

TEST REPORT

Applicant: HONG KONG IPRO TECHNOLOGY CO.,LIMITED

Address: 12/F., San Toi Building 137-139 Connaught Road Central HK

Product Name: Mobile Phone

FCC ID: PQ4IPROA9MINI

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

Report Number: 2402W66736E-RF-00C

Report Date: 2024/9/21

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

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	2402W66736E-RF-00C	Original Report	2024/9/21

1. GENERAL INFORMATION

1.1 General Description Of Equipment under Test

EUT Name:	Mobile Phone
EUT Model:	A9mini
Multiple Model:	A17,A10,A9,A7,A6,A3,A2,A1,Geniphone A9 mini
Highest Operation Frequency:	2480MHz
Rated Input Voltage:	3.7Vdc from battery or 5.0Vdc from adapter
Serial Number:	2QMM-2
EUT Received Date:	2024/8/26
EUT Received Status:	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

Accessory Description	Manufacturer	Model	Parameters
Adapter	HONG KONG IPRO TECHNOLOGY CO.,LIMITED	NTR-05	Input: 100-240Vac 50/60Hz 150mA Output: 5.0Vdc 500mA

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 Spurious Emission:	M1: Downloading
AC Line Conducted Emission:	M1: Downloading

3.2 EUT Exercise Software

No software was used in test.

3.3 Support Equipment List and Details

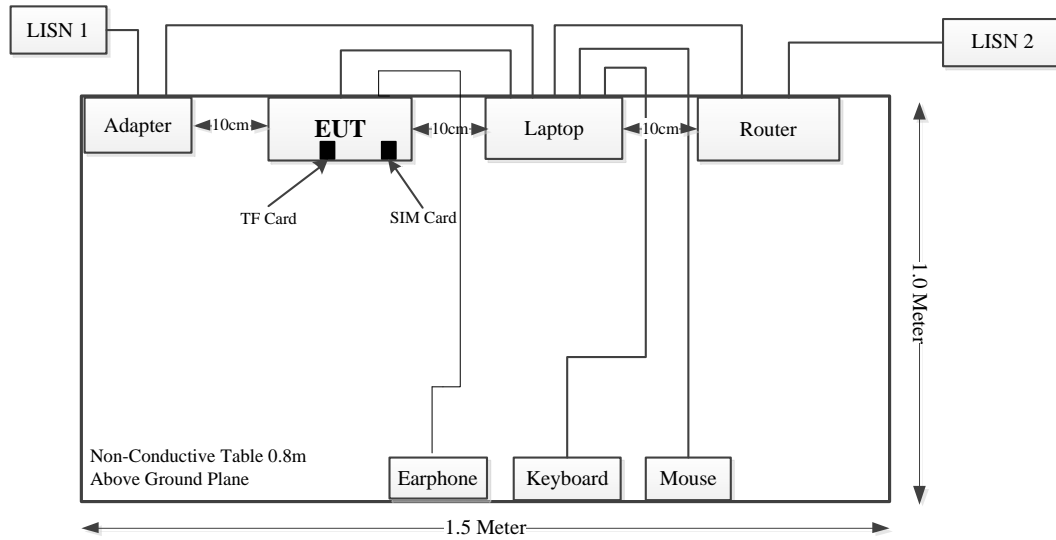
Manufacturer	Description	Model	Serial Number
SanDisk	TF Card	UHS-I-16G	9292DVDSV0XZ
Keenion	Earphone	KDM-911	EMZBEP21103003B
Lenovo	Laptop	E450	PF-OMR8KV
Lenovo	Adapter	92P1109	11S92P1109Z1ZBTZ93A6YG
bacl	SIM Card	A3-2	180722
PHILIPS	Keyboard	SPK6234	K234210510742
PHILIPS	Mouse	SPK7214	M214BQ210411115
ZIONCOM	Router	MB-R210-00	EMZBWR21103001
Hena Digital Technology	Laptop	N265F2C	00330-80000-00000-AA580
Hena Digital Technology	Adapter	92P1107	00330-80000-00000-AA581

3.4 Support Cable List and Details

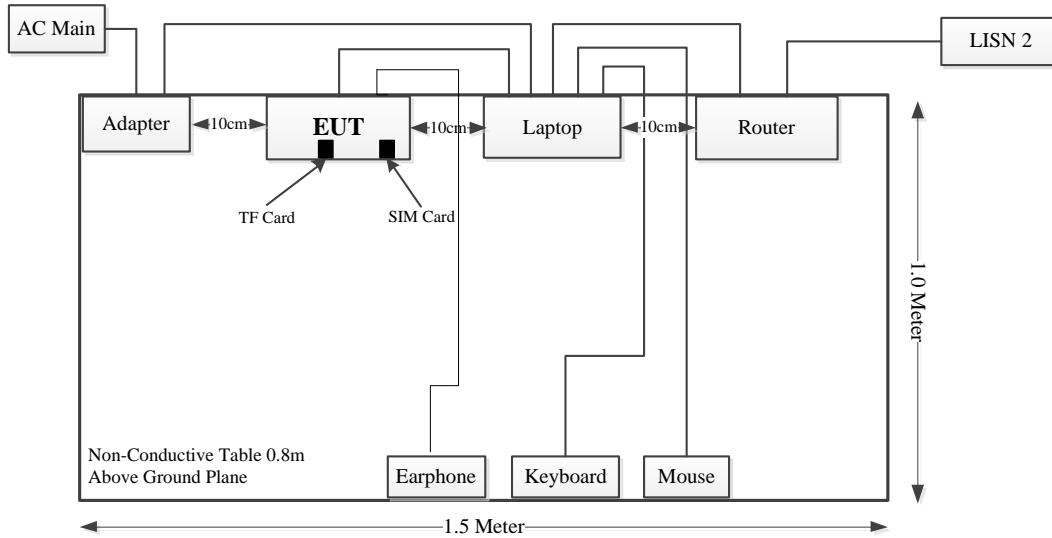
Cable Description	Shielding Cable	Ferrite Core	Length (m)	From Port	To
USB Cable	no	no	0.8	Laptop	EUT
Earphone Cable	no	no	1.2	Earphone	EUT
Keyboard Cable	no	no	1.2	Keyboard	Laptop
Mouse Cable	no	no	1.2	Mouse	Laptop
DC Cable	no	Yes	1.5	adapter	Laptop(Lenovo)
DC Cable	no	no	1.0	adapter	Laptop(Hena)

3.5 Block Diagram of Test Setup

Conducted emissions:



Radiated emissions:



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

4. REQUIREMENTS AND TEST PROCEDURES

4.1 AC Line Conducted Emissions

4.1.1 Applicable Standard

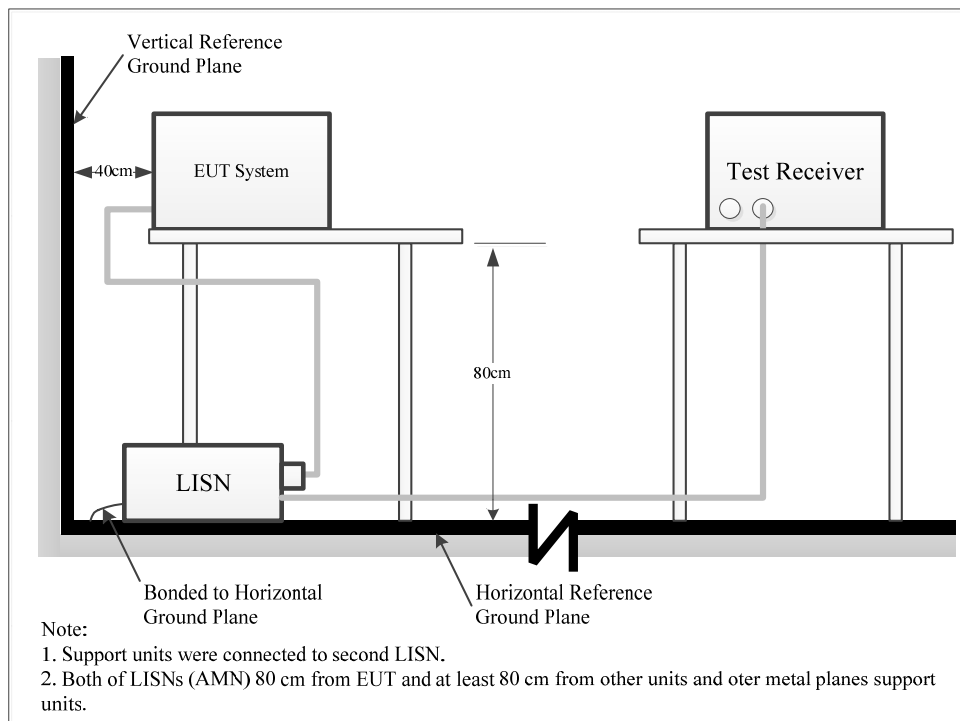
FCC§15.107

(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:

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

$$\text{Factor} = \text{attenuation caused by cable loss} + \text{voltage division factor of AMN}$$

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:

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

4.1.6 Test Data and Result

Serial Number:	2QMM-2	Test Date:	2024/9/5
Test Site:	CE	Test Mode:	Downloading
Tester:	Lane Sun	Test Result:	Pass

Environmental Conditions:

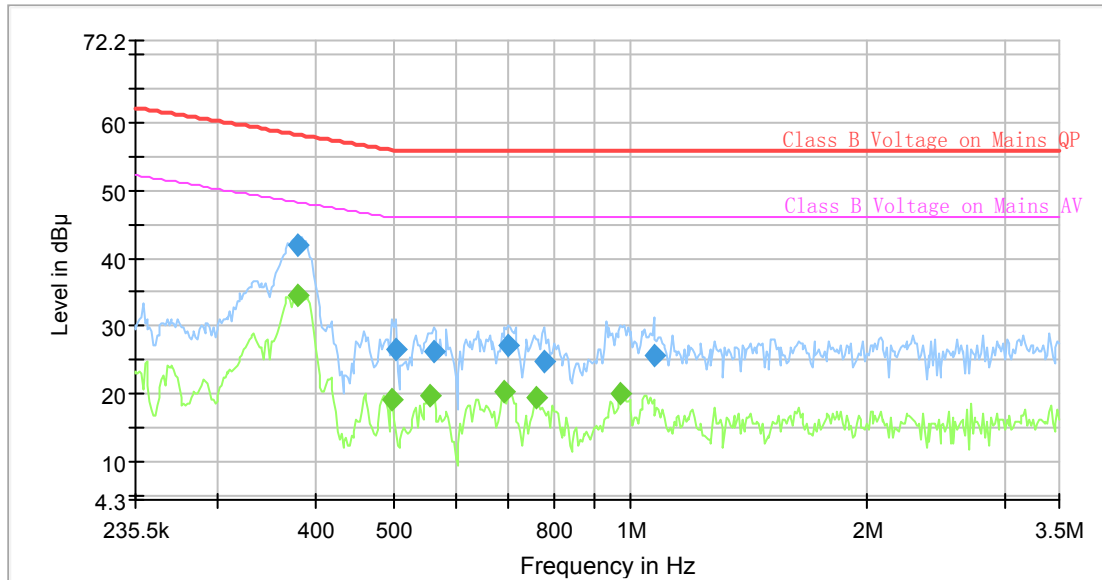
Temperature: (°C)	26.4	Relative Humidity: (%)	60	ATM Pressure: (kPa)	99.4
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	LISN	ENV216	101614	2023/10/18	2024/10/17
MICRO-COAX	Coaxial Cable	C-NJNJ-50	C-0200-01	2023/9/7	2024/9/6
R&S	EMI Test Receiver	ESCI	100035	2024/8/26	2025/8/25
R&S	Test Software	EMC32	V9.10.00	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).*

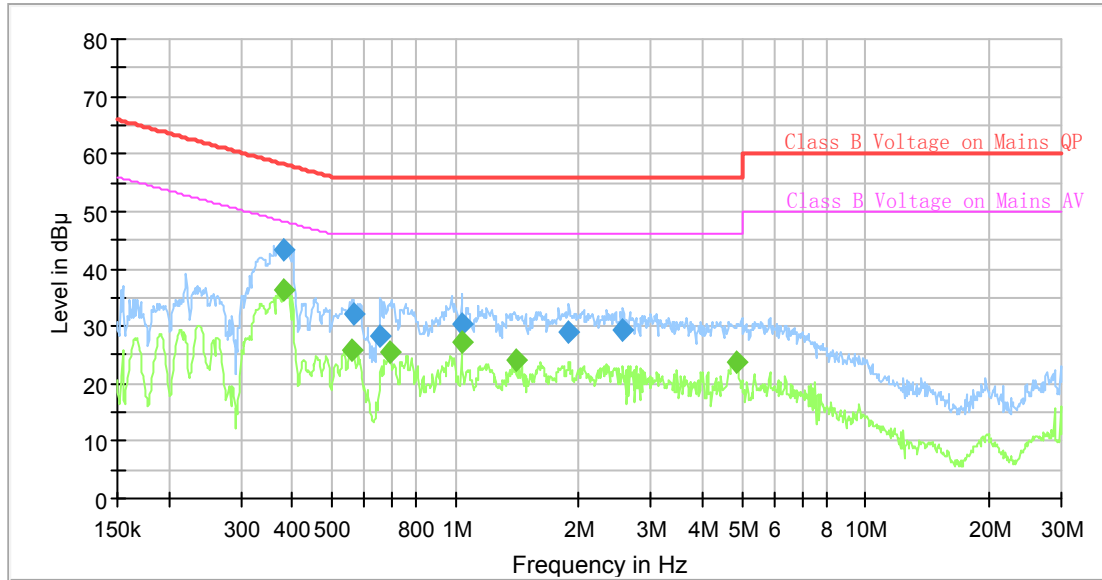
Project No: 2402W66736E-RF
 Test Date: 2024-9-5
 Test Engineer: Lane Sun
 Port: L
 Test Mode: Downloading
 Power Source: AC 120V/60Hz
 Note:



Final Result

Frequency (MHz)	QuasiPeak (dB μV)	Average (dB μV)	Limit (dB μV)	Margin (dB)	Bandwidth (kHz)	Line	Corr. (dB)
0.377409	---	34.64	48.34	13.70	9.000	L1	10.8
0.377409	41.99	---	58.34	16.35	9.000	L1	10.8
0.499013	---	19.04	46.02	26.98	9.000	L1	10.8
0.504016	26.48	---	56.00	29.52	9.000	L1	10.8
0.556885	---	19.82	46.00	26.18	9.000	L1	10.8
0.562468	26.35	---	56.00	29.65	9.000	L1	10.8
0.690091	---	20.23	46.00	25.77	9.000	L1	10.9
0.700494	27.02	---	56.00	28.98	9.000	L1	10.9
0.758685	---	19.49	46.00	26.51	9.000	L1	10.9
0.777842	24.79	---	56.00	31.21	9.000	L1	10.9
0.973564	---	19.94	46.00	26.06	9.000	L1	10.9
1.070335	25.69	---	56.00	30.31	9.000	L1	10.8

Project No: 2402W66736E-RF
 Test Date: 2024-9-5
 Test Engineer: Lane Sun
 Port: N
 Test Mode: Downloading
 Power Source: AC 120V/60Hz
 Note:



Final Result

Frequency (MHz)	QuasiPeak (dB μV)	Average (dB μV)	Limit (dB μV)	Margin (dB)	Bandwidth (kHz)	Line	Corr. (dB)
0.381193	---	36.37	48.25	11.88	9.000	N	10.8
0.381193	43.44	---	58.25	14.81	9.000	N	10.8
0.562468	---	25.84	46.00	20.16	9.000	N	10.7
0.565280	32.19	---	56.00	23.81	9.000	N	10.7
0.656516	28.41	---	56.00	27.59	9.000	N	10.7
0.690091	---	25.34	46.00	20.66	9.000	N	10.8
1.038779	30.22	---	56.00	25.78	9.000	N	10.9
1.038779	---	27.25	46.00	18.75	9.000	N	10.9
1.401157	---	24.06	46.00	21.94	9.000	N	10.9
1.889951	28.84	---	56.00	27.16	9.000	N	10.9
2.562008	29.35	---	56.00	26.65	9.000	N	10.9
4.875311	---	23.78	46.00	22.22	9.000	N	10.8

4.2 Radiation Emissions

4.2.1 Applicable Standard

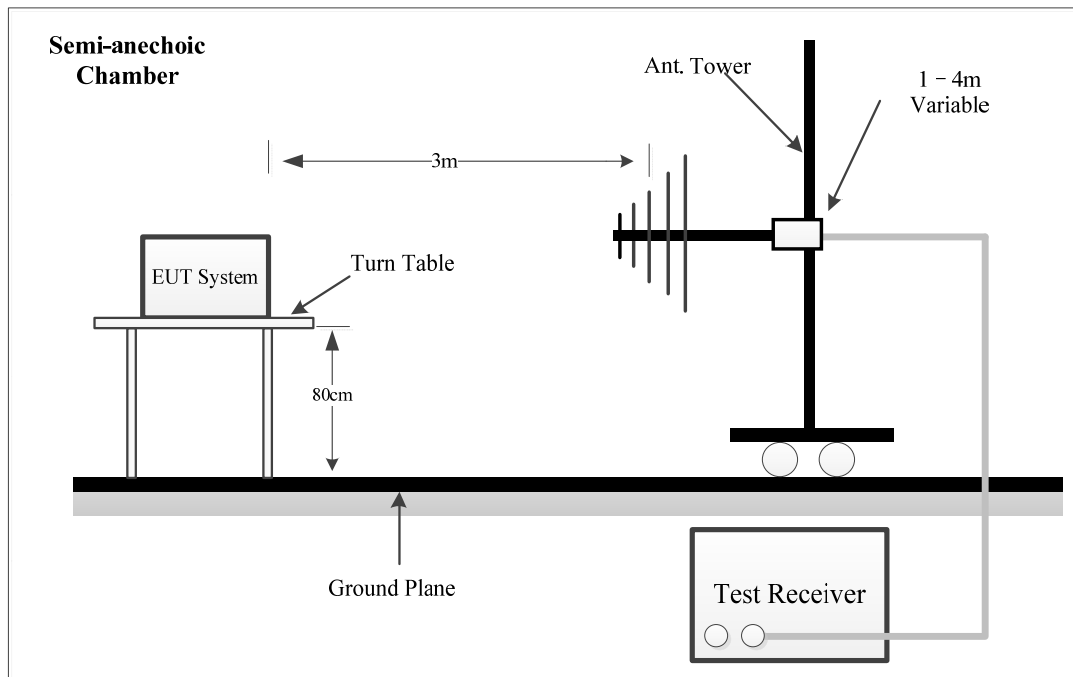
FCC§15.109

(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:

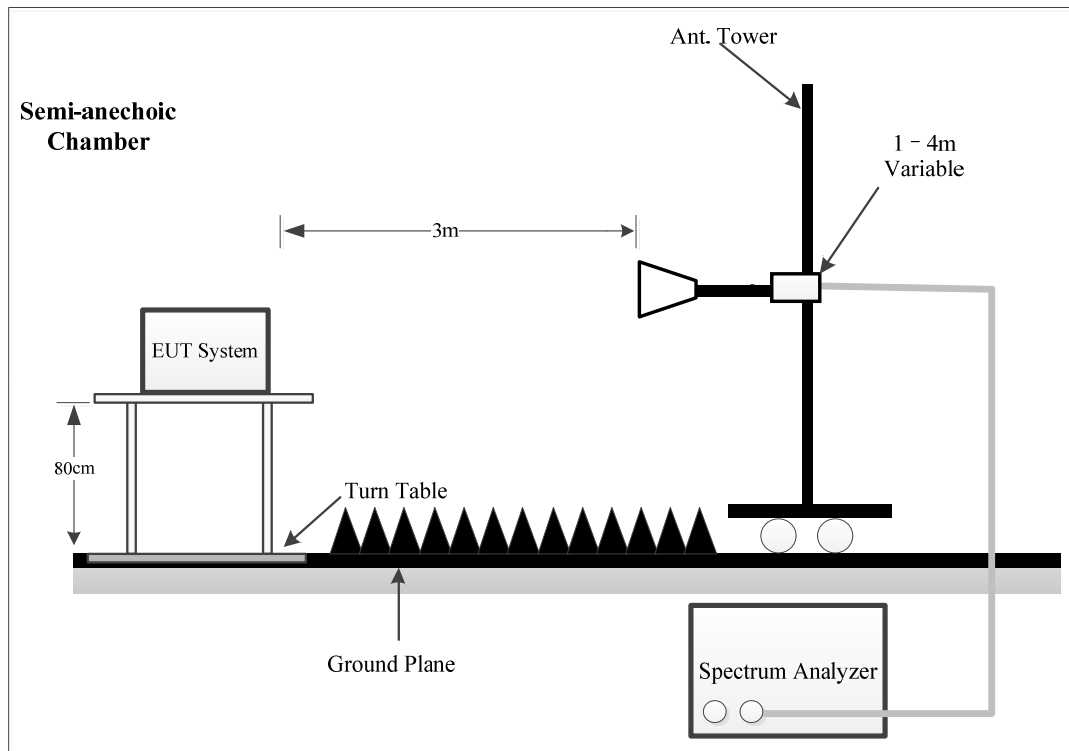
Frequency of emission (MHz)	Field strength (microvolts/meter)
30-88	100
88-216	150
216-960	200
Above 960	500

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 13 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	100 kHz	300 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:

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

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

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:

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

4.2.6 Test Data and Result

Serial Number:	2QMM-2	Test Date:	2024/8/30~2024/9/4
Test Site:	Chamber A, Chamber B	Test Mode:	Downloading
Tester:	Alan Xie, Leo Xiao	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	26.6~27.1	Relative Humidity: (%)	36~44	ATM Pressure: (kPa)	100.3~100.7
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Sunol Sciences	Hybrid Antenna	JB3	A060611-3	2024/1/12	2027/1/11
Wilson	Coaxial Attenuator	859936	F-08-EM014	2024/1/12	2027/1/11
Unknown	Coaxial Cable	C-NJNJ-50	C-0075-01	2024/7/1	2025/6/30
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-01	2024/7/1	2025/6/30
Unknown	Coaxial Cable	C-NJNJ-50	C-1400-01	2024/7/1	2025/6/30
Sonoma	Amplifier	310N	372193	2024/8/16	2025/8/15
R&S	EMI Test Receiver	ESR3	102453	2024/8/26	2025/8/25
Audix	Test Software	E3	191218 V9	N/A	N/A
ETS-Lindgren	Horn Antenna	3115	000 527 35	2023/9/7	2026/9/6
Xinhang Macrowave	Coaxial Cable	XH750A-N/J-SMA/J-10M	20231117004 #0001	2023/11/17	2024/11/16
AH	Preamplifier	PAM-0118P	469	2024/4/15	2025/4/15
R&S	Spectrum Analyzer	FSV40	101944	2023/10/18	2024/10/17

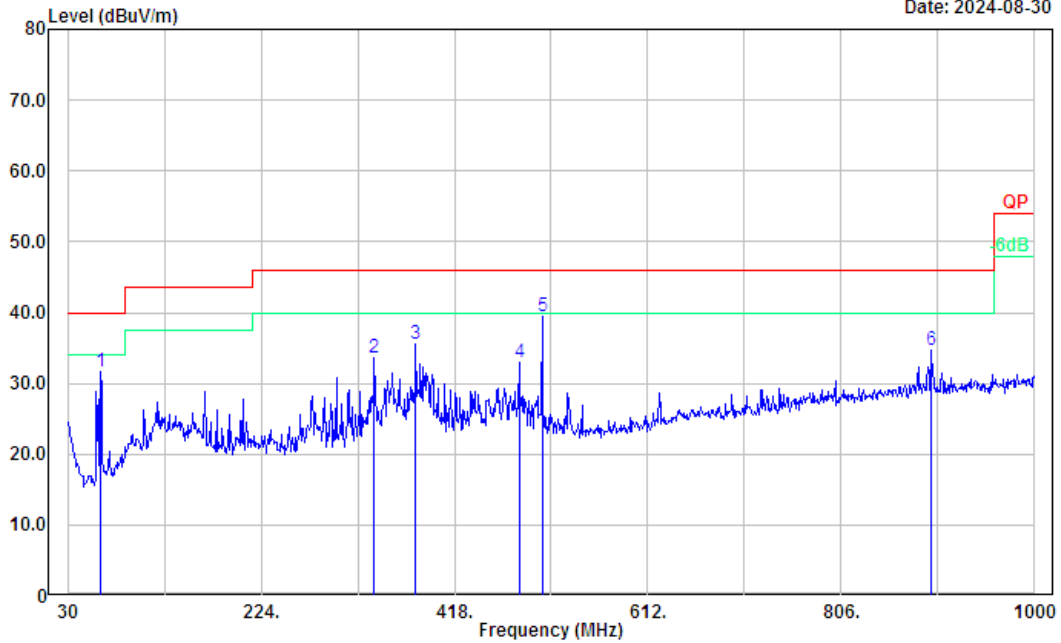
* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

1) 30MHz-1GHz:

Project No.: 2402W66736E-RF
 Polarization: Horizontal
 Test Mode: M1
 Note:

Serial No.: 2QMM-2
 Tester: Alan Xie

Date: 2024-08-30

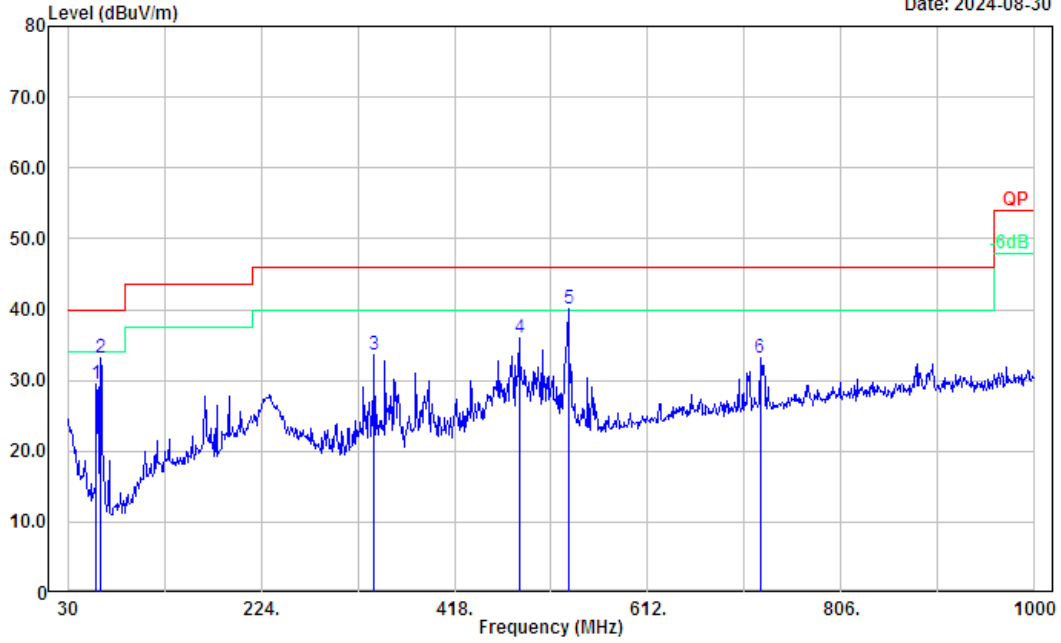


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	62.98	48.21	-16.54	31.67	40.00	8.33	Peak
2	337.49	41.90	-8.38	33.52	46.00	12.48	Peak
3	379.20	43.21	-7.62	35.59	46.00	10.41	Peak
4	482.99	37.49	-4.53	32.96	46.00	13.04	Peak
5	506.27	43.63	-4.15	39.48	46.00	6.52	Peak
6	896.21	31.55	3.07	34.62	46.00	11.38	Peak

Project No.: 2402W66736E-RF
 Polarization: Vertical
 Test Mode: M1
 Note:

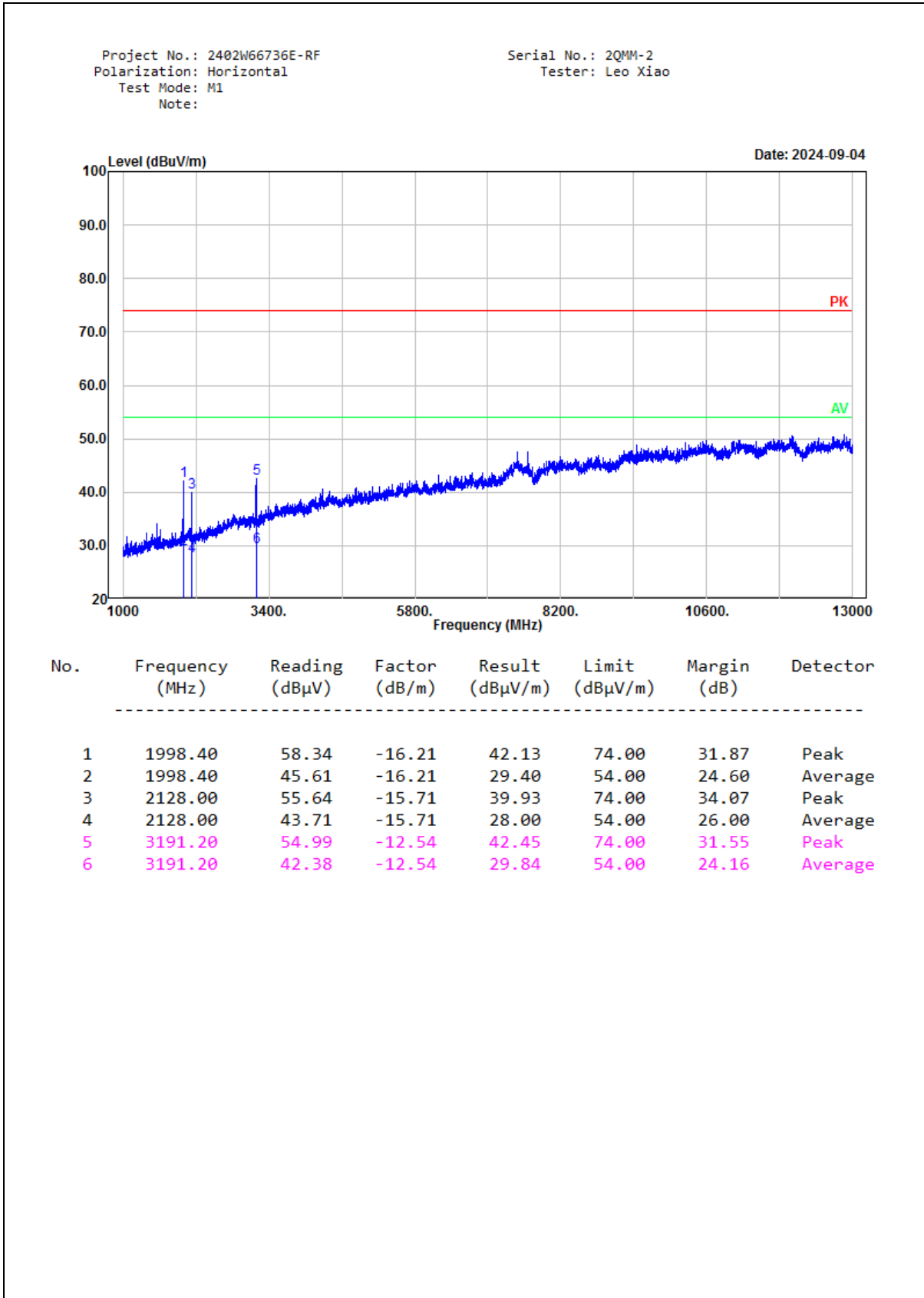
Serial No.: 2QMM-2
 Tester: Alan Xie

Date: 2024-08-30



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	59.10	46.41	-17.00	29.41	40.00	10.59	Peak
2	62.98	49.65	-16.54	33.11	40.00	6.89	Peak
3	337.49	41.98	-8.38	33.60	46.00	12.40	Peak
4	482.99	40.58	-4.53	36.05	46.00	9.95	Peak
5	532.46	43.89	-3.89	40.00	46.00	6.00	Peak
6	724.52	33.49	-0.34	33.15	46.00	12.85	Peak

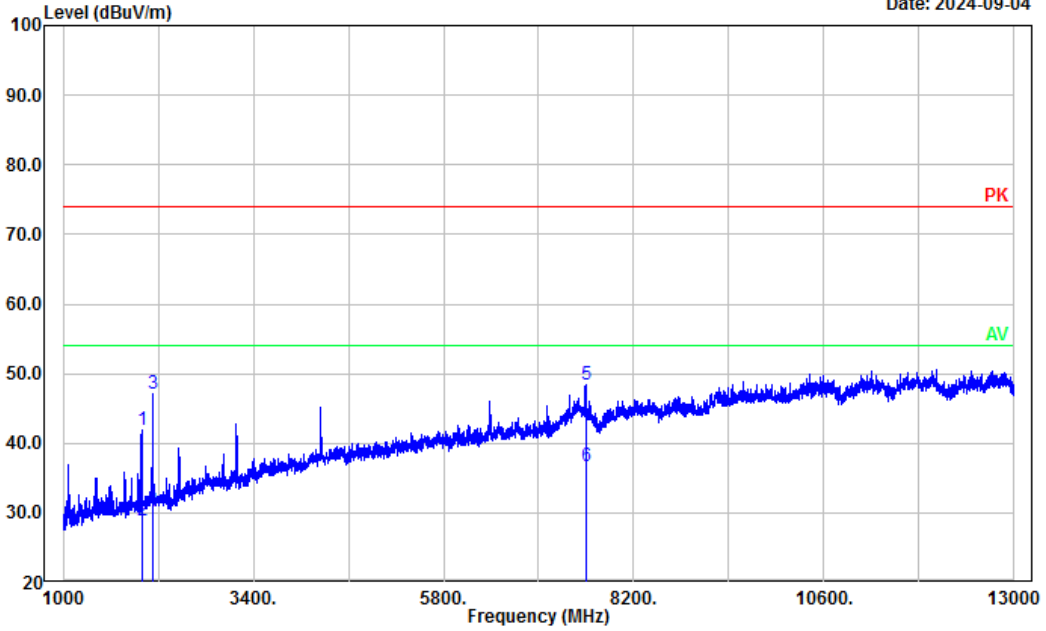
2) 1GHz-13GHz:



Project No.: 2402W66736E-RF
 Polarization: Vertical
 Test Mode: M1
 Note:

Serial No.: 2QMM-2
 Tester: Leo Xiao

Date: 2024-09-04



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	1998.40	58.00	-16.21	41.79	74.00	32.21	Peak
2	1998.40	45.14	-16.21	28.93	54.00	25.07	Average
3	2130.40	62.82	-15.70	47.12	74.00	26.88	Peak
4	2130.40	45.93	-15.70	30.23	54.00	23.77	Average
5	7602.40	52.71	-4.20	48.51	74.00	25.49	Peak
6	7602.40	40.89	-4.20	36.69	54.00	17.31	Average

EXHIBIT A - EUT PHOTOGRAPHS

Please refer to the attachment 2402W66736E-RF-EXP EUT EXTERNAL PHOTOGRAPHS and 2402W66736E-RF-INP EUT INTERNAL PHOTOGRAPHS.

EXHIBIT B - TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2402W66736E-RF-00C-TSP TEST SETUP PHOTOGRAPHS.

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