

FCC Part 15.249


TEST REPORT

For

Zhejiang Yihe Sanitary Ware Co., Ltd.

District A, No. 102 East Taihe Road, Haimen street, Jiaojiang, Taizhou, Zhejiang, China

FCC ID: 2AQBG-RC04-F

Report Type: Original Report	Product Type: Remote Control
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Reviewed By: <u>Rory Cheng</u> 	
Prepared By: Bay Area Compliance Laboratories Corp.(Linkou Laboratory) No. 6, Wende 2Rd., Guishan Dist., Taoyuan City 33382, Taiwan (R.O.C.) Tel: +886 (3)3961072; Fax: +886 (3) 3961027 www.baclcorp.com.tw	

Revision History

Revision	No.	Report Number	Issue Date	Description	Author/ Revised by
1.0	RLK231116075	RLK231116075RF02	2024-01-05	Original Report	Lynette Wen

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1 General Information

1.1 Product Description for Equipment under Test (EUT)

Applicant	Zhejiang Yihe Sanitary Ware Co., Ltd.
	District A, No. 102 East Taihe Road, Haimen street, Jiaojiang, Taizhou, Zhejiang, China
Manufacturer	Zhejiang Yihe Sanitary Ware Co., Ltd.
	District A, No. 102 East Taihe Road, Haimen street, Jiaojiang, Taizhou, Zhejiang, China
Brand(Trade) Name	N/A
Product (Equipment)	Remote Control
Main Model Name	RC04-F
Series Model Name	N/A
Frequency Range	2405~2470MHz
Antenna Specification	PCB Antenna / 3.15 dBi
Power Operation (Voltage Range)	<input type="checkbox"/> AC 120V/60Hz <input type="checkbox"/> Adapter <input type="checkbox"/> By AC Power Cord <input type="checkbox"/> PoE
	<input checked="" type="checkbox"/> DC Type <input checked="" type="checkbox"/> Battery:3V <input type="checkbox"/> DC Power Supply <input type="checkbox"/> External from USB Cable <input type="checkbox"/> External DC Adapter
	<input type="checkbox"/> Host System
Received Date	2023/11/16
Date of Test	2023/12/13~2023/12/14

*All measurement and test data in this report was gathered from production sample serial number: RLK231116075-01.

Assigned by BACL, Linkou Laboratory.

1.2 Objective

This report is prepared on behalf of Zhejiang Yihe Sanitary Ware Co., Ltd. in accordance with Part 2, Subpart J, Part 15, Subparts A and C of the Federal Communication Commission's rules.

1.3 Related Submittal(s)/Grant(s)

N/A.

1.4 Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

FCC Part 15.249 DXX submission with FCC ID: 2AQBGR-C04-F.

1.5 Statement of Compliance

Decision Rule: No, (The test results do not include MU judgment)

The measurement results in this report were performed at Bay Area Compliance Laboratories Corp. (Linkou Laboratory)

Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

The determination of the test results does not require consideration of the uncertainty of the measurement, unless the assessment is required by customer agreement, regulation or standard document specification. Bay Area Compliance Laboratories Corp. (Linkou Laboratory) is not responsible for the authenticity of the information provided by the applicant that affects the test results.

1.6 Measurement Uncertainty

Parameter		Uncertainty
AC Mains		±3.38 (dB)
RF output power, conducted		±3.74 (dB)
Power Spectral Density, conducted		±0.69 (dBm)
Occupied Bandwidth		±0.09 (%)
Unwanted Emissions, conducted		±1.13 (dB)
Emissions, radiated	30 MHz~1GHz	±5.34 (dB)
	1 GHz~18 GHz	±5.89 (dB)
	18 GHz~40 GHz	±5.52 (dB)
Temperature		±0.44 (%)
Humidity		±0.78 (°C)

1.7 Environmental Conditions

Test Site	Test Data	Temperature (°C)	Relative Humidity (%)	ATM Pressure (hPa)	Test Engineer
Radiation Spurious Emissions	2023/12/14	19.6	57	1010	Bruce
20 dB Emission Bandwidth	2023/12/13	23.6	53	1010	Kevin

1.8 Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Linkou Laboratory) to collect test data is located on

No.6, Wende 2Rd., Guishan Dist., Taoyuan City 33382, Taiwan (R.O.C.).

Bay Area Compliance Laboratories Corp. (Linkou Laboratory) Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 3546) by Mutual Recognition Agreement (MRA). The test site has been approved by the FCC under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database. The FCC Registration No.: 0027578244. Designation No.: TW1119. The Test Firm Registration No.: 311381.

2 System Test Configuration

2.1 Description of Test Configuration

The system was configured for testing in an engineering mode, which was provided by manufacturer. The engineering mode was configured the system transmitting with maximum power.

2.2 Equipment Modifications

No modification was made to the EUT.

2.3 EUT Exercise Software

No test software was used.

Test Frequency		Low	Mid	High
Power Level Setting	SRD	Default	Default	Default

Channel List

Channel	Frequency (MHz)
0	2405
1	2450
2	2470

2.4 Support Equipment List and Details

Not Applicable

2.5 External Cable List and Details

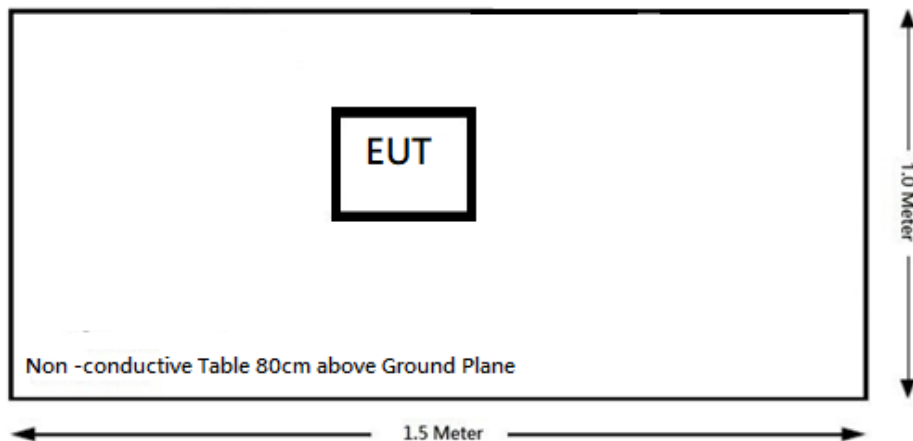
Not Applicable

2.6 Block Diagram of Test Setup

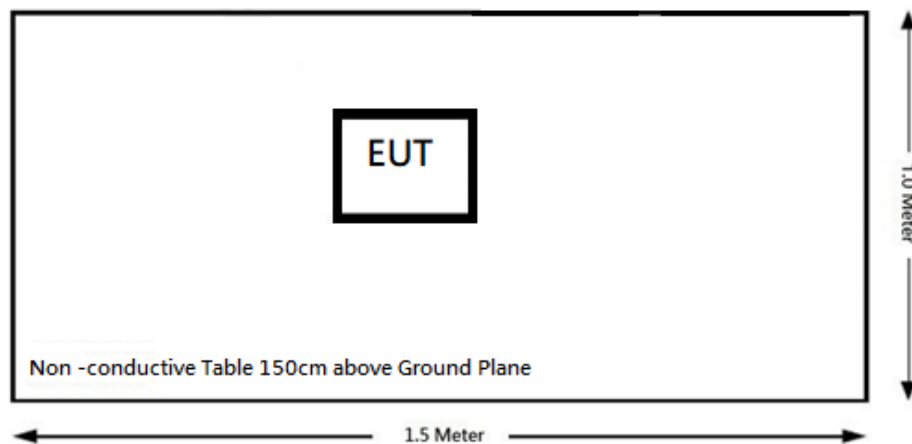
See test photographs attached in setup photos for the actual connections between EUT and support equipment.

Radiation:

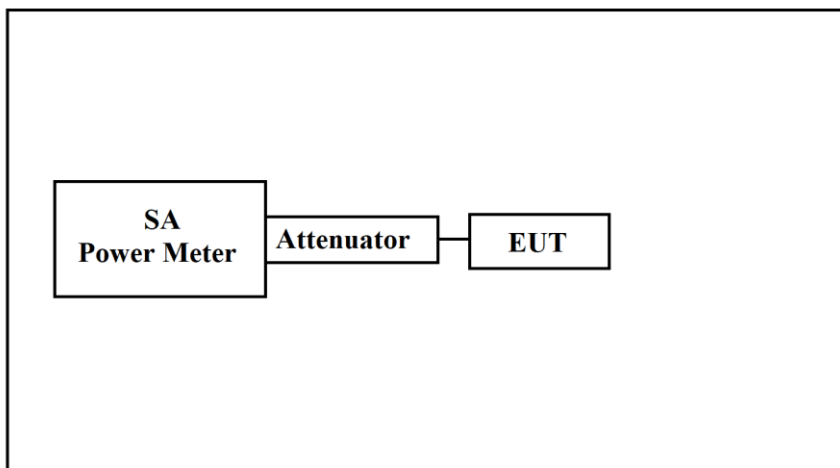
Below 1GHz:



Above 1GHz:



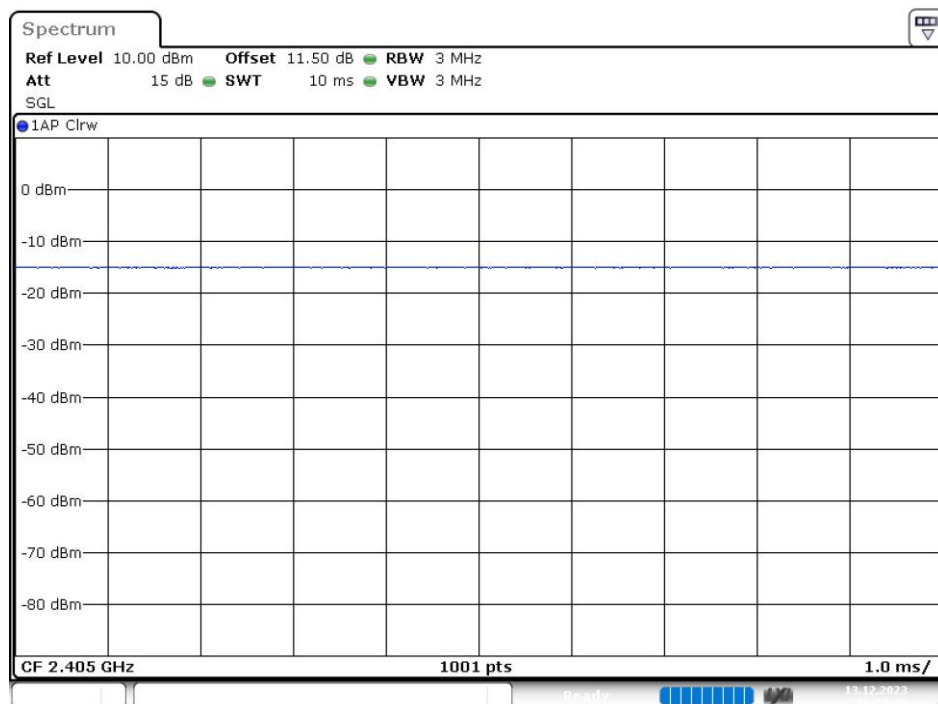
Conducted:



2.7 Duty Cycle

The duty cycle as below:

Radio Mode	On Time (ms)	Ton+off (ms)	Duty Cycle (%)	1/T (kHz)	VBW Setting (kHz)
SRD	100	100	100	0.01	0.01



3 Summary of Test Results

FCC Rules	Description of Test	Results
§15.203	Antenna Requirement	Compliance
§15.207 (a)	AC Line Conducted Emissions	Not applicable
§15.205, §15.209, §15.249	Radiated Emissions	Compliance
§15.215 (c)	20 dB Emission Bandwidth	Compliance
§1.1307(b)(3), §2.1093	RF Exposure	Compliance

Not applicable: Device only supports battery.

4 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date
Radiation 3M Room (966-A)					
Bilog Antenna with 6 dB Attenuator	SUNOL SCIENCES & EMCI	JB3 & N-6-06	A111513 & AT-N0668	2023/4/13	2024/4/11
Horn Antenna	EMCO	3115	2058	2023/03/25	2024/03/23
Double ridged waveguide horn antenna	ETS-Lindgren	3116	00060023	2023/07/07	2024/07/05
Preamplifier	A.H. Systems	PAM-1840VH	174	2023/3/24	2024/3/22
Preamplifier	A.H. Systems	PAM-0118P	470	2023/03/24	2024/03/22
ESR EMI Test Receiver	Rohde & Schwarz	ESR3	102759	2023/09/14	2024/09/12
Spectrum Analyzer	Rohde & Schwarz	FSV40	101938	2023/12/07	2024/12/05
Microflex Cable (0.9m)	UTIFLEX	W6103	LKTE381	2023/06/26	2024/06/24
Microflex Cable (2m)	EMCI	EMC106-SM-SM-2000	180515	2023/08/03	2024/08/01
Microflex Cable (8m)	UTIFLEX	UFA210A-1-3149-300300	MFR 64639 232490-001	2023/08/03	2024/08/01
Software	AUDIX	E3 V9	E3LK-01	N.C.R	N.C.R
Conducted Room					
Cable	MTJ	MT40S	620620-MT40S-100	2022/12/23	2023/12/22
Signal and Spectrum Analyzer	Rohde & Schwarz	FSV40	101434	2023/11/30	2024/11/28
10dB Attenuator	MCL	BW-S10W5+	605	2023/03/22	2024/03/20

***Statement of Traceability:** *BACL Corp. attests that all of the calibrations on the equipment items listed above were traceable to the SI System of Units via the R.O.C. Center for Measurement Standards of the Electronics Testing Center, Taiwan (ETC) or to another internationally recognized National Metrology Institute (NMI), and were compliant with the current Taiwan Accreditation Foundation (TAF) requirements*

5. FCC §1.1307(b)(3), §2.1093 - RF Exposure

5.1. Applicable Standard

According to subpart §1.1307(b)(3) and subpart §2.1093, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission’s guidelines.

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);

(B) Or the available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold P_{th} (mW) described in the following formula. This method shall only be used at separation distances (cm) from 0.5 centimeters to 40 centimeters and at frequencies from 0.3 GHz to 6 GHz (inclusive). P_{th} is given by:

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases}$$

Where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right) \text{ and } f \text{ is in GHz;}$$

and

$$ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases}$$

(C) Or using Table 1 and the minimum separation distance (R in meters) from the body of a nearby person for the frequency (f in MHz) at which the source operates, the ERP (watts) is no more than the calculated value prescribed for that frequency. For the exemption in Table 1 to apply, R must be at least λ/2π, where λ is the free-space operating wavelength in meters. If the ERP of a single RF source is not easily obtained, then the available maximum time-averaged power may be used in lieu of ERP if the physical dimensions of the radiating structure(s) do not exceed the electrical length of λ/4 or if the antenna gain is less than that of a half-wave dipole (1.64 linear value).

Table 1 to § 1.1307(b)(3)(i)(C) - Single RF Sources Subject to Routine Environmental Evaluation

RF Source frequency (MHz)	Threshold ERP (watts)
0.3-1.34	1,920 R ² .
1.34-30	3,450 R ² /f ² .
30-300	3.83 R ² .
300-1,500	0.0128 R ² f.
1,500-100,000	19.2R ² .

For multiple RF sources: Multiple RF sources are exempt if: in the case of fixed RF sources operating in the same time-averaging period, or of multiple mobile or portable RF sources within a device operating in the same time averaging period, if the sum of the fractional contributions to the applicable thresholds is less than or equal to 1 as indicated in the following equation:

$$\sum_{i=1}^a \frac{P_i}{P_{th,i}} + \sum_{j=1}^b \frac{ERP_j}{ERP_{th,j}} + \sum_{k=1}^c \frac{Evaluated_k}{Exposure Limit_k} \leq 1$$

5.2. RF Exposure Evaluation Result

Calculate EIRP from the radiated field.

$$EIRP = E_{meas} + 20\log(d_{meas}) - 104.7$$

$$EIRP = 92.75\text{dBuV/M} - 95.2 = -2.45\text{ dBm}$$

Project info

Band	Freq (MHz)	EIRP (dBm)	EIRP (mW)	ERP (dBm)	ERP (mW)
SRD	2405	-2.45	0.57	-4.6	0.35

The sequence to apply for single portable RF sources includes the following steps:

- 1) determination of 1 mW blanket exemption under § 1.1307(b)(3)(i)(A)
- 2) determination of exemption under the MPE-based § 1.1307(b)(3)(i)(C) if 1) is not met
- 3) determination of exemption under the SAR-based § 1.1307(b)(3)(i)(B) if both 1) and 2) are not met

§ 1.1307(b)(3)(i)(A)

The available maximum time-averaged power is no more than 1 mW

Band	Freq (MHz)	Result Option A
SRD	2405	exempt

Result: The device complies.

6. FCC §15.203 – Antenna Requirements

6.1. Applicable Standard

For intentional device, according to §15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used.

6.2. Antenna Information

Manufacturer	Type	Antenna Gain
Telink-semi	PCB Antenna	3.15 dBi

Result: Compliance.

7. FCC §15.207(a) – AC Line Conducted Emissions

7.1. Applicable Standard

According to §15.207

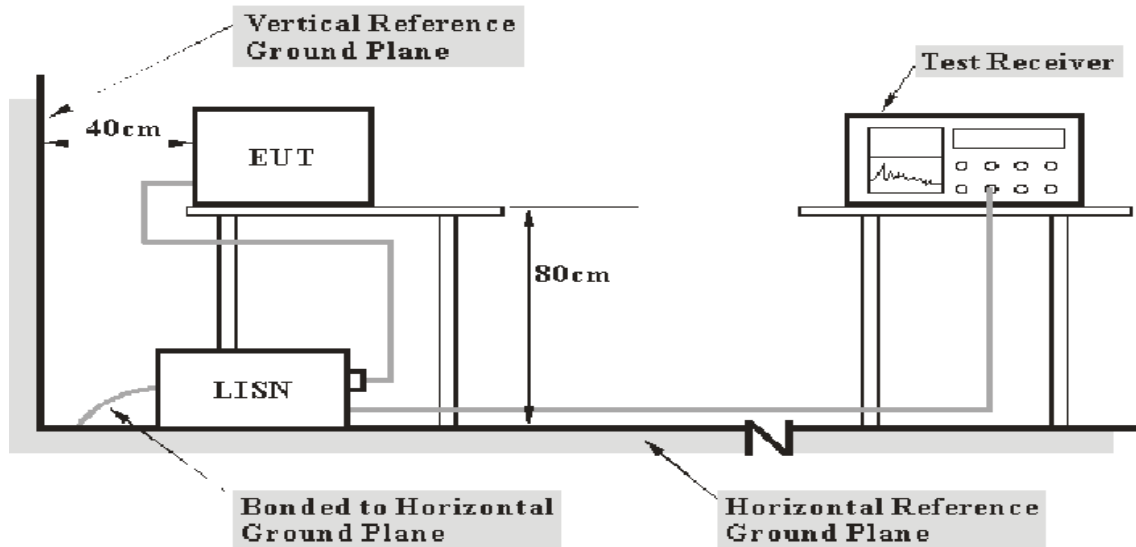
For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 μH/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 frequencies ranges.

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-Peak	Average
0.15-0.5	66 to 56 ^{Note 1}	56 to 46 ^{Note 2}
0.5-5	56	46
5-30	60	50

Note 1: Decreases with the logarithm of the frequency.

Note 2: A linear average detector is required

7.2. EUT Setup



- Note:**
1. Support units were connected to second LISN.
 2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

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.

7.3. EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150kHz to 30MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations

Frequency Range	IF B/W
150kHz – 30MHz	9kHz

7.4. Test Procedure

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

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the Quasi-peak and average detection mode.

7.5. Factor & Over Limit

The factor is calculated by adding LISN/ISN VDF (Voltage Division Factor), Cable Loss and Transient Limiter Attenuation. The basic equation is as follows:

$$\text{Factor} = \text{LISN VDF} + \text{Cable Loss} + \text{Transient Limiter Attenuation}$$

The “Over Limit” column of the following data tables indicates the degree of compliance with the applicable limit line. For example, an over limit of -7 dB means the emission is 7 dB below the limit line. The equation for Over Limit calculation is as follows:

$$\text{Over Limit} = \text{Level} - \text{Limit Line}$$

7.6. Test Results

Not Applicable

8. FCC §15.209, §15.205 , §15.249 - Radiated Emissions

8.1. 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 (millivolts/meter)
920-928 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.

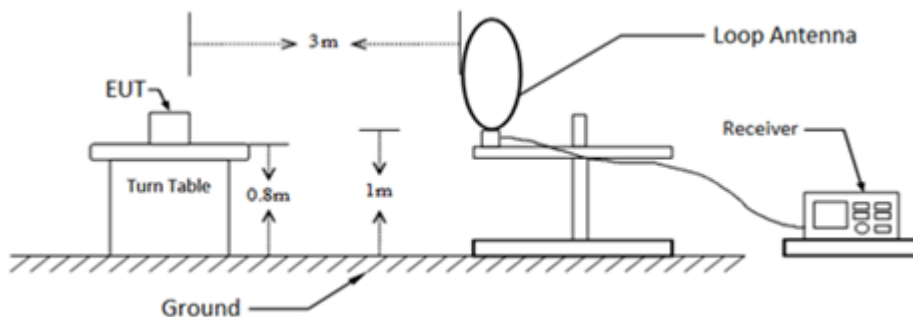
According to ANSI C63.10-2013, section 5.3.3

Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field, and the emissions to be measured can be detected by the measurement equipment (see 4.3.4).

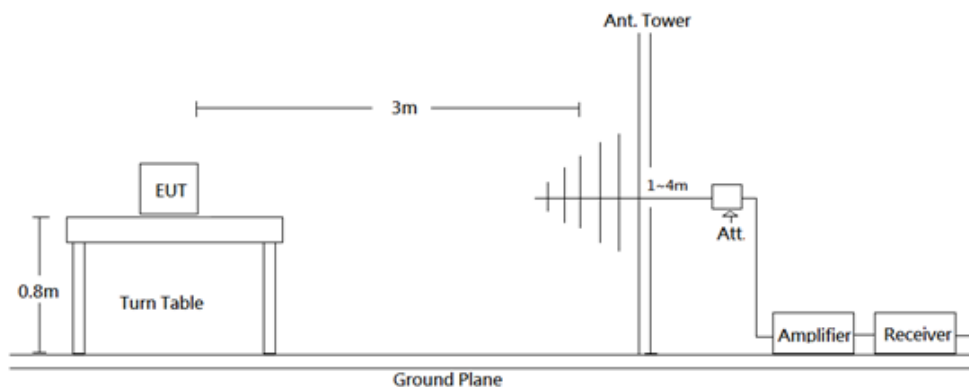
Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. Measurements from 18 GHz to 40 GHz are typically made at distances significantly less than 3 m from the EUT. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade of distance (inverse of linear distance for field-strength measurements or inverse of linear distance-squared for power-density measurements).

8.2. EUT Setup

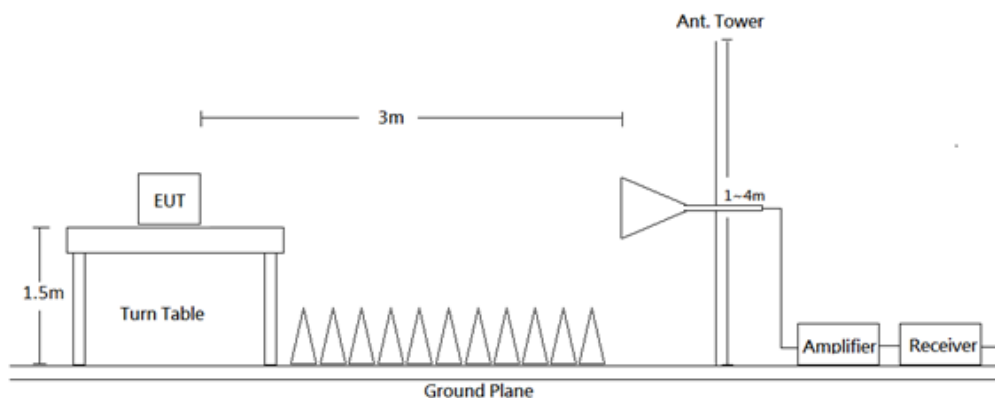
9kHz-30MHz:



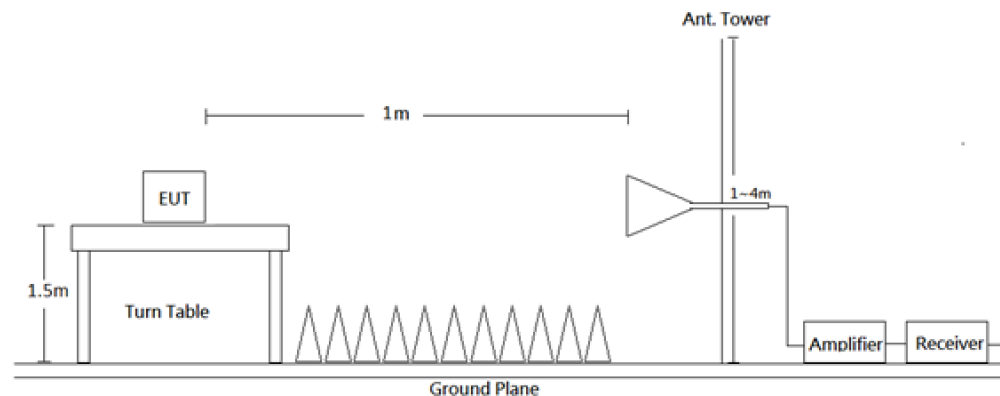
30MHz-1GHz:



1-18GHz:



18-26.5GHz:



Radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209, and FCC 15.249 limits.

8.3. EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 9 kHz to 26.5 GHz. During the radiated emission test, the EMI test receiver was set with the following configurations measurement method 6.3 in ANSI C63.10.

Frequency Range	RBW	VBW	Duty cycle	Measurement method
9 kHz - 150 kHz	300 Hz	1 kHz	/	QP/AV
150 kHz - 30 MHz	10 kHz	30 kHz	/	QP/AV
30-1000 MHz	100 kHz	300 kHz	/	QP
Above 1 GHz	1 MHz	3 MHz	/	PK
	1 MHz	1/T	<98%	Ave
	1 MHz	10Hz	>98%	Ave

Note: T is minimum transmission duration

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.

8.4. Test Procedure

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

All data was recorded in Quasi-peak and average detector mode from 9 kHz to 30 MHz, Quasi-peak detector mode from 30 MHz to 1 GHz and PK and average detector modes for frequencies above 1 GHz.

8.5. Factor & Over Limit

The Factor is calculated by adding the Antenna Factor and Cable Loss, and Amplifier Gain from the Meter Reading. The basic equation is as follows:

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

The “Over Limit” column of the following data tables indicates the degree of compliance with the applicable limit line. For example, The Over Limit of -7 dB means the emission is 7 dB below the limit line. The equation for margin calculation is as follows:

$$\text{Over Limit} = \text{Level} - \text{Limit Line}$$

8.6. Test Results Summary

According to the data in the following table, the EUT complied with the FCC §15.209 Limit.

8.7. Test Results

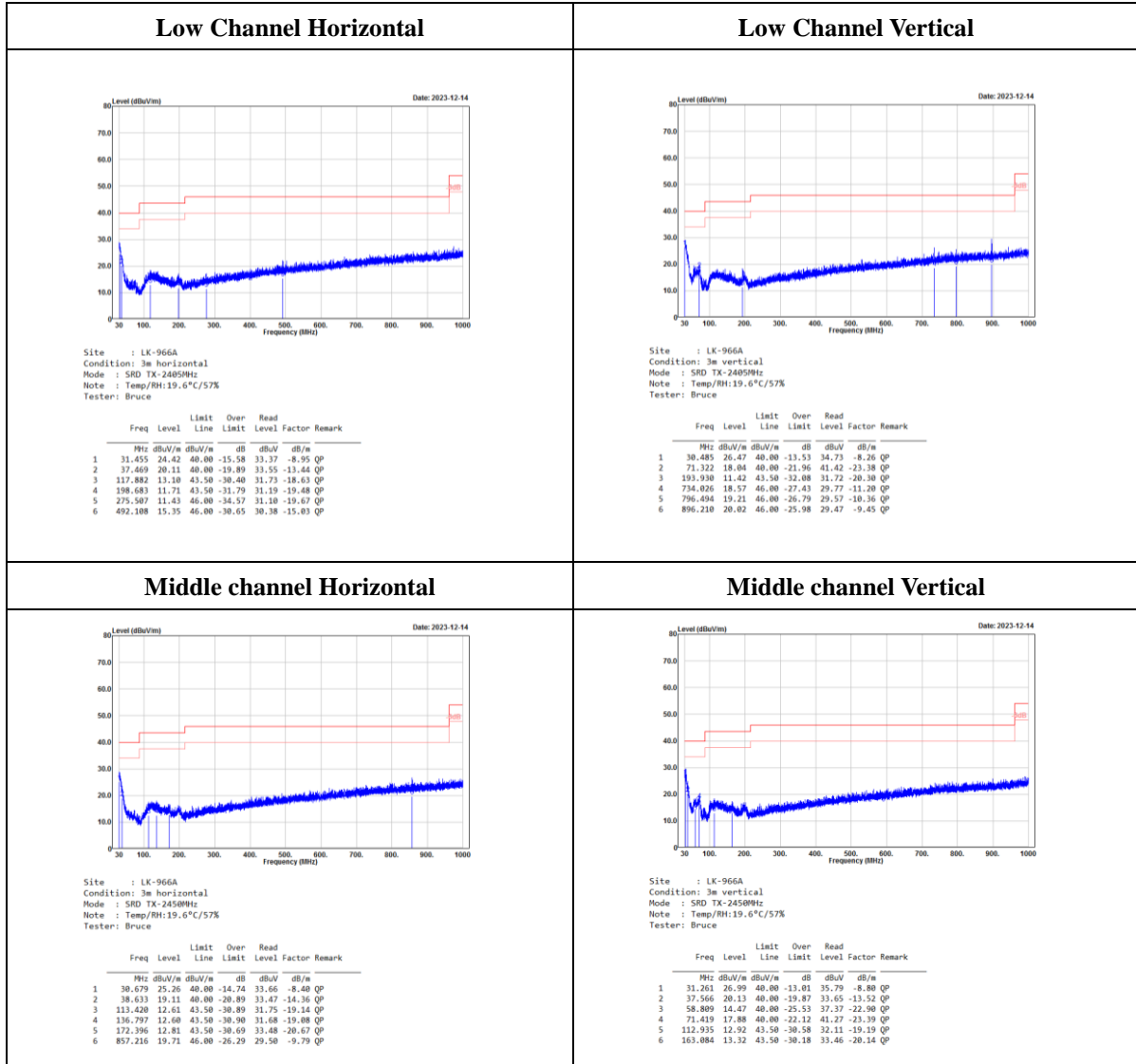
Test Mode: Transmitting

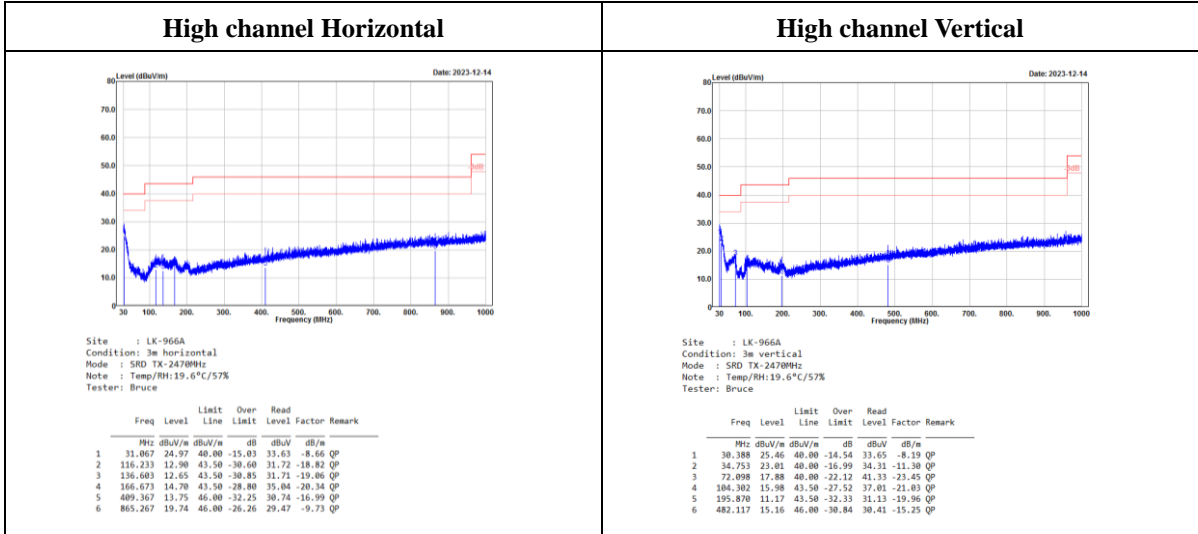
(Pre-scan with three orthogonal axis, and worse case as Z axis. below 1 GHz worst case is 2405 MHz)

9kHz-30MHz

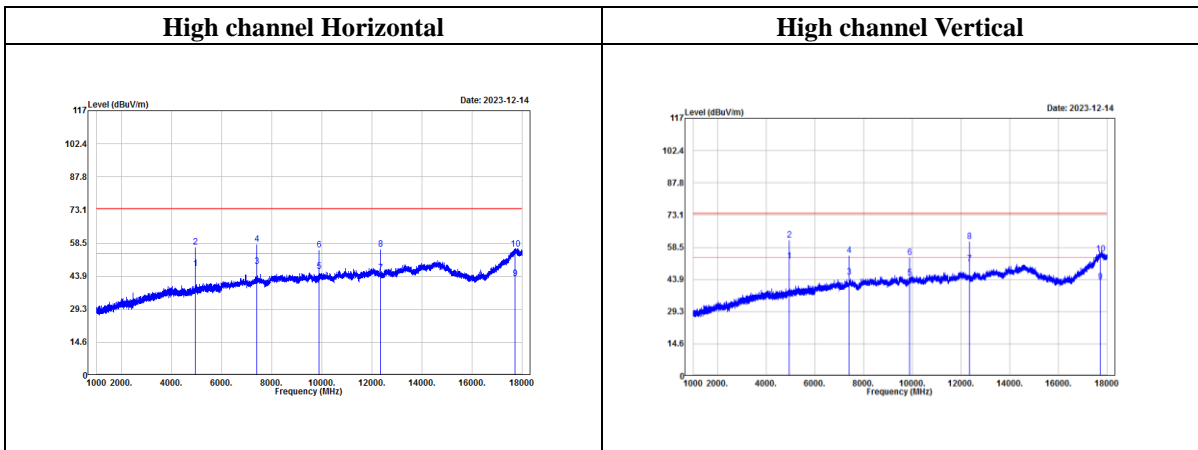
All emissions were greater than 20dB below the limit

30MHz-1GHz:

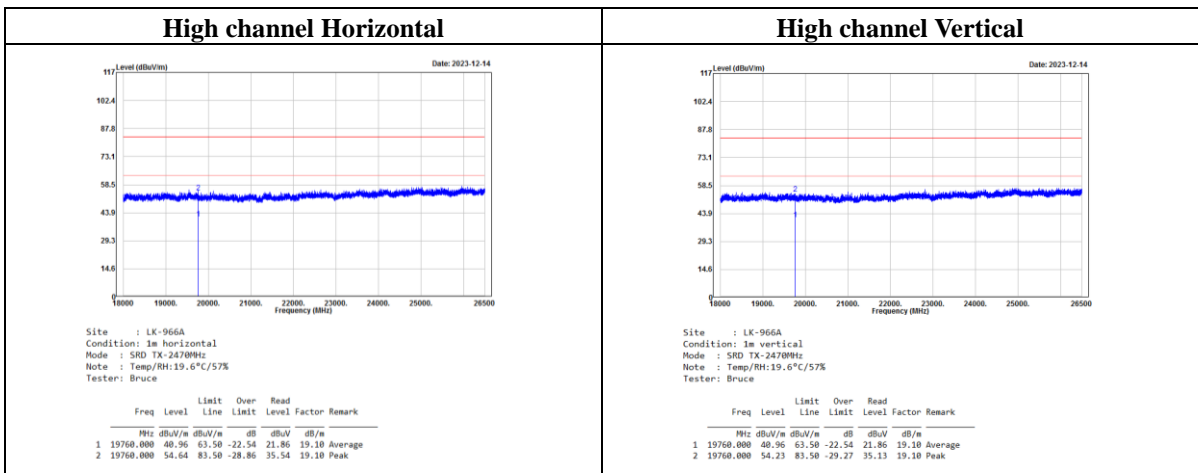




1GHz-18GHz:



18GHz-26.5GHz:



Above 1GHz

Low channel																			
Horizontal							Vertical												
Limit	Over	Read					Limit	Over	Read										
Line	Limit	Level	Factor	Remark	Line	Limit	Level	Factor	Remark	Line	Limit	Level	Factor	Remark					
		Freq	Level				Freq	Level				Freq	Level						
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m
		1	2314.360	30.99	54.00	-23.01	40.01	-9.02	Average			1	2361.970	31.22	54.00	-22.78	39.99	-8.77	Average
		2	2314.360	44.04	74.00	-29.96	53.06	-9.02	Peak			2	2361.970	44.88	74.00	-29.12	53.65	-8.77	Peak
		3	2405.000	90.67	94.00	-3.33	99.22	-8.55	Average			3	2405.000	88.62	94.00	-5.38	97.17	-8.55	Average
		4	2405.000	93.81	114.00	-20.19	102.36	-8.55	Peak			4	2405.000	91.82	114.00	-22.18	100.37	-8.55	Peak
		1	4810.000	48.65	54.00	-5.35	50.60	-1.95	Average			1	4810.000	49.11	54.00	-4.89	51.06	-1.95	Average
		2	4810.000	57.51	74.00	-16.49	59.46	-1.95	Peak			2	4810.000	58.36	74.00	-15.64	60.31	-1.95	Peak
		3	7215.000	51.02	54.00	-2.98	46.90	4.12	Average			3	7215.000	43.77	54.00	-10.23	39.65	4.12	Average
		4	7215.000	60.46	74.00	-13.54	56.34	4.12	Peak			4	7215.000	53.43	74.00	-20.57	49.31	4.12	Peak
		5	9620.000	46.49	54.00	-7.51	38.94	7.55	Average			5	9620.000	44.79	54.00	-9.21	37.24	7.55	Average
		6	9620.000	55.87	74.00	-18.13	48.32	7.55	Peak			6	9620.000	54.40	74.00	-19.60	46.85	7.55	Peak
		7	12025.000	45.28	54.00	-8.72	34.50	10.78	Average			7	12025.000	48.75	54.00	-5.25	37.97	10.78	Average
		8	12025.000	55.96	74.00	-18.04	45.18	10.78	Peak			8	12025.000	58.66	74.00	-15.34	47.88	10.78	Peak
		9	17710.000	42.82	54.00	-11.18	21.30	21.52	Average			9	17710.000	42.93	54.00	-11.07	21.41	21.52	Average
		10	17710.000	55.85	74.00	-18.15	34.33	21.52	Peak			10	17710.000	56.78	74.00	-17.22	35.26	21.52	Peak
Middle channel																			
Horizontal							Vertical												
Limit	Over	Read					Limit	Over	Read										
Line	Limit	Level	Factor	Remark	Line	Limit	Level	Factor	Remark	Line	Limit	Level	Factor	Remark					
		Freq	Level				Freq	Level				Freq	Level						
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m
		1	2450.000	91.91	94.00	-2.09	100.23	-8.32	Average			1	2450.000	88.54	94.00	-5.46	96.86	-8.32	Average
		2	2450.000	95.06	114.00	-18.94	103.38	-8.32	Peak			2	2450.000	91.76	114.00	-22.24	100.08	-8.32	Peak
		1	4900.000	48.18	54.00	-5.82	49.73	-1.55	Average			1	4900.000	52.39	54.00	-1.61	53.94	-1.55	Average
		2	4900.000	57.51	74.00	-16.49	59.06	-1.55	Peak			2	4900.000	61.60	74.00	-12.40	63.15	-1.55	Peak
		3	7350.000	48.54	54.00	-5.46	44.04	4.50	Average			3	7350.000	44.77	54.00	-9.23	40.27	4.50	Average
		4	7350.000	57.77	74.00	-16.23	53.27	4.50	Peak			4	7350.000	54.60	74.00	-19.40	50.10	4.50	Peak
		5	9800.000	46.35	54.00	-7.65	38.91	7.44	Average			5	9800.000	42.00	54.00	-12.00	34.56	7.44	Average
		6	9800.000	55.63	74.00	-18.37	48.19	7.44	Peak			6	9800.000	52.11	74.00	-21.89	44.67	7.44	Peak
		7	12250.000	45.22	54.00	-8.78	35.01	10.21	Average			7	12250.000	51.74	54.00	-2.26	41.53	10.21	Average
		8	12250.000	55.77	74.00	-18.23	45.56	10.21	Peak			8	12250.000	61.93	74.00	-12.07	51.72	10.21	Peak
		9	17710.000	42.86	54.00	-11.14	21.34	21.52	Average			9	17710.000	42.85	54.00	-11.15	21.33	21.52	Average
		10	17710.000	56.94	74.00	-17.06	35.42	21.52	Peak			10	17710.000	56.07	74.00	-17.93	34.55	21.52	Peak
High channel																			
Horizontal							Vertical												
Limit	Over	Read					Limit	Over	Read										
Line	Limit	Level	Factor	Remark	Line	Limit	Level	Factor	Remark	Line	Limit	Level	Factor	Remark					
		Freq	Level				Freq	Level				Freq	Level						
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m
		1	2470.000	92.75	94.00	-1.25	100.97	-8.22	Average			1	2470.000	89.13	94.00	-4.87	97.35	-8.22	Average
		2	2470.000	95.85	114.00	-18.15	104.07	-8.22	Peak			2	2470.000	92.22	114.00	-21.78	100.44	-8.22	Peak
		3	2496.059	31.88	54.00	-22.12	39.96	-8.08	Average			3	2496.208	31.87	54.00	-22.13	39.95	-8.08	Average
		4	2496.059	45.56	74.00	-28.44	53.64	-8.08	Peak			4	2496.208	45.05	74.00	-28.95	53.13	-8.08	Peak
		1	4940.000	47.36	54.00	-6.64	48.73	-1.37	Average			1	4940.000	52.42	54.00	-1.58	53.79	-1.37	Average
		2	4940.000	56.74	74.00	-17.26	58.11	-1.37	Peak			2	4940.000	61.77	74.00	-12.23	63.14	-1.37	Peak
		3	7410.000	48.11	54.00	-5.89	43.50	4.61	Average			3	7410.000	44.88	54.00	-9.12	40.27	4.61	Average
		4	7410.000	57.88	74.00	-16.12	53.27	4.61	Peak			4	7410.000	54.72	74.00	-19.28	50.11	4.61	Peak
		5	9880.000	45.99	54.00	-8.01	38.46	7.53	Average			5	9880.000	44.71	54.00	-9.29	37.18	7.53	Average
		6	9880.000	55.43	74.00	-18.57	47.90	7.53	Peak			6	9880.000	53.83	74.00	-20.17	46.30	7.53	Peak
		7	12350.000	45.39	54.00	-8.61	35.37	10.02	Average			7	12350.000	51.16	54.00	-2.84	41.14	10.02	Average
		8	12350.000	55.67	74.00	-18.33	45.65	10.02	Peak			8	12350.000	61.06	74.00	-12.94	51.04	10.02	Peak
		9	17710.000	42.89	54.00	-11.11	21.37	21.52	Average			9	17710.000	42.83	54.00	-11.17	21.31	21.52	Average
		10	17710.000	55.70	74.00	-18.30	34.18	21.52	Peak			10	17710.000	55.55	74.00	-18.45	34.03	21.52	Peak

Level = Reading + Factor.

Margin = Level – Limit.

Factor = Antenna Factor + Cable Loss – Amplifier Gain.

Spurious emissions more than 20 dB below the limit were not reported.

9. FCC §15.215(c) – 20 dB Bandwidth Testing

9.1. Applicable Standard

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.

9.2. Test Procedure

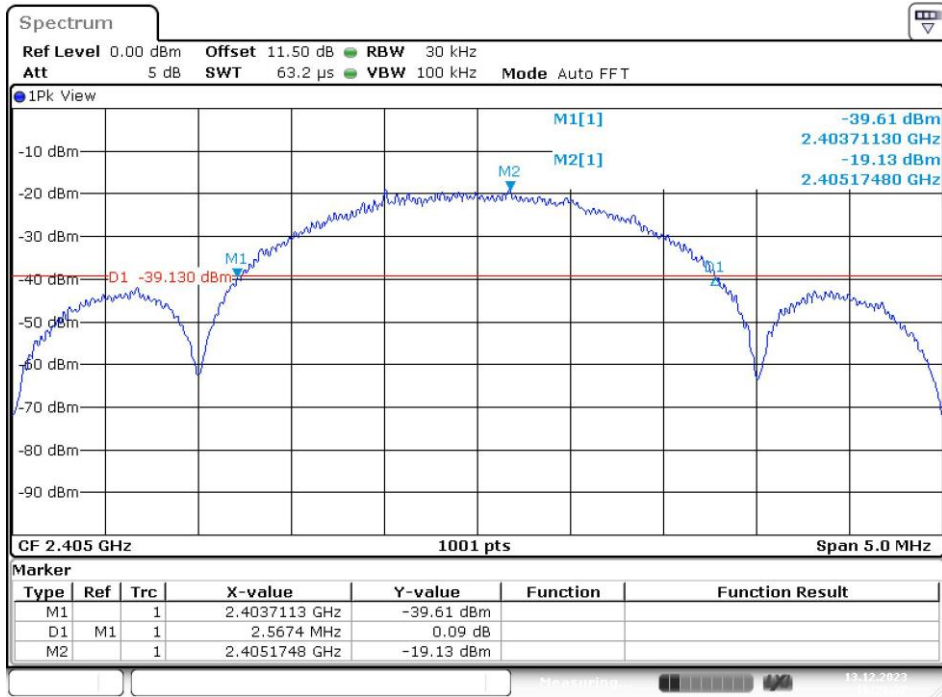
1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
3. Measure the frequency difference of two frequencies that were attenuated 20 dB from the reference level. Record the frequency difference as the emission bandwidth.
4. Repeat above procedures until all frequencies measured were complete.

9.3. Test Results

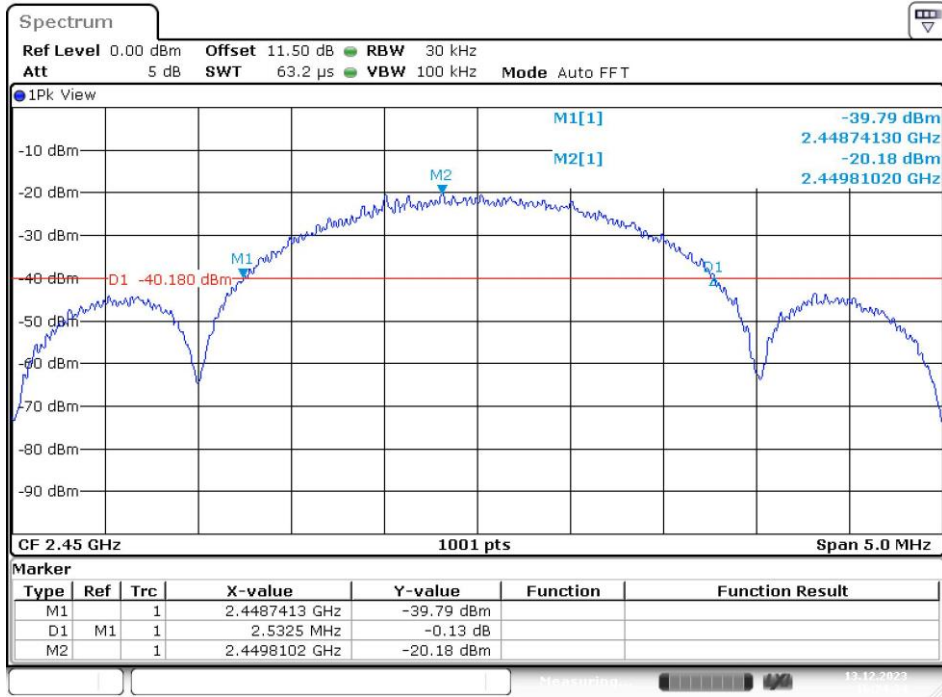
Channel	Frequency (MHz)	20 dB Emission Bandwidth (MHz)
Low	2405	2.57
Middle	2450	2.53
High	2470	2.53

Please refer to the following plots

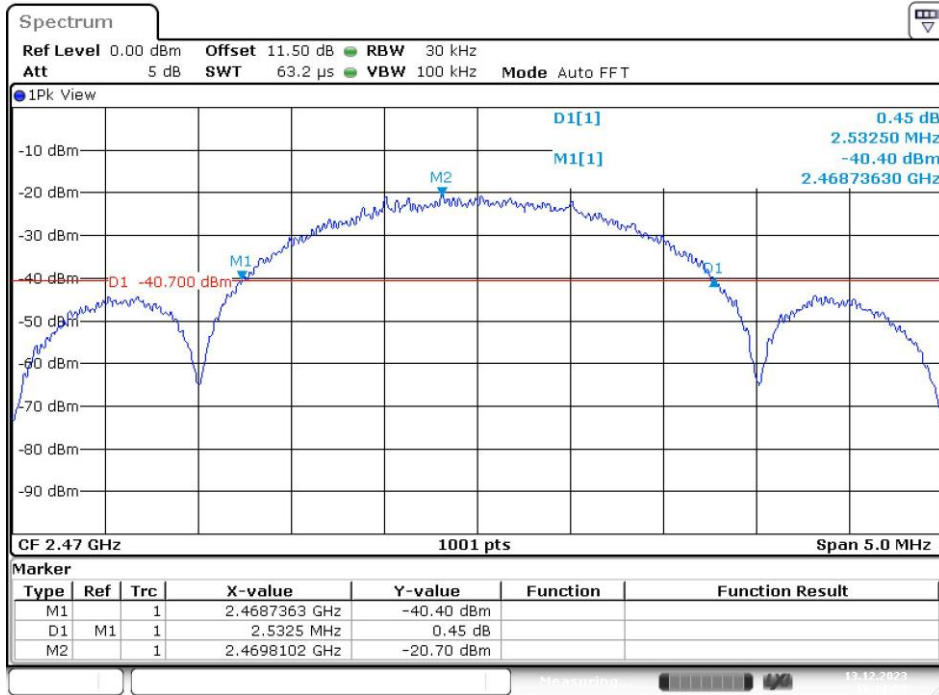
Low Channel



Middle Channel



High Channel



Date: 13.DEC.2023 16:21:53

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