modulation Type	:	ASK
Antenna Type	:	Induction coil
Sample Type	:	Prototype production

Note: For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

2. SUMMARY OF TEST

2.1. Summary of test result

No.	Description of Test Item	FCC Standard Section	Results
1	Radiated Emission	15.205 15.209	PASS
2	AC Power Line Conducted Emissions	15.207	N/A
3	Antenna Requirement	15.203	PASS

Note: "N/A" denotes test is not applicable in this test report.
DC Input Car products are not applicable

2.2. Test Facilities

EMC Lab : Accredited by CNAS, CHINA
Registration No.: L5288
This Accreditation is valid until: November 12, 2029

Recognized by FCC, USA
Designation Number: CN1215
This Recognition is valid until: January 31, 2026

Accredited by A2LA, USA
Registration No.: 4366.01
This Accreditation is valid until: January 31, 2026

Recognized by Industry Canada
CAB identifier No.: CN0035
This Recognition is valid until: January 31, 2026

Recognized by VCCI, Japan
Registration No.: C-14103; T-20073; R-13663;
R-20103; G-20097
Date of registration: Apr. 20, 2020
This Recognition is valid until: Apr. 19, 2026

Recognized by TUV Rheinland, Germany
Registration No.: UA 50413872 0001
Date of registration: July 31, 2018

Recognized by Intertek
Registration No.: 2011-RTL-L2-64
Date of registration: November 08, 2018

Name of Firm : EST Technology Co., Ltd.

Site Location : Chilingxiang, Qishantou, Santun, Houjie, Dongguan,
Guangdong, China

2.3. Measurement uncertainty

Test Item	Uncertainty
Uncertainty for Conduction emission test	±3.48dB
Uncertainty for spurious emissions test (Below 30MHz)	±1.62dB
Uncertainty for spurious emissions test (30MHz-1GHz)	±4.60 dB(Polarize: H)
	±4.68 dB(Polarize: V)
Uncertainty for spurious emissions test (1GHz to 18GHz)	±4.96dB
Uncertainty for radio frequency	7×10^{-8}
Uncertainty for conducted RF Power	1.08dB
Uncertainty for Power density test	0.26dB

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

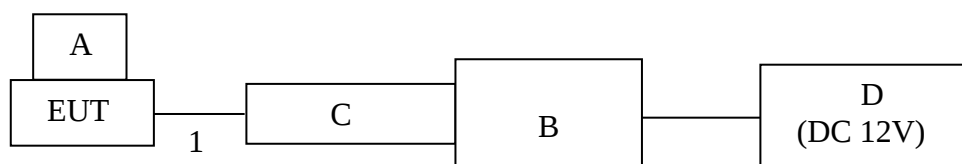
2.4. Assistant equipment used for test

Item	Equipment	Brand	Model Name/Type No.	FCC ID	Series No.
A	Load	-	CPS4041_MPP_RX_V1.0.1	-	-
B	Cigarette lighter	-	V1	-	-
C	Car charger	UNISYNK	10436	-	-
D	battery	-	6-QW-60(450)		

Item	Shielded Type	Ferrite Core	Length	Note
1	NO	NO	1.4m	DC Cable RCA248

2.5. Block Diagram

For radiated emissions test: EUT was placed on a turn table, which is 0.8 meter high above ground.



(EUT: mophie Wireless Charging Car Vent Mount)

2.6. The test mode was selected for the final test as listed below.

Test Item	Test Mode	
Radiated Emission	Output: 7.5W/ 15W	Full load
		Half load
		No load

Note: Output 7.5W,15W mode Full load, Half load, No load all have been tested. The report shows the worst state data.

2.7. Test Equipment List

For Radiated Emission Test(9kHz-30MHz)						
Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESR7	EST-E047	LISAI	June 11,24	June 10,25
Active Loop Antenna	SCHWABE BECK	FMZB 1519B	EST-E054	LISAI	June 11,24	June 10,25
Test Software	Audix	e3-6.111221a	N/A	N/A	N/A	N/A
9kHz-30MHz Cable	N/A	EST-001	N/A	N/A	N/A	N/A

For Radiated Emission Test (30MHz-1000MHz)						
Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESR7	EST-E047	LISAI	June 11,24	June 10,25
Bilog Antenna	Teseq	CBL 6111D	EST-E034	LISAI	June 11,24	June 10,25
Test Software	Audix	e3-6.111221a	N/A	N/A	N/A	N/A
30-1000MHz Cable	N/A	EST-002	N/A	N/A	N/A	N/A

3. RADIATED EMISSION

3.1. Limit

15.209 Radiated emission limits

Frequency (MHz)	Field Strength($\mu\text{V/m}$)	Distance(m)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Note:

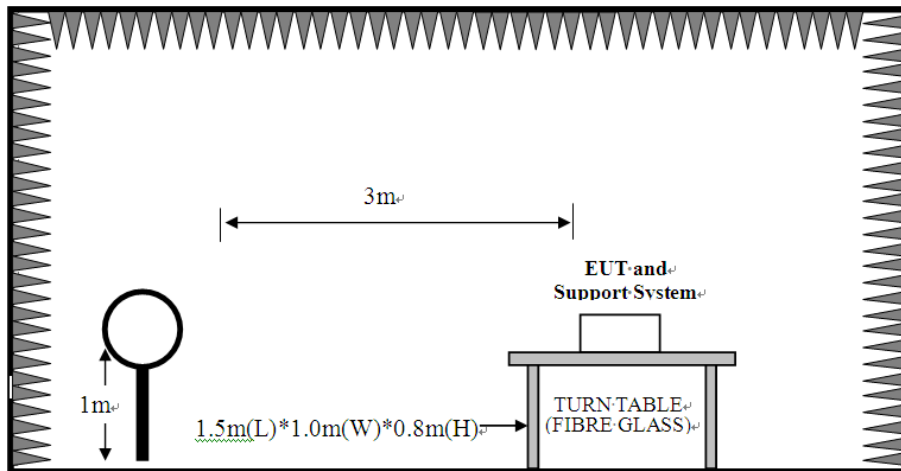
1. Emission level $\text{dB}\mu\text{V} = 20 \log$ Emission level $\mu\text{V/m}$.
2. The smaller limit shall apply at the cross point between two frequency bands.
3. Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system

15.205 Restricted frequency band

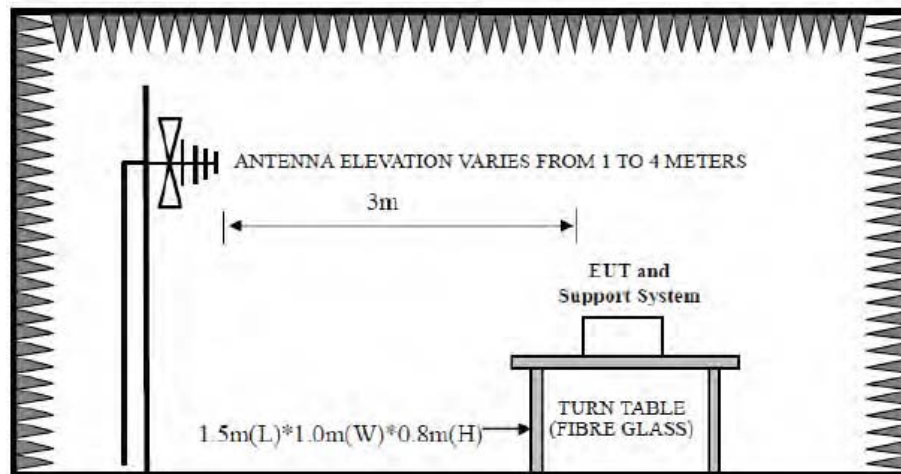
MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)

3.2. Test Setup

9kHz~30MHz



30~1000MHz



3.3. Spectrum Analyzer Setting

For 9KHz-150KHz

Spectrum Parameters	Setting
RBW	300Hz(for Peak&AVG)/CISPR 200Hz(for QP)
VBW	300Hz(for Peak&AVG)/CISPR 200Hz(for QP)
Start frequency	9KHz
Stop frequency	150KHz
Sweep Time	Auto
Detector	PEAK/QP/AVG
Trace Mode	Max Hold

For 150KHz-30MHz

Spectrum Parameters	Setting
RBW	9KHz
VBW	9KHz
Start frequency	150KHz
Stop frequency	30MHz
Sweep Time	Auto
Detector	QP
Trace Mode	Max Hold

For 30MHz-1000MHz

Spectrum Parameters	Setting
RBW	120KHz
VBW	300KHz
Start frequency	30MHz
Stop frequency	1000MHz
Sweep Time	Auto
Detector	QP
Trace Mode	Max Hold

3.4. Test Procedure

- EUT was placed on a turn table, which is 0.8 meter high above ground.
- EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower.
- Set the EUT transmit continuously with maximum output power.
- Spectrum analyzer setting parameters in accordance with section 3.3.
- The turn table can rotate 360 degrees to determine the position of the maximum emission level.
- For below 30MHz test, the center of the Loop Test Antenna is 1m above the ground. During the measurement the Loop Test Antenna rotates both coaxial and coplanar polarization to find out the maximum emission level.
- For above 30MHz test, the antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Both coaxial and coplanar polarization of the antenna are set on test.
- Record the results in the test report.

Note:

1. For emissions below 30MHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.
2. For emissions below 30MHz, if peak level comply with QP limit, then the QP level is deemed to comply with QP limit.

3.5. Test Result

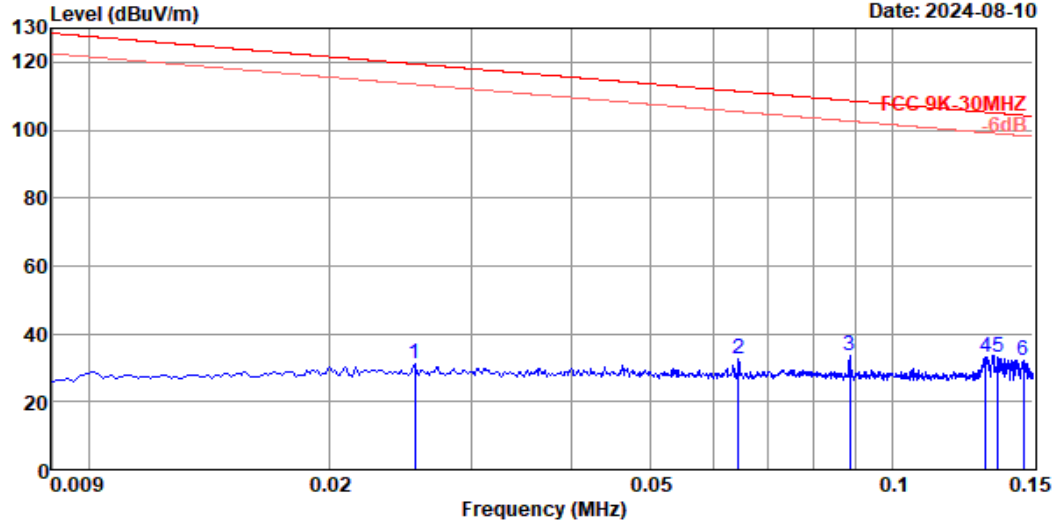
Radiated Emission Below 30MHz

EST Technology

Chilingxiang, Qishantou, Santun,
Houjie, Dongguan, Guangdong, China
Tel: +86-769-83081888
Fax: +86-769-83081878

Data: 1 File: \\EMC-966-2\\test data\\2024\\RF\\M\\Mophie\\QI2-CAR-VNT-A\\QI2-CAR-VNT-A(FCC).EM6 (12)

Date: 2024-08-10



Site no. : 2# 966 chamber Data no. : 1
Dis. / Ant. : 3m FMZB 1519B Ant. pol. : COAXIAL
Limit : FCC 9K-30MHZ
Env. / Ins. : Temp: 29.6°C; Humi: 64%; Press: 101.5kPa
Engineer : Jonas
EUT : mophie Wireless Charging Car Vent Mount
Power : DC 12V From Battery
M/N : QI2-CAR-VNT-A
Test Mode : Charging
15W

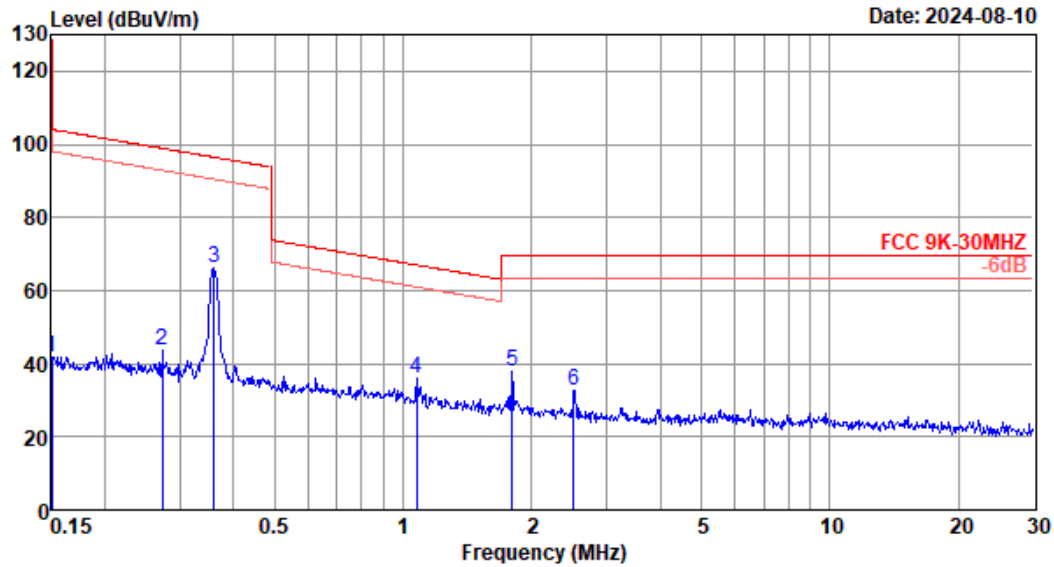
	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.02550	19.80	0.03	11.20	31.03	119.47	88.44	Peak
2	0.06441	19.80	0.03	12.65	32.48	111.42	78.94	Peak
3	0.08866	19.90	0.03	13.63	33.56	108.65	75.09	Peak
4	0.13097	20.10	0.03	13.11	33.24	105.26	72.02	Peak
5	0.13548	20.10	0.03	13.17	33.30	104.97	71.67	Peak
6	0.14563	20.00	0.03	12.24	32.27	104.34	72.07	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

EST Technology

Chilingxiang, Qishantou, Santun,
Houjie, Dongguan, Guangdong, China
Tel: +86-769-83081888
Fax: +86-769-83081878

Data: 2 File: \\EMC-966-2\test data\2024\RF\MI\Mophie\QI2-CAR-VNT-A\QI2-CAR-VNT-A(FCC).EM6 (12)



Site no. : 2# 966 chamber Data no. : 2
Dis. / Ant. : 3m FMZB 1519B Ant. pol. : COAXIAL
Limit : FCC 9K-30MHz
Env. / Ins. : Temp:29.6°C;Humi:64%;Press:101.5kPa
Engineer : Jonas
EUT : mophie Wireless Charging Car Vent Mount
Power : DC 12V From Battery
M/N : QI2-CAR-VNT-A
Test Mode : Charging
15W

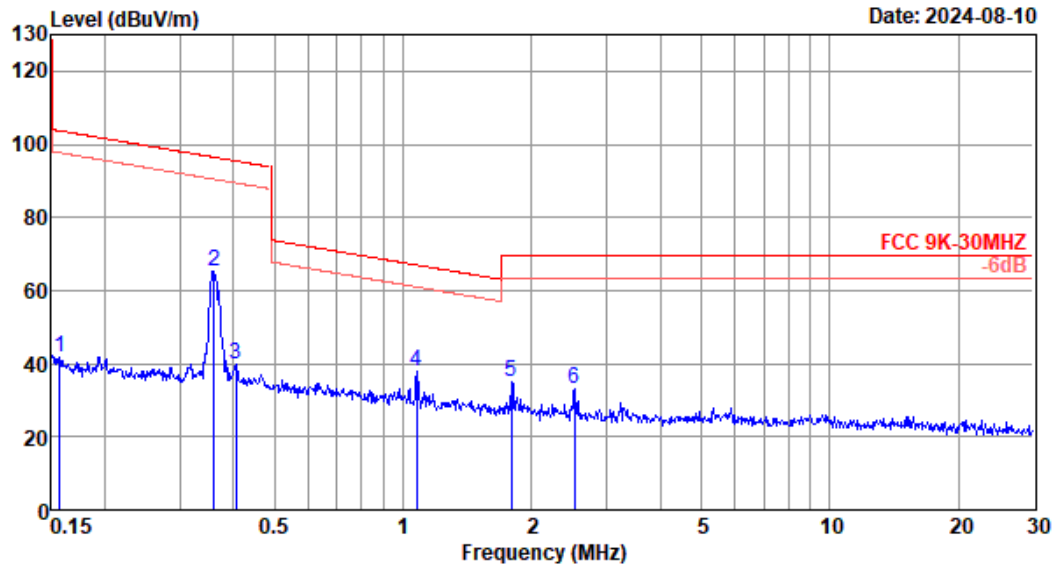
	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.15000	20.00	0.03	21.83	41.86	104.08	62.22	Peak
2	0.27297	19.96	0.03	23.52	43.51	98.88	55.37	Peak
3	0.36000	19.94	0.03	46.32	66.29	96.48	30.19	Peak
4	1.07665	19.81	0.07	16.18	36.06	66.96	30.90	Peak
5	1.80001	19.88	0.10	17.82	37.80	69.54	31.74	Peak
6	2.51327	19.95	0.14	12.70	32.79	69.54	36.75	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

EST Technology

Chilingxiang, Qishantou, Santun,
Houjie, Dongguan, Guangdong, China
Tel: +86-769-83081888
Fax: +86-769-83081878

Data: 3 File: \\EMC-966-2\test data\2024\RF\MI\Mophie\QI2-CAR-VNT-A\QI2-CAR-VNT-A(FCC).EM6 (12)



Site no. : 2# 966 chamber Data no. : 3
Dis. / Ant. : 3m FMZB 1519B Ant. pol. : COPLANAR
Limit : FCC 9K-30MHz
Env. / Ins. : Temp:29.6°C;Humi:64%;Press:101.5kPa
Engineer : Jonas
EUT : mophie Wireless Charging Car Vent Mount
Power : DC 12V From Battery
M/N : QI2-CAR-VNT-A
Test Mode : Charging
15W

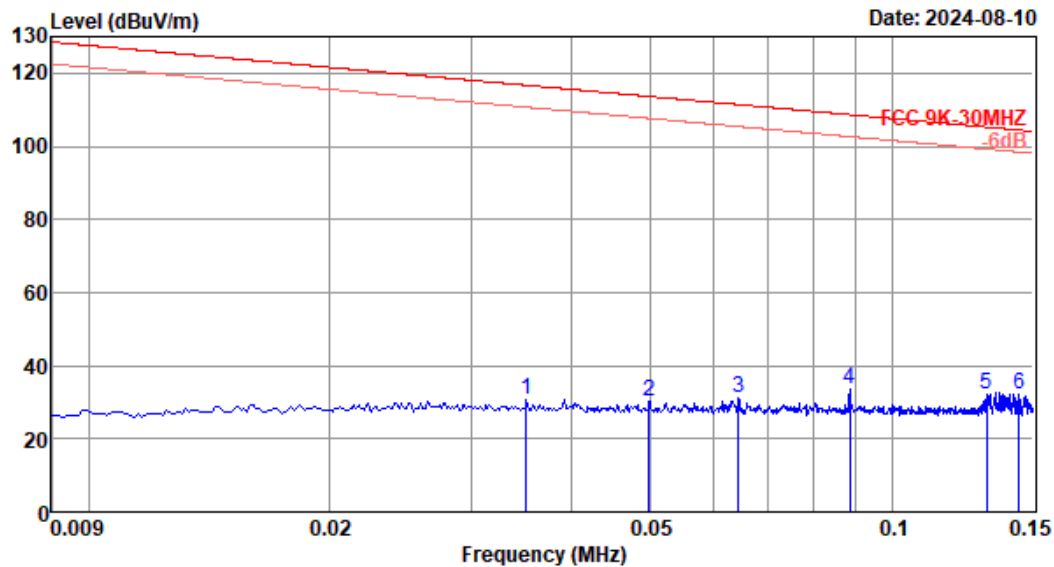
	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.15649	20.00	0.03	21.53	41.56	103.71	62.15	Peak
2	0.36000	19.94	0.03	45.44	65.41	96.48	31.07	Peak
3	0.40615	19.93	0.03	19.96	39.92	95.43	55.51	Peak
4	1.07665	19.81	0.07	17.97	37.85	66.96	29.11	Peak
5	1.79050	19.88	0.10	15.07	35.05	69.54	34.49	Peak
6	2.52662	19.95	0.14	13.01	33.10	69.54	36.44	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

EST Technology

Chilingxiang, Qishantou, Santun,
Houjie, Dongguan, Guangdong, China
Tel: +86-769-83081888
Fax: +86-769-83081878

Data: 4 File: \\EMC-966-2\\test data\\2024\\RF\\M\\Mophie\\QI2-CAR-VNT-A\\QI2-CAR-VNT-A(FCC).EM6 (12)



Site no. : 2# 966 chamber Data no. : 4
Dis. / Ant. : 3m FMZB 1519B Ant. pol. : COPLANAR
Limit : FCC 9K-30MHz
Env. / Ins. : Temp:29.6°C;Humi:64%;Press:101.5kPa
Engineer : Jonas
EUT : mophie Wireless Charging Car Vent Mount
Power : DC 12V From Battery
M/N : QI2-CAR-VNT-A
Test Mode : Charging
15W

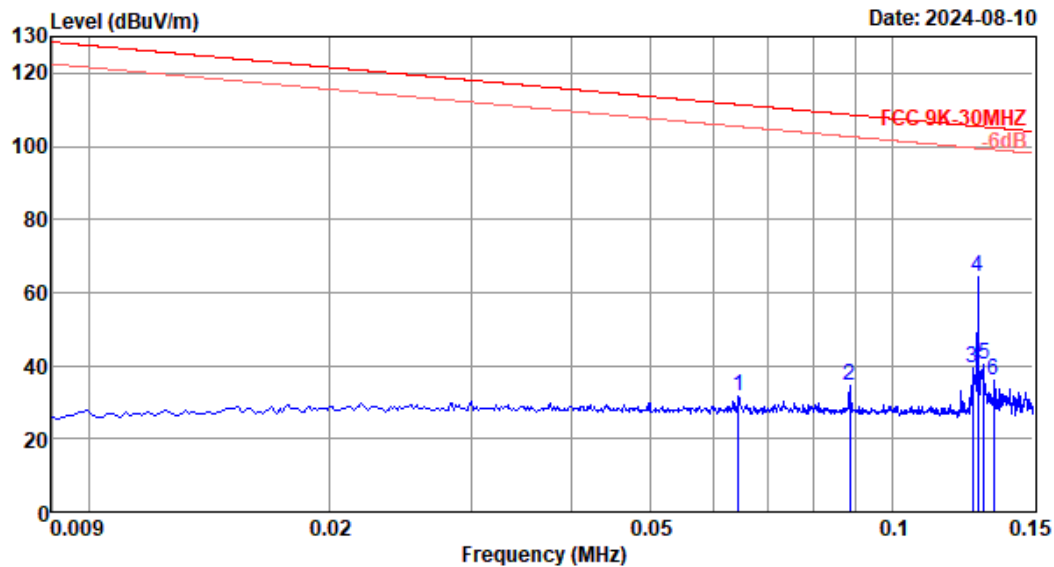
	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.03509	19.80	0.03	11.01	30.84	116.70	85.86	Peak
2	0.04989	19.80	0.03	10.28	30.11	113.64	83.53	Peak
3	0.06441	19.80	0.03	11.36	31.19	111.42	80.23	Peak
4	0.08866	19.90	0.03	13.66	33.59	108.65	75.06	Peak
5	0.13111	20.10	0.03	11.79	31.92	105.25	73.33	Peak
6	0.14380	20.10	0.03	12.21	32.34	104.45	72.11	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

EST Technology

Chilingxiang, Qishantou, Santun,
Houjie, Dongguan, Guangdong, China
Tel: +86-769-83081888
Fax: +86-769-83081878

Data: 5 File: \\EMC-966-2\\test data\\2024\\RF\\M\\Mophie\\QI2-CAR-VNT-A\\QI2-CAR-VNT-A(FCC).EM6 (12)



Site no. : 2# 966 chamber Data no. : 5
Dis. / Ant. : 3m FMZB 1519B Ant. pol. : COPLANAR
Limit : FCC 9K-30MHz
Env. / Ins. : Temp:29.6°C;Humi:64%;Press:101.5kPa
Engineer : Jonas
EUT : mophie Wireless Charging Car Vent Mount
Power : DC 12V From Battery
M/N : QI2-CAR-VNT-A
Test Mode : Charging
7.5W

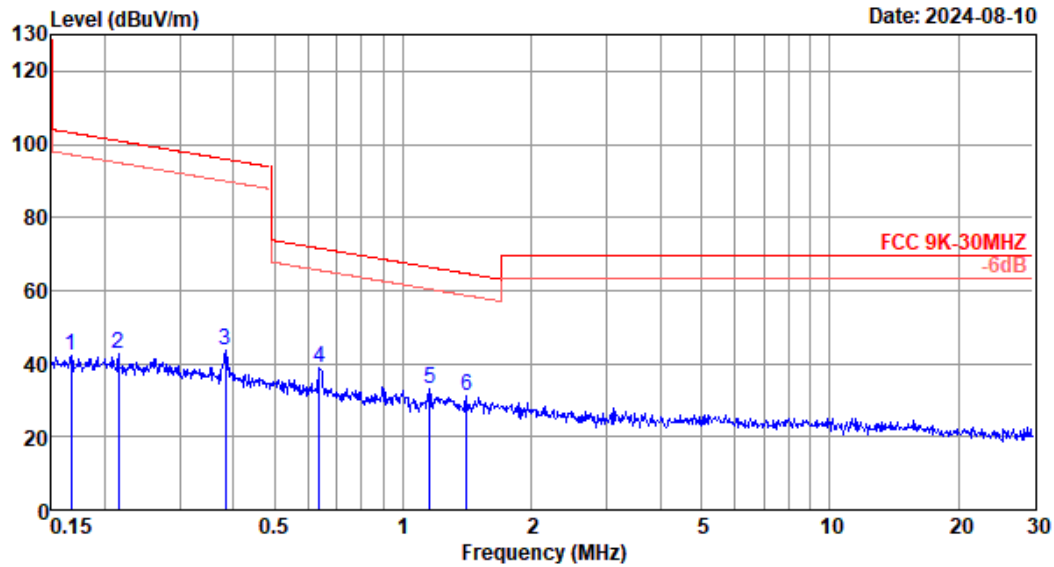
	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.06441	19.80	0.03	11.87	31.70	111.42	79.72	Peak
2	0.08866	19.90	0.03	14.43	34.36	108.65	74.29	Peak
3	0.12603	20.10	0.03	19.06	39.19	105.59	66.40	Peak
4	0.12800	20.10	0.03	44.04	64.17	105.46	41.29	Peak
5	0.13012	20.10	0.03	20.29	40.42	105.32	64.90	Peak
6	0.13393	20.10	0.03	15.70	35.83	105.07	69.24	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

EST Technology

Chilingxiang, Qishantou, Santun,
Houjie, Dongguan, Guangdong, China
Tel: +86-769-83081888
Fax: +86-769-83081878

Data: 6 File: \\EMC-966-2\test data\2024\RF\MI\Mophie\QI2-CAR-VNT-A\QI2-CAR-VNT-A(FCC).EM6 (12)



Site no. : 2# 966 chamber Data no. : 6
Dis. / Ant. : 3m FMZB 1519B Ant. pol. : COPLANAR
Limit : FCC 9K-30MHz
Env. / Ins. : Temp:29.6°C;Humi:64%;Press:101.5kPa
Engineer : Jonas
EUT : mophie Wireless Charging Car Vent Mount
Power : DC 12V From Battery
M/N : QI2-CAR-VNT-A
Test Mode : Charging
7.5W

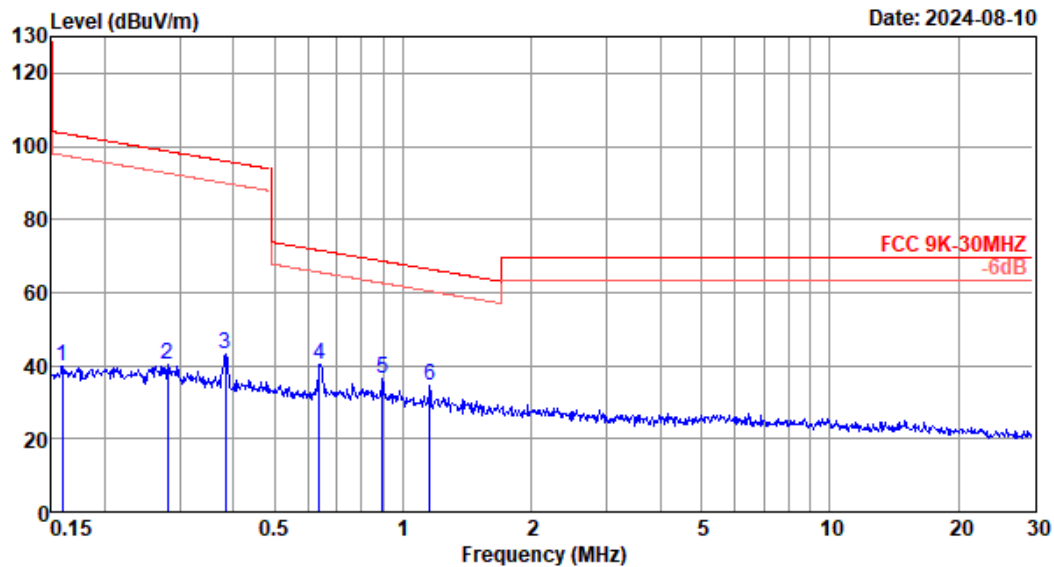
	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.16677	20.00	0.03	22.18	42.21	103.16	60.95	Peak
2	0.21506	19.98	0.03	22.67	42.68	100.95	58.27	Peak
3	0.38315	19.94	0.03	23.81	43.78	95.94	52.16	Peak
4	0.63720	19.87	0.07	18.88	38.82	71.52	32.70	Peak
5	1.15342	19.81	0.07	13.09	32.97	66.36	33.39	Peak
6	1.41068	19.84	0.07	11.09	31.00	64.62	33.62	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

EST Technology

Chilingxiang, Qishantou, Santun,
Houjie, Dongguan, Guangdong, China
Tel: +86-769-83081888
Fax: +86-769-83081878

Data: 7 File: \\EMC-966-2\test data\2024\RF\MI\Mophie\QI2-CAR-VNT-A\QI2-CAR-VNT-A(FCC).EM6 (12)



Site no. : 2# 966 chamber Data no. : 7
Dis. / Ant. : 3m FMZB 1519B Ant. pol. : COAXIAL
Limit : FCC 9K-30MHz
Env. / Ins. : Temp:29.6°C;Humi:64%;Press:101.5kPa
Engineer : Jonas
EUT : mophie Wireless Charging Car Vent Mount
Power : DC 12V From Battery
M/N : QI2-CAR-VNT-A
Test Mode : Charging
7.5W

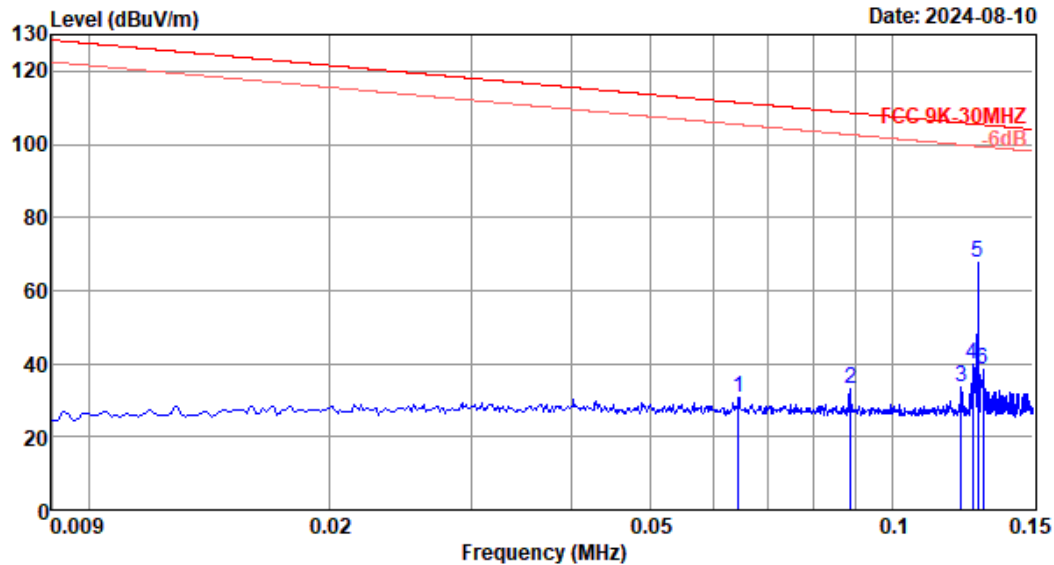
	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.15900	20.00	0.03	19.94	39.97	103.58	63.61	Peak
2	0.28029	19.96	0.03	20.47	40.46	98.65	58.19	Peak
3	0.38315	19.94	0.03	23.08	43.05	95.94	52.89	Peak
4	0.63720	19.87	0.07	20.39	40.33	71.52	31.19	Peak
5	0.89441	19.82	0.07	16.42	36.31	68.57	32.26	Peak
6	1.15342	19.81	0.07	14.52	34.40	66.36	31.96	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

EST Technology

Chilingxiang, Qishantou, Santun,
Houjie, Dongguan, Guangdong, China
Tel: +86-769-83081888
Fax: +86-769-83081878

Data: 8 File: \\EMC-966-2\\test data\\2024\\RF\\M\\Mophie\\QI2-CAR-VNT-A\\QI2-CAR-VNT-A(FCC).EM6 (12)



Site no. : 2# 966 chamber Data no. : 8
Dis. / Ant. : 3m FMZB 1519B Ant. pol. : COAXIAL
Limit : FCC 9K-30MHz
Env. / Ins. : Temp:29.6°C;Humi:64%;Press:101.5kPa
Engineer : Jonas
EUT : mophie Wireless Charging Car Vent Mount
Power : DC 12V From Battery
M/N : QI2-CAR-VNT-A
Test Mode : Charging
7.5W

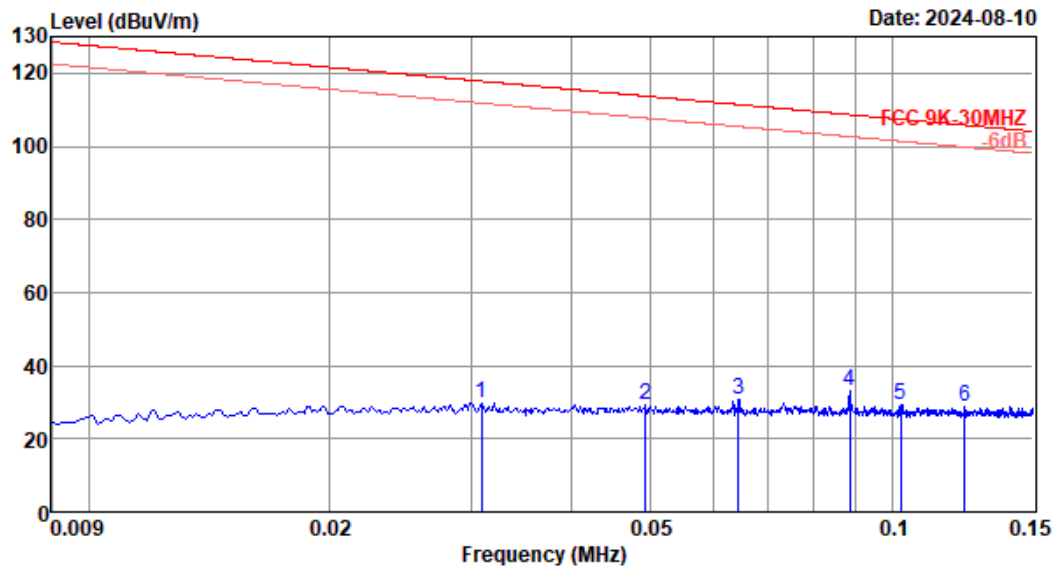
	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.06441	19.80	0.03	10.70	30.53	111.42	80.89	Peak
2	0.08881	19.90	0.03	13.11	33.04	108.64	75.60	Peak
3	0.12208	20.10	0.03	13.69	33.82	105.87	72.05	Peak
4	0.12603	20.10	0.03	19.61	39.74	105.59	65.85	Peak
5	0.12800	20.10	0.03	47.53	67.66	105.46	37.80	Peak
6	0.12998	20.10	0.03	18.01	38.14	105.33	67.19	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

EST Technology

Chilingxiang, Qishantou, Santun,
Houjie, Dongguan, Guangdong, China
Tel: +86-769-83081888
Fax: +86-769-83081878

Data: 9 File: \\EMC-966-2\\test data\\2024\\RF\\M\\Mophie\\QI2-CAR-VNT-A\\QI2-CAR-VNT-A(FCC).EM6 (12)



Site no. : 2# 966 chamber Data no. : 9
Dis. / Ant. : 3m FMZB 1519B Ant. pol. : COPLANAR
Limit : FCC 9K-30MHz
Env. / Ins. : Temp:29.6°C;Humi:64%;Press:101.5kPa
Engineer : Jonas
EUT : mophie Wireless Charging Car Vent Mount
Power : DC 12V From Battery
M/N : QI2-CAR-VNT-A
Test Mode : No Load

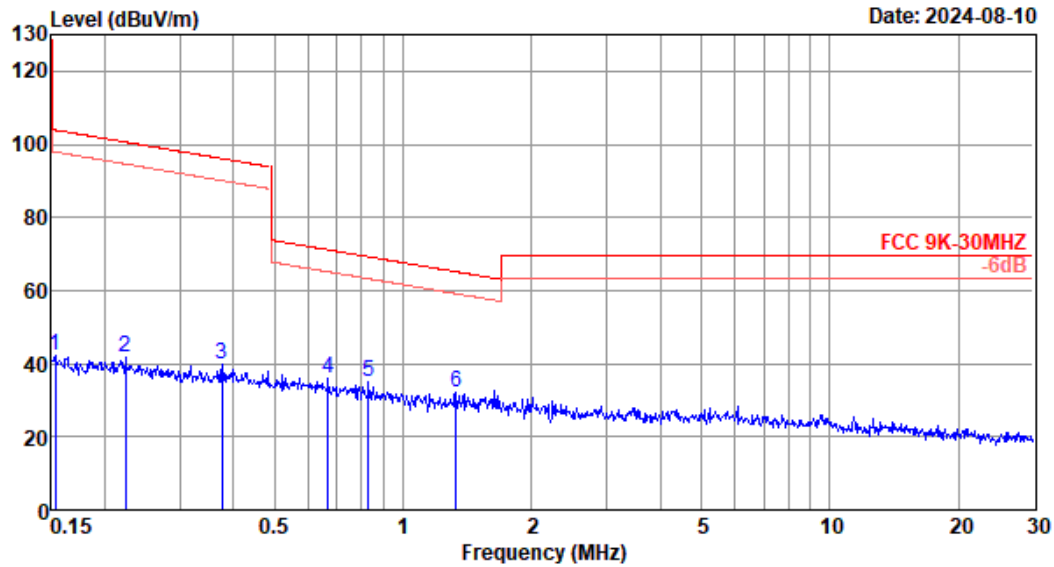
	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.03086	19.80	0.03	9.86	29.69	117.82	88.13	Peak
2	0.04933	19.80	0.03	9.53	29.36	113.74	84.38	Peak
3	0.06441	19.80	0.03	10.85	30.68	111.42	80.74	Peak
4	0.08866	19.90	0.03	13.28	33.21	108.65	75.44	Peak
5	0.10262	19.90	0.03	9.32	29.25	107.38	78.13	Peak
6	0.12307	20.10	0.03	8.87	29.00	105.80	76.80	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

EST Technology

Chilingxiang, Qishantou, Santun,
Houjie, Dongguan, Guangdong, China
Tel: +86-769-83081888
Fax: +86-769-83081878

Data: 10 File: \\EMC-966-2\test data\2024\RF\MI\Mophie\QI2-CAR-VNT-A\QI2-CAR-VNT-A(FCC).EM6 (12)



Site no. : 2# 966 chamber Data no. : 10
Dis. / Ant. : 3m FMZB 1519B Ant. pol. : COPLANAR
Limit : FCC 9K-30MHz
Env. / Ins. : Temp:29.6°C;Humi:64%;Press:101.5kPa
Engineer : Jonas
EUT : mophie Wireless Charging Car Vent Mount
Power : DC 12V From Battery
M/N : QI2-CAR-VNT-A
Test Mode : No Load

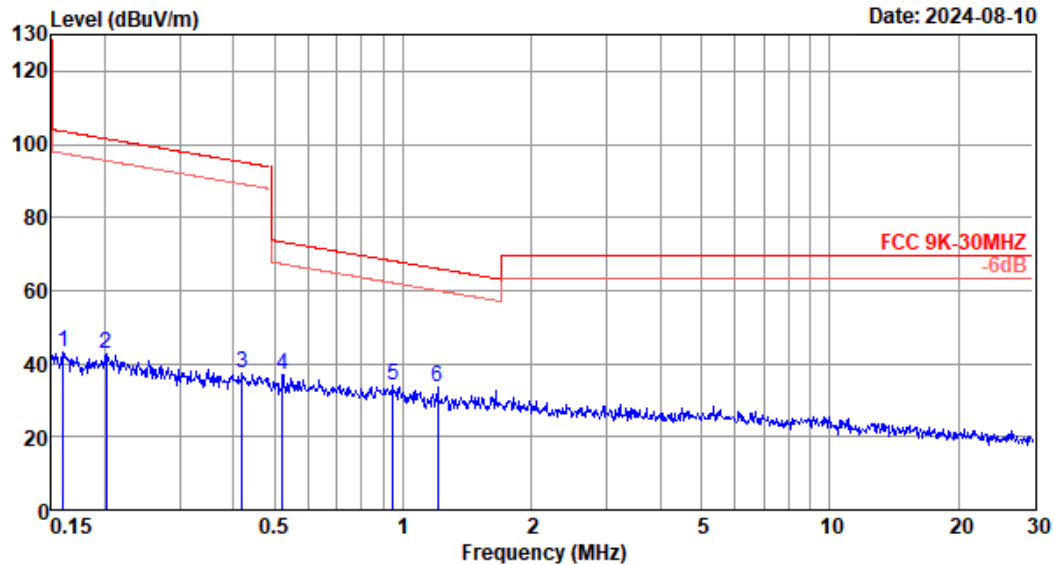
	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.15321	20.00	0.03	21.96	41.99	103.90	61.91	Peak
2	0.22319	19.98	0.03	21.59	41.60	100.63	59.03	Peak
3	0.37711	19.94	0.03	19.87	39.84	96.07	56.23	Peak
4	0.66832	19.86	0.07	16.29	36.22	71.10	34.88	Peak
5	0.83047	19.84	0.07	15.33	35.24	69.22	33.98	Peak
6	1.33081	19.83	0.07	12.23	32.13	65.12	32.99	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

EST Technology

Chilingxiang, Qishantou, Santun,
Houjie, Dongguan, Guangdong, China
Tel: +86-769-83081888
Fax: +86-769-83081878

Data: 11 File: \\EMC-966-2\test data\2024\RF\MI\Mophie\QI2-CAR-VNT-A\QI2-CAR-VNT-A(FCC).EM6 (12)



Site no. : 2# 966 chamber Data no. : 11
Dis. / Ant. : 3m FMZB 1519B Ant. pol. : COAXIAL
Limit : FCC 9K-30MHz
Env. / Ins. : Temp:29.6°C;Humi:64%;Press:101.5kPa
Engineer : Jonas
EUT : mophie Wireless Charging Car Vent Mount
Power : DC 12V From Battery
M/N : QI2-CAR-VNT-A
Test Mode : No Load

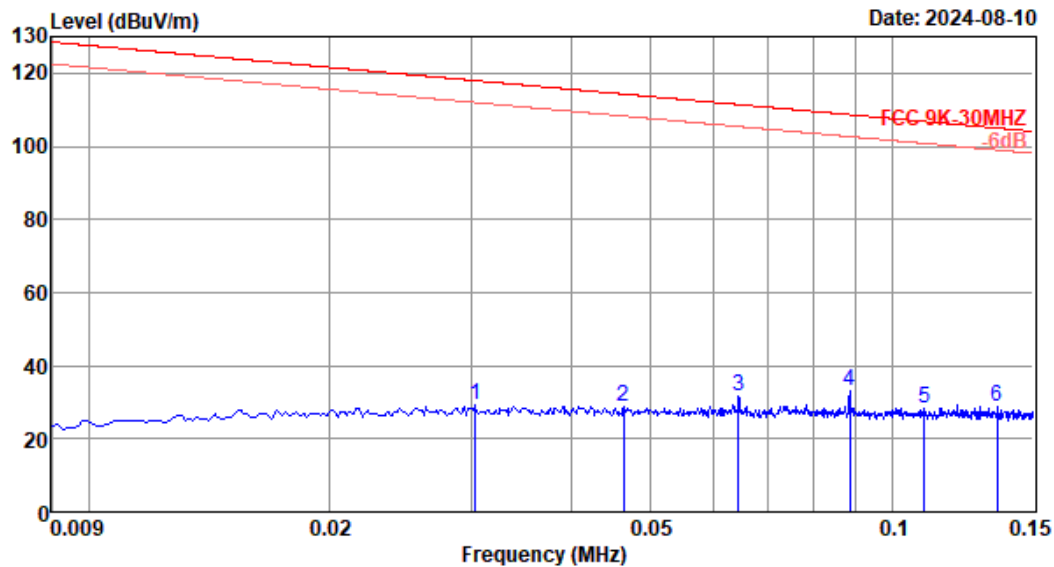
	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.15985	20.00	0.03	22.91	42.94	103.53	60.59	Peak
2	0.20181	19.99	0.03	22.69	42.71	101.51	58.80	Peak
3	0.41927	19.92	0.03	17.51	37.46	95.15	57.69	Peak
4	0.52099	19.89	0.07	17.03	36.99	73.27	36.28	Peak
5	0.94809	19.81	0.07	14.12	34.00	68.07	34.07	Peak
6	1.20336	19.82	0.07	13.63	33.52	66.00	32.48	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

EST Technology

Chilingxiang, Qishantou, Santun,
Houjie, Dongguan, Guangdong, China
Tel: +86-769-83081888
Fax: +86-769-83081878

Data: 12 File: \\EMC-966-2\\test data\\2024\\RF\\M\\Mophie\\QI2-CAR-VNT-A\\QI2-CAR-VNT-A(FCC).EM6 (12)



Site no. : 2# 966 chamber Data no. : 12
Dis. / Ant. : 3m FMZB 1519B Ant. pol. : COAXIAL
Limit : FCC 9K-30MHz
Env. / Ins. : Temp:29.6°C;Humi:64%;Press:101.5kPa
Engineer : Jonas
EUT : mophie Wireless Charging Car Vent Mount
Power : DC 12V From Battery
M/N : QI2-CAR-VNT-A
Test Mode : No Load

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.03029	19.80	0.03	9.42	29.25	117.98	88.73	Peak
2	0.04637	19.80	0.03	9.17	29.00	114.28	85.28	Peak
3	0.06441	19.80	0.03	11.71	31.54	111.42	79.88	Peak
4	0.08866	19.90	0.03	13.02	32.95	108.65	75.70	Peak
5	0.10967	19.90	0.03	8.28	28.21	106.80	78.59	Peak
6	0.13534	20.10	0.03	8.64	28.77	104.98	76.21	Peak

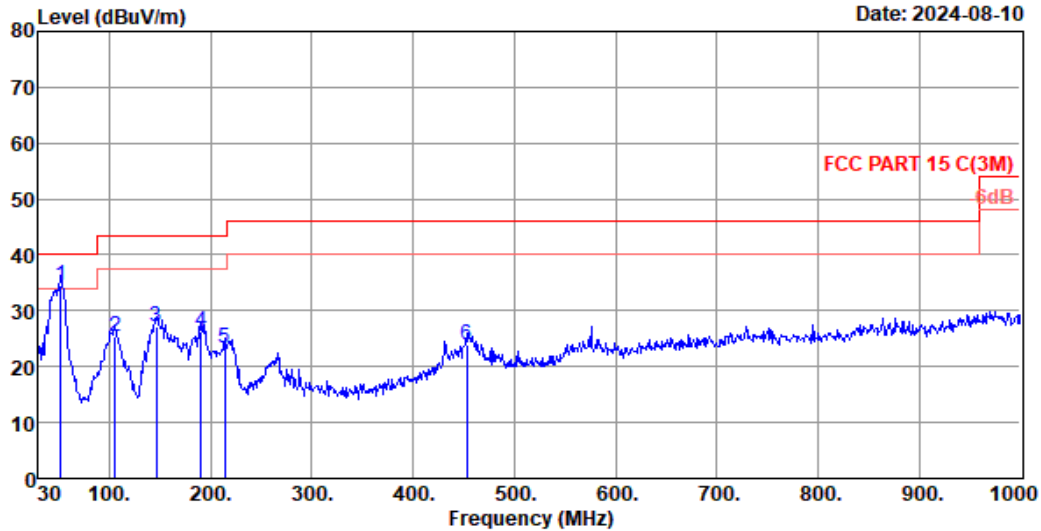
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

Radiated Emission Above 30MHz

EST Technology

Chilingxiang, Qishantou, Santun,
Houjie, Dongguan, Guangdong, China
Tel: +86-769-83081888
Fax: +86-769-83081878

Data: 13 File: \\EMC-966-2\\test data\\2024\\RF\\M\\Mophie\\QI2-CAR-VNT-A\\QI2-CAR-VNT-A(FCC).EM6 (14)



Site no. : 2# 966 chamber Data no. : 13
Dis. / Ant. : 3m 47018 Ant. pol. : VERTICAL
Limit : FCC PART 15 C(3M)
Env. / Ins. : Temp:29.3°C;Humi:61%;Press:101.3kPa
Engineer : Eric
EUT : mophie Wireless Charging Car Vent Mount
Power : DC 12V From Battery
M/N : QI2-CAR-VNT-A
Test Mode : Charging
15W

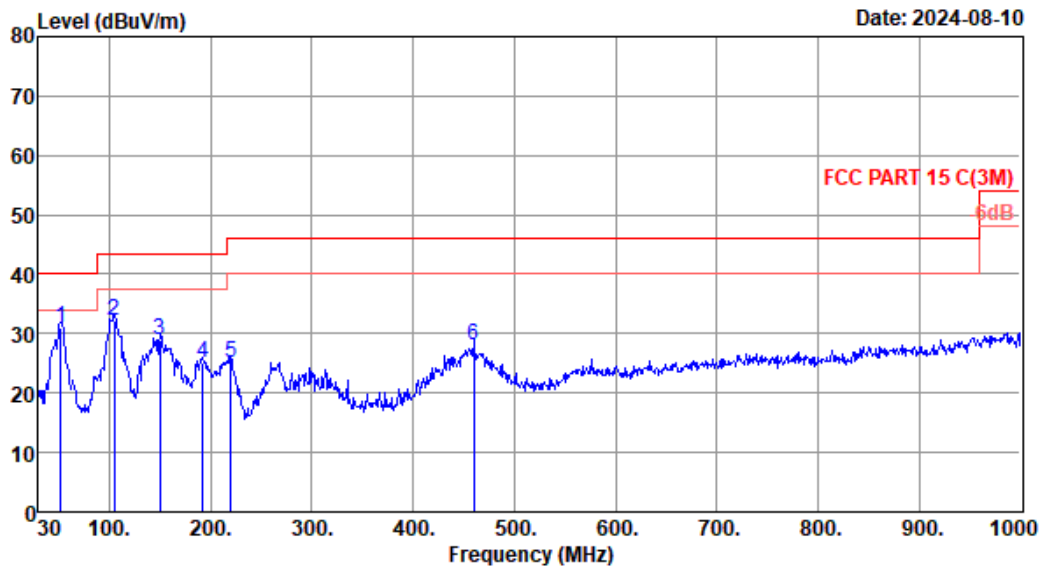
	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	52.31	8.00	0.82	25.62	34.44	40.00	5.56	QP
2	105.66	10.50	1.27	13.67	25.44	43.50	18.06	QP
3	146.40	11.90	1.53	13.61	27.04	43.50	16.46	QP
4	191.02	8.40	1.74	16.01	26.15	43.50	17.35	QP
5	214.30	8.66	1.83	12.72	23.21	43.50	20.29	QP
6	452.92	16.88	2.84	4.26	23.98	46.00	22.02	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

EST Technology

Chilingxiang, Qishantou, Santun,
Houjie, Dongguan, Guangdong, China
Tel: +86-769-83081888
Fax: +86-769-83081878

Data: 14 File: \\EMC-966-2\test data\2024\RF\MI\Mophie\QI2-CAR-VNT-A\QI2-CAR-VNT-A(FCC).EM6 (14)



Site no. : 2# 966 chamber Data no. : 14
Dis. / Ant. : 3m 47018 Ant. pol. : HORIZONTAL
Limit : FCC PART 15 C(3M)
Env. / Ins. : Temp:29.3°C;Humi:61%;Press:101.3kPa
Engineer : Eric
EUT : mophie Wireless Charging Car Vent Mount
Power : DC 12V From Battery
M/N : QI2-CAR-VNT-A
Test Mode : Charging
15W

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	52.31	8.00	0.82	22.09	30.91	40.00	9.09	QP
2	104.69	10.60	1.26	20.42	32.28	43.50	11.22	QP
3	150.28	10.90	1.56	16.56	29.02	43.50	14.48	QP
4	191.99	8.50	1.74	14.78	25.02	43.50	18.48	QP
5	220.12	9.00	1.86	14.12	24.98	46.00	21.02	QP
6	459.71	17.10	2.87	8.04	28.01	46.00	17.99	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

4. ANTENNA REQUIREMENTS

4.1. Limit

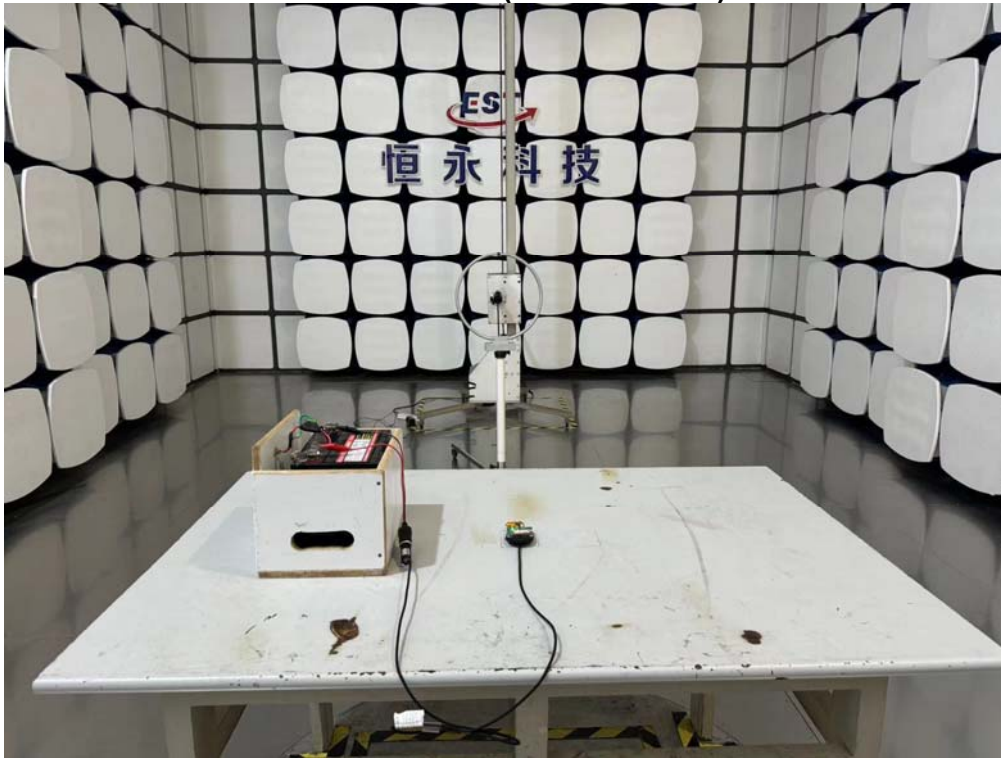
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §§15.211, 15.213, 15.217, 15.219, 15.221, or §15.236. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

4.2. Test Result

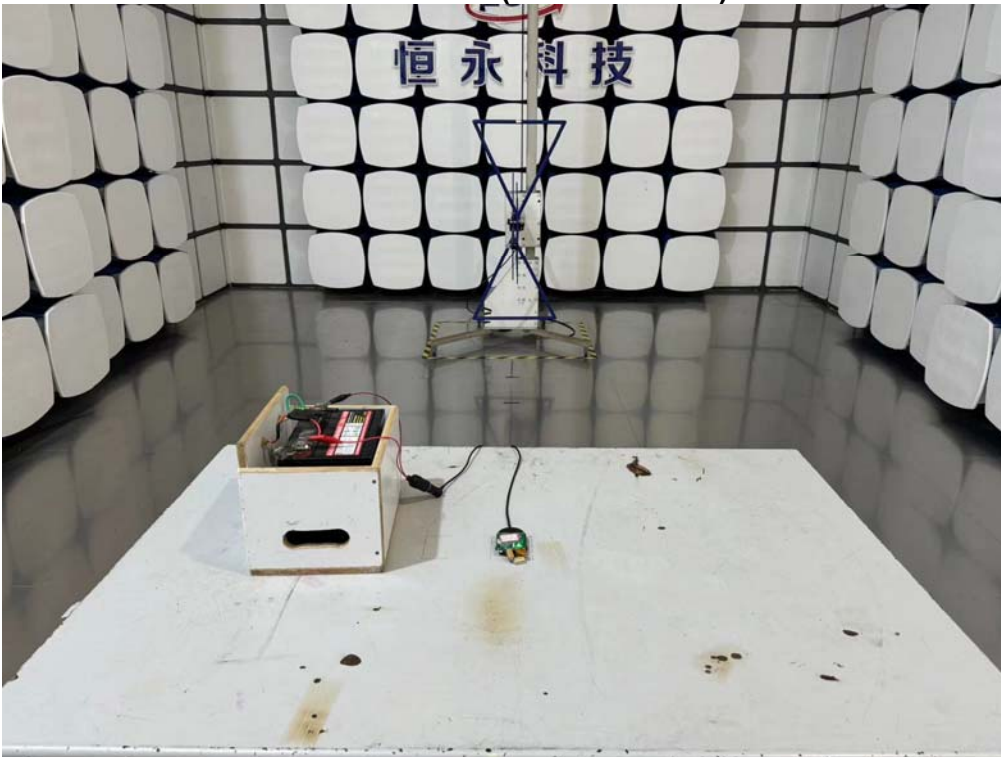
The antennas used for this product is Coil antenna, so compliance with antenna requirements. (Please refer to the EUT photo for details)

5. TEST SETUP PHOTO

Radiated Test (Below 30MHz)

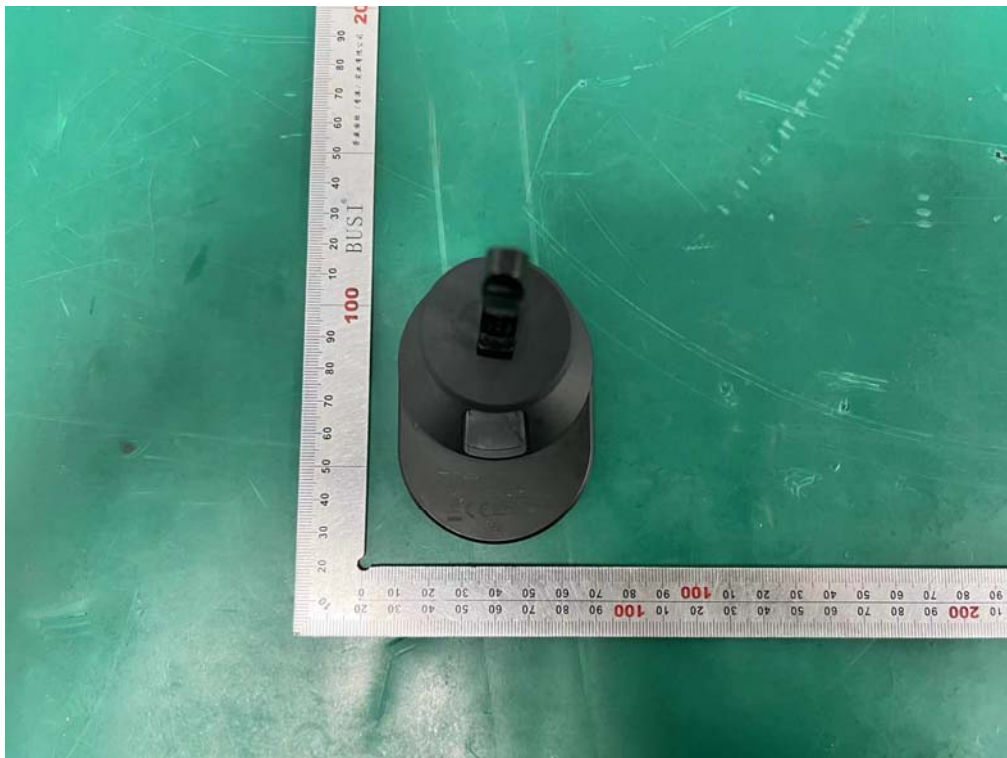
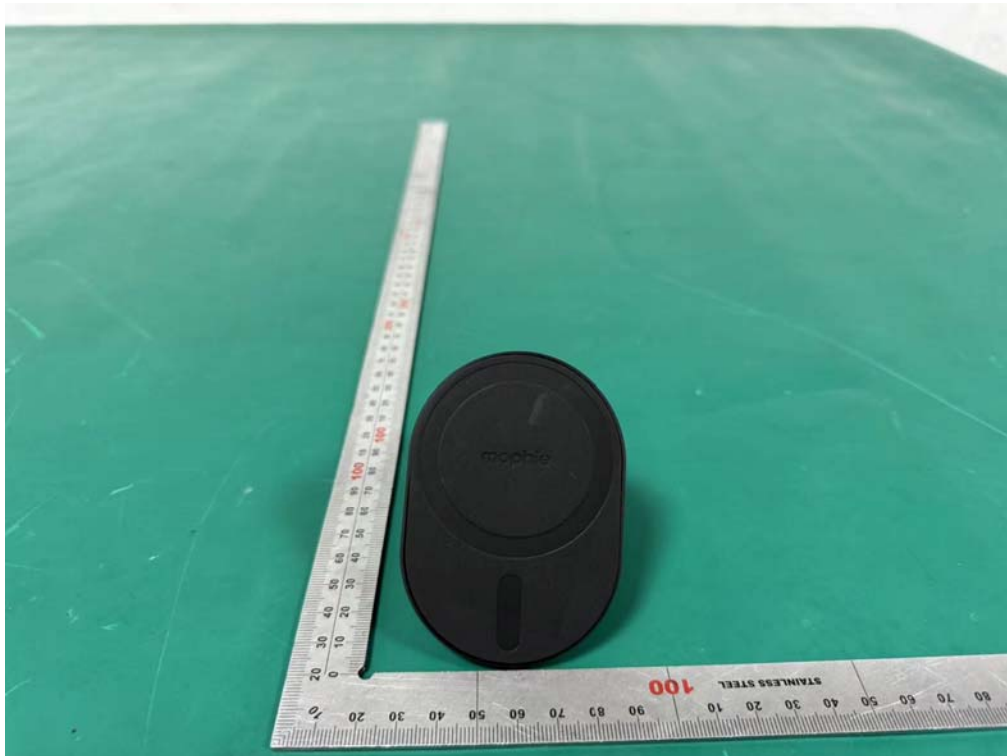


Radiated Test (Above 30MHz)



6. EUT PHOTO

External Photos M/N: QI2-CAR-VNT-A



External Photos
M/N: QI2-CAR-VNT-A



External Photos
M/N: QI2-CAR-VNT-A

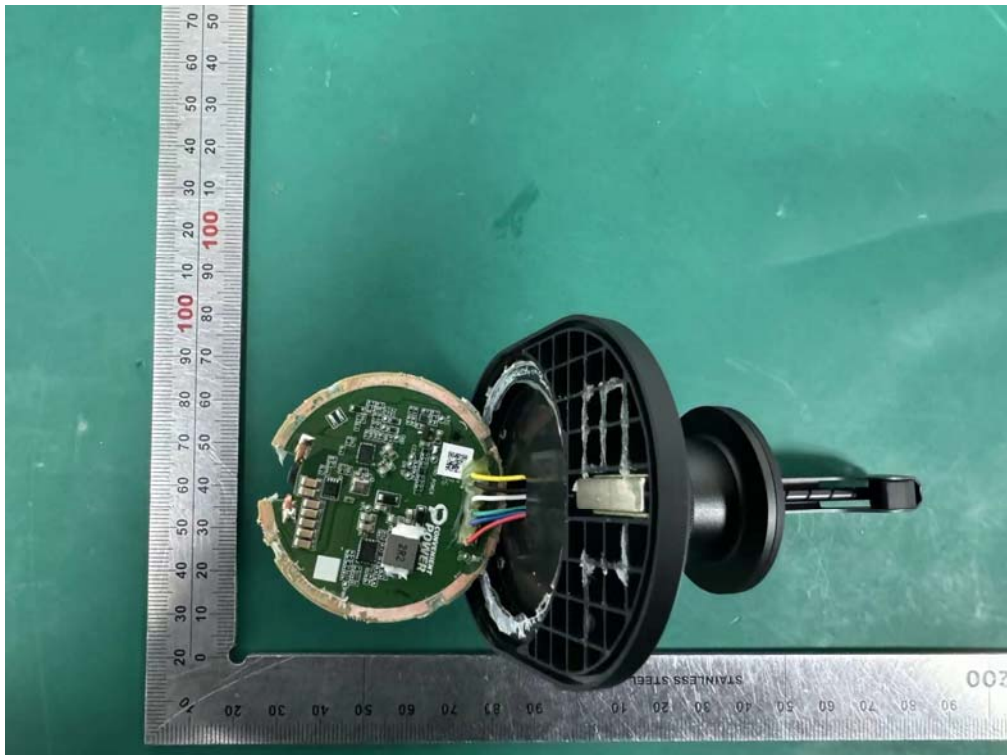


External Photos

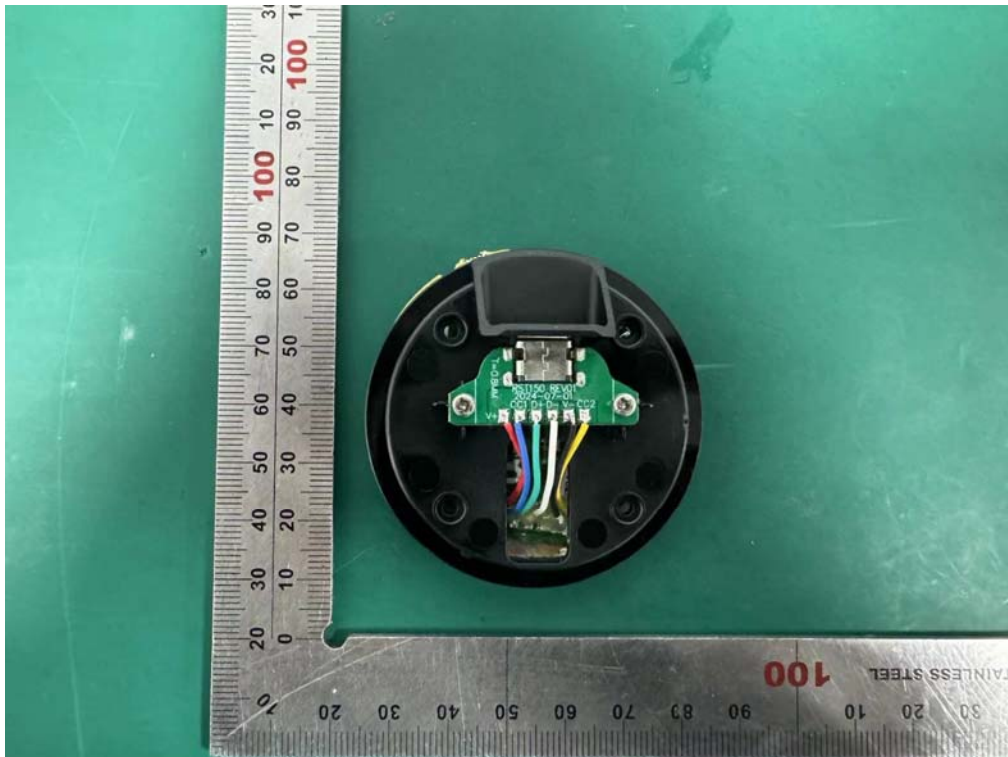
M/N: QI2-CAR-VNT-A



Internal Photos
M/N: QI2-CAR-VNT-A

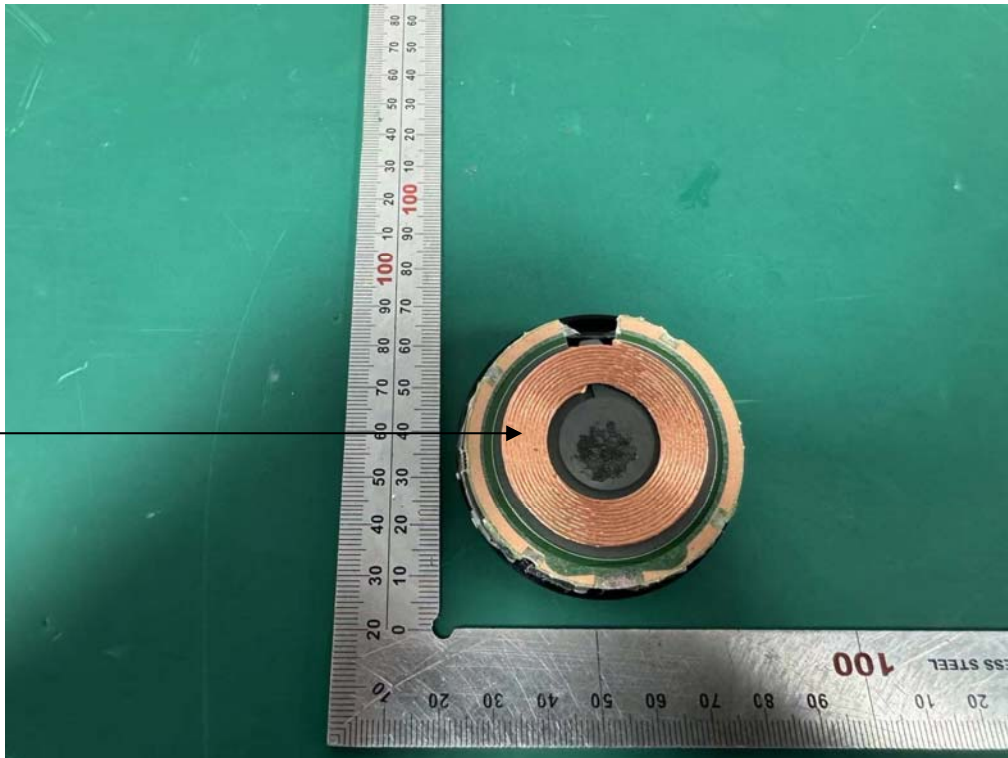


Internal Photos
M/N: QI2-CAR-VNT-A



Internal Photos
M/N: QI2-CAR-VNT-A

Coil
Antenna



End of Test Report