



## FCC PART 15.225

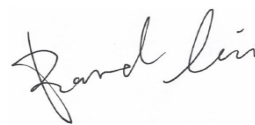
### TEST REPORT

For

### Miura Systems Ltd

Unit 3, Cliveden Office Village, Lancaster Road, Cressex Industrial Estate, High Wycombe, United Kingdom

**FCC ID: 2AO4FMASP01**

|                                        |                                                                                                                                                                                                                             |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Report Type:</b><br>Original Report | <b>Product Name:</b><br>MASP01                                                                                                                                                                                              |
| <b>Report Number:</b>                  | <u>RKSA231206001-00C</u>                                                                                                                                                                                                    |
| <b>Report Date:</b>                    | <u>2024-05-10</u>                                                                                                                                                                                                           |
| <b>Reviewed By:</b>                    | <u>Bard Liu</u><br>                                                                                                                    |
| <b>Approved By:</b>                    | <u>Kyle Xu</u><br>                                                                                                                      |
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Note: This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Kunshan). This report must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, or any agency of the U.S. Government.

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**REPORT REVISION HISTORY**

| Number of Revisions | Report No.        | Version | Issue Date | Description     |
|---------------------|-------------------|---------|------------|-----------------|
| 0                   | RKSA231206001-00C | R1V1    | 2023-05-10 | Initial Release |

## GENERAL INFORMATION

### Product Description for Equipment under Test (EUT)

|                           |                                                             |
|---------------------------|-------------------------------------------------------------|
| Applicant:                | Miura Systems Ltd                                           |
| Tested Model:             | MASP01                                                      |
| Product Name:             | MASP01                                                      |
| HVIN:                     | MASP01-1, MASP01-2                                          |
| Power Supply:             | DC 5V charging (USB-C or POGO Pins port) or DC 7.4V battery |
| RF Function:              | NFC                                                         |
| Operating Band/Frequency: | 13.56 MHz                                                   |
| Antenna Type:             | FPC Antenna                                                 |
| ★Maximum Antenna Gain:    | 0 dBi                                                       |

#### Adapter Information:

Model: ASSA107w-050200

Input: AC100-240V 50/60Hz 0.45A

Output: 5V, 2.0A, 10.0W

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:

RKSA231206001-1(HVIN: MASP01-1)(Assigned by the BACL (Kunshan). The EUT supplied by the applicant was received on 2023-12-06.)

## Objective

This Type approval report is prepared for *Miura Systems 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                  | 9 kHz~150 kHz  | 3.8 dB      |
|                                    | 150 kHz~30 MHz | 3.4 dB      |
|                                    | 30MHz~1GHz     | 6.11dB      |
| Occupied Bandwidth                 |                | 0.5kHz      |
| Temperature                        |                | 1.0°C       |
| 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.

### Support Equipment List and Details

| Manufacturer | Description | Model | Serial Number |
|--------------|-------------|-------|---------------|
| /            | 50Ω load    | /     | /             |

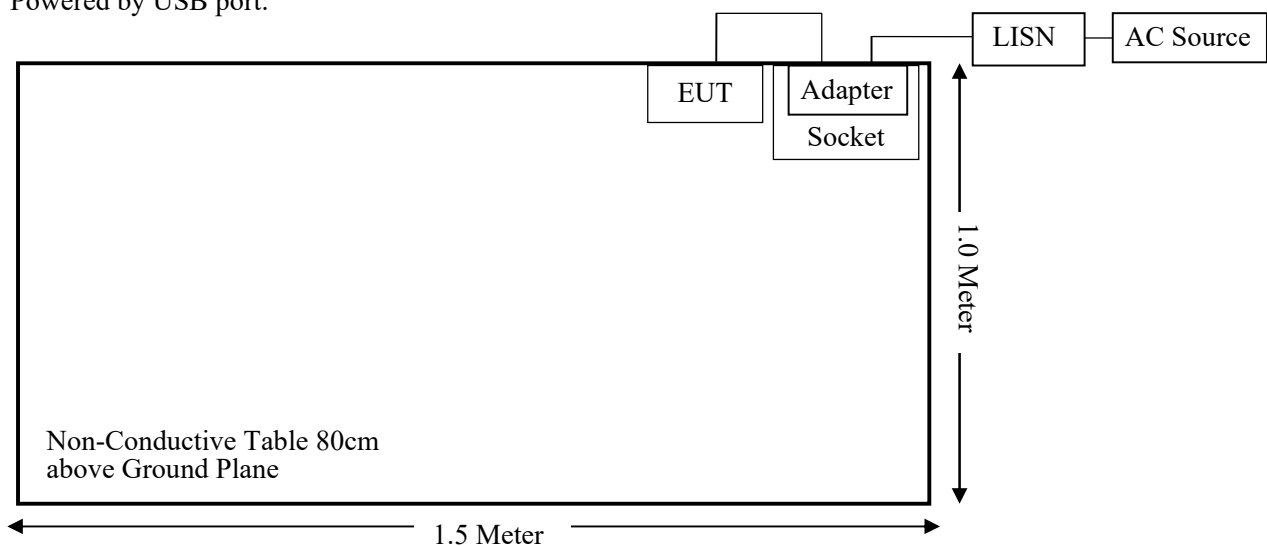
### External I/O Cable

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

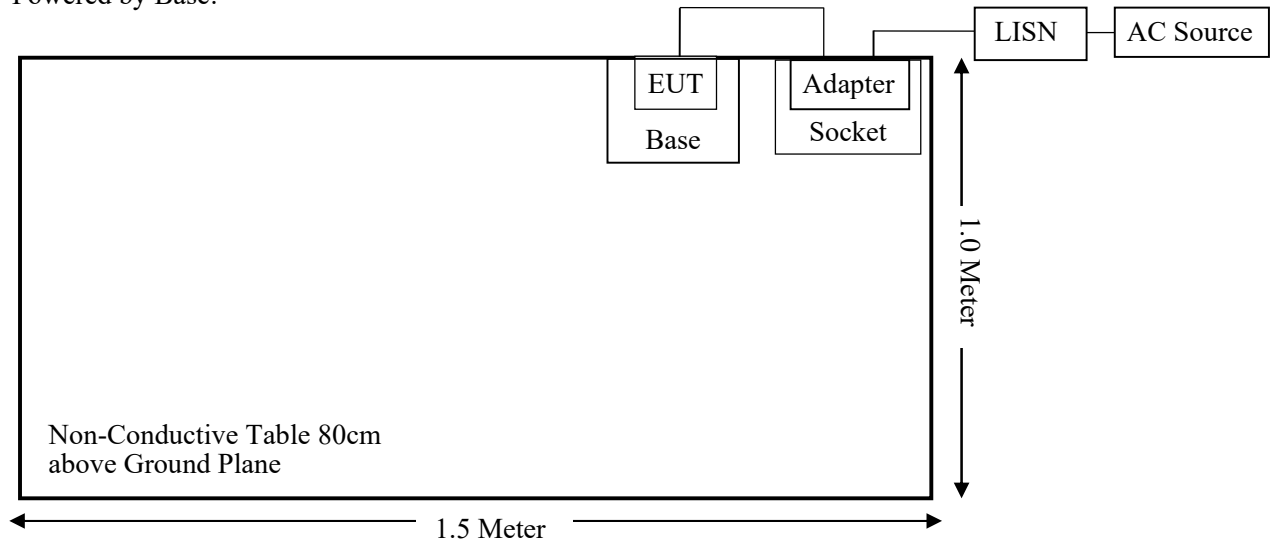
### Block Diagram of Test Setup

For Conducted Emissions:

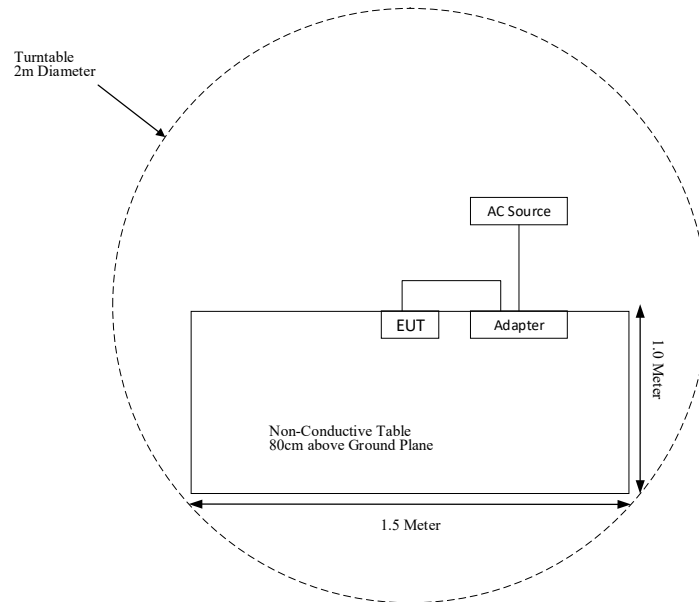
Powered by USB port:



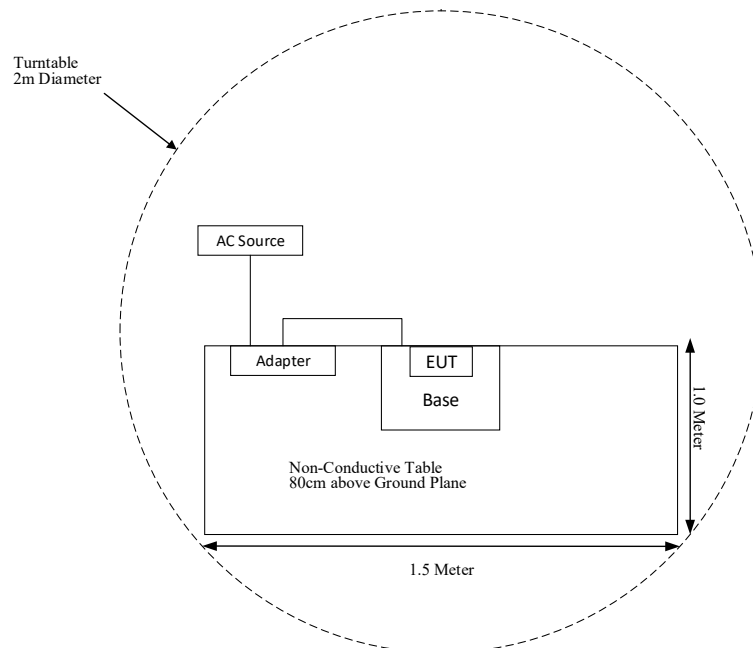
Powered by Base:



For Radiated Emissions (Below 1GHz):  
Powered by USB port:



Powered by Base:



**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 |

**TEST EQUIPMENT LIST**

| Manufacturer                   | Description                    | Model       | Serial Number          | Calibration Date | Calibration Due Date |
|--------------------------------|--------------------------------|-------------|------------------------|------------------|----------------------|
| <b>Radiated Emission Test</b>  |                                |             |                        |                  |                      |
| Rohde & Schwarz                | EMI Test Receiver              | ESCI        | 100195                 | 2023-05-23       | 2024-05-22           |
| Sunol Sciences                 | Broadband Antenna              | JB3         | A090314-1              | 2023-11-11       | 2024-11-10           |
| ETS-LINDGREN                   | Loop Antenna                   | 6512        | 108100                 | 2023-11-09       | 2024-11-08           |
| Narda                          | 6dB Attenuator                 | 773-6       | 10690812-2-1           | 2023-11-11       | 2024-11-10           |
| Sonoma Instrument              | Pre-amplifier                  | 310N        | 171205                 | 2023-05-23       | 2024-05-22           |
| Rohde & Schwarz                | Auto Test Software             | EMC32       | 100361                 | N/A              | N/A                  |
| MICRO-COAX                     | Coaxial Cable                  | Cable-8     | 008                    | 2023-05-23       | 2024-05-22           |
| MICRO-COAX                     | Coaxial Cable                  | Cable-9     | 009                    | 2023-05-23       | 2024-05-22           |
| MICRO-COAX                     | Coaxial Cable                  | Cable-10    | 010                    | 2023-05-23       | 2024-05-22           |
| <b>Frequency Stability</b>     |                                |             |                        |                  |                      |
| BACL                           | Temperature & Humidity Chamber | BTH-150     | 30023                  | 2023-05-23       | 2024-05-22           |
| EAST                           | Regulated DC Power Supply      | MCH-303D-II | 14070562               | 2023-10-10       | 2024-10-09           |
| Rohde & Schwarz                | EMI Test Receiver              | ESCI        | 100195                 | 2023-05-23       | 2024-05-22           |
| ETS-LINDGREN                   | Loop Antenna                   | 6512        | 108100                 | 2023-11-09       | 2024-11-08           |
| MICRO-COAX                     | Coaxial Cable                  | Cable-10    | 010                    | 2023-05-23       | 2024-05-22           |
| <b>Conducted Emission Test</b> |                                |             |                        |                  |                      |
| Rohde & Schwarz                | EMI Test Receiver              | ESR         | 1316.3003K03-101746-zn | 2023-07-28       | 2024-07-27           |
| Rohde & Schwarz                | LISN                           | ENV216      | 101115                 | 2023-05-23       | 2024-05-22           |
| Audix                          | Test Software                  | e3          | V9                     | N/A              | N/A                  |
| Rohde & Schwarz                | Pulse limiter                  | ESH3-Z2     | 100552                 | 2023-05-23       | 2024-05-22           |
| MICRO-COAX                     | Coaxial Cable                  | Cable-15    | 015                    | 2023-05-23       | 2024-05-22           |

**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).

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## **FCC§15.203 - ANTENNA REQUIREMENT**

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### **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 an FPC 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.

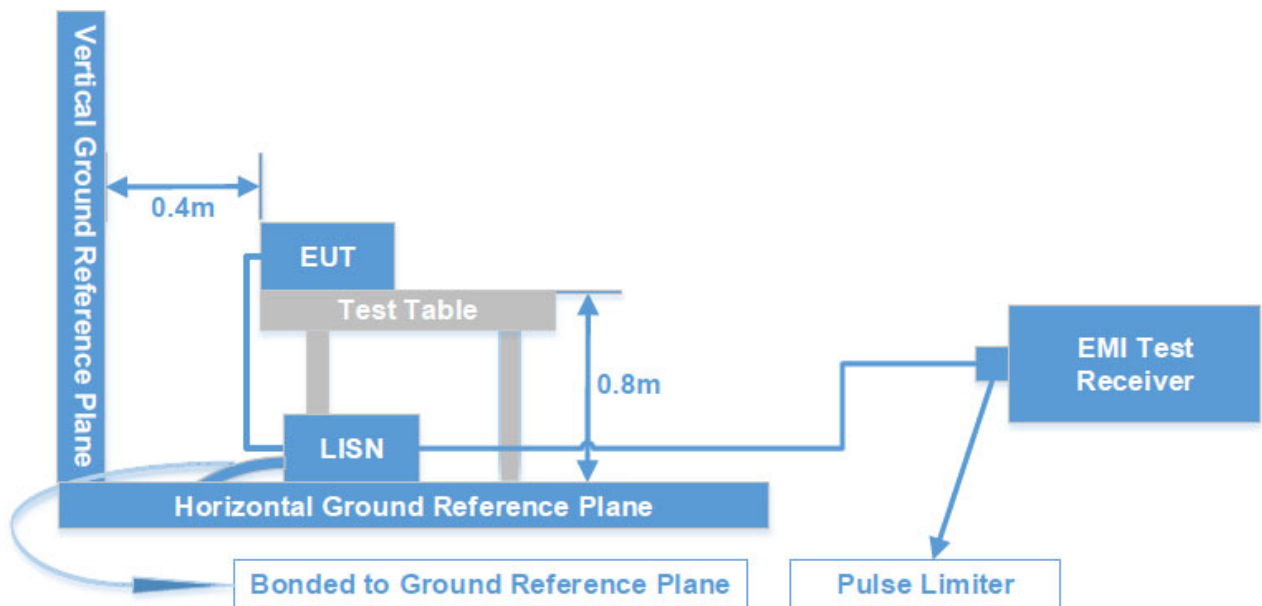
**Result:** Compliant.

## 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 EUT 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:

$$\text{Factor (dB)} = \text{LISN VDF (dB)} + \text{Cable Loss (dB)} + \text{Transient Limiter Attenuation (dB)}$$

$$\text{Level (dB}\mu\text{V)} = \text{Read level (dB}\mu\text{V)} + \text{Factor (dB)}$$

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:

$$\text{Over Limit (dB)} = \text{Level (dB}\mu\text{V)} - \text{Limit (dB}\mu\text{V)}$$

**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

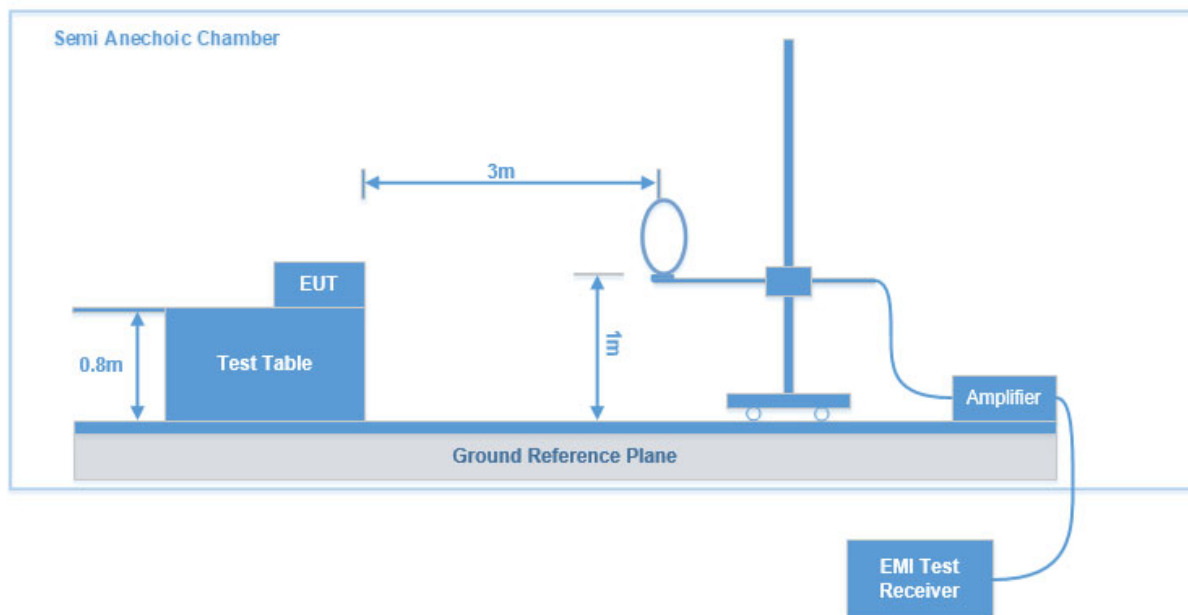
### Applicable Standard

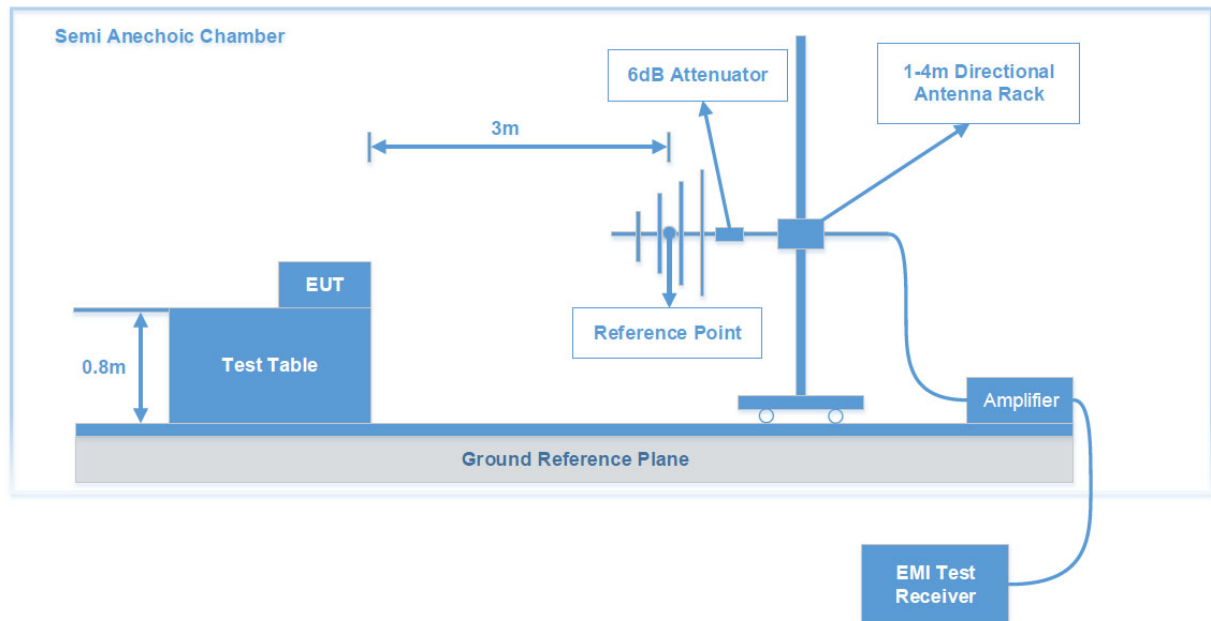
As per FCC Part 15.225

- (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/Average  |
| 150 kHz - 30 MHz  | 9 kHz   | 30 kHz  | 9 kHz   | QP/ Average |
| 30 MHz - 1000 MHz | 100 kHz | 300 kHz | /       | Peak        |
|                   | /       | /       | 120 kHz | QP          |

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.

**Corrected Amplitude & Margin Calculation**

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 (dB $\mu$ V/m) = Meter Reading (dB $\mu$ V) + 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 (dB $\mu$ V/m) – Corrected Amplitude (dB $\mu$ V/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**

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**FCC§15.225(e) - FREQUENCY STABILITY**

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**Applicable Standard**

The frequency tolerance of the carrier signal shall be maintained within  $\pm 0.01\%$  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.

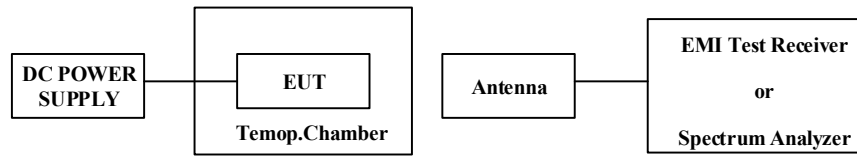
f) While maintaining a constant temperature inside the environmental chamber, turn the EUT ON and record the operating frequency at startup, and at 2 minutes, 5 minutes, and 10 minutes after the EUT is energized. Four measurements in total are made.

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 than  $10^{\circ}\text{C}$ , 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**

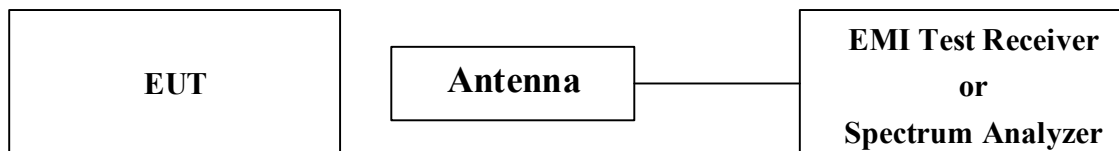
## §15.215(c) - 20dB EMISSION BANDWIDTH TESTING

### 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 |
| Test Date:         | 2024-03-20~2024-04-01       |
| Temperature:       | 16.5 °C~18.8 °C             |
| Relative Humidity: | 43 %~65 %                   |
| ATM Pressure:      | 101.1kPa ~102.8kPa          |
| Test Result:       | Pass                        |
| Test Engineer:     | Frank Liu                   |

|                    |                       |
|--------------------|-----------------------|
| Test Item:         | RADIATED EMISSIONS    |
|                    | 9kHz - 1GHz           |
| Test Date:         | 2024-03-19~2024-04-12 |
| Temperature:       | 16.8 °C~17.6 °C       |
| Relative Humidity: | 45%~58 %              |
| ATM Pressure:      | 101.5kPa~102.8kPa     |
| Test Result:       | Pass                  |
| Test Engineer:     | Leah Li               |

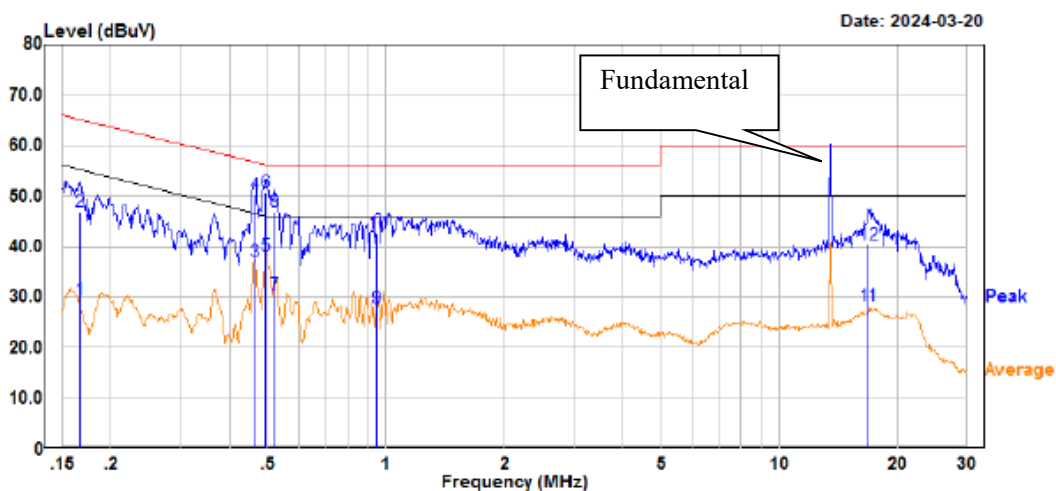
|                    |                     |                |
|--------------------|---------------------|----------------|
| Test Item:         | FREQUENCY STABILITY | 20DB BANDWIDTH |
| Test Date:         | 2024-03-28          | 2024-04-03     |
| Temperature:       | 17.0 °C             | 17.6 °C        |
| Relative Humidity: | 47 %                | 45 %           |
| ATM Pressure:      | 102.8kPa            | 102.6kPa       |
| Test Result:       | Pass                | Pass           |
| Test Engineer:     | Leah Li             | Leah Li        |

EUT operation mode: Transmitting

For USB charging:

With antenna:

Line:

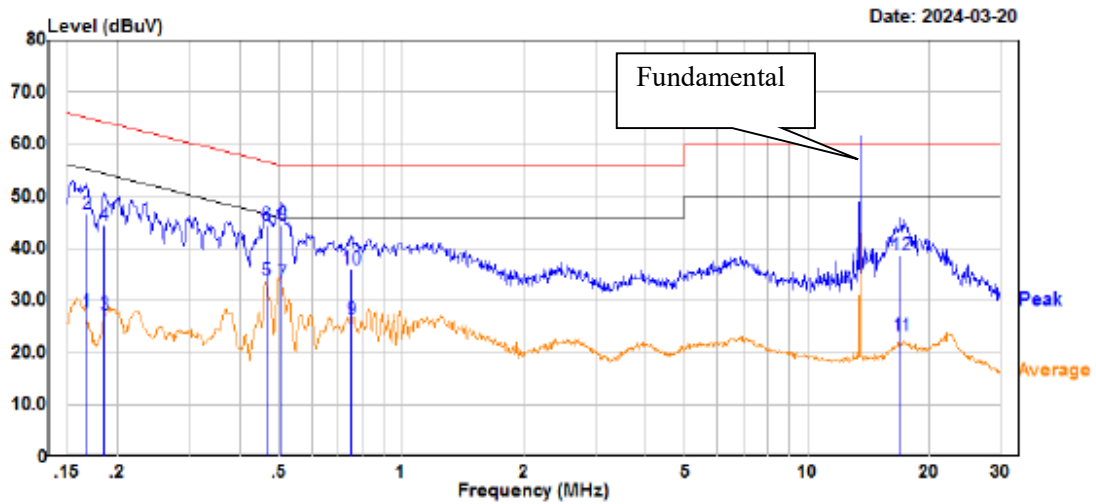


Trace: 1

Site : CE  
Condition : FCC Part 15.207  
: DET:Peak  
Project No. : RKSA231206001  
Model : MASP01  
Phase : L  
Voltage : 120V/60Hz  
Mode : NFC  
Test Equipment : ENV216,ESR  
Temperature : 16.5℃  
Humidity : 43%  
Atmospheric pressure: 102.8kPa  
Test Engineer : Frank Liu

|    |        | Read  |        |       | Limit | Over   |         |
|----|--------|-------|--------|-------|-------|--------|---------|
|    | Freq   | Level | Factor | Level | Line  | Limit  | Remark  |
|    | MHz    | dBuV  | dB     | dBuV  | dBuV  | dB     |         |
| 1  | 0.167  | 9.50  | 19.91  | 29.41 | 55.13 | -25.72 | Average |
| 2  | 0.167  | 27.10 | 19.91  | 47.01 | 65.13 | -18.12 | QP      |
| 3  | 0.465  | 17.01 | 20.09  | 37.10 | 46.60 | -9.50  | Average |
| 4  | 0.465  | 30.31 | 20.09  | 50.40 | 56.60 | -6.20  | QP      |
| 5  | 0.494  | 18.10 | 20.11  | 38.21 | 46.11 | -7.90  | Average |
| 6  | 0.494  | 30.70 | 20.11  | 50.81 | 56.11 | -5.30  | QP      |
| 7  | 0.519  | 10.40 | 20.10  | 30.50 | 46.00 | -15.50 | Average |
| 8  | 0.519  | 26.70 | 20.10  | 46.80 | 56.00 | -9.20  | QP      |
| 9  | 0.948  | 7.90  | 19.80  | 27.70 | 46.00 | -18.30 | Average |
| 10 | 0.948  | 22.70 | 19.80  | 42.50 | 56.00 | -13.50 | QP      |
| 11 | 16.828 | 8.40  | 19.81  | 28.21 | 50.00 | -21.79 | Average |
| 12 | 16.828 | 20.50 | 19.81  | 40.31 | 60.00 | -19.69 | QP      |

## Neutral:

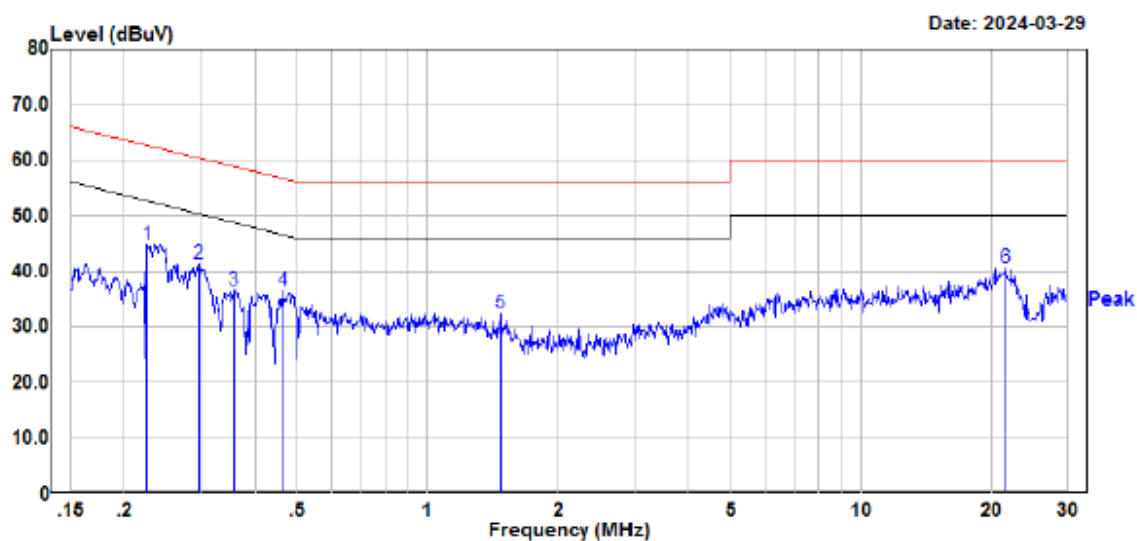


Site : CE  
Condition : FCC Part 15.207  
: DET:Peak  
Project No. : RKSA231206001  
Model : MASP01  
Phase : N  
Voltage : 120V/60Hz  
Mode : NFC  
Test Equipment : ENV216, ESR  
Temperature : 16.5°C  
Humidity : 43%  
Atmospheric pressure: 102.8kPa  
Test Engineer : Frank Liu

|    | Freq   | Read Level | Factor | Level | Limit Line | Over Limit | Remark  |
|----|--------|------------|--------|-------|------------|------------|---------|
|    | MHz    | dBuV       | dB     | dBuV  | dBuV       | dB         |         |
| 1  | 0.167  | 7.80       | 19.91  | 27.71 | 55.09      | -27.38     | Average |
| 2  | 0.167  | 26.70      | 19.91  | 46.61 | 65.09      | -18.48     | QP      |
| 3  | 0.185  | 7.30       | 19.93  | 27.23 | 54.26      | -27.03     | Average |
| 4  | 0.185  | 24.60      | 19.93  | 44.53 | 64.26      | -19.73     | QP      |
| 5  | 0.465  | 13.71      | 20.09  | 33.80 | 46.60      | -12.80     | Average |
| 6  | 0.465  | 24.51      | 20.09  | 44.60 | 56.60      | -12.00     | QP      |
| 7  | 0.509  | 13.30      | 20.11  | 33.41 | 46.00      | -12.59     | Average |
| 8  | 0.509  | 24.40      | 20.11  | 44.51 | 56.00      | -11.49     | QP      |
| 9  | 0.750  | 6.30       | 20.00  | 26.30 | 46.00      | -19.70     | Average |
| 10 | 0.750  | 16.10      | 20.00  | 36.10 | 56.00      | -19.90     | QP      |
| 11 | 16.996 | 3.49       | 19.82  | 23.31 | 50.00      | -26.69     | Average |
| 12 | 16.996 | 18.89      | 19.82  | 38.71 | 60.00      | -21.29     | QP      |

With load (According to KDB174176) :

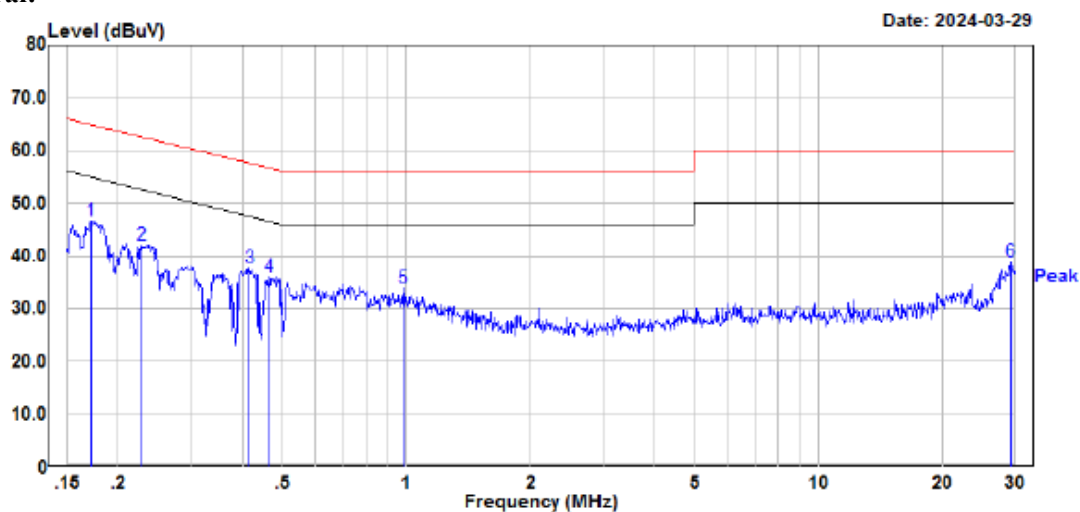
Line:



Site : CE  
Condition : FCC Part 15.207  
Project No. : RKSA231206001  
Model : MASP01  
Phase : L  
Voltage : 120V/60Hz  
Mode : NFC  
Test Equipment : ENV216,ESR  
Temperature : 17.4℃  
Humidity : 65%  
Atmospheric pressure: 101.1kPa  
Test Engineer : Frank Liu

|   |        | Read  |        |       | Limit | Over   |        |
|---|--------|-------|--------|-------|-------|--------|--------|
|   | Freq   | Level | Factor | Level | Line  | Limit  | Remark |
|   | MHz    | dBuV  | dB     | dBuV  | dBuV  | dB     |        |
| 1 | 0.226  | 24.81 | 19.97  | 44.78 | 62.61 | -17.83 | Peak   |
| 2 | 0.297  | 21.35 | 20.01  | 41.36 | 60.33 | -18.97 | Peak   |
| 3 | 0.357  | 16.43 | 20.04  | 36.47 | 58.80 | -22.33 | Peak   |
| 4 | 0.463  | 16.33 | 20.09  | 36.42 | 56.64 | -20.22 | Peak   |
| 5 | 1.471  | 12.30 | 20.00  | 32.30 | 56.00 | -23.70 | Peak   |
| 6 | 21.483 | 20.78 | 19.87  | 40.65 | 60.00 | -19.35 | Peak   |

## Neutral:



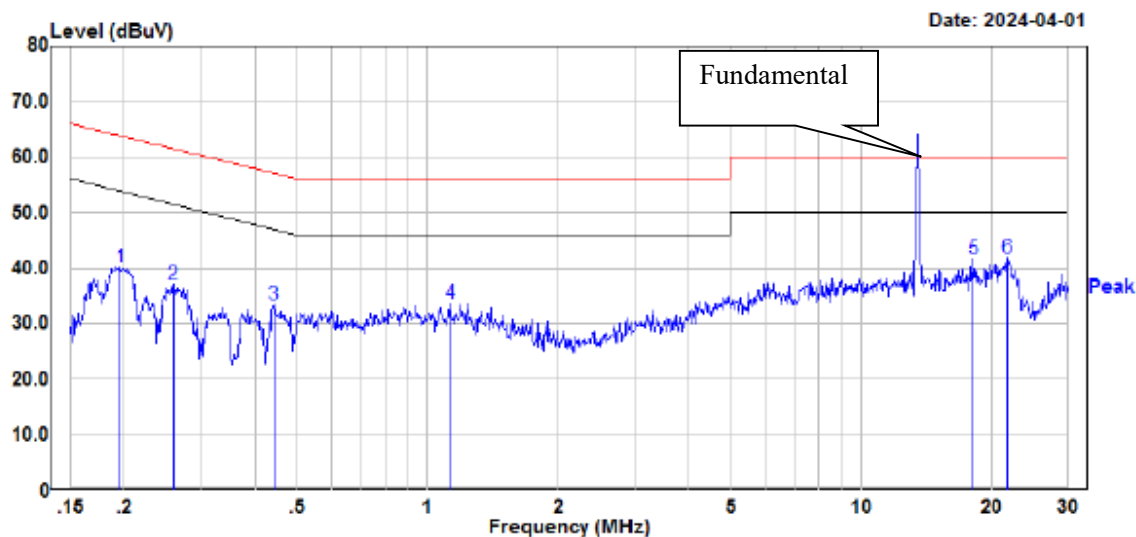
Site : CE  
Condition : FCC Part 15.207  
Project No. : RKSA231206001  
Model : MASP01  
Phase : N  
Voltage : 120V/60Hz  
Mode : NFC  
Test Equipment : ENV216,ESR  
Temperature : 17.4°C  
Humidity : 65%  
Atmospheric pressure: 101.1kPa  
Test Engineer : Frank Liu

|      | Read   |        | Limit | Over  |                   |
|------|--------|--------|-------|-------|-------------------|
| Freq | Level  | Factor | Level | Line  | Limit Remark      |
| MHz  | dBuV   | dB     | dBuV  | dBuV  | dB                |
| 1    | 0.172  | 26.71  | 19.92 | 46.63 | 64.88 -18.25 Peak |
| 2    | 0.228  | 22.04  | 19.97 | 42.01 | 62.52 -20.51 Peak |
| 3    | 0.417  | 17.69  | 20.07 | 37.76 | 57.51 -19.75 Peak |
| 4    | 0.463  | 15.84  | 20.09 | 35.93 | 56.64 -20.71 Peak |
| 5    | 0.982  | 14.01  | 19.77 | 33.78 | 56.00 -22.22 Peak |
| 6    | 29.262 | 18.84  | 20.01 | 38.85 | 60.00 -21.15 Peak |

Powered by Base:

With antenna:

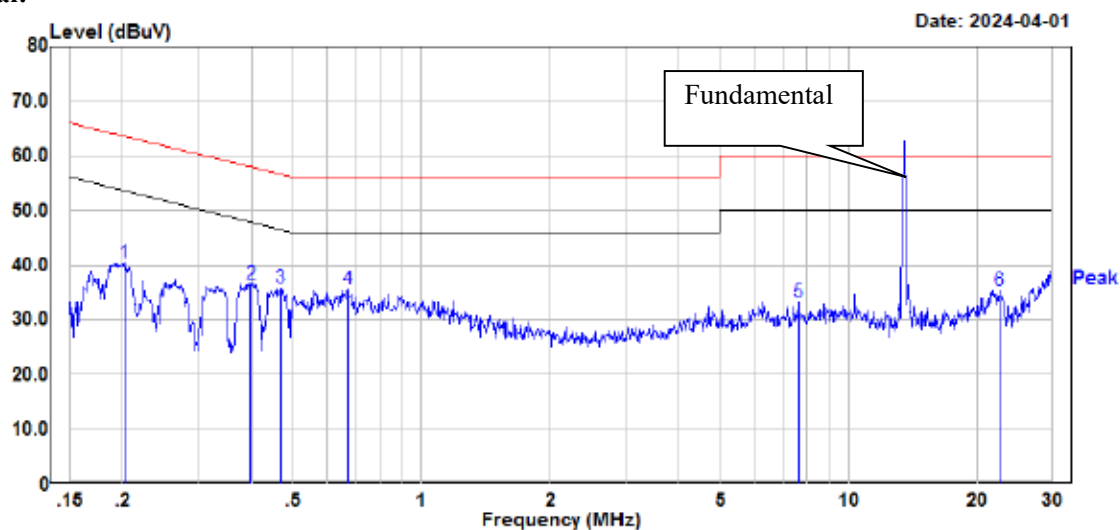
Line:



Site : CE  
Condition : FCC Part 15.207  
: DET:Peak  
Project No. : RKSA231206001  
Model : MASP01  
Phase : L  
Voltage : 120V/60Hz  
Mode : NFC  
Test Equipment : ENV216,ESR  
Temperature : 18.8°C  
Humidity : 57%  
Atmospheric pressure: 101.5kPa  
Test Engineer : Frank Liu

|   |        | Read  |        |       | Limit | Over   |        |
|---|--------|-------|--------|-------|-------|--------|--------|
|   | Freq   | Level | Factor | Level | Line  | Limit  | Remark |
|   | MHz    | dBuV  | dB     | dBuV  | dBuV  | dB     |        |
| 1 | 0.195  | 20.16 | 19.94  | 40.10 | 63.81 | -23.71 | Peak   |
| 2 | 0.260  | 17.02 | 19.99  | 37.01 | 61.45 | -24.44 | Peak   |
| 3 | 0.442  | 13.28 | 20.09  | 33.37 | 57.02 | -23.65 | Peak   |
| 4 | 1.129  | 13.89 | 19.83  | 33.72 | 56.00 | -22.28 | Peak   |
| 5 | 18.134 | 21.70 | 19.82  | 41.52 | 60.00 | -18.48 | Peak   |
| 6 | 21.698 | 22.01 | 19.87  | 41.88 | 60.00 | -18.12 | Peak   |

## Neutral:

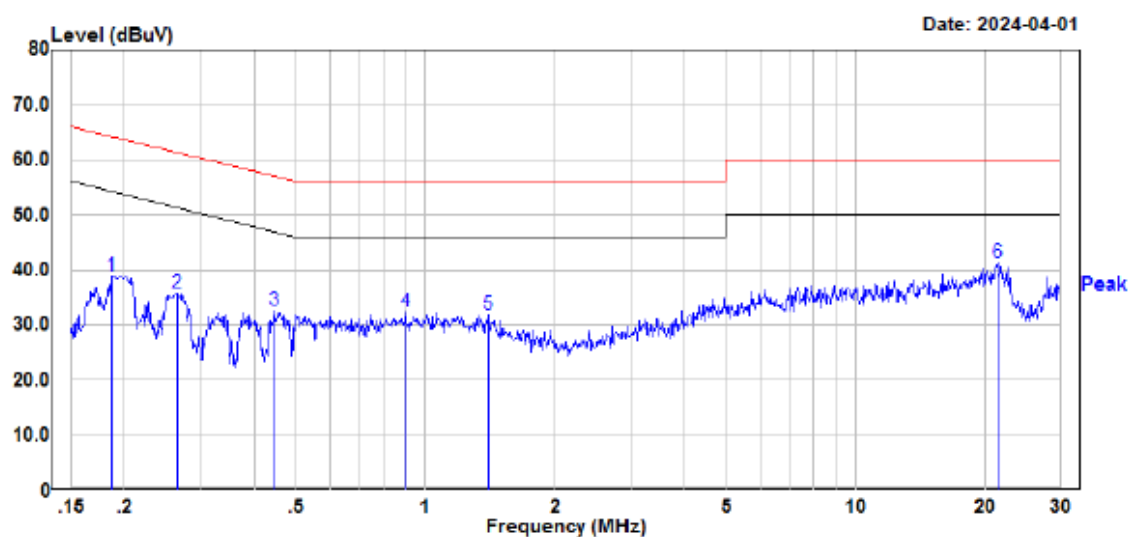


Site : CE  
Condition : FCC Part 15.207  
: DET:Peak  
Project No. : RKSA231206001  
Model : MASP01  
Phase : N  
Voltage : 120V/60Hz  
Mode : NFC  
Test Equipment : ENV216,ESR  
Temperature : 18.8℃  
Humidity : 57%  
Atmospheric pressure: 101.5kPa  
Test Engineer : Frank Liu

|   | Freq   | Read  |        | Limit | Over  | Remark      |
|---|--------|-------|--------|-------|-------|-------------|
|   |        | Level | Factor | Line  | Limit |             |
|   | MHz    | dBuV  | dB     | dBuV  | dB    |             |
| 1 | 0.202  | 20.38 | 19.95  | 40.33 | 63.52 | -23.19 Peak |
| 2 | 0.398  | 16.46 | 20.07  | 36.53 | 57.89 | -21.36 Peak |
| 3 | 0.467  | 15.77 | 20.09  | 35.86 | 56.56 | -20.70 Peak |
| 4 | 0.672  | 15.45 | 20.07  | 35.52 | 56.00 | -20.48 Peak |
| 5 | 7.618  | 12.94 | 20.20  | 33.14 | 60.00 | -26.86 Peak |
| 6 | 22.468 | 15.49 | 19.89  | 35.38 | 60.00 | -24.62 Peak |

With load: (According to KDB174176)

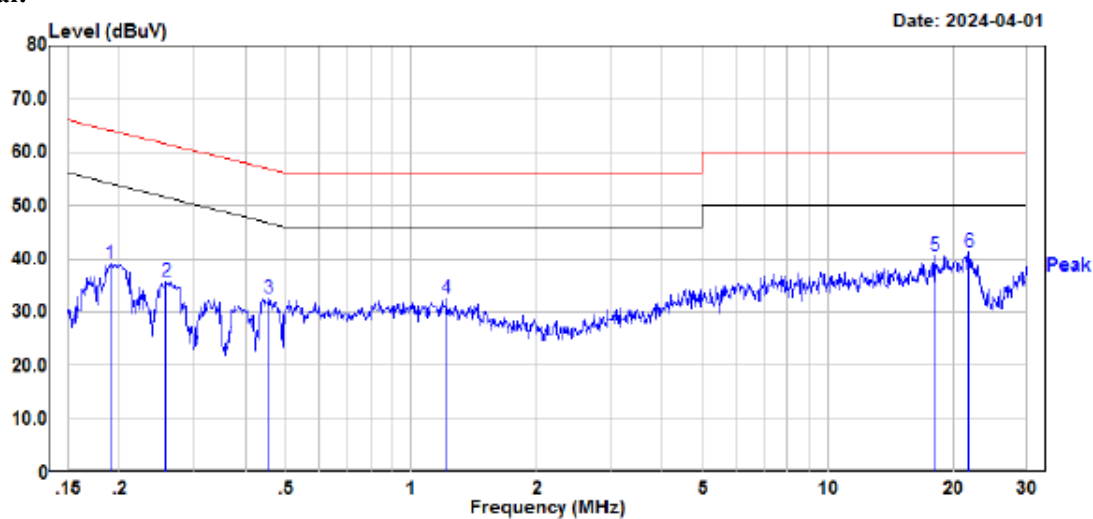
Line:



Site : CE  
Condition : FCC Part 15.207  
: DET:Peak  
Project No. : RKSA231206001  
Model : MASP01  
Phase : L  
Voltage : 120V/60Hz  
Mode : NFC-2  
Test Equipment : ENV216,ESR  
Temperature : 18.8°C  
Humidity : 57%  
Atmospheric pressure: 101.5kPa  
Test Engineer : Frank Liu

|   | Freq   | Read<br>Level | Factor | Level | Limit<br>Line | Over<br>Limit | Remark |
|---|--------|---------------|--------|-------|---------------|---------------|--------|
|   | MHz    | dBuV          | dB     | dBuV  | dBuV          | dB            |        |
| 1 | 0.187  | 19.10         | 19.93  | 39.03 | 64.18         | -25.15        | Peak   |
| 2 | 0.265  | 15.81         | 19.99  | 35.80 | 61.28         | -25.48        | Peak   |
| 3 | 0.445  | 12.50         | 20.09  | 32.59 | 56.98         | -24.39        | Peak   |
| 4 | 0.898  | 12.51         | 19.84  | 32.35 | 56.00         | -23.65        | Peak   |
| 5 | 1.399  | 11.90         | 19.97  | 31.87 | 56.00         | -24.13        | Peak   |
| 6 | 21.376 | 21.49         | 19.87  | 41.36 | 60.00         | -18.64        | Peak   |

## Neutral:



Site : CE  
Condition : FCC Part 15.207  
: DET:Peak  
Project No. : RKSA231206001  
Model : MASP01  
Phase : N  
Voltage : 120V/60Hz  
Mode : NFC-2  
Test Equipment : ENV216,ESR  
Temperature : 18.8℃  
Humidity : 57%  
Atmospheric pressure: 101.5kPa  
Test Engineer : Frank Liu

|   | Freq   | Read  |        | Limit | Over  | Remark      |
|---|--------|-------|--------|-------|-------|-------------|
|   |        | Level | Factor | Level | Line  |             |
|   | MHz    | dBuV  | dB     | dBuV  | dBuV  | dB          |
| 1 | 0.190  | 19.15 | 19.94  | 39.09 | 64.05 | -24.96 Peak |
| 2 | 0.258  | 15.75 | 19.99  | 35.74 | 61.49 | -25.75 Peak |
| 3 | 0.454  | 12.66 | 20.09  | 32.75 | 56.81 | -24.06 Peak |
| 4 | 1.211  | 12.81 | 19.88  | 32.69 | 56.00 | -23.31 Peak |
| 5 | 17.954 | 20.70 | 19.81  | 40.51 | 60.00 | -19.49 Peak |
| 6 | 21.806 | 21.41 | 19.87  | 41.28 | 60.00 | -18.72 Peak |

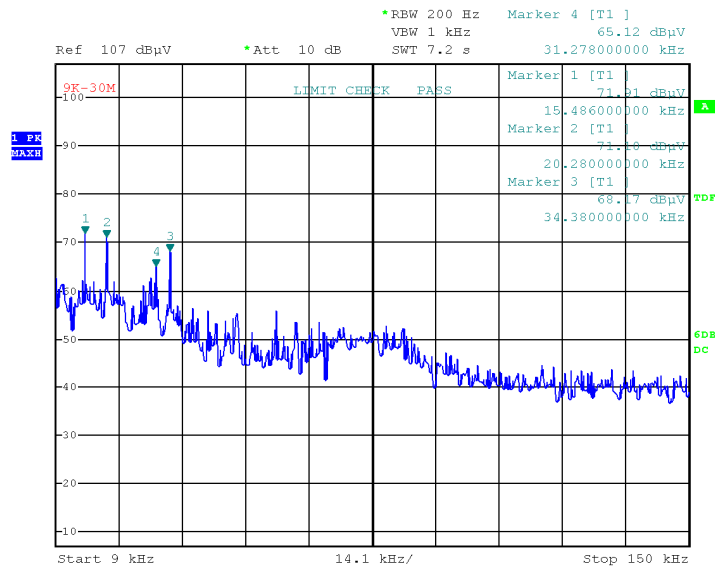
RADIATED EMISSIONS TEST

Test mode: Transmitting

Powered by USB port:

For Ground-parallel

1) 9 kHz~150 kHz:

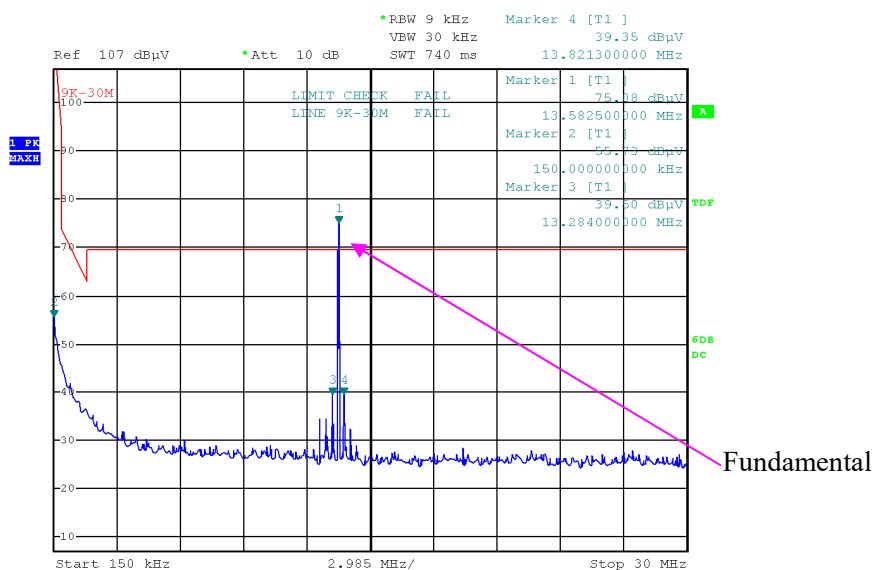


Project No.RKSA231206001  
Date: 28.MAR.2024 16:49:06

Tester:Leah Li

| Frequency (kHz) | Corrected Amplitude (dBμV/m)@3m | Detector PK/QP/Ave. | Corrected Factor (dB/m) | Limit (dBμV/m)@3m | Margin (dB) |
|-----------------|---------------------------------|---------------------|-------------------------|-------------------|-------------|
| 15.49           | 71.91                           | PK                  | 51.29                   | 123.80            | 51.89       |
| 20.28           | 71.10                           | PK                  | 49.73                   | 121.46            | 50.36       |
| 34.38           | 68.17                           | PK                  | 39.44                   | 116.88            | 48.71       |
| 31.28           | 65.12                           | PK                  | 49.47                   | 117.70            | 52.58       |

2) 150 kHz~30 MHz:

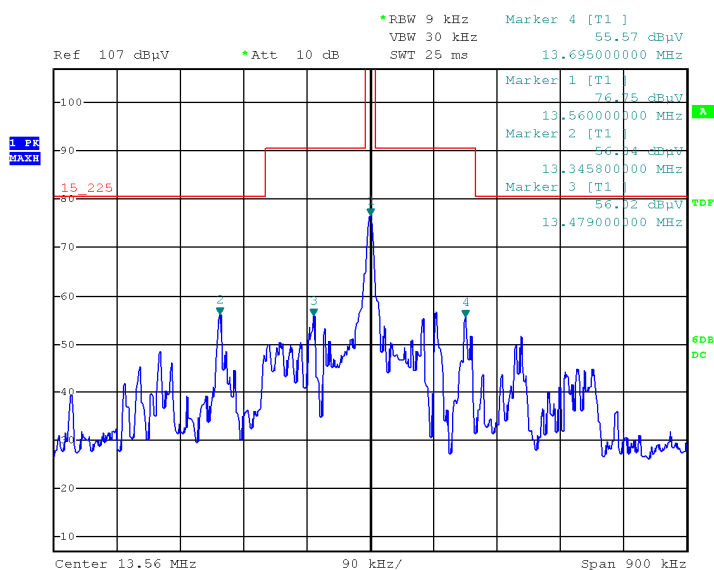


Project No.RKSA231206001  
Date: 28.MAR.2024 17:38:48

Tester:Leah Li

| Frequency (MHz) | Corrected Amplitude (dBμV/m)@3m | Detector PK/QP/Ave. | Corrected Factor (dB/m) | Limit (dBμV/m)@3m | Margin (dB) |
|-----------------|---------------------------------|---------------------|-------------------------|-------------------|-------------|
| 0.15            | 55.73                           | PK                  | 50.90                   | 104.08            | 48.35       |

3) 13.11 MHz~14.01 MHz:

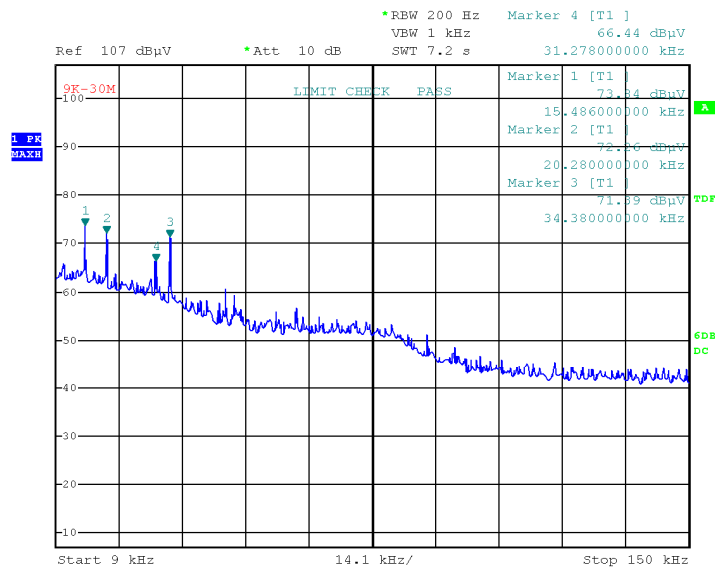


Project No.RKSA231206001  
Date: 12.APR.2024 16:39:40

Tester:Leah Li

| Frequency (MHz) | Corrected Amplitude (dBμV/m)@3m | Detector PK/QP/Ave. | Corrected Factor (dB/m) | Limit (dBμV/m)@3m | Margin (dB) |
|-----------------|---------------------------------|---------------------|-------------------------|-------------------|-------------|
| 13.56           | 76.75                           | PK                  | 6.12                    | 124.00            | 47.25       |
| 13.35           | 56.34                           | PK                  | 6.13                    | 80.50             | 24.16       |
| 13.48           | 56.02                           | PK                  | 6.12                    | 90.50             | 34.48       |
| 13.7            | 55.57                           | PK                  | 6.10                    | 90.50             | 34.93       |

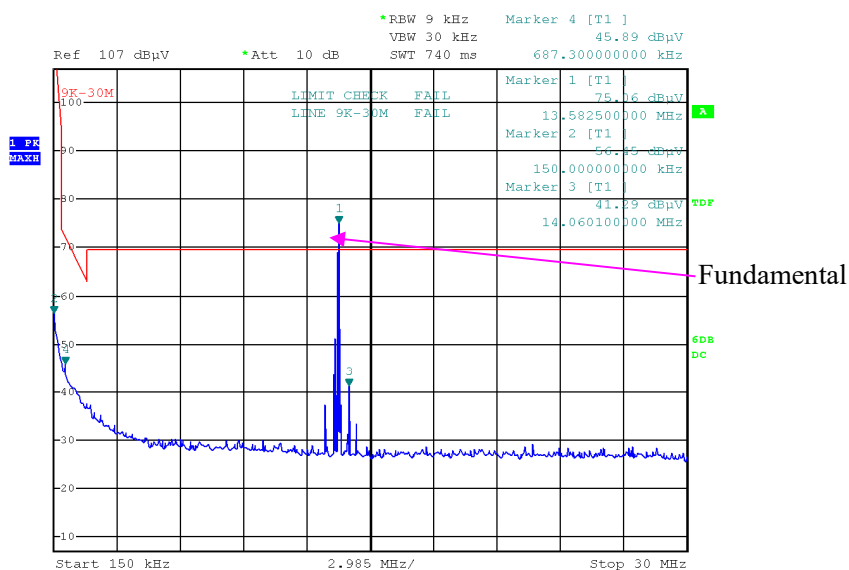
For Parallel  
1) 9 kHz~150 kHz:



Project No.RKSA231206001 Tester:Leah Li  
Date: 28.MAR.2024 16:53:28

| Frequency (kHz) | Corrected Amplitude (dBμV/m)@3m | Detector PK/QP/Ave. | Corrected Factor (dB/m) | Limit (dBμV/m)@3m | Margin (dB) |
|-----------------|---------------------------------|---------------------|-------------------------|-------------------|-------------|
| 15.49           | 73.84                           | PK                  | 51.26                   | 123.80            | 49.96       |
| 20.28           | 72.26                           | PK                  | 49.73                   | 121.46            | 49.2        |
| 34.38           | 71.39                           | PK                  | 39.44                   | 116.88            | 45.49       |
| 31.28           | 66.44                           | PK                  | 38.98                   | 117.70            | 51.26       |

2) 150 kHz~30 MHz:



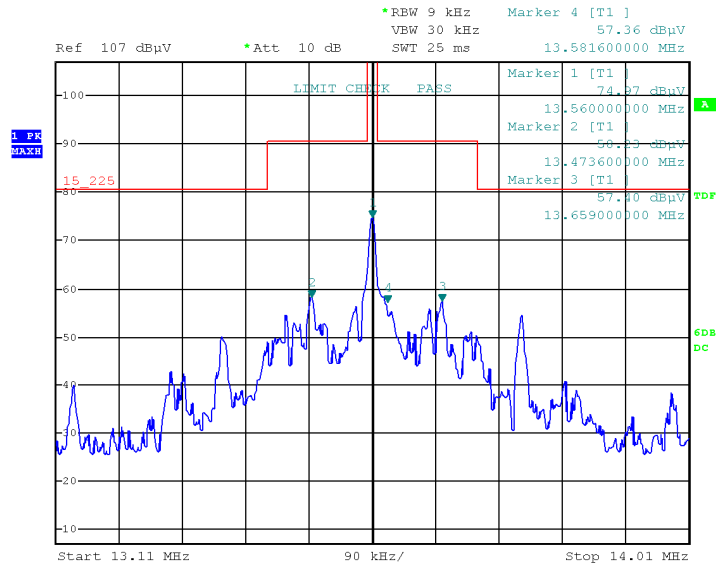
Project No.RKSA231206001

Tester:Leah Li

Date: 28.MAR.2024 17:17:48

| Frequency (MHz) | Corrected Amplitude (dBμV/m)@3m | Detector PK/QP/Ave. | Corrected Factor (dB/m) | Limit (dBμV/m)@3m | Margin (dB) |
|-----------------|---------------------------------|---------------------|-------------------------|-------------------|-------------|
| 0.15            | 56.45                           | PK                  | 50.90                   | 104.08            | 47.63       |
| 14.06           | 41.29                           | PK                  | 6.11                    | 69.54             | 28.25       |
| 0.69            | 45.89                           | PK                  | 20.73                   | 70.82             | 24.93       |

3) 13.11 MHz~14.01 MHz:



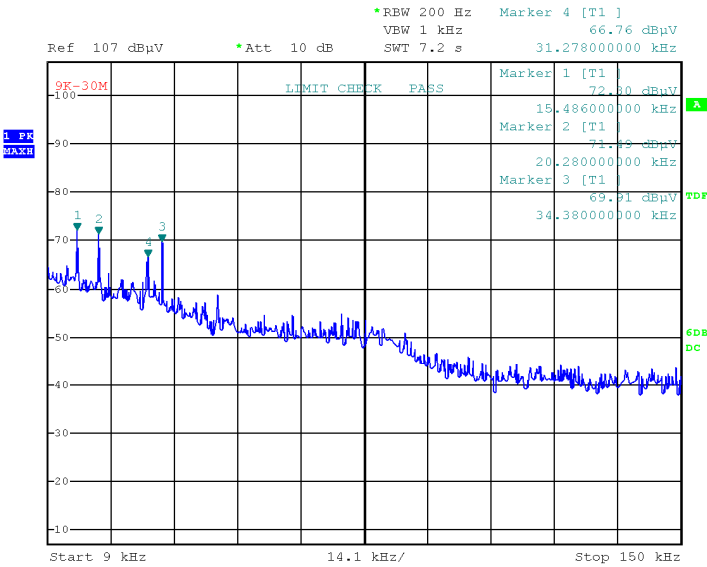
Project No.RKSA231206001

Tester:Leah Li

Date: 28.MAR.2024 17:50:24

| Frequency (MHz) | Corrected Amplitude (dBμV/m)@3m | Detector PK/QP/Ave. | Corrected Factor (dB/m) | Limit (dBμV/m)@3m | Margin (dB) |
|-----------------|---------------------------------|---------------------|-------------------------|-------------------|-------------|
| 13.56           | 74.97                           | PK                  | 6.12                    | 124.00            | 49.03       |
| 13.47           | 58.23                           | PK                  | 6.12                    | 90.50             | 32.27       |
| 13.66           | 57.4                            | PK                  | 6.11                    | 90.50             | 33.10       |
| 13.58           | 57.36                           | PK                  | 6.11                    | 90.50             | 33.14       |

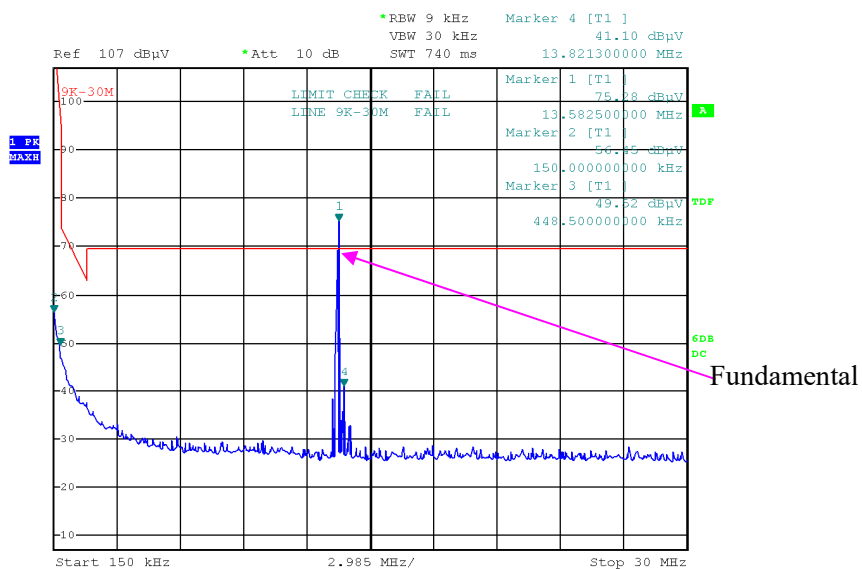
For Perpendicular  
1) 9 kHz~150 kHz:



Project No.RKSA231206001 Tester:Leah Li  
Date: 28.MAR.2024 16:56:55

| Frequency (kHz) | Corrected Amplitude (dBμV/m)@3m | Detector PK/QP/Ave. | Corrected Factor (dB/m) | Limit (dBμV/m)@3m | Margin (dB) |
|-----------------|---------------------------------|---------------------|-------------------------|-------------------|-------------|
| 15.49           | 72.80                           | PK                  | 51.26                   | 123.80            | 51.00       |
| 20.28           | 71.49                           | PK                  | 49.73                   | 121.46            | 49.97       |
| 34.38           | 69.91                           | PK                  | 39.44                   | 116.88            | 46.97       |
| 31.28           | 66.76                           | PK                  | 38.98                   | 117.70            | 50.94       |

2) 150 kHz~30 MHz:

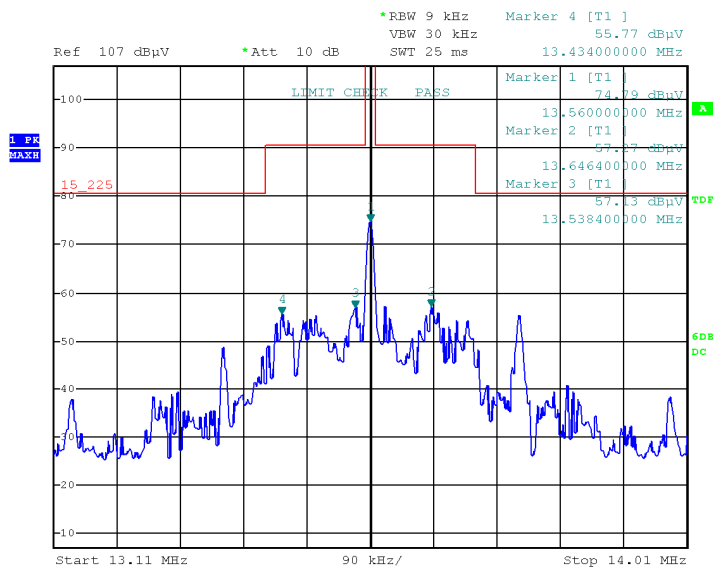


Project No.RKSA231206001  
 Date: 28.MAR.2024 17:11:45

Tester:Leah Li

| Frequency (MHz) | Corrected Amplitude (dBμV/m)@3m | Detector PK/QP/Ave. | Corrected Factor (dB/m) | Limit (dBμV/m)@3m | Margin (dB) |
|-----------------|---------------------------------|---------------------|-------------------------|-------------------|-------------|
| 0.15            | 56.45                           | PK                  | 50.90                   | 104.08            | 47.63       |
| 0.45            | 49.52                           | PK                  | 24.48                   | 94.54             | 45.02       |
| 13.82           | 41.10                           | PK                  | 6.09                    | 69.54             | 28.44       |

3) 13.11 MHz~14.01 MHz:



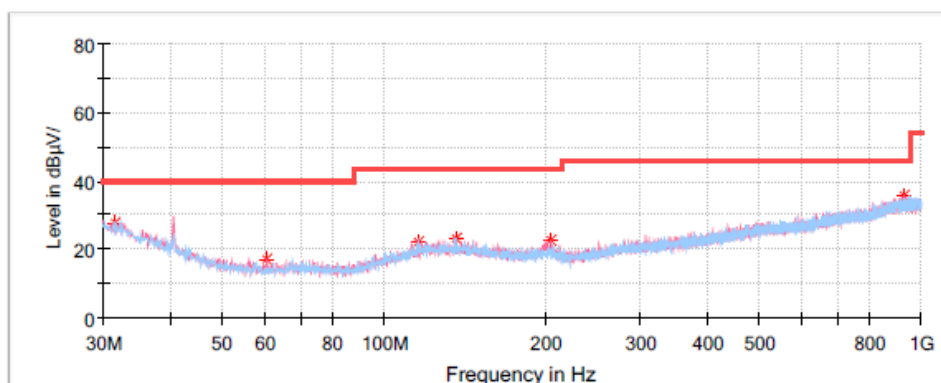
Project No.RKSA231206001  
Date: 28.MAR.2024 17:42:10

Tester:Leah Li

| Frequency (MHz) | Corrected Amplitude (dBμV/m)@3m | Detector PK/QP/Ave. | Corrected Factor (dB/m) | Limit (dBμV/m)@3m | Margin (dB) |
|-----------------|---------------------------------|---------------------|-------------------------|-------------------|-------------|
| 13.56           | 74.79                           | PK                  | 6.12                    | 124.00            | 49.21       |
| 13.65           | 57.27                           | PK                  | 6.11                    | 90.50             | 33.23       |
| 13.54           | 57.13                           | PK                  | 6.12                    | 90.50             | 33.37       |
| 13.43           | 55.77                           | PK                  | 6.13                    | 90.50             | 34.73       |

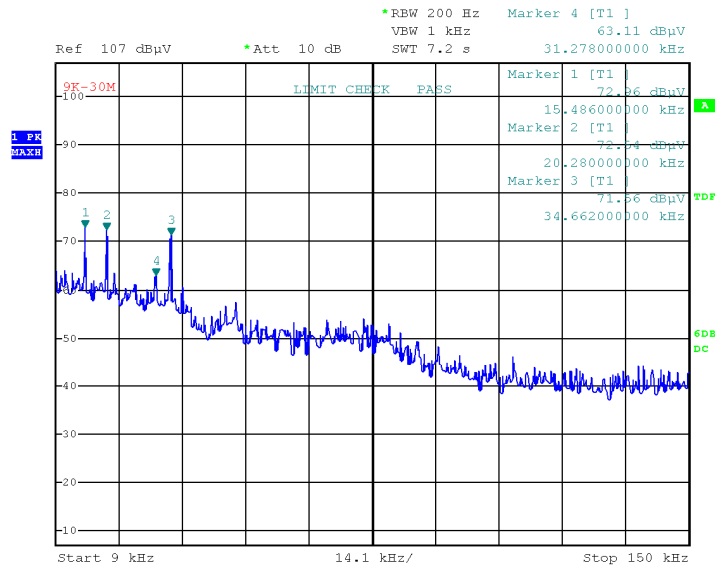
**30 MHz ~1 GHz:****Common Information**

Project No: RKSA231206001  
EUT Model: MASP01  
Test Mode: Mode 1  
Standard: FCC PART 15.247 & FCC PART 15.205 & FCC PART 15.209  
Test Equipment: ESCI, JB3, 310N  
Temperature: 16.8°C  
Humidity: 49%  
Barometric Pressure: 102.5kPa  
Test Engineer: Leah Li  
Test Date: 2024/3/19

**Critical\_Freqs**

| Frequency (MHz) | MaxPeak (dBμ V/m) | Limit (dBμ V/m) | Margin (dB) | Pol | Corr. (dB/m) |
|-----------------|-------------------|-----------------|-------------|-----|--------------|
| 31.576250       | 27.65             | 40.00           | 12.35       | H   | -5.5         |
| 60.676250       | 16.87             | 40.00           | 23.13       | V   | -17.5        |
| 115.481250      | 21.90             | 43.50           | 21.60       | H   | -12.0        |
| 135.851250      | 23.26             | 43.50           | 20.24       | H   | -11.5        |
| 203.872500      | 22.40             | 43.50           | 21.10       | V   | -12.8        |
| 927.007500      | 35.78             | 46.00           | 10.22       | V   | 1.4          |

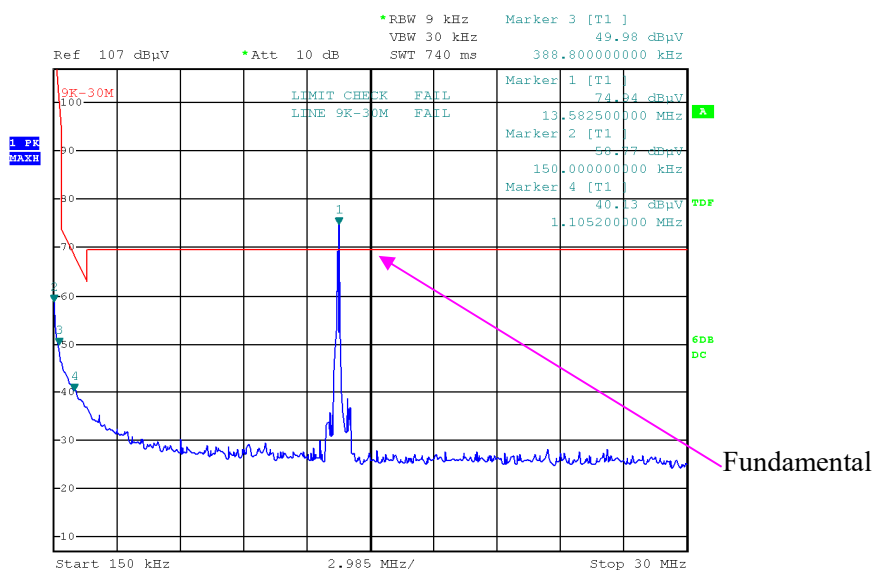
Powered by Base:  
For Ground-parallel  
1) 9 kHz~150 kHz:



Project No.RKSA231206001      Tester:Leah Li  
Date: 2.APR.2024 10:27:37

| Frequency (kHz) | Corrected Amplitude (dBμV/m)@3m | Detector PK/QP/Ave. | Corrected Factor (dB/m) | Limit (dBμV/m) @3m | Margin (dB) |
|-----------------|---------------------------------|---------------------|-------------------------|--------------------|-------------|
| 15.49           | 72.96                           | PK                  | 51.29                   | 123.80             | 50.84       |
| 20.28           | 72.54                           | PK                  | 49.73                   | 131.46             | 58.92       |
| 34.66           | 71.56                           | PK                  | 39.48                   | 116.81             | 45.25       |
| 31.28           | 63.11                           | PK                  | 46.87                   | 117.70             | 54.59       |

2) 150 kHz~30 MHz:

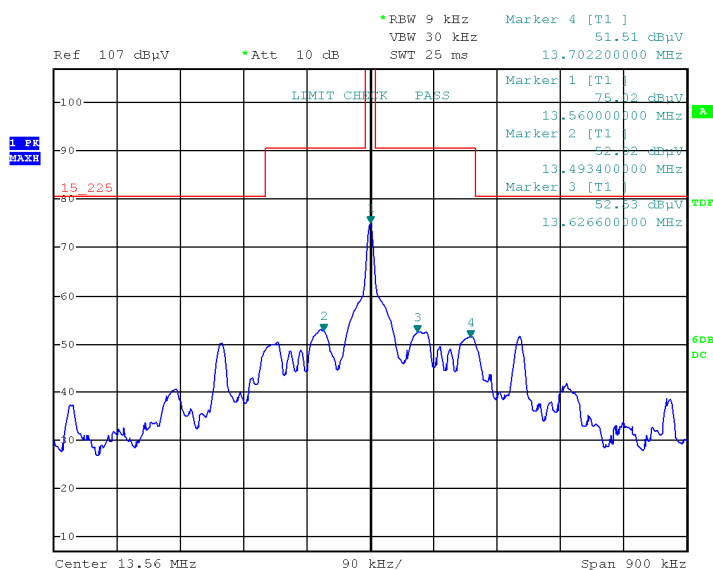


Project No.RKSA231206001  
 Date: 2.APR.2024 10:47:58

Tester:Leah Li

| Frequency (MHz) | Corrected Amplitude (dBμV/m)@3m | Detector PK/QP/Ave. | Corrected Factor (dB/m) | Limit (dBμV/m)@3m | Margin (dB) |
|-----------------|---------------------------------|---------------------|-------------------------|-------------------|-------------|
| 0.15            | 58.77                           | PK                  | 50.90                   | 104.08            | 45.31       |
| 0.39            | 49.98                           | PK                  | 26.13                   | 95.78             | 45.80       |
| 1.11            | 40.13                           | PK                  | 17.19                   | 66.70             | 26.57       |

3) 13.11 MHz~14.01 MHz:

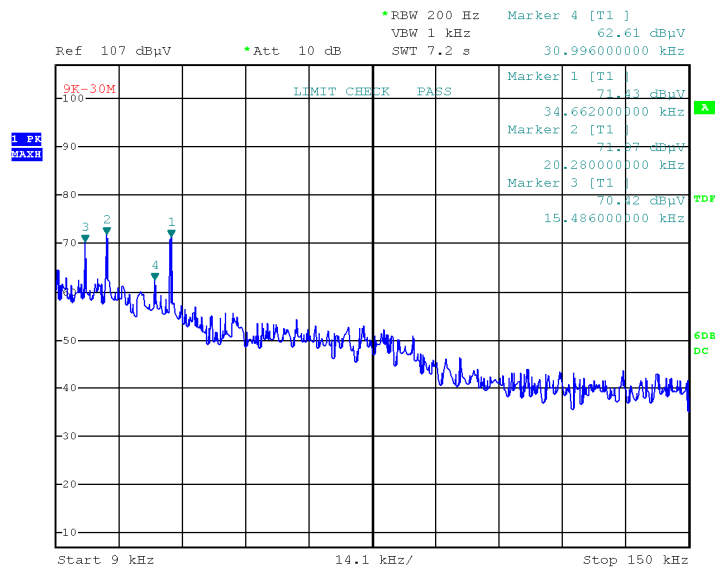


Project No. RKSA231206001  
Date: 2.APR.2024 10:45:44

Tester: Leah Li

| Frequency (MHz) | Corrected Amplitude (dBμV/m)@3m | Detector PK/QP/Ave. | Corrected Factor (dB/m) | Limit (dBμV/m)@3m | Margin (dB) |
|-----------------|---------------------------------|---------------------|-------------------------|-------------------|-------------|
| 13.56           | 75.02                           | PK                  | 6.12                    | 124.00            | 48.98       |
| 13.49           | 52.92                           | PK                  | 6.12                    | 90.50             | 37.58       |
| 13.63           | 52.53                           | PK                  | 6.11                    | 90.50             | 37.97       |
| 13.7            | 51.51                           | PK                  | 6.10                    | 90.50             | 38.99       |

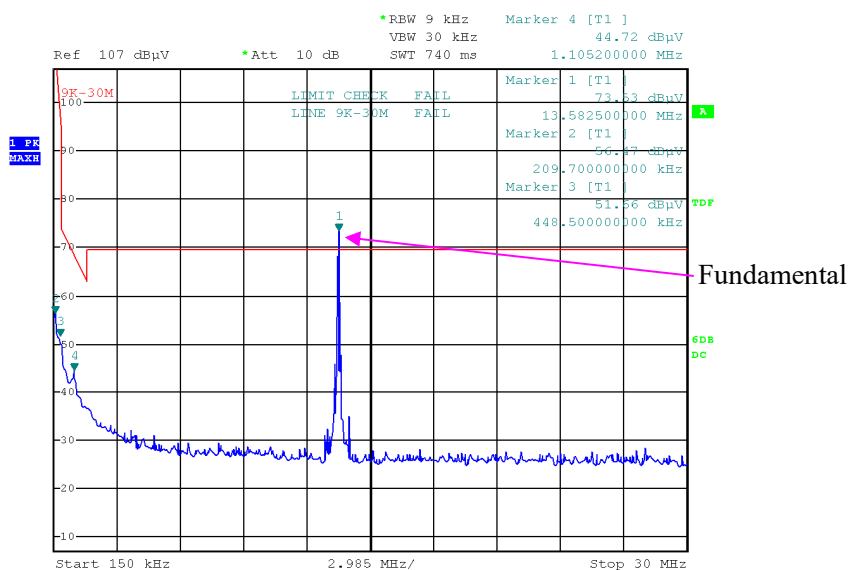
For Parallel  
1) 9 kHz~150 kHz:



Project No.RKSA231206001      Tester:Leah Li  
Date: 2.APR.2024    10:24:46

| Frequency<br>(kHz) | Corrected<br>Amplitude<br>(dBμV/m)@3m | Detector<br>PK/QP/Ave. | Corrected Factor<br>(dB/m) | Limit<br>(dBμV/m)<br>@3m | Margin<br>(dB) |
|--------------------|---------------------------------------|------------------------|----------------------------|--------------------------|----------------|
| 34.66              | 71.43                                 | PK                     | 39.48                      | 116.81                   | 45.38          |
| 20.28              | 71.97                                 | PK                     | 49.73                      | 121.46                   | 49.49          |
| 15.49              | 70.42                                 | PK                     | 51.29                      | 123.80                   | 53.38          |
| 31.00              | 62.61                                 | PK                     | 50.73                      | 117.78                   | 55.17          |

2) 150 kHz~30 MHz:

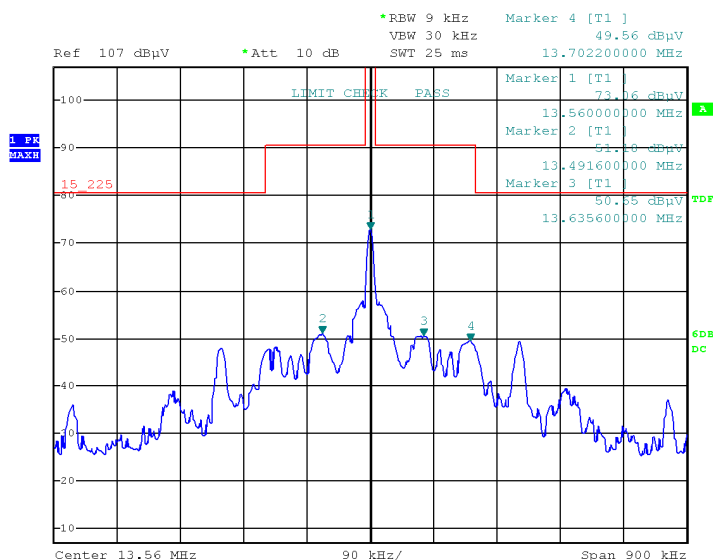


Project No.RKSA231206001  
Date: 2.APR.2024 18:54:40

Tester:Leah Li

| Frequency (MHz) | Corrected Amplitude (dBμV/m)@3m | Detector PK/QP/Ave. | Corrected Factor (dB/m) | Limit (dBμV/m)@3m | Margin (dB) |
|-----------------|---------------------------------|---------------------|-------------------------|-------------------|-------------|
| 0.21            | 56.47                           | PK                  | 49.30                   | 101.16            | 44.69       |
| 0.45            | 51.66                           | PK                  | 24.48                   | 94.54             | 42.88       |
| 1.11            | 44.72                           | PK                  | 17.19                   | 66.70             | 21.98       |

3) 13.11 MHz~14.01 MHz:

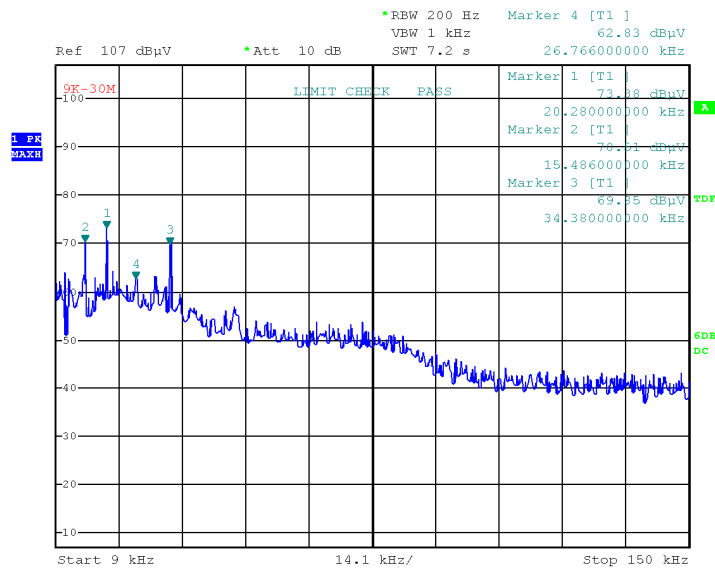


Project No.RKSA231206001  
Date: 2.APR.2024 10:56:36

Tester:Leah Li

| Frequency (MHz) | Corrected Amplitude (dBuV/m)@3m | Detector PK/QP/Ave. | Corrected Factor (dB/m) | Limit (dBuV/m)@3m | Margin (dB) |
|-----------------|---------------------------------|---------------------|-------------------------|-------------------|-------------|
| 13.56           | 73.06                           | PK                  | 6.12                    | 124.00            | 50.94       |
| 13.49           | 51.18                           | PK                  | 6.12                    | 90.50             | 39.32       |
| 13.64           | 50.65                           | PK                  | 6.11                    | 90.50             | 39.85       |
| 13.7            | 49.56                           | PK                  | 6.10                    | 90.50             | 40.94       |

For Perpendicular  
1) 9 kHz~150 kHz:

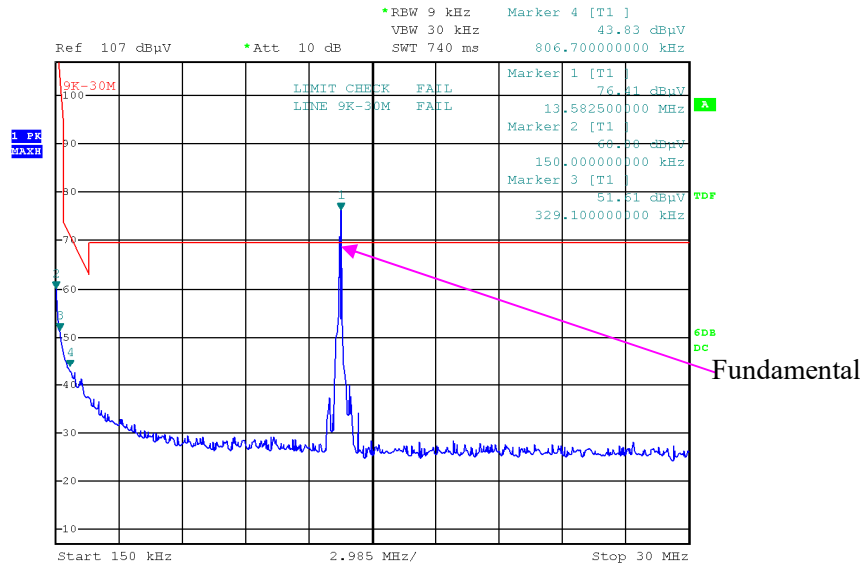


Project No.RKSA231206001  
Date: 2.APR.2024 10:22:32

Tester: Leah Li

| Frequency<br>(kHz) | Corrected<br>Amplitude<br>(dBμV/m)@3m | Detector<br>PK/QP/Ave. | Corrected Factor<br>(dB/m) | Limit<br>(dBμV/m)<br>@3m | Margin<br>(dB) |
|--------------------|---------------------------------------|------------------------|----------------------------|--------------------------|----------------|
| 20.28              | 73.38                                 | PK                     | 49.73                      | 121.46                   | 48.08          |
| 15.49              | 70.51                                 | PK                     | 51.29                      | 123.80                   | 53.29          |
| 34.38              | 69.85                                 | PK                     | 39.44                      | 116.88                   | 47.03          |
| 26.77              | 62.83                                 | PK                     | 48.10                      | 119.05                   | 56.22          |

2) 150 kHz~30 MHz:

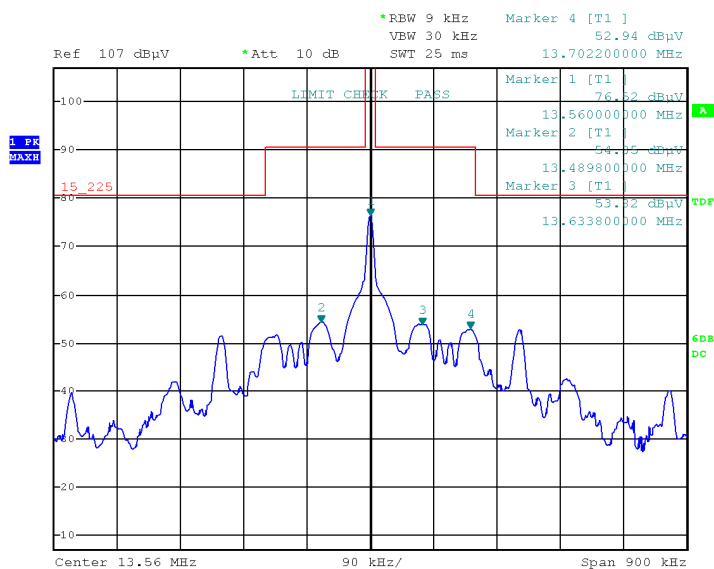


Project No.RKSA231206001  
Date: 2.APR.2024 10:50:13

Tester:Leah Li

| Frequency (MHz) | Corrected Amplitude (dBμV/m)@3m | Detector PK/QP/Ave. | Corrected Factor (dB/m) | Limit (dBμV/m)@3m | Margin (dB) |
|-----------------|---------------------------------|---------------------|-------------------------|-------------------|-------------|
| 0.15            | 60.08                           | PK                  | 50.90                   | 104.08            | 44.00       |
| 0.33            | 51.61                           | PK                  | 27.78                   | 97.23             | 45.62       |
| 0.81            | 43.83                           | PK                  | 19.46                   | 69.43             | 25.60       |

## 3) 13.11 MHz~14.01 MHz:



Project No.RKSA231206001  
Date: 2.APR.2024 10:53:05

Tester:Leah Li

| Frequency (MHz) | Corrected Amplitude (dBμV/m)@3m | Detector PK/QP/Ave. | Corrected Factor (dB/m) | Limit (dBμV/m)@3m | Margin (dB) |
|-----------------|---------------------------------|---------------------|-------------------------|-------------------|-------------|
| 13.56           | 76.52                           | PK                  | 6.12                    | 124.00            | 47.48       |
| 13.49           | 54.35                           | PK                  | 6.12                    | 90.50             | 36.15       |
| 13.63           | 53.82                           | PK                  | 6.11                    | 90.50             | 36.68       |
| 13.7            | 52.94                           | PK                  | 6.10                    | 90.50             | 37.56       |

30 MHz ~1 GHz:

Common Information

Project No:

EUT Model:

Test Mode:

Standard:

Test Equipment:

Temperature:

Humidity:

Barometric Pressure:

Test Engineer:

Test Date:

RKSA231206001

MASP01

NFC

FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209

ESCI, JB3, 310N

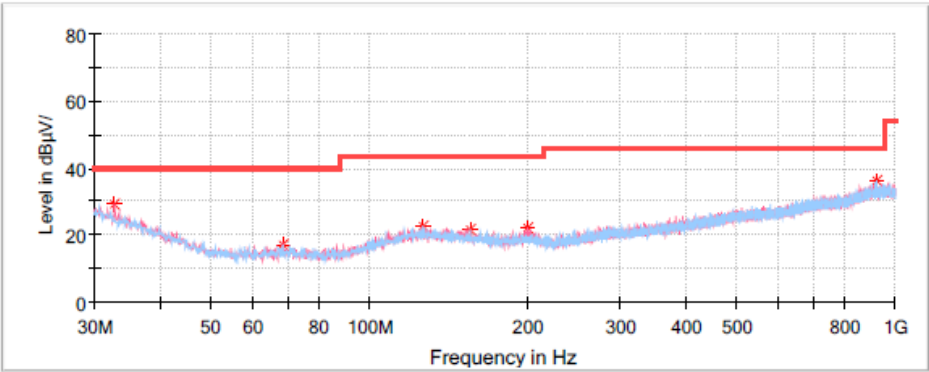
17.4°C

58%

101.5kPa

Leah Li

2024/4/1



Critical\_Freqs

| Frequency (MHz) | MaxPeak (dBµ V/m) | Limit (dBµ V/m) | Margin (dB) | Pol | Corr. (dB/m) |
|-----------------|-------------------|-----------------|-------------|-----|--------------|
| 32.788750       | 29.16             | 40.00           | 10.84       | V   | -6.3         |
| 68.436250       | 17.35             | 40.00           | 22.65       | H   | -16.9        |
| 126.757500      | 22.54             | 43.50           | 20.96       | H   | -11.3        |
| 155.615000      | 21.63             | 43.50           | 21.87       | H   | -12.3        |
| 200.477500      | 22.07             | 43.50           | 21.43       | V   | -12.6        |
| 921.551250      | 36.08             | 46.00           | 9.92        | H   | 1.4          |

**FREQUENCY STABILITY***Test Mode: Transmitting.**Test Result: Compliant*

| <b>F<sub>0</sub> = 13.56MHz</b>     |                         |                                 |                            |                          |
|-------------------------------------|-------------------------|---------------------------------|----------------------------|--------------------------|
| <b>Power Supply(V<sub>DC</sub>)</b> | <b>Temperature (°C)</b> | <b>Measured Frequency (MHz)</b> | <b>Frequency Error (%)</b> | <b>Part 15.225 Limit</b> |
| 7.4                                 | -20                     | 13.5590653                      | -0.00689                   | ±0.01%                   |
|                                     | -10                     | 13.5590528                      | -0.00699                   | ±0.01%                   |
|                                     | 0                       | 13.5590453                      | -0.00704                   | ±0.01%                   |
|                                     | 10                      | 13.5592536                      | -0.00550                   | ±0.01%                   |
|                                     | 20                      | 13.5599525                      | -0.00035                   | ±0.01%                   |
|                                     | 30                      | 13.5590605                      | -0.00693                   | ±0.01%                   |
|                                     | 40                      | 13.5590459                      | -0.00704                   | ±0.01%                   |
|                                     | 50                      | 13.5590523                      | -0.00699                   | ±0.01%                   |
| 7.2                                 | 20                      | 13.5590475                      | -0.00702                   | ±0.01%                   |
| 8.4                                 | 20                      | 13.5590636                      | -0.00691                   | ±0.01%                   |

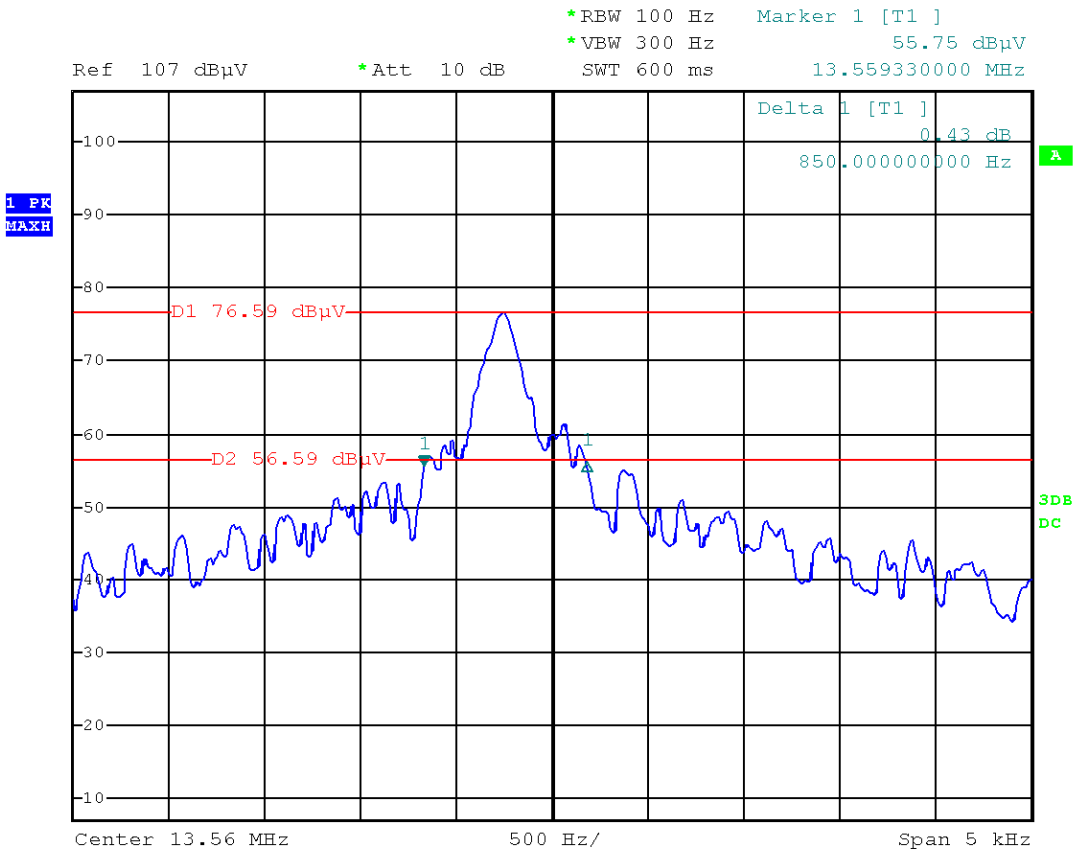
20dB EMISSION BANDWIDTH TESTING

Test Mode: Transmitting

Test Result: Compliant

| Frequency (MHz) | 20dB Bandwidth (kHz) |
|-----------------|----------------------|
| 13.56           | 0.85                 |

20dB Bandwidth



Project No.RKSA231206001

Tester:Leah Li

Date: 3.APR.2024 16:41:51

## RF EXPOSURE EVALUATION

### Applicable Standard

According to KDB447498 D01 General RF Exposure Guidance v06: 4.3. General SAR test exclusion guidance

c) For frequencies below 100 MHz, the following may be considered for SAR test exclusion (also illustrated in Appendix C):

1) For test separation distances  $> 50$  mm and  $< 200$  mm, the power threshold at the corresponding test separation distance at 100 MHz in step b) is multiplied by  $[1 + \log(100/f_{\text{MHz}})]$

2) For test separation distances  $\leq 50$  mm, the power threshold determined by the equation in c) 1) for 50 mm and 100 MHz is multiplied by  $\frac{1}{2}$

3) SAR measurement procedures are not established below 100 MHz

### Measurement Result:

For NFC, the power of EUT: E Field @3m is 76.75dBuV/m = -18.45 dBm(0.01mW)

Note:  $E[\text{dBuV/m}] = \text{EIRP}[\text{dBm}] + 95.2$  for  $d = 3$  m.

SAR test exclusion threshold for NFC(13.56MHz) separation distance  $< 50$ mm

$$= [474 * (1 + \log(100/f_{\text{MHz}}))] / 2$$

$$= 443\text{mW}$$

$$> 0.01\text{mW}$$

**Result: Compliant**

## **EUT PHOTOGRAPHS**

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

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## **TEST SETUP PHOTOGRAPHS**

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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 \*\*\*\*\***