



FCC PART 15.247

TEST REPORT

For

Guangzhou Shengwei E-commerce Trading Co., Ltd

4F005, 4th Floor, No. 5, Taozhuang Road, Tianhe District, Guangzhou City, China

FCC ID: 2BLFV-SMY-01

Report Type: Original Report	Product Name: Baby Sleep Sound Machine
Report Number:	2407X34586E-RF-01
Report Date:	2024-11-15
Reviewed By:	Stein Peng
Approved By:	Miles Chen
Prepared By:	Bay Area Compliance Laboratories Corp. (Xiamen) Unit 102, No. 902 Meifeng South Road, Binhai West Avenue, Science and Technology Innovation Park, Torch High tech Zone XiaMen Tel: +86-592-3200111 www.baclcorp.com.cn

TABLE OF CONTENTS

REPORT REVISION HISTORY.....	4
GENERAL INFORMATION.....	5
PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)	5
OBJECTIVE	5
TEST METHODOLOGY	5
MEASUREMENT UNCERTAINTY.....	6
SYSTEM TEST CONFIGURATION.....	7
TEST MODE AND VOLTAGE.....	7
DESCRIPTION OF TEST CONFIGURATION	7
EQUIPMENT MODIFICATIONS	7
EUT EXERCISE SOFTWARE	8
DUTY CYCLE	8
SUPPORT EQUIPMENT LIST AND DETAILS	8
EXTERNAL I/O CABLE.....	9
BLOCK DIAGRAM OF TEST SETUP	9
SUMMARY OF TEST RESULTS.....	11
TEST EQUIPMENT LIST	12
FCC §15.203 - ANTENNA REQUIREMENT.....	13
APPLICABLE STANDARD	13
ANTENNA CONNECTOR CONSTRUCTION	13
FCC §15.207 (a) – AC LINE CONDUCTED EMISSIONS	14
APPLICABLE STANDARD	14
EUT SETUP	14
EMI TEST RECEIVER SETUP.....	14
TEST PROCEDURE	14
RESULT & MARGIN CALCULATION.....	15
TEST DATA	15
FCC §15.209, §15.205 & §15.247(d) - SPURIOUS EMISSIONS.....	18
APPLICABLE STANDARD	18
EUT SETUP	18
EMI TEST RECEIVER & SPECTRUM ANALYZER SETUP	19
TEST PROCEDURE	20
RESULT & MARGIN CALCULATION.....	20
TEST DATA	21
FCC §15.247(a) (2) – 6 dB EMISSION BANDWIDTH.....	44
APPLICABLE STANDARD	44
EUT SETUP	44
TEST PROCEDURE	44
TEST DATA	44
FCC §15.247(b) (3) - MAXIMUM CONDUCTED OUTPUT POWER.....	47
APPLICABLE STANDARD	47
EUT SETUP	47
TEST PROCEDURE	47
TEST DATA	47
FCC §15.247(d) – 100 kHz BANDWIDTH OF FREQUENCY BAND EDGE.....	50
APPLICABLE STANDARD	50

EUT SETUP	50
TEST PROCEDURE	50
TEST DATA	50
FCC §15.247(e) - POWER SPECTRAL DENSITY	52
APPLICABLE STANDARD	52
EUT SETUP	52
TEST PROCEDURE	52
TEST DATA	53
EUT PHOTOGRAPHS	55
TEST SETUP PHOTOGRAPHS	56

REPORT REVISION HISTORY

Number of Revisions	Report No.	Version	Issue Date	Description
0	2407X34586E-RF-01	R1V1	2024-11-15	Initial Release

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product Name:	Baby Sleep Sound Machine
Tested Model:	SMY-01
Power Supply:	DC 3.7V from battery or DC 5V from the USB
Maximum Conducted Output Peak Power:	0.99dBm
Frequency Range:	BLE: 2402~2480MHz
Modulation Technique:	BLE: GFSK
Antenna Type:	PCB
★Maximum Antenna Gain:	2.499 dBi
EUT Received Status:	Good
<i>Note:</i> 1. The Maximum Antenna Gain was declared by manufacturer. 2. All measurement and test data in this report was gathered from production sample serial number: 2RM2-2 (Assigned by the BACL (Xiamen). The EUT supplied by the applicant was received on 2024-09-12)	

Objective

This report is prepared on behalf of *Guangzhou Shengwei E-commerce Trading Co., Ltd* in accordance with Part 2-Subpart J, Part 15-Subparts A and C of the Federal Communication Commission's rules.

The tests were performed in order to determine compliance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.247 rules.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2020, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

And KDB 558074 D01 15.247 Meas Guidance v05r02.

All emissions measurement was performed at Bay Area Compliance Laboratories Corp. (Xiamen). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Test Facility

The test site used by Bay Area Compliance Laboratories Corp. (Xiamen) to collect test data is located on the Unit 102, No. 902 Meifeng South Road, Binhai West Avenue, Science and Technology Innovation Park, Torch High tech Zone XiaMen.

Bay Area Compliance Laboratories Corp. (Xiamen) Lab is accredited to ISO/IEC 17025 by A2LA (Certificate Number: 7134.01) and the lab has been recognized as the FCC accredited lab under the KDB 974614 D01, the FCC Designation No. : CN1384.

Measurement Uncertainty

Item	Frequency Range	$U_{lab} = 2 u_c (y)$ (Confidence of 95%)
Conducted Emission	150kHz-30MHz	2.33dB
Radiated Spurious Emission	9kHz-30MHz	2.59dB
	30MHz~200MHz	4.38dB
	200MHz~1GHz	4.50dB
	1GHz~6GHz	4.58dB
	6GHz~18GHz	5.43dB
	18GHz~26.5GHz	5.47 dB
Transmitter Conducted Power		0.624 dB
Power Spectral Density		0.61dB
Occupy Bandwidth		0.053kHz
Duty Cycle		1%
Voltage (DC)		0.4%
Temperature		1°C
Humidity		5%

Note: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

SYSTEM TEST CONFIGURATION

Test Mode and Voltage

The system was configured for testing in a typical mode (as normally used by a typical user).	
Test mode:	Test Mode 1: Transmitting
Test voltage:	Test Mode 1: DC 3.7V from Battery or DC 5V from Adapter
Remark:	During all emission tests, the EUT was configured to measure its highest possible emission level and the worst case's test data was presented in this test report.

Description of Test Configuration

For BLE mode, 40 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	20	2442
1	2404	21	2444
2	2406	22	2446
3	2408	23	2448
4	2410	24	2450
5	2412	25	2452
6	2414	26	2454
7	2416	27	2456
8	2418	28	2458
9	2420	29	2460
10	2422	30	2462
11	2424	31	2464
12	2426	32	2466
13	2428	33	2468
14	2430	34	2470
15	2432	35	2472
16	2434	36	2474
17	2436	37	2476
18	2438	38	2478
19	2440	39	2480

EUT was tested with Channel 0, 19 and 39.

Equipment Modifications

No modification was made to the EUT tested.

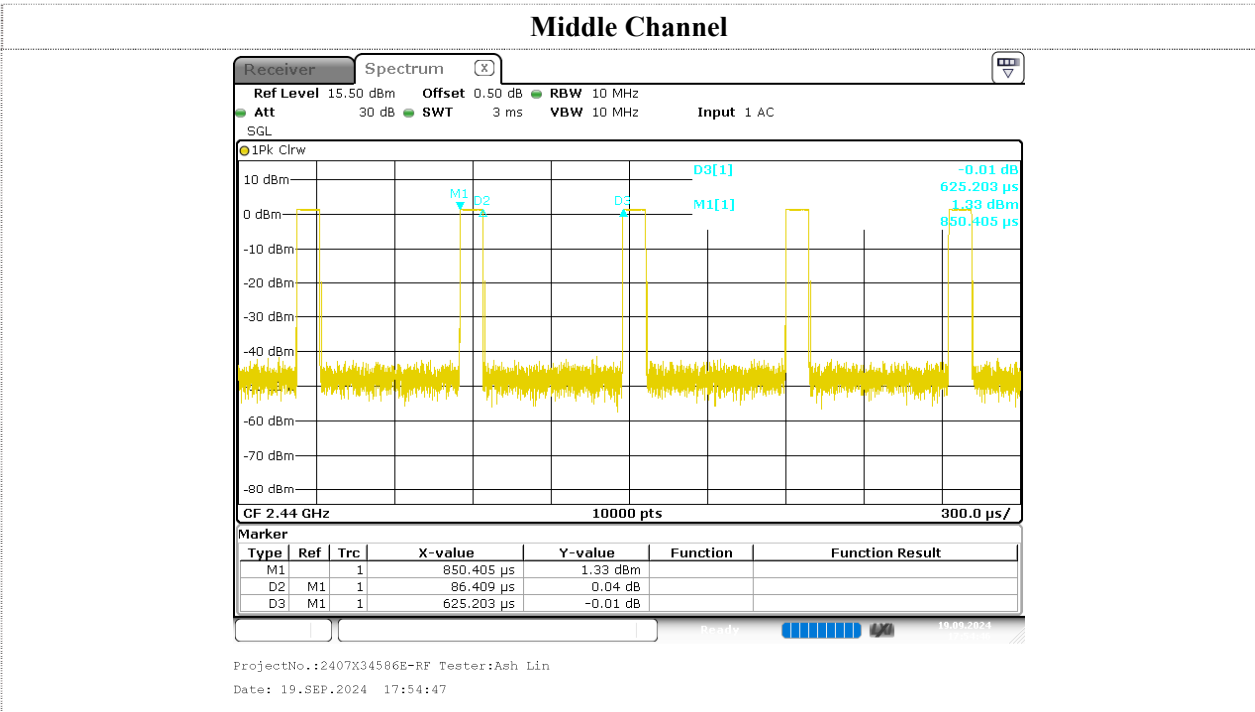
EUT Exercise Software

RF Test Tool: FCC_assist1.0.4

Mode	Power level		
	Low channel	Middle channel	High channel
BLE	0	0	0

Duty cycle

Mode	Ton (ms)	Ton+Toff (ms)	Duty Cycle (%)	1/Ton (Hz)	VBW Setting (kHz)
Middle	0.086	0.625	13.76	11628	20.00



Support Equipment List and Details

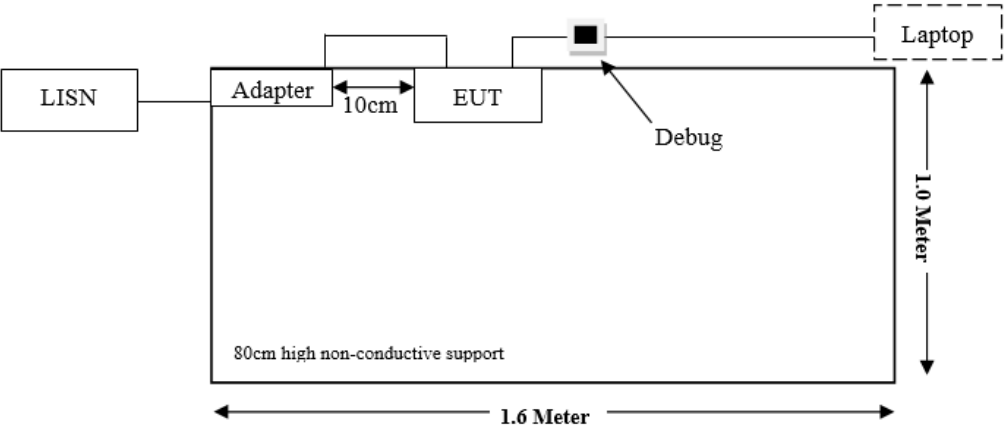
Manufacturer	Description	Model	Serial Number
CARREGADOR PORTATIL	Adapter	S64A38BL	222700047954T4
Unknown	Debug	Unknown	Unknown

External I/O Cable

Cable Description	Length (m)	From Port	To
Power Cable	1.5	Adapter	EUT
Cable	0.1	EUT	Debug
USB cable	10	Debug	Laptop

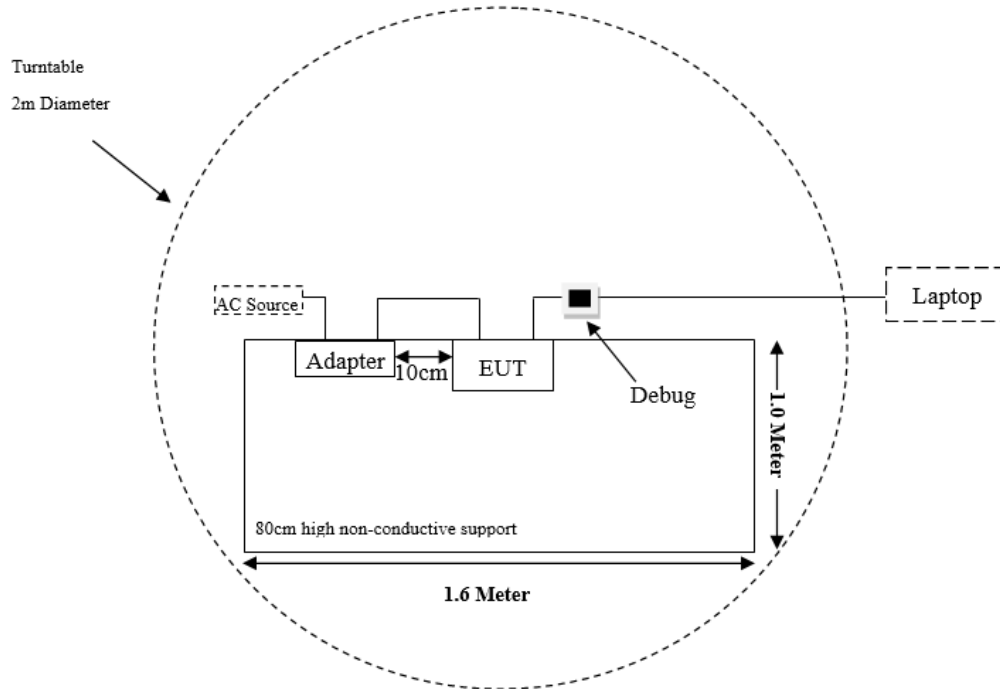
Block Diagram of Test Setup

Conducted Emission:

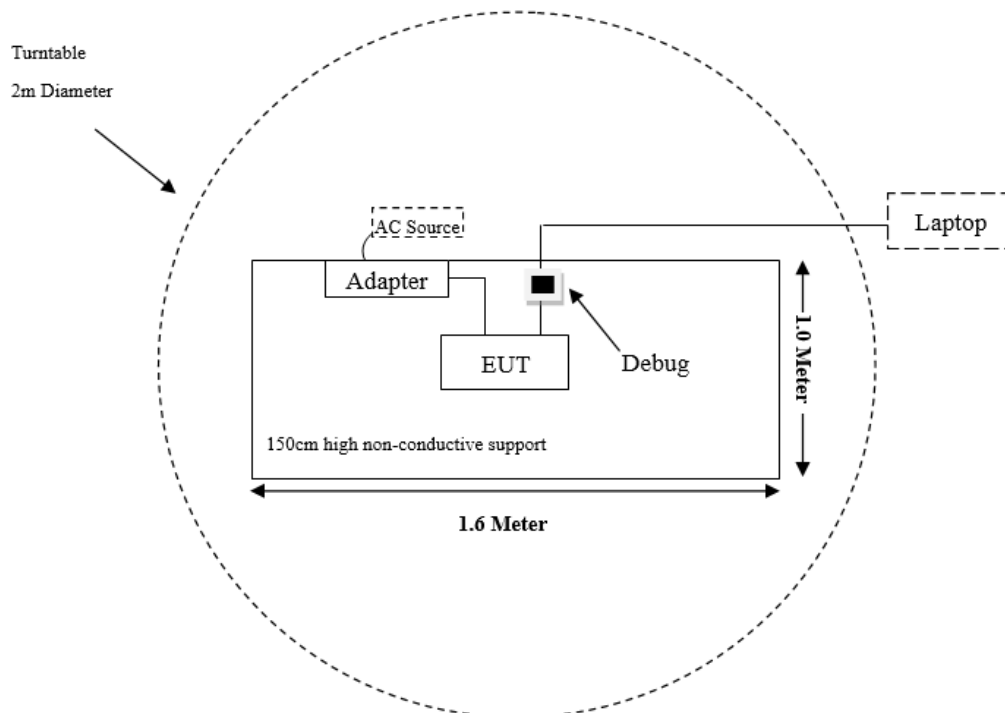


Radiated Emission:

Below 1GHz



Above 1GHz



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.203	Antenna Requirement	Compliance
§15.207 (a)	AC Line Conducted Emissions	Compliance
§15.205, §15.209, §15.247(d)	Spurious Emissions	Compliance
§15.247 (a)(2)	6 dB Emission Bandwidth	Compliance
§15.247(b)(3)	Maximum Conducted Output Power	Compliance
§15.247(d)	100 kHz Bandwidth of Frequency Band Edge	Compliance
§15.247(e)	Power Spectral Density	Compliance

TEST EQUIPMENT LIST

Test Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date
Conducted Emissions					
EMI Test Receiver	Rohde & Schwarz	ESR	103105	2024/03/29	2025/03/28
LISN	Rohde & Schwarz	ENV216	100129	2024/03/29	2025/03/28
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	0357.8810.54	2024/03/29	2025/03/28
Coaxial Cable	XINHANGWEIBO	XH400T-N-4M	CC001	2024/03/29	2025/03/28
Test Software	Audix	E3	18621a	N/A	N/A
Radiated Emissions Below 1GHz					
EMI Test Receiver	Rohde & Schwarz	ESR	103103	2024/03/29	2025/03/28
Loop Antenna	Rohde & Schwarz	HFH2-Z2	830749/001	2023/07/27	2026/07/26
Antenna	Sunol Sciences	JB6	A122022-5	2023/07/27	2026/07/26
Amplifier	Sonoma	310B	120903	2024/03/29	2025/03/28
Coaxial Cable	XINHANGWEIBO	XH400T-N-4M	CC002	2024/03/29	2025/03/28
Coaxial Cable	XINHANGWEIBO	XH460B-N-2M	CC006	2024/03/29	2025/03/28
Coaxial Cable	XINHANGWEIBO	XH460B-N-12M	CC007	2024/03/29	2025/03/28
Coaxial Cable	XINHANGWEIBO	HFH2-CC	335.3609	2024/03/29	2025/03/28
Test Software	Audix	E3	18621a	N/A	N/A
Radiated Emissions Above 1 GHz					
Spectrum Analyzer	Rohde & Schwarz	FSV40-N	102051	2024/03/29	2025/03/28
Filter Switch Unit	Decentest	DT7220FSU	DS79904	2024/02/23	2025/02/22
Multiplex Switch Test Control Set	Decentest	DT7220SCU	DS79901	2024/02/23	2025/02/22
Double Ridge Guide Horn Antenna	A.H.Systems	SAS-571	1980	2023/07/28	2026/07/27
Preamplifier	A.H.Systems	PAM-0118P	489	2024/03/29	2025/03/28
Coaxial Cable	XINHANGWEIBO	XH800A-N-6M	CC003	2024/03/29	2025/03/28
Coaxial Cable	XINHANGWEIBO	XH800A-N-1M	CC005	2024/03/29	2025/03/28
Horn Antenna	EMCO	3116	9407-2232	2023/07/31	2026/07/30
Preamplifier	A.H.Systems	PAM-1840	200	2024/03/29	2025/03/28
Coaxial Cable	XINHANGWEIBO	XH360A-2.92-3M	CC008	2024/03/29	2025/03/28
Coaxial Cable	XINHANGWEIBO	XH360A-2.92-1M	CC009	2024/03/29	2025/03/28
Test Software	Audix	E3	18621a	N/A	N/A
RF Conducted Test					
EMI Test Receiver	Rohde & Schwarz	ESR	103103	2024/03/29	2025/03/28
Coaxial Cable	N/A	N/A	N/A	Each time	N/A

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

FCC §15.203 - ANTENNA REQUIREMENT

Applicable Standard

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 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 user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

- a. Antenna must be permanently attached to the unit.
- b. Antenna must use a unique type of connector to attach to the EUT.
- c. Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

And according to FCC 47 CFR section 15.247 (b), if the transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Antenna Connector Construction

The EUT has one PCB antenna arrangement for Bluetooth, which was permanently attached and the antenna gain is 2.499 dBi, fulfill the requirement of this section. Please refer to the EUT photos.

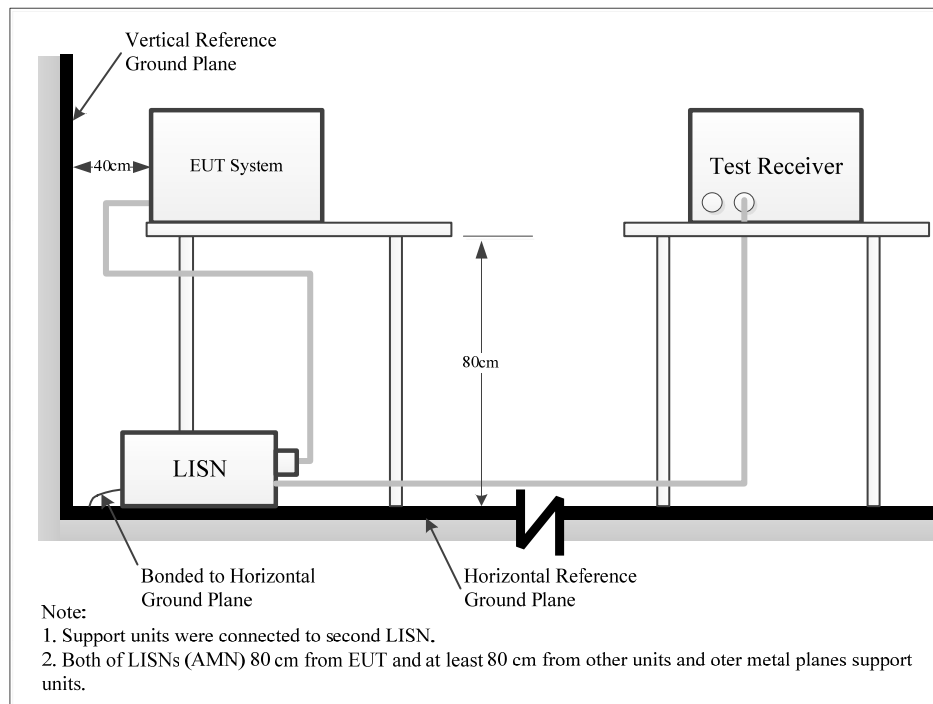
Result: Compliance

FCC §15.207 (a) – AC LINE CONDUCTED EMISSIONS

Applicable Standard

FCC§15.207

EUT Setup



The setup of EUT is according with per ANSI C63.10-2020 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The spacing between the peripherals was 10 cm.

EMI Test Receiver Setup

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

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

Frequency Range	RBW	VBW	Detector
150 kHz – 30 MHz	9 kHz	30 kHz	QP/AV

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

Result & Margin Calculation

The Result is calculated by adding LISN VDF (Voltage Division Factor), Cable Loss and Transient Limiter Attenuation from the Meter Reading. The basic equation is as follows:

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

$$\text{Result (dB}\mu\text{V)} = \text{Reading (dB}\mu\text{V)} + \text{Factor (dB)}$$

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

$$\text{Margin (dB)} = \text{Limit (dB}\mu\text{V)} - \text{Result (dB}\mu\text{V)}$$

Test Data

Temperature:	24.9°C
Relative Humidity:	54 %
ATM Pressure:	100.1kPa
Test Date:	2024-09-13
Test Engineer:	Spike Gao

EUT operation mode: Transmitting in BLE low channel (worst case)

Project No.: 2407X34586E-EM

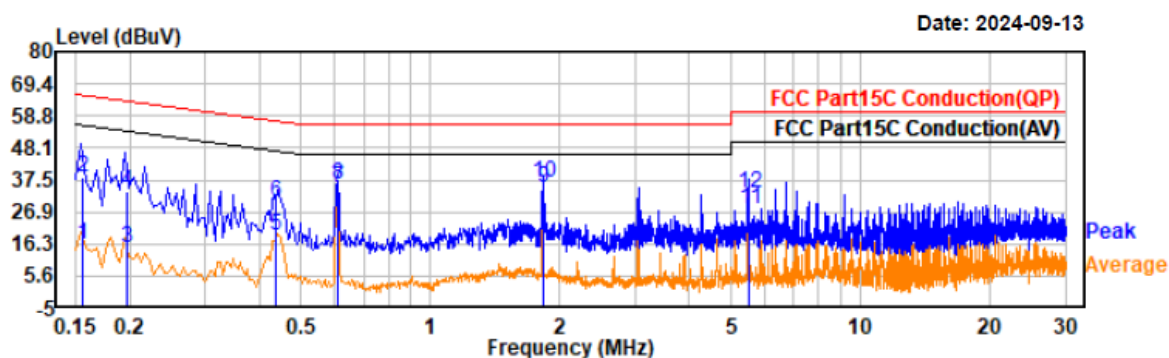
Test Mode: BLE 2402

EUT Model: SMY-01

Temp/Humi/ATM: 24.9°C/54%/100.1kPa

Tested by: Spike Gao

Power Source: AC 120V/60Hz

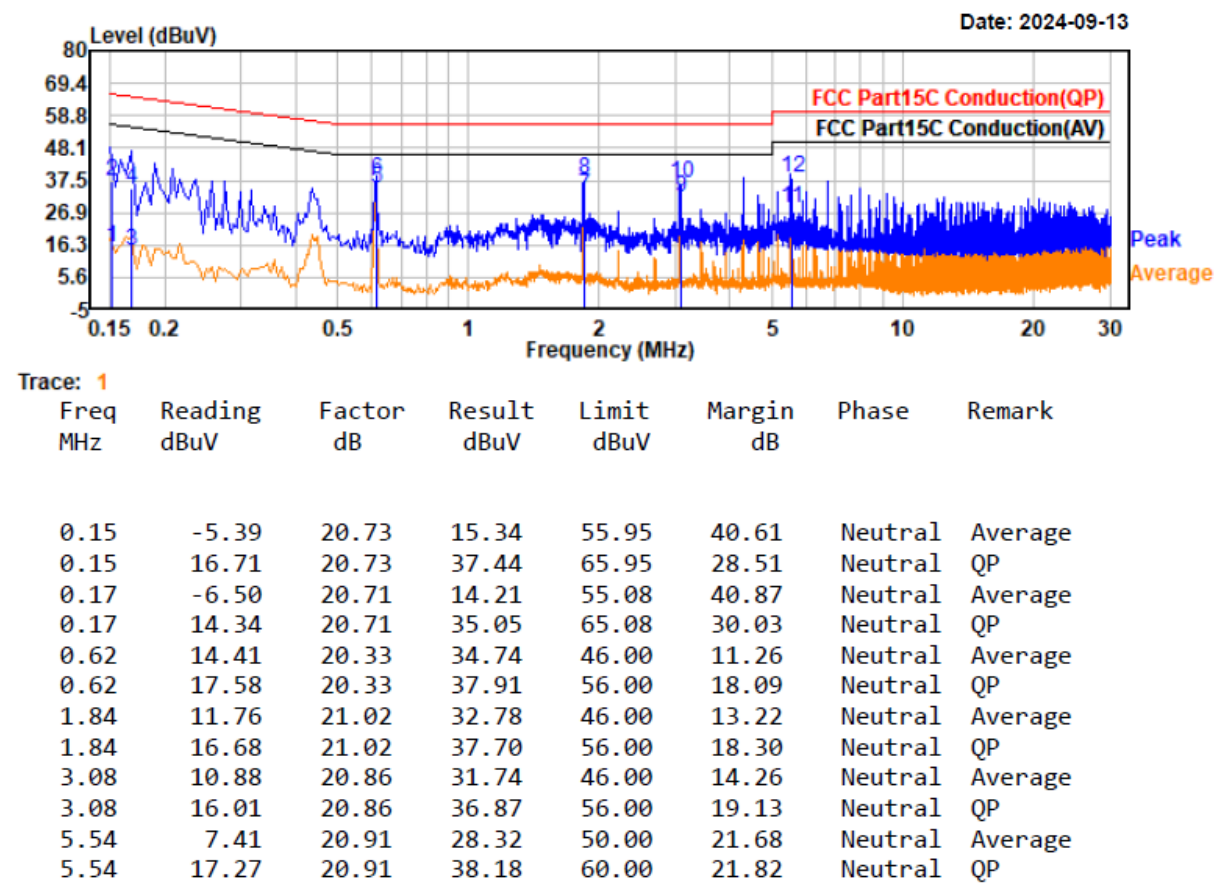


Trace: 1

Freq MHz	Reading dBuV	Factor dB	Result dBuV	Limit dBuV	Margin dB	Phase	Remark
0.16	-4.86	20.89	16.03	55.69	39.66	Line	Average
0.16	17.21	20.89	38.10	65.69	27.59	Line	QP
0.20	-5.92	20.58	14.66	53.75	39.09	Line	Average
0.20	12.97	20.58	33.55	63.75	30.20	Line	QP
0.44	-1.04	20.33	19.29	47.09	27.80	Line	Average
0.44	9.58	20.33	29.91	57.09	27.18	Line	QP
0.61	14.45	20.41	34.86	46.00	11.14	Line	Average
0.61	15.74	20.41	36.15	56.00	19.85	Line	QP
1.84	13.70	21.11	34.81	46.00	11.19	Line	Average
1.84	15.43	21.11	36.54	56.00	19.46	Line	QP
5.51	6.98	20.92	27.90	50.00	22.10	Line	Average
5.51	11.94	20.92	32.86	60.00	27.14	Line	QP

Project No.: 2407X34586E-EM
Test Mode: BLE 2402
EUT Model: SMY-01

Temp/Humi/ATM: 24.9°C/54%/100.1kPa
Tested by: Spike Gao
Power Source: AC 120V/60Hz



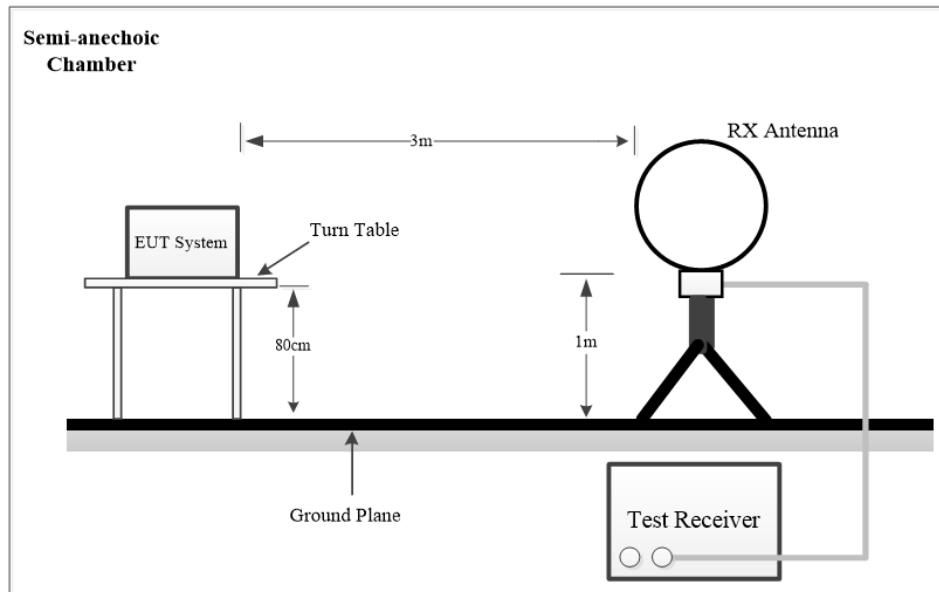
FCC §15.209, §15.205 & §15.247(d) - SPURIOUS EMISSIONS

Applicable Standard

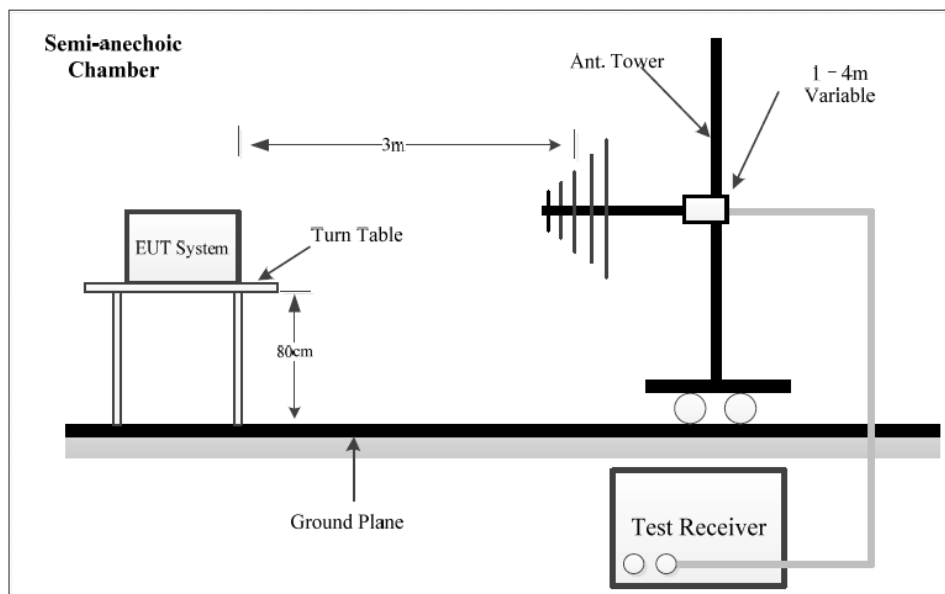
FCC §15.247 (d); §15.209; §15.205;

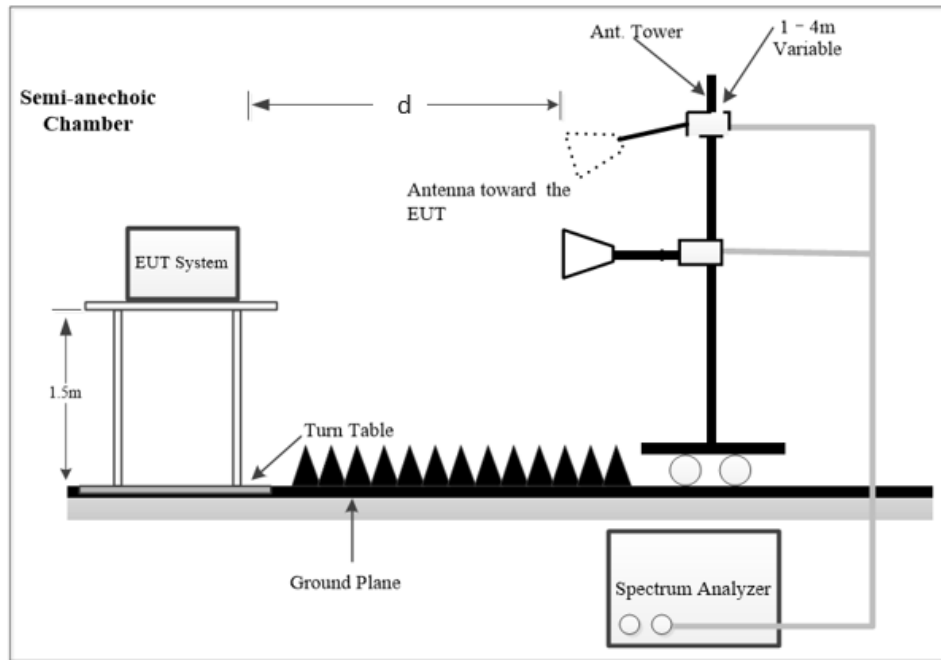
EUT Setup

9 kHz-30MHz:



30MHz -1 GHz:



Above 1GHz:

The radiated emission tests using the setup accordance with the ANSI C63.10-2020. The specification used was the FCC 15.209, and FCC 15.247 limits.

NOTE: d is testing distance;

For Radiated Emission test (1GHz-3GHz), which was performed at 3 m distance.

For Radiated Emission test(3GHz-18GHz), which was performed at 1.8 m distance, according to C63.10-2020, the test result shall be extrapolated to the specified distance using an extrapolation Factor of 20dB/de cade from 3m to 1.8m.

Distance extrapolation Factor = $20 \log (\text{specific distance } [3\text{m}]/\text{test distance } [1.8\text{m}]) \text{ dB} = 4.44 \text{ dB}$

For Radiated Bandedge Emission test, which was performed at 1.5 m distance, according to C63.10-2020, the test result shall be extrapolated to the specified distance using an extrapolation Factor of 20dB/de cade from 3m to 1.5m.

Distance extrapolation Factor = $20 \log (\text{specific distance } [3\text{m}]/\text{test distance } [1.5\text{m}]) \text{ dB} = 6 \text{ dB}$

For Radiated Emission test(18GHz-25GHz), which was performed at 1.0 m distance, according to C63.10-2020, the test result shall be extrapolated to the specified distance using an extrapolation Factor of 20dB/de cade from 3m to 1.0m.

Distance extrapolation Factor = $20 \log (\text{specific distance } [3\text{m}]/\text{test distance } [1.0\text{m}]) \text{ dB} = 9.54 \text{ dB}$

EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 9 kHz to 25 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

Below 1GHz:

Frequency Range	RBW	VBW	Measurement
9 kHz – 150 kHz	200Hz	1 kHz	PK
	200Hz	/	QP
150 kHz – 30 MHz	10 kHz	30 kHz	PK
	9kHz	/	QP
30 MHz – 1000 MHz	100 kHz	300 kHz	PK
	120kHz	/	QP

Above 1GHz:

Pre-scan:

Duty Cycle	RBW	VBW	Measurement
Any	1MHz	3MHz	PK
>98%	1MHz	5kHz	AV
<98%	1MHz	1/T, not less than 5kHz	AV

Final measurement for emission identified during the pre-scan:

Duty Cycle	RBW	VBW	Measurement
Any	1MHz	3MHz	PK
>98%	1MHz	10Hz	AV
<98%	1MHz	1/T	AV

Note: T is minimum transmission duration

Test Procedure

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

For each measurement antenna alignment, the EUT shall be rotated through 0° to 360° on a turntable. The report shall list the six emissions with the smallest margin relative to the limit, for each of the three antenna orientations (parallel, perpendicular, and ground parallel) unless the margin is greater than 20 dB, then the following statement shall be made: “all emissions were greater than 20 dB below the limit.”

Below 1GHz, if the measured peak level of the emissions that the measuring receiver reading level plus corrected factor is at least 10 dB below the QP emission limit, there's no need to record the measured QP level of the emissions in the report.

Above 1GHz, if the measured peak level of the emissions that the measuring receiver reading level plus corrected factor is at least 6 dB below the AV emission limit, there's no need to record the measured AV level of the emissions in the report.

Result & Margin Calculation

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

For 9 kHz to 3GHz Radiated emission test

Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB) - Amplifier Gain (dB)

For 3GHz to 25GHz Radiated emission test and Bandedge emissions test

Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB) - Amplifier Gain (dB) - Extrapolation factor(dB)

Extrapolation factor=6dB (distance=1.5m)

Extrapolation factor=4.4dB (distance=1.8m)

Extrapolation factor=9.54dB (distance=1m)

Result (dB μ V/m) = Reading (dB μ V) + Factor (dB/m)

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

Margin (dB) = Limit (dB μ V/m) –Result (dB μ V/m)

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:

Frequency Range:	Below 1 GHz	Above 1 GHz
Temperature:	23.6°C~24.1°C	24.1°C
Relative Humidity:	53 %	53 %
ATM Pressure:	100.1 kPa	100.1 kPa
Test Date:	2024-09-20~2024-11-13	2024-10-08~2024-11-14
Test Engineer:	Zane Zhang, Wlif Wu	Wlif Wu

1) 9 kHz~30MHz

EUT operation mode: Transmitting in lowest channel in parallel (worst case)

Project No.: 2407X34586E-RF

Test Mode: 1M-2402

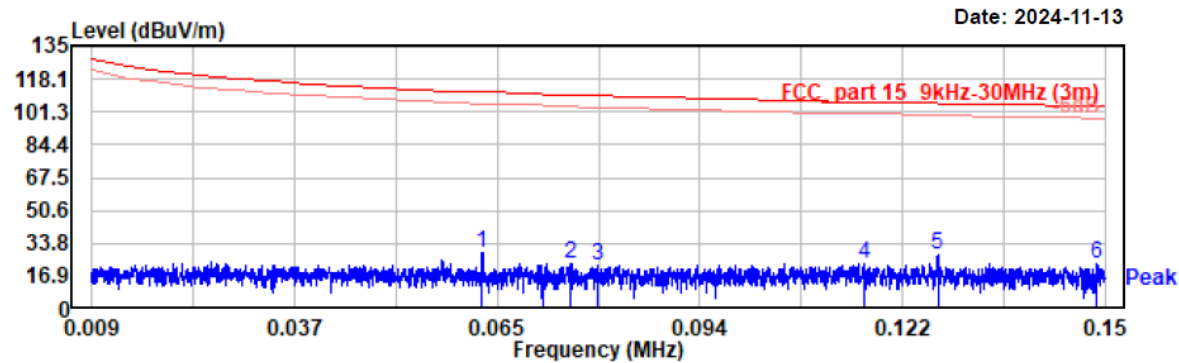
EUT Model: SMY-01

Test distance: 3m

Temp/Humi/ATM: 24.1℃/53%/100.1kPa

Tested by: Wlif Wu

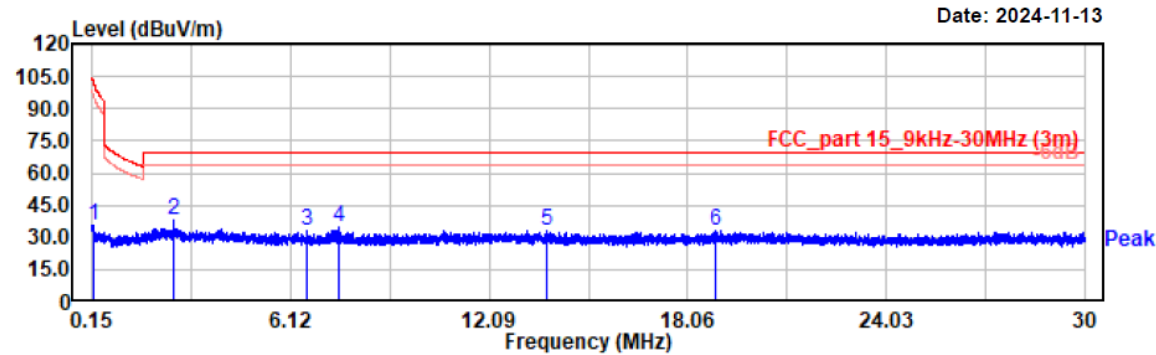
Power Source: AC 120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
0.063	8.61	19.88	28.49	111.57	83.08	Peak
0.076	3.95	19.75	23.70	110.04	86.34	Peak
0.079	2.85	19.72	22.57	109.61	87.04	Peak
0.116	3.95	19.73	23.68	106.29	82.61	Peak
0.127	8.17	19.73	27.90	105.55	77.65	Peak
0.149	3.94	19.73	23.67	104.15	80.48	Peak

Project No.: 2407X34586E-RF
Test Mode: 1M-2402
EUT Model: SMY-01
Test distance: 3m

Temp/Humi/ATM: 24.1°C/53%/100.1kPa
Tested by: Wlif Wu
Power Source: AC 120V/60Hz



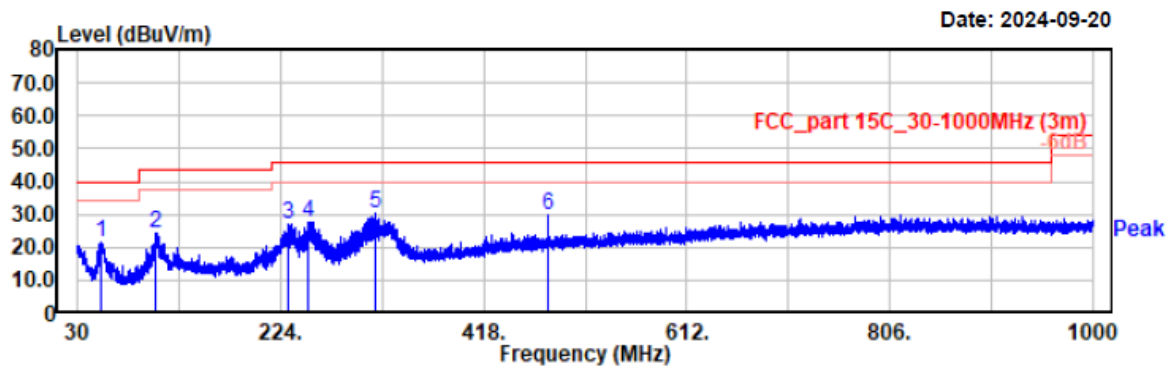
Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
0.189	16.06	19.72	35.78	102.08	66.30	Peak
2.592	18.49	19.74	38.23	69.54	31.31	Peak
6.624	13.64	19.73	33.37	69.54	36.17	Peak
7.547	15.00	19.68	34.68	69.54	34.86	Peak
13.803	13.54	19.75	33.29	69.54	36.25	Peak
18.875	12.90	20.01	32.91	69.54	36.63	Peak

2) 30MHz -1GHz

EUT operation mode: Transmitting in lowest channel (worst case)

Project No.: 2407X34586E-RF
Test Mode: BLE 2402
EUT Model: SMY-01
Test distance: 3m

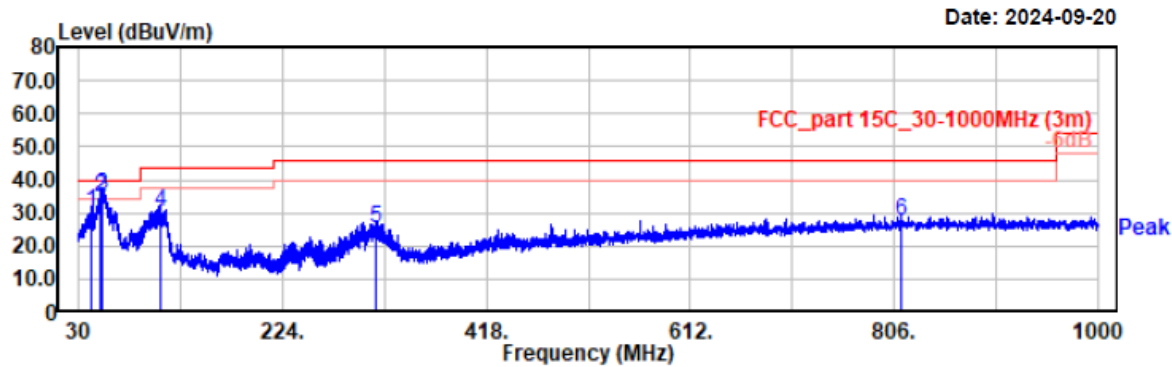
Temp/Humi/ATM: 23.6°C/53%/100.1kPa
Tested by: Zane Zhang
Power Source: AC 120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
52.12	39.46	-17.72	21.74	40.00	18.26	Horizontal	Peak
105.08	37.83	-13.34	24.49	43.50	19.01	Horizontal	Peak
230.60	39.11	-12.16	26.95	46.00	19.05	Horizontal	Peak
250.58	39.12	-11.41	27.71	46.00	18.29	Horizontal	Peak
313.92	39.07	-8.92	30.15	46.00	15.85	Horizontal	Peak
479.98	33.41	-3.83	29.58	46.00	16.42	Horizontal	Peak

Project No.: 2407X34586E-RF
Test Mode: BLE 2402
EUT Model: SMY-01
Test distance: 3m

Temp/Humi/ATM: 23.6°C/53%/100.1kPa
Tested by: Zane Zhang
Power Source: AC 120V/60Hz

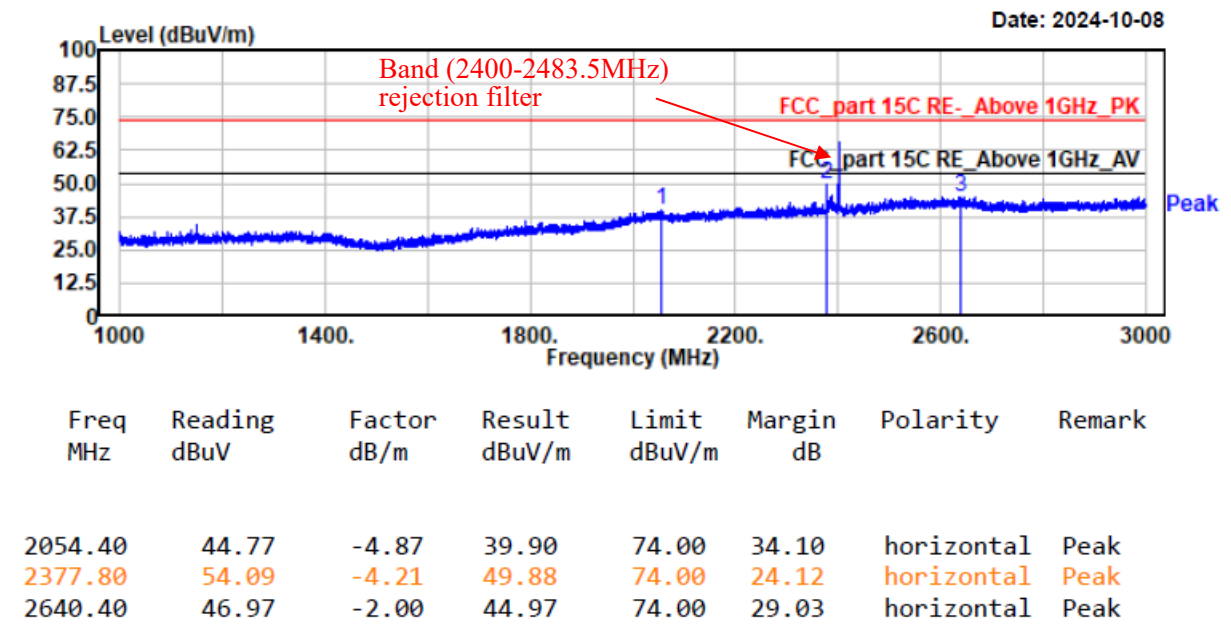


Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
41.64	43.02	-12.82	30.20	40.00	9.80	Vertical	QP
50.40	52.10	-17.41	34.69	40.00	5.31	Vertical	QP
52.94	52.86	-17.72	35.14	40.00	4.86	Vertical	QP
107.12	43.28	-12.70	30.58	43.50	12.92	Vertical	QP
312.66	34.44	-8.95	25.49	46.00	20.51	Vertical	QP
813.18	26.35	1.40	27.75	46.00	18.25	Vertical	QP

3) 1GHz~3GHz

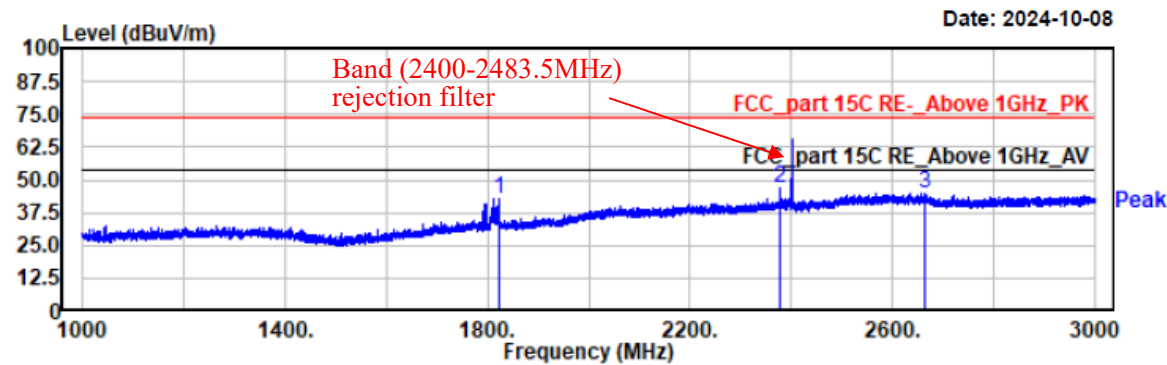
Project No.: 2407X34586E-RF
Test Mode: 1M-2402
EUT Model: SMY-01
Test distance: 3m

Temp/Humi/ATM: 24.1°C/53%/100.1kPa
Tested by: Wlif Wu
Power Source: AC120V/60Hz



Project No.: 2407X34586E-RF
Test Mode: 1M-2402
EUT Model: SMY-01
Test distance: 3m

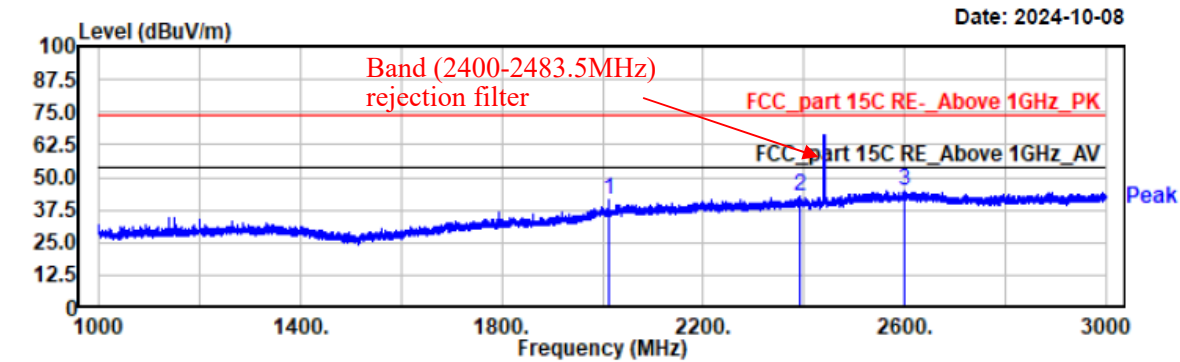
Temp/Humi/ATM: 24.1°C/53%/100.1kPa
Tested by: Wlif Wu
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
1821.80	53.16	-10.36	42.80	74.00	31.20	vertical	Peak
2378.20	51.23	-4.21	47.02	74.00	26.98	vertical	Peak
2665.60	47.05	-2.40	44.65	74.00	29.35	vertical	Peak

Project No.: 2407X34586E-RF
Test Mode: 1M-2440
EUT Model: SMY-01
Test distance: 3m

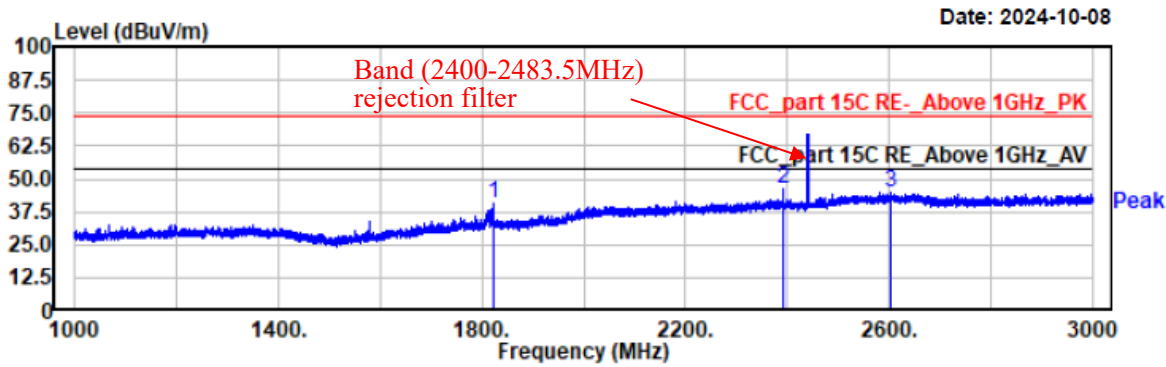
Temp/Humi/ATM: 24.1°C/53%/100.1kPa
Tested by: Wlif Wu
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2012.60	46.98	-5.39	41.59	74.00	32.41	horizontal	Peak
2392.00	46.86	-4.00	42.86	74.00	31.14	horizontal	Peak
2599.40	46.67	-1.95	44.72	74.00	29.28	horizontal	Peak

Project No.: 2407X34586E-RF
Test Mode: 1M-2440
EUT Model: SMY-01
Test distance: 3m

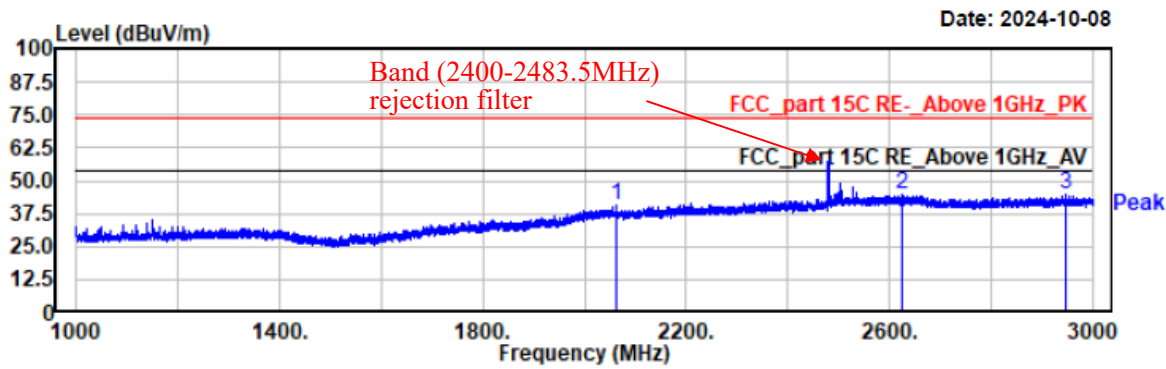
Temp/Humi/ATM: 24.1°C/53%/100.1kPa
Tested by: Wlif Wu
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
1823.40	50.93	-10.35	40.58	74.00	33.42	vertical	Peak
2392.60	50.18	-3.99	46.19	74.00	27.81	vertical	Peak
2604.20	46.61	-1.96	44.65	74.00	29.35	vertical	Peak

Project No.: 2407X34586E-RF
Test Mode: 1M-2480
EUT Model: SMY-01
Test distance: 3m

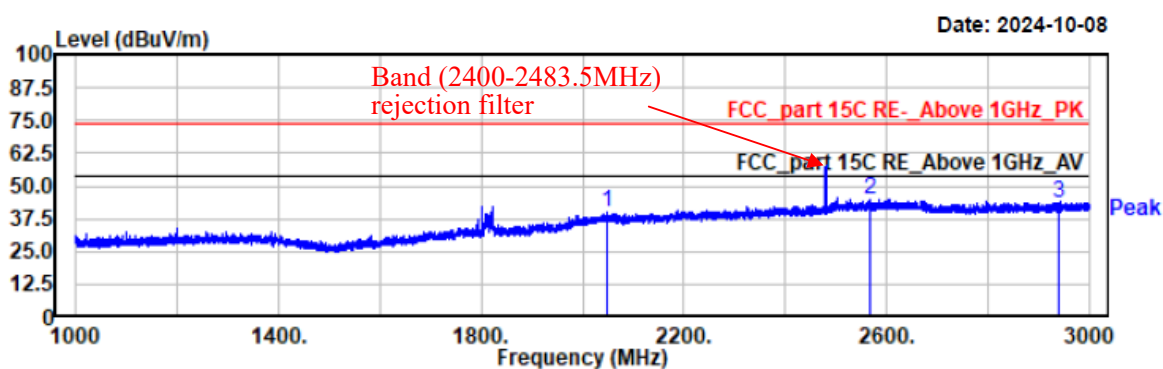
Temp/Humi/ATM: 24.1°C/53%/100.1kPa
Tested by: Wlif Wu
Power Source: AC120V/60Hz



Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2064.20	45.46	-5.02	40.44	74.00	33.56	horizontal	Peak
2624.00	46.55	-1.99	44.56	74.00	29.44	horizontal	Peak
2946.00	47.56	-2.79	44.77	74.00	29.23	horizontal	Peak

Project No.: 2407X34586E-RF
Test Mode: 1M-2480
EUT Model: SMY-01
Test distance: 3m

Temp/Humi/ATM: 24.1°C/53%/100.1kPa
Tested by: Wlif Wu
Power Source: AC120V/60Hz

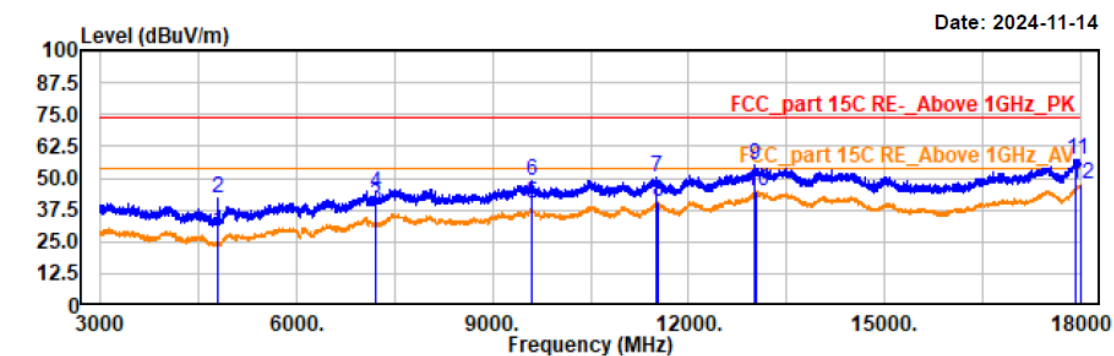


Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2046.80	44.53	-4.86	39.67	74.00	34.33	vertical	Peak
2569.20	46.90	-2.06	44.84	74.00	29.16	vertical	Peak
2938.40	46.57	-2.81	43.76	74.00	30.24	vertical	Peak

4) 3GHz~18GHz

Project No.: 2407X34586E-RF
Test Mode: 1M-2402
EUT Model: SMY-01
Test distance: 1.8m

Temp/Humi/ATM: 24.1°C/53%/100.1kPa
Tested by: Wlif Wu
Power Source: AC120V/60Hz



Trace: 1

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
4804.50	40.48	-11.46	29.02	54.00	24.98	horizontal	Average
4804.50	53.85	-11.46	42.39	74.00	31.61	horizontal	Peak
7206.00	42.87	-3.58	39.29	54.00	14.71	horizontal	Average
7206.00	47.65	-3.58	44.07	74.00	29.93	horizontal	Peak
9607.50	39.18	1.13	40.31	54.00	13.69	horizontal	Average
9607.50	48.05	1.13	49.18	74.00	24.82	horizontal	Peak
11505.00	46.90	3.10	50.00	74.00	24.00	horizontal	Peak
11536.50	37.30	3.09	40.39	54.00	13.61	horizontal	Average
13012.50	46.78	8.37	55.15	74.00	18.85	horizontal	Peak
13045.50	36.61	8.17	44.78	54.00	9.22	horizontal	Average
17937.00	46.60	10.71	57.31	74.00	16.69	horizontal	Peak
17997.00	36.25	11.04	47.29	54.00	6.71	horizontal	Average

Project No.: 2407X34586E-RF

Test Mode: 1M-2402

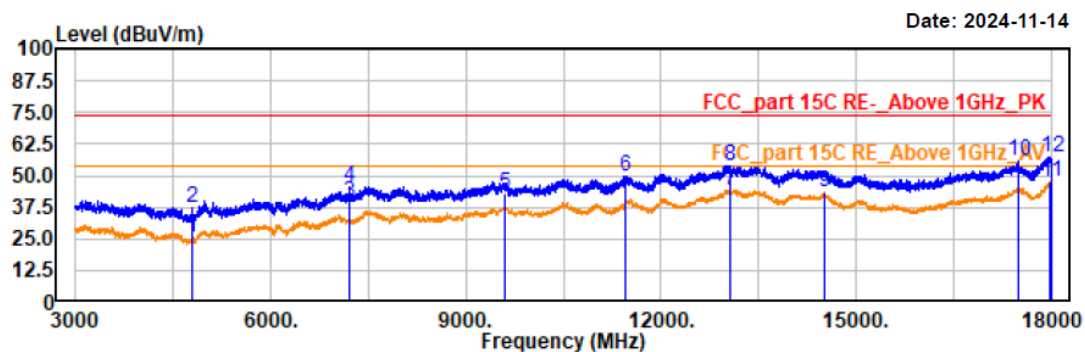
EUT Model: SMY-01

Test distance: 1.8m

Temp/Humi/ATM: 24.1°C/53%/100.1kPa

Tested by: Wlif Wu

Power Source: AC120V/60Hz



Trace: 1

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
4804.50	37.12	-11.46	25.66	54.00	28.34	vertical	Average
4804.50	48.41	-11.46	36.95	74.00	37.05	vertical	Peak
7206.00	43.03	-3.58	39.45	54.00	14.55	vertical	Average
7206.00	49.24	-3.58	45.66	74.00	28.34	vertical	Peak
9607.50	41.56	1.13	42.69	54.00	11.31	vertical	Average
11466.00	46.81	2.99	49.80	74.00	24.20	vertical	Peak
13059.00	36.28	8.07	44.35	54.00	9.65	vertical	Average
13071.00	45.99	8.01	54.00	74.00	20.00	vertical	Peak
14505.00	37.18	5.97	43.15	54.00	10.85	vertical	Average
17496.00	48.26	7.63	55.89	74.00	18.11	vertical	Peak
17989.50	36.64	11.00	47.64	54.00	6.36	vertical	Average
17999.00	46.31	11.06	57.37	74.00	16.63	vertical	Peak

Project No.: 2407X34586E-RF

Test Mode: 1M-2440

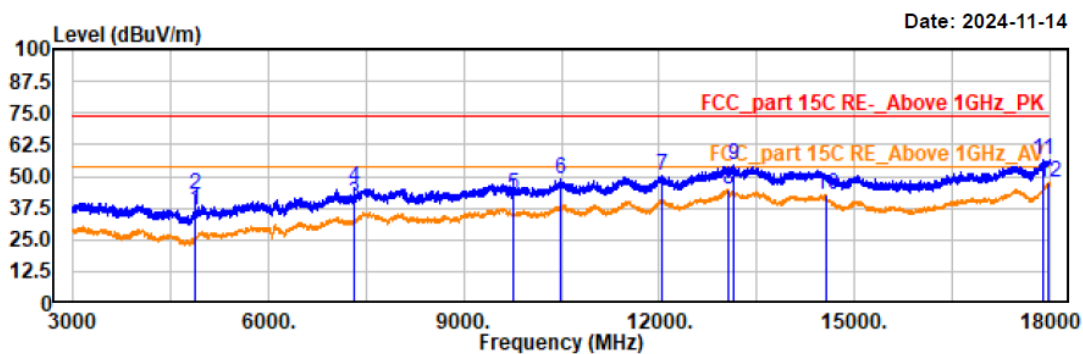
EUT Model: SMY-01

Test distance: 1.8m

Temp/Humi/ATM: 24.1°C/53%/100.1kPa

Tested by: Wlif Wu

Power Source: AC120V/60Hz



Trace: 1

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
4879.50	46.78	-10.48	36.30	54.00	17.70	horizontal	Average
4879.50	53.44	-10.48	42.96	74.00	31.04	horizontal	Peak
7320.00	42.43	-2.90	39.53	54.00	14.47	horizontal	Average
7320.00	48.75	-2.90	45.85	74.00	28.15	horizontal	Peak
9760.50	42.71	0.11	42.82	54.00	11.18	horizontal	Average
10488.00	46.81	2.11	48.92	74.00	25.08	horizontal	Peak
12049.50	46.42	4.09	50.51	74.00	23.49	horizontal	Peak
13057.50	36.75	8.08	44.83	54.00	9.17	horizontal	Average
13132.50	46.44	7.82	54.26	74.00	19.74	horizontal	Peak
14559.00	37.55	5.25	42.80	54.00	11.20	horizontal	Average
17899.50	45.80	10.50	56.30	74.00	17.70	horizontal	Peak
17976.00	36.65	10.92	47.57	54.00	6.43	horizontal	Average

Project No.: 2407X34586E-RF

Test Mode: 1M-2440

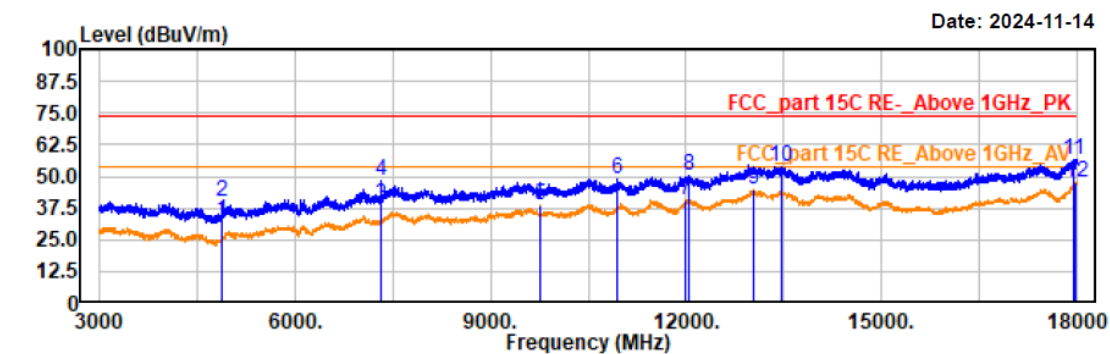
EUT Model: SMY-01

Test distance: 1.8m

Temp/Humi/ATM: 24.1°C/53%/100.1kPa

Tested by: Wlif Wu

Power Source: AC120V/60Hz



Trace: 1

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
4879.50	43.06	-10.48	32.58	54.00	21.42	vertical	Average
4879.50	50.43	-10.48	39.95	74.00	34.05	vertical	Peak
7320.00	41.27	-2.90	38.37	54.00	15.63	vertical	Average
7320.00	50.96	-2.90	48.06	74.00	25.94	vertical	Peak
9760.50	38.36	0.11	38.47	54.00	15.53	vertical	Average
10938.00	47.61	1.35	48.96	74.00	25.04	vertical	Peak
12000.00	36.42	4.16	40.58	54.00	13.42	vertical	Average
12037.50	46.07	4.12	50.19	74.00	23.81	vertical	Peak
13047.00	36.38	8.15	44.53	54.00	9.47	vertical	Average
13455.00	46.24	7.45	53.69	74.00	20.31	vertical	Peak
17949.00	45.53	10.78	56.31	74.00	17.69	vertical	Peak
17991.00	36.61	11.01	47.62	54.00	6.38	vertical	Average

Project No.: 2407X34586E-RF

Test Mode: 1M-2480

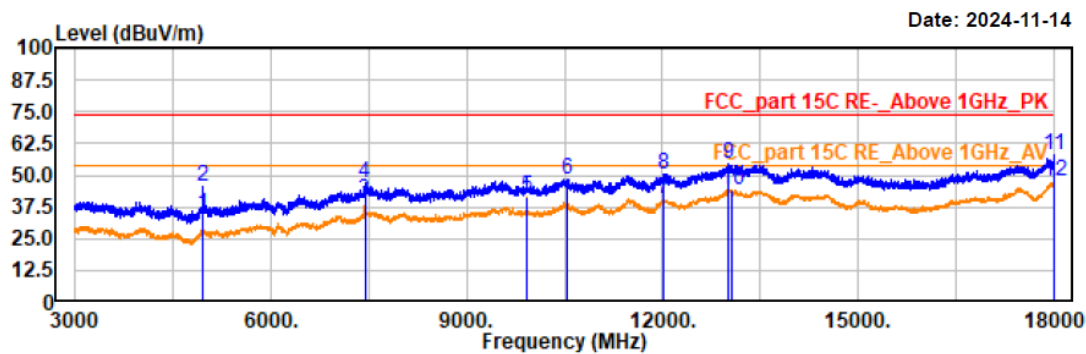
EUT Model: SMY-01

Test distance: 1.8m

Temp/Humi/ATM: 24.1°C/53%/100.1kPa

Tested by: Wlif Wu

Power Source: AC120V/60Hz



Trace: 1

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
4960.50	44.08	-9.49	34.59	54.00	19.41	horizontal	Average
4960.50	55.23	-9.49	45.74	74.00	28.26	horizontal	Peak
7440.00	42.14	-2.07	40.07	54.00	13.93	horizontal	Average
7440.00	48.93	-2.07	46.86	74.00	27.14	horizontal	Peak
9919.50	41.68	0.03	41.71	54.00	12.29	horizontal	Average
10548.00	46.51	2.06	48.57	74.00	25.43	horizontal	Peak
12006.00	36.45	4.15	40.60	54.00	13.40	horizontal	Average
12018.00	46.21	4.14	50.35	74.00	23.65	horizontal	Peak
13008.00	45.86	8.41	54.27	74.00	19.73	horizontal	Peak
13057.50	36.31	8.08	44.39	54.00	9.61	horizontal	Average
17997.00	46.88	11.04	57.92	74.00	16.08	horizontal	Peak
17998.50	36.48	11.05	47.53	54.00	6.47	horizontal	Average

Project No.: 2407X34586E-RF

Test Mode: 1M-2480

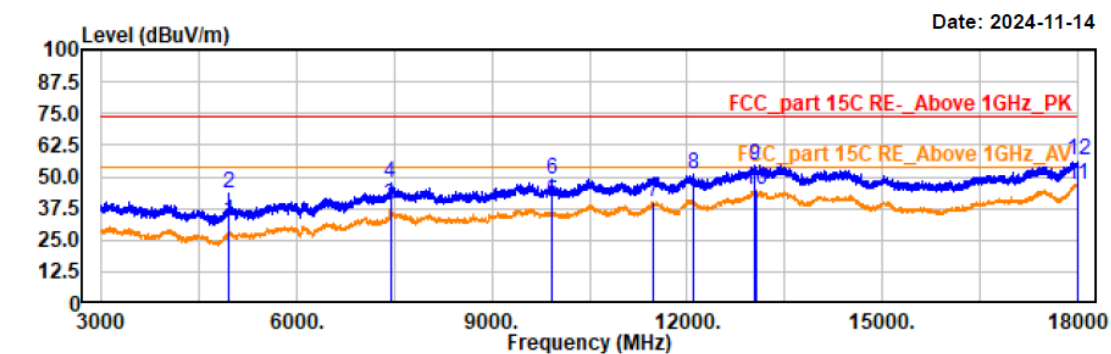
EUT Model: SMY-01

Test distance: 1.8m

Temp/Humi/ATM: 24.1°C/53%/100.1kPa

Tested by: Wlif Wu

Power Source: AC120V/60Hz



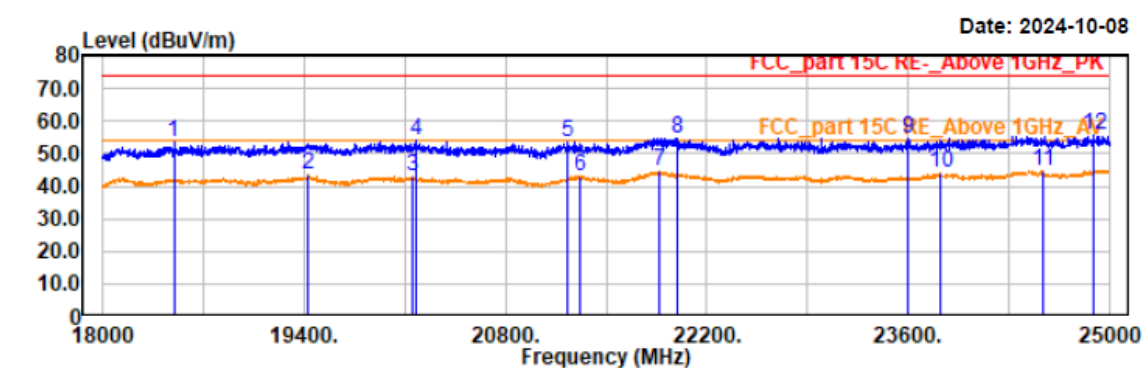
Trace: 1

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
4960.50	42.00	-9.49	32.51	54.00	21.49	vertical	Average
4960.50	52.85	-9.49	43.36	74.00	30.64	vertical	Peak
7440.00	40.70	-2.07	38.63	54.00	15.37	vertical	Average
7440.00	49.32	-2.07	47.25	74.00	26.75	vertical	Peak
9919.50	40.18	0.03	40.21	54.00	13.79	vertical	Average
9919.50	49.09	0.03	49.12	74.00	24.88	vertical	Peak
11470.50	37.14	3.01	40.15	54.00	13.85	vertical	Average
12096.00	46.81	4.03	50.84	74.00	23.16	vertical	Peak
13042.50	46.15	8.19	54.34	74.00	19.66	vertical	Peak
13051.50	36.71	8.12	44.83	54.00	9.17	vertical	Average
17994.00	36.09	11.02	47.11	54.00	6.89	vertical	Average
17999.00	45.66	11.06	56.72	74.00	17.28	vertical	Peak

4) 18GHz~25GHz*EUT operation mode: Transmitting in lowest channel (worst case)*

Project No.: 2407X34586E-RF
Test Mode: 1M-2402
EUT Model: SMY-01
Test distance: 1m

Temp/Humi/ATM: 24.1°C/53%/100.1kPa
Tested by: Wlif Wu
Power Source: AC 120V/60Hz



Trace: 1

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
18492.80	38.66	14.83	53.49	74.00	20.51	horizontal	Peak
19430.00	28.37	15.06	43.43	54.00	10.57	horizontal	Average
20156.00	27.51	15.37	42.88	54.00	11.12	horizontal	Average
20182.40	38.52	15.41	53.93	74.00	20.07	horizontal	Peak
21236.20	37.54	16.09	53.63	74.00	20.37	horizontal	Peak
21319.80	26.97	16.08	43.05	54.00	10.95	horizontal	Average
21865.40	28.02	16.51	44.53	54.00	9.47	horizontal	Average
21993.00	38.25	16.57	54.82	74.00	19.18	horizontal	Peak
23603.40	37.34	17.47	54.81	74.00	19.19	horizontal	Peak
23830.00	26.20	17.84	44.04	54.00	9.96	horizontal	Average
24538.40	25.70	19.02	44.72	54.00	9.28	horizontal	Average
24886.00	36.74	18.88	55.62	74.00	18.38	horizontal	Peak

Project No.: 2407X34586E-RF

Test Mode: 1M-2402

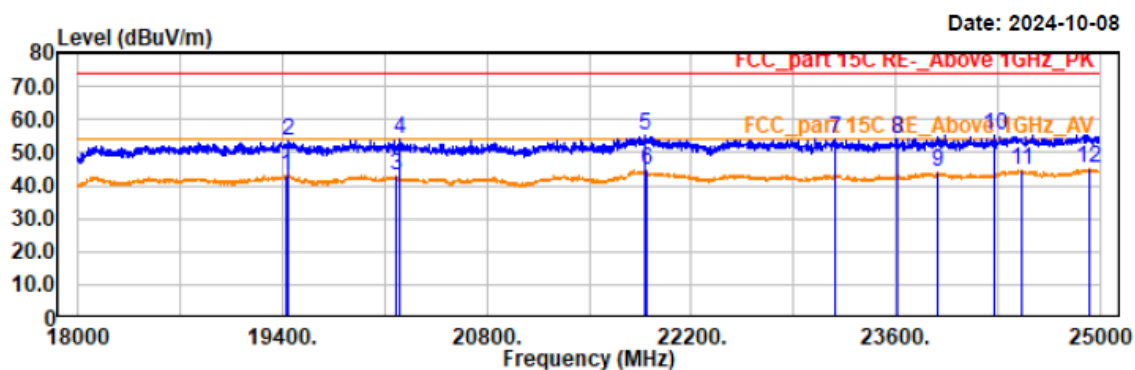
EUT Model: SMY-01

Test distance: 1m

Temp/Humi/ATM: 24.1°C/53%/100.1kPa

Tested by: Wlif Wu

Power Source: AC 120V/60Hz



Trace: 1

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
19427.80	28.22	15.06	43.28	54.00	10.72	vertical	Average
19434.40	38.33	15.06	53.39	74.00	20.61	vertical	Peak
20173.60	27.54	15.40	42.94	54.00	11.06	vertical	Average
20200.00	38.55	15.44	53.99	74.00	20.01	vertical	Peak
21887.40	38.53	16.56	55.09	74.00	18.91	vertical	Peak
21891.80	27.99	16.55	44.54	54.00	9.46	vertical	Average
23183.20	37.27	16.91	54.18	74.00	19.82	vertical	Peak
23612.20	36.85	17.48	54.33	74.00	19.67	vertical	Peak
23891.60	25.96	17.92	43.88	54.00	10.12	vertical	Average
24281.00	36.79	18.62	55.41	74.00	18.59	vertical	Peak
24459.20	25.76	18.96	44.72	54.00	9.28	vertical	Average
24921.20	26.40	18.87	45.27	54.00	8.73	vertical	Average

Restricted Bands Emissions:

Pre-Scan the X, Y and Z axes of orientation, the worst case in Z-axis of orientation was recorded

Project No.: 2407X34586E-RF

Test Mode: 1M-2402

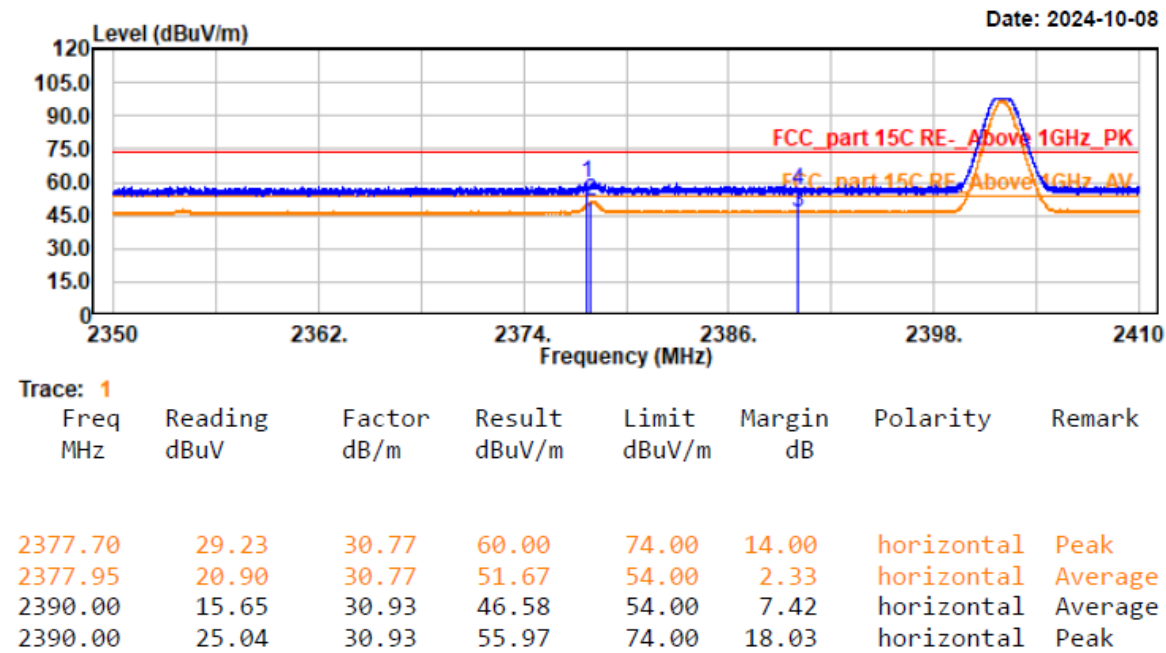
EUT Model: SMY-01

Test distance: 1.5m

Temp/Humi/ATM: 24.1°C/53%/100.1kPa

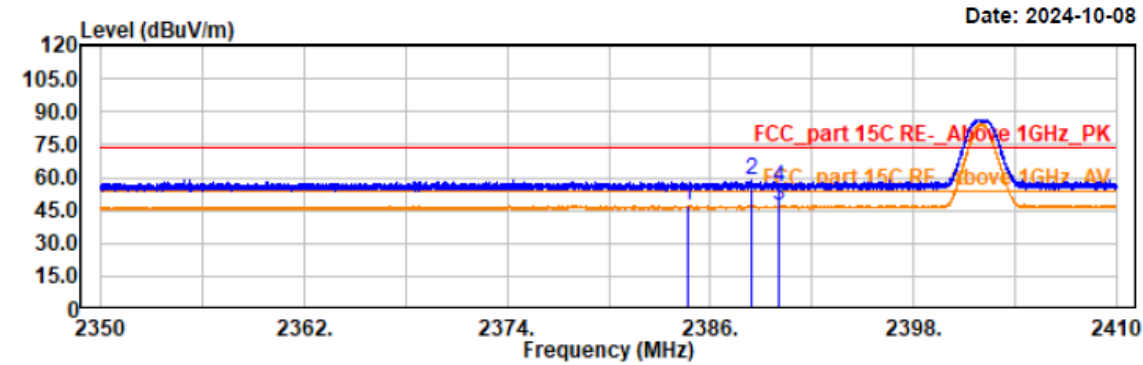
Tested by: Wlif Wu

Power Source: AC120V/60Hz



Project No.: 2407X34586E-RF
Test Mode: 1M-2402
EUT Model: SMY-01
Test distance: 1.5m

Temp/Humi/ATM: 24.1°C/53%/100.1kPa
Tested by: Wlif Wu
Power Source: AC120V/60Hz

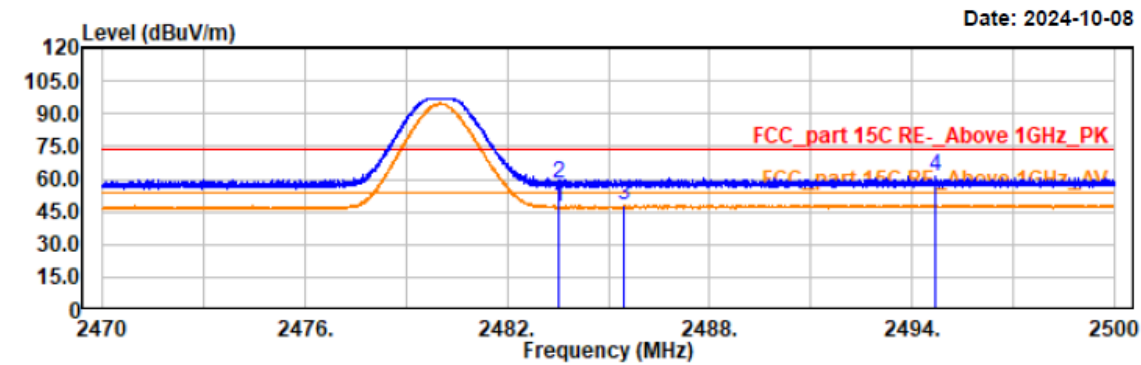


Trace: 1

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2384.67	16.41	30.87	47.28	54.00	6.72	vertical	Average
2388.47	27.93	30.91	58.84	74.00	15.16	vertical	Peak
2390.00	15.86	30.93	46.79	54.00	7.21	vertical	Average
2390.00	24.44	30.93	55.37	74.00	18.63	vertical	Peak

Project No.: 2407X34586E-RF
Test Mode: 1M-2480
EUT Model: SMY-01
Test distance: 1.5m

Temp/Humi/ATM: 24.1°C/53%/100.1kPa
Tested by: Wlif Wu
Power Source: AC120V/60Hz

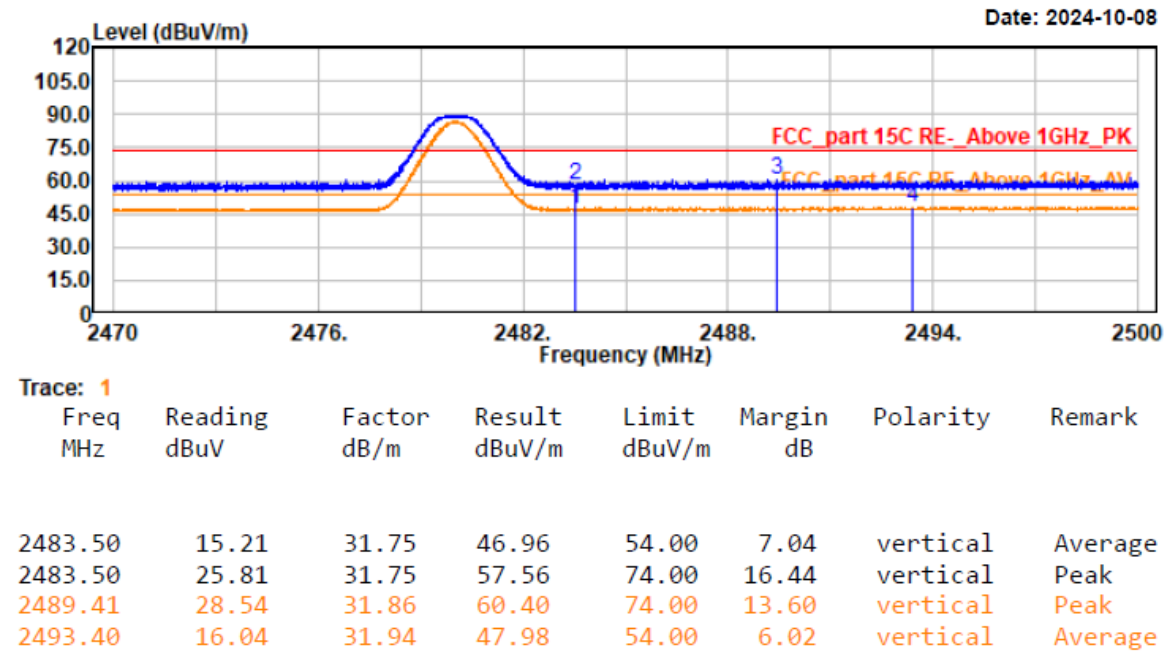


Trace: 1

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2483.50	15.76	31.75	47.51	54.00	6.49	horizontal	Average
2483.50	25.95	31.75	57.70	74.00	16.30	horizontal	Peak
2485.44	16.20	31.78	47.98	54.00	6.02	horizontal	Average
2494.69	29.60	31.96	61.56	74.00	12.44	horizontal	Peak

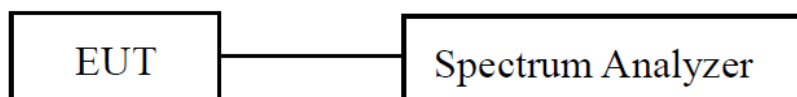
Project No.: 2407X34586E-RF
Test Mode: 1M-2480
EUT Model: SMY-01
Test distance: 1.5m

Temp/Humi/ATM: 24.1°C/53%/100.1kPa
Tested by: Wlif Wu
Power Source: AC120V/60Hz



FCC §15.247(a) (2) – 6 dB EMISSION BANDWIDTH**Applicable Standard**

Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

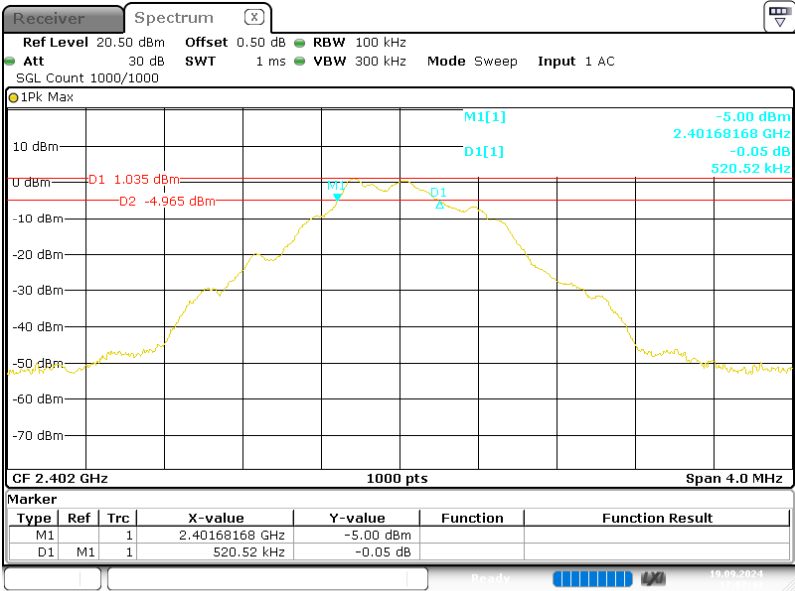
EUT Setup**Test Procedure**

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 Result on the measuring instrument equal to the highest peak value.
3. Measure the frequency difference of two frequencies that were attenuated 6 dB from the reference Result. Record the frequency difference as the emission bandwidth.
4. Repeat above procedures until all frequencies measured were complete.

Test Data

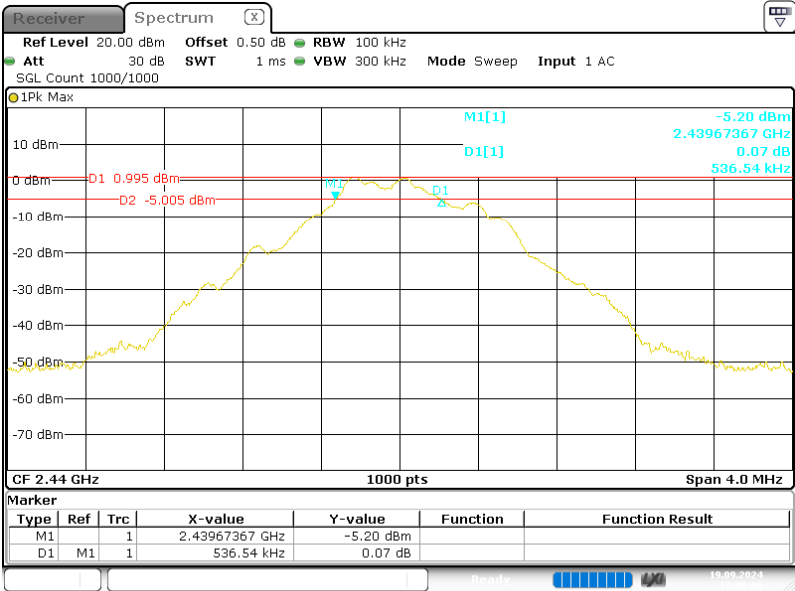
Test Mode:	Transmitting	Test Engineer:	Ash Lin
Test Date:	2024-09-19	Test Voltage:	DC 3.7V from Battery
Test Result:	Compliance	Environment:	Temp.: 23.6°C Humi.: 46% Atm :100.1kPa
Test Channel	Test Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)
Lowest	2402	0.521	≥0.5
Middle	2440	0.537	≥0.5
Highest	2480	0.545	≥0.5

Low Channel



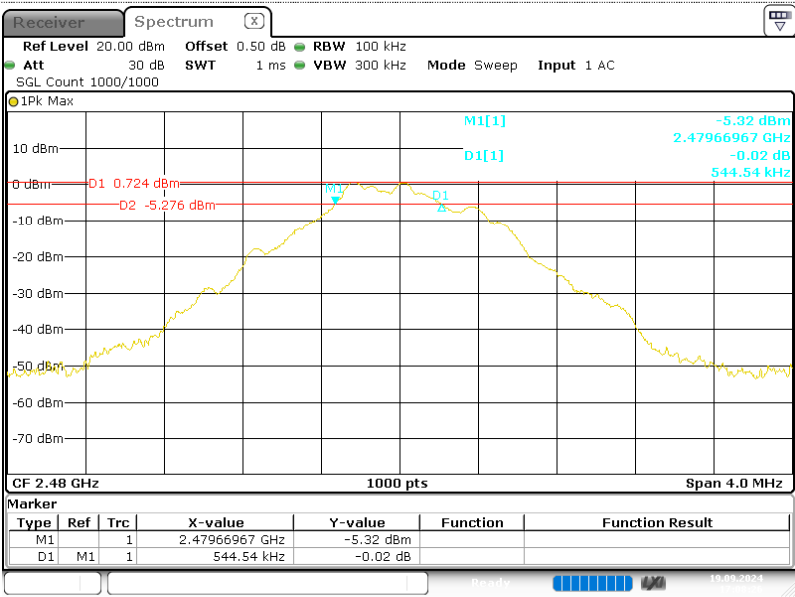
ProjectNo.:2407X34586E-RF Tester:Ash Lin
Date: 19.SEP.2024 17:07:43

Middle Channel



ProjectNo.:2407X34586E-RF Tester:Ash Lin
Date: 19.SEP.2024 17:08:06

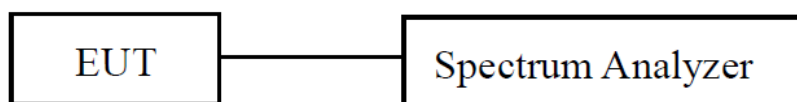
High Channel



ProjectNo.:2407X34586E-RF Tester:Ash Lin
Date: 19.SEP.2024 17:08:26

FCC §15.247(b) (3) - MAXIMUM CONDUCTED OUTPUT POWER**Applicable Standard**

According to FCC §15.247(b) (3), for systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control Result. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power Result. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

EUT Setup**Test Procedure**

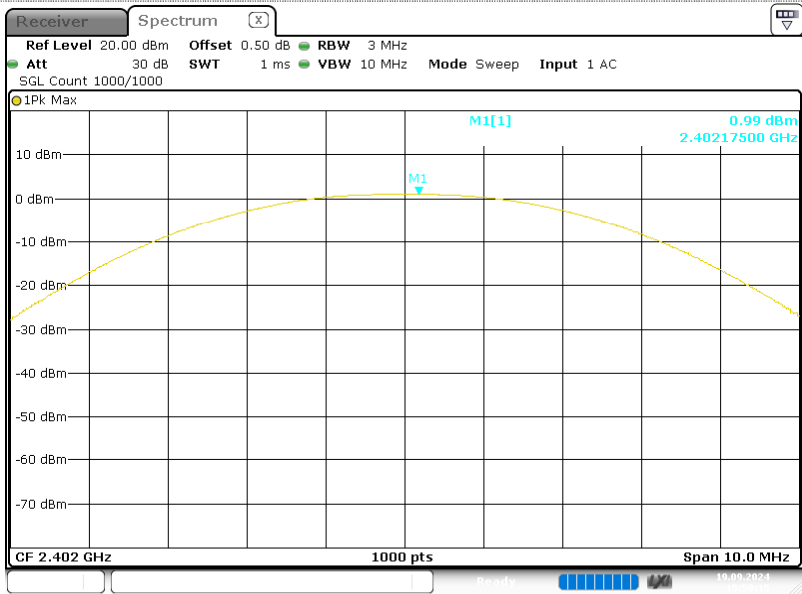
1. Place the EUT on a bench and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to one test equipment.
3. Add a correction factor to the display.

Test Data

Test Mode:	Transmitting	Test Engineer:	Ash Lin
Test Date:	2024-09-19	Test Voltage:	DC 3.7V from Battery
Test Result:	Compliance	Environment:	Temp.: 23.6°C Humi.: 46% Atm :100.1kPa
Test Channel	Test Frequency (MHz)	Maximum Conducted Peak Output Power(dBm)	Limit (dBm)
Lowest	2402	0.99	≤30
Middle	2440	0.98	≤30
Highest	2480	0.74	≤30

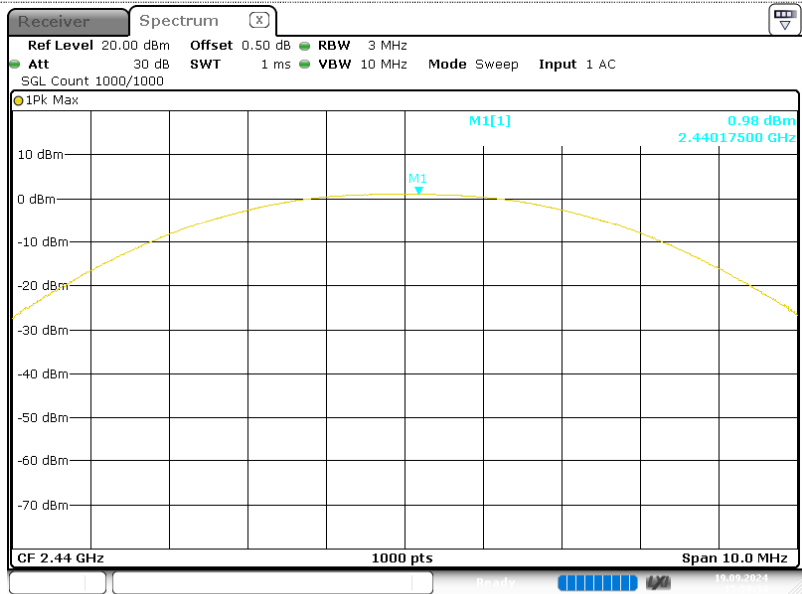
Please refer to the below plots:

Lowest Channel



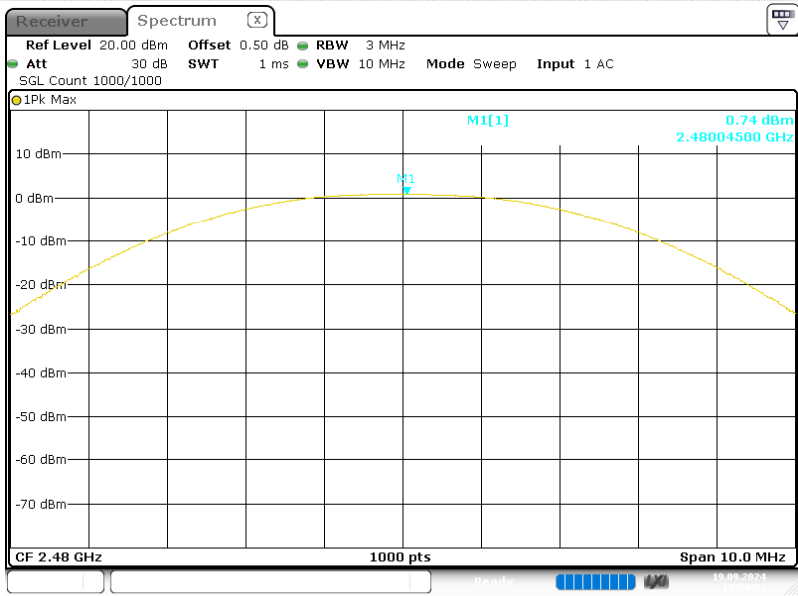
ProjectNo.:2407X34586E-RF Tester:Ash Lin
Date: 19.SEP.2024 15:59:15

Middle Channel



ProjectNo.:2407X34586E-RF Tester:Ash Lin
Date: 19.SEP.2024 15:59:35

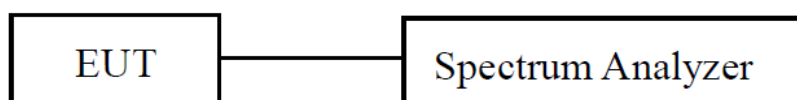
Highest Channel



ProjectNo.:2407X34586E-RF Tester:Ash Lin
Date: 19.SEP.2024 15:59:54

FCC §15.247(d) – 100 kHz BANDWIDTH OF FREQUENCY BAND EDGE**Applicable Standard**

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest Result of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

EUT Setup**Test Procedure**

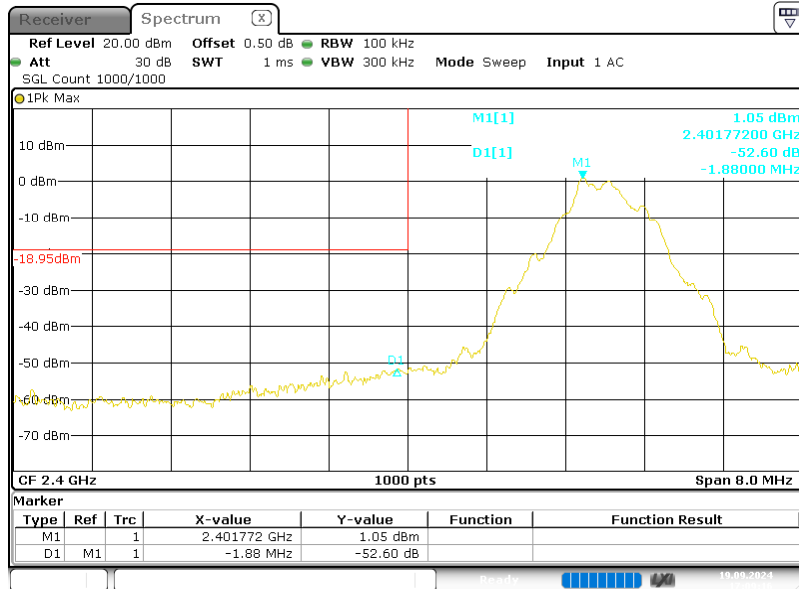
1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set RBW to 100 kHz and VBW of spectrum analyzer to 300 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.
4. Measure the highest amplitude appearing on spectral display and set it as a reference Result. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

Test Data

Test Mode:	Transmitting	Test Engineer:	Ash Lin
Test Date:	2024-09-19	Test Voltage:	DC 3.7V from Battery
Test Result:	Compliance	Environment:	Temp.: 23.6°C Humi.: 46% Atm :100.1kPa

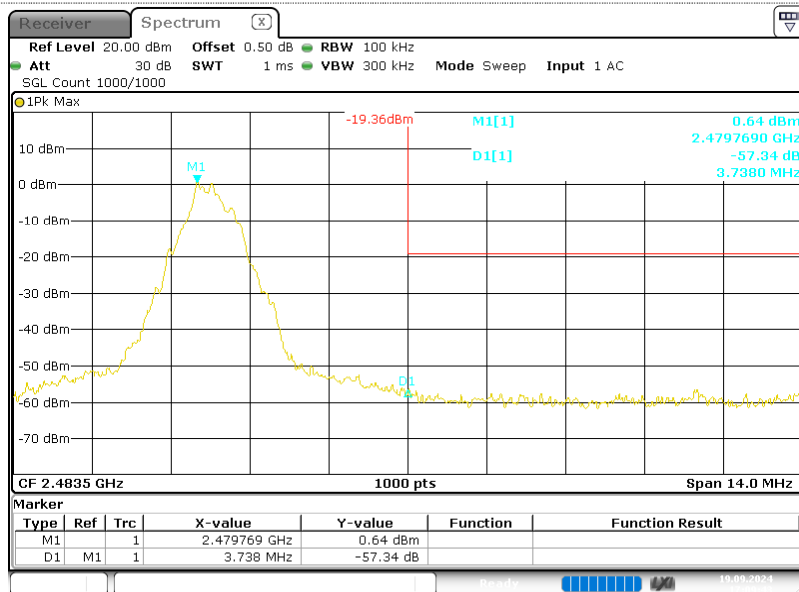
Please refer to the below plots:

Lowest Channel



ProjectNo.:2407X34586E-RF Tester:Ash Lin
Date: 19.SEP.2024 17:09:16

Highest Channel

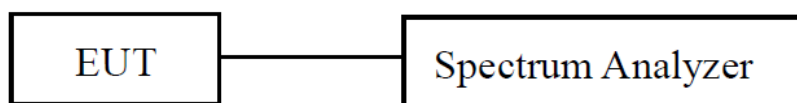


ProjectNo.:2407X34586E-RF Tester:Ash Lin
Date: 19.SEP.2024 17:09:43

FCC §15.247(e) - POWER SPECTRAL DENSITY

Applicable Standard

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

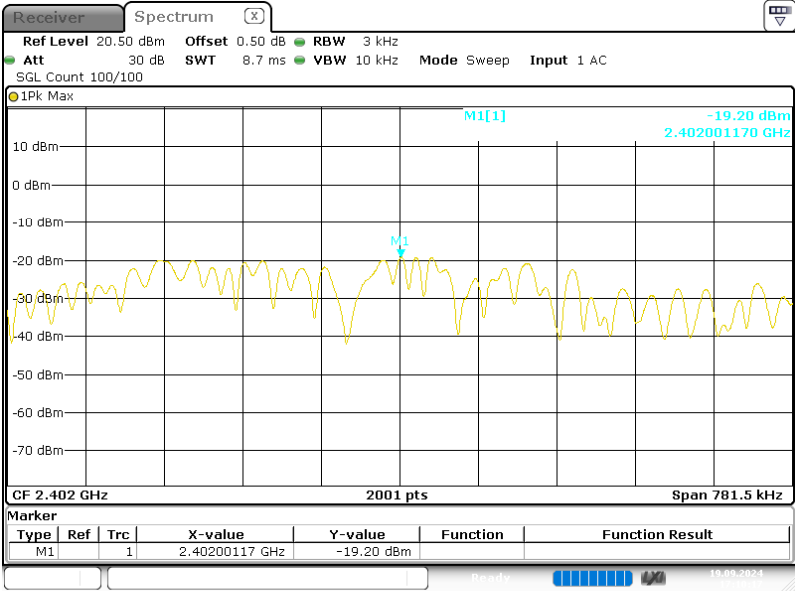
EUT Setup**Test Procedure**

1. Use this procedure when the maximum peak conducted output power in the fundamental emission is used to demonstrate compliance.
2. Set the RBW to: $3\text{kHz} \leq \text{RBW} \leq 100\text{ kHz}$.
3. Set the VBW $\geq 3 \times \text{RBW}$.
4. Set the span to 1.5 times the DTS bandwidth.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude Result within the RBW.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

Test Data

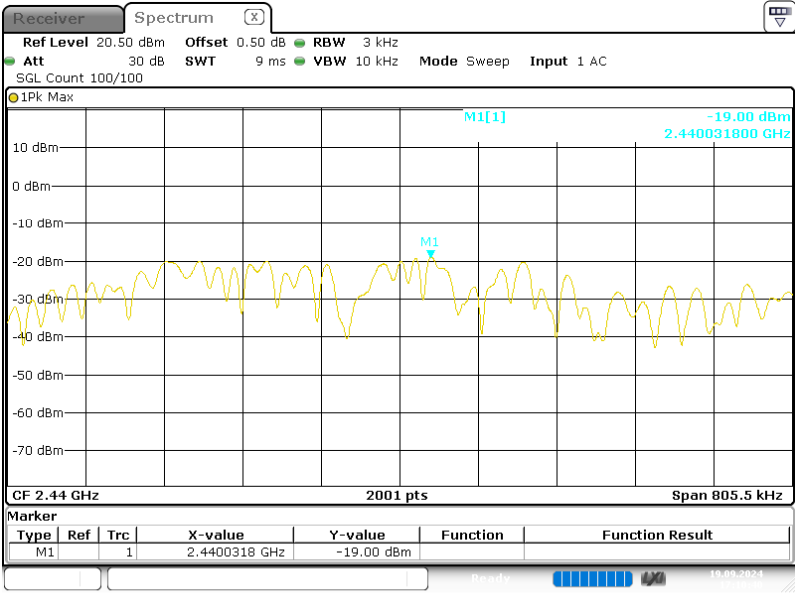
Test Mode:	Transmitting	Test Engineer:	Ash Lin
Test Date:	2024-09-19	Test Voltage:	DC 3.7V from Battery
Test Result:	Compliance	Environment:	Temp.: 23.6°C Humi.: 46% Atm :100.1kPa
Test Channel	Test Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)
Lowest	2402	-19.2	≤8.00
Middle	2440	-19	≤8.00
Highest	2480	-19.54	≤8.00

Lowest Channel

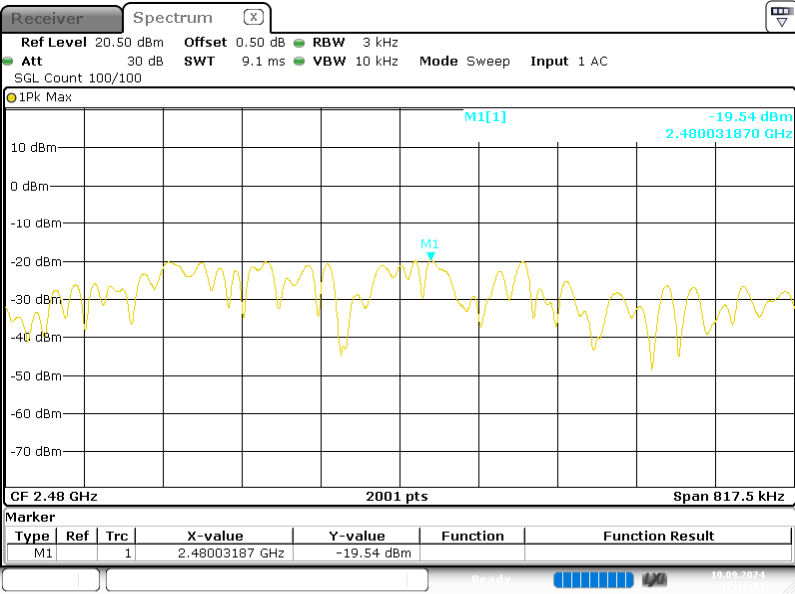


ProjectNo.:2407X34586E-RF Tester:Ash Lin
Date: 19.SEP.2024 17:10:17

Middle Channel



Highest Channel



EUT PHOTOGRAPHS

Please refer to the attachment 2407X34586E-RF-EXP EUT EXTERNAL PHOTOGRAPHS and 2407X34586E-RF-INP EUT INTERNAL PHOTOGRAPHS.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2407X34586E-RF-TSP SETUP PHOTOGRAPHS.

Declarations

1. Bay Area Compliance Laboratories Corp. (Xiamen) is not responsible for authenticity of any information provided by the applicant. Information from the applicant that may affect test results are marked with an asterisk “★”.
2. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested.
3. Unless required by the rule provided by the applicant or product regulations, then decision rule in this report did not consider the uncertainty.
4. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor $k=2$ with the 95.45% confidence interval.
5. This report cannot be reproduced except in full, without prior written approval of Bay Area Compliance Laboratories Corp. (Xiamen).
6. This report is valid only with a valid digital signature. The digital signature may be available only under the adobe software above version 7.0.

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