FCC PART 15.225

TEST REPORT

For

WISEASY TECHNOLOGY PTE. LTD.

51 GOLDHILL PLAZA #18-05 SINGAPORE (308900)

FCC ID: 2BFPO-T201

Report Type:	**Product Name:**
Original Report	Smart Payment Tablet

Report Number:	RKSA240327005-00D
Report Date:	2024-07-12
Reviewed By:	Bard Liu
Approved By:	Kyle Xu
Prepared By:	Bay Area Compliance Laboratories Corp. (Kunshan) No.248 Chenghu Road, Kunshan, Jiangsu Province, China Tel: +86-512-86175000 Fax: +86-512-88934268 www.baclcorp.com.cn

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REPORT REVISION HISTORY

Number of Revisions	Report No.	Version	Issue Date	Description
0	RKSA240327005-00D	R1V1	2024-07-12	Initial Release

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant:	WISEASY TECHNOLOGY PTE. LTD.
Tested Model:	T2
Product Name:	Smart Payment Tablet
HVIN:	P2_1XX_30_XX
Power Supply:	DC 3.87V powered by battery and DC 5V/9V/12V charging by adapter
RF Function:	NFC
Operating Band/Frequency:	13.56 MHz
Antenna Type:	Loop Antenna
★Maximum Antenna Gain:	0 dBi

Adapter Information:
Model: 235A-020A-1A1C
Input: AC100-240V 50/60Hz 600mA
Output: USB-C 5.0V-3.0A, 9.0V-2.0A, 12.0V-1.67A
USB-A 5.0V-3.0A, 9.0V-2.0A, 12.0V-1.5A
USB-A+C Total 5.0V-3.0A

Note: The maximum antenna gain was declared by the manufacturer.

All measurement and test data in this report was gathered from production sample serial number: RKSA240327005-1 (Assigned by the BACL (Kunshan). The EUT supplied by the applicant was received on 2024-03-27.)

Objective

This Type approval report is prepared for *WISEASY TECHNOLOGY PTE. LTD.* in accordance with Part 2-Subpart J, and Part 15-Subparts A and C of the Federal Communication Commission's rules.

The objective is to determine the Compliance of the EUT with FCC rules, sec 15.203, 15.205, 15.207, 15.209 and 15.225.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

Measurement Uncertainty

Item		Uncertainty
AC Power Lines Conducted Emissions		3.19 dB
RF conducted test with spectrum		0.9dB
Radiated emission	9kHz~30MHz	3.19dB
	30MHz~1GHz	6.11dB
Occupied Bandwidth		0.5kHz
Temperature		1.0℃
Humidity		6%

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Kunshan) to collect test data is located on the No.248 Chenghu Road, Kunshan, Jiangsu Province, China.

Bay Area Compliance Laboratories Corp. (Kunshan) is accredited in accordance with ISO/IEC 17025:2017 by NVLAP (Lab code: 600338-0), and the lab has been recognized as the FCC accredited lab under the KDB 974614 D01, the FCC Designation No. : CN5055.

SYSTEM TEST CONFIGURATION

Justification

The system was configured for testing in a typical fashion (as normally used by a typical user).

EUT Exercise Software

The EUT is tested in the engineering mode.

Equipment Modifications

No modification on the EUT.

Manufacturer	Description	Model	Serial Number
/	/	/	/

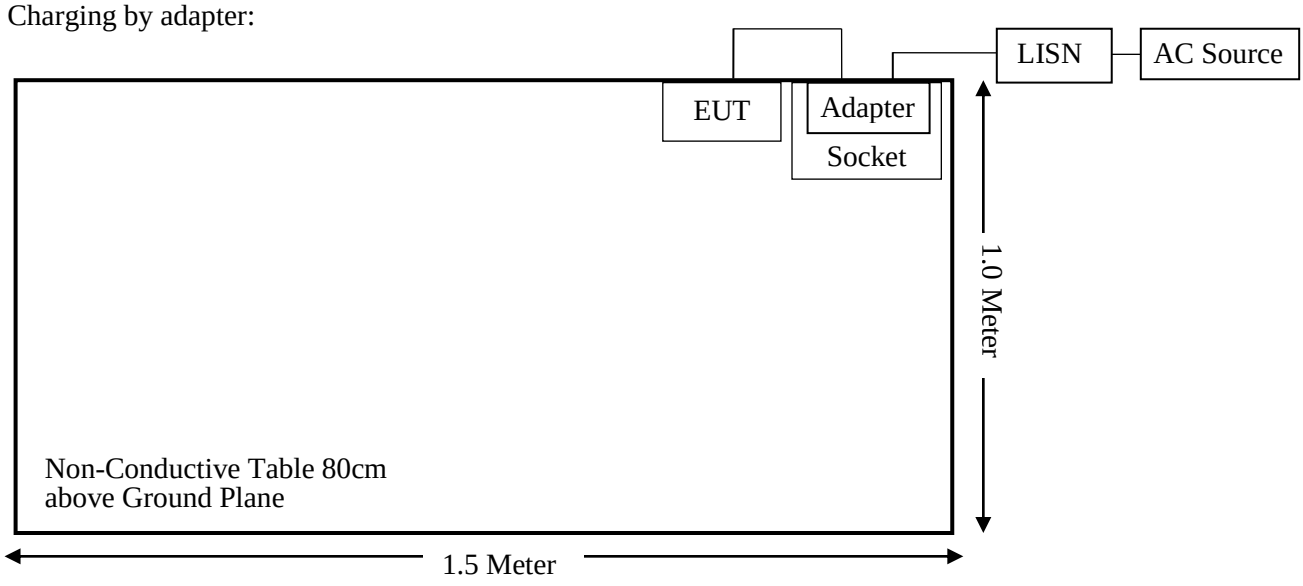
External I/O Cable

Cable Description	Length (m)	From Port	To
USB Cable	1.0	EUT/Base	Adapter
Power Cable	1.0	Adapter	LISN/AC Source

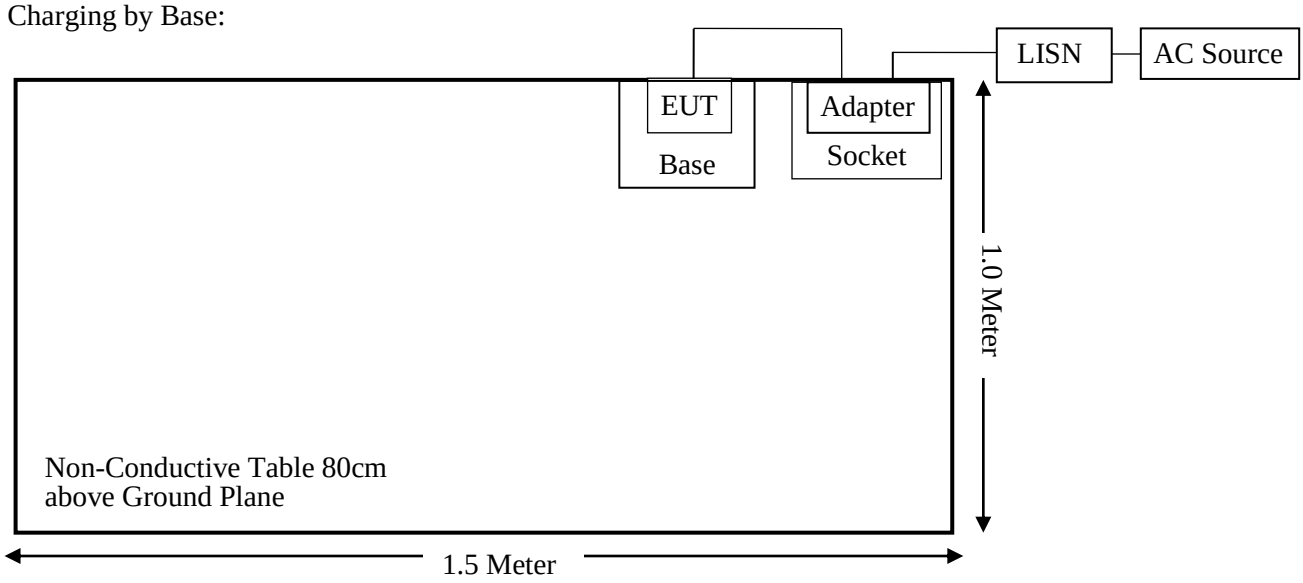
Block Diagram of Test Setup

For Conducted Emissions:

Charging by adapter:



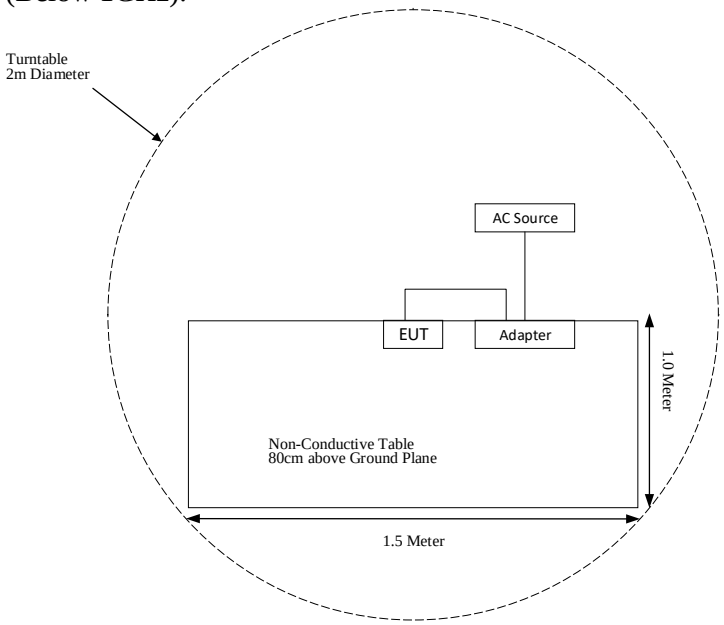
Charging by Base:



Block Diagram of Test Setup

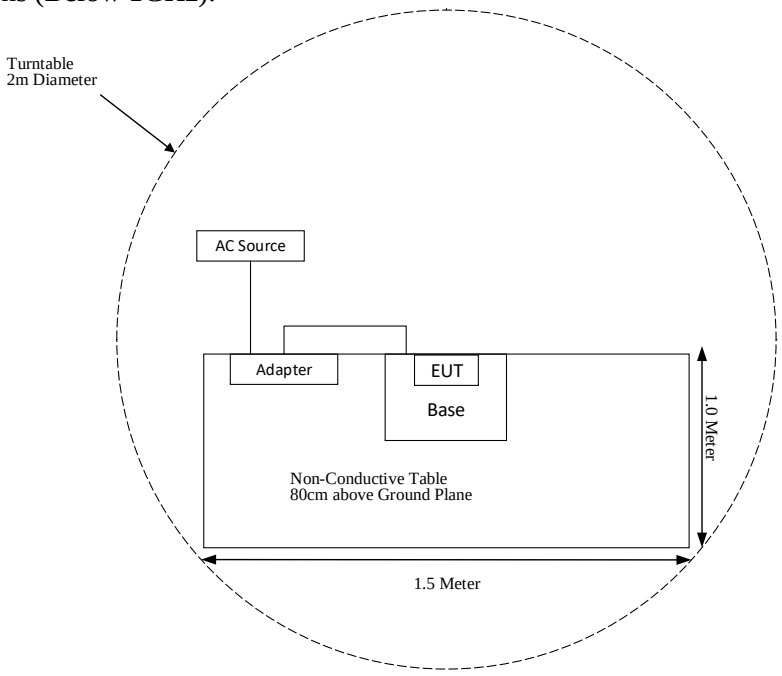
Charging by Adapter:

For Radiated Emissions (Below 1GHz):



Charging by Base:

For Radiated Emissions (Below 1GHz):



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.203	Antenna Requirement	Compliant
§15.207 (a)	AC Line Conducted Emissions	Compliant
§15.225 §15.209 §15.205	Radiated Emission Test	Compliant
§15.225(e)	Frequency Stability	Compliant
§15.215(c)	20dB Emission Bandwidth Testing	Compliant
§1.1310 §2.1093	RF Exposure	Compliant
§15.247 (I), §1.1310 & §2.1091	Maximum Permissible Exposure (MPE)	Compliant

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emission Test (Chamber #1)					
Rohde & Schwarz	EMI Test Receiver	ESCI	100195	2024-04-23	2025-04-22
Sunol Sciences	Broadband Antenna	JB3	A090314-1	2023-11-11	2024-11-10
ETS-LINDGREN	Loop Antenna	6512	00108100	2023-11-09	2024-11-08
Narda	6dB Attenuator	773-6	10690812-2-3	2024-06-04	2025-06-04
Sonoma Instrument	Pre-amplifier	310N	171205	2024-04-23	2025-04-22
Rohde & Schwarz	Auto Test Software	EMC32	100361	N/A	N/A
MICRO-COAX	Coaxial Cable	Cable-8	008	2024-04-25	2025-04-24
MICRO-COAX	Coaxial Cable	Cable-9	009	2024-04-23	2025-04-22
MICRO-COAX	Coaxial Cable	Cable-10	010	2024-04-23	2025-04-22
Conducted Emission Test					
Rohde & Schwarz	EMI Test Receiver	ESR	1316.3003K03-101746-zn	2024-04-23	2025-04-22
Rohde & Schwarz	LISN	ENV216	101115	2024-04-23	2025-04-22
Audix	Test Software	e3	V9	N/A	N/A
Rohde & Schwarz	Pulse limiter	ESH3-Z2	100552	2024-05-23	2025-05-22

Frequency Stability					
BACL	Temperature & Humidity Chamber	BTH-150	30023	2024-04-25	2025-04-24
EAST	Regulated DC Power Supply	MCH-303D-II	14070562	2023-10-10	2024-10-09
Rohde & Schwarz	EMI Test Receiver	ESCI	100195	2024-04-23	2025-04-22
ETS-LINDGREN	Loop Antenna	6512	108100	2023-11-09	2024-11-08
MICRO-COAX	Coaxial Cable	Cable-10	010	2024-04-23	2025-04-22

Statement of Traceability: Bay Area Compliance Laboratories Corp. (Kunshan) 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 §2.1091 and 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) (§1.1310, §2.1091)

(B) Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	**Electric Field Strength (V/m)**	**Magnetic Field Strength (A/m)**	**Power Density (mW/cm^2)**	**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 to §1.1310 and §2.1091 RF exposure is calculated.

Calculated Formulary:
Predication of MPE limit at a given distance
$S = PG/4\pi R^2$ = power density (in appropriate units, e.g. mW/cm^2);
P = power input to the antenna (in appropriate units, e.g., mW);
G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;
R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

For simultaneously transmit system, the calculated power density should comply with:

$$\sum_i \frac{S_i}{S_{Limit,i}} \leq 1$$

Calculation Data:

Mode	Frequency Range (MHz)	Antenna Gain		Tune-up Output Power		Evaluation Distance (cm)	Power Density (mW/cm^2)	MPE Limit (mW/cm^2)	MPE Ratio
		(dBi)	(numeric)	(dBm)	(mW)				
BT	2402-2480	1.31	1.35	11.5	14.13	20	0.0038	1.0	0.0038
BLE		1.31	1.35	6.5	4.47	20	0.0012	1.0	0.0012
2.4G Wi-Fi	2412-2462	1.31	1.35	24.5	281.84	20	0.0757	1.0	0.0757
5G Wi-Fi	5150-5250	2.87	2.42	14.5	28.18	20	0.0109	1.0	0.0109
	5725-5850	4.09	2.42	13.5	22.39	20	0.0114	1.0	0.0114
GSM850 (GPRS/EGPRS)	824-849	-1.46	0.71	26.24	420.73	20	0.0598	0.5493	0.1089
PCS1900 (GPRS/EGPRS)	1850-1910	0.38	1.09	22.74	187.93	20	0.0407	1.0	0.0407
WCDMA Band II	1850-1910	0.38	1.09	23	199.53	20	0.0433	1.0	0.0433
WCDMA Band IV	1710-1755	1.33	1.36	23	199.53	20	0.0540	1.0	0.0540
WCDMA Band V	824-849	-1.46	0.71	23	199.53	20	0.0284	0.5493	0.0517
LTE Band 2	1850-1910	0.38	1.09	22.5	177.83	20	0.0386	1.0	0.0386
LTE Band 4	1710-1755	1.33	1.36	23	199.53	20	0.0540	1.0	0.0540
LTE Band 5	824-849	-1.46	0.71	22.5	177.83	20	0.0253	0.5493	0.0461
LTE Band 7	2500-2570	1.51	1.42	24	251.19	20	0.0710	1.0	0.0710
LTE Band 12	699-716	-4.98	0.32	23	199.53	20	0.0126	0.466	0.0270
LTE Band 13	777-787	-3.1	0.49	22.5	177.83	20	0.0173	0.518	0.0334
LTE Band 14	788-798	-3.06	0.49	22.5	177.83	20	0.0175	0.5253	0.0333
LTE Band 17	704-716	-4.98	0.32	23.5	223.87	20	0.0141	0.4693	0.0300
LTE Band 25	1850-1915	0.38	1.09	23.5	223.87	20	0.0485	1.0	0.0485
LTE Band 26	814-849	-1.46	0.71	23	199.53	20	0.0284	0.5427	0.0523
LTE Band 66	1710-1780	1.33	1.36	23	199.53	20	0.0540	1.0	0.0540
LTE Band 71	663-698	-6	0.25	22.5	177.83	20	0.0089	0.442	0.0201
LTE Band 38	2570-2620	0.81	1.21	23	199.53	20	0.0480	1.0	0.0480
LTE Band 41	2535-2655	1.41	1.38	23	199.53	20	0.0548	1.0	0.0548
NFC	13.56	0.00	1.00	-13.92	0.04	20	＜0.0001	0.98	＜ 0.0001
NFC field strength is 81.28dBμV/m = -13.92dBm (0.04mW) EIRP. That equal to antenna gain is 0dBi and used the EIRP value as conducted power.									

Note:

1. For the above tune up power were declared by the manufacturer.
2. For NFC: EIRP[dBm] = E[dBμV/m]- 95.2 for d = 3 m.

GSM850: Maximum Tune-up output power with 1 slot is 33dBm, 2 slot is 32.00 dBm, 3 slot is 30.50 dBm, 4 slot is 29.00 dBm so the max tune-up time based Ave. power compared to slot Ave. power is 4slot 26.24dBm

PCS1900: Maximum Tune-up output power with 1 slot is 29.50 dBm, 2 slot is 29.0 dBm, 3 slot is 27.0 dBm, 4 slot is 25.5 dBm so the max tune-up time based Ave. power compared to slot Ave. power is 22.74dBm

Number of Time slot	1	2	3	4
Duty Cycle	1:8	1:4	1:2.66	1:2
Time based Ave. power compared to slotted Ave. power	-9 dB	-6 dB	-4.26 dB	-3 dB

Note:
1. For the above tune up power were declared by the manufacturer.
2. 2.4G Wi-Fi , GSM850 and NFC can transmit simultaneously（worst case）

$$\sum_i \frac{S_i}{S_{Limit,i}} =0.0757+0.1089+0.0001=0.1847 < 1.0$$

Result: The device meet FCC MPE at 20 cm distance.

FCC§15.203 - ANTENNA REQUIREMENT

Applicable Standard

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.

Antenna Connected Construction

The EUT has a Loop antenna for 13.56 MHz which the antenna gain is 0dBi, the antenna was permanently attached, fulfill the requirement of this section, please refer to the EUT photos.

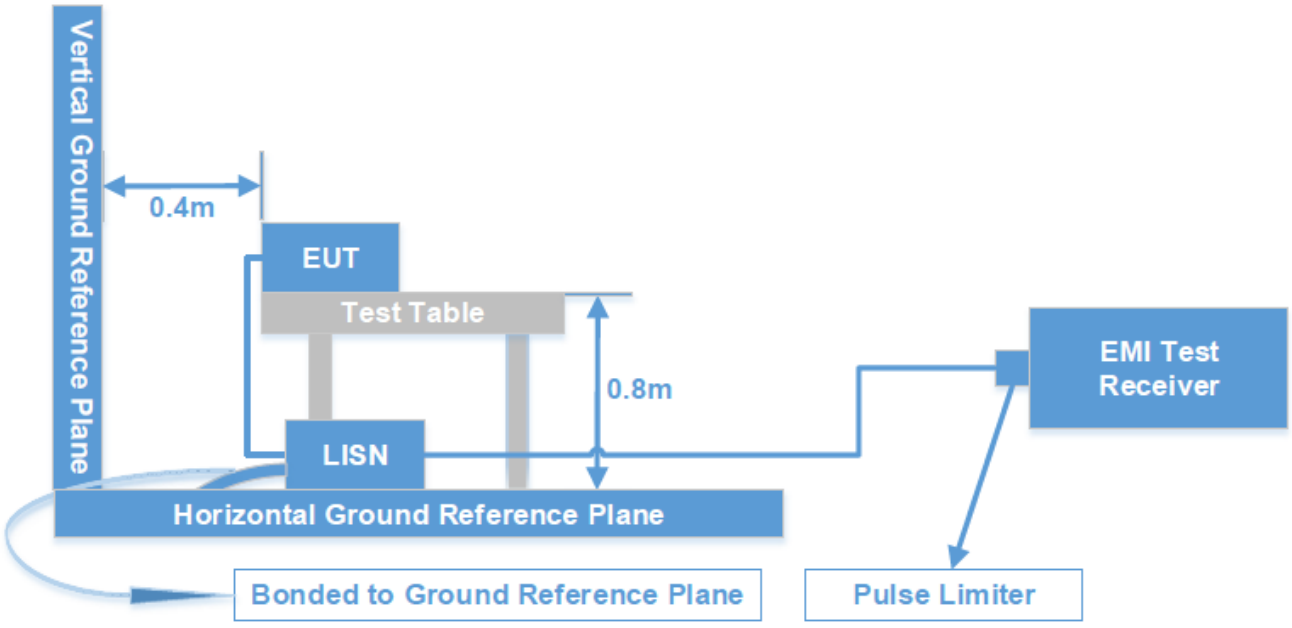
Result: Compliant.

FCC §15.207 (a) – AC LINE CONDUCTED EMISSIONS

Applicable Standard

FCC§15.207(a)

Test System Setup



The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The spacing between the peripherals was 10 cm.

EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	RBW	VBW
150 kHz - 30 MHz	9 kHz	30 kHz

Test Procedure

During the conducted emission test, the adapter was connected to the outlet of the LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

If the maximum peak value of the emissions is below the average limit, the QP value and average value measurement will not need to be performed and only record the maximum peak measured value to meet the requirements.

Level & Over Limit Calculation

The Level is calculated by adding LISN VDF (Voltage Division Factor), Cable Loss and Transient Limiter Attenuation from the Meter Reading. The basic equation is as follows:

Factor (dB) = LISN VDF (dB) + Cable Loss (dB) + Transient Limiter Attenuation (dB)
Level (dBμV) = Read level (dBμV) + Factor (dB)

The "**Over Limit**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, an Over Limit of 7 dB means the emission is 7 dB above the limit. The equation for Over Limit calculation is as follows:

Over Limit (dB) = Level (dBμV) - Limit (dBμV)

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Part 15.207.

Test Data: See Appendix

FCC§15.225, §15.205 & §15.209 - RADIATED EMISSIONS TEST

Applicable Standard

As per FCC Part 15.225

(a) The field strength of any emissions within the band 13.553–13.567 MHz shall not exceed 15,848 microvolts/meter at 30 meters.

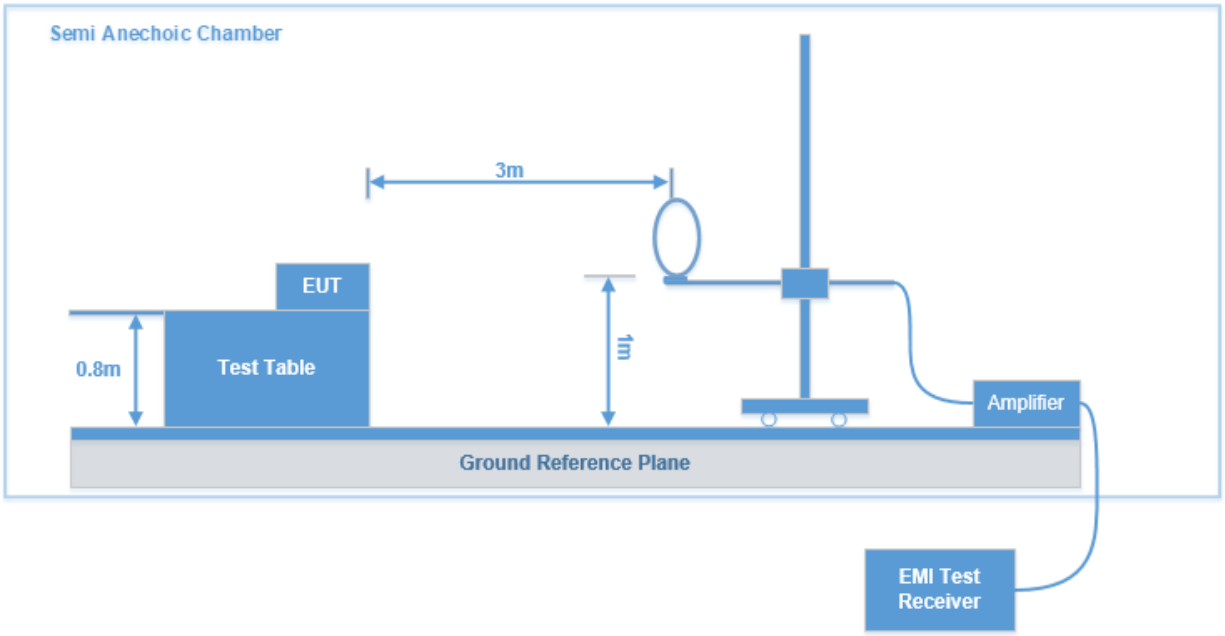
(b) Within the bands 13.410–13.553 MHz and 13.567–13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters.

(c) Within the bands 13.110–13.410 MHz and 13.710–14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters.

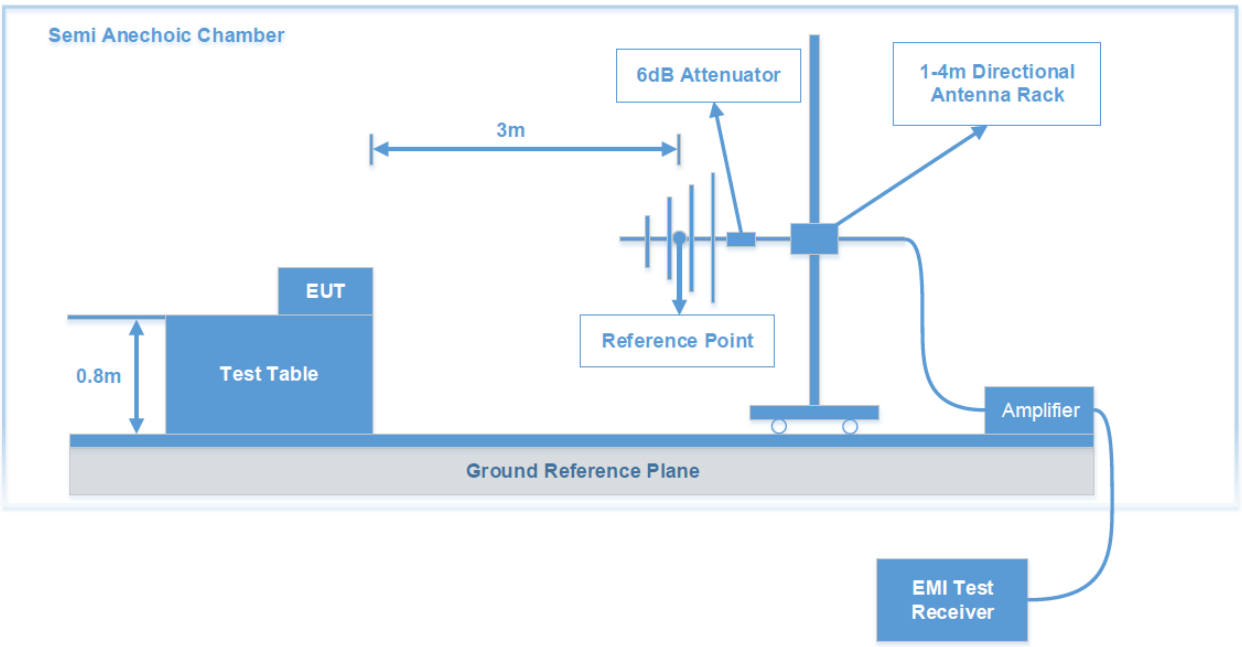
(d) The field strength of any emissions appearing outside of the 13.110–14.010 MHz band shall not exceed the general radiated emission limits in §15.209.

Test System Setup

9 kHz-30MHz:



30MHz-1GHz:



The radiated emission tests were performed in the 3-meter chamber a test site, using the setup accordance with the ANSI C63.10. The specification used was the FCC Part Subpart C limits.

The spacing between the peripherals was 10 cm.

EMI Test Receiver Setup

According to FCC Rules, 47 CFR 15.33, the EUT emissions were investigated up to 1000 MHz.

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

Frequency Range	RBW	VBW	IF B/W	Measurement
9 kHz – 150 kHz	200 Hz	1 kHz	200 Hz	QP/AV
150 kHz – 30 MHz	9 kHz	30 kHz	9 kHz	QP/AV
30 MHz – 1000 MHz	100 kHz	300 kHz	120 kHz	PK

For 9 kHz-30MHz test, the lowest height of the magnetic antenna shall be 1 m above the ground and three antenna orientations (parallel, perpendicular, and ground-parallel) shall be measured.

Level & Over Limit Calculation for below 1 GHz

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

Factor(dB/m) = Antenna Factor(dB/m) + Cable Loss(dB) - Amplifier Gain(dB)
Level(dBμV/m) = Read level(dBμV) + Factor(dB/m)

The "Over Limit" column of the following data tables indicates the degree of compliance with the applicable limit. For example, an Over Limit of 7 dB means the emission is 7 dB above the limit. The equation for Over Limit calculation is as follows:

Over Limit(dB) = Level(dBμV/m) – Limit(dBμV/m)

Corrected Amplitude & Margin Calculation for above 1 GHz

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

Corrected Amplitude (dBμV/m) = Meter Reading (dBμV) + Antenna Factor (dB/m) + Cable Loss (dB) - Amplifier Gain (dB)

The "Margin" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

Margin (dB) = Limit (dBμV/m) – Corrected Amplitude (dBμV/m)

Test Results Summary

According to the data in the following table, the EUT complied with the FCC Part 15.209, 15.205, 15.225.

Test Data: See Appendix

FCC§15.225(e) - FREQUENCY STABILITY

Applicable Standard

The frequency tolerance of the carrier signal shall be maintained within ±0.01% of the operating frequency over a temperature variation of −20 degrees to +50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.

Test Procedure

a) Supply the EUT with a nominal ac voltage or install a new or fully charged battery in the EUT. If possible, a dummy load shall be connected to the EUT because an antenna near the metallic walls of an environmental test chamber could affect the output frequency of the EUT. If the EUT is equipped with a permanently attached, adjustable-length antenna, then the EUT shall be placed in the center of the chamber with the antenna adjusted to the shortest length possible. Turn ON the EUT and tune it to one of the number of frequencies shown in 5.6.

b) Couple the unlicensed wireless device output to the measuring instrument by connecting an antenna to the measuring instrument with a suitable length of coaxial cable and placing the measuring antenna near the EUT (e.g., 15 cm away), or by connecting a dummy load to the measuring instrument, through an attenuator if necessary.
NOTE—An instrument that has an adequate level of accuracy as specified by the procuring or regulatory agency is the recommended measuring instrument.

c) Adjust the location of the measurement antenna and the controls on the measurement instrument to obtain a suitable signal level (i.e., a level that will not overload the measurement instrument but is strong enough to allow measurement of the operating or fundamental frequency of the EUT).

d) Turn the EUT OFF and place it inside the environmental temperature chamber. For devices that have oscillator heaters, energize only the heater circuit.

e) Set the temperature control on the chamber to the highest specified in the regulatory requirements for the type of device and allow the oscillator heater and the chamber temperature to stabilize.

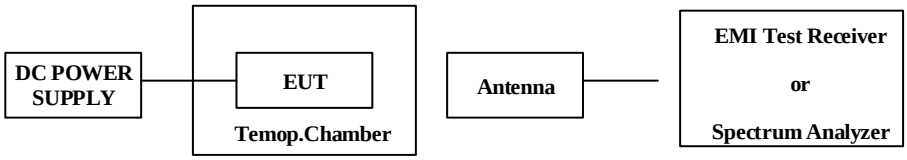
f) While maintaining a constant temperature inside the environmental chamber, turn the EUT ON and record the operating frequency at startup, and at 2 minutes, 5 minutes, and 10 minutes after the EUT is energized. Four measurements in total are made.

g) Measure the frequency at each of frequencies specified in 5.6.

h) Switch OFF the EUT but do not switch OFF the oscillator heater.

i) Lower the chamber temperature by not more that 10 °C, and allow the temperature inside the chamber to stabilize.

j) Repeat step f) through step i) down to the lowest specified temperature.



Test Data: See Appendix

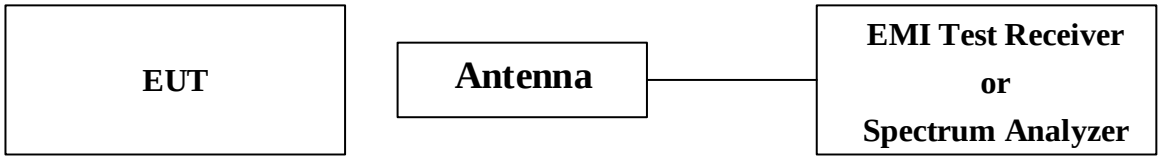
§15.215(c) - 20dB EMISSION BANDWIDTH TESTING

Requirement

Per 15.215 (c) Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated. The requirement to contain the designated bandwidth of the emission within the specified frequency band includes the effects from frequency sweeping, frequency hopping and other modulation techniques that may be employed as well as the frequency stability of the transmitter over expected variations in temperature and supply voltage. If a frequency stability is not specified in the regulations, it is recommended that the fundamental emission be kept within at least the central 80% of the permitted band in order to minimize the possibility of out-of-band operation.

Test Procedure

1. Measure the frequency difference of two frequencies that were attenuated 20 dB from the reference level. Record the frequency difference as the emission bandwidth.



Test Data: See Appendix

APPENDIX - TEST DATA

AC LINE CONDUCTED EMISSIONS

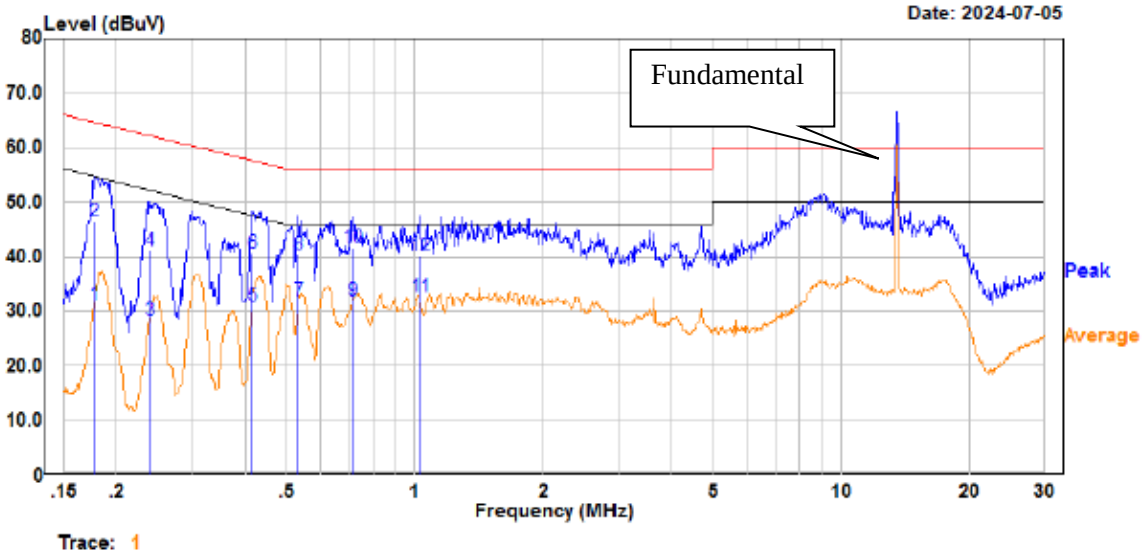
Environmental Conditions & Test Information

Test Item:	AC LINE CONDUCTED EMISSIONS	RADIATED EMISSIONS		FREQUENCY STABILITY	20dB EMISSION BANDWIDTH TESTING
		9 kHz - 30 MHz	30 MHz – 1 GHz		
Test Date:	2024-06-19 to 2024-07-05	2024-06-18	2024-06-18	2024-06-18	2024-06-18
Temperature:	25.8-27.3 ℃	24.2 ℃	24.2 ℃	24.2 ℃	24.2 ℃
Relative Humidity:	51-62 %	46 %	46 %	46 %	46 %
ATM Pressure:	100.6-100.7 kPa	100.8 kPa	100.8 kPa	100.8 kPa	100.8 kPa
Test Result:	Pass	Pass	Pass	Pass	Pass
Test Engineer:	Joe Zhang	Leah Li	Leah Li	Bard Liu	Leah Li

AC LINE CONDUCTED EMISSIONS

EUT operation mode: Transmitting

For Adapter charging:
With antenna:
Line:

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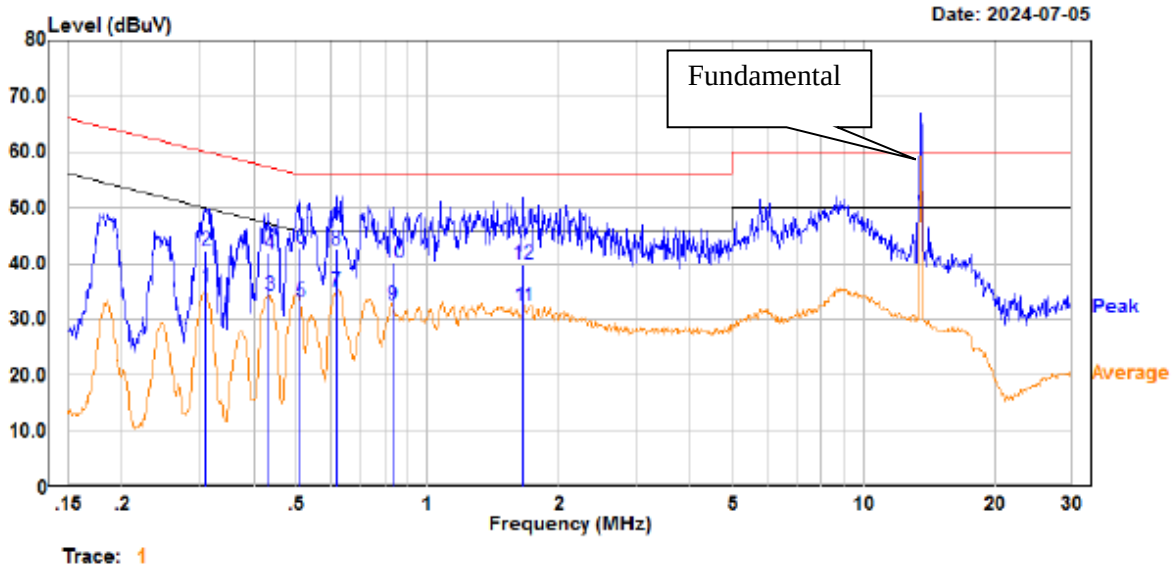
Site                : CE
Condition           : FCC Part 15.207
                    : DET:Peak
Project No.         : RKAS240327005
Model               : T2
Phase               : L
Voltage             : 120V/60Hz
Mode                : NFC
Test Equipment      : ENV216,ESR
Temperature         : 27.3℃
Humidity            : 62%
Atmospheric pressure: 100.7kPa
Test Engineer       : Joe Zhang
```

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.178	11.20	20.02	31.22	54.59	-23.37	Average
2	0.178	26.40	20.02	46.42	64.59	-18.17	QP
3	0.240	8.20	20.04	28.24	52.11	-23.87	Average
4	0.240	21.10	20.04	41.14	62.11	-20.97	QP
5	0.417	11.00	20.00	31.00	47.51	-16.51	Average
6	0.417	20.50	20.00	40.50	57.51	-17.01	QP
7	0.535	11.90	19.97	31.87	46.00	-14.13	Average
8	0.535	20.40	19.97	40.37	56.00	-15.63	QP
9	0.714	12.00	19.91	31.91	46.00	-14.09	Average
10	0.714	21.70	19.91	41.61	56.00	-14.39	QP
11	1.027	12.90	19.62	32.52	46.00	-13.48	Average
12	1.027	20.60	19.62	40.22	56.00	-15.78	QP

Neutral:

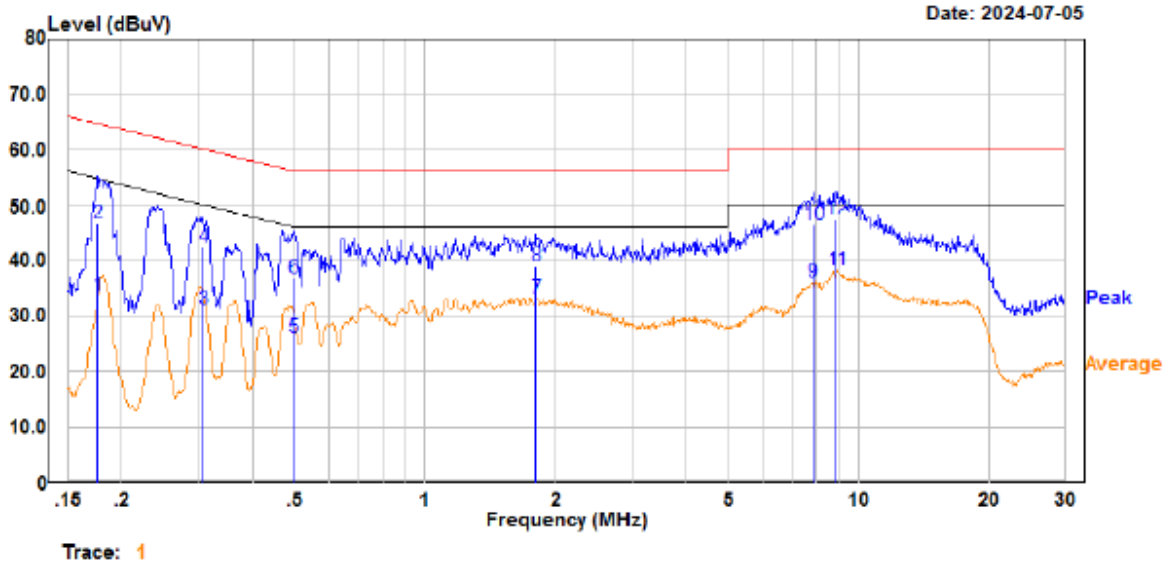



```
Site                 : CE
Condition            : FCC Part 15.207
                     : DET:Peak
Project No.          : RKAS240327005
Model                : T2
Phase                : N
Voltage              : 120V/60Hz
Mode                 : NFC
Test Equipment       : ENV216,ESR
Temperature          : 27.3℃
Humidity             : 62%
Atmospheric pressure: 100.7kPa
Test Engineer        : Joe Zhang
```

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.311	15.70	20.03	35.73	49.96	-14.23	Average
2	0.311	22.20	20.03	42.23	59.96	-17.73	QP
3	0.434	14.40	20.00	34.40	47.18	-12.78	Average
4	0.434	21.90	20.00	41.90	57.18	-15.28	QP
5	0.511	13.20	19.98	33.18	46.00	-12.82	Average
6	0.511	22.70	19.98	42.68	56.00	-13.32	QP
7	0.618	15.21	19.94	35.15	46.00	-10.85	Average
8	0.618	22.51	19.94	42.45	56.00	-13.55	QP
9	0.833	12.91	19.76	32.67	46.00	-13.33	Average
10	0.833	20.41	19.76	40.17	56.00	-15.83	QP
11	1.658	12.49	19.92	32.41	46.00	-13.59	Average
12	1.658	20.09	19.92	40.01	56.00	-15.99	QP

With load

Line:

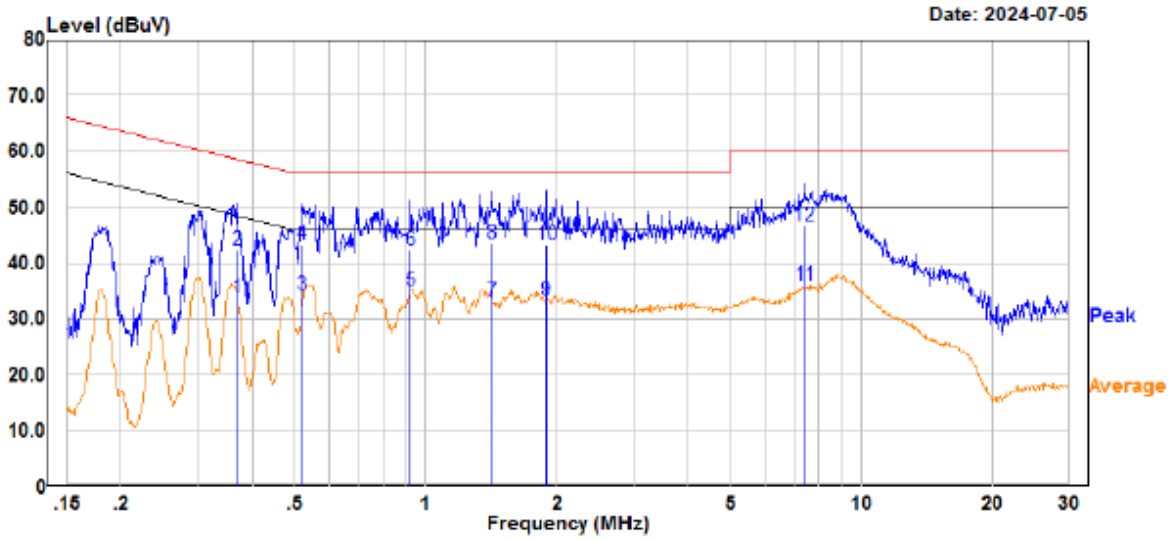


Trace: 1

Site : CE
Condition : FCC Part 15.207
: DET:Peak
Project No. : RKAS240327005
Model : T2
Phase : L
Voltage : 120V/60Hz
Mode : NFC
Test Equipment : ENV216,ESR
Temperature : 27.3℃
Humidity : 62%
Atmospheric pressure: 100.7kPa
Test Engineer : Joe Zhang

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.176	13.49	20.02	33.51	54.68	-21.17	Average
2	0.176	26.59	20.02	46.61	64.68	-18.07	QP
3	0.309	11.20	20.03	31.23	50.00	-18.77	Average
4	0.309	22.20	20.03	42.23	60.00	-17.77	QP
5	0.499	6.20	19.98	26.18	46.02	-19.84	Average
6	0.499	16.70	19.98	36.68	56.02	-19.34	QP
7	1.804	13.20	19.97	33.17	46.00	-12.83	Average
8	1.804	19.00	19.97	38.97	56.00	-17.03	QP
9	7.849	16.10	20.01	36.11	50.00	-13.89	Average
10	7.849	26.50	20.01	46.51	60.00	-13.49	QP
11	8.891	18.31	19.93	38.24	50.00	-11.76	Average
12	8.891	27.51	19.93	47.44	60.00	-12.56	QP

Neutral:

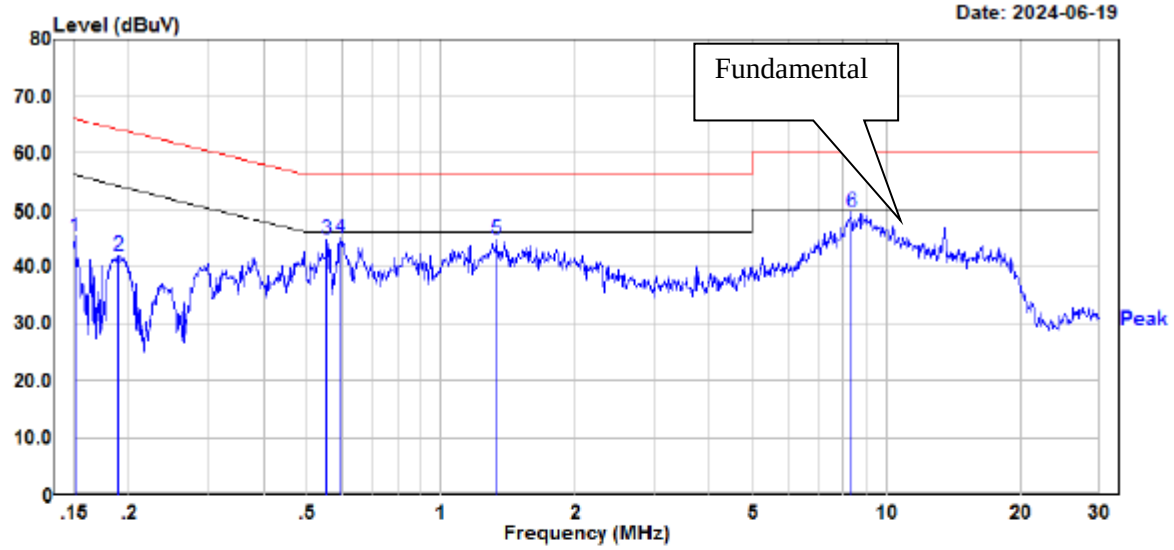


Trace: 1

Site : CE
Condition : FCC Part 15.207
: DET:Peak
Project No. : RKAS240327005
Model : T2
Phase : N
Voltage : 120V/60Hz
Mode : NFC
Test Equipment : ENV216,ESR
Temperature : 27.3℃
Humidity : 62%
Atmospheric pressure: 100.7kPa
Test Engineer : Joe Zhang

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.370	13.90	20.02	33.92	48.51	-14.59	Average
2	0.370	22.20	20.02	42.22	58.51	-16.29	QP
3	0.519	14.40	19.97	34.37	46.00	-11.63	Average
4	0.519	23.30	19.97	43.27	56.00	-12.73	QP
5	0.925	15.40	19.67	35.07	46.00	-10.93	Average
6	0.925	22.60	19.67	42.27	56.00	-13.73	QP
7	1.420	13.41	19.81	33.22	46.00	-12.78	Average
8	1.420	23.81	19.81	43.62	56.00	-12.38	QP
9	1.887	13.40	19.99	33.39	46.00	-12.61	Average
10	1.887	23.20	19.99	43.19	56.00	-12.81	QP
11	7.394	15.90	20.04	35.94	50.00	-14.06	Average
12	7.394	26.60	20.04	46.64	60.00	-13.36	QP

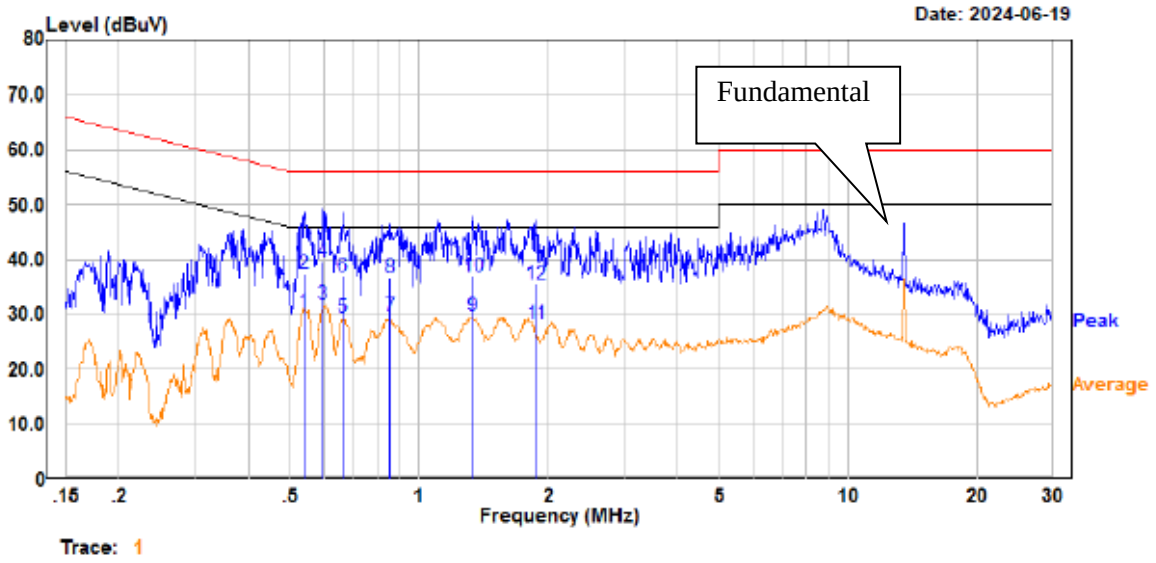
For Base charging:
With antenna:
Line:



Site : CE
Condition : FCC Part 15.207
: DET:Peak
Project No. : RKAS240327005
Model : T2
Phase : L
Voltage : 120V/60Hz
Mode : NFC
Test Equipment : ENV216,ESR
Temperature : 25.8℃
Humidity : 51%
Atmospheric pressure: 100.6kPa
Test Engineer : Joe Zhang

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.151	25.10	19.99	45.09	65.96	-20.87	Peak
2	0.189	21.78	20.03	41.81	64.10	-22.29	Peak
3	0.554	24.70	19.96	44.66	56.00	-11.34	Peak
4	0.594	24.98	19.95	44.93	56.00	-11.07	Peak
5	1.331	24.97	19.77	44.74	56.00	-11.26	Peak
6	8.333	29.53	19.97	49.50	60.00	-10.50	Peak

Neutral:




```
Site                  : CE
Condition             : FCC Part 15.207
                      : DET:Peak
Project No.           : RKAS240327005
Model                 : T2
Phase                 : N
Voltage               : 120V/60Hz
Mode                  : NFC
Test Equipment        : ENV216,ESR
Temperature           : 25.8℃
Humidity              : 51%
Atmospheric pressure: 100.6kPa
Test Engineer         : Joe Zhang
```

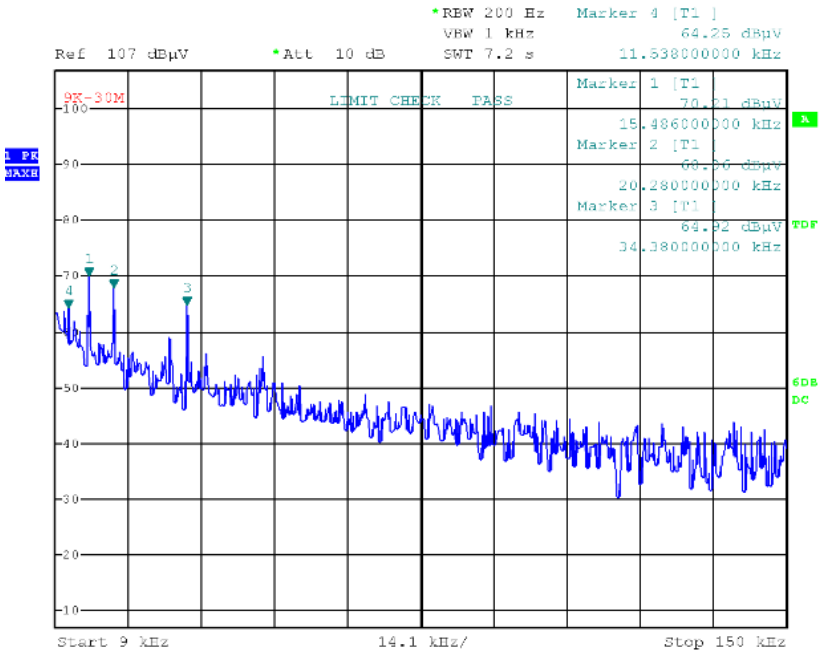
	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.540	10.50	19.97	30.47	46.00	-15.53	Average
2	0.540	17.40	19.97	37.37	56.00	-18.63	QP
3	0.597	12.00	19.95	31.95	46.00	-14.05	Average
4	0.597	19.60	19.95	39.55	56.00	-16.45	QP
5	0.662	9.50	19.94	29.44	46.00	-16.56	Average
6	0.662	17.10	19.94	37.04	56.00	-18.96	QP
7	0.854	9.90	19.74	29.64	46.00	-16.36	Average
8	0.854	17.10	19.74	36.84	56.00	-19.16	QP
9	1.331	10.01	19.77	29.78	46.00	-16.22	Average
10	1.331	17.11	19.77	36.88	56.00	-19.12	QP
11	1.868	8.40	19.99	28.39	46.00	-17.61	Average
12	1.868	15.50	19.99	35.49	56.00	-20.51	QP

RADIATED EMISSIONS TEST

Test mode: Transmitting

For Adapter charging:

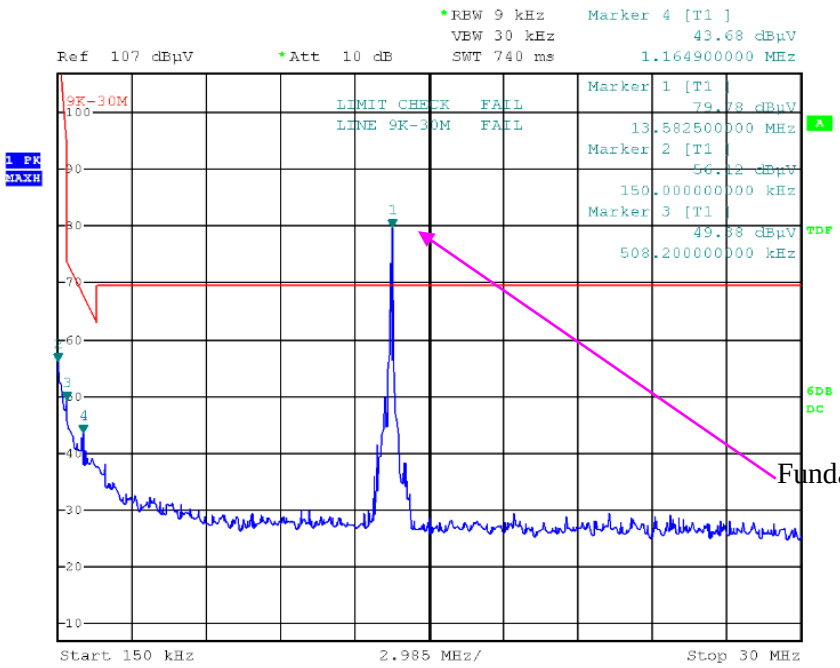
For Ground-parallel
1) 9 kHz~150 kHz:



Project No.RKAS240327005 Tester:Leah Li
Date: 18.JUN.2024 09:43:46

Frequency (kHz)	Corrected Amplitude (dBµV/m)@3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	FCC Part 15.225/15.209	
				Limit (dBµV/m) @3m	Margin (dB)
15.49	70.21	PK	52.87	123.80	53.59
20.28	68.06	PK	49.92	121.46	53.40
34.38	64.92	PK	46.06	116.88	51.96
11.54	64.25	PK	55.38	126.36	62.11

2) 150 kHz~30 MHz:

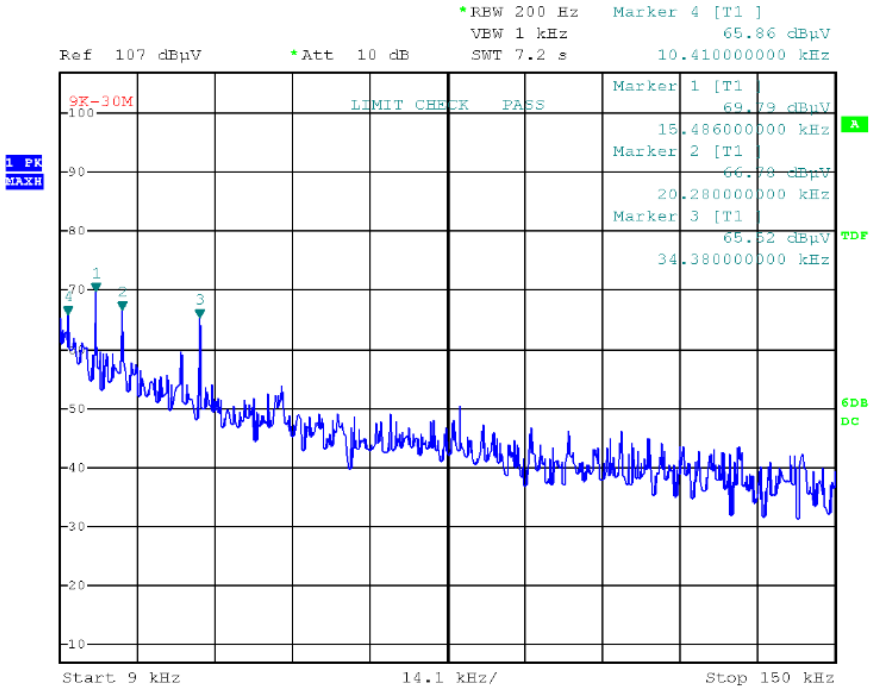


Project No.RKAS240327005 Tester:Leah Li

Date: 18.JUN.2024 15:50:07

Frequency (MHz)	Corrected Amplitude (dBµV/m)@3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	FCC Part 15.225/15.209	
				Limit (dBµV/m) @3m	Margin (dB)
0.15	56.12	PK	50.90	104.08	47.96
0.51	49.38	PK	22.98	73.45	24.07
1.16	43.68	PK	3.48	66.32	22.64

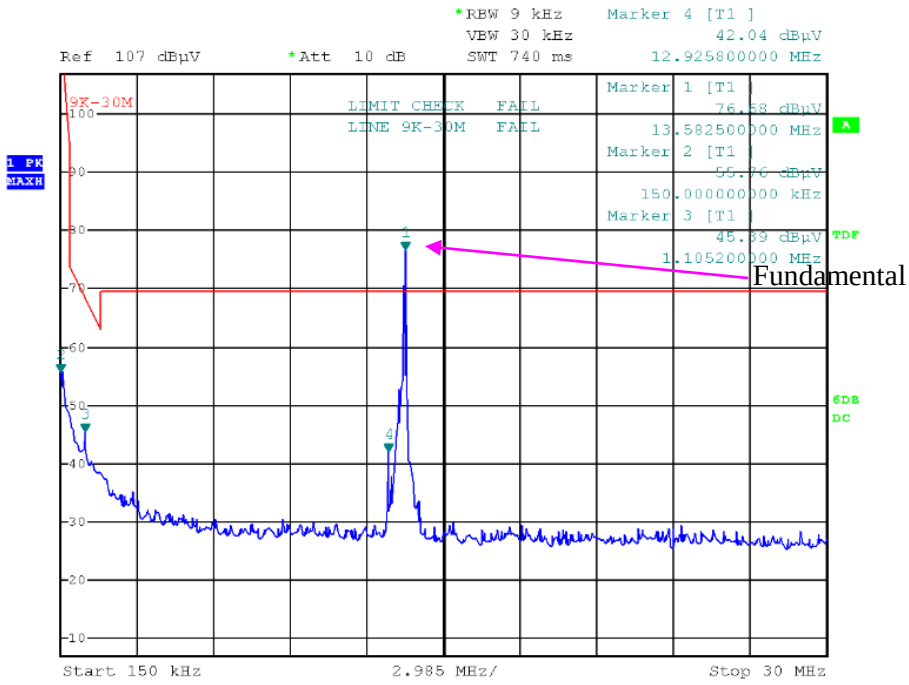
For Parallel
1) 9 kHz~150 kHz:



Project No.RKAS240327005 Tester:Leah Li
Date: 18.JUN.2024 09:40:13

Frequency (kHz)	Corrected Amplitude (dBµV/m)@3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	FCC Part 15.225/15.209	
				Limit (dBµV/m) @3m	Margin (dB)
15.49	69.79	PK	52.87	123.80	54.01
20.28	66.78	PK	49.92	121.46	54.68
34.38	65.52	PK	46.06	116.88	51.36
10.41	65.86	PK	56.10	127.26	61.40

2) 150 kHz~30 MHz:

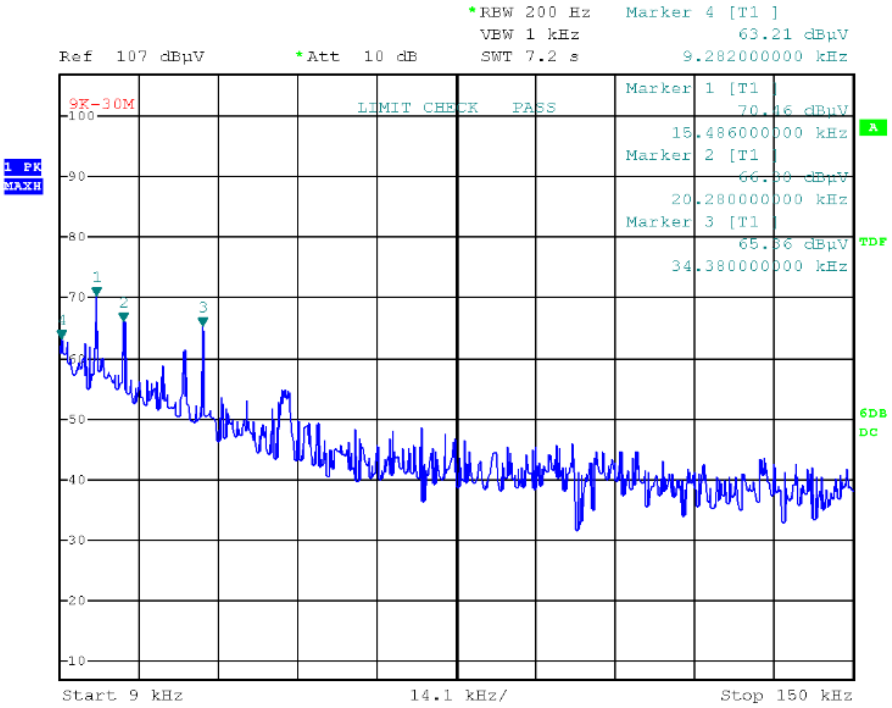


Project No.RKAS240327005 Tester:Leah Li

Date: 18.JUN.2024 15:54:50

Frequency (MHz)	Corrected Amplitude (dBµV/m)@3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	FCC Part 15.225/15.209	
				Limit (dBµV/m) @3m	Margin (dB)
0.15	55.76	PK	50.90	104.08	48.32
1.11	45.39	PK	2.83	66.70	21.31
12.93	42.04	PK	6.17	69.54	27.50

For Perpendicular
1) 9 kHz~150 kHz:

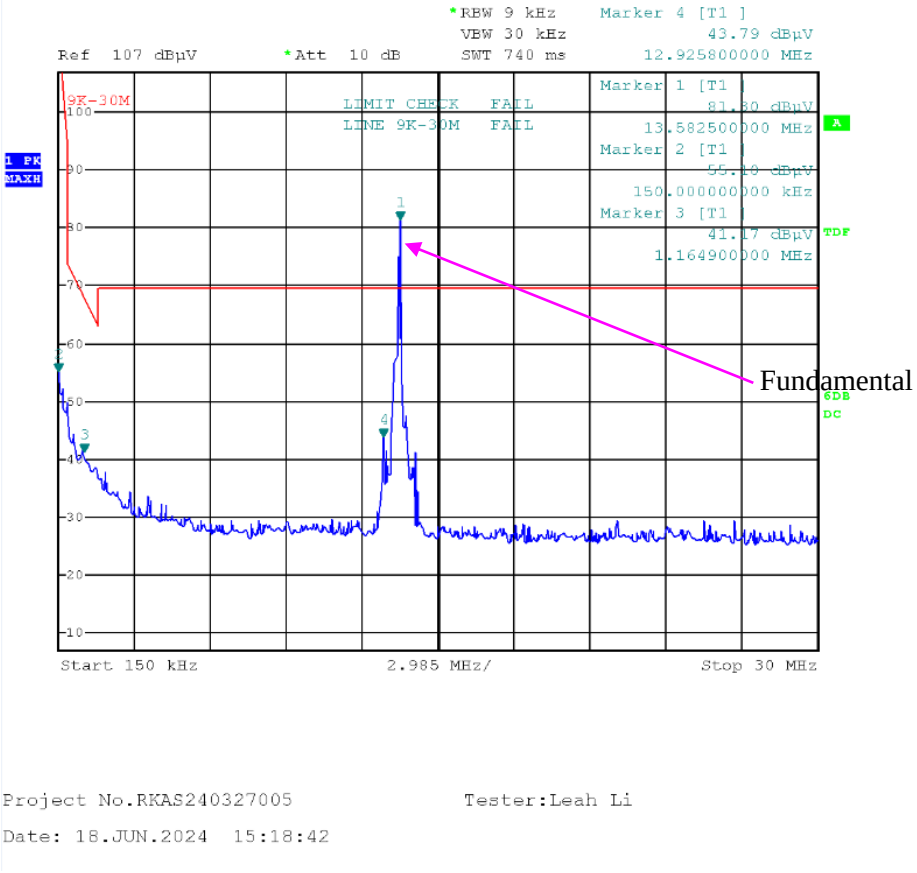


Project No.RKAS240327005 Tester:Leah Li

Date: 18.JUN.2024 09:36:39

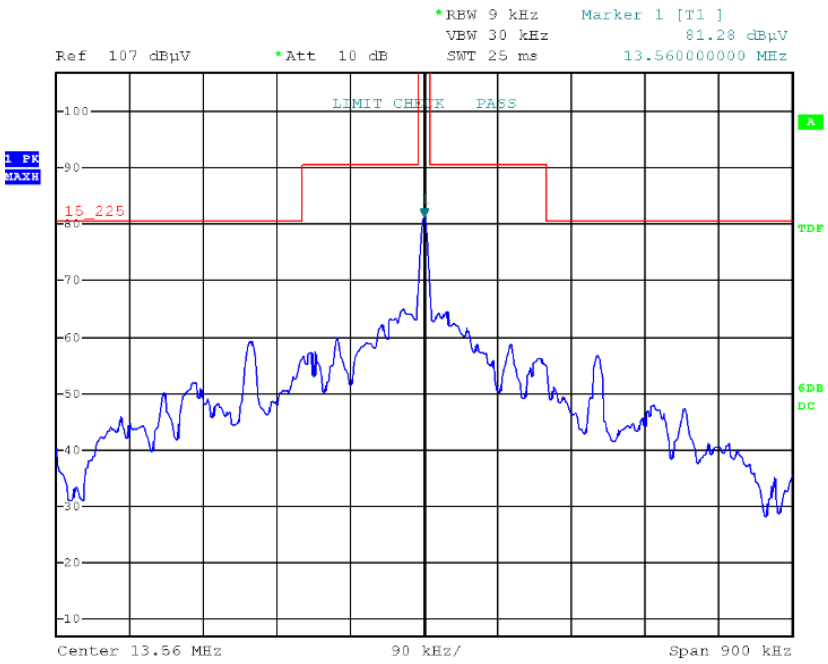
Frequency (kHz)	Corrected Amplitude (dBµV/m)@3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	FCC Part 15.225/15.209	
				Limit (dBµV/m) @3m	Margin (dB)
15.49	70.46	PK	52.87	123.80	53.34
20.28	66.30	PK	49.92	121.46	55.16
34.38	65.36	PK	46.06	116.88	51.52
9.28	63.21	PK	56.82	128.25	65.04

2) 150 kHz~30 MHz:



Frequency (MHz)	Corrected Amplitude (dBµV/m)@3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	FCC Part 15.225/15.209	
				Limit (dBµV/m) @3m	Margin (dB)
0.15	55.10	PK	50.90	104.08	48.98
1.16	41.17	PK	3.48	66.32	25.15
12.93	43.79	PK	6.17	69.54	25.75

3) 13.11 MHz~14.01 MHz:



Project No.RKAS240327005 Tester:Leah Li

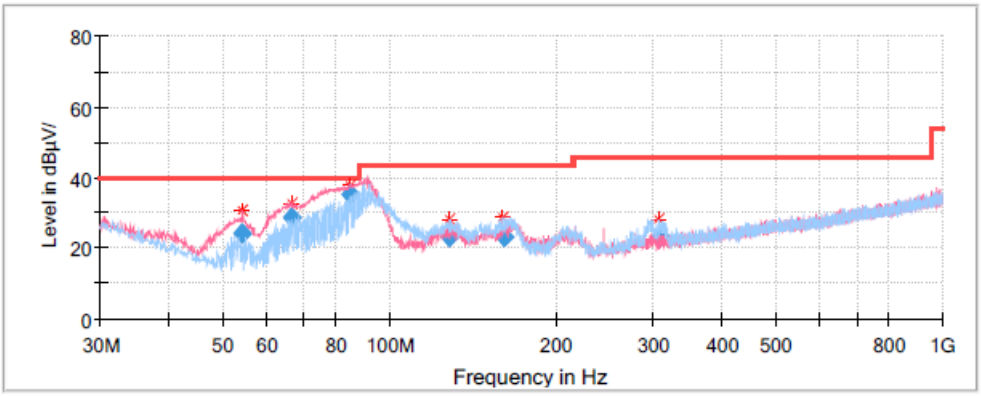
Date: 18.JUN.2024 15:22:35

Frequency (MHz)	Corrected Amplitude (dBµV/m)@3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	FCC Part 15.225/15.209	
				Limit (dBµV/m) @3m	Margin (dB)
13.56	81.28	PK	6.12	124.00	42.72

30 MHz ~1 GHz:

Common Information

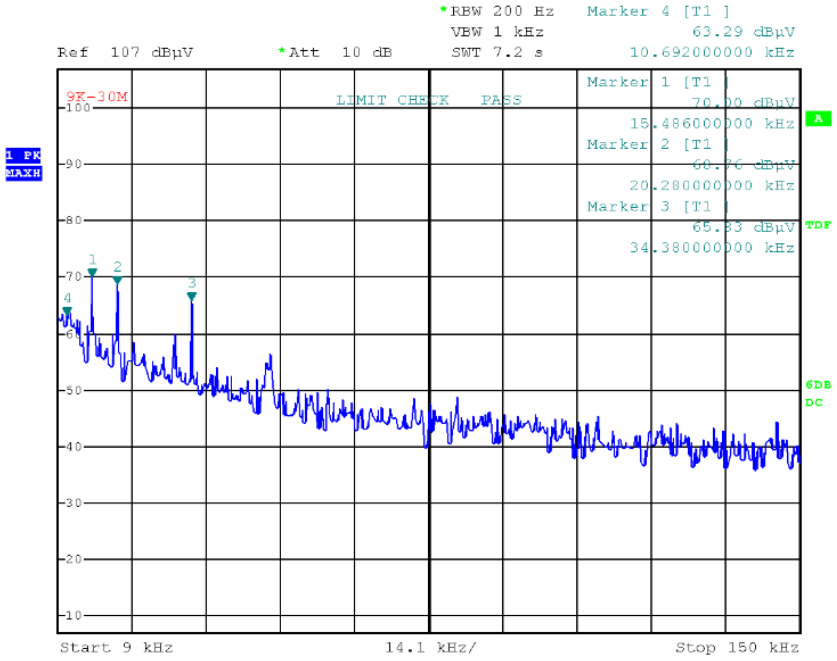
Project No:	RKSA240327005
EUT Model:	T2
Test Mode:	NFC
Standard:	FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Equipment:	ESCI、JB3、310N
Temperature:	24.2℃
Humidity:	46%
Barometric Pressure:	100.8kPa
Test Engineer:	Leah Li
Test Date:	2024/6/18



Final_Result

Frequency (MHz)	QuasiPeak (dBµ V/m)	Limit (dBµ V/m)	Margin (dB)	Pol	Corr. (dB/m)
54.222700	24.32	40.00	15.68	V	-17.1
66.498000	28.82	40.00	11.18	V	-17.2
85.160000	35.12	40.00	4.88	V	-17.1
128.074200	23.00	43.50	20.50	H	-11.1
160.947350	23.13	43.50	20.37	H	-12.2
308.573400	22.96	46.00	23.04	H	-10.3

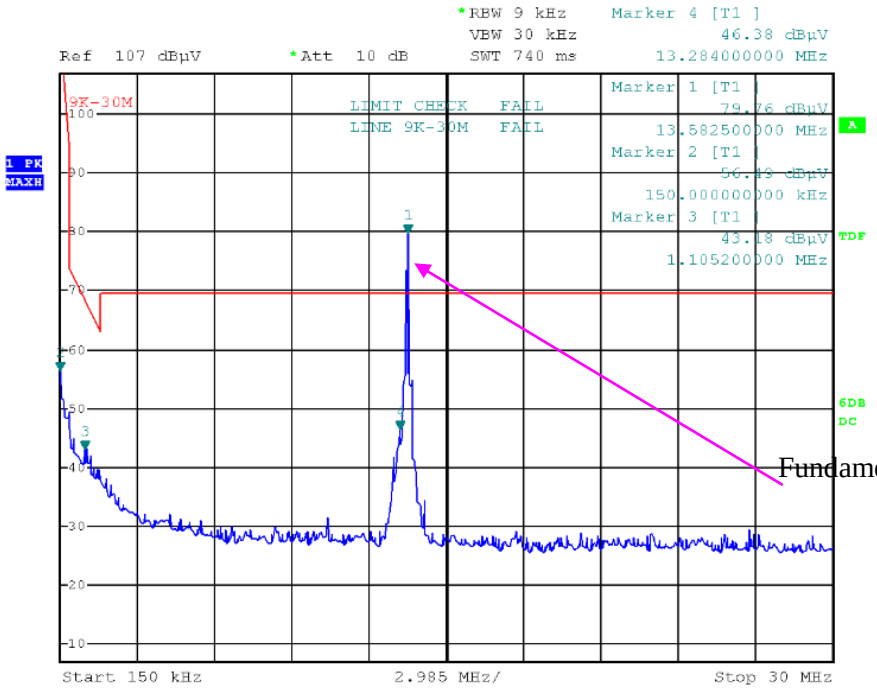
For Base charging:
For Ground-parallel
1) 9 kHz~150 kHz:



Project No.RKAS240327005 Tester:Leah Li
Date: 18.JUN.2024 09:47:54

Frequency (kHz)	Corrected Amplitude (dBµV/m)@3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	FCC Part 15.225/15.209	
				Limit (dBµV/m) @3m	Margin (dB)
15.49	70.00	PK	52.87	123.80	53.80
20.28	68.76	PK	49.92	121.46	52.70
34.38	65.83	PK	46.06	116.88	51.05
10.69	63.29	PK	55.93	127.03	63.74

2) 150 kHz~30 MHz:



Fundamental

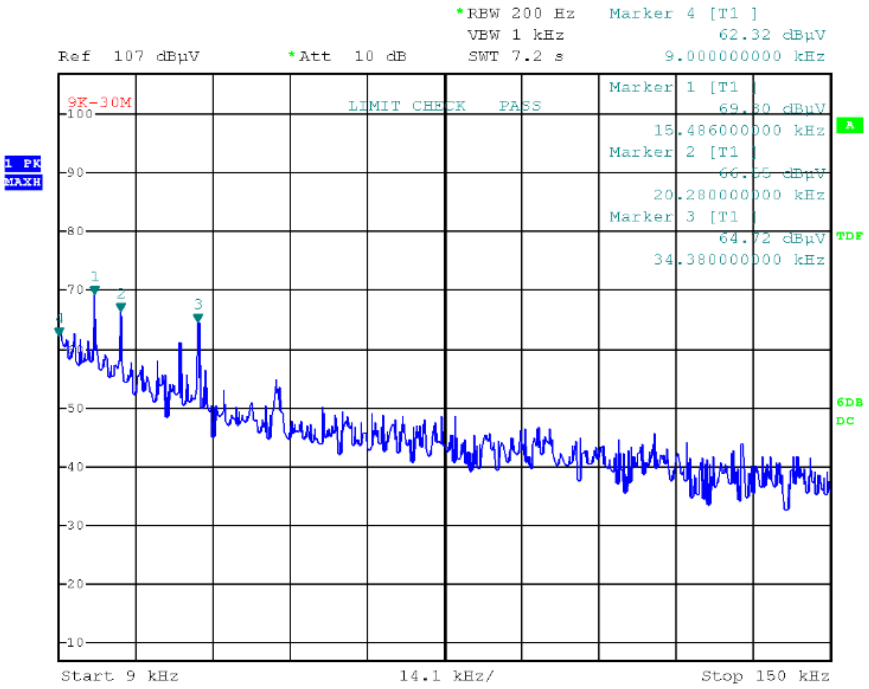
Project No.RKAS240327005 Tester:Leah Li

Date: 18.JUN.2024 15:45:46

Frequency (MHz)	Corrected Amplitude (dBµV/m)@3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	FCC Part 15.225/15.209	
				Limit (dBµV/m) @3m	Margin (dB)
0.15	56.49	PK	50.90	104.08	47.59
1.11	43.18	PK	2.83	66.70	23.52
13.28	46.38	PK	6.14	69.54	23.16

For Parallel

1) 9 kHz~150 kHz:

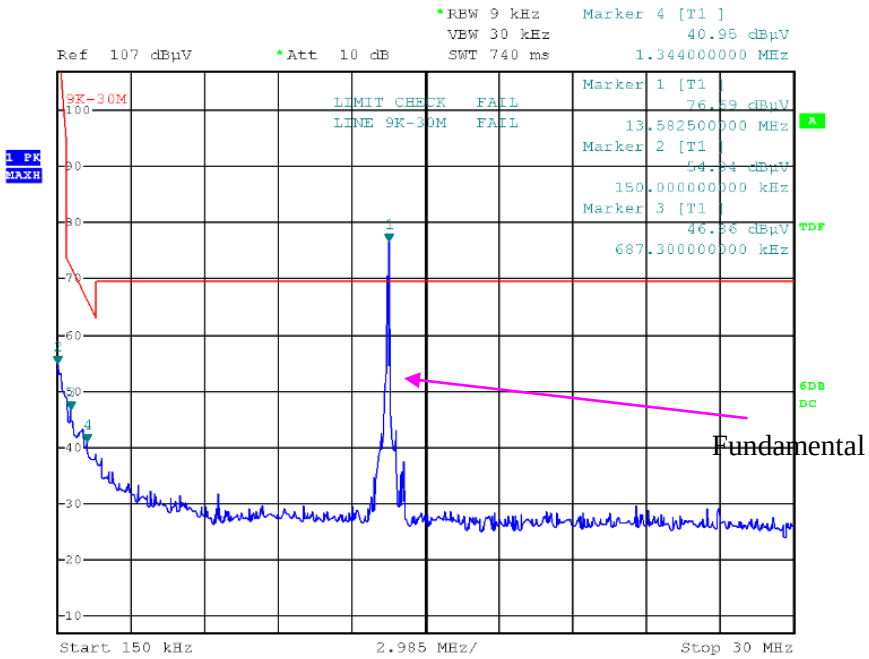


Project No.RKAS240327005 Tester:Leah Li

Date: 18.JUN.2024 09:54:11

Frequency (kHz)	Corrected Amplitude (dBµV/m)@3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	FCC Part 15.225/15.209	
				Limit (dBµV/m) @3m	Margin (dB)
15.49	69.30	PK	52.87	123.80	54.50
20.28	66.55	PK	49.92	121.46	54.91
34.38	64.72	PK	46.06	116.88	52.16
9.00	62.32	PK	57.00	128.52	66.20

2) 150 kHz~30 MHz:

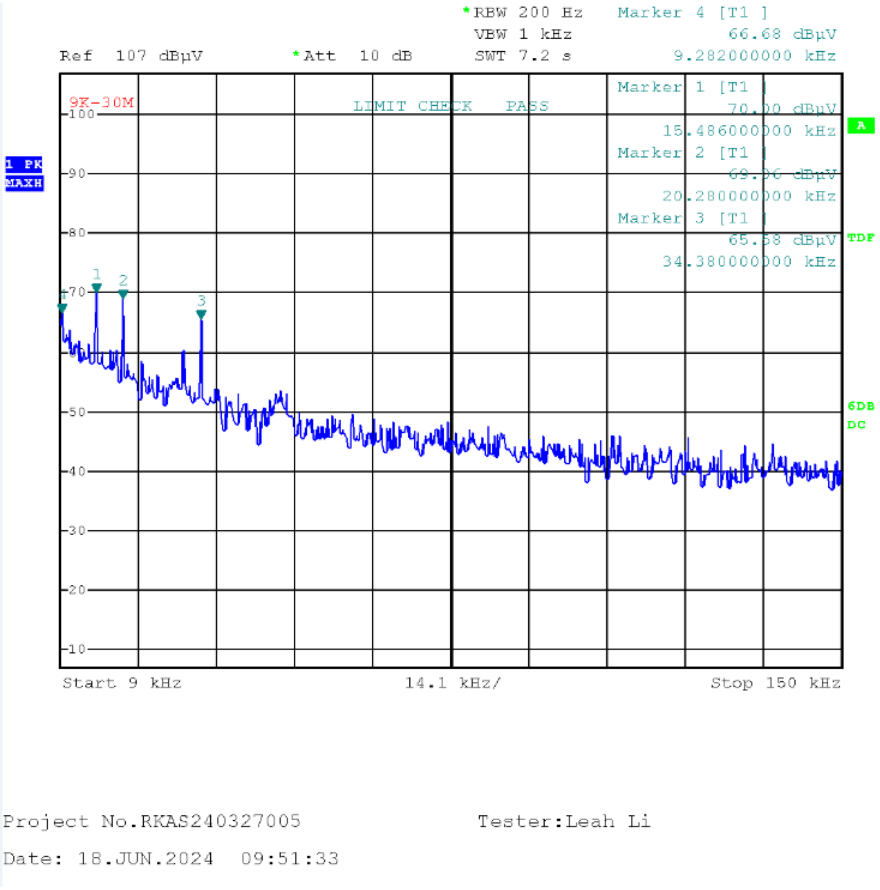


Project No.RKAS240327005 Tester:Leah Li

Date: 18.JUN.2024 15:59:09

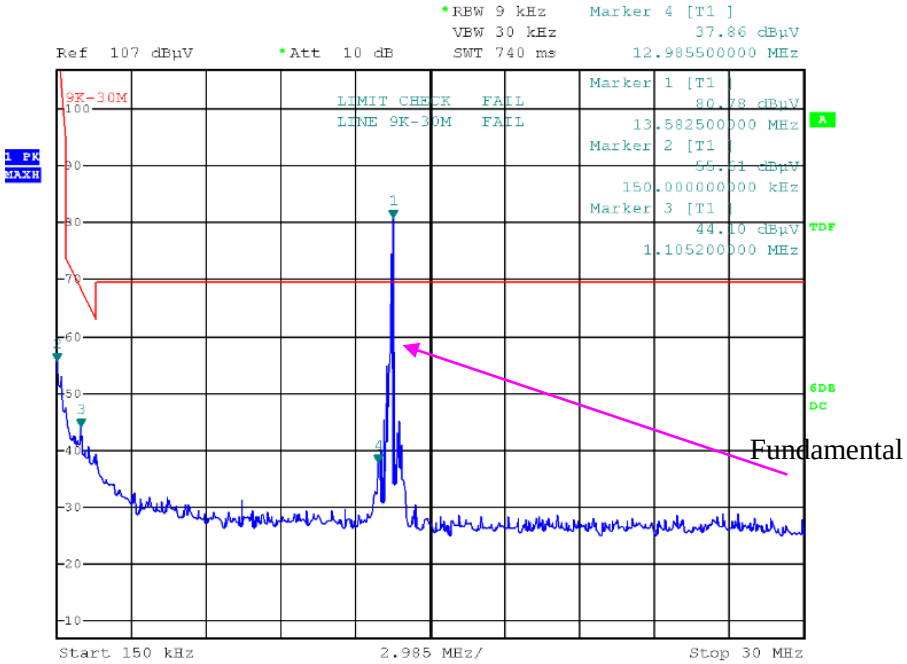
Frequency (MHz)	Corrected Amplitude (dBµV/m)@3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	FCC Part 15.225/15.209	
				Limit (dBµV/m) @3m	Margin (dB)
0.15	54.94	PK	50.90	104.08	49.14
0.69	46.86	PK	20.73	70.83	23.97
1.34	40.95	PK	5.82	65.06	24.11

For Perpendicular
1) 9 kHz~150 kHz:



Frequency (kHz)	Corrected Amplitude (dBµV/m)@3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	FCC Part 15.225/15.209	
				Limit (dBµV/m) @3m	Margin (dB)
15.49	70.00	PK	52.87	123.80	53.80
20.28	69.06	PK	49.92	121.46	52.40
34.38	65.58	PK	46.06	116.88	51.30
9.28	66.68	PK	56.82	128.25	61.57

2) 150 kHz~30 MHz:

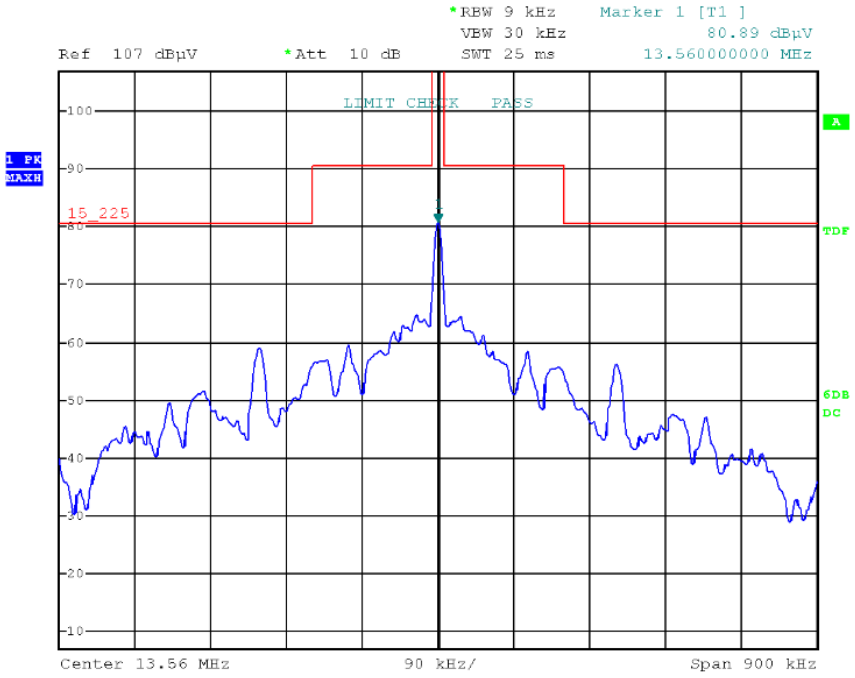


Project No.RKAS240327005 Tester:Leah Li

Date: 18.JUN.2024 15:42:05

Frequency (MHz)	Corrected Amplitude (dBµV/m)@3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	FCC Part 15.225/15.209	
				Limit (dBµV/m) @3m	Margin (dB)
0.15	55.61	PK	50.90	104.08	48.47
1.11	44.10	PK	2.83	66.70	22.60
12.98	37.86	PK	6.16	69.54	31.68

3) 13.11 MHz~14.01 MHz:

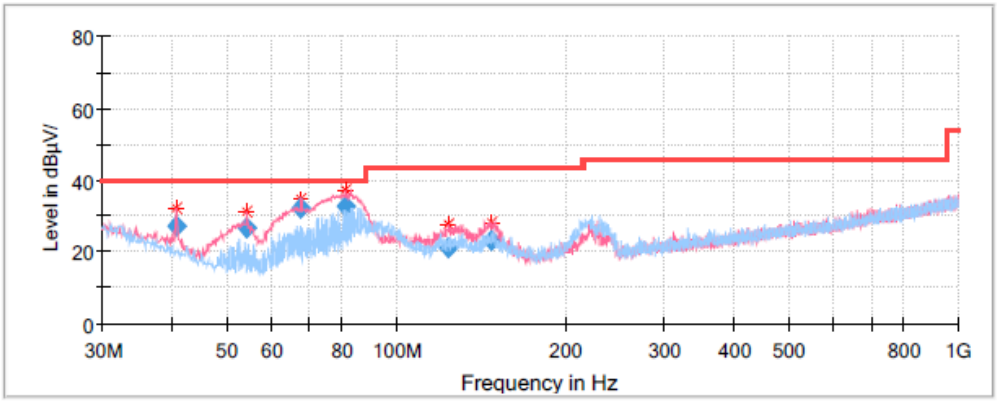


Frequency (MHz)	Corrected Amplitude (dBµV/m)@3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	FCC Part 15.225/15.209	
				Limit (dBµV/m) @3m	Margin (dB)
13.56	80.89	PK	6.12	124.00	43.11

30 MHz ~1 GHz:

Common Information

Project No:	RKSA240327005
EUT Model:	T2
Test Mode:	NFC
Standard:	FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Equipment:	ESCI、JB3、310N
Temperature:	24.2℃
Humidity:	46%
Barometric Pressure:	100.8kPa
Test Engineer:	Leah Li
Test Date:	2024/6/18



Final_Result

Frequency (MHz)	QuasiPeak (dBµ V/m)	Limit (dBµ V/m)	Margin (dB)	Pol	Corr. (dB/m)
40.670000	27.31	40.00	12.69	V	-11.5
54.250000	26.90	40.00	13.10	V	-17.0
67.700000	32.27	40.00	7.73	V	-17.2
81.410000	32.88	40.00	7.12	V	-17.2
123.480000	21.35	43.50	22.15	V	-10.9
147.490000	23.03	43.50	20.47	V	-11.8

FREQUENCY STABILITY

Test Mode: Transmitting.
Test Result: Compliant

F_0 =13.56MHz				
Power Supply(V_{DC})	**Temperature (℃)**	**Measured Frequency (MHz)**	**Frequency Error (%)**	**Part 15.225 Limit**
3.87	-30	13.561254	0.00925	±0.01%
	-20	13.561295	0.00955	±0.01%
	-10	13.561231	0.00908	±0.01%
	0	13.561258	0.00928	±0.01%
	10	13.561296	0.00956	±0.01%
	20	13.561235	0.00911	±0.01%
	30	13.561305	0.00962	±0.01%
	40	13.561294	0.00954	±0.01%
	50	13.561302	0.00960	±0.01%
V min.= 3.30	20	13.561175	0.00867	±0.01%
V max.=4.45	20	13.561163	0.00858	±0.01%

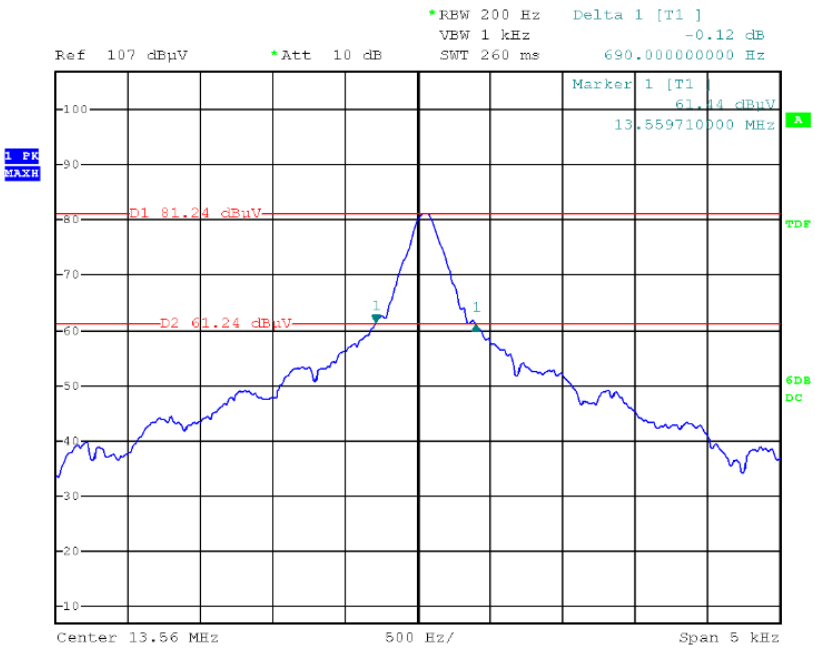
20dB EMISSION BANDWIDTH TESTING

Test Mode: Transmitting

Test Result: Compliant

Frequency (MHz)	20dB Bandwidth (kHz)
13.56	0.69

20dB Bandwidth



Project No.RKAS240327005 Tester:Leah Li

Date: 18.JUN.2024 15:28:22

EUT PHOTOGRAPHS

Please refer to the attachment EXHIBIT A-EUT EXTERNAL PHOTOGRAPHS and EXHIBIT B-EUT INTERNAL PHOTOGRAPHS.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment EXHIBIT E-TEST SETUP PHOTOGRAPHS.

Declarations

1. The laboratory is not responsible for the authenticity of any information provided by the applicant. Information from the applicant that may affect test results is marked with "★".

2. The test data was only valid for the test sample(s).

3. This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

4. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

5. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor k=2 with the 95.45% confidence interval.

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