

TEST REPORT

Applicant: Guangzhou Shoujia Electronic Technology Co.,LTD

Address: Poly World Trade Center, Phase 2, 1000 Xingang East Rd,
Haizhu, Guangzhou, China

Product Name: MINI numeric keypad

FCC ID: 2BNI2-SMART34

Standard(s): 47 CFR Part 15, Subpart C(15.249)
ANSI C63.10-2013

Report Number: 2502P18773E-RF-00

Report Date: 2025/3/19

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

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	2502P18773E-RF-00	Original Report	2025/3/19

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

EUT Name:	MINI numeric keypad
EUT Model:	Smart34
Multiple Models:	Smart35, Smart36
Operation Frequency:	2408-2474 MHz
Modulation Type:	GFSK
Rated Input Voltage:	DC 3.7V from battery or DC5Vdc from USB
Serial Number:	AC line conducted emissions and Radiated Emissions: 2XJI-1
EUT Received Date:	2025/1/16
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
/	/	/	/

1.3 Antenna Information Detail ▲:

Antenna Manufacturer	Antenna Type	input impedance (Ohm)	Frequency Range	Antenna Gain
NEUTRON ENGINEERING INC.	PCB	50	2.4-2.5GHz	0.11dBi
The design of compliance with §15.203:				
<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

Standard(s)/Rule(s)	Description of Test	Result
§15.203	Antenna Requirement	Compliant
§15.207(a)	AC line conducted emissions	Compliant
15.205, §15.209, §15.249	Radiated Emissions	Compliant
§15.215 (c)	20 dB Bandwidth	Compliant
§1.1307 & §2.1093	RF Exposure	Compliant
Note 1: For AC line conducted emissions, the maximum output power mode and channel was tested. Note 2: For Radiated Spurious Emissions 9kHz~1GHz and 18~25GHz, the maximum output power mode and channel was tested.		

3. DESCRIPTION OF TEST CONFIGURATION

3.1 EUT Operation Condition

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2408	18	2442
2	2410	19	2444
3	2412
...
...	...	33	2472
17	2440	34	2474

Note:

1. Each channel from 2408MHz to 2474MHz steps by 2M.
2. The above frequencies in bold were performed the test.

3.2 EUT Exercise Software

The EUT was configured for testing in Engineering Mode, which was provided by the manufacturer. The EUT configuration as below:

EUT Exercise Software:	Engineering mode		
The software was provided by manufacturer. The maximum power was configured as below, that was provided by the manufacturer▲:			
Test Modes	Power Level Setting		
	Lowest Channel	Middle Channel	Highest Channel
SRD	Default	Default	Default

3.3 Support Equipment List and Details

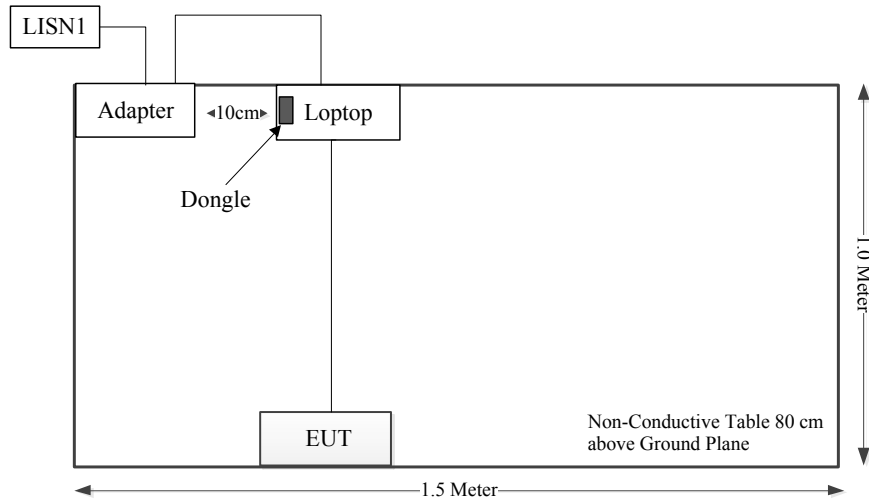
Manufacturer	Description	Model	Serial Number
Lenovo	Laptop	E480	PF-1QQYYP 19/06
Lenovo	Adapter	92P1109	Unknown
Shoujia	Dongle	Smart34	2XJI-4

3.4 Support Cable List and Details

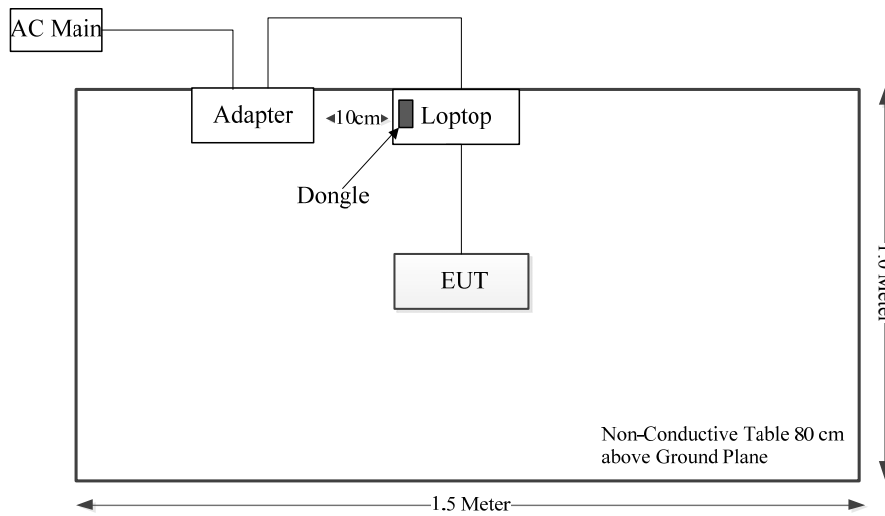
Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
USB Cable	no	no	0.8	Laptop	EUT

3.5 Block Diagram of Test Setup

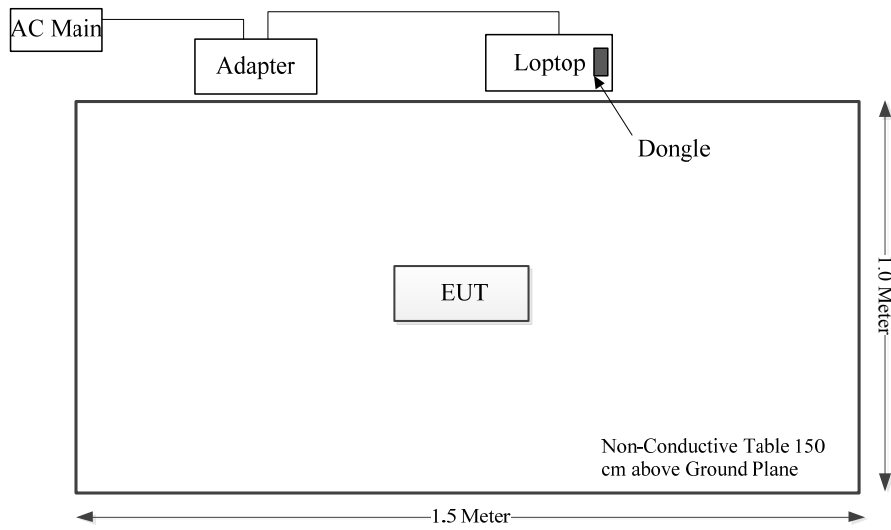
AC line conducted emissions:



Radiated Emissions:
Below 1G:



Above 1G:



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 %
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, 40~60G: 4.83dB, 60G~90G: 4.94dB, 90G-140G: 5.46dB, 140G-220G: 6.00dB, 220G-325G: 7.35dB
Temperature	±1℃
Humidity	±5%
DC and low frequency voltages	±0.4%
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 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 boundary between the frequency ranges.

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.

(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:

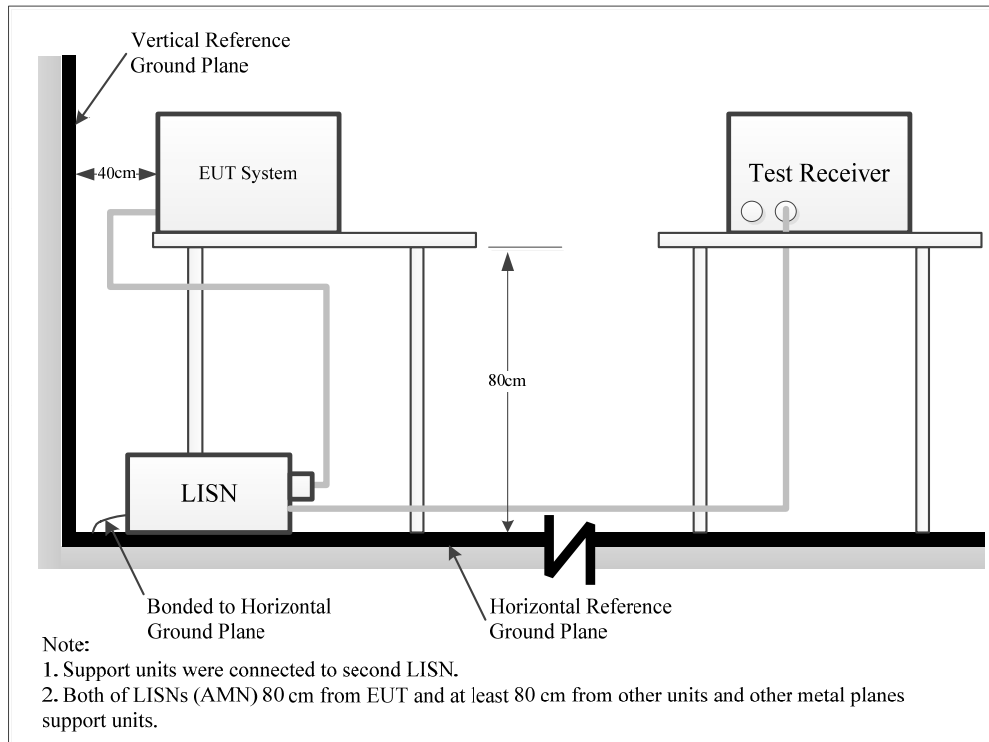
(1) For carrier current system containing their fundamental emission within the frequency band 535-1705 kHz and intended to be received using a standard AM broadcast receiver: no limit on conducted emissions.

(2) For all other carrier current systems: 1000 μ V within the frequency band 535-1705 kHz, as measured using a 50 μ 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 10cm.

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 30MHz.

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 Result

Serial Number:	2XJI-1	Test Date:	2025/1/22
Test Site:	CE	Test Mode:	Transmitting
Tester:	Yukin Qiu	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	20.7	Relative Humidity: (%)	55	ATM Pressure: (kPa)	101.2
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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).*

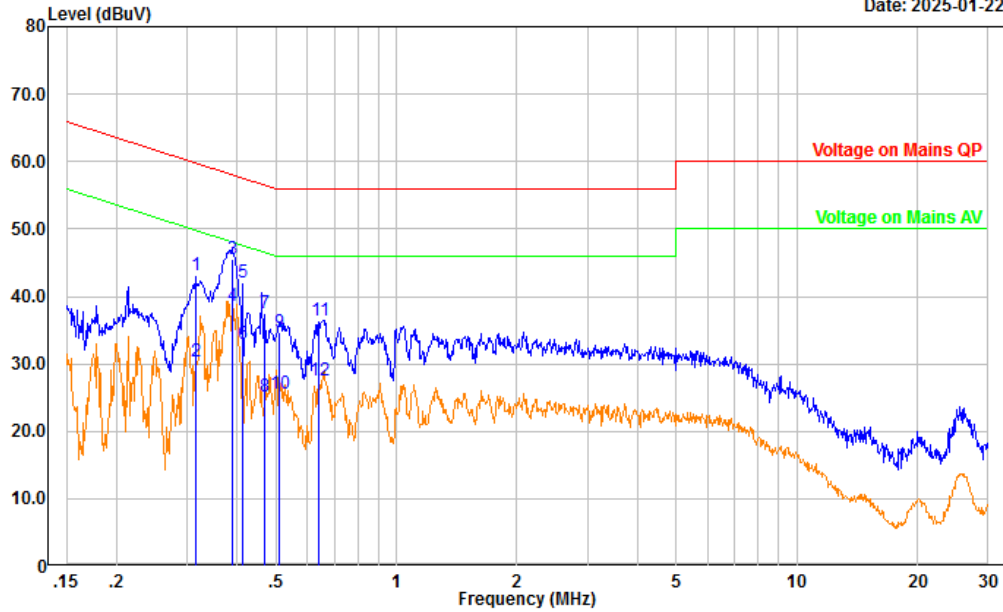
Test data:

High channel was tested.

Project No.: 2502P18773E-RF
Port: Line
Test Mode: Transmitting
IF B/W 9kHz PK/AV

Serial No.: 2XJI-1
Tester: Yukin Qiu
Note:

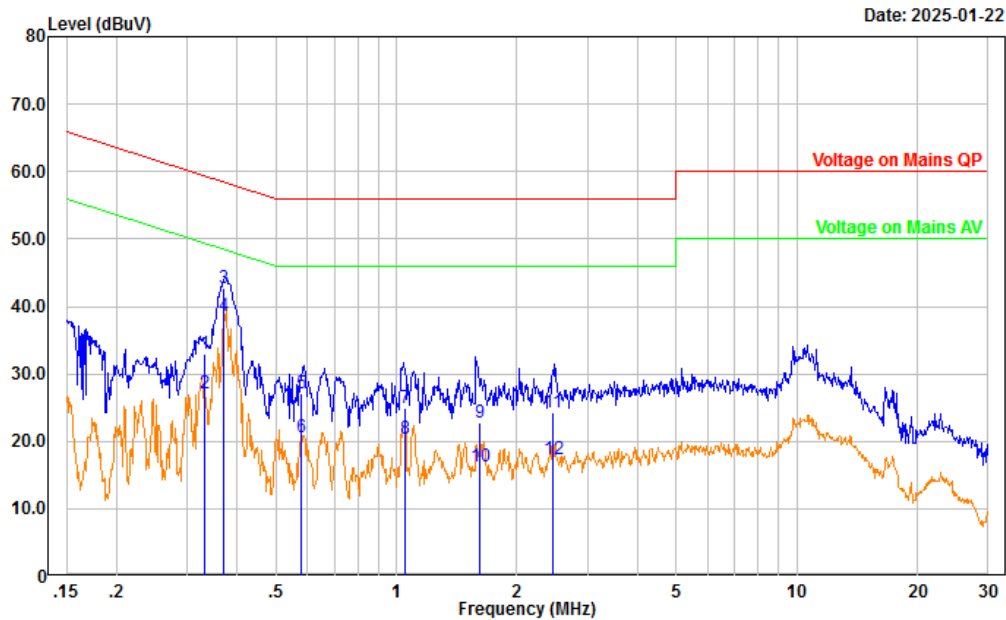
Date: 2025-01-22



No.	Frequency (MHz)	Reading (dBUV)	Factor (dB)	Result (dBUV)	Limit (dBUV)	Margin (dB)	Detector
1	0.316	32.28	10.82	43.10	59.80	16.70	QP
2	0.316	19.43	10.82	30.25	49.80	19.55	Average
3	0.388	34.70	10.84	45.54	58.10	12.56	QP
4	0.388	27.80	10.84	38.64	48.10	9.46	Average
5	0.412	31.16	10.84	42.00	57.62	15.62	QP
6	0.412	22.18	10.84	33.02	47.62	14.60	Average
7	0.467	26.59	10.84	37.43	56.57	19.14	QP
8	0.467	14.26	10.84	25.10	46.57	21.47	Average
9	0.509	23.76	10.84	34.60	56.00	21.40	QP
10	0.509	14.73	10.84	25.57	46.00	20.43	Average
11	0.641	25.56	10.84	36.40	56.00	19.60	QP
12	0.641	16.77	10.84	27.61	46.00	18.39	Average

Project No.: 2502P18773E-RF
Port: neutral
Test Mode: Transmitting
IF B/W 9kHz PK/AV

Serial No.: 2XJI-1
Tester: Yukin Qiu
Note:



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Detector
1	0.331	22.12	10.79	32.91	59.43	26.52	QP
2	0.331	16.24	10.79	27.03	49.43	22.40	Average
3	0.371	31.97	10.77	42.74	58.47	15.73	QP
4	0.371	27.82	10.77	38.59	48.47	9.88	Average
5	0.577	16.29	10.72	27.01	56.00	28.99	QP
6	0.577	9.95	10.72	20.67	46.00	25.33	Average
7	1.052	14.14	10.86	25.00	56.00	31.00	QP
8	1.052	9.52	10.86	20.38	46.00	25.62	Average
9	1.620	11.90	10.89	22.79	56.00	33.21	QP
10	1.620	5.41	10.89	16.30	46.00	29.70	Average
11	2.454	13.30	10.91	24.21	56.00	31.79	QP
12	2.454	6.46	10.91	17.37	46.00	28.63	Average

4.2 Radiated Emissions

4.2.1 Applicable Standard

As per FCC§15.249 (a), except as provided in paragraph (b) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

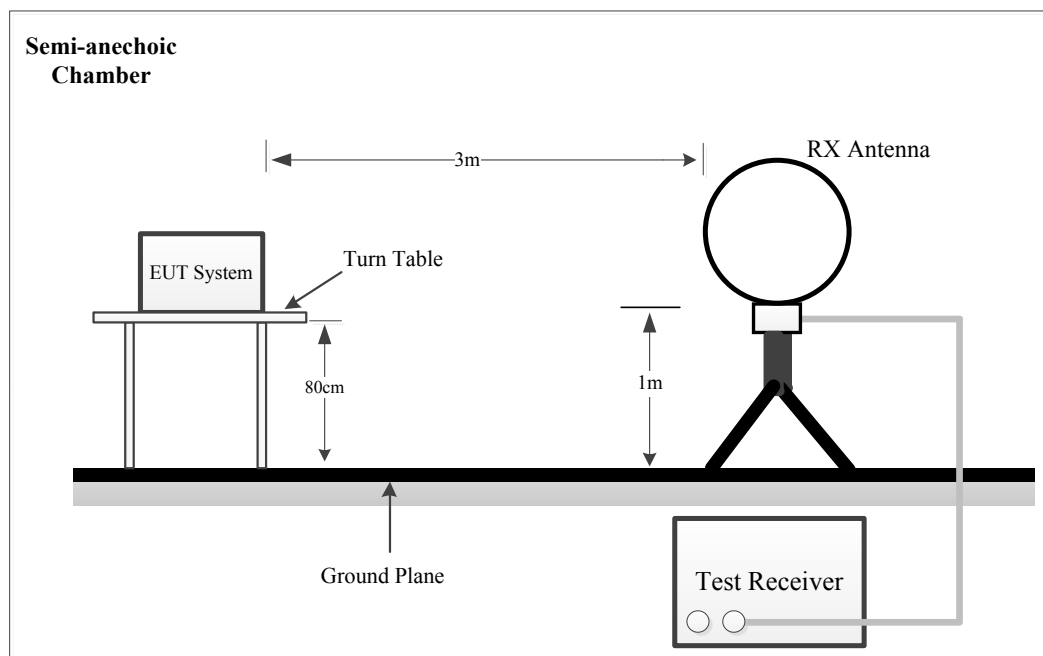
Fundamental frequency	Field strength of fundamental (millivolts/meter)	Field strength of harmonics (microvolts/meter)
902–928 MHz	50	500
2400–2483.5 MHz	50	500
5725–5875 MHz	50	500
24.0–24.25 GHz	250	2500

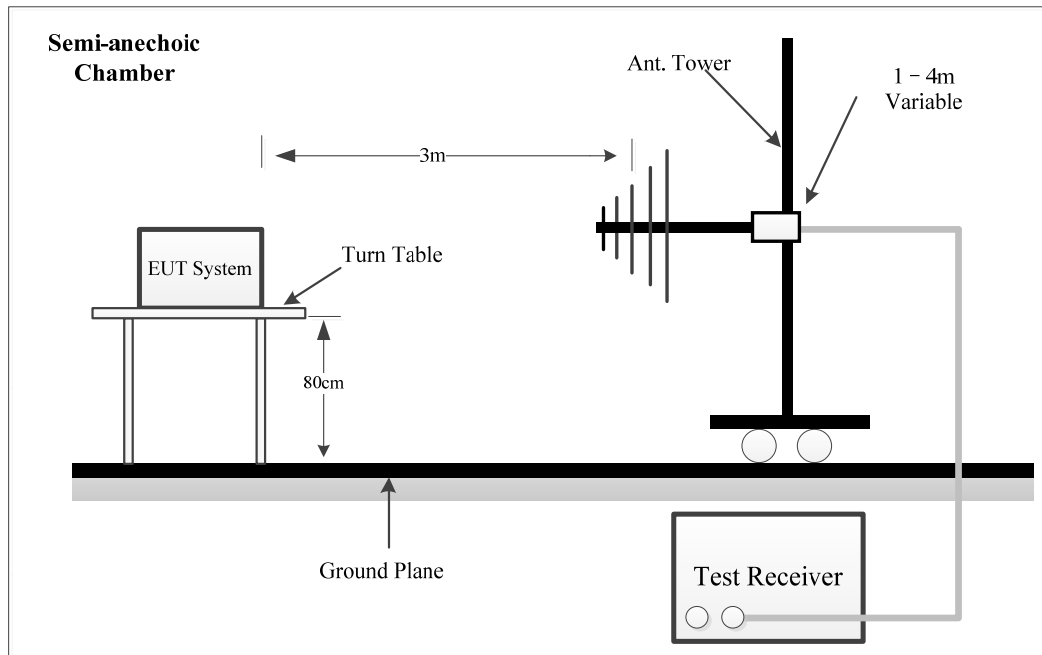
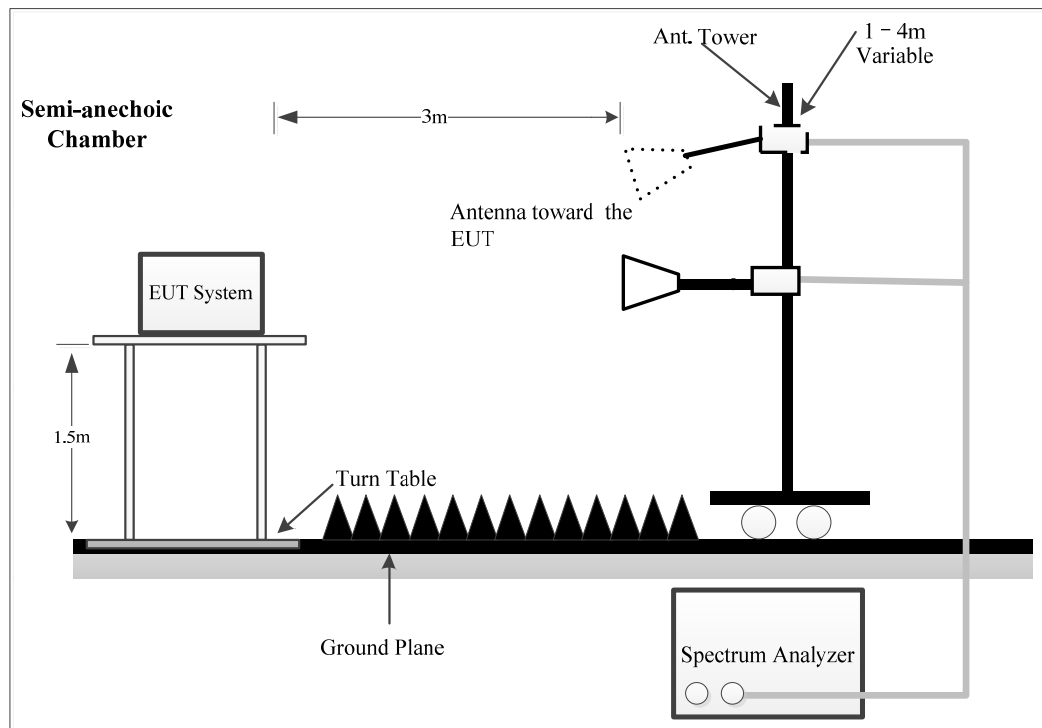
As per FCC§15.249 (c), Field strength limits are specified at a distance of 3 meters.

(d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

4.2.2 EUT Setup

9kHz~30MHz:



30MHz-1GHz:**1GHz-25 GHz:**

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.

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

The radiated emission test was performed in the 3 meters chamber, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209/15.205, FCC 15.249 limits.

4.2.3 EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 9 kHz to 25 GHz.

9kHz-1000MHz:

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

Above 1GHz:

Pre-scan:

Frequency Range	Measurement	RBW	Video B/W	Detector
Above 1 GHz	Peak	1MHz	3 MHz	PK
	AV	1MHz	5kHz	PK

Final measurement for emission identified during the pre-scan:

Frequency Range	Measurement	RBW	Video B/W	Detector
Above 1 GHz	Peak	1MHz	3 MHz	PK
	AV	1MHz	10 Hz	PK

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 required in Quasi-peak measurement for frequency range of 9 kHz-1 GHz except 9-90 kHz, 110-490 kHz, employing an average measurement, peak and Average measurement for frequencies above 1 GHz.

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.

All emissions under the average limit and under the noise floor have not recorded in the report.

4.2.5 Corrected Amplitude & 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 Result

Serial Number:	2XJI-1	Test Date:	Below 1GHz: 2025/2/14 Above 1GHz: 2025/2/21
Test Site:	Chamber B, Chamber A	Test Mode:	Transmitting
Tester:	Bill Yang, Jayce Wang	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	21.5~23.3	Relative Humidity: (%)	49~51	ATM Pressure: (kPa)	101.2~101.6
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
9kHz~1000MHz					
EMCO	Passive Loop Antenna	6512	9706-1206	2023/10/25	2026/10/24
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	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
Above 1GHz					
ETS-Lindgren	Horn Antenna	3115	000 527 35	2023/9/7	2026/9/6
Ducommun Technologies	Horn Antenna	ARH-4223-02	1007726-02 1304	2023/2/22	2026/2/21
Xinhang Macrowave	Coaxial Cable	XH750A-N/J-SMA/J-10M	20231117004 #0001	2024/11/17	2025/11/16
Xinhang Macrowave	Coaxial Cable	XH360A-2.92/J-2.92/J-6M-A	20231208001 #0001	2024/12/9	2025/12/8
AH	Preamplifier	PAM-0118P	469	2024/4/15	2025/4/14
AH	Preamplifier	PAM-1840VH	191	2024/9/5	2025/9/4
R&S	Spectrum Analyzer	FSV40	101944	2024/9/6	2025/9/5
Audix	Test Software	E3	191218 V9	N/A	N/A
Decentest	Multiplex Switch Test Control Set & Filter Switch Unit	DT7220SCU & DT7220FCU	DC79902 & DC79905	2024/8/27	2025/8/26

* 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 table and plots.

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

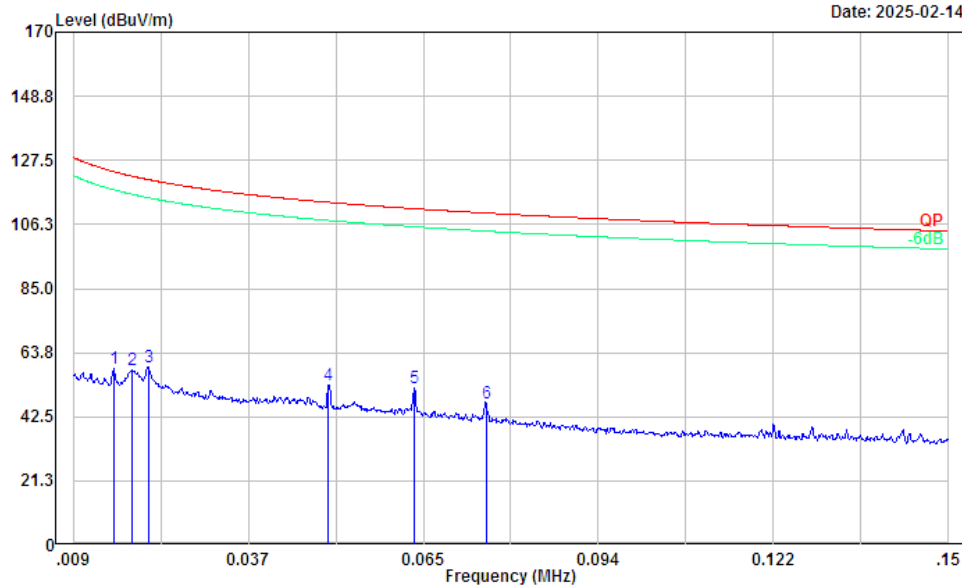
1) 9kHz~30MHz(High channel was tested):

Three antenna orientations (parallel, perpendicular, and ground-parallel) was measured, the worst orientations was below:

Project No.: 2502P18773E-RF
Polarization: Parallel
Test Mode: Transmitting
Note: RBW:300Hz,VBW:1kHz

Serial No.: 2XJI-1
Tester: Jayce Wang

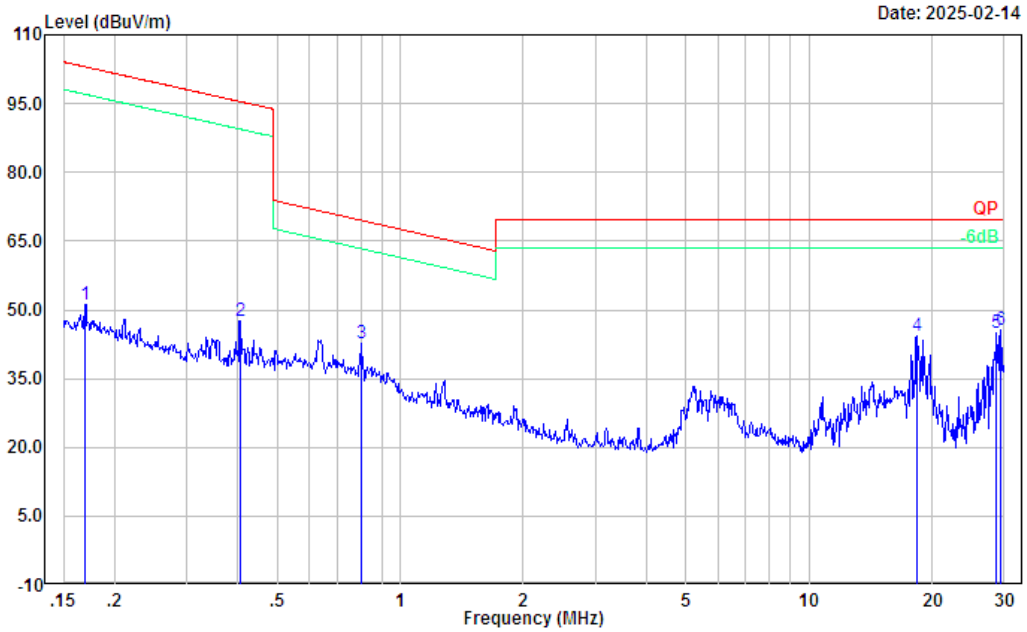
Date: 2025-02-14



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.015	8.24	50.15	58.39	123.81	65.42	Peak
2	0.018	8.84	49.40	58.24	122.29	64.05	Peak
3	0.021	10.13	48.75	58.88	121.11	62.23	Peak
4	0.050	9.64	43.41	53.05	113.60	60.55	Peak
5	0.064	10.97	41.15	52.12	111.48	59.36	Peak
6	0.076	8.00	39.17	47.17	110.04	62.87	Peak

Project No.: 2502P18773E-RF
Polarization: Parallel
Test Mode: Transmitting
Note: RBW:10kHz,VBW:30kHz

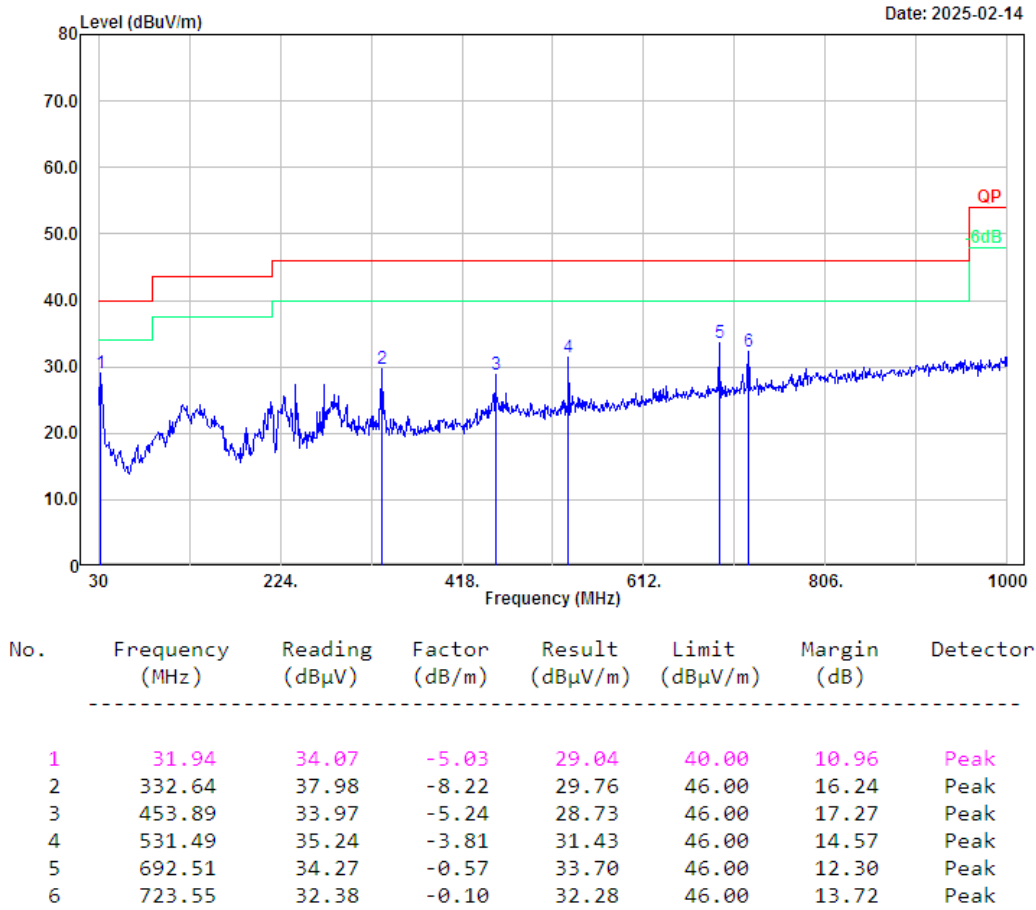
Serial No.: 2XJI-1
Tester: Jayce Wang



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.169	20.32	30.98	51.30	103.02	51.72	Peak
2	0.406	24.71	22.89	47.60	95.43	47.83	Peak
3	0.804	23.24	19.60	42.84	69.40	26.56	Peak
4	18.328	40.80	3.66	44.46	69.54	25.08	Peak
5	28.755	41.62	3.47	45.09	69.54	24.45	Peak
6	29.371	42.34	3.39	45.73	69.54	23.81	Peak

2) 30MHz-1GHz(High channel was tested):

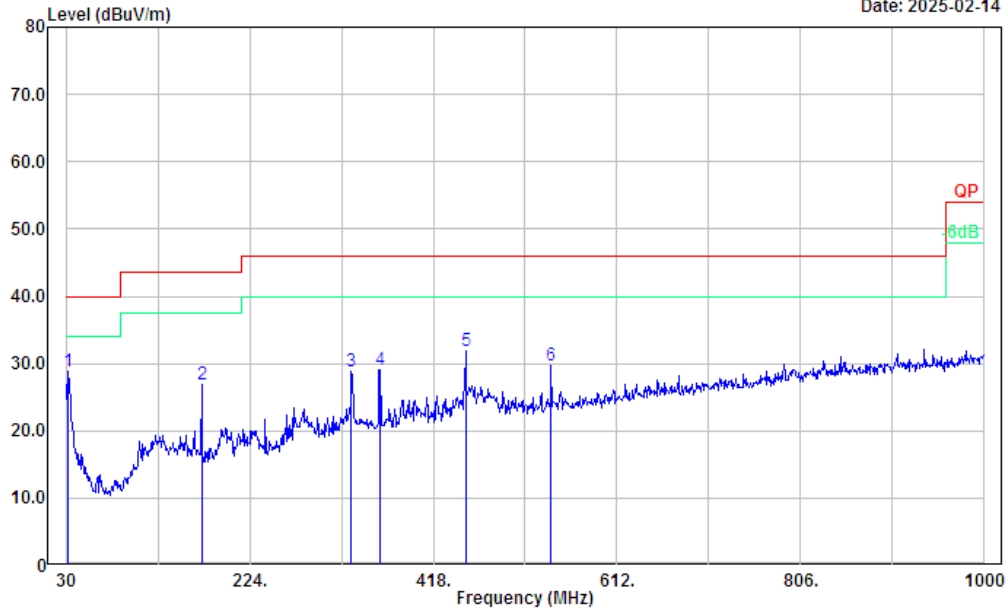
Project No.: 2502P18773E-RF Serial No.: 2XJI-1
Polarization: Horizontal Tester: Jayce Wang
Test Mode: Transmitting
: RBW:100kHz,VBW:300kHz



Project No.: 2502P18773E-RF
Polarization: Vertical
Test Mode: Transmitting
: RBW:100kHz,VBW:300kHz

Serial No.: 2XJI-1
Tester: Jayce Wang

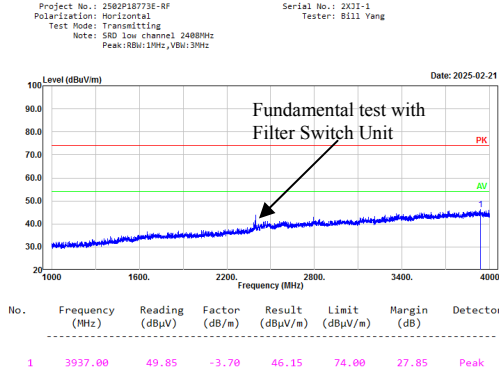
Date: 2025-02-14



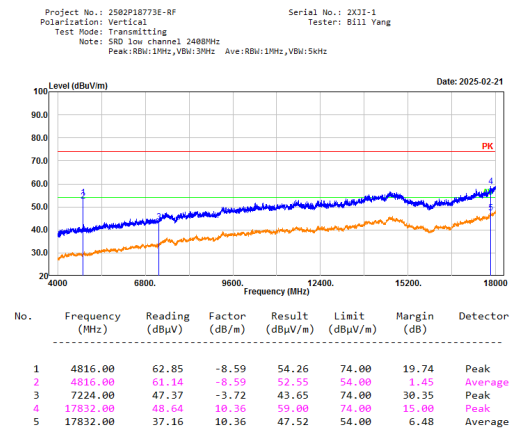
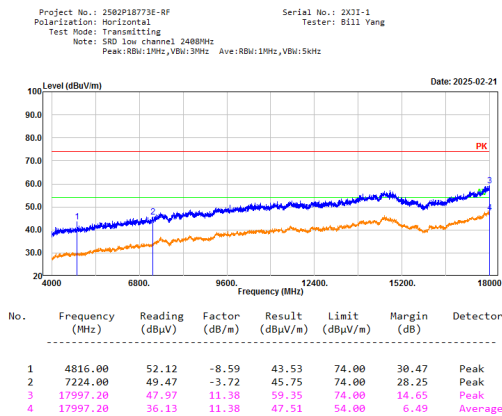
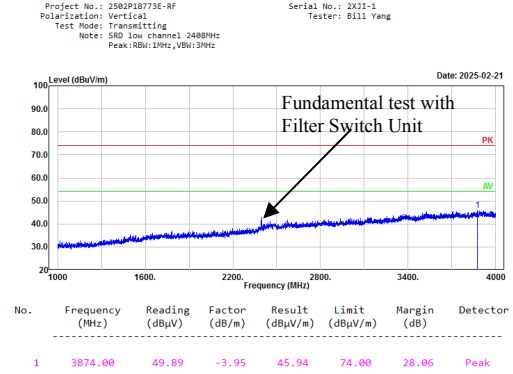
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	32.91	34.52	-5.69	28.83	40.00	11.17	Peak
2	173.56	38.89	-11.91	26.98	43.50	16.52	Peak
3	331.67	37.09	-8.24	28.85	46.00	17.15	Peak
4	361.74	36.87	-7.73	29.14	46.00	16.86	Peak
5	451.95	37.13	-5.29	31.84	46.00	14.16	Peak
6	542.16	33.41	-3.64	29.77	46.00	16.23	Peak

3)
1-18GHz:

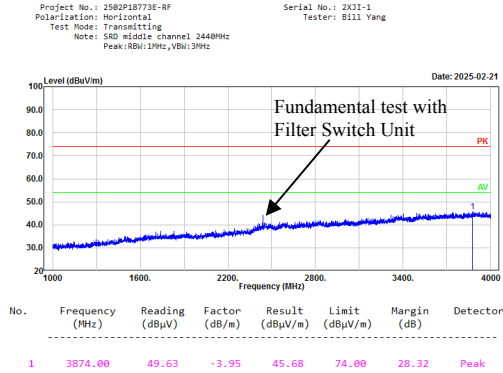
Low Channel, Horizontal



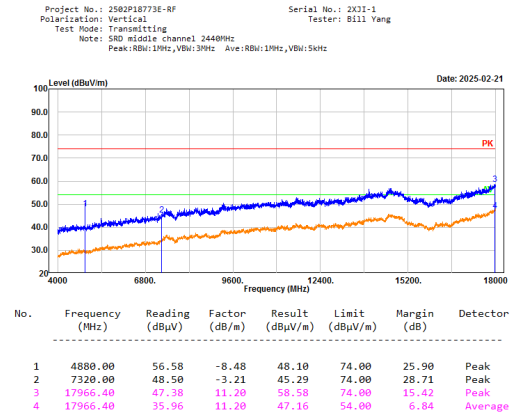
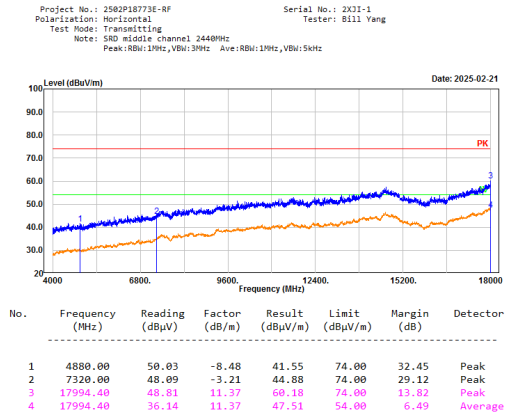
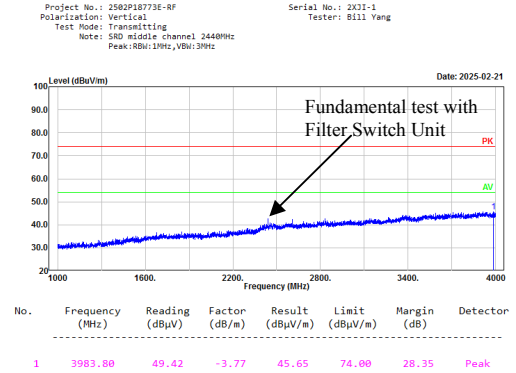
Low Channel, Vertical



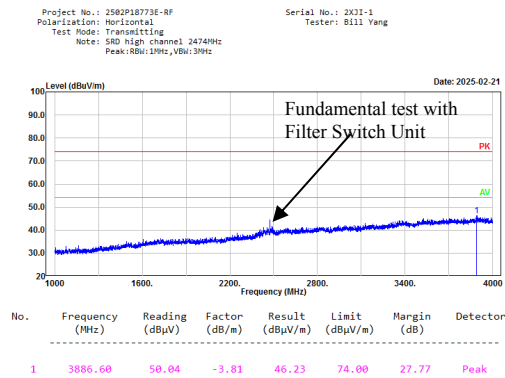
Middle Channel, Horizontal



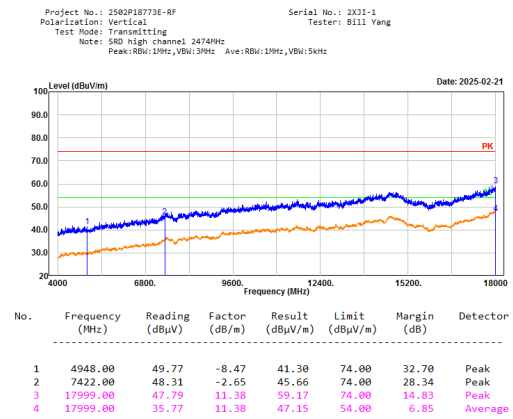
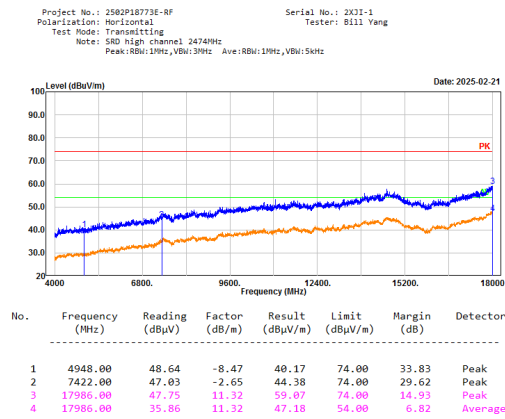
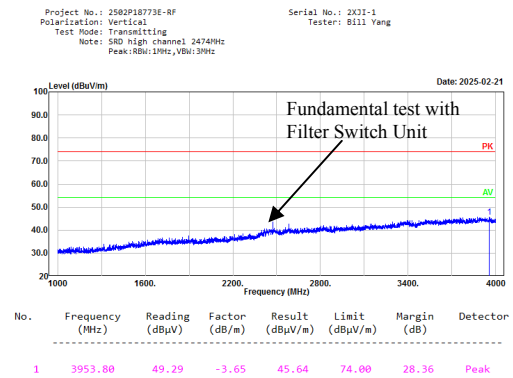
Middle Channel, Vertical



High Channel, Horizontal

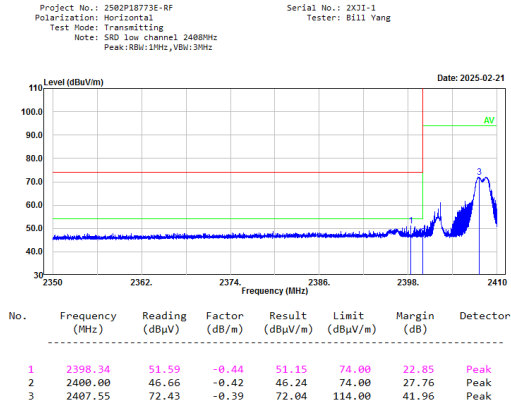


High Channel, Vertical

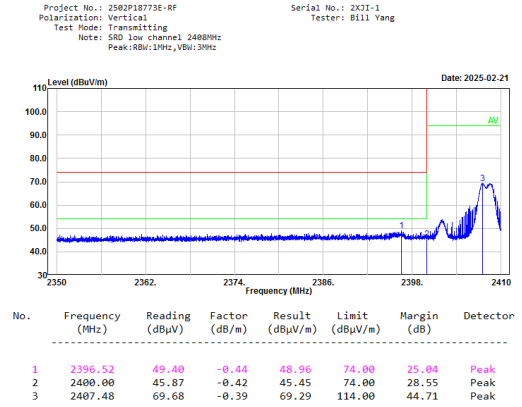


Fundamental strength and Bandedge:

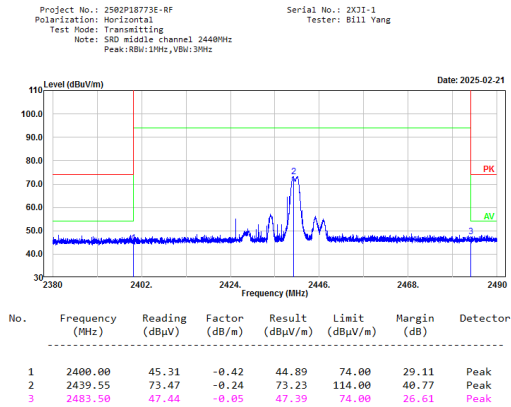
Low channel, Horizontal



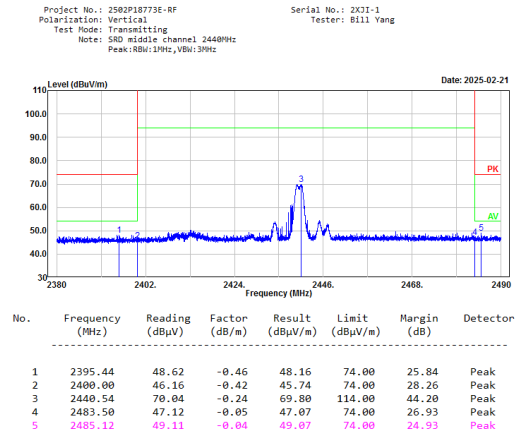
Low channel, Vertical

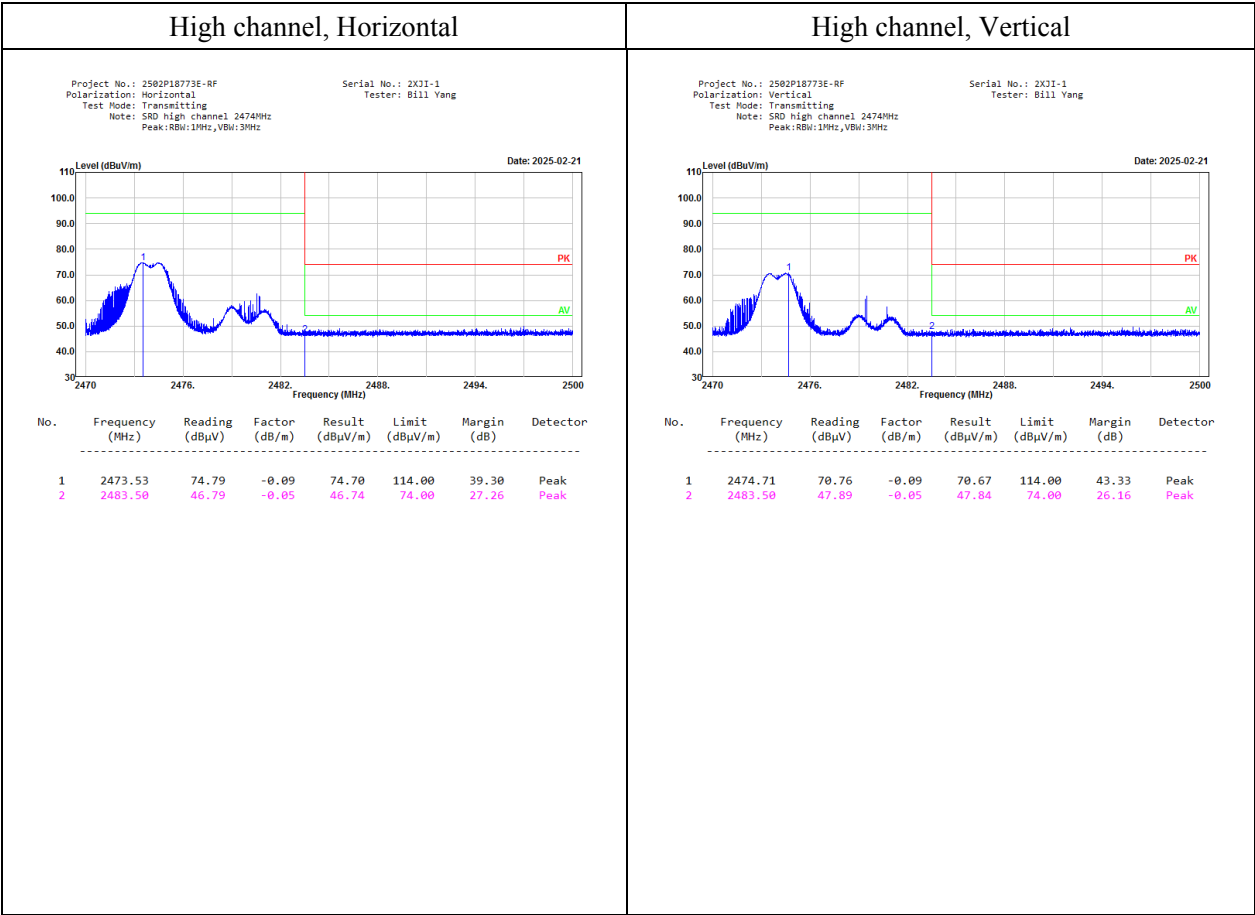


Middle channel, Horizontal



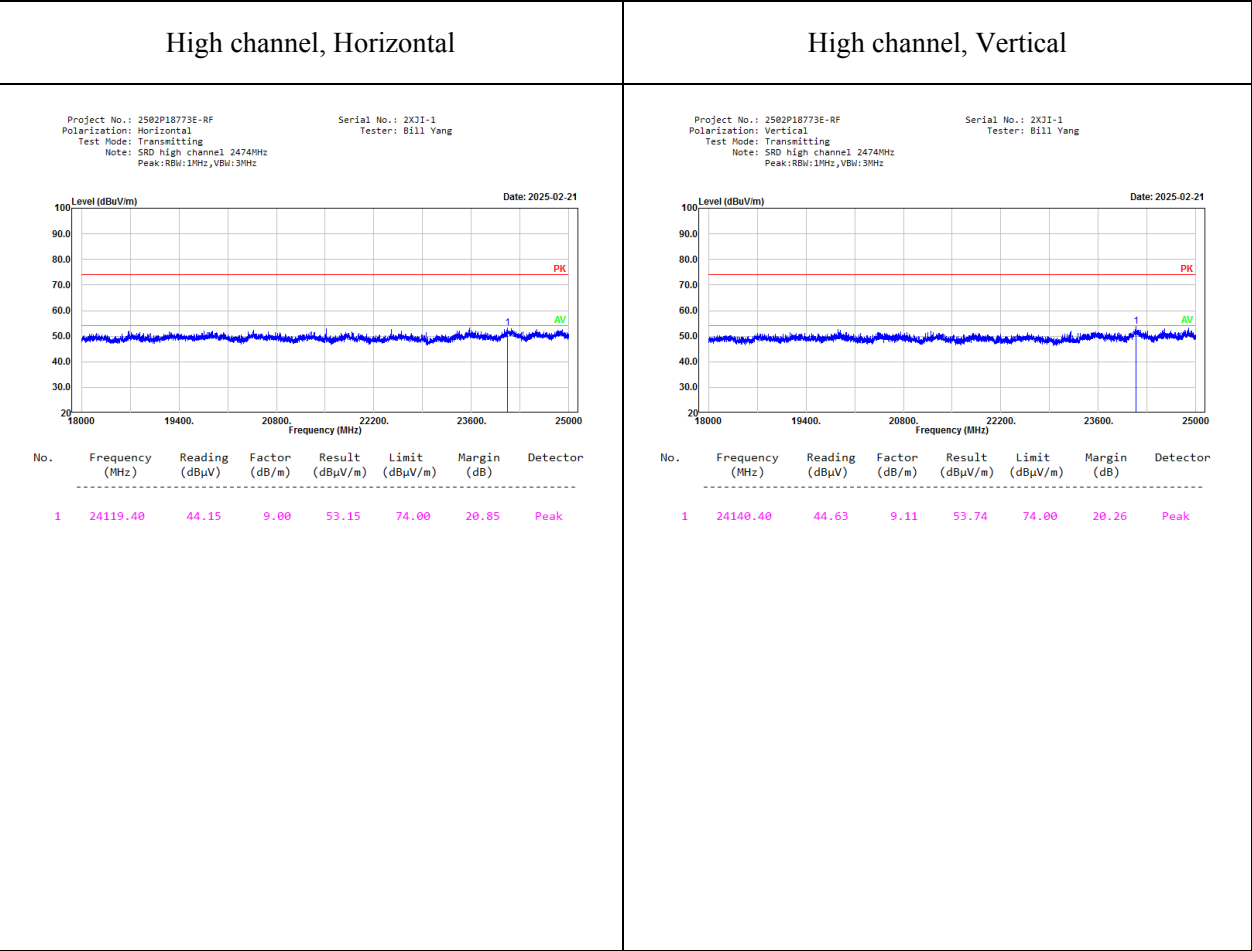
Middle channel, Vertical





18-25GHz:

No Emission was detected in the range 18-25GHz, test was performed on the mode and channel which with the maximum power.



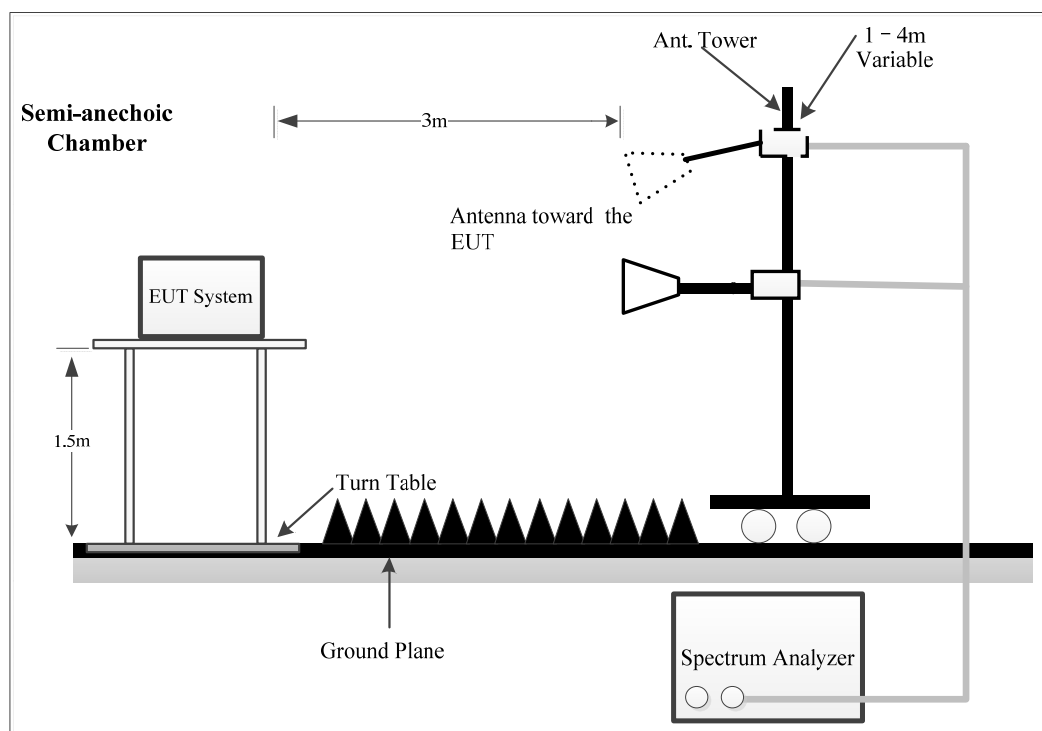
4.3 20 dB Emission Bandwidth

4.3.1 Applicable Standard

FCC §15.215

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

4.3.2 EUT Setup



4.3.3 Test Procedure

According to ANSI C63.10-2013 Section 6.9.2

- The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, unless otherwise specified by the applicable requirement.
- Set the video bandwidth (VBW) $\geq 3 \times \text{RBW}$.
- Detector = Peak.
- Trace mode = max hold.
- Sweep = auto couple.
- Allow the trace to stabilize.
- Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 20 dB relative to the maximum level measured in the fundamental emission.

4.3.4 Test Result

Serial No.:	2XJI-1	Test Date:	2025/3/19
Test Site:	Chamber B	Test Mode:	Transmitting
Tester:	Bill Yang	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	20.8	Relative Humidity: (%)	39	ATM Pressure: (kPa)	102
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
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	2024/11/17	2025/11/16
AH	Preamplifier	PAM-0118P	469	2024/4/15	2025/4/14
R&S	Spectrum Analyzer	FSV40	101944	2024/9/6	2025/9/5
Decentest	Multiplex Switch Test Control Set & Filter Switch Unit	DT7220SCU & DT7220FCU	DC79902 & DC79905	2024/8/27	2025/8/26

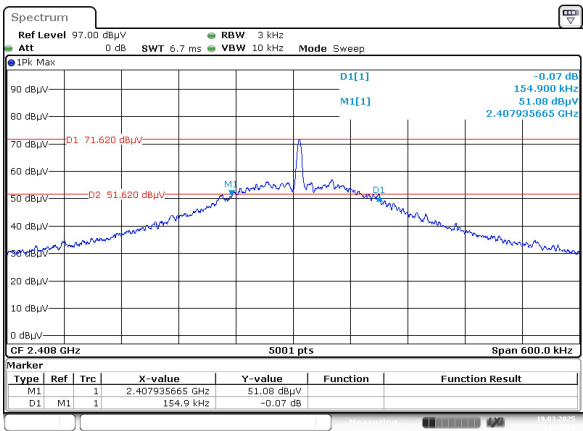
* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data:

Test Channel	Test Frequency (MHz)	20 dB Bandwidth (MHz)
Lowest	2408	0.155
Middle	2440	0.145
Highest	2474	0.128

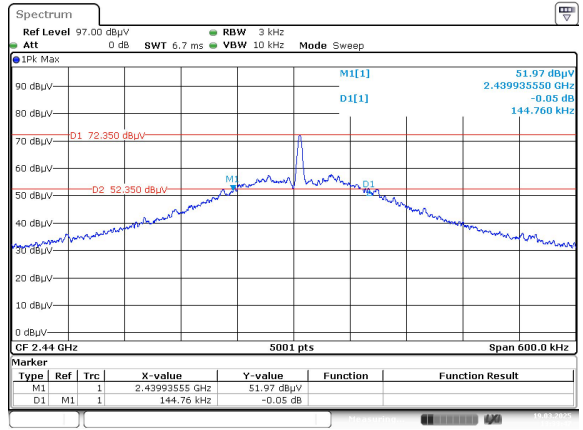
Note: the 20 dB bandwidth of the emission is contained within the operation frequency band. Please refer to the below plots.

Lowest channel



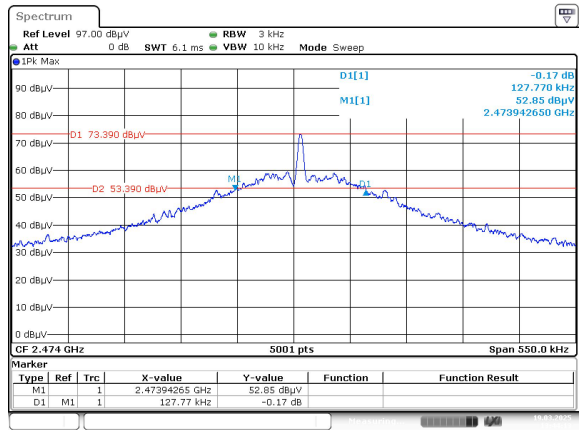
ProjectNo.:2502P18773E-RF Tester:Bill Yang
Date: 19.MAR.2025 13:31:20

Middle channel



ProjectNo.:2502P18773E-RF Tester:Bill Yang
Date: 19.MAR.2025 13:33:48

Highest channel



ProjectNo.:2502P18773E-RF Tester:Bill Yang
Date: 19.MAR.2025 13:44:12

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

Compliant. Please refer to the Antenna Information detail in Section 1.3.

EXHIBIT A - EUT PHOTOGRAPHS

Please refer to the attachment 2502P18773E-RF-EXP EUT EXTERNAL PHOTOGRAPHS and 2502P18773E-RF-INP EUT INTERNAL PHOTOGRAPHS

EXHIBIT B - TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2502P18773E-RF-00-TSP TEST SETUP PHOTOGRAPHS.

EXHIBIT C - RF EXPOSURE EVALUATION

1-mW Test Exemption:

Applicable Standard

§1.1307(b)(3)(i) For single RF sources (*i.e.*, any single fixed RF source, mobile device, or portable device, as defined in paragraph (b)(2) of this section): A single RF source is exempt if:

(A) The available maximum time-averaged power is no more than 1 mW, regardless of separation distance. This exemption may not be used in conjunction with other exemption criteria other than those in paragraph (b)(3)(ii)(A) of this section. Medical implant devices may only use this exemption and that in paragraph (b)(3)(ii)(A);

Measurement Result

Frequency (MHz)	Maximum EIRP		1-mW Test Exemption
	dBm	mW	
2408-2474	-20.5	0.01	Compliant

Note:

1. This device maximum E-Field level is 74.7 dB μ V/m at 3m, so the EIRP power is -20.5 dBm.
2. EIRP(dBm)=Field Strength of Fundamental(dBuV/m)-95.2

Result: Compliant. RF Exposure is exemption.

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