

TEST REPORT

Applicant: Long Range Solutions LLC

Address: 9525 Forest View Street, Dallas, TX 75243, United States

Product Name: Alpha Pager 2

FCC ID: 2AB6ORXAP2

Standard(s): FCC PART 15B
ANSI C63.4-2014

Report Number: 2502X79077E-RF-00

Report Date: 2025/10/29

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

Alice Tan

Reviewed By: Alice Tan

Title: RF Engineer

Rocky Xiao

Approved By: Rocky Xiao

Title: RF Supervisor

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

Tel: +86-769-86858888

Fax: +86-769-86858891

www.baclcorp.com.cn

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CONTENTS

DOCUMENT REVISION HISTORY	3
1. GENERAL INFORMATION	4
1.1 GENERAL DESCRIPTION OF EQUIPMENT UNDER TEST	4
1.2 ACCESSORY INFORMATION.....	4
1.3 EQUIPMENT MODIFICATIONS	4
2. SUMMARY OF TEST RESULTS	5
3. DESCRIPTION OF TEST CONFIGURATION	6
3.1 DESCRIPTION OF TEST CONFIGURATION	6
3.2 EUT EXERCISE SOFTWARE.....	6
3.3 SUPPORT EQUIPMENT LIST AND DETAILS	6
3.4 SUPPORT CABLE LIST AND DETAILS.....	6
3.5 BLOCK DIAGRAM OF TEST SETUP.....	7
3.6 TEST FACILITY	9
3.7 MEASUREMENT UNCERTAINTY	9
4. REQUIREMENTS AND TEST PROCEDURES.....	10
4.1 CONDUCTED EMISSIONS	10
4.1.1 Applicable Standard	10
4.1.2 EUT Setup.....	10
4.1.3 EMI Test Receiver Setup	11
4.1.4 Test Procedure.....	11
4.1.5 Corrected Amplitude & Margin Calculation.....	11
4.1.6 Test Data and Result	12
4.2 RADIATION EMISSIONS	15
4.2.1 Applicable Standard	15
4.2.2 Test System Setup	15
4.2.3 EMI Test Receiver Setup	16
4.2.4 Test Procedure.....	16
4.2.5 Corrected Result & Margin Calculation.....	17
4.2.6 Test Data and Result	18
EXHIBIT A - EUT PHOTOGRAPHS	27
EXHIBIT B - TEST SETUP PHOTOGRAPHS.....	28

DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	2502X79077E-RF-00	Original Report	2025/10/29

1. GENERAL INFORMATION

1.1 General Description Of Equipment under Test

EUT Name:	Alpha Pager 2
EUT Model:	RX-AP2
Highest Operation Frequency [▲] :	467.75MHz
Rated Input Voltage:	3.7Vdc from battery or DC 12V from Charging Base
Serial Number:	3AIB-1
EUT Received Date:	2025/9/29
EUT Received Status:	Good

1.2 Accessory Information

Accessory Description	Manufacturer	Model	Parameters
/	/	/	/

1.3 Equipment Modifications

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

2. SUMMARY OF TEST RESULTS

Standard Clause	Description of Test	Test Result
FCC§15.107	Conducted emissions	Compliant
FCC§15.109	Radiated emissions	Compliant

3. DESCRIPTION OF TEST CONFIGURATION

3.1 Description of Test Configuration

The system was configured for testing in a typical fashion (as normally used by a typical user). The following summary table is showing all test modes to demonstrate in compliance with the standard:

Test Items	Test Modes
Radiated Emission:	M1: Charging M2: PMR Receiving(467.75MHz)
Conducted Emission:	M1: Charging

3.2 EUT Exercise Software

No software was used in test.

3.3 Support Equipment List and Details

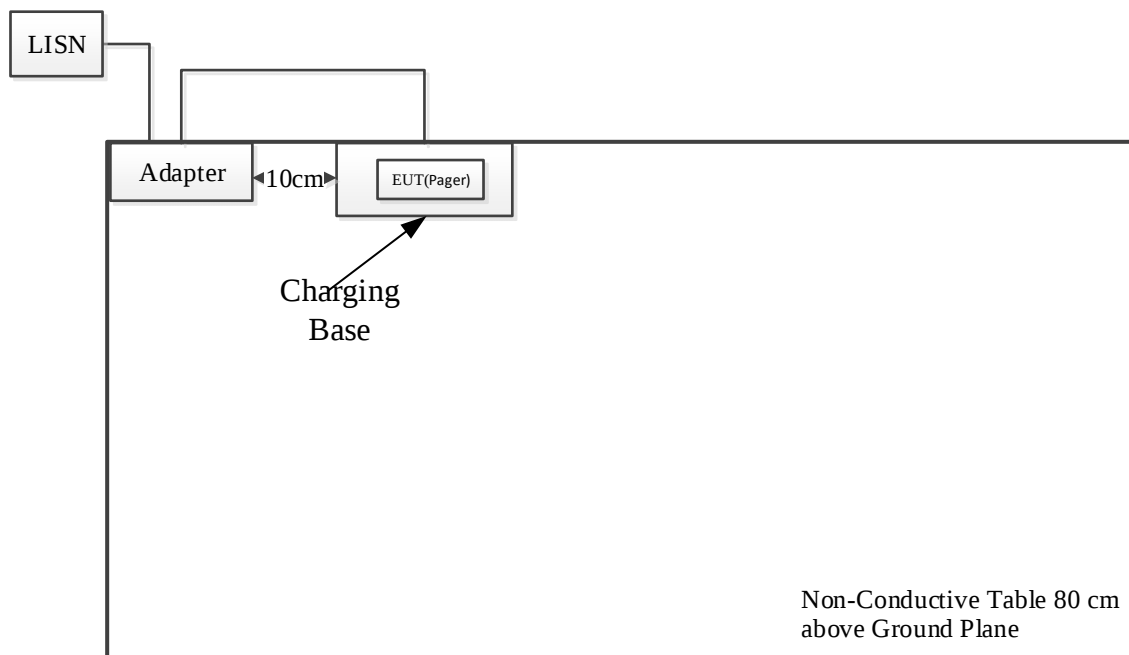
Manufacturer	Description	Model	Serial Number
SAFETY	Adapter	DSA-50PFB-12	21050-11
Long Range Solutions LLC	Charging Base	CH-R11-HC	Unknown
Pager Transmitter	Pager Transmitter	TX-9561MT	Unknown
Lenovo	Laptop	T430	00331-10000-00001-AA887_02

3.4 Support Cable List and Details

Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
Power Cable	NO	NO	1.8	Unknown	Charging Base

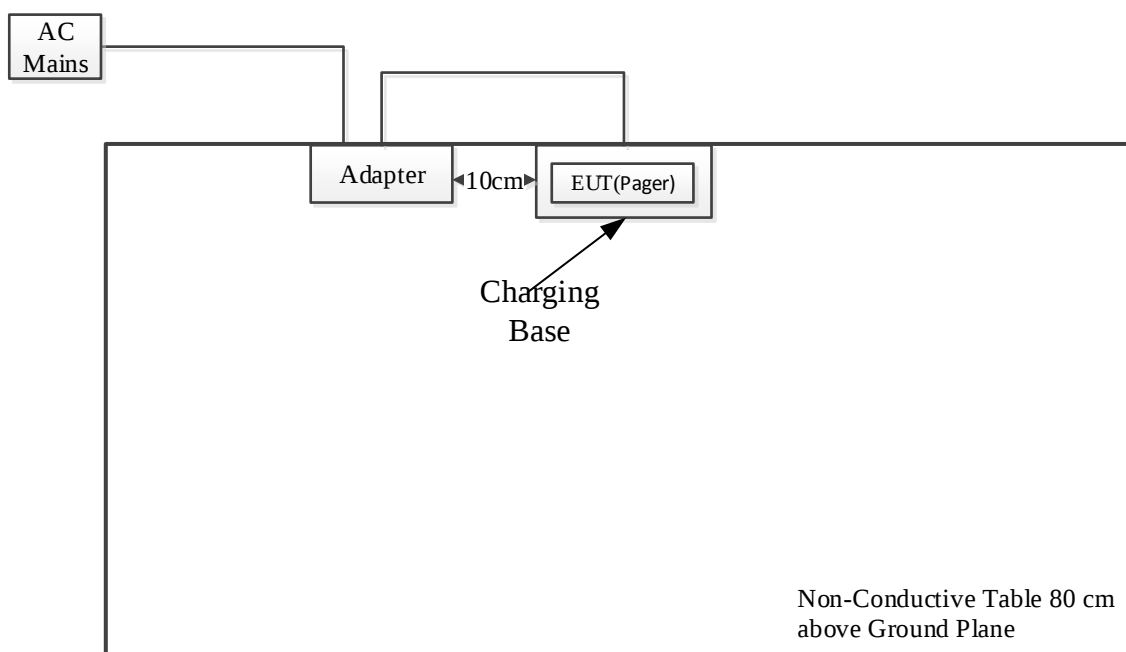
3.5 Block Diagram of Test Setup

AC Line conducted Emission:

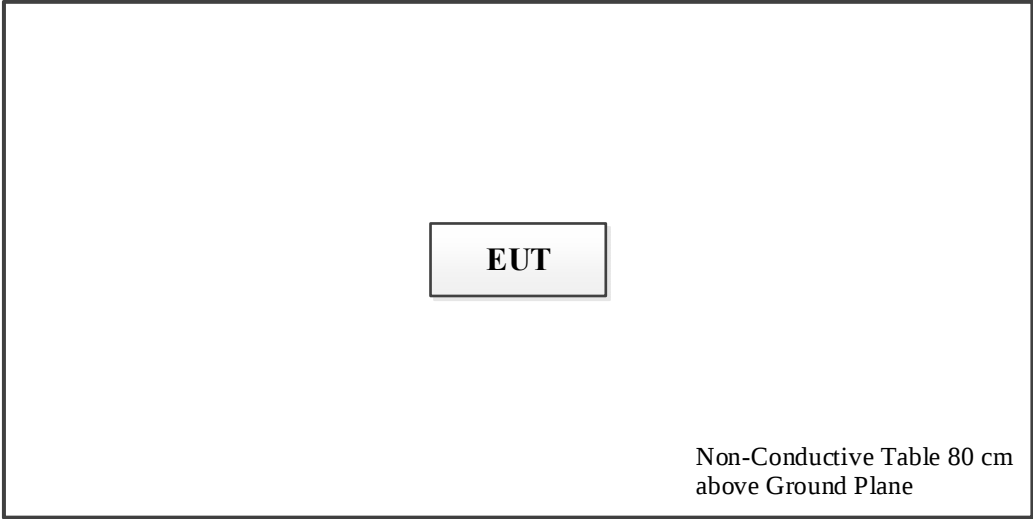
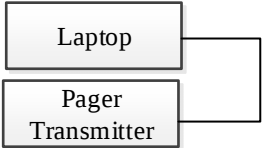


Radiated Emission:

M1



M2



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
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
AC Power Lines Conducted Emission	3.11 dB (150 kHz to 30 MHz)
Temperature	±1 °C
Humidity	±5%

4. REQUIREMENTS AND TEST PROCEDURES

4.1 Conducted Emissions

4.1.1 Applicable Standard

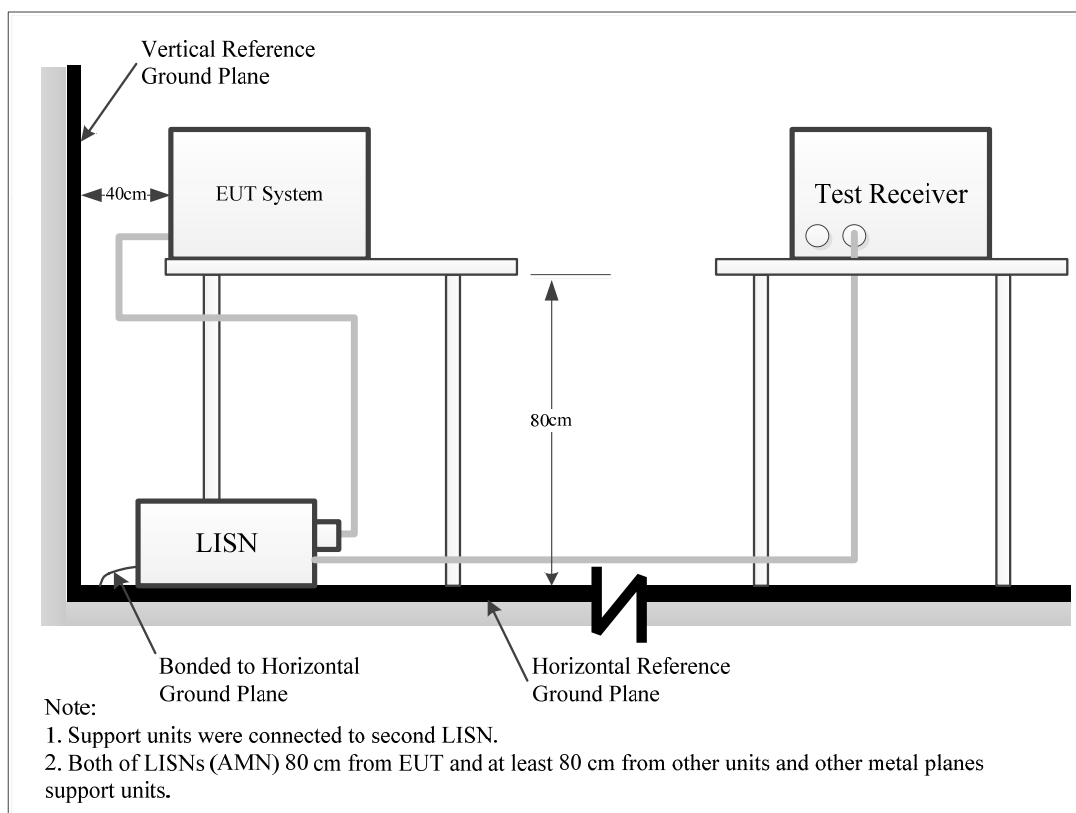
FCC§15.107

(a) Except for Class A digital devices, for equipment 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 μ 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 band edges

Frequency of emission (MHz)	Conducted limit (dB μ 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.

4.1.2 EUT Setup



The setup of EUT is according with per ANSI C63.4-2014 measurement procedure. The specification used was with the FCC Part 15 B Class B limits.

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

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

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.

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 and Result

Serial Number:	3AIB-1	Test Date:	2025/10/11
Test Site:	CE	Test Mode:	M1
Tester:	Lane Sun	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	26.7	Relative Humidity: (%)	61	ATM Pressure: (kPa)	100.5
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Test Equipment List and Details:

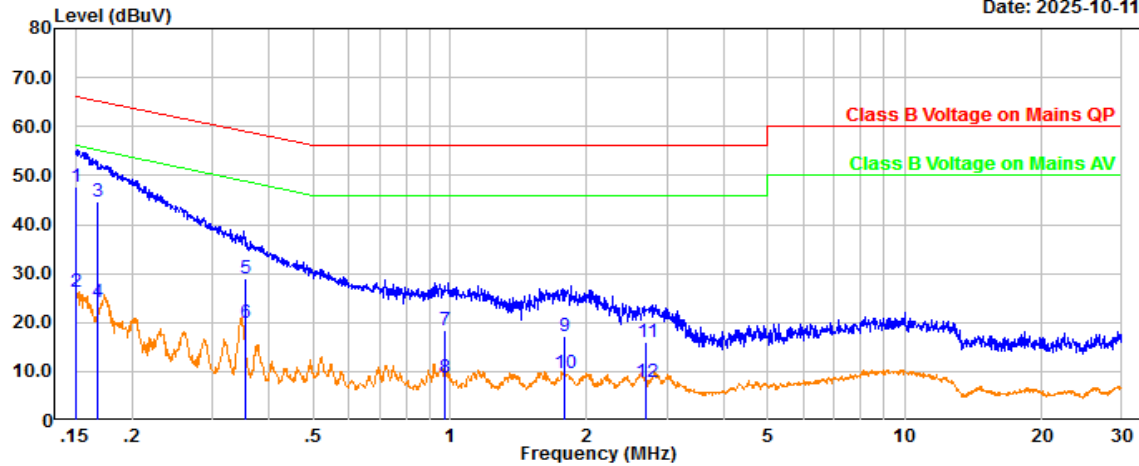
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	LISN	ENV216	101614	2025/6/25	2026/6/24
Unknown	Coaxial Cable	RG 142	C-0200-05	2025/5/6	2026/5/5
R&S	EMI Test Receiver	ESCI	100224	2025/6/25	2026/6/24
Audix	Test Software	E3	191218 V9	N/A	N/A

** 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).*

Project No.: 2502X79077E-RF
Port: Line
Test Mode: M1
IF B/W 9kHz PK/AV

Serial No.: 3AIB-1
Tester: Lane Sun
Note:

Date: 2025-10-11

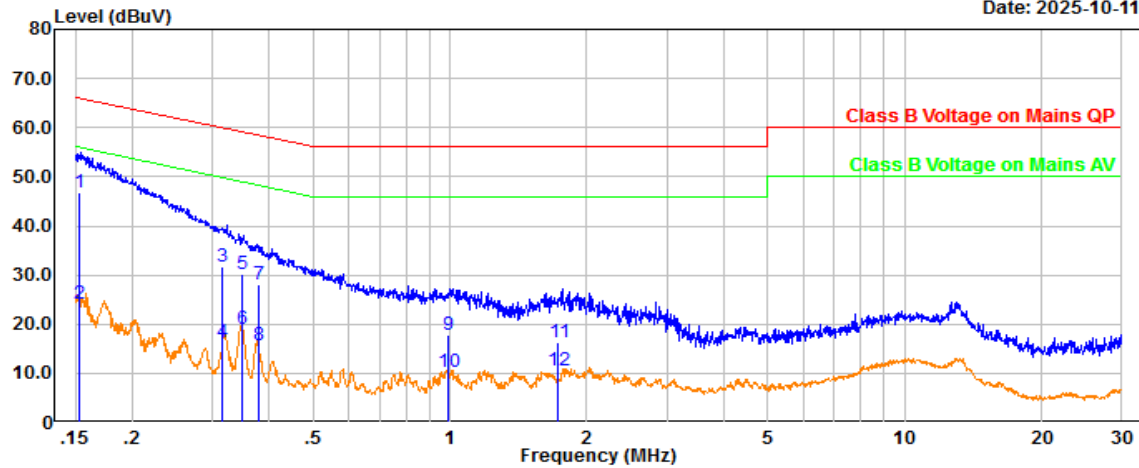


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Measurement
1	0.150	37.86	9.70	47.56	65.99	18.43	QP
2	0.150	16.68	9.70	26.38	55.99	29.61	Average
3	0.169	34.93	9.74	44.67	65.03	20.36	QP
4	0.169	14.38	9.74	24.12	55.03	30.91	Average
5	0.355	19.24	9.60	28.84	58.84	30.00	QP
6	0.355	10.20	9.60	19.80	48.84	29.04	Average
7	0.975	8.68	9.76	18.44	56.00	37.56	QP
8	0.975	-0.89	9.76	8.87	46.00	37.13	Average
9	1.792	7.59	9.49	17.08	56.00	38.92	QP
10	1.792	0.03	9.49	9.52	46.00	36.48	Average
11	2.706	6.40	9.52	15.92	56.00	40.08	QP
12	2.706	-1.75	9.52	7.77	46.00	38.23	Average

Project No.: 2502X79077E-RF
 Port: neutral
 Test Mode: M1
 IF B/W 9kHz PK/AV

Serial No.: 3AIB-1
 Tester: Lane Sun
 Note:

Date: 2025-10-11



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Measurement
1	0.153	37.33	9.43	46.76	65.85	19.09	QP
2	0.153	14.74	9.43	24.17	55.85	31.68	Average
3	0.315	21.94	9.79	31.73	59.84	28.11	QP
4	0.315	6.40	9.79	16.19	49.84	33.65	Average
5	0.348	20.58	9.75	30.33	59.01	28.68	QP
6	0.348	9.25	9.75	19.00	49.01	30.01	Average
7	0.380	18.47	9.73	28.20	58.29	30.09	QP
8	0.380	5.85	9.73	15.58	48.29	32.71	Average
9	0.989	8.09	9.69	17.78	56.00	38.22	QP
10	0.989	0.63	9.69	10.32	46.00	35.68	Average
11	1.732	6.84	9.42	16.26	56.00	39.74	QP
12	1.732	1.04	9.42	10.46	46.00	35.54	Average

4.2 Radiation Emissions

4.2.1 Applicable Standard

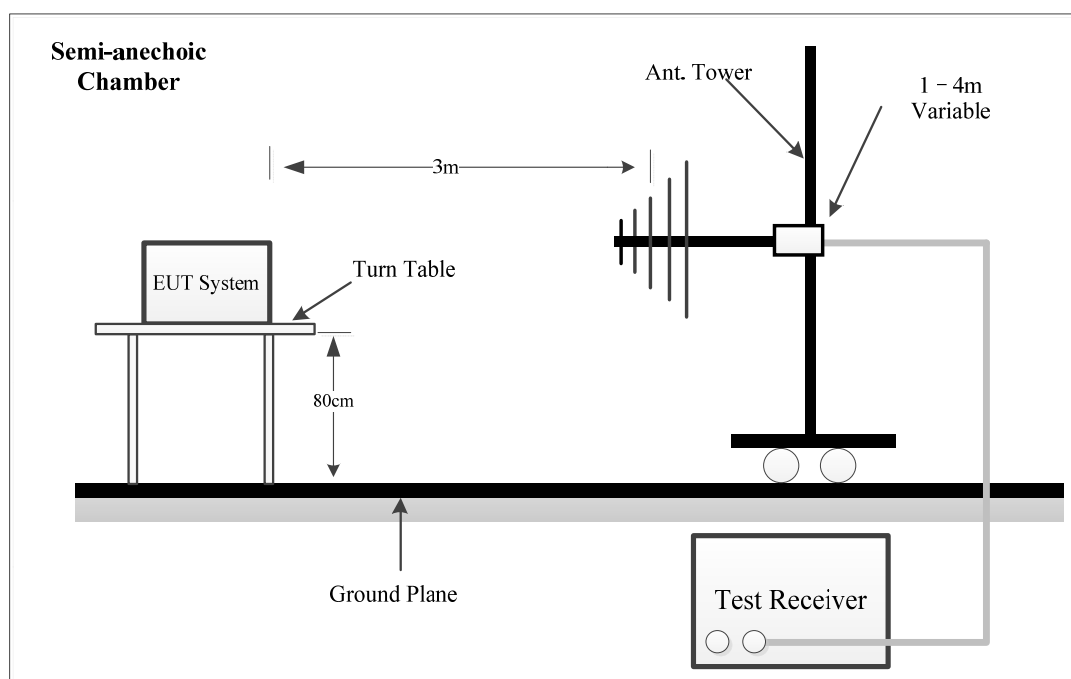
FCC§15.109

(a) Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

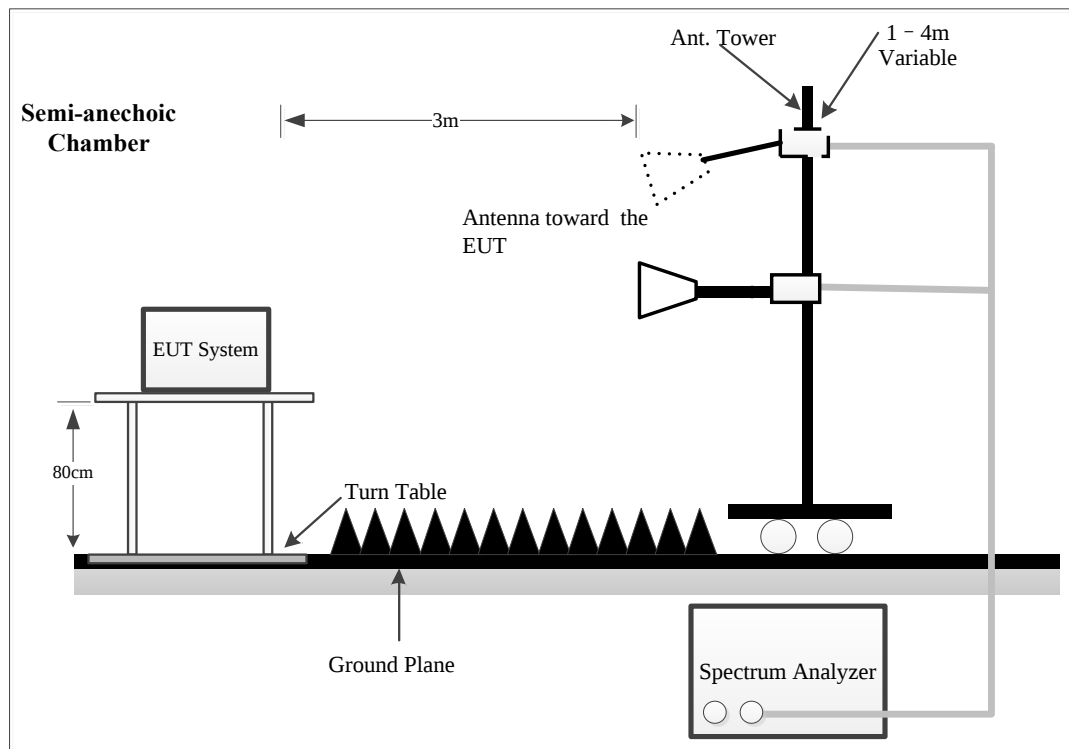
Frequency of emission (MHz)	Field strength (microvolts/meter)
30-88	100
88-216	150
216-960	200
Above 960	500

4.2.2 Test System Setup

Below 1GHz:



Above 1GHz:



The radiated emission tests were performed at the 3 meters distance, using the setup accordance with the ANSI C63.4-2014. The specification used was the FCC Part 15B Class B limits.

4.2.3 EMI Test Receiver Setup

The system was investigated from 30 MHz to 6 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
30MHz – 1000 MHz	120 kHz	500 kHz	/	Peak
	/	/	120kHz	QP
Above 1 GHz	1 MHz	3 MHz	/	Peak
	1 MHz	3 MHz	/	AVG

4.2.4 Test Procedure

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

The data was recorded in the Quasi-peak detection mode for below 1 GHz, peak and average detection mode above 1 GHz.

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

4.2.5 Corrected Result & Margin Calculation

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:

Margin = Limit – Result

4.2.6 Test Data and Result

Serial Number:	3AIB-1	Test Date:	Below 1G: 2025/10/10 Above 1G: 2025/10/22
Test Site:	Chamber A	Test Mode:	M1, M2
Tester:	Lancer Zhang	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	24.8~26.1	Relative Humidity: (%)	34	ATM Pressure: (kPa)	100.6~101
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Test Equipment List and Details:

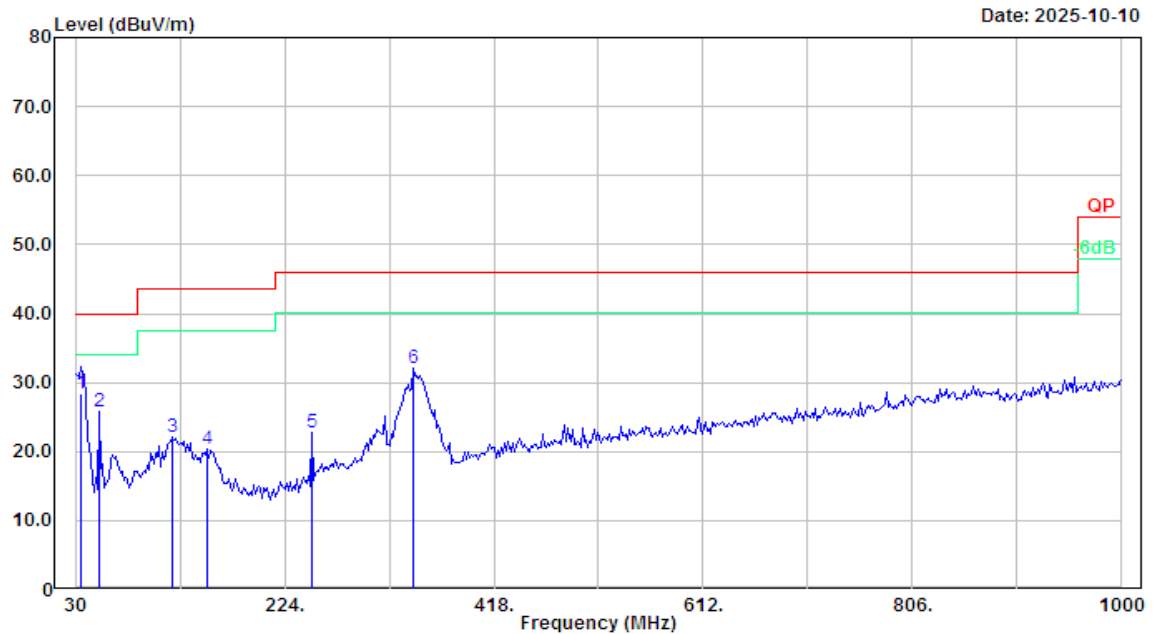
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
30MHz~1000MHz					
Sunol Sciences	Hybrid Antenna	JB3	A060611-2	2024/4/16	2027/4/15
Narda	Coaxial Attenuator	757C-6dB	34010	2024/4/16	2027/4/15
Unknown	Coaxial Cable	C-NJNJ-50	C-0075-01	2025/6/30	2026/7/1
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-01	2025/6/30	2026/7/1
Unknown	Coaxial Cable	C-NJNJ-50	C-1400-01	2025/6/30	2026/7/1
Sonoma	Amplifier	310N	372193	2025/8/15	2026/8/14
R&S	EMI Test Receiver	ESR3	102453	2025/6/25	2026/6/24
Audix	Test Software	E3	191218 V9	N/A	N/A
Above 1GHz					
AH	Horn Antenna	SAS-571	1177	2023/2/22	2026/2/21
HUBER+SUHNER	Coaxial Cable	SUCOFLEX 126EA	MY369/26/26EA	2025/7/1	2026/6/30
AH	Preamplifier	PAM-0118P	530	2025/6/3	2026/6/2
R&S	Spectrum Analyzer	FSV40	101589	2025/7/28	2026/7/27
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).

1) 30MHz-1GHz:

Project No.: 2502X79077E-RF
Polarization: Horizontal
Test Mode: M1
Note:

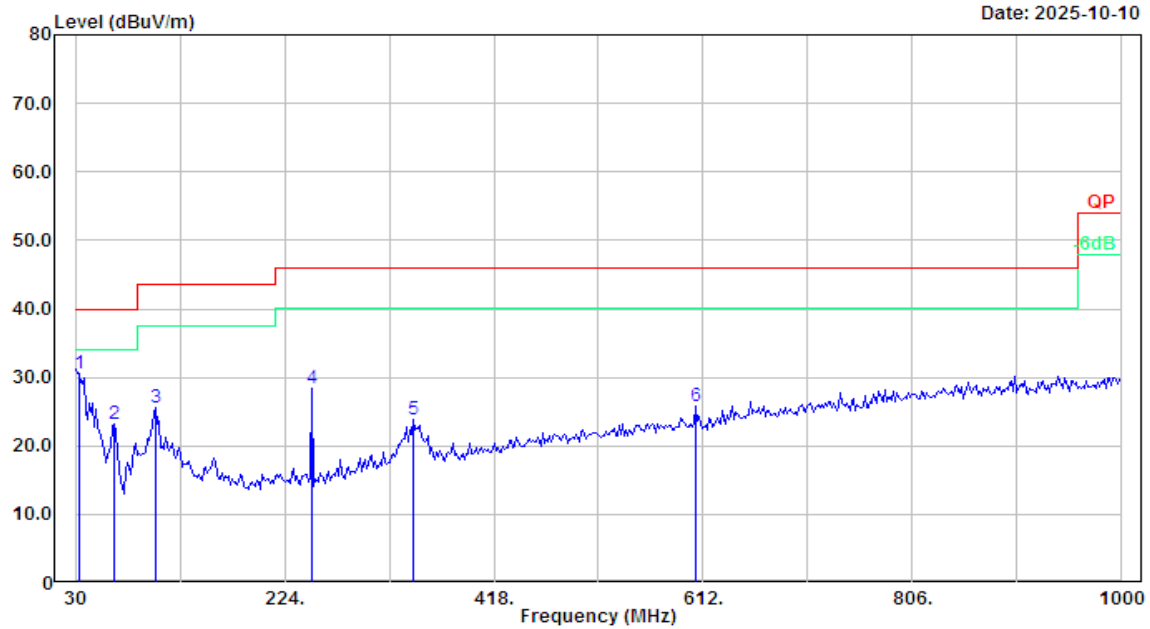
Serial No.: 3AIB-1
Tester: Lancer Zhang



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	34.850	35.48	-7.12	28.36	40.00	11.64	QP
2	52.633	42.69	-16.93	25.76	40.00	14.24	Peak
3	120.533	32.28	-10.08	22.20	43.52	21.32	Peak
4	152.867	31.65	-11.36	20.29	43.52	23.23	Peak
5	249.867	34.17	-11.40	22.77	46.02	23.25	Peak
6	343.633	40.27	-8.17	32.10	46.02	13.92	Peak

Project No.: 2502X79077E-RF
Polarization: Vertical
Test Mode: M1
Note:

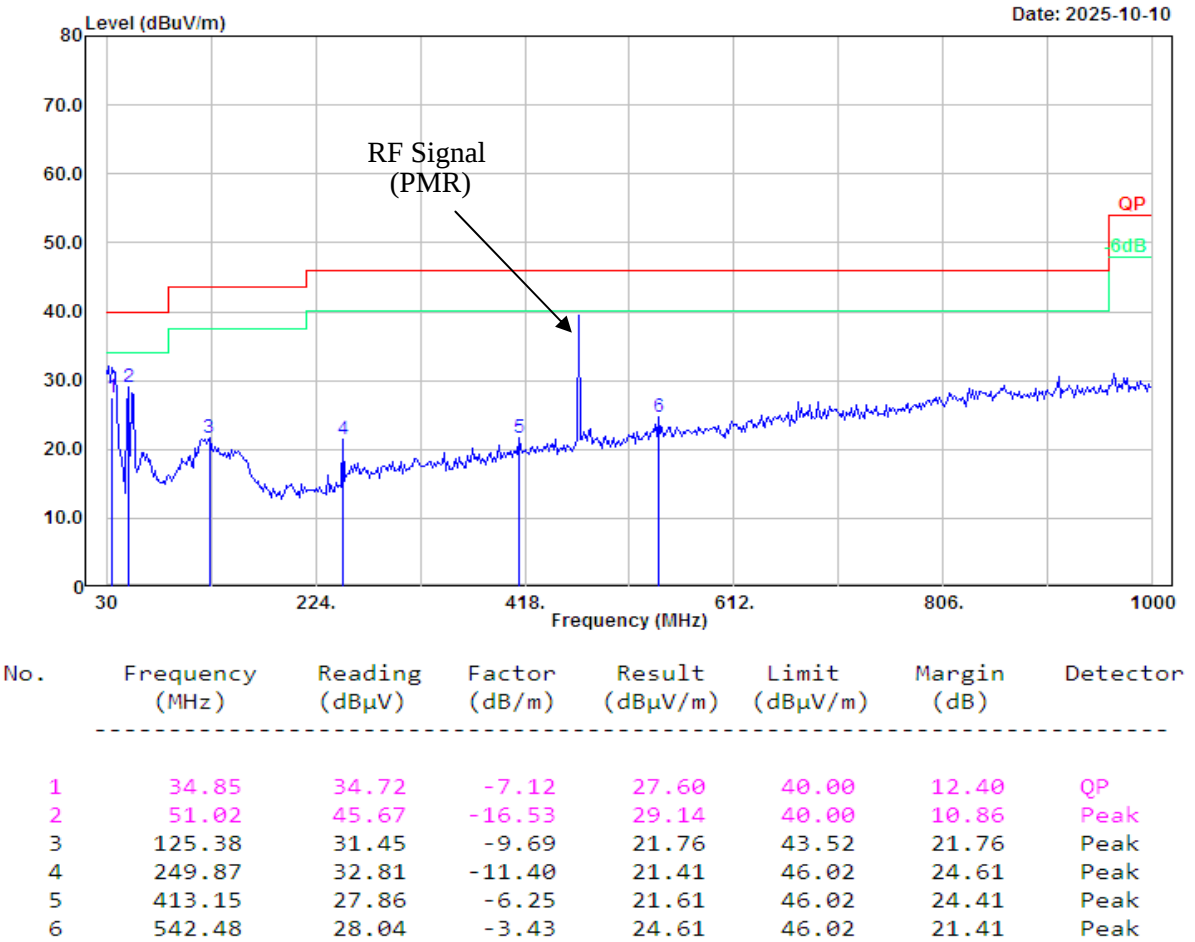
Serial No.: 3AIB-1
Tester: Lancer Zhang



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	33.233	36.41	-5.90	30.51	40.00	9.49	Peak
2	65.567	39.80	-16.50	23.30	40.00	16.70	Peak
3	104.367	38.17	-12.51	25.66	43.52	17.86	Peak
4	249.867	39.75	-11.30	28.45	46.02	17.57	Peak
5	343.633	31.85	-8.07	23.78	46.02	22.24	Peak
6	605.533	28.16	-2.40	25.76	46.02	20.26	Peak

Project No.: 2502X79077E-RF
Polarization: Horizontal
Test Mode: M2
Note:

Serial No.: 3AIB-1
Tester: Lancer Zhang



Project No.: 2502X79077E-RF

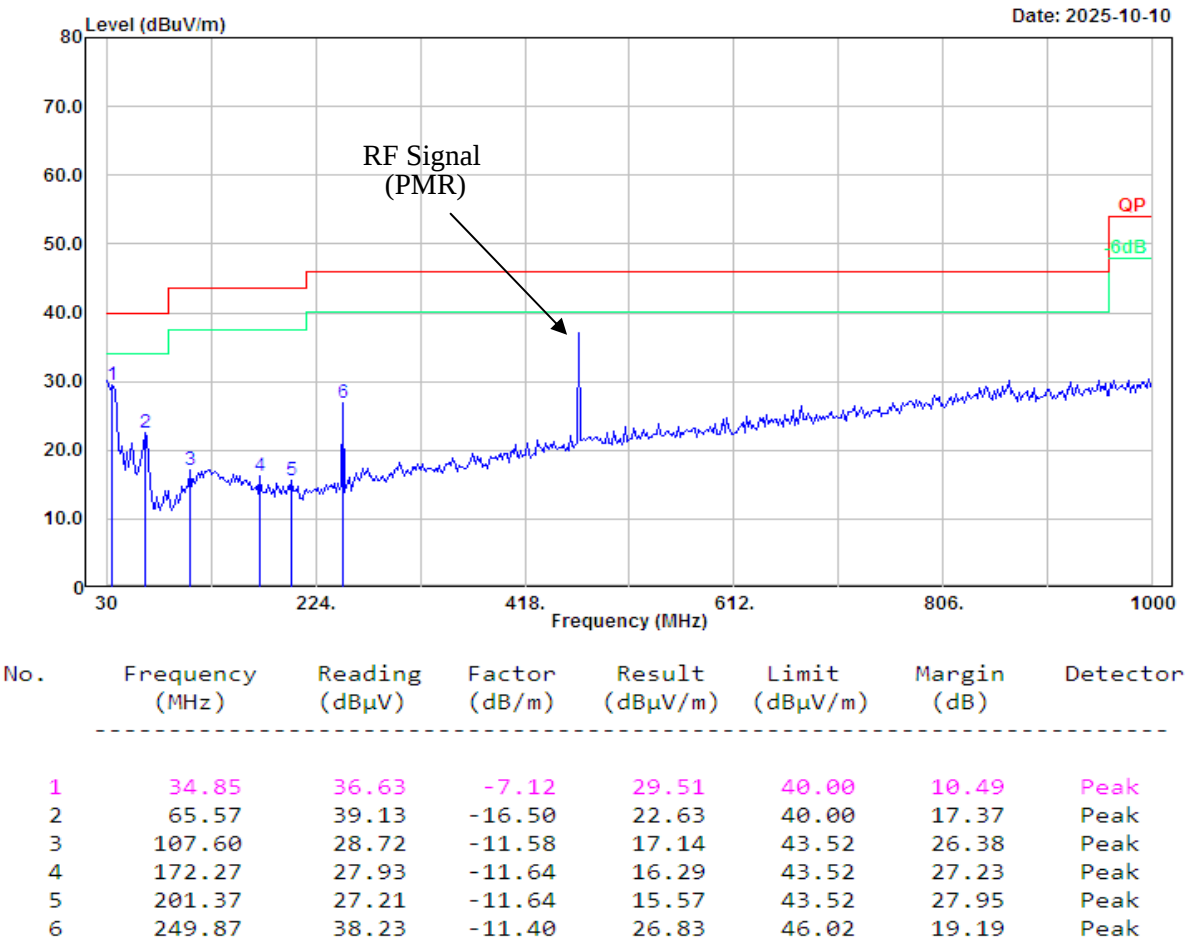
Serial No.: 3AIB-1

Polarization: Vertical

Tester: Lancer Zhang

Test Mode: M2

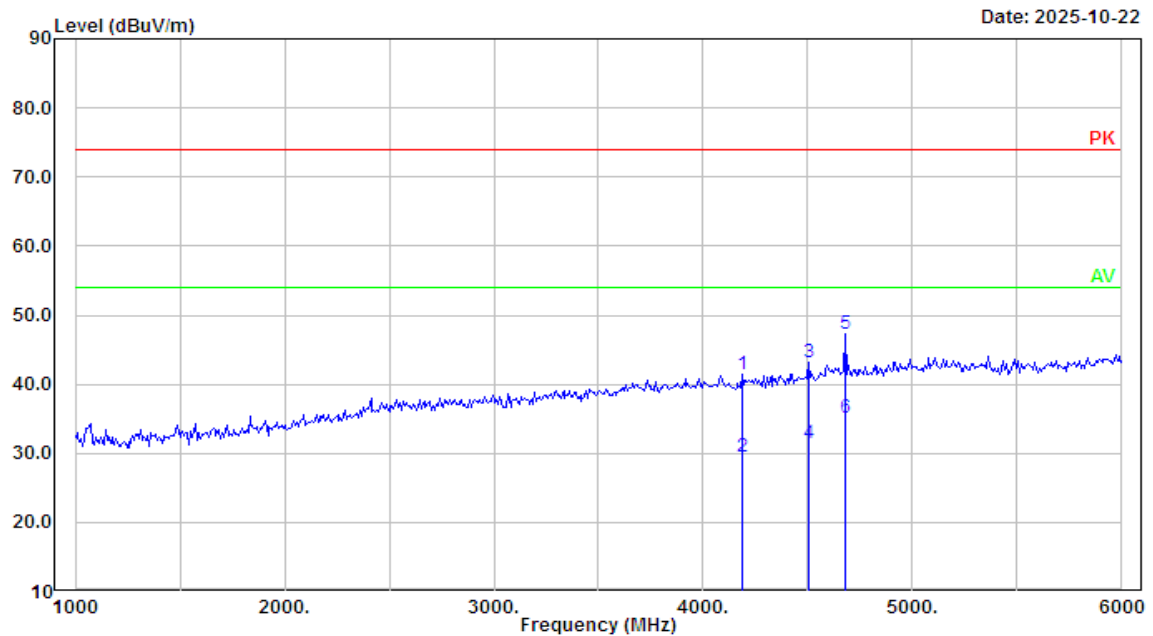
Note:



2) 1GHz-6GHz:

Project No.: 2502X79077E-RF
Polarization: Horizontal
Test Mode: M1
Note:

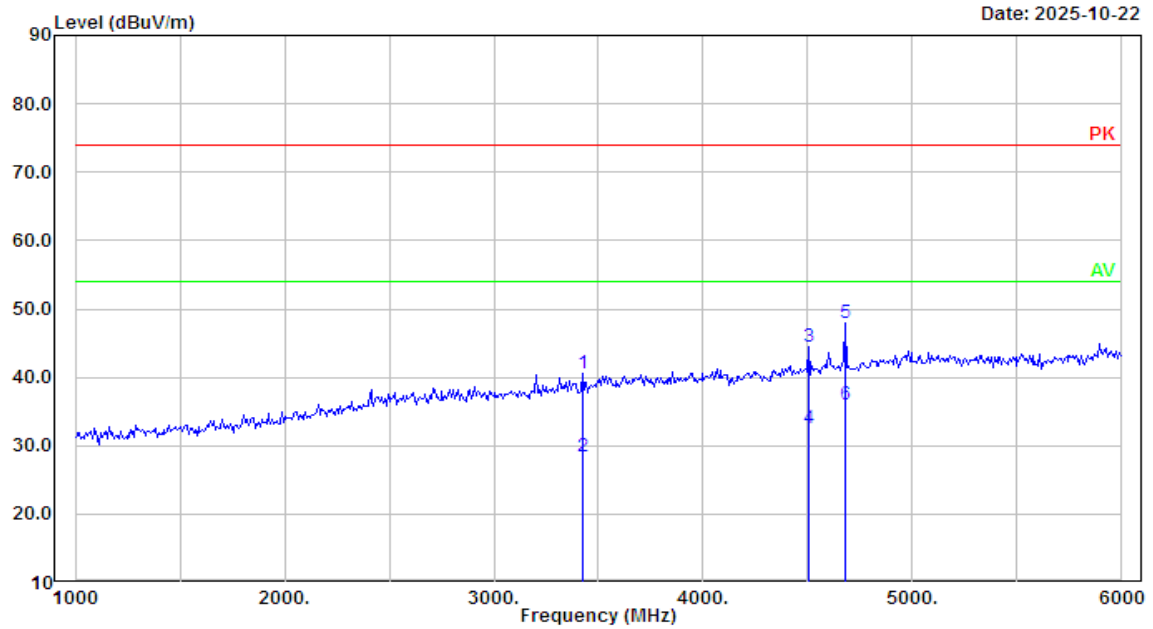
Serial No.: 3AIB-1
Tester: Lancer Zhang



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	4188.41	48.16	-6.66	41.50	74.00	32.50	Peak
2	4188.41	36.15	-6.66	29.49	54.00	24.51	Average
3	4507.25	49.27	-6.06	43.21	74.00	30.79	Peak
4	4507.25	37.42	-6.06	31.36	54.00	22.64	Average
5	4681.16	52.74	-5.51	47.23	74.00	26.77	Peak
6	4681.16	40.73	-5.51	35.22	54.00	18.78	Average

Project No.: 2502X79077E-RF
Polarization: Vertical
Test Mode: M1
Note:

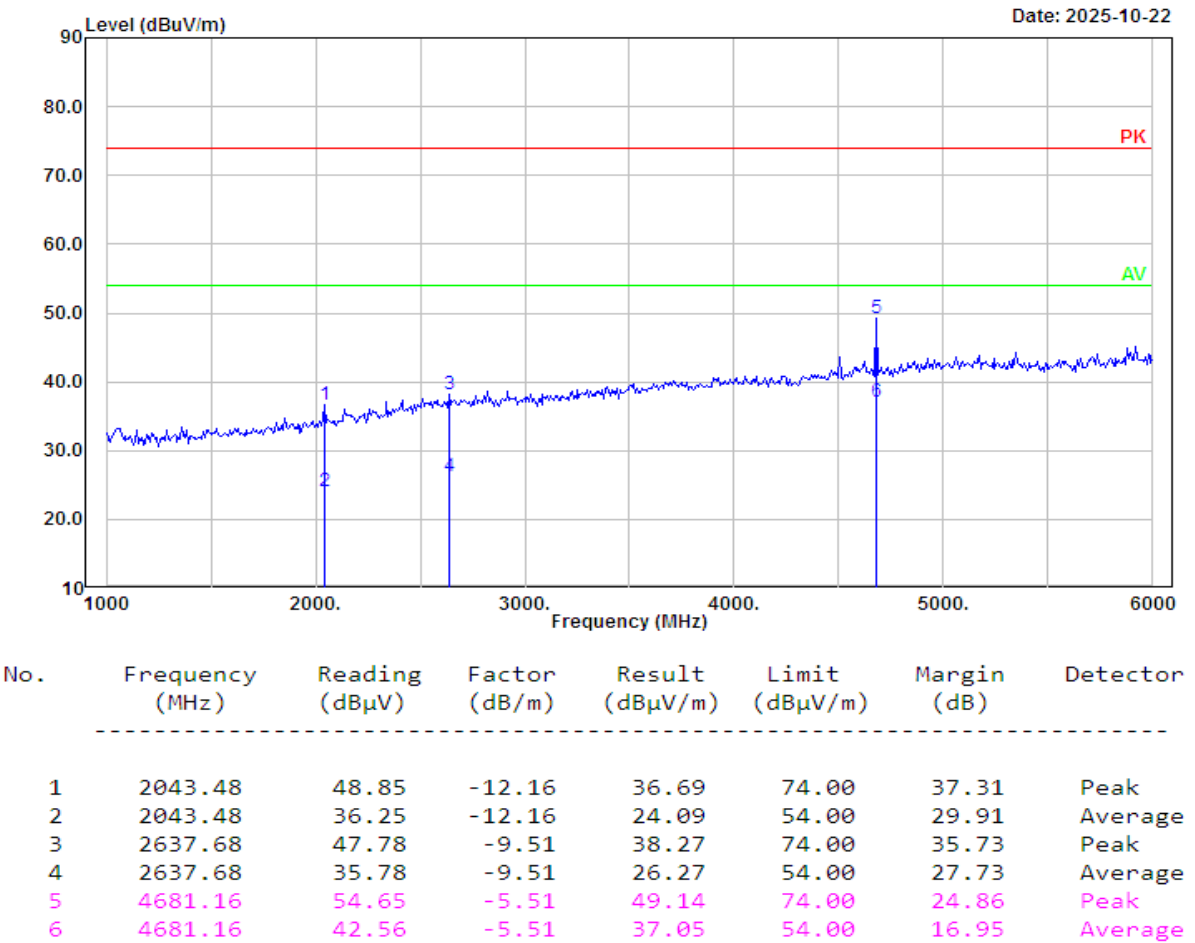
Serial No.: 3AIB-1
Tester: Lancer Zhang



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	3427.54	48.65	-7.99	40.66	74.00	33.34	Peak
2	3427.54	36.51	-7.99	28.52	54.00	25.48	Average
3	4507.25	50.51	-6.06	44.45	74.00	29.55	Peak
4	4507.25	38.67	-6.06	32.61	54.00	21.39	Average
5	4681.16	53.52	-5.51	48.01	74.00	25.99	Peak
6	4681.16	41.55	-5.51	36.04	54.00	17.96	Average

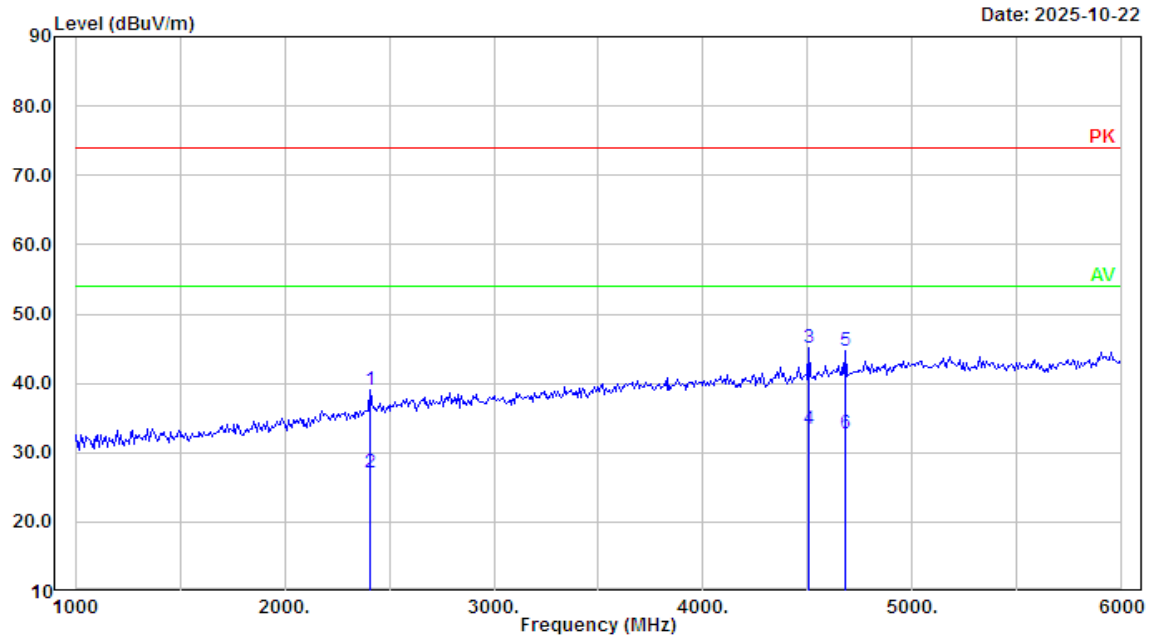
Project No.: 2502X79077E-RF
Polarization: Horizontal
Test Mode: M2
Note:

Serial No.: 3AIB-1
Tester: Lancer Zhang



Project No.: 2502X79077E-RF
Polarization: Vertical
Test Mode: M2
Note:

Serial No.: 3AIB-1
Tester: Lancer Zhang



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	2405.80	49.21	-10.24	38.97	74.00	35.03	Peak
2	2405.80	37.29	-10.24	27.05	54.00	26.95	Average
3	4507.25	51.23	-6.06	45.17	74.00	28.83	Peak
4	4507.25	39.51	-6.06	33.45	54.00	20.55	Average
5	4681.16	50.24	-5.51	44.73	74.00	29.27	Peak
6	4681.16	38.24	-5.51	32.73	54.00	21.27	Average

EXHIBIT A - EUT PHOTOGRAPHS

Please refer to the attachment 2502X79077E-RF-EXP EUT external photographs and 2502X79077E-RF-INP EUT internal photographs.

EXHIBIT B - TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2502X79077E-RF-00-TSP TEST SETUP PHOTOGRAPHS.

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