

## TEST REPORT

**Applicant:** Fujian LANDI Commercial Equipment Co.,Ltd.

**Address:** Building 17, Section A, Software Park, No. 89 Software Road,  
Gulou District, Fuzhou Municipality, Fujian Province, China

**Product Name:** Mobile Terminal

**FCC ID:** 2AG6N-M20

**Standard(s):** 47 CFR Part 15, Subpart C(15.225)  
ANSI C63.10-2013

**Report Number:** 2402Z105148E-RF-00GA1

**Report Date:** 2025/2/25

The above device has been tested and found compliant with the requirement of the relative standards by Bay Area Compliance Laboratories Corp. (Dongguan).

*Pedro Yun*

*Gavin Xu*

**Reviewed By:** Pedro Yun

**Approved By:** Gavin Xu

Title: Project Engineer

Title: RF Supervisor

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**Bay Area Compliance Laboratories Corp. (Dongguan)**  
No.12, Pulong East 1<sup>st</sup> Road, Tangxia Town, Dongguan, Guangdong, China

Tel: +86-769-86858888

Fax: +86-769-86858891

[www.baclcorp.com.cn](http://www.baclcorp.com.cn)

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	XMDN240206-08120E-RF-00G	Original Report	2024/6/14
2.0	2402Z105148E-RF-00GA1	Class II Permissive Change Report	2025/2/25

## 1. GENERAL INFORMATION

### 1.1 General Description of Equipment under Test

<b>EUT Name:</b>	Mobile Terminal
<b>EUT Model:</b>	M20SE
<b>Operation Frequency:</b>	13.56 MHz
<b>Modulation Type:</b>	ASK
<b>Rated Input Voltage:</b>	5Vdc from Adapter or 7.7Vdc from battery
<b>Serial Number:</b>	2UEW-36 (Configuration 3#) 2UEW-35 (Configuration 4#) 2UEW-7 (Configuration 5#)
<b>EUT Received Date:</b>	2024/11/19
<b>EUT Received Status:</b>	Good
Note : The multiple models are electrically identical with the test model. Please refer to the declaration letter for more detail, which was provided by manufacturer.	

### 1.2 Accessory Information

#### Configuration Information:

Configuration	HVIN	Scanning camera (LD47)	Scanning camera (N5703) (old)
3#	M20SES1	×	√
4#	M20SES0	×	×
5#	M20SES2	√	×

#### Battery Information:

Battery No.	Manufacturer	Model	Parameters
1#	HuiZhou Ganfeng LiEnergy Battery Technology Co.,LTD.	526265-2S (2ICP6/62/65)	DC 7.7V 3550mAh/27.34Wh
2#	SCUD(Fujian)Electronics Co.,LTD	526266-2S (2ICP6/62/66)	DC 7.7V 3620mAh/27.874Wh

#### Adapter Information:

Adapter No.	Manufacturer	Model	Parameters
1#	Something High Electric (Xiamen) Company Inc.	P12GUSB050200	Input: 100-240Vac~50/60Hz 0.3A Output: 5.0Vdc,2.0A
2#	SHENZHEN KEYU POWER SUPPLY TECHNOLOGY CO., LTD	KA1602- 0502000DEU	Input: 100-240Vac~50/60Hz 0.35A Output: 5.0Vdc 2.0A,10W

**1.3 Antenna Information Detail ▲**

Antenna Type	input impedance (Ohm)	Frequency Range	Antenna Gain
FPC Loop	50	13.56MHz	Unknown
<b>The design of compliance with §15.203:</b>			
<input checked="" type="checkbox"/> Unit uses a permanently attached antenna.			
<input type="checkbox"/> Unit uses a unique coupling to the intentional radiator.			
<input type="checkbox"/> Unit was professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.			

**1.4 Equipment Modifications**

No modifications are made to the EUT during all test items.

## 2. SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
FCC§15.207 (a)	AC Line Conducted Emissions	Compliant
§15.225 §15.209 §15.205	Radiated Spurious Emissions	Compliant
§15.225	Fundamental emission	Reporting
§15.225(e)	Frequency Stability	Compliant*
§15.215(c)	20 dB Bandwidth	Compliant*
FCC§15.203	Antenna Requirement	Compliant
<p><b>Purpose:</b> This is Class II permissive change application based on the original device, model: M20,M20SE, FCC ID: 2AG6N-M20, please refer to report No.: XMDN240206-08120E-RF-00G, issued on 2024/6/14. Differences between the previous device and the current one are stated and guaranteed by the manufacturer, as following:</p> <ol style="list-style-type: none"><li>1. Model M20SE added a scanning camera (model: LD47).</li><li>2. Model M20SE Changed BT/WIFI/GPS and WWAN Main Antenna.</li></ol> <p>The Bay Area Compliance Laboratories Corp.(Dongguan) is responsible for all the information provided in this report, except when information is provided by the customer as identified in this report.</p> <p>Note 1: Per original report, Powered by Adapter #1 and Battery #1 was the worst for AC Line Conducted Emissions and Radiated Spurious Emissions Below 1GHz, so only performed it.</p> <p>Note 2: Compliant*: The change of the EUT does not affect the test result, the test result please refer to original report NO.: XMDN240206-08120E-RF-00G.</p>		

### 3. DESCRIPTION OF TEST CONFIGURATION

#### 3.1 EUT Operation Condition

The system was configured for testing in Engineering Mode, which was provided by the manufacturer. Test performed with the typical card and without Card, the worst was performed with the typical card. The following summary table is showing all test modes to demonstrate in compliance with the standard:

Test Items	Test Modes
<b>Radiated Spurious Emission</b>	M1: Transmitting(Configuration 5#) M2: Transmitting(Configuration 4#) M3: Transmitting(Configuration 3#)
<b>AC Line Conducted Emission</b>	M1: Transmitting(Configuration 5#) M2: Transmitting(Configuration 4#) M3: Transmitting(Configuration 3#)

#### 3.2 EUT Exercise Software

No software was used in test. The EUT transmit when EUT was power up.

#### 3.3 Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
LANDI	NFC Card	EINOLDA	EMZBNC21103001

#### 3.4 Support Cable List and Details

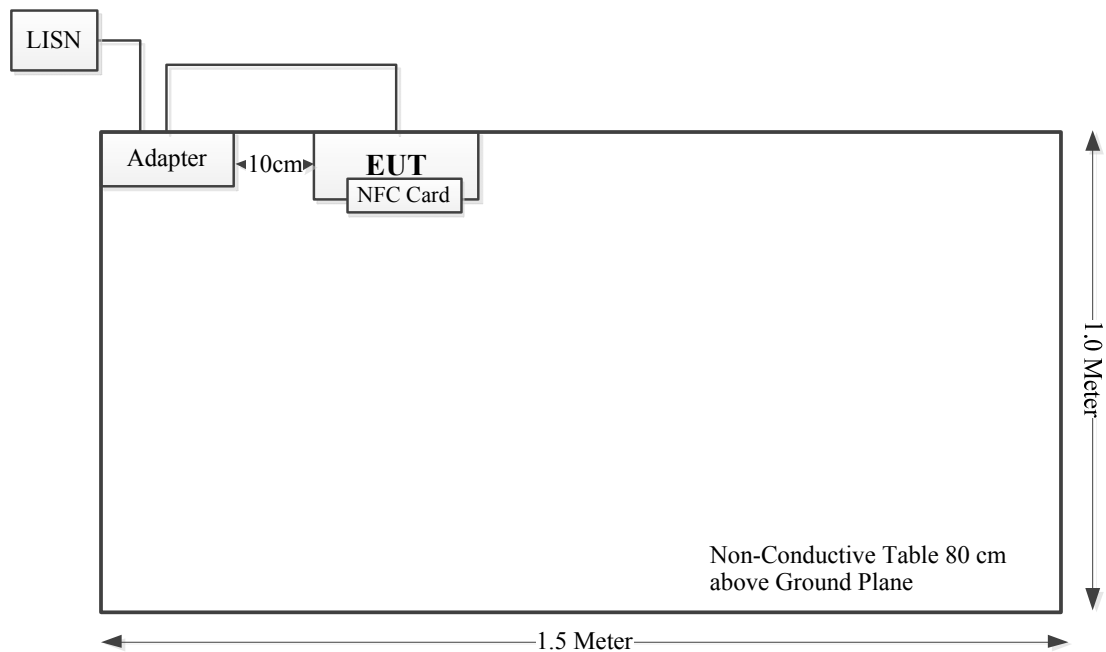
Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
USB Cable	No	No	1.0	Adapter	EUT



### 3.5 Block Diagram of Test Setup

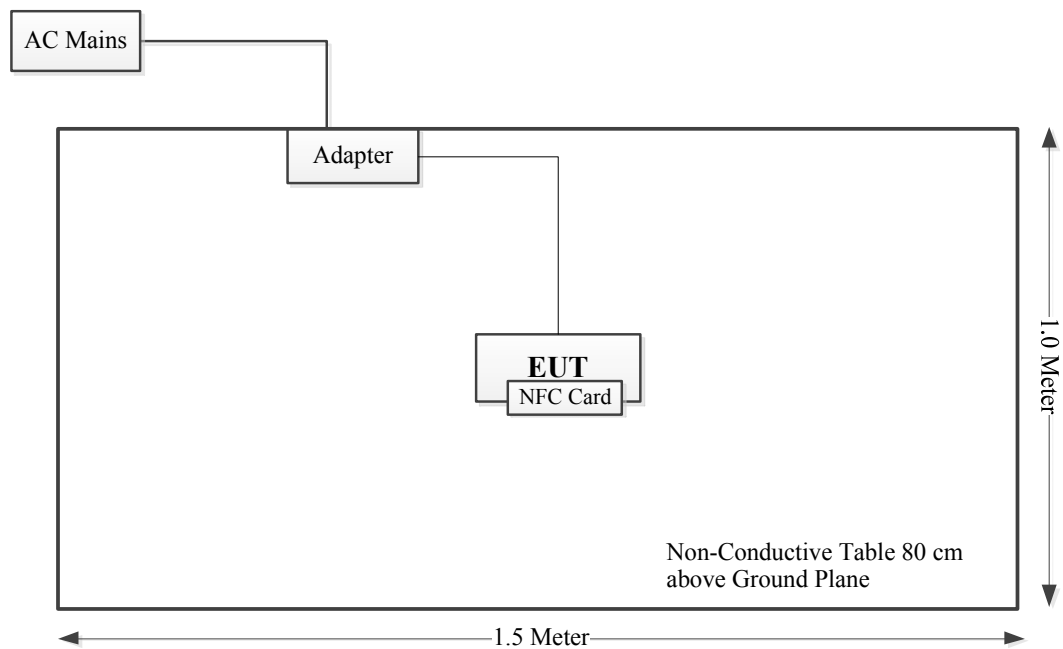
AC Power Lines Conducted Emission:

M1-M3:



Radiated Spurious Emissions:

M1-M3:



### 3.6 Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.12, Pulong East 1st Road, Tangxia Town, Dongguan, Guangdong, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 829273, the FCC Designation No. : CN5044.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0022.

### 3.7 Measurement Uncertainty

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

Parameter	Measurement Uncertainty
Occupied Channel Bandwidth	±5 %
RF output power, conducted	±0.61dB
Power Spectral Density, conducted	±0.61 dB
Unwanted Emissions, radiated	9kHz~30MHz: 3.3dB, 30MHz~200MHz: 4.55 dB, 200MHz~1GHz: 5.92 dB, 1GHz~6GHz: 4.98 dB, 6GHz~18GHz: 5.89 dB, 18GHz~26.5GHz:5.47 dB, 26.5GHz~40GHz:5.63 dB
Unwanted Emissions, conducted	±2.47 dB
Temperature	±1℃
Humidity	±5%
DC and low frequency voltages	±0.4%
Duty Cycle	1%
AC Power Lines Conducted Emission	3.11 dB (150 kHz to 30 MHz)

## 4. REQUIREMENTS AND TEST RESULTS

### 4.1 AC Line Conducted Emissions

#### 4.1.1 Applicable Standard

FCC§15.207(a).

(a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50  $\mu$ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Frequency of emission (MHz)	Conducted limit (dB $\mu$ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

\*Decreases with the logarithm of the frequency.

(b) The limit shown in paragraph (a) of this section shall not apply to carrier current systems operating as intentional radiators on frequencies below 30 MHz. In lieu thereof, these carrier current systems shall be subject to the following standards:

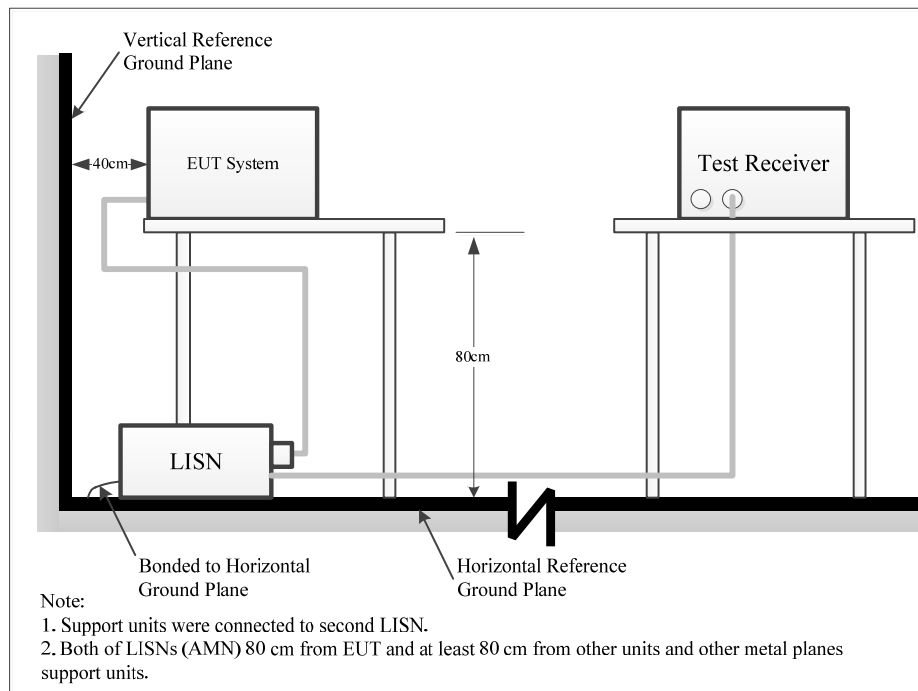
(1) For carrier current system containing their fundamental emission within the frequency band 535-1705 kHz and intended to be received using a standard AM broadcast receiver: no limit on conducted emissions.

(2) For all other carrier current systems: 1000  $\mu$ V within the frequency band 535-1705 kHz, as measured using a 50  $\mu$ H/50 ohms LISN.

(3) Carrier current systems operating below 30 MHz are also subject to the radiated emission limits in §15.205, §15.209, §15.221, §15.223, or §15.227, as appropriate.

(c) Measurements to demonstrate compliance with the conducted limits are not required for devices which only employ battery power for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines. Devices that include, or make provisions for, the use of battery chargers which permit operating while charging, AC adapters or battery eliminators or that connect to the AC power lines indirectly, obtaining their power through another device which is connected to the AC power lines, shall be tested to demonstrate compliance with the conducted limits.

#### 4.1.2 EUT 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.

The adapter or EUT was connected to the main LISN with a 120 V/60 Hz AC power source.

#### 4.1.3 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	IF B/W
150 kHz – 30 MHz	9 kHz

#### 4.1.4 Test Procedure

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

The frequency and amplitude of the six highest ac power-line conducted emissions relative to the limit, measured over all the current-carrying conductors of the EUT power cords, and the operating frequency or frequency to which the EUT is tuned (if appropriate), should be reported, unless such emissions are more than 20 dB below the limit. AC power-line conducted emissions measurements are to be separately carried out only on each of the phase (“hot”) line(s) and (if used) on the neutral line(s), but not on the ground [protective earth] line(s). If less than six emission frequencies are within 20 dB of the limit, then the noise level of the measuring instrument at representative frequencies should be reported. The specific conductor of the power-line cord for each of the reported emissions should be identified. Measure the six highest emissions with respect to the limit on each current-carrying conductor of each power cord associated with the EUT (but not the power cords of associated or peripheral equipment that are part of the test configuration). Then, report the six highest emissions with respect to the limit from among all the measurements identifying the frequency and specific current-carrying conductor identified with the emission. The six highest emissions should be reported for each of the current-carrying conductors, or the six highest emissions may be reported over all the current-carrying conductors.

According FCC publication number 174176, for a device with a permanent antenna operating at or below 30 MHz, the measurements done with a suitable dummy load, in lieu of the permanent antenna under the following conditions: (1) perform the AC line conducted tests with the permanent antenna to determine compliance with the Section 15.207 limits outside the transmitter's fundamental emission band; (2) retest with a dummy load in lieu of the permanent antenna to determine compliance with the Section 15.207 limits within the transmitter's fundamental emission band.

#### 4.1.5 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Reading + Factor

Factor = attenuation caused by cable loss + voltage division factor of AMN

The “**Margin**” column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

**4.1.6 Test Data**

Serial Number:	2UEW-7,2UEW-35,2UEW-36	Test Date:	2025/2/7~2025/2/19
Test Site:	CE	Test Mode:	M1-M3
Tester:	Yukin Qiu	Test Result:	Pass

**Environmental Conditions:**

Temperature: (°C)	19.5~21.3	Relative Humidity: (%)	45~56	ATM Pressure: (kPa)	101.5~101.7
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**Test Equipment List and Details:**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	LISN	ENV216	101614	2024/9/5	2025/9/4
MICRO-COAX	Coaxial Cable	C-NJNJ-50	C-0200-01	2024/9/5	2025/9/4
R&S	EMI Test Receiver	ESCI	100035	2024/8/26	2025/8/25
Audix	Test Software	E3	191218 V9	N/A	N/A

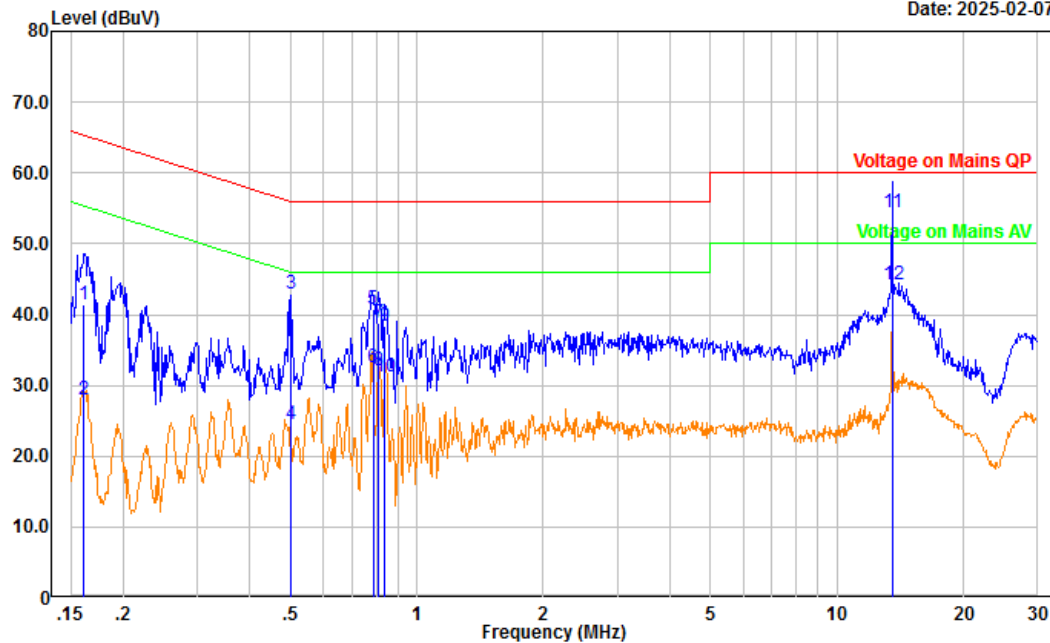
*\* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

**M1:**

Project No.: 2402Z105148E-RF-A1  
Port: Line  
Test Mode: Transmitting  
IF B/W 9kHz PK/AV

Serial No.: 2UEW-7  
Tester: Yukin Qiu

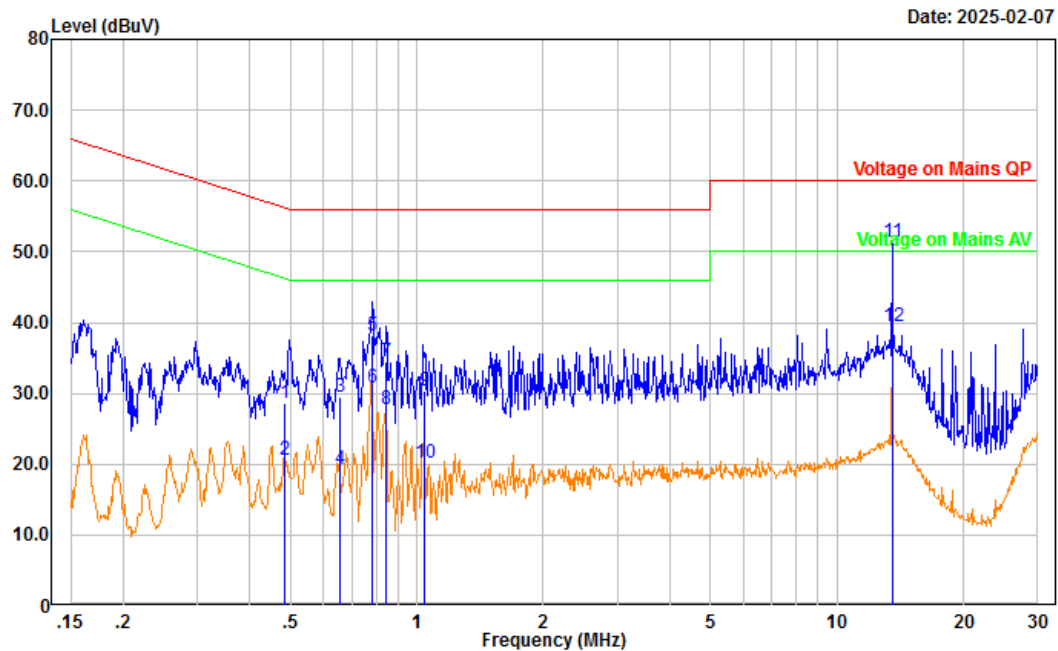
Date: 2025-02-07



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Detector
1	0.160	30.67	10.77	41.44	65.44	24.00	QP
2	0.160	17.31	10.77	28.08	55.44	27.36	Average
3	0.502	32.14	10.84	42.98	56.00	13.02	QP
4	0.502	13.60	10.84	24.44	46.00	21.56	Average
5	0.786	29.91	10.85	40.76	56.00	15.24	QP
6	0.786	21.62	10.85	32.47	46.00	13.53	Average
7	0.809	28.05	10.85	38.90	56.00	17.10	QP
8	0.809	21.27	10.85	32.12	46.00	13.88	Average
9	0.839	27.59	10.85	38.44	56.00	17.56	QP
10	0.839	20.36	10.85	31.21	46.00	14.79	Average
11	13.561	43.59	10.83	54.42	60.00	5.58	QP
12	13.561	33.30	10.83	44.13	50.00	5.87	Average

Project No.: 2402Z105148E-RF-A1  
Port: neutral  
Test Mode: Transmitting  
IF B/W 9kHz PK/AV

Serial No.: 2UEW-7  
Tester: Yukin Qiu



No.	Frequency (MHz)	Reading (dBUV)	Factor (dB)	Result (dBUV)	Limit (dBUV)	Margin (dB)	Detector
1	0.486	17.98	10.74	28.72	56.24	27.52	QP
2	0.486	9.77	10.74	20.51	46.24	25.73	Average
3	0.654	18.64	10.74	29.38	56.00	26.62	QP
4	0.654	8.62	10.74	19.36	46.00	26.64	Average
5	0.780	27.43	10.78	38.21	56.00	17.79	QP
6	0.780	20.03	10.78	30.81	46.00	15.19	Average
7	0.843	23.70	10.80	34.50	56.00	21.50	QP
8	0.843	16.93	10.80	27.73	46.00	18.27	Average
9	1.042	19.56	10.85	30.41	56.00	25.59	QP
10	1.042	9.26	10.85	20.11	46.00	25.89	Average
11	13.561	40.49	10.86	51.35	60.00	8.65	QP
12	13.561	28.63	10.86	39.49	50.00	10.51	Average

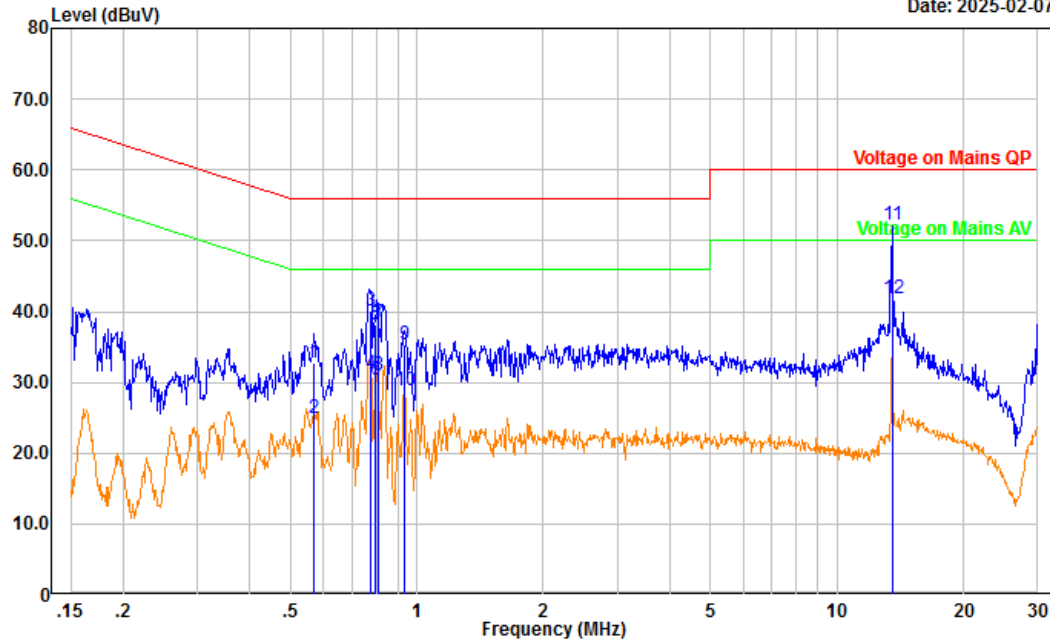


**M2:**

Project No.: 2402Z105148E-RF-A1  
Port: Line  
Test Mode: Transmitting  
IF B/W 9kHz PK/AV

Serial No.: 2UEW-35  
Tester: Yukin Qiu

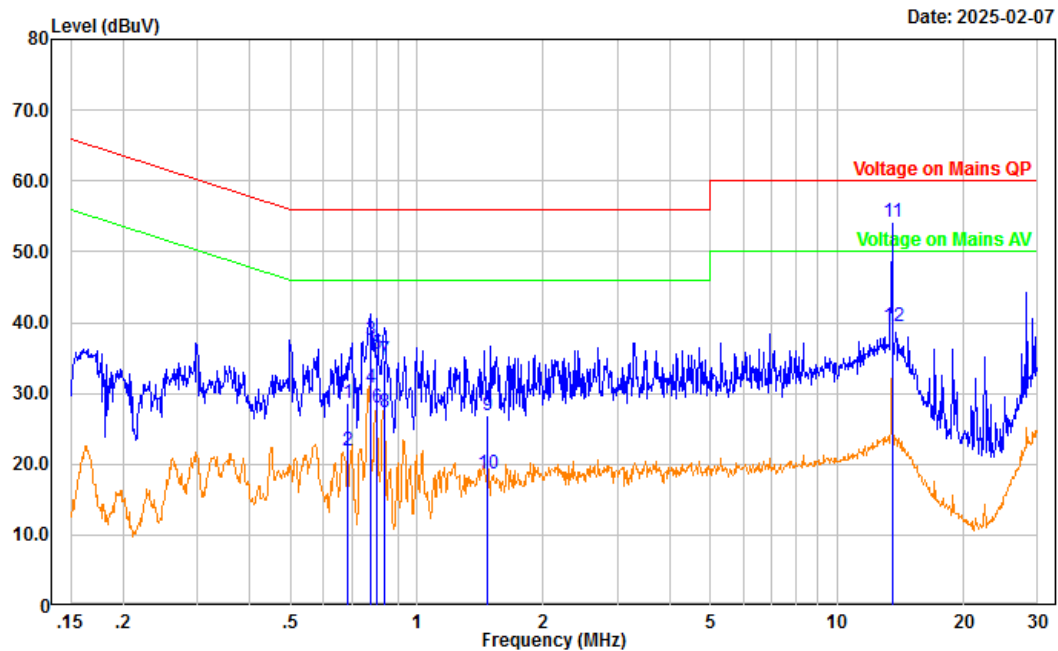
Date: 2025-02-07



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Detector
1	0.568	21.98	10.83	32.81	56.00	23.19	QP
2	0.568	14.04	10.83	24.87	46.00	21.13	Average
3	0.778	29.24	10.85	40.09	56.00	15.91	QP
4	0.778	20.26	10.85	31.11	46.00	14.89	Average
5	0.798	27.39	10.85	38.24	56.00	17.76	QP
6	0.798	19.50	10.85	30.35	46.00	15.65	Average
7	0.809	27.60	10.85	38.45	56.00	17.55	QP
8	0.809	20.19	10.85	31.04	46.00	14.96	Average
9	0.934	24.53	10.86	35.39	56.00	20.61	QP
10	0.934	18.08	10.86	28.94	46.00	17.06	Average
11	13.561	41.33	10.83	52.16	60.00	7.84	QP
12	13.561	31.09	10.83	41.92	50.00	8.08	Average

Project No.: 2402Z105148E-RF-A1  
Port: neutral  
Test Mode: Transmitting  
IF B/W 9kHz PK/AV

Serial No.: 2UEW-35  
Tester: Yukin Qiu



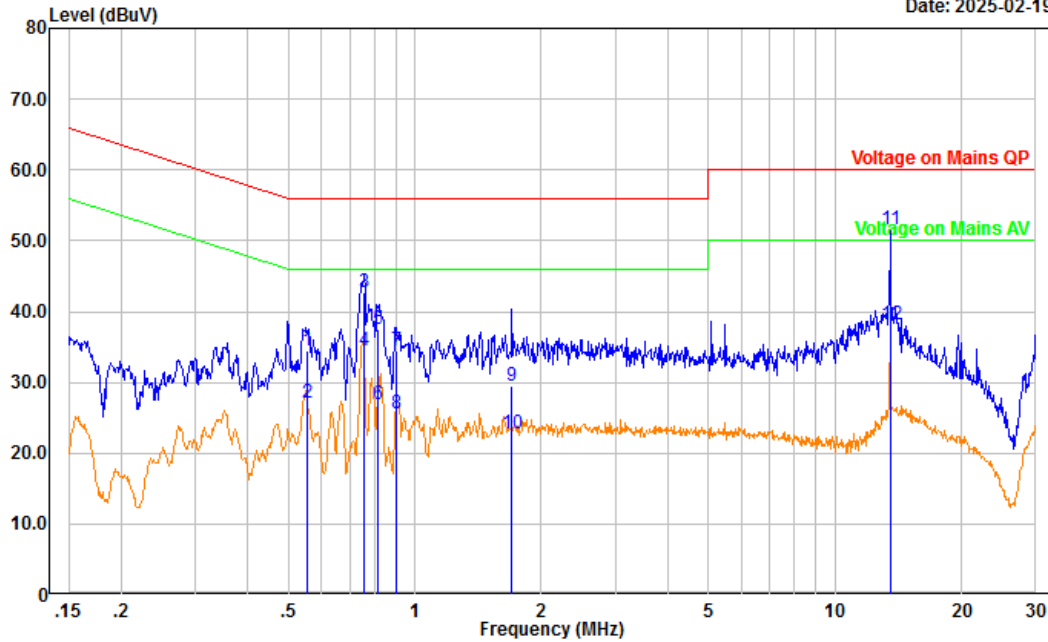
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB)	Result (dBUV)	Limit (dBUV)	Margin (dB)	Detector
1	0.683	17.79	10.75	28.54	56.00	27.46	QP
2	0.683	11.14	10.75	21.89	46.00	24.11	Average
3	0.776	26.67	10.78	37.45	56.00	18.55	QP
4	0.776	19.94	10.78	30.72	46.00	15.28	Average
5	0.804	24.80	10.78	35.58	56.00	20.42	QP
6	0.804	17.12	10.78	27.90	46.00	18.10	Average
7	0.837	23.96	10.80	34.76	56.00	21.24	QP
8	0.837	16.56	10.80	27.36	46.00	18.64	Average
9	1.472	16.06	10.89	26.95	56.00	29.05	QP
10	1.472	7.69	10.89	18.58	46.00	27.42	Average
11	13.561	43.24	10.86	54.10	60.00	5.90	QP
12	13.561	28.65	10.86	39.51	50.00	10.49	Average

**M3:**

Project No.: 2402Z105148E-RF-A1  
 Port: Line  
 Test Mode: Transmitting  
 IF B/W 9kHz PK/AV

Serial No.: 2UEW-36  
 Tester: Yukin Qiu

Date: 2025-02-19

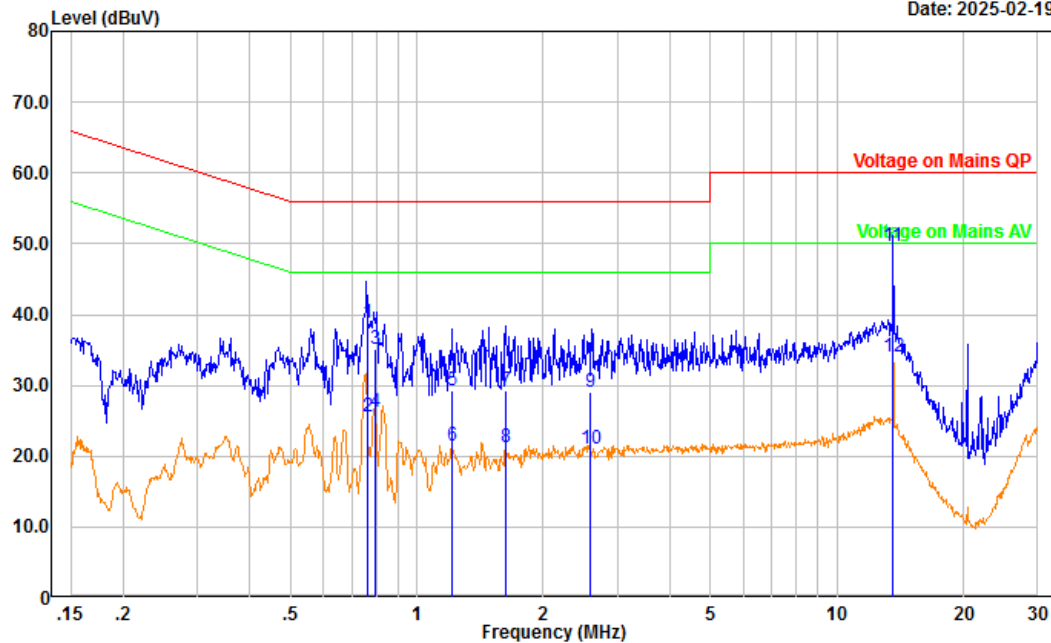


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Detector
1	0.556	23.66	10.83	34.49	56.00	21.51	QP
2	0.556	16.19	10.83	27.02	46.00	18.98	Average
3	0.755	31.90	10.85	42.75	56.00	13.25	QP
4	0.755	23.62	10.85	34.47	46.00	11.53	Average
5	0.816	26.76	10.85	37.61	56.00	18.39	QP
6	0.816	16.09	10.85	26.94	46.00	19.06	Average
7	0.901	23.59	10.86	34.45	56.00	21.55	QP
8	0.901	14.66	10.86	25.52	46.00	20.48	Average
9	1.700	18.69	10.83	29.52	56.00	26.48	QP
10	1.700	12.01	10.83	22.84	46.00	23.16	Average
11	13.568	40.69	10.83	51.52	60.00	8.48	QP
12	13.568	27.32	10.83	38.15	50.00	11.85	Average

Project No.: 2402Z105148E-RF-A1  
Port: neutral  
Test Mode: Transmitting  
IF B/W 9kHz PK/AV

Serial No.: 2UEW-36  
Tester: Yukin Qiu

Date: 2025-02-19



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Detector
1	0.764	27.97	10.77	38.74	56.00	17.26	QP
2	0.764	14.79	10.77	25.56	46.00	20.44	Average
3	0.795	24.43	10.78	35.21	56.00	20.79	QP
4	0.795	15.55	10.78	26.33	46.00	19.67	Average
5	1.211	18.38	10.86	29.24	56.00	26.76	QP
6	1.211	10.50	10.86	21.36	46.00	24.64	Average
7	1.625	18.29	10.89	29.18	56.00	26.82	QP
8	1.625	10.34	10.89	21.23	46.00	24.77	Average
9	2.577	18.05	10.90	28.95	56.00	27.05	QP
10	2.577	10.20	10.90	21.10	46.00	24.90	Average
11	13.566	38.77	10.86	49.63	60.00	10.37	QP
12	13.566	23.28	10.86	34.14	50.00	15.86	Average

## 4.2 Radiated Spurious Emissions

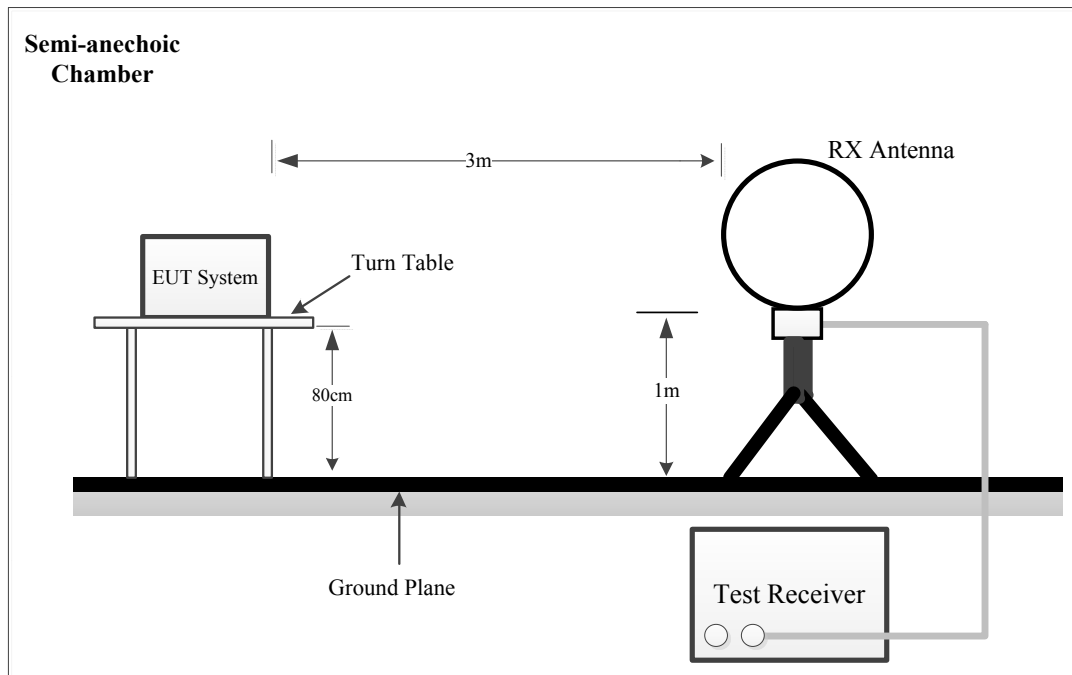
### 4.2.1 Applicable Standard

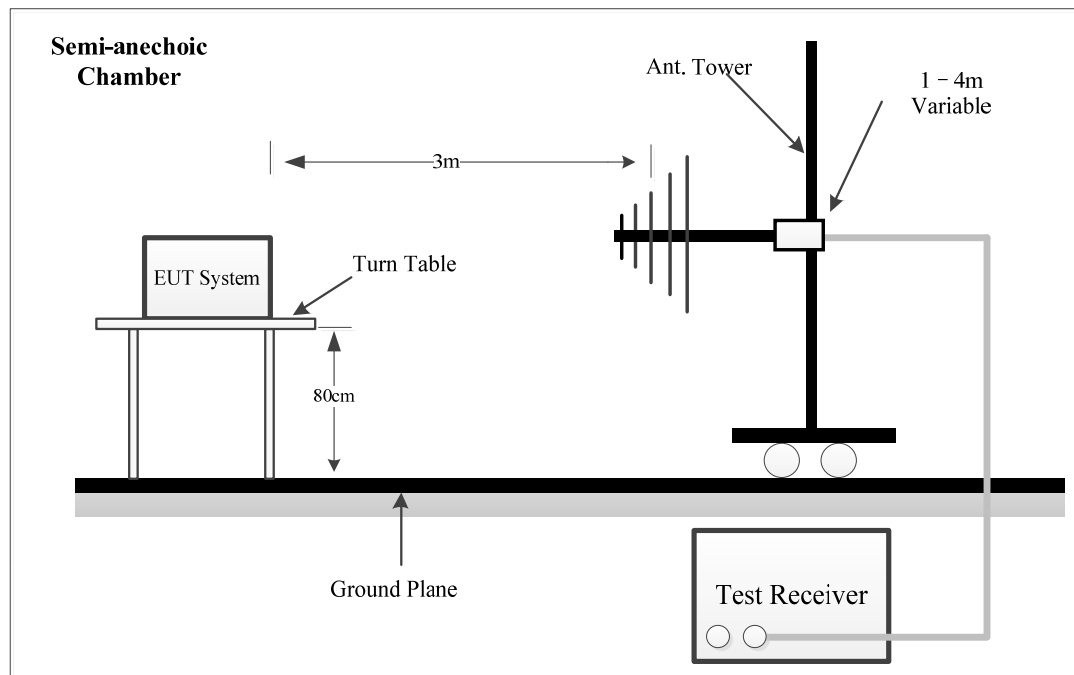
As per FCC Part 15.225

- (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.

### 4.2.2 EUT Setup

9kHz~30MHz:



**30MHz~1GHz:**

The radiated emission tests were performed in the 3-meter chamber test site, using the setup accordance with the ANSI C63.10-2013.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

For 9kHz-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.

#### 4.2.3 EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 9 kHz to 1 GHz.

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

Frequency Range	RBW	Video B/W	IF B/W	Measurement
9 kHz – 150 kHz	300 Hz	1 kHz	200 Hz	QP/AV
150 kHz – 30 MHz	10 kHz	30 kHz	9 kHz	QP/AV
30 MHz – 1000 MHz	100 kHz	300 kHz	/	PK
	/	/	120 kHz	QP

#### 4.2.4 Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

Data was recorded in Quasi-peak detection mode for frequency range of 9 kHz-1 GHz except 9-90 kHz, 110-490 kHz, employing an average detector.

If the maximized peak measured value complies with under the QP/Average limit more than 6dB, then it is unnecessary to perform an QP/Average measurement.

#### 4.2.5 Corrected Result & Margin Calculation

$$E_{Log} = 20 \times \log_{10}(E_{Linear})$$

$E_{Linear}$  is the field strength of the emission, in uV/m

$E_{Log}$  is the field strength of the emission, in dBuV/m

For 9kHz-30MHz test, test distance is 3m, extrapolation limit shall be calculated using Equation:

$$E_{\text{limit-measure}} = E_{\text{limit-Standard}} + 40 \times \log_{10} (d_{\text{standard}}/d_{\text{measure}})$$

The basic equation is as follows:

Result = Reading + Factor

Factor= Antenna Factor + Cable Loss- Amplifier Gain

The “**Margin**” column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Result}$$

**4.2.6 Test Data**

Serial Number:	2UEW-7,2UEW-35,2UEW-36	Test Date:	2025/2/11
Test Site:	Chamber10m	Test Mode:	M1-M3
Tester:	Leesin Xiang	Test Result:	Pass

**Environmental Conditions:**

Temperature: (°C)	20	Relative Humidity: (%)	40	ATM Pressure: (kPa)	101.4
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**Test Equipment List and Details:**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
EMCO	Passive Loop Antenna	6512	9706-1206	2023/10/25	2026/10/24
Sunol Sciences	Hybrid Antenna	JB3	A060611-1	2023/9/6	2026/9/5
Narda	Coaxial Attenuator	779-6dB	04269	2023/9/6	2026/9/5
Unknown	Coaxial Cable	C-NJNJ-50	C-1000-01	2024/7/1	2025/6/30
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-04	2024/7/1	2025/6/30
Unknown	Coaxial Cable	C-NJNJ-50	C-0530-01	2024/7/1	2025/6/30
Sonoma	Amplifier	310N	185914	2024/8/26	2025/8/25
R&S	EMI Test Receiver	ESCI	100224	2024/8/26	2025/8/25
Audix	Test Software	E3	191218 V9	N/A	N/A

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

**Test Data:**

Please refer to the below plots.

After pre-scan in the X, Y and Z axes of orientation, the worst case is refer to plots.

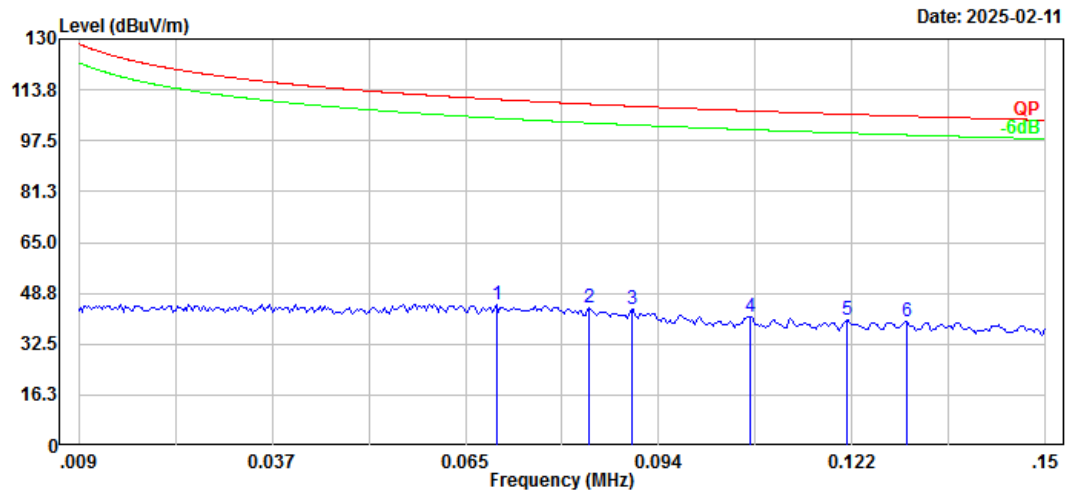


## 1) 9kHz~30MHz

M1:

Project No.: 2402Z105148E-RF-A1  
Polarization: Parallel  
Test Mode: Transmitting  
Note:  
RBW:300Hz VBW:1kHz

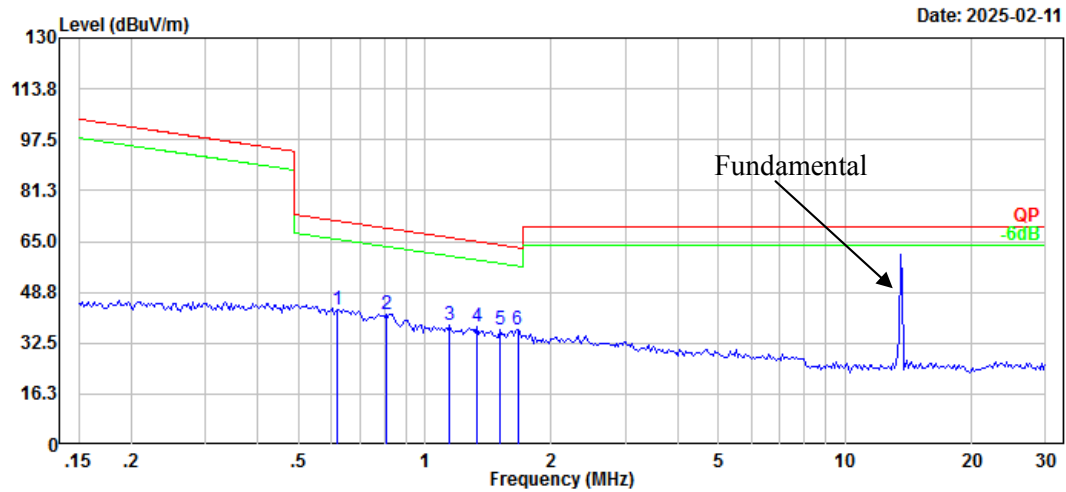
Serial No.: 2UEW-7  
Tester: Leesin Xiang



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.070	4.69	40.60	45.29	110.71	65.42	Peak
2	0.083	5.78	38.31	44.09	109.18	65.09	Peak
3	0.090	6.42	37.20	43.62	108.55	64.93	Peak
4	0.107	6.42	35.02	41.44	107.03	65.59	Peak
5	0.121	5.78	34.25	40.03	105.95	65.92	Peak
6	0.130	5.79	33.76	39.55	105.35	65.80	Peak

Project No.: 2402Z105148E-RF-A1  
Polarization: Parallel  
Test Mode: Transmitting  
Note:  
RBW:10kHz VBW:30kHz

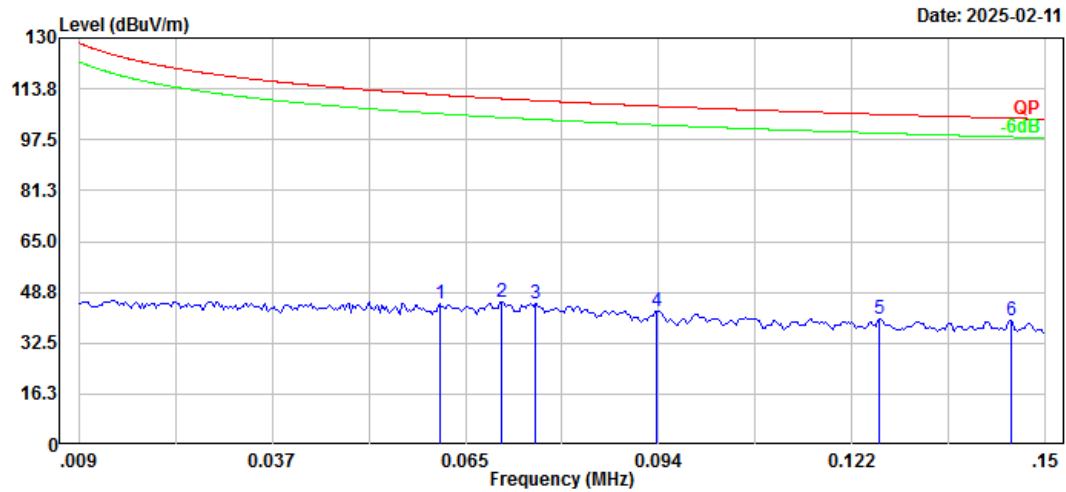
Serial No.: 2UEW-7  
Tester: Leesin Xiang



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.621	21.11	22.25	43.36	71.71	28.35	Peak
2	0.809	21.52	20.38	41.90	69.36	27.46	Peak
3	1.147	22.42	15.91	38.33	66.25	27.92	Peak
4	1.331	22.71	15.09	37.80	64.94	27.14	Peak
5	1.511	22.42	14.29	36.71	63.81	27.10	Peak
6	1.662	23.12	13.62	36.74	62.96	26.22	Peak

Project No.: 2402Z105148E-RF-A1  
Polarization: Perpendicular  
Test Mode: Transmitting  
Note:  
RBW:300Hz VBW:1kHz

Serial No.: 2UEW-7  
Tester: Leesin Xiang

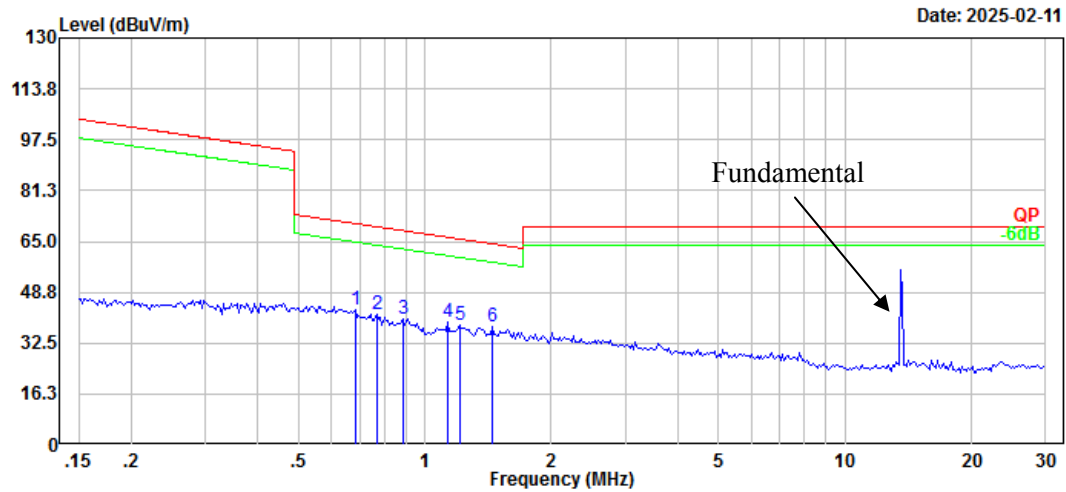


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.062	2.97	42.04	45.01	111.79	66.78	Peak
2	0.071	5.34	40.46	45.80	110.61	64.81	Peak
3	0.076	5.49	39.67	45.16	110.04	64.88	Peak
4	0.093	6.25	36.56	42.81	108.21	65.40	Peak
5	0.126	6.42	33.98	40.40	105.61	65.21	Peak
6	0.145	6.93	32.92	39.85	104.38	64.53	Peak

Project No.: 2402Z105148E-RF-A1  
Polarization: Perpendicular  
Test Mode: Transmitting  
Note:

RBW:10kHz VBW:30kHz

Serial No.: 2UEW-7  
Tester: Leesin Xiang

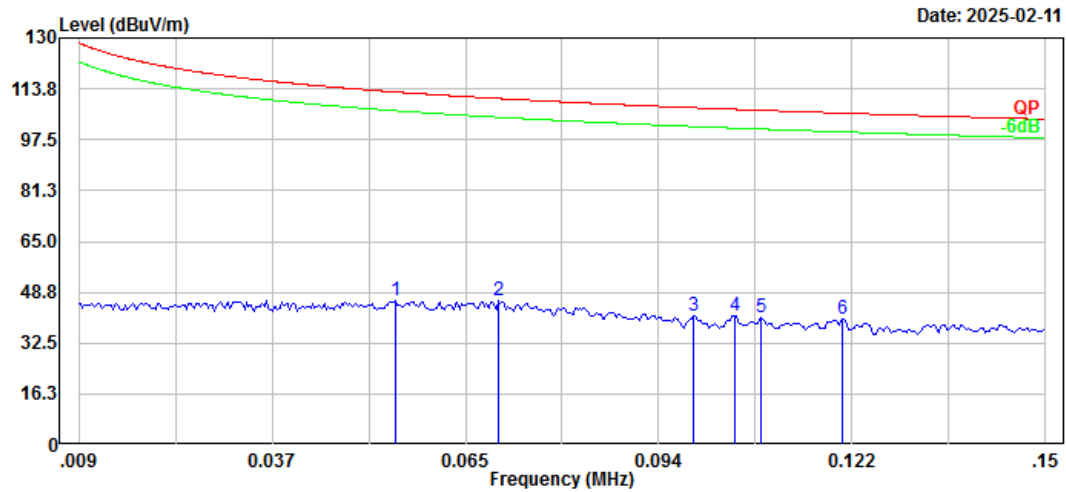


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.683	21.68	21.64	43.32	70.86	27.54	Peak
2	0.767	21.01	20.86	41.87	69.83	27.96	Peak
3	0.890	21.51	18.77	40.28	68.51	28.23	Peak
4	1.135	23.32	15.96	39.28	66.35	27.07	Peak
5	1.210	22.64	15.63	38.27	65.78	27.51	Peak
6	1.449	23.45	14.57	38.02	64.19	26.17	Peak

Project No.: 2402Z105148E-RF-A1  
Polarization: Ground-parallel  
Test Mode: Transmitting  
Note:

RBW:300Hz VBW:1kHz

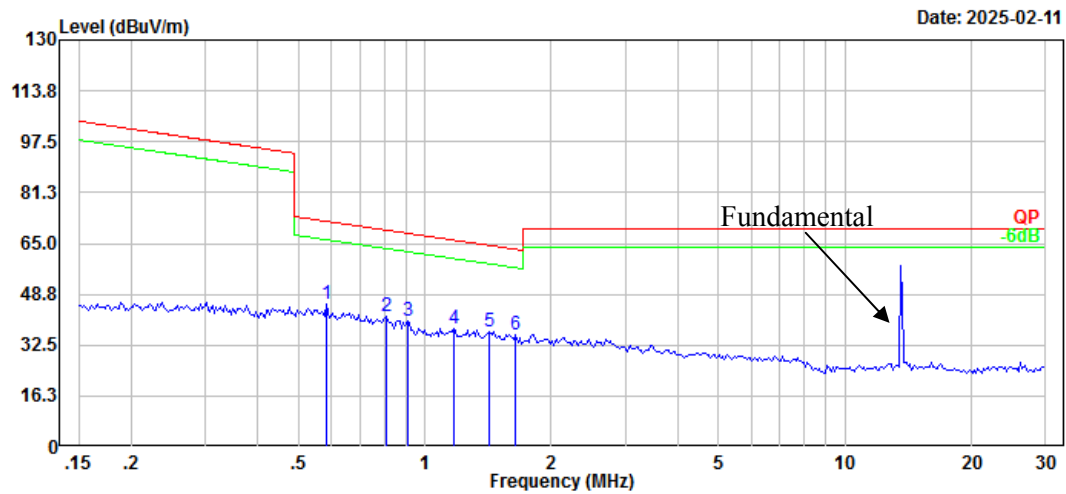
Serial No.: 2UEW-7  
Tester: Leesin Xiang



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.055	2.78	43.15	45.93	112.76	66.83	Peak
2	0.070	5.35	40.56	45.91	110.68	64.77	Peak
3	0.099	5.79	35.63	41.42	107.72	66.30	Peak
4	0.105	6.24	35.15	41.39	107.21	65.82	Peak
5	0.109	5.79	34.92	40.71	106.89	66.18	Peak
6	0.120	5.97	34.28	40.25	105.99	65.74	Peak

Project No.: 2402Z105148E-RF-A1  
Polarization: Ground-parallel  
Test Mode: Transmitting  
Note:  
RBW:10kHz VBW:30kHz

Serial No.: 2UEW-7  
Tester: Leesin Xiang

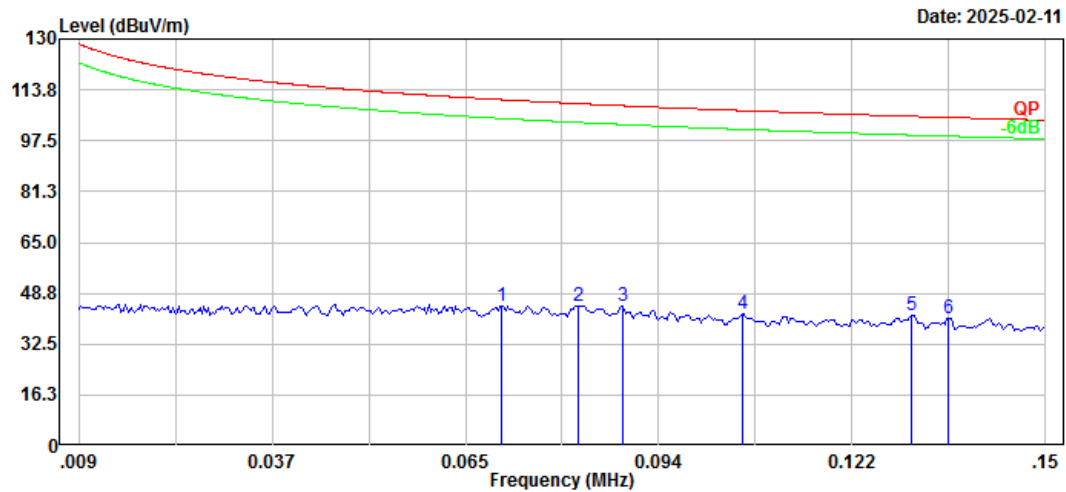


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.582	22.93	22.65	45.58	72.27	26.69	Peak
2	0.809	21.36	20.38	41.74	69.36	27.62	Peak
3	0.909	21.90	18.39	40.29	68.32	28.03	Peak
4	1.172	21.90	15.80	37.70	66.07	28.37	Peak
5	1.418	22.20	14.71	36.91	64.37	27.46	Peak
6	1.645	22.35	13.70	36.05	63.06	27.01	Peak

**M2:**

Project No.: 2402Z105148E-RF-A1  
Polarization: Parallel  
Test Mode: Transmitting  
Note:  
RBW:300Hz VBW:1kHz

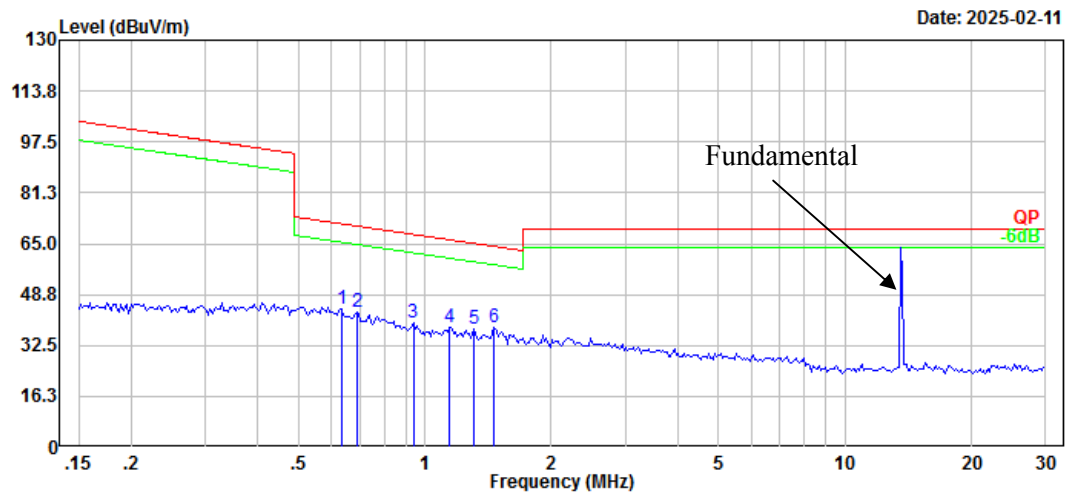
Serial No.: 2UEW-35  
Tester: Leesin Xiang



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.071	4.12	40.46	44.58	110.61	66.03	Peak
2	0.082	6.24	38.61	44.85	109.35	64.50	Peak
3	0.088	7.10	37.45	44.55	108.69	64.14	Peak
4	0.106	6.94	35.08	42.02	107.12	65.10	Peak
5	0.131	7.95	33.71	41.66	105.29	63.63	Peak
6	0.136	7.35	33.41	40.76	104.94	64.18	Peak

Project No.: 2402Z105148E-RF-A1  
Polarization: Parallel  
Test Mode: Transmitting  
Note:  
RBW:10kHz VBW:30kHz

Serial No.: 2UEW-35  
Tester: Leesin Xiang

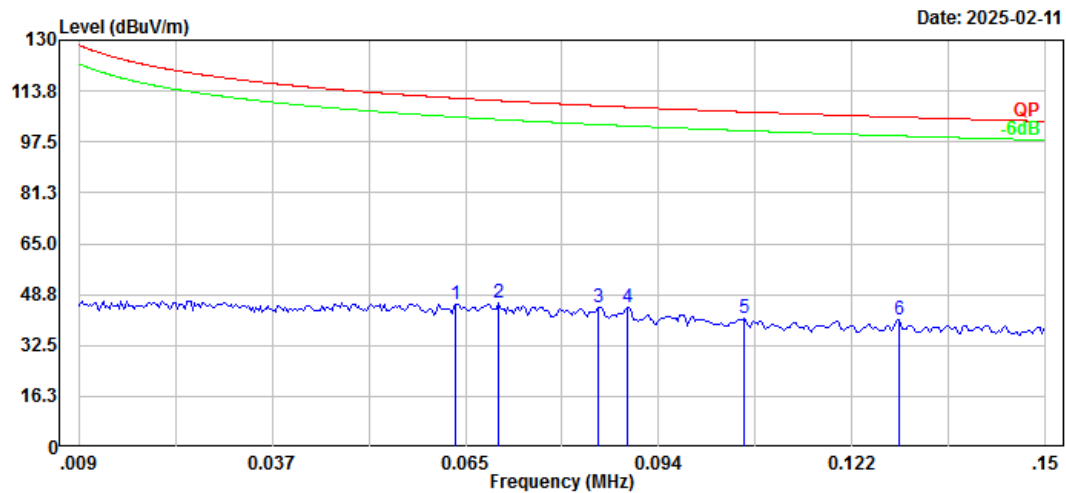


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.634	21.90	22.13	44.03	71.52	27.49	Peak
2	0.690	21.75	21.57	43.32	70.77	27.45	Peak
3	0.938	21.83	17.80	39.63	68.04	28.41	Peak
4	1.147	22.35	15.91	38.26	66.26	28.00	Peak
5	1.303	22.57	15.22	37.79	65.13	27.34	Peak
6	1.464	23.77	14.50	38.27	64.09	25.82	Peak



Project No.: 2402Z105148E-RF-A1  
Polarization: Perpendicular  
Test Mode: Transmitting  
Note:  
RBW:300Hz VBW:1kHz

Serial No.: 2UEW-35  
Tester: Leesin Xiang

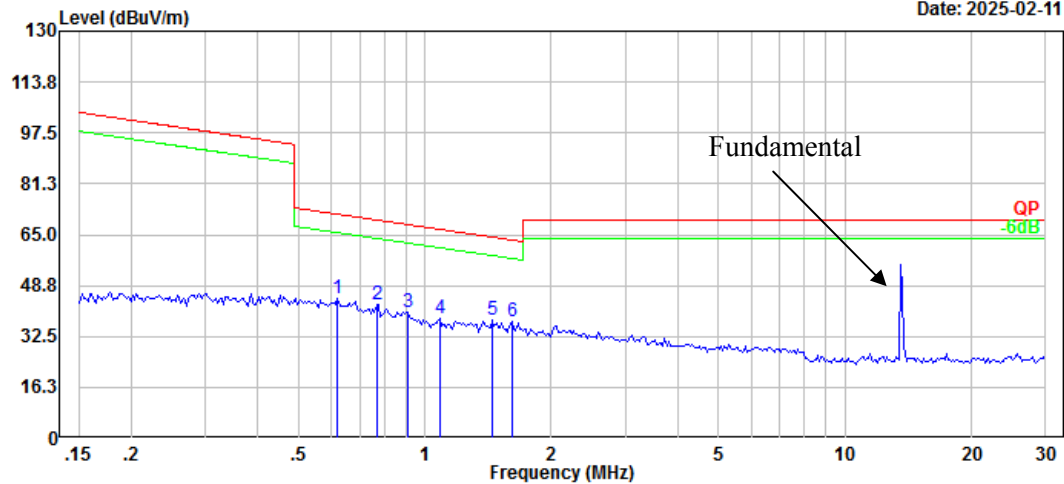


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.064	3.97	41.64	45.61	111.48	65.87	Peak
2	0.070	5.33	40.56	45.89	110.68	64.79	Peak
3	0.085	6.42	38.06	44.48	109.03	64.55	Peak
4	0.089	7.34	37.30	44.64	108.61	63.97	Peak
5	0.106	5.97	35.07	41.04	107.10	66.06	Peak
6	0.129	6.68	33.82	40.50	105.42	64.92	Peak

Project No.: 2402Z105148E-RF-A1  
Polarization: Perpendicular  
Test Mode: Transmitting  
Note:  
RBW:10kHz VBW:30kHz

Serial No.: 2UEW-35  
Tester: Leesin Xiang

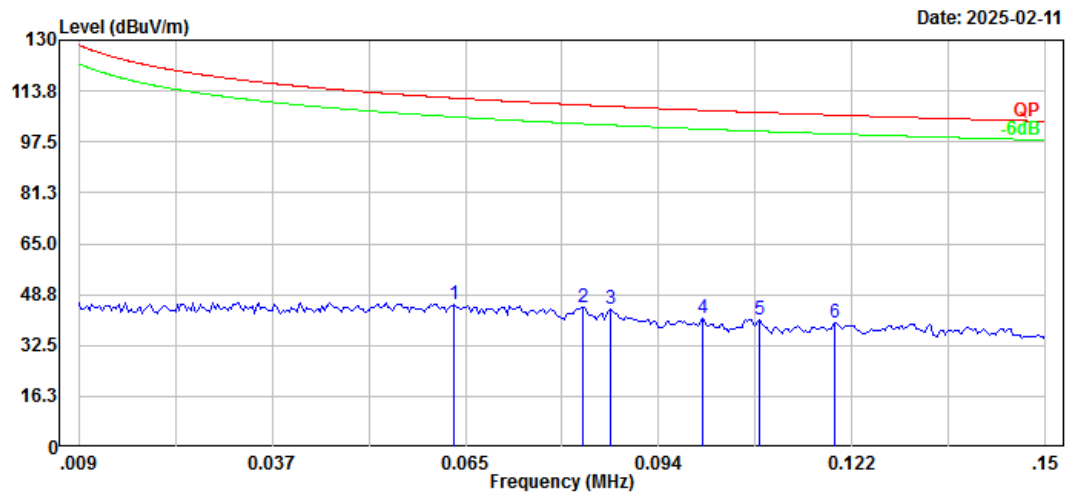
Date: 2025-02-11



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.621	22.15	22.25	44.40	71.71	27.31	Peak
2	0.767	21.90	20.86	42.76	69.83	27.07	Peak
3	0.909	21.83	18.39	40.22	68.32	28.10	Peak
4	1.088	21.98	16.17	38.15	66.72	28.57	Peak
5	1.449	23.12	14.57	37.69	64.19	26.50	Peak
6	1.610	23.26	13.85	37.11	63.25	26.14	Peak

Project No.: 2402Z105148E-RF-A1  
Polarization: Ground-parallel  
Test Mode: Transmitting  
Note:  
RBW:300Hz VBW:1kHz

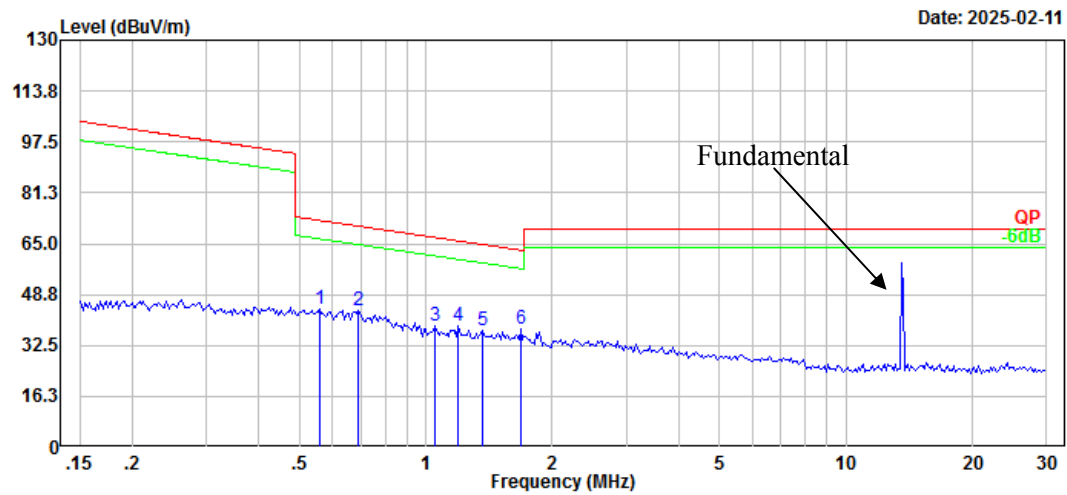
Serial No.: 2UEW-35  
Tester: Leesin Xiang



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.064	4.00	41.69	45.69	111.52	65.83	Peak
2	0.083	6.25	38.45	44.70	109.26	64.56	Peak
3	0.087	6.25	37.75	44.00	108.86	64.86	Peak
4	0.100	5.78	35.40	41.18	107.60	66.42	Peak
5	0.108	5.79	34.94	40.73	106.91	66.18	Peak
6	0.119	5.20	34.34	39.54	106.07	66.53	Peak

Project No.: 2402Z105148E-RF-A1  
Polarization: Ground-parallel  
Test Mode: Transmitting  
Note:  
RBW:10kHz VBW:30kHz

Serial No.: 2UEW-35  
Tester: Leesin Xiang

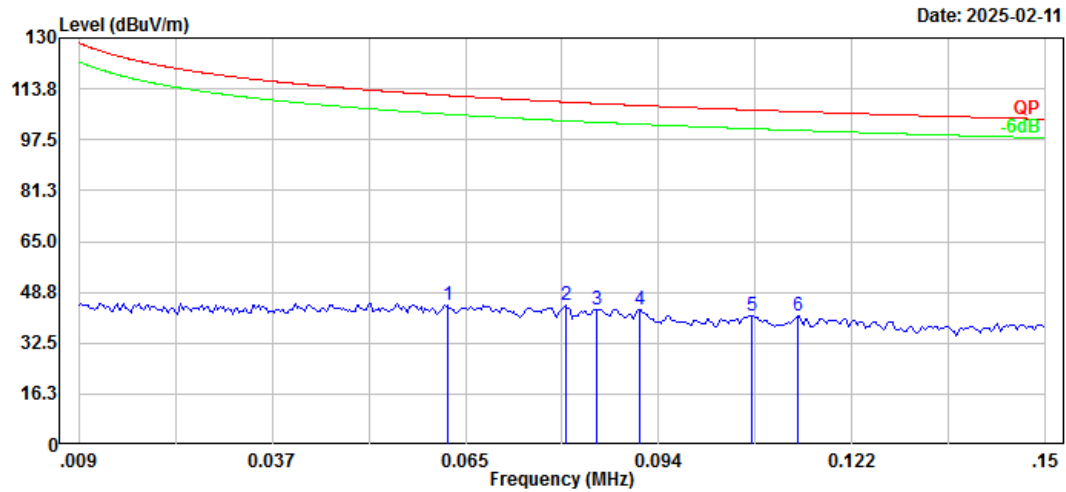


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.558	21.43	22.91	44.34	72.65	28.31	Peak
2	0.690	22.06	21.57	43.63	70.77	27.14	Peak
3	1.054	22.35	16.32	38.67	67.01	28.34	Peak
4	1.197	23.27	15.68	38.95	65.88	26.93	Peak
5	1.359	22.14	14.96	37.10	64.75	27.65	Peak
6	1.680	24.01	13.54	37.55	62.87	25.32	Peak

**M3:**

Project No.: 2402Z105148E-RF-A1  
Polarization: Parallel  
Test Mode: Transmitting  
Note:  
RBW:300Hz VBW:1kHz

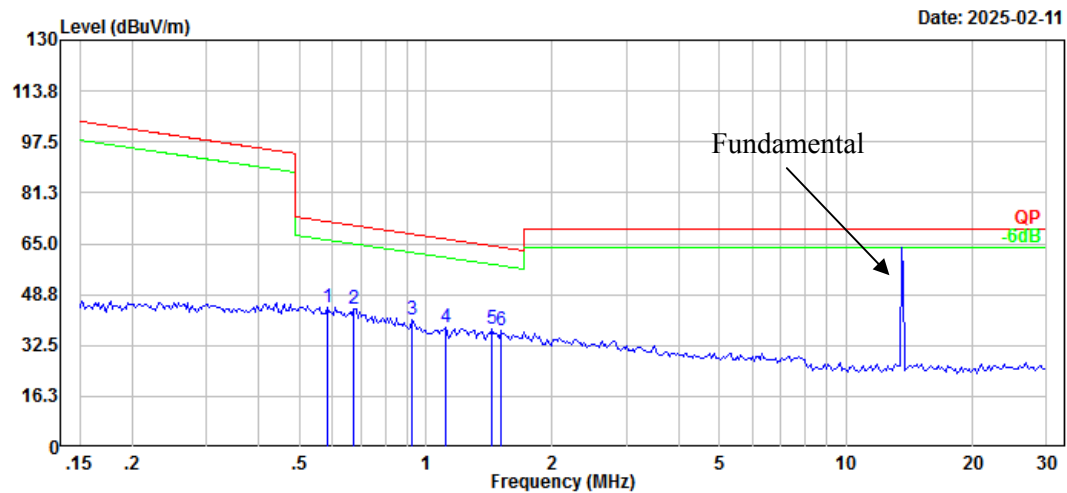
Serial No.: 2UEW-36  
Tester: Leesin Xiang



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.063	3.00	41.83	44.83	111.64	66.81	Peak
2	0.080	5.50	38.91	44.41	109.54	65.13	Peak
3	0.085	5.24	38.11	43.35	109.06	65.71	Peak
4	0.091	6.25	37.00	43.25	108.44	65.19	Peak
5	0.107	6.25	35.00	41.25	107.01	65.76	Peak
6	0.114	6.67	34.64	41.31	106.47	65.16	Peak

Project No.: 2402Z105148E-RF-A1  
Polarization: Parallel  
Test Mode: Transmitting  
Note:  
RBW:10kHz VBW:30kHz

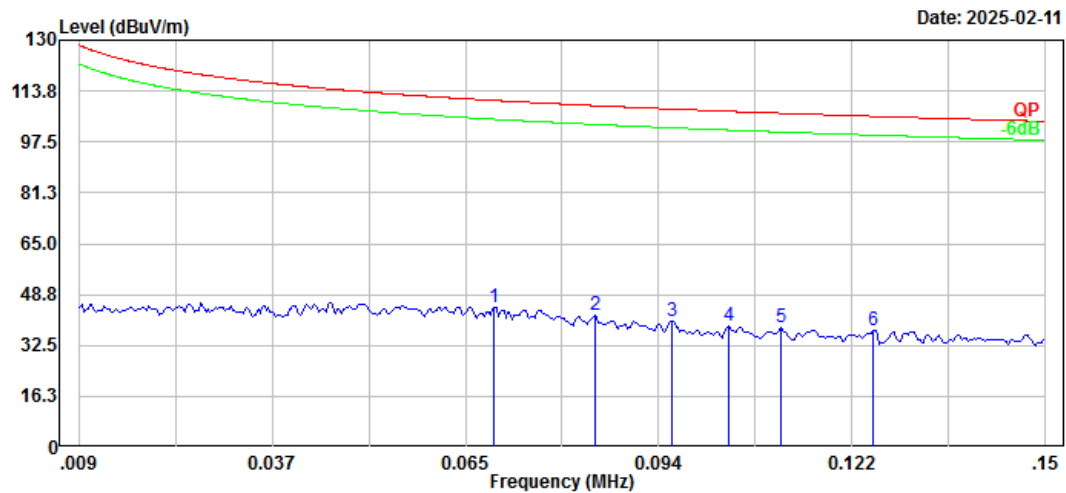
Serial No.: 2UEW-36  
Tester: Leesin Xiang



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.582	22.21	22.65	44.86	72.27	27.41	Peak
2	0.675	22.21	21.71	43.92	70.95	27.03	Peak
3	0.928	22.92	18.00	40.92	68.13	27.21	Peak
4	1.111	22.42	16.07	38.49	66.54	28.05	Peak
5	1.433	23.26	14.64	37.90	64.28	26.38	Peak
6	1.511	23.20	14.29	37.49	63.81	26.32	Peak

Project No.: 2402Z105148E-RF-A1  
Polarization: Perpendicular  
Test Mode: Transmitting  
Note:  
RBW:300Hz VBW:1kHz

Serial No.: 2UEW-36  
Tester: Leesin Xiang

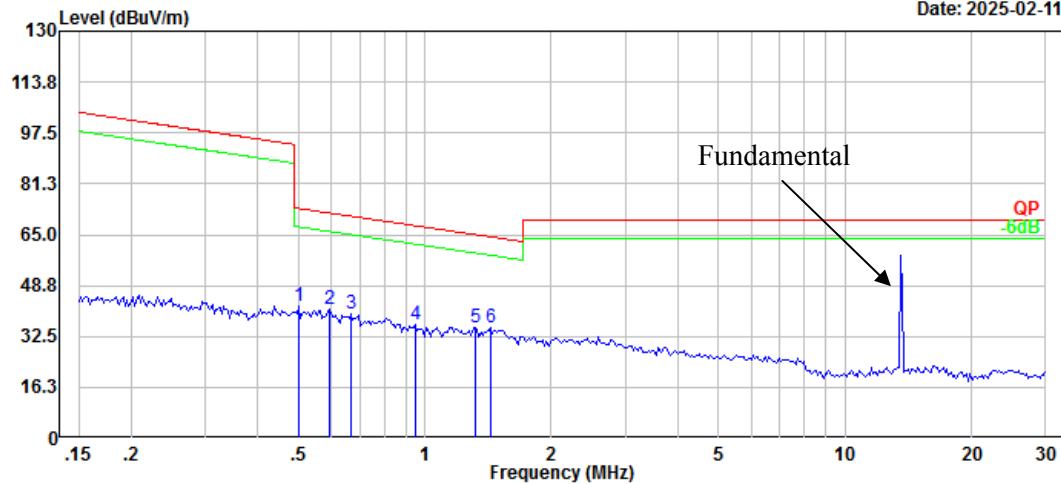


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.070	4.13	40.65	44.78	110.75	65.97	Peak
2	0.084	3.80	38.16	41.96	109.09	67.13	Peak
3	0.096	4.13	36.17	40.30	108.00	67.70	Peak
4	0.104	3.41	35.20	38.61	107.28	68.67	Peak
5	0.111	3.27	34.77	38.04	106.67	68.63	Peak
6	0.125	3.12	34.02	37.14	105.67	68.53	Peak

Project No.: 2402Z105148E-RF-A1  
Polarization: Perpendicular  
Test Mode: Transmitting  
Note:  
RBW:10kHz VBW:30kHz

Serial No.: 2UEW-36  
Tester: Leesin Xiang

Date: 2025-02-11

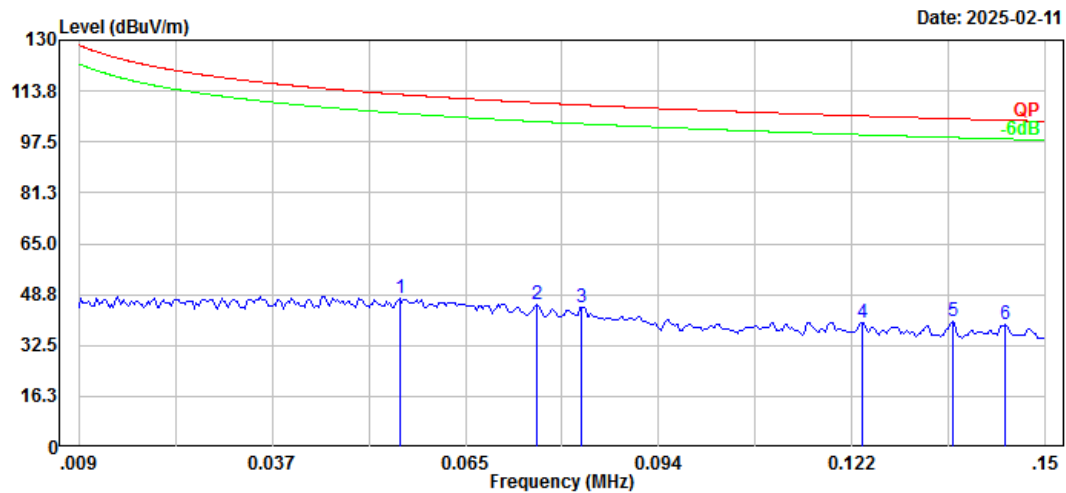


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.502	18.54	23.51	42.05	73.58	31.53	Peak
2	0.595	18.68	22.52	41.20	72.08	30.88	Peak
3	0.668	17.89	21.78	39.67	71.05	31.38	Peak
4	0.948	18.54	17.60	36.14	67.95	31.81	Peak
5	1.317	20.30	15.15	35.45	65.03	29.58	Peak
6	1.433	20.65	14.64	35.29	64.28	28.99	Peak



Project No.: 2402Z105148E-RF-A1  
Polarization: Ground-parallel  
Test Mode: Transmitting  
Note:  
RBW:300Hz VBW:1kHz

Serial No.: 2UEW-36  
Tester: Leesin Xiang

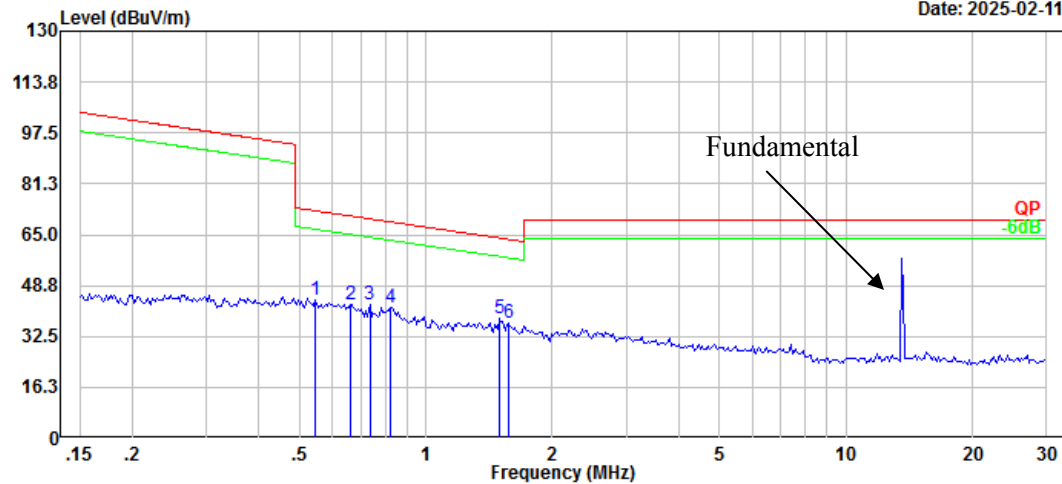


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.056	4.36	43.05	47.41	112.67	65.26	Peak
2	0.076	5.78	39.62	45.40	110.01	64.61	Peak
3	0.082	6.33	38.51	44.84	109.29	64.45	Peak
4	0.123	5.78	34.12	39.90	105.79	65.89	Peak
5	0.136	6.69	33.38	40.07	104.90	64.83	Peak
6	0.144	6.24	32.97	39.21	104.43	65.22	Peak

Project No.: 2402Z105148E-RF-A1  
Polarization: Ground-parallel  
Test Mode: Transmitting  
Note:  
RBW:10kHz VBW:30kHz

Serial No.: 2UEW-36  
Tester: Leesin Xiang

Date: 2025-02-11



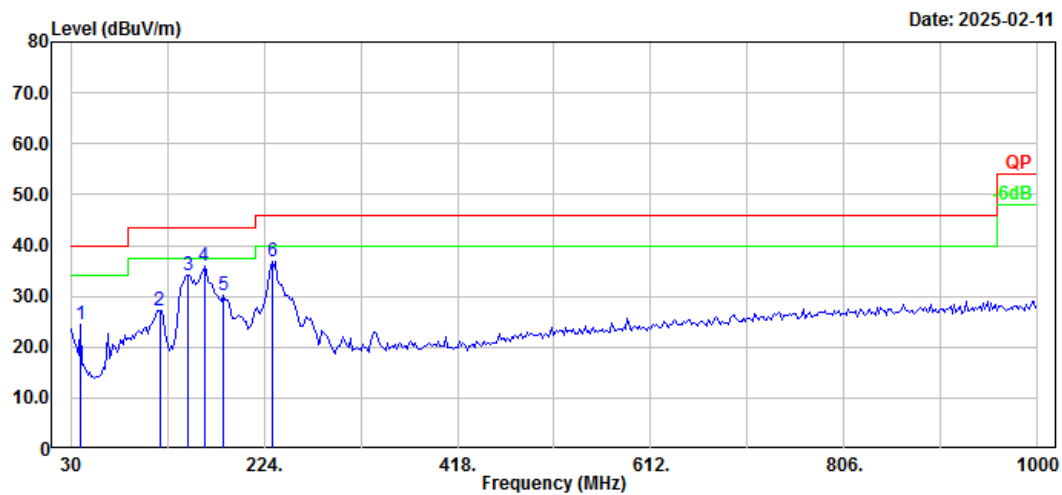
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.546	20.94	23.03	43.97	72.83	28.86	Peak
2	0.661	20.85	21.85	42.70	71.14	28.44	Peak
3	0.735	21.35	21.15	42.50	70.20	27.70	Peak
4	0.826	21.43	20.04	41.47	69.17	27.70	Peak
5	1.495	23.71	14.36	38.07	63.90	25.83	Peak
6	1.577	22.87	13.99	36.86	63.43	26.57	Peak

## 2) 30MHz-1GHz

M1:

Project No.: 2402Z105148E-RF-A1  
Polarization: Horizontal  
Test Mode: Transmitting  
Note:  
RBW:100kHz VBW:300kHz

Serial No.: 2UEW-7  
Tester: Leesin Xiang



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	39.70	35.14	-10.73	24.41	40.00	15.59	Peak
2	119.24	37.33	-10.05	27.28	43.50	16.22	Peak
3	148.34	45.05	-10.96	34.09	43.50	9.41	Peak
4	163.86	47.26	-11.39	35.87	43.50	7.63	Peak
5	183.26	42.49	-12.29	30.20	43.50	13.30	Peak
6	231.76	48.90	-12.14	36.76	46.00	9.24	Peak

Project No.: 2402Z105148E-RF-A1

Serial No.: 2UEW-7

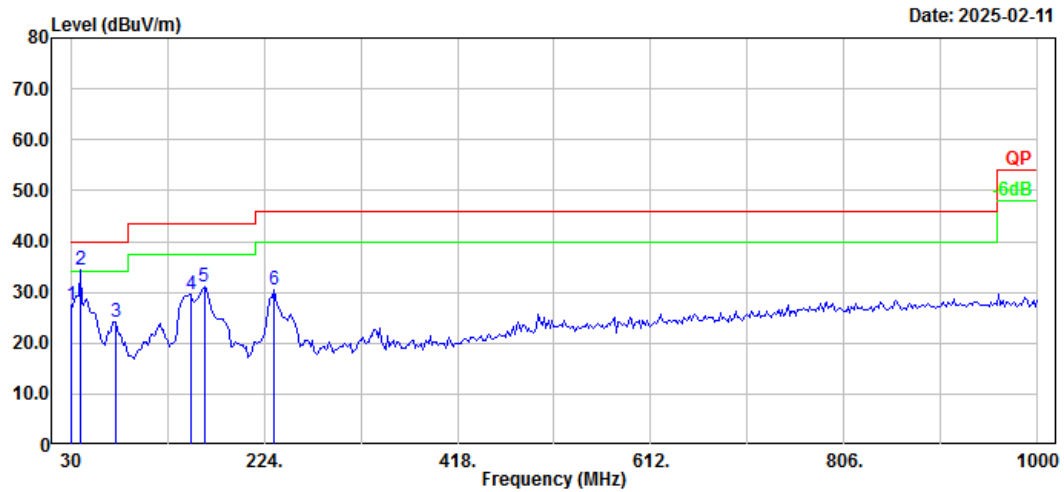
Polarization: Vertical

Tester: Leesin Xiang

Test Mode: Transmitting

Note:

RBW:100kHz VBW:300kHz

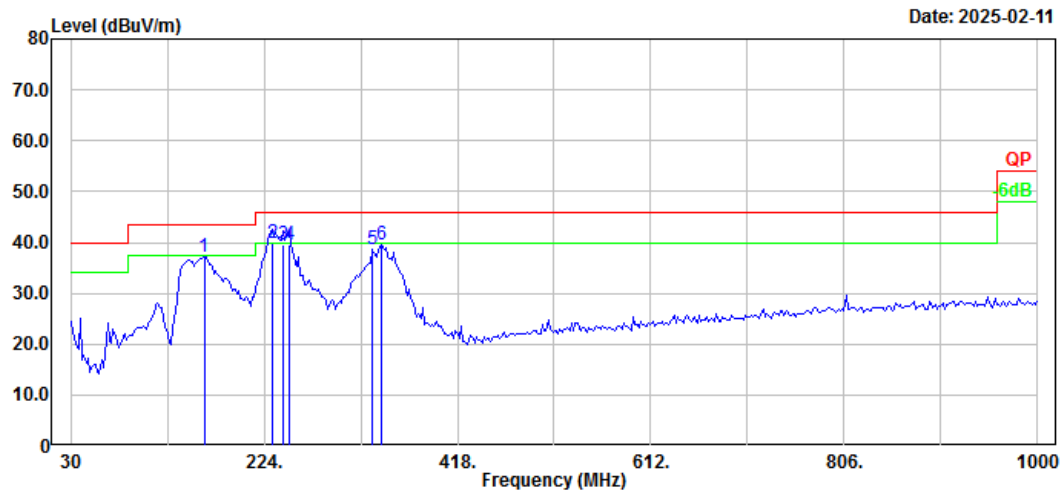


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	30.00	31.40	-3.80	27.60	40.00	12.40	Peak
2	39.70	45.11	-10.73	34.38	40.00	5.62	QP
3	74.62	40.34	-16.14	24.20	40.00	15.80	Peak
4	150.28	40.62	-11.06	29.56	43.50	13.94	Peak
5	163.86	42.46	-11.39	31.07	43.50	12.43	Peak
6	233.70	42.47	-12.05	30.42	46.00	15.58	Peak

**M2:**

Project No.: 2402Z105148E-RF-A1  
Polarization: Horizontal  
Test Mode: Transmitting  
Note:  
RBW:100kHz VBW:300kHz

Serial No.: 2UEW-35  
Tester: Leesin Xiang



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	163.86	48.52	-11.39	37.13	43.50	6.37	Peak
2	231.76	52.10	-12.14	39.96	46.00	6.04	QP
3	243.40	51.30	-11.64	39.66	46.00	6.34	QP
4	249.22	51.10	-11.46	39.64	46.00	6.36	QP
5	332.64	47.57	-8.82	38.75	46.00	7.25	Peak
6	342.34	48.23	-8.70	39.53	46.00	6.47	Peak

Project No.: 2402Z105148E-RF-A1

Serial No.: 2UEW-35

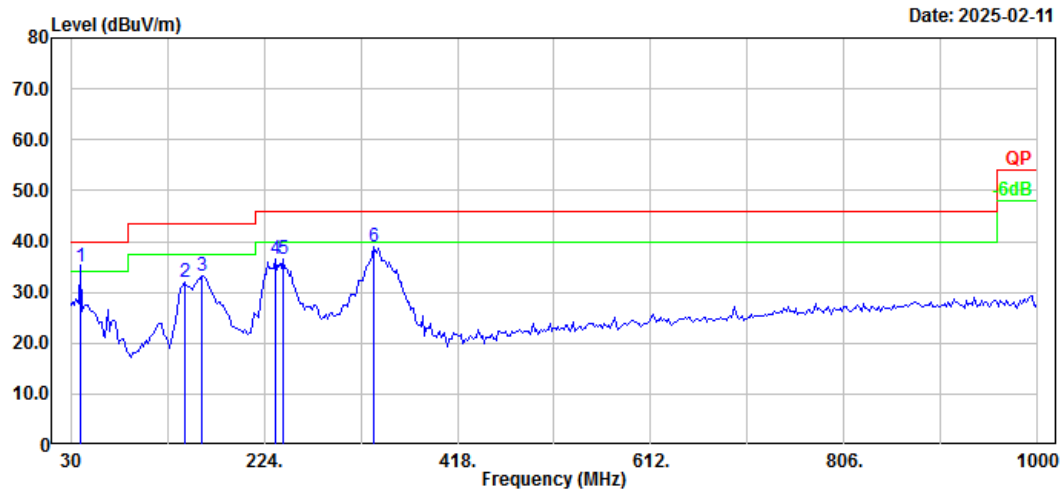
Polarization: Vertical

Tester: Leesin Xiang

Test Mode: Transmitting

Note:

RBW:100kHz VBW:300kHz

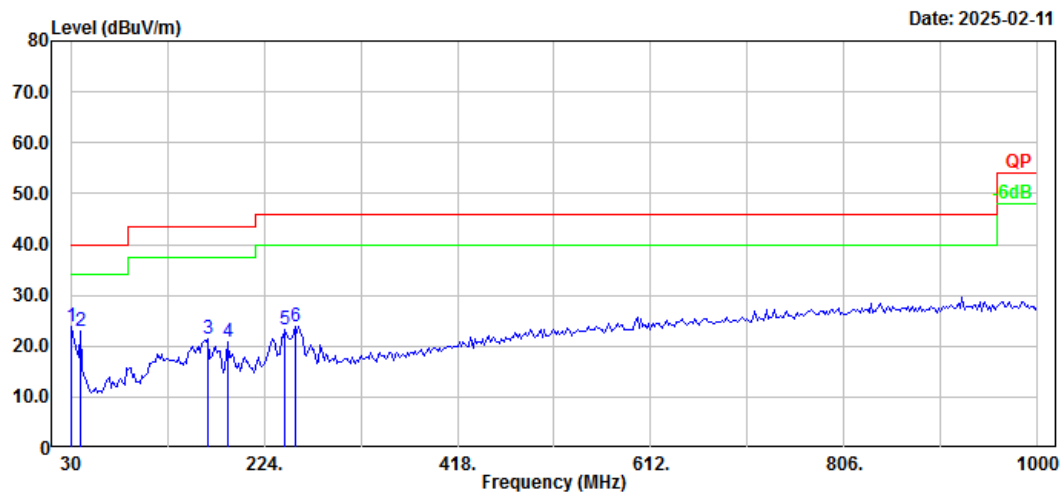


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	39.70	45.71	-10.73	34.98	40.00	5.02	QP
2	144.46	42.67	-10.73	31.94	43.50	11.56	Peak
3	161.92	44.43	-11.27	33.16	43.50	10.34	Peak
4	235.64	48.57	-11.96	36.61	46.00	9.39	Peak
5	243.40	48.20	-11.64	36.56	46.00	9.44	Peak
6	334.58	47.79	-8.80	38.99	46.00	7.01	Peak

**M3:**

Project No.: 2402Z105148E-RF-A1  
Polarization: Horizontal  
Test Mode: Transmitting  
Note:  
RBW:100kHz VBW:300kHz

Serial No.: 2UEW-36  
Tester: Leesin Xiang



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	30.00	27.72	-3.80	23.92	40.00	16.08	Peak
2	39.70	33.66	-10.73	22.93	40.00	17.07	Peak
3	167.74	33.00	-11.64	21.36	43.50	22.14	Peak
4	187.14	33.04	-12.19	20.85	43.50	22.65	Peak
5	245.34	34.92	-11.57	23.35	46.00	22.65	Peak
6	255.04	35.12	-11.27	23.85	46.00	22.15	Peak

Project No.: 2402Z105148E-RF-A1

Serial No.: 2UEW-36

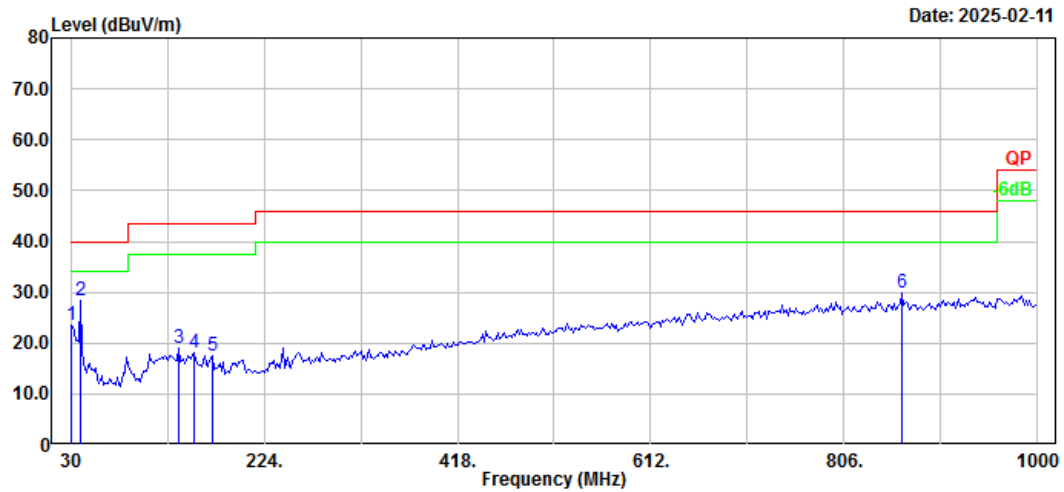
Polarization: Vertical

Tester: Leesin Xiang

Test Mode: Transmitting

Note:

RBW:100kHz VBW:300kHz



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	30.00	27.27	-3.80	23.47	40.00	16.53	Peak
2	39.70	39.05	-10.73	28.32	40.00	11.68	Peak
3	138.64	29.33	-10.38	18.95	43.50	24.55	Peak
4	154.16	29.10	-11.09	18.01	43.50	25.49	Peak
5	171.62	29.52	-11.87	17.65	43.50	25.85	Peak
6	864.20	28.75	1.03	29.78	46.00	16.22	Peak



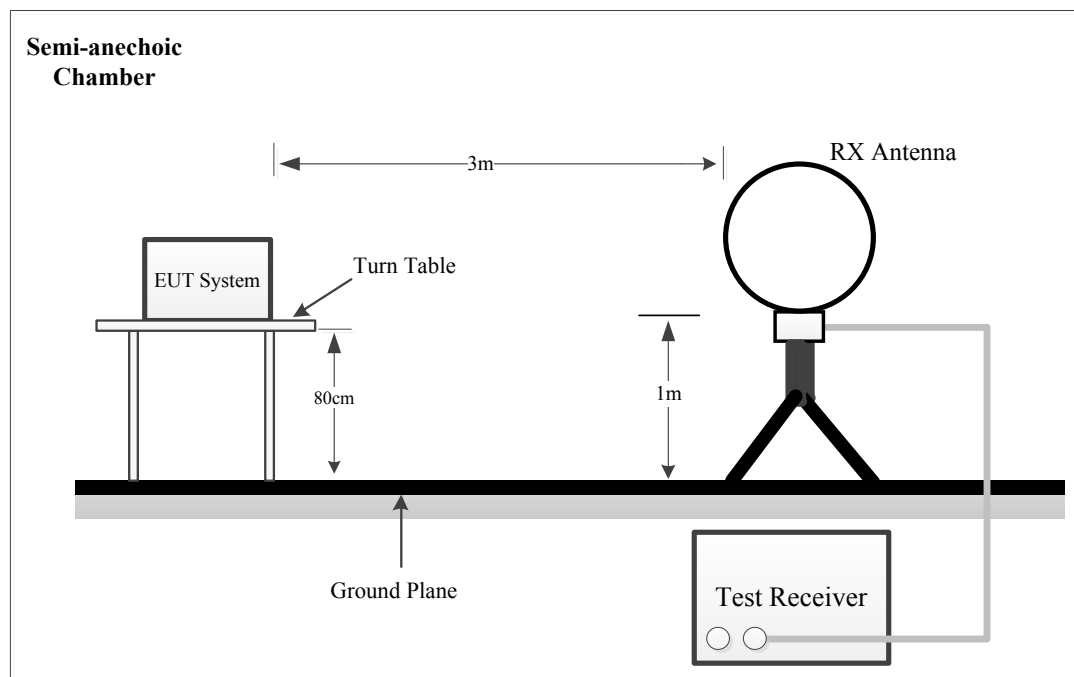
## 4.3 Fundamental emission

### 4.3.1 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.

### 4.3.2 EUT Setup



The test was performed in the 3-meter chamber test site, using the setup accordance with the ANSI C63.10-2013.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

For the 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.

#### 4.3.3 EMI Test Receiver & Spectrum Analyzer Setup

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

Frequency Range	RBW	Video B/W	IF B/W	Measurement
150 kHz – 30 MHz	10 kHz	30 kHz	9 kHz	QP/AV

#### 4.3.4 Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

Data was recorded in Quasi-peak detection mode for frequency range of 9 kHz-1 GHz except 9-90 kHz, 110-490 kHz, employing an average detector.

If the maximized peak measured value complies with under the QP/Average limit more than 6dB, then it is unnecessary to perform an QP/Average measurement.

#### 4.3.5 Corrected Result & Margin Calculation

$$E_{Log} = 20 \times \log_{10}(E_{Linear})$$

$E_{Linear}$  is the field strength of the emission, in uV/m

$E_{Log}$  is the field strength of the emission, in dBuV/m

For 9kHz-30MHz test, test distance is 3m, extrapolation limit shall be calculated using Equation:

$$E_{limit-measure} = E_{limit-Standard} + 40 \times \log_{10} (d_{standard}/d_{measure})$$

The basic equation is as follows:

$$\text{Result} = \text{Reading} + \text{Factor}$$

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

The “**Margin**” column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Result}$$

**4.3.6 Test Data**

Serial Number:	2UEW-7,2UEW-35,2UEW-36	Test Date:	2025/2/11
Test Site:	Chamber10m	Test Mode:	M1-M3
Tester:	Leesin Xiang	Test Result:	Pass

**Environmental Conditions:**

Temperature: (°C)	20	Relative Humidity: (%)	40	ATM Pressure: (kPa)	101.4
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**Test Equipment List and Details:**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
EMCO	Passive Loop Antenna	6512	9706-1206	2023/10/25	2026/10/24
Narda	Coaxial Attenuator	779-6dB	04269	2023/9/6	2026/9/5
Unknown	Coaxial Cable	C-NJNJ-50	C-1000-01	2024/7/1	2025/6/30
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-04	2024/7/1	2025/6/30
Unknown	Coaxial Cable	C-NJNJ-50	C-0530-01	2024/7/1	2025/6/30
Sonoma	Amplifier	310N	185914	2024/8/26	2025/8/25
R&S	EMI Test Receiver	ESCI	100224	2024/8/26	2025/8/25
Audix	Test Software	E3	191218 V9	N/A	N/A

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

**Test Data:**

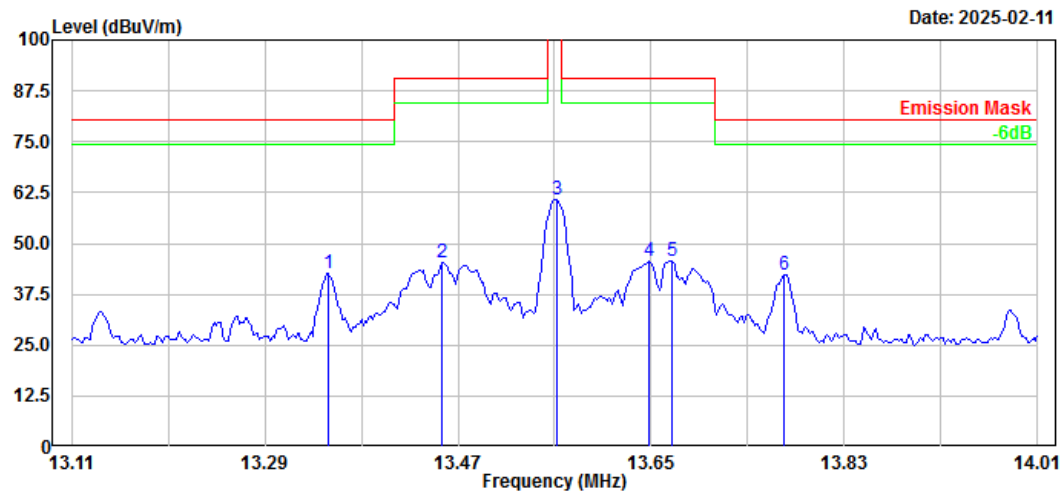
Please refer to the below plots.

After pre-scan in the X, Y and Z axes of orientation, the worst case is refer to plots.

**M1:**

Project No.: 2402Z105148E-RF-A1  
Polarization: Parallel  
Test Mode: Transmitting  
Note:  
RBW:10kHz VBW:30kHz

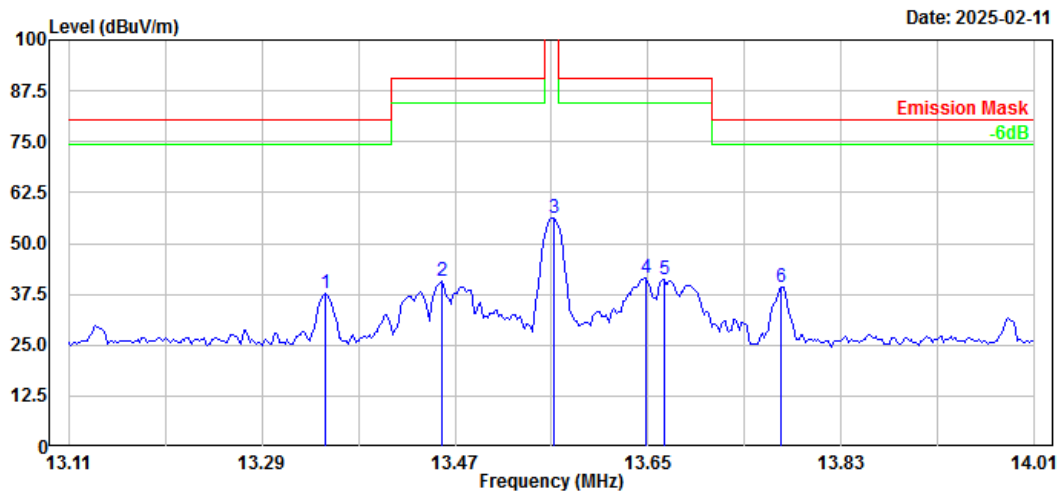
Serial No.: 2UEW-7  
Tester: Leesin Xiang



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	13.349	37.94	4.57	42.51	80.51	38.00	Peak
2	13.456	40.65	4.55	45.20	90.47	45.27	Peak
3	13.562	56.21	4.53	60.74	124.00	63.26	Peak
4	13.648	40.98	4.51	45.49	90.47	44.98	Peak
5	13.670	41.31	4.51	45.82	90.47	44.65	Peak
6	13.774	37.86	4.51	42.37	80.51	38.14	Peak

Project No.: 2402Z105148E-RF-A1  
Polarization: Perpendicular  
Test Mode: Transmitting  
Note:  
RBW:10kHz VBW:30kHz

Serial No.: 2UEW-7  
Tester: Leesin Xiang



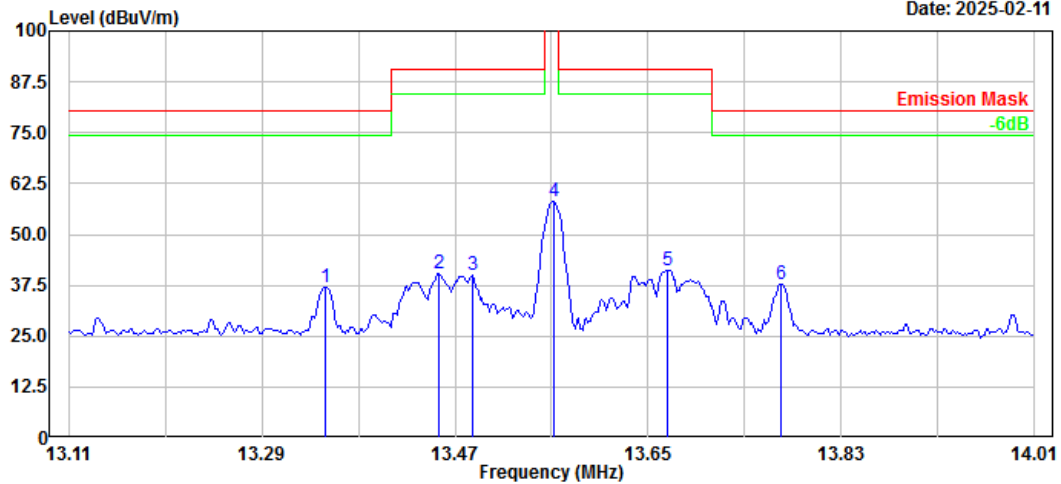
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	13.349	33.01	4.57	37.58	80.51	42.93	Peak
2	13.457	36.11	4.55	40.66	90.47	49.81	Peak
3	13.562	51.63	4.53	56.16	124.00	67.84	Peak
4	13.648	37.03	4.51	41.54	90.47	48.93	Peak
5	13.664	36.47	4.51	40.98	90.47	49.49	Peak
6	13.774	34.71	4.51	39.22	80.51	41.29	Peak

Project No.: 2402Z105148E-RF-A1  
Polarization: Ground-parallel  
Test Mode: Transmitting  
Note:

RBW:10kHz VBW:30kHz

Serial No.: 2UEW-7  
Tester: Leesin Xiang

Date: 2025-02-11

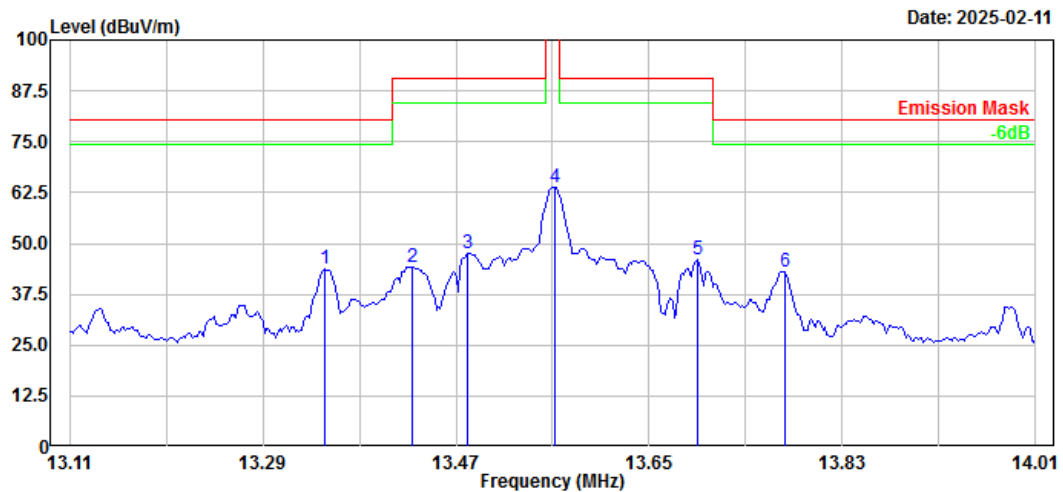


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	13.349	32.55	4.57	37.12	80.51	43.39	Peak
2	13.456	35.88	4.55	40.43	90.47	50.04	Peak
3	13.486	35.30	4.55	39.85	90.47	50.62	Peak
4	13.562	53.42	4.53	57.95	124.00	66.05	Peak
5	13.668	36.57	4.51	41.08	90.47	49.39	Peak
6	13.774	33.15	4.51	37.66	80.51	42.85	Peak

**M2:**

Project No.: 2402Z105148E-RF-A1  
Polarization: Parallel  
Test Mode: Transmitting  
Note:  
RBW:10kHz VBW:30kHz

Serial No.: 2UEW-35  
Tester: Leesin Xiang

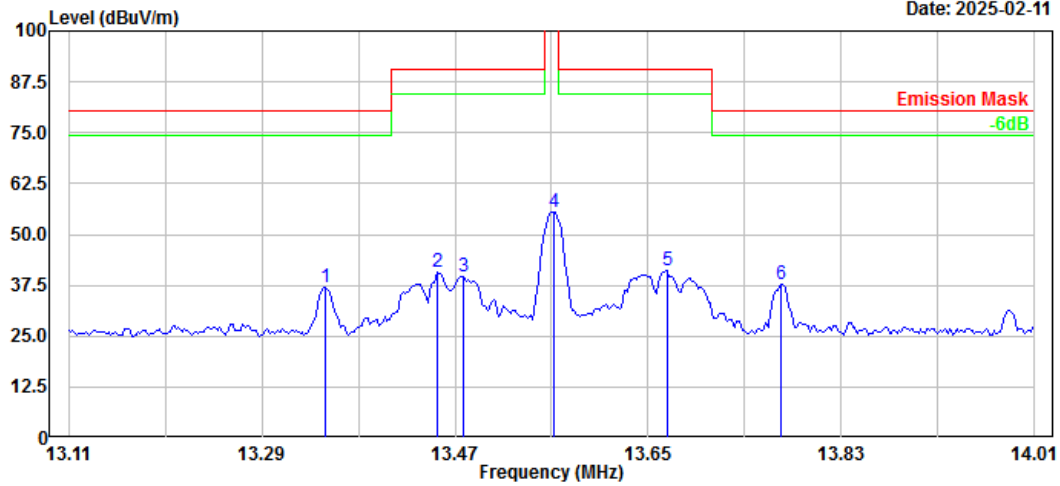


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	13.348	39.10	4.57	43.67	80.51	36.84	Peak
2	13.429	39.77	4.55	44.32	90.47	46.15	Peak
3	13.481	42.95	4.55	47.50	90.47	42.97	Peak
4	13.562	59.27	4.53	63.80	124.00	60.20	Peak
5	13.695	41.40	4.51	45.91	90.47	44.56	Peak
6	13.776	38.67	4.51	43.18	80.51	37.33	Peak

Project No.: 2402Z105148E-RF-A1  
Polarization: Perpendicular  
Test Mode: Transmitting  
Note:  
RBW:10kHz VBW:30kHz

Serial No.: 2UEW-35  
Tester: Leesin Xiang

Date: 2025-02-11

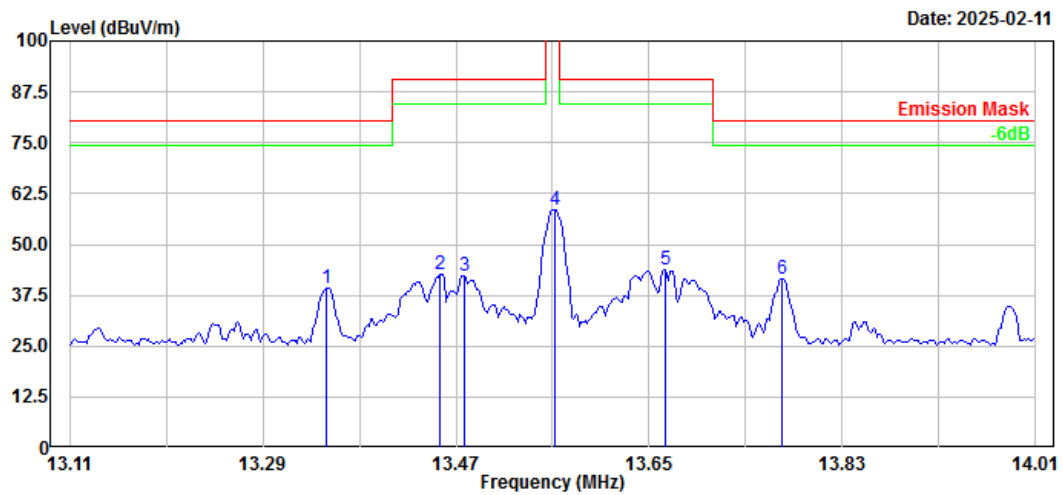


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	13.349	32.38	4.57	36.95	80.51	43.56	Peak
2	13.454	36.13	4.55	40.68	90.47	49.79	Peak
3	13.477	35.19	4.55	39.74	90.47	50.73	Peak
4	13.562	51.06	4.53	55.59	124.00	68.41	Peak
5	13.668	36.51	4.51	41.02	90.47	49.45	Peak
6	13.774	33.13	4.51	37.64	80.51	42.87	Peak



Project No.: 2402Z105148E-RF-A1  
Polarization: Ground-parallel  
Test Mode: Transmitting  
Note:  
RBW:10kHz VBW:30kHz

Serial No.: 2UEW-35  
Tester: Leesin Xiang

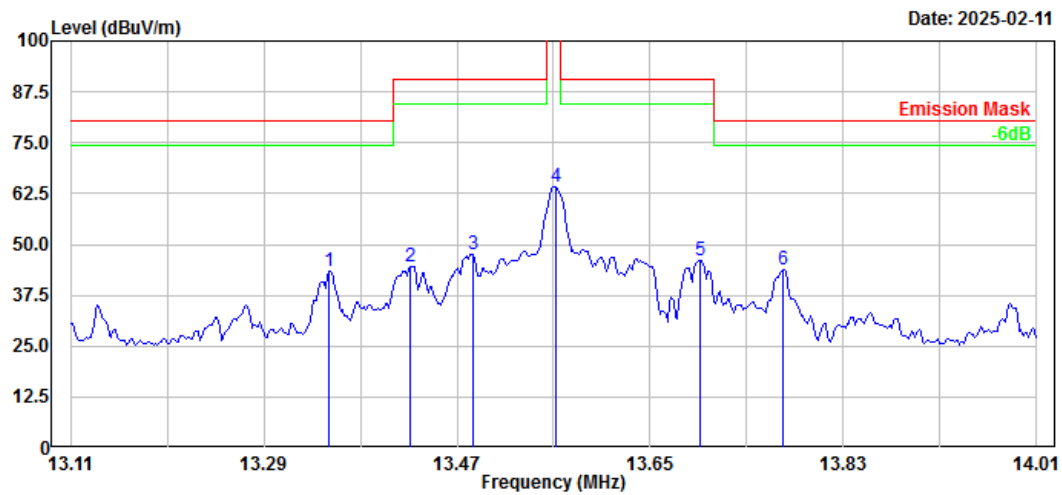


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	13.349	34.71	4.57	39.28	80.51	41.23	Peak
2	13.456	38.12	4.55	42.67	90.47	47.80	Peak
3	13.477	37.72	4.55	42.27	90.47	48.20	Peak
4	13.562	53.97	4.53	58.50	124.00	65.50	Peak
5	13.664	39.26	4.51	43.77	90.47	46.70	Peak
6	13.774	36.99	4.51	41.50	80.51	39.01	Peak

**M3:**

Project No.: 2402Z105148E-RF-A1  
Polarization: Parallel  
Test Mode: Transmitting  
Note:  
RBW:10kHz VBW:30kHz

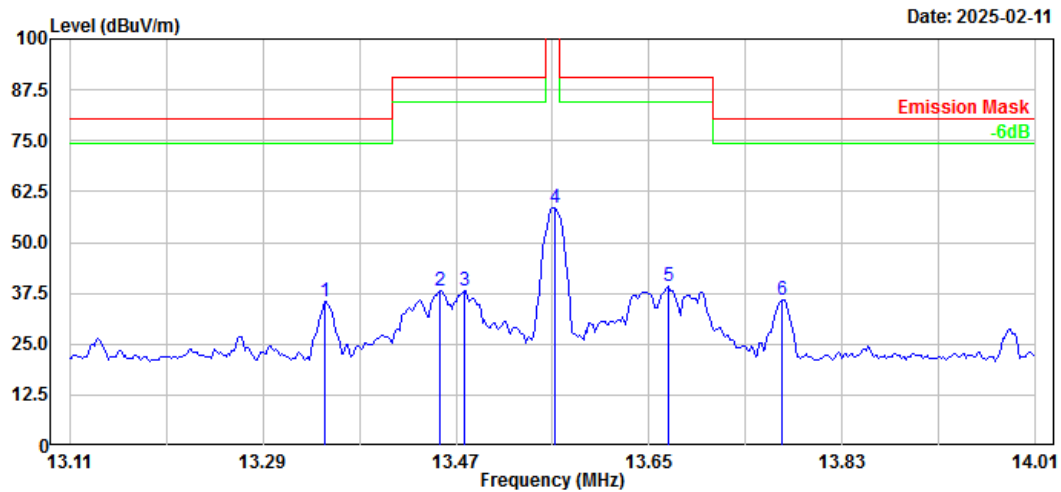
Serial No.: 2UEW-36  
Tester: Leesin Xiang



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	13.351	38.64	4.57	43.21	80.51	37.30	Peak
2	13.427	39.88	4.55	44.43	90.47	46.04	Peak
3	13.484	43.08	4.55	47.63	90.47	42.84	Peak
4	13.562	59.56	4.53	64.09	124.00	59.91	Peak
5	13.697	41.64	4.51	46.15	90.47	44.32	Peak
6	13.774	39.28	4.51	43.79	80.51	36.72	Peak

Project No.: 2402Z105148E-RF-A1  
Polarization: Perpendicular  
Test Mode: Transmitting  
Note:  
RBW:10kHz VBW:30kHz

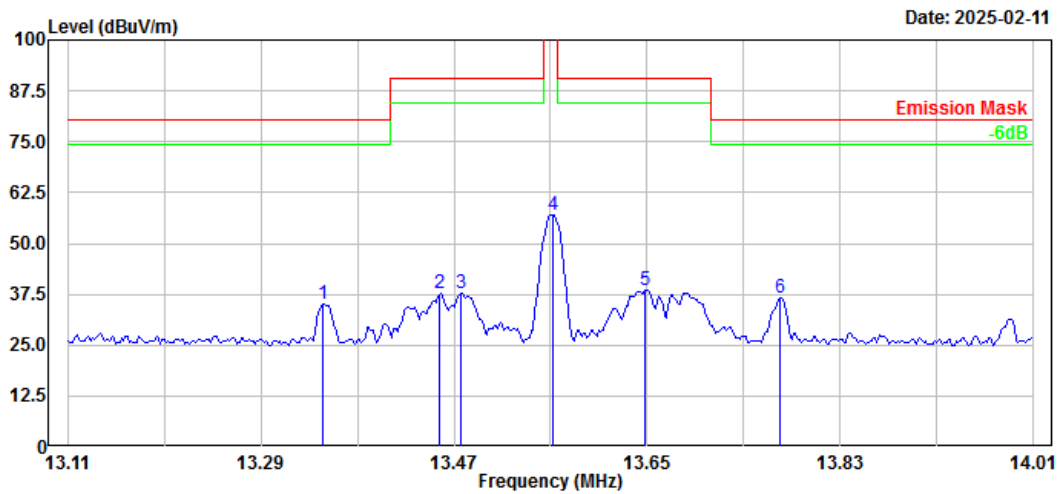
Serial No.: 2UEW-36  
Tester: Leesin Xiang



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	13.348	30.84	4.57	35.41	80.51	45.10	Peak
2	13.456	33.48	4.55	38.03	90.47	52.44	Peak
3	13.477	33.49	4.55	38.04	90.47	52.43	Peak
4	13.562	53.92	4.53	58.45	124.00	65.55	Peak
5	13.668	34.55	4.51	39.06	90.47	51.41	Peak
6	13.774	31.23	4.51	35.74	80.51	44.77	Peak

Project No.: 2402Z105148E-RF-A1  
Polarization: Ground-parallel  
Test Mode: Transmitting  
Note: Configuration 3#  
1

Serial No.: 2UEW-36  
Tester: Leesin Xiang



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	13.348	30.67	4.57	35.24	80.51	45.27	Peak
2	13.457	33.28	4.55	37.83	90.47	52.64	Peak
3	13.477	33.13	4.55	37.68	90.47	52.79	Peak
4	13.562	52.54	4.53	57.07	124.00	66.93	Peak
5	13.648	34.12	4.51	38.63	90.47	51.84	Peak
6	13.774	31.97	4.51	36.48	80.51	44.03	Peak

Note:  
The Spot Check data were similar to the original data.

## **4.4 Antenna Requirement**

### **4.4.1 Applicable Standard**

FCC §15.203

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

### **4.4.2 Judgment**

Please refer to the Antenna Information detail in Section 1.3.

## **EXHIBIT A - EUT PHOTOGRAPHS**

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Please refer to the attachment 2402Z105148EA1-RF-EXP EUT external photographs and 2402Z105148EA1-RF-INP EUT internal photographs.

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## **EXHIBIT B - TEST SETUP PHOTOGRAPHS**

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Please refer to the attachment 2402Z105148E-RF-00GA1-TSP test setup photographs.

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## EXHIBIT C - RF EXPOSURE EVALUATION

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### SAR test exclusion

#### 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 75.77 dBuV/m = -19.43dBm (0.01 mW)

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

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

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

$$= 443\text{mW}$$

$$> 0.01\text{ mW}$$

**Result: Compliant.**

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