

TEST REPORT

Applicant: SHANTOU CHENGHAI DISTRICT DACHANG TOY
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INDUSTRIAL BUILDINGS OF MEIXING HARDWARE CO.,
Address: LTD., DONGGANG ROAD,FENGXIANG STREET,CHENGHAI
DISTRICT,SHANTOU CITY,GUANGDONG PROVINCE,China

Product Name: Remote control car

FCC ID: 2AWTC-DC301A

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

Report Number: 2402Z64779E-RF-00A

Report Date: 2024/12/26

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	2402Z64779E-RF-00A	Original Report	2024/12/26

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

EUT Name:	Remote control car
EUT Model:	DC301A
Multiple Models:	DC303A, DC302A, DC777A, DC305A
Operation Frequency:	2405-2475 MHz
Modulation Type:	GFSK
Rated Input Voltage:	DC 3V from 1.5V*2 battery
Serial Number:	2UJH-3
EUT Received Date:	2024/11/18
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
SHANTOU CHENGHAI DISTRICT DACHANG TOY TECHNOLOGY CO.,LTD	Wire	50	2.4-2.5GHz	0dBi
The design of compliance with §15.203:				
☒ Unit uses a permanently attached antenna.				
☐ Unit uses a unique coupling to the intentional radiator.				
☐ 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 Conduction Emissions	Not Applicable*
15.205, §15.209, §15.249	Radiated Emissions	Compliant
§15.215 (c)	20 dB Bandwidth	Compliant
Note 1: Not applicable for AC line conducted emissions, The device was powered by battery when operating. Note 2: For Radiated Spurious Emissions 9kHz~ 1GHz, the maximum output power mode and channel was tested.		

3. DESCRIPTION OF TEST CONFIGURATION

3.1 Operation Frequency Detail

Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2405	36	2441
1	2406	37	2442
...	...	...	...
34	2439	69	2474
35	2440	70	2475

Note: The above frequencies in bold were performed the test.

3.2 EUT Operation Condition

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
/	/	/	/

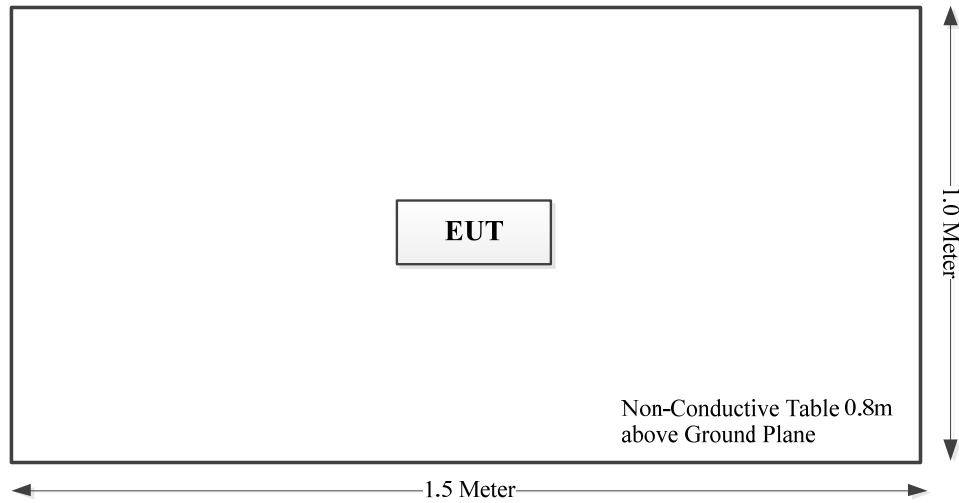
3.4 Support Cable List and Details

Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
/	/	/	/	/	/

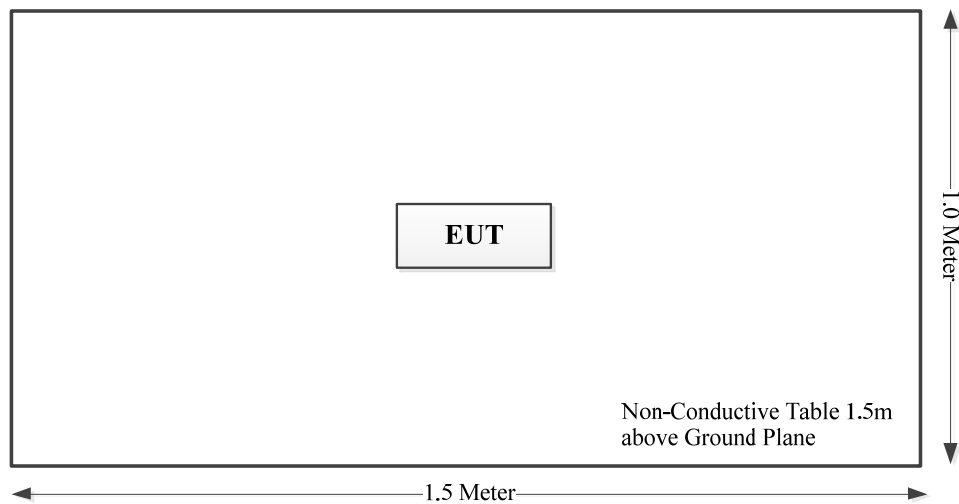
3.5 Block Diagram of Test Setup

Radiated Spurious Emissions:

Below 1GHz:



Above 1GHz:



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 °C
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

Not Applicable, the device was powered by battery.

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:

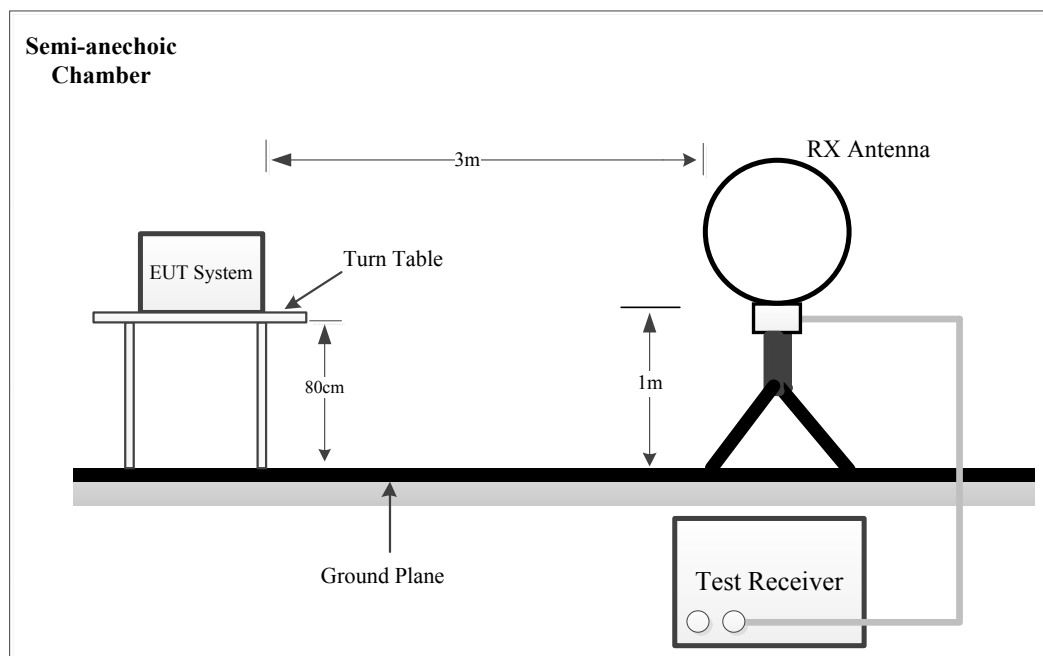
Fundamental frequency	Field strength of fundamental (millivolts/meter)	Field strength of harmonics (microvolts/meter)
902–928 MHz	50	500
2400–2483.5 MHz	50	500
5725–5875 MHz	50	500
24.0–24.25 GHz	250	2500

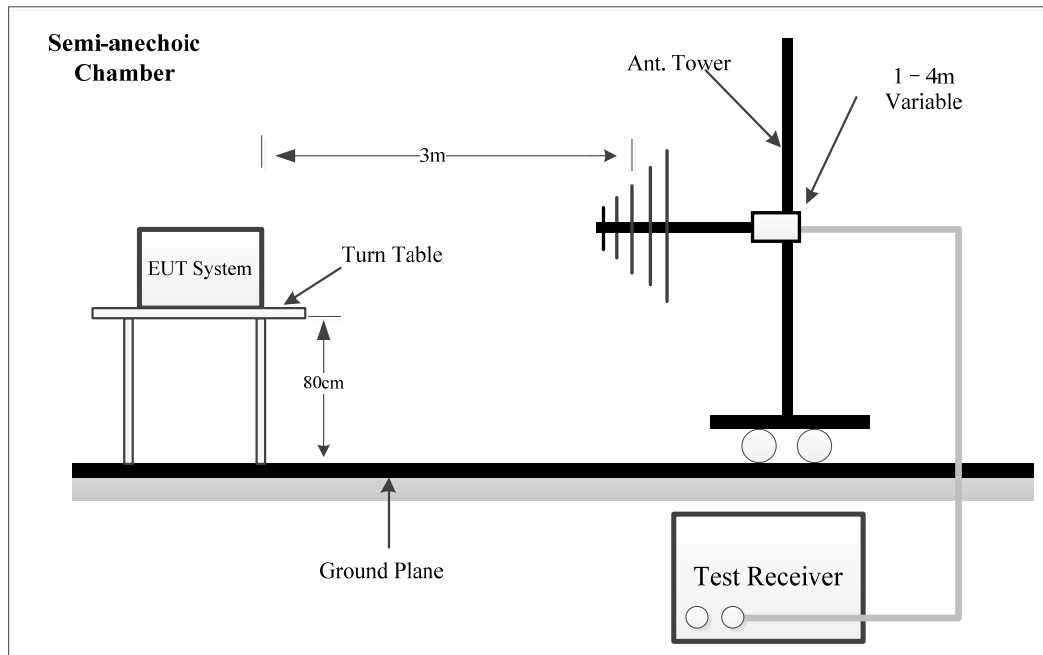
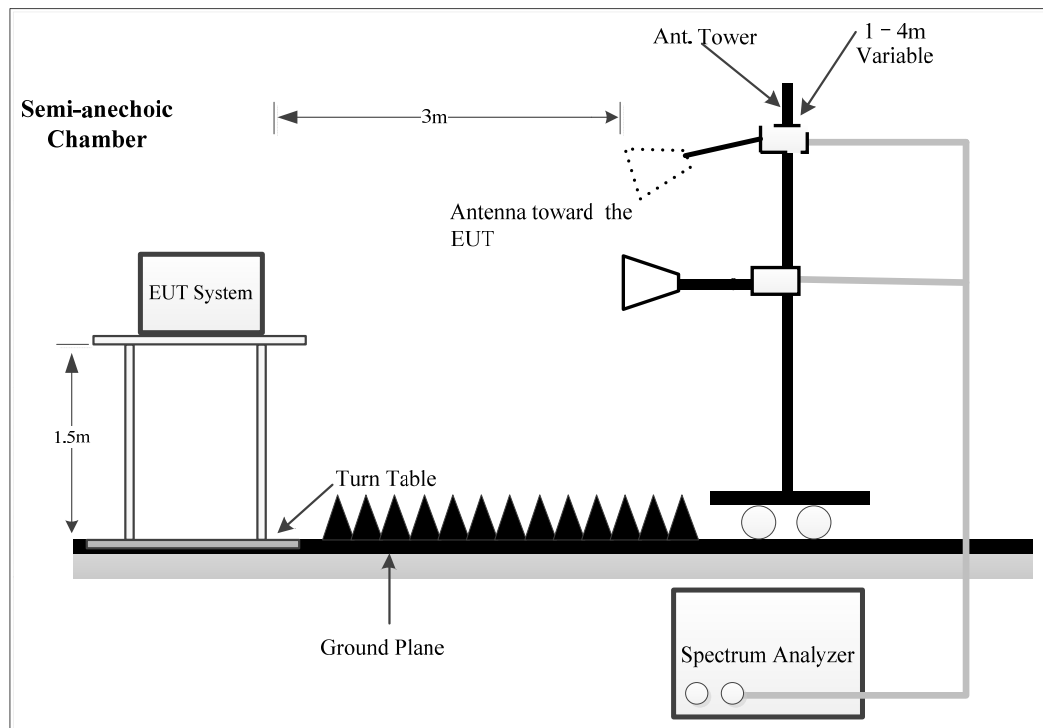
As per FCC§15.249 (c), Field strength limits are specified at a distance of 3 meters.

(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 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	200 Hz	1 kHz	200 Hz	QP/AV
150 kHz-30 MHz	QP/AV	9 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.

4.2.5 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Factor = Antenna Factor + Cable Loss - Amplifier Gain

Result = Reading + Factor

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:	2UJH-3	Test Date:	Below 1GHz: 2024/11/22 Above 1GHz: 2024/12/11-2024/12/26
Test Site:	Chamber10m, Chamber B	Test Mode:	Transmitting
Tester:	Leesin Xiang, Leo Xiao	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	22.8~23.8	Relative Humidity: (%)	47~55	ATM Pressure: (kPa)	101.8~102.3
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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	A060611-1	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
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	101589	2024/9/5	2025/9/4
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.

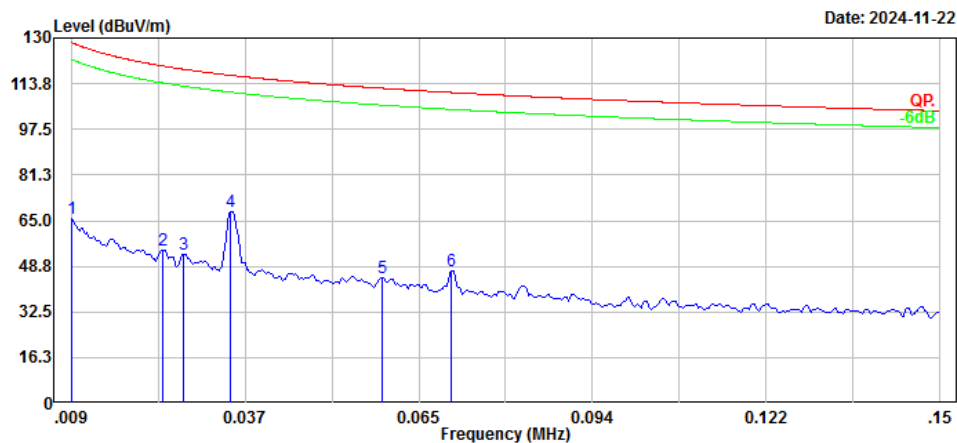
After pre-scan in the X, Y and Z axes of orientation, the worst case is below:

1) 9kHz~30MHz(Low channel was tested)

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

Project No.: 2402Z64779E-RF
Polarization: Parallel
Test Mode: Transmitting
Note:

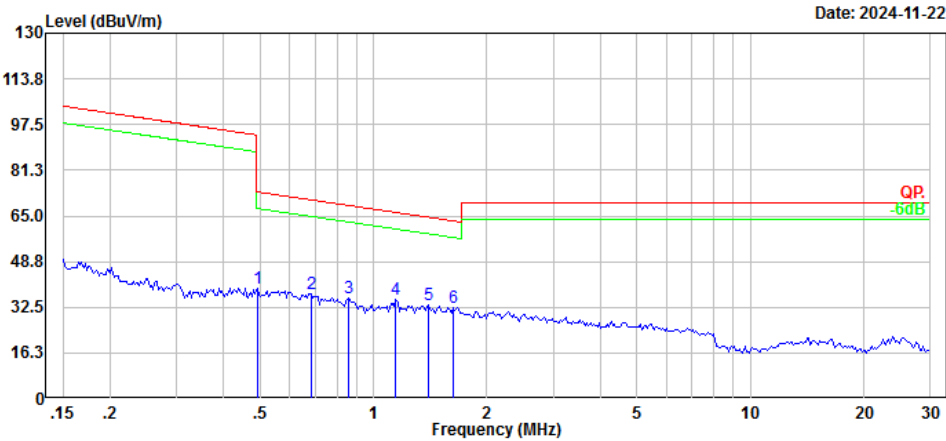
Serial No.: 2UJH-3
Tester: Leesin Xiang



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.009	12.29	53.24	65.53	128.52	62.99	Peak
2	0.024	5.60	49.05	54.65	120.02	65.37	Peak
3	0.027	4.78	48.21	52.99	118.87	65.88	Peak
4	0.035	21.40	46.67	68.07	116.74	48.67	Peak
5	0.059	2.33	42.43	44.76	112.12	67.36	Peak
6	0.071	6.44	40.46	46.90	110.61	63.71	Peak

Project No.: 2402Z64779E-RF
Polarization: Parallel
Test Mode: Transmitting
Note:

Serial No.: 2UJH-3
Tester: Leesin Xiang



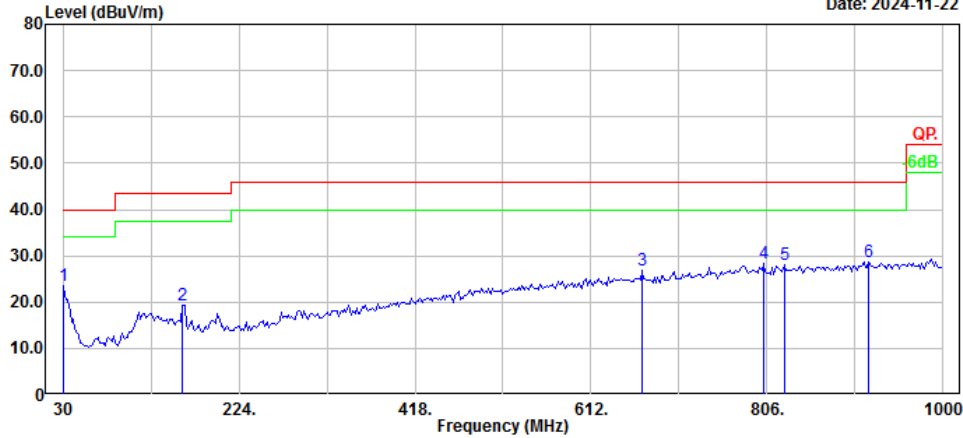
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.491	15.90	23.55	39.45	73.77	34.32	Peak
2	0.683	15.56	21.64	37.20	70.86	33.66	Peak
3	0.862	16.66	19.32	35.98	68.79	32.81	Peak
4	1.147	19.21	15.91	35.12	66.25	31.13	Peak
5	1.403	18.69	14.77	33.46	64.47	31.01	Peak
6	1.628	18.59	13.78	32.37	63.15	30.78	Peak

2) 30MHz-1GHz(Low channel was tested)

Project No.: 2402Z64779E-RF
Polarization: Horizontal
Test Mode: Transmitting
Note:

Serial No.: 2UJH-3
Tester: Leesin Xiang

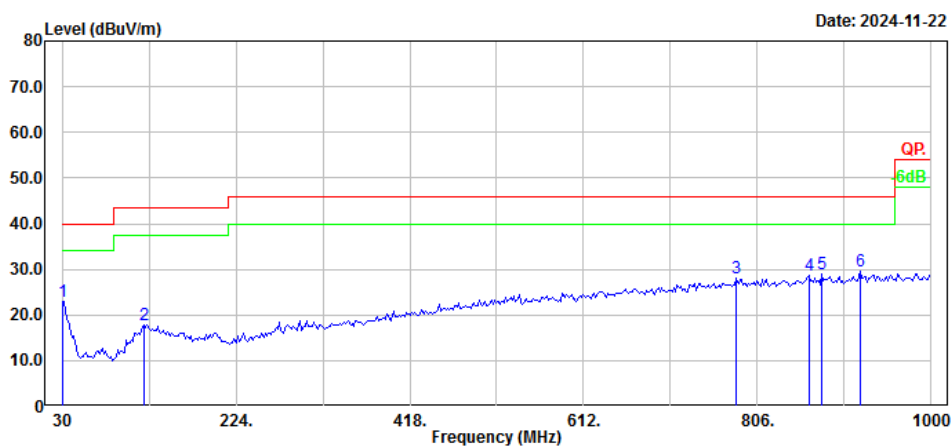
Date: 2024-11-22



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	30.00	27.31	-3.80	23.51	40.00	16.49	Peak
2	161.92	30.71	-11.27	19.44	43.50	24.06	Peak
3	668.26	28.43	-1.66	26.77	46.00	19.23	Peak
4	802.12	27.79	0.48	28.27	46.00	17.73	Peak
5	825.40	27.50	0.68	28.18	46.00	17.82	Peak
6	918.52	26.94	1.65	28.59	46.00	17.41	Peak

Project No.: 2402Z64779E-RF
Polarization: Vertical
Test Mode: Transmitting
Note:

Serial No.: 2UJH-3
Tester: Leesin Xiang



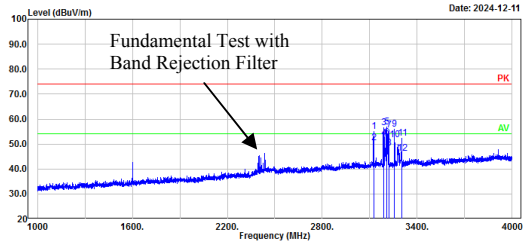
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	30.00	26.86	-3.80	23.06	40.00	16.94	Peak
2	121.18	27.85	-9.94	17.91	43.50	25.59	Peak
3	782.72	28.01	0.20	28.21	46.00	17.79	Peak
4	864.20	27.53	1.03	28.56	46.00	17.44	Peak
5	877.78	27.74	1.18	28.92	46.00	17.08	Peak
6	920.46	28.05	1.66	29.71	46.00	16.29	Peak

3) 1-18GHz:

Low Channel, Horizontal

Project No.: 2402Z64779E-RF
Polarization: Horizontal
Test Mode: Transmitting
Note: TX mode low channel 2405MHz
PK: RBW: 1MHz, VBW: 3MHz

Serial No.: 202H-3
Tester: Leo Xiao

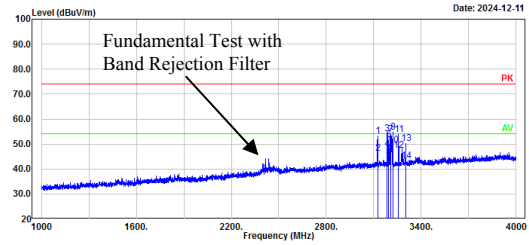


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	3124.60	60.98	-6.03	54.95	74.00	19.05	Peak
2	3124.60	56.37	-6.03	50.34	54.00	3.66	Average
3	3186.40	62.38	-5.98	56.40	74.00	17.60	Peak
4	3186.40	58.18	-5.98	52.20	54.00	1.80	Average
5	3206.80	62.73	-5.79	56.94	74.00	17.06	Peak
6	3206.80	58.30	-5.79	52.51	54.00	1.49	Average
7	3221.80	61.54	-5.87	55.67	74.00	18.33	Peak
8	3221.80	54.19	-5.87	48.32	54.00	5.68	Average
9	3256.60	61.92	-5.88	56.04	74.00	17.96	Peak
10	3256.60	57.45	-5.88	51.57	54.00	2.43	Average
11	3303.40	58.08	-5.78	52.30	74.00	21.70	Peak
12	3303.40	52.01	-5.78	46.23	54.00	7.77	Average

Low Channel, Vertical

Project No.: 2402Z64779E-RF
Polarization: Vertical
Test Mode: Transmitting
Note: TX mode low channel 2405MHz
PK: RBW: 1MHz, VBW: 3MHz

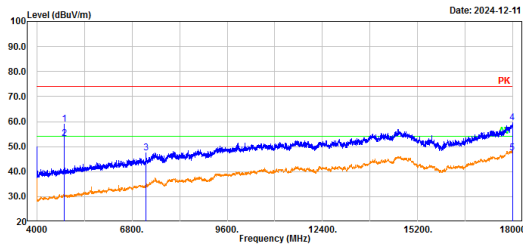
Serial No.: 202H-3
Tester: Leo Xiao



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	3124.60	59.22	-6.03	53.19	74.00	20.81	Peak
2	3124.60	52.32	-6.03	46.29	54.00	7.71	Average
3	3185.80	60.10	-5.99	54.11	74.00	19.89	Peak
4	3185.80	54.19	-5.99	48.20	54.00	5.80	Average
5	3194.20	57.56	-5.87	51.69	74.00	22.31	Peak
6	3194.20	50.39	-5.87	44.52	54.00	9.48	Average
7	3206.80	59.63	-5.79	53.84	74.00	20.16	Peak
8	3206.80	52.08	-5.79	46.29	54.00	7.71	Average
9	3221.20	60.56	-5.87	54.69	74.00	19.31	Peak
10	3221.20	55.46	-5.87	49.59	54.00	4.41	Average
11	3256.60	59.55	-5.88	53.67	74.00	20.33	Peak
12	3256.60	53.24	-5.88	47.36	54.00	6.64	Average
13	3303.40	56.02	-5.78	50.24	74.00	23.76	Peak
14	3303.40	49.06	-5.78	43.28	54.00	10.72	Average

Project No.: 2402Z64779E-RF
Polarization: Horizontal
Test Mode: Transmitting
Note: TX mode low channel 2405MHz
PK: RBW: 1MHz, VBW: 3MHz Ave: RBW: 1MHz, VBW: 5kHz

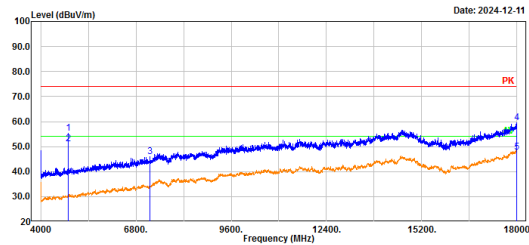
Serial No.: 202H-3
Tester: Leo Xiao



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	4810.00	67.53	-8.59	58.94	74.00	15.06	Peak
2	4810.00	61.74	-8.59	53.15	54.00	0.85	Average
3	7215.00	51.25	-3.75	47.50	74.00	26.50	Peak
4	17990.40	40.18	11.30	51.48	74.00	22.52	Peak
5	17980.40	36.25	11.30	47.55	54.00	6.45	Average

Project No.: 2402Z64779E-RF
Polarization: Vertical
Test Mode: Transmitting
Note: TX mode low channel 2405MHz
PK: RBW: 1MHz, VBW: 3MHz Ave: RBW: 1MHz, VBW: 5kHz

Serial No.: 202H-3
Tester: Leo Xiao

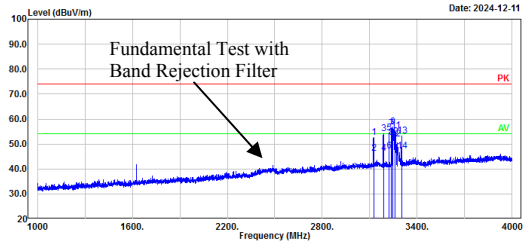


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	4810.00	64.02	-8.59	55.43	74.00	18.57	Peak
2	4810.00	59.57	-8.59	50.98	54.00	3.02	Average
3	7215.00	49.69	-3.75	45.94	74.00	28.06	Peak
4	17991.60	48.14	11.35	59.49	74.00	14.51	Peak
5	17991.60	36.28	11.35	47.63	54.00	6.37	Average

Middle Channel, Horizontal

Project No.: 2402264779E-RF
Polarization: Horizontal
Test Mode: Transmitting
Note: TX mode middle channel 2440MHz
PK: RBW:1MHz, VBW:3MHz

Serial No.: 2UZH-3
Tester: Leo Xiao

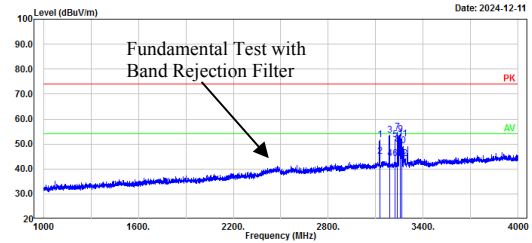


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	3124.60	58.56	-6.03	52.53	74.00	21.47	Peak
2	3124.60	52.26	-6.03	46.23	54.00	7.77	Average
3	3186.40	59.96	-5.98	53.98	74.00	20.02	Peak
4	3186.40	52.26	-5.98	46.28	54.00	7.72	Average
5	3221.80	60.28	-5.87	54.41	74.00	19.59	Peak
6	3221.80	53.08	-5.87	47.21	54.00	6.79	Average
7	3238.00	62.24	-5.93	56.31	74.00	17.69	Peak
8	3238.00	58.39	-5.93	52.46	54.00	1.54	Average
9	3247.00	62.59	-5.90	56.69	74.00	17.31	Peak
10	3247.00	58.81	-5.90	52.91	54.00	1.09	Average
11	3261.40	61.31	-5.86	55.45	74.00	18.55	Peak
12	3261.40	57.87	-5.86	52.01	54.00	1.99	Average
13	3303.40	59.03	-5.78	53.25	74.00	20.75	Peak
14	3303.40	53.03	-5.78	47.25	54.00	6.75	Average

Middle Channel, Vertical

Project No.: 2402264779E-RF
Polarization: Vertical
Test Mode: Transmitting
Note: TX mode middle channel 2440MHz
PK: RBW:1MHz, VBW:3MHz

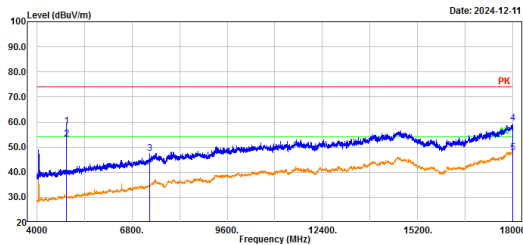
Serial No.: 2UZH-3
Tester: Leo Xiao



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	3124.60	57.80	-6.03	51.77	74.00	22.23	Peak
2	3124.60	51.23	-6.03	45.20	54.00	8.80	Average
3	3186.40	59.38	-5.98	53.40	74.00	20.60	Peak
4	3186.40	50.15	-5.98	44.17	54.00	9.83	Average
5	3221.80	57.59	-5.87	51.72	74.00	22.28	Peak
6	3221.80	50.14	-5.87	44.27	54.00	9.73	Average
7	3238.00	60.66	-5.93	54.73	74.00	19.27	Peak
8	3238.00	55.92	-5.93	49.99	54.00	4.01	Average
9	3253.60	59.63	-5.88	53.75	74.00	20.25	Peak
10	3253.60	55.31	-5.88	49.43	54.00	4.57	Average
11	3266.20	57.88	-5.85	52.03	74.00	21.97	Peak
12	3266.20	50.11	-5.85	44.26	54.00	9.74	Average

Project No.: 2402264779E-RF
Polarization: Horizontal
Test Mode: Transmitting
Note: TX mode middle channel 2440MHz
PK: RBW:1MHz, VBW:3MHz Ave: RBW:1MHz, VBW:5kHz

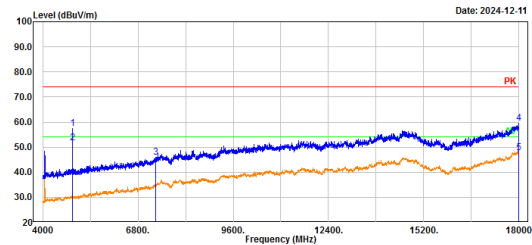
Serial No.: 2UZH-3
Tester: Leo Xiao



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	4880.00	66.96	-8.48	58.48	74.00	15.52	Peak
2	4880.00	61.80	-8.48	53.32	54.00	0.68	Average
3	7320.00	50.83	-3.21	47.62	74.00	26.38	Peak
4	17999.00	48.23	11.38	59.61	74.00	14.39	Peak
5	17999.00	36.47	11.38	47.85	54.00	6.15	Average

Project No.: 2402264779E-RF
Polarization: Vertical
Test Mode: Transmitting
Note: TX mode middle channel 2440MHz
PK: RBW:1MHz, VBW:3MHz Ave: RBW:1MHz, VBW:5kHz

Serial No.: 2UZH-3
Tester: Leo Xiao

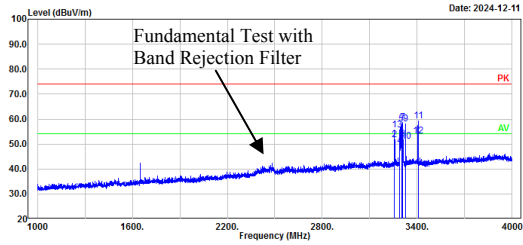


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	4880.00	65.85	-8.48	57.37	74.00	16.63	Peak
2	4880.00	60.12	-8.48	51.64	54.00	2.36	Average
3	7320.00	49.19	-3.21	45.98	74.00	28.02	Peak
4	17986.00	48.30	11.32	59.62	74.00	14.38	Peak
5	17986.00	36.32	11.32	47.64	54.00	6.36	Average

High Channel, Horizontal

Project No.: 2402Z64779E-RF
Polarization: Horizontal
Test Mode: Transmitting
Note: TX mode high channel 2475MHz
PK: RBW: 1MHz, VBW: 3MHz

Serial No.: 2U3H-3
Tester: Leo Xiao

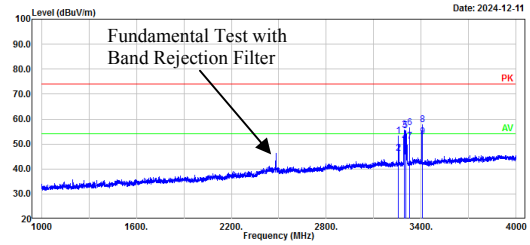


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	3257.20	61.58	-5.88	55.70	74.00	18.30	Peak
2	3257.20	57.68	-5.88	51.80	54.00	2.20	Average
3	3287.80	61.58	-5.84	55.74	74.00	18.26	Peak
4	3287.80	54.99	-5.84	49.15	54.00	4.85	Average
5	3300.40	63.80	-5.78	58.02	74.00	15.98	Peak
6	3300.40	56.10	-5.78	50.32	54.00	3.68	Average
7	3308.20	64.40	-5.80	58.60	74.00	15.40	Peak
8	3308.20	57.89	-5.80	52.09	54.00	1.91	Average
9	3328.00	63.78	-5.73	58.05	74.00	15.95	Peak
10	3328.00	56.82	-5.73	51.09	54.00	2.91	Average
11	3405.40	64.66	-5.48	59.18	74.00	14.82	Peak
12	3405.40	58.62	-5.48	53.14	54.00	0.86	Average

High Channel, Vertical

Project No.: 2402Z64779E-RF
Polarization: Vertical
Test Mode: Transmitting
Note: TX mode high channel 2475MHz
PK: RBW: 1MHz, VBW: 3MHz

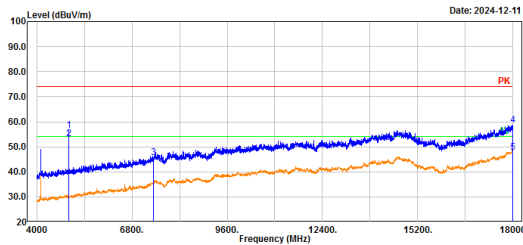
Serial No.: 2U3H-3
Tester: Leo Xiao



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	3256.60	59.05	-5.88	53.17	74.00	20.83	Peak
2	3256.60	52.19	-5.88	46.31	54.00	7.69	Average
3	3291.40	61.38	-5.81	55.57	74.00	18.43	Peak
4	3291.40	56.62	-5.81	50.81	54.00	3.19	Average
5	3300.40	61.08	-5.78	55.30	74.00	18.70	Peak
6	3327.40	62.22	-5.73	56.49	74.00	17.51	Peak
7	3327.40	56.97	-5.73	51.24	54.00	2.76	Average
8	3405.40	63.35	-5.48	57.87	74.00	16.13	Peak
9	3405.40	58.50	-5.48	53.02	54.00	0.98	Average

Project No.: 2402Z64779E-RF
Polarization: Horizontal
Test Mode: Transmitting
Note: TX mode high channel 2475MHz
PK: RBW: 1MHz, VBW: 3MHz

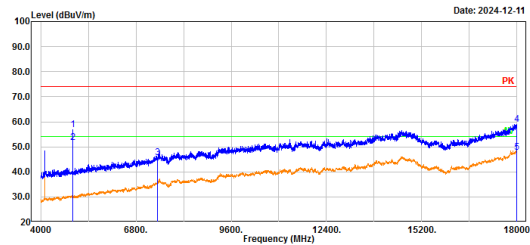
Serial No.: 2U3H-3
Tester: Leo Xiao



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	4950.00	65.06	-8.47	56.59	74.00	17.41	Peak
2	4950.00	61.67	-8.47	53.20	54.00	0.80	Average
3	7425.00	48.37	-2.65	45.72	74.00	28.28	Peak
4	17997.20	47.40	11.38	58.78	74.00	15.22	Peak
5	17997.20	36.45	11.38	47.83	54.00	6.17	Average

Project No.: 2402Z64779E-RF
Polarization: Vertical
Test Mode: Transmitting
Note: TX mode high channel 2475MHz
PK: RBW: 1MHz, VBW: 3MHz

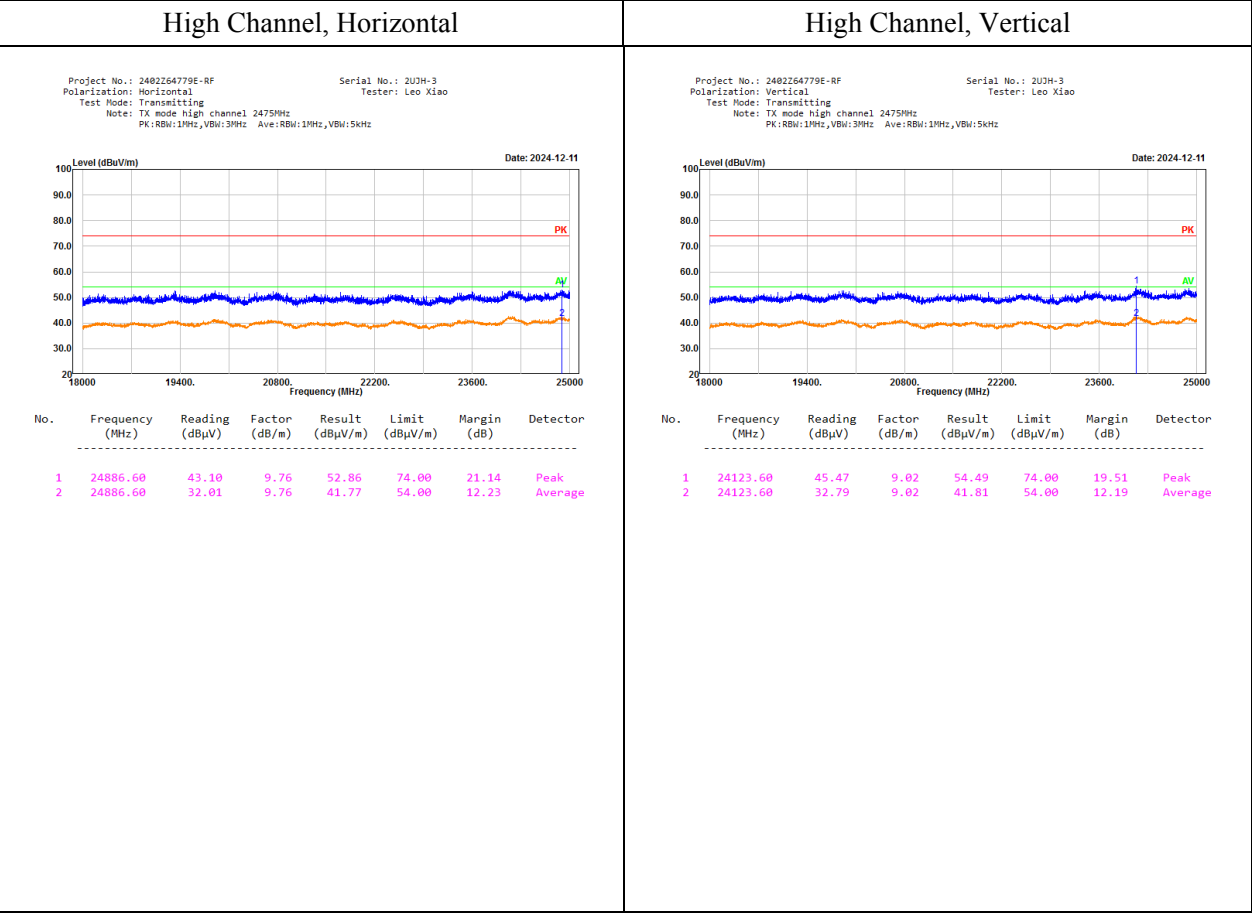
Serial No.: 2U3H-3
Tester: Leo Xiao



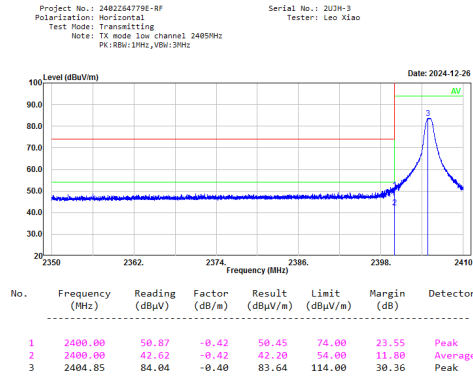
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	4950.00	65.42	-8.47	56.95	74.00	17.05	Peak
2	4950.00	60.24	-8.47	51.77	54.00	2.23	Average
3	7425.00	48.18	-2.65	45.53	74.00	28.47	Peak
4	17983.20	47.72	11.32	59.04	74.00	14.96	Peak
5	17983.20	36.31	11.32	47.63	54.00	6.37	Average

18-25G:

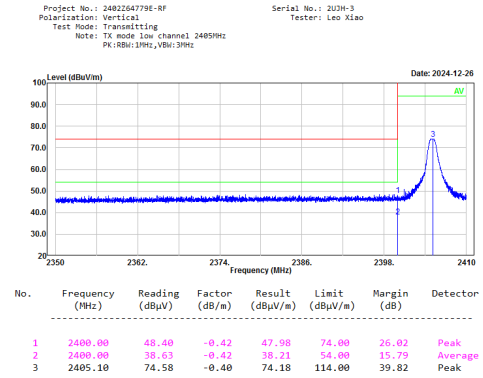
No Emission was detected in the range 18-25GHz, test was performed on the mode and channel which with the maximum power:



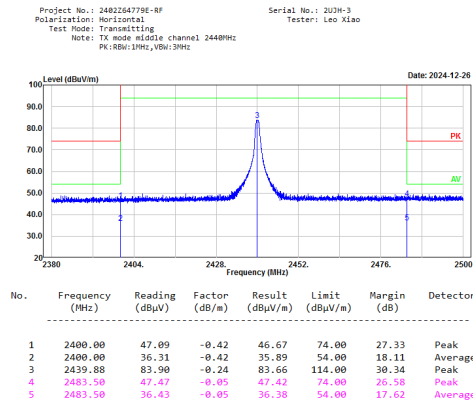
Low Channel, Bandedge, Horizontal



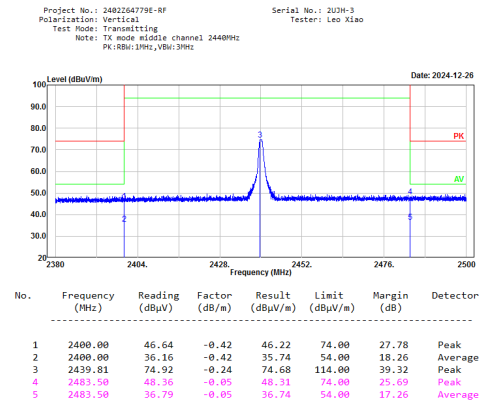
Low Channel, Bandedge, Vertical



Middle Channel, Bandedge, Horizontal



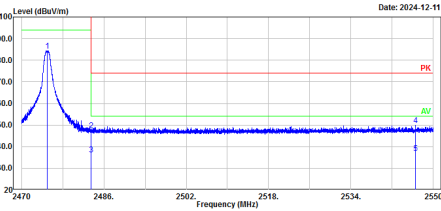
Middle Channel, Bandedge, Vertical



High Channel, Bandedge, Horizontal

Project No.: 2402264779E-RF
Polarization: Horizontal
Test Mode: Transmitting
Note: TX mode high channel 2475MHz
PK: RBW:1MHz,VBW:3MHz

Serial No.: 203H-3
Tester: Leo Xiao

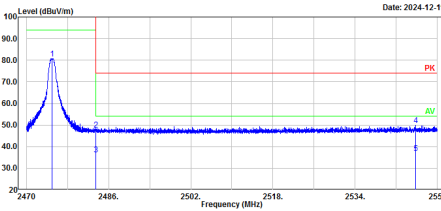


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2474.98	84.45	-0.09	84.36	114.00	29.64	Peak
2	2483.50	47.61	-0.05	47.56	74.00	26.44	Peak
3	2483.50	36.36	-0.05	36.31	54.00	17.69	Average
4	2546.54	49.53	0.31	49.84	74.00	24.16	Peak
5	2546.54	36.48	0.31	36.79	54.00	17.21	Average

High Channel, Bandedge, Vertical

Project No.: 2402264779E-RF
Polarization: Vertical
Test Mode: Transmitting
Note: TX mode high channel 2475MHz
PK: RBW:1MHz,VBW:3MHz

Serial No.: 203H-3
Tester: Leo Xiao



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2475.01	80.88	-0.08	80.80	114.00	33.20	Peak
2	2483.50	47.70	-0.05	47.65	74.00	26.35	Peak
3	2483.50	36.47	-0.05	36.42	54.00	17.58	Average
4	2545.81	49.46	0.30	49.76	74.00	24.24	Peak
5	2545.81	36.53	0.30	36.83	54.00	17.17	Average

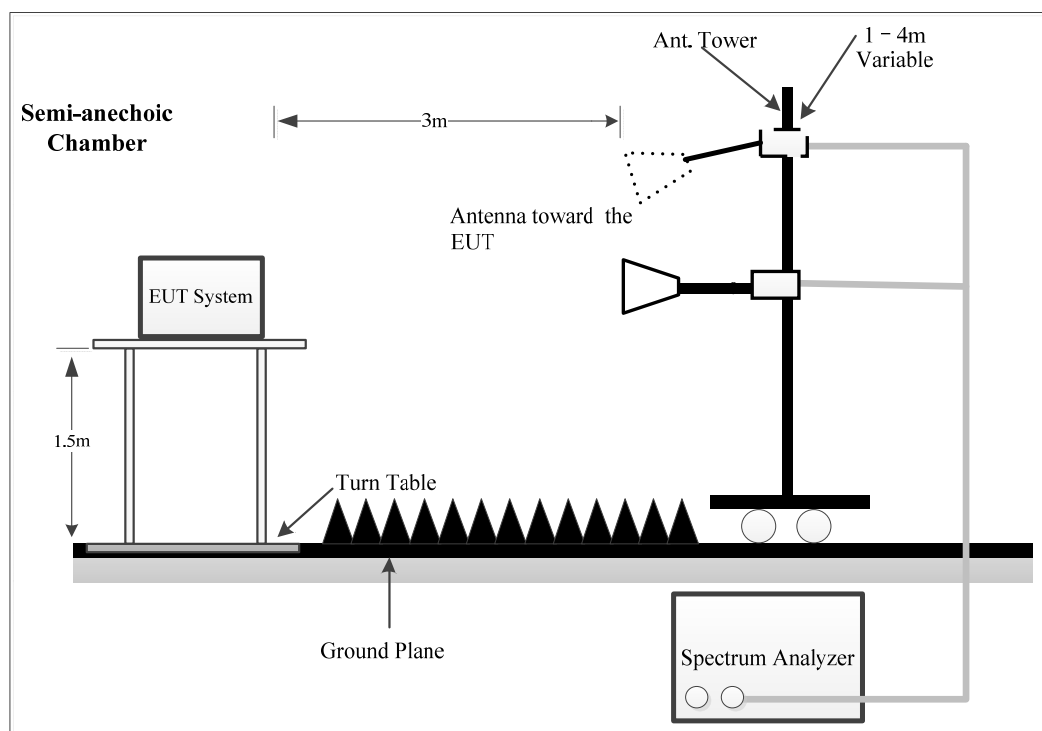
4.3 20 dB Emission Bandwidth

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.:	2UJH-3	Test Date:	2024/12/9
Test Site:	Chamber B	Test Mode:	Transmitting
Tester:	Leo Xiao	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	22.4	Relative Humidity: (%)	47	ATM Pressure: (kPa)	101.5
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Test Equipment List and Details:

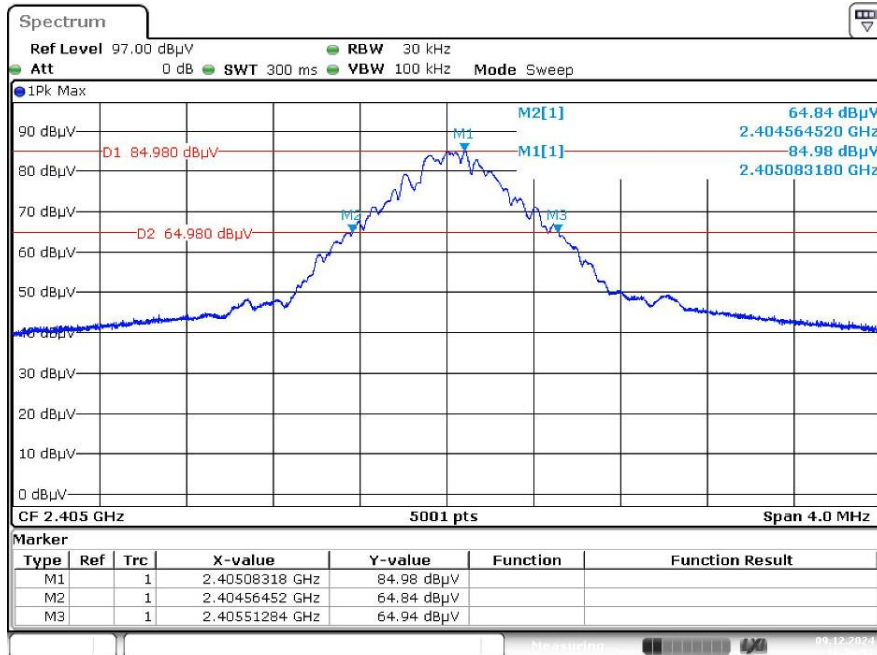
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
ETS-Lindgren	Horn Antenna	3115	000 527 35	2023/9/7	2026/9/6
AH	Preamplifier	PAM-0118P	469	2024/4/15	2025/4/14
Xinhang Macrowave	Coaxial Cable	XH750A-N/J-SMA/J-10M	20231117004 #0001	2024/11/17	2025/11/16
R&S	Spectrum Analyzer	FSV40	101944	2024/9/6	2025/9/5

* 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 Frequency (MHz)	20 dB Bandwidth (kHz)	F _L (MHz)	F _L Limit (MHz)	F _H (MHz)	F _H Limit (MHz)
2405	948.32	2404.56452	2400	2405.51284	2483.5
2440	946.13	2439.56571	2400	2440.51184	2483.5
2475	942.73	2474.56831	2400	2475.51104	2483.5

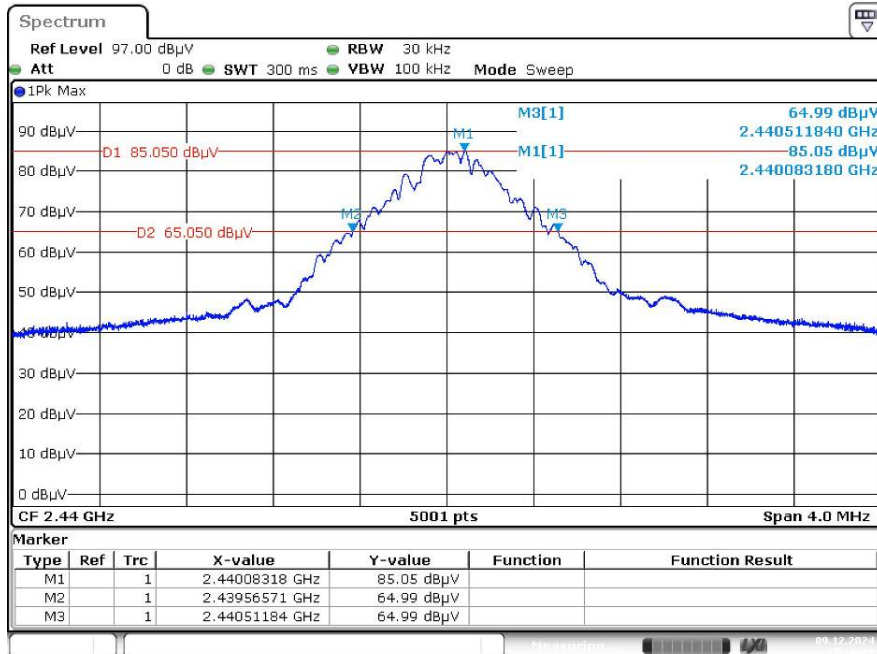
20 dB Bandwidth-2405MHz



Project No.: 2402Z64779E-RF Tester: Leo Xiao

Date: 9 DEC. 2024 16:36:02

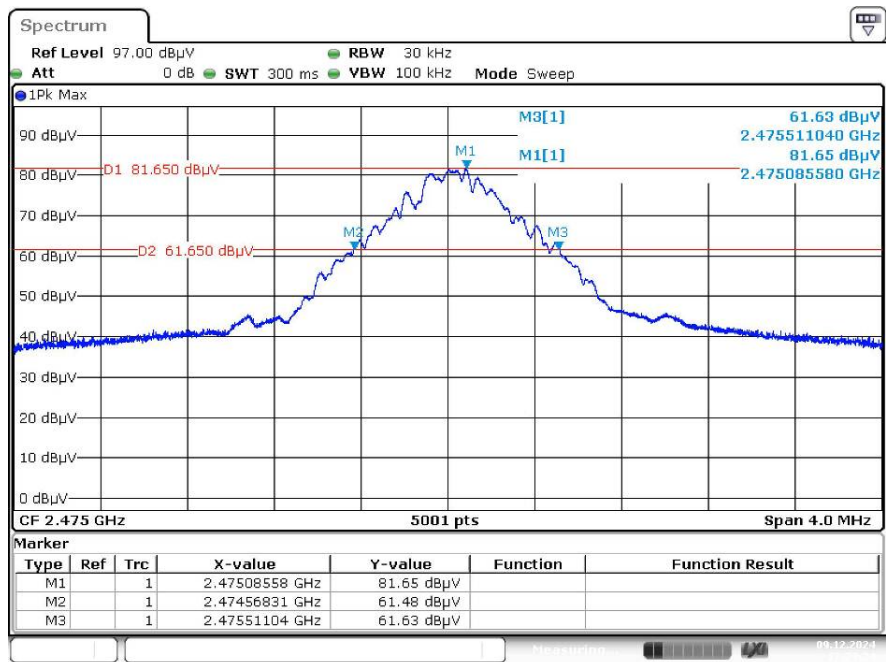
20 dB Bandwidth-2440MHz



Project No.: 2402Z64779E-RF Tester: Leo Xiao

Date: 9 DEC. 2024 17:16:41

20 dB Bandwidth-2475MHz



Project No.: 2402Z64779E-RF Tester: Leo Xiao
Date: 9 DEC 2024 17:23:25

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 2402Z64779E-RF-EXP EUT EXTERNAL PHOTOGRAPHS and 2402Z64779E-RF-INP EUT INTERNAL PHOTOGRAPHS

EXHIBIT B - TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2402Z64779E-RF-00A-TSP TEST SETUP PHOTOGRAPHS.

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