TEST REPORT
On behalf of

Savant Technologies LLC, dba GE Lighting, a Savant company

Product Name: Downlight

Model No.: CFIXRSCR6CRVDMS@

FCC ID: PUU-CFIXRSCR6T

Prepared For: Savant Technologies LLC, dba GE Lighting, a Savant company
1975 Noble Road Cleveland, Ohio United States 44112

Prepared By: Audix Technology (Shanghai) Co., Ltd.
3F, Building 34, No. 680 Guiping Rd.,
Caohejing, Hi-Tech Park,
Shanghai 200233, China

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TESTING
NVLAP LAB CODE 200371-0

File No. : C1D2506005
Report No. : ACI-F25087
Date of Test : 2025.07.04-23
Date of Report : 2025.07.30

The statement is based on a single evaluation of one sample of the above-mentioned products. It does not imply an assessment of the whole production and does not permit the use of the test lab logo.
The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.

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TEST REPORT

Applicant	:	Savant Technologies LLC, dba GE Lighting, a Savant company
EUT Description	:	Downlight
(A) Model No.	:	Refer to Sec.2.1
(B) Power Supply	:	120V AC 60Hz
(C) Test Voltage	:	120V/60Hz, DC 3.3V from text fixture

Test Procedure Used:

FCC RULES AND REGULATIONS PART 15 SUBPART C
AND ANSI C63.10-2013

The device described above is tested by Audix Technology (Shanghai) Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C limits.

The test results are contained in this test report and Audix Technology (Shanghai) Co., Ltd. is assumed full responsibility for the accuracy and completeness of these measurements. This report also shows that the EUT (M/N: Refer to Sec2.1), which was tested is technically compliance with the FCC limits.

This report applies to above tested Sample only. This report shall not be reproduced in part without written approval of Audix Technology (Shanghai) Co., Ltd.

The test results for EUT's BLE function are contained in No.ACI-F25088 report.

Date of Test : 2025.07.04-23 Date of Report : 2025.07.30

Producer : Huimin Yan
HUIMIN YAN / Assistant

Review : Lvy lv
LVY LV / Deputy Assistant Manager

AUDIX® For and on behalf of Audix Technology (Shanghai) Co., Ltd.
Authorized Signature(s)

Signatory : Kamp. Chen.
KAMP CHEN/Manager

1 SUMMARY OF STANDARDS AND RESULTS

1.1 Description of Standards and Results

The result is determined according to the decision rules of customer selection in the ASC-403 application service form.
1. According to IEC GUIDE 115 Procedure 2 and ILAC-G8, the uncertainties value is not used in determining the PASS/FAIL results.
2. If the required specification or standard already contains the decision rules, it will be carried out in accordance with the regulations or standard documents or the requirements of the competent units. If the required specification or standard does not contain a decision rule, the same paragraph 1.
3. If your company has a required decision rule, it will be implemented in accordance with the requirements and ISO/IEC Guide 98-4 specifications.
The EUT have been tested according to the applicable standards as referenced below:

Description / Test Item	Test Standard	Results	Meets Limit
EMISSION			
Conducted Emission	FCC RULES AND REGULATIONS PART 15 SUBPART C AND ANSI C63.10:2013	Pass	15.207
Radiated Emission	FCC RULES AND REGULATIONS PART 15 SUBPART C AND ANSI C63.10:2013	Pass	15.209(a) 15.205(a)(c)
6 dB Bandwidth Measurement	FCC RULES AND REGULATIONS PART 15 SUBPART C AND ANSI C63.10:2013	Pass	15.247(a)(2)
Maximum Output Power Measurement	FCC RULES AND REGULATIONS PART 15 SUBPART C AND ANSI C63.10:2013	Pass	15.247(b)(3)
Emission Limitations Measurement	FCC RULES AND REGULATIONS PART 15 SUBPART C AND ANSI C63.10:2013	Pass	15.247(d)
Band Edge Measurement	FCC RULES AND REGULATIONS PART 15 SUBPART C AND ANSI C63.10:2013	Pass	15.247(d)
Power Spectral Density Measurement	FCC RULES AND REGULATIONS PART 15 SUBPART C AND ANSI C63.10:2013	Pass	15.247(e)
Antenna Requirement	FCC RULES AND REGULATIONS PART 15 SUBPART C AND ANSI C63.10:2013	Pass	15.203
N/A is an abbreviation for Not Applicable.			

2 GENERAL INFORMATION

2.1 Description of Equipment Under Test

Description	:	Downlight
Type of EUT	:	☑ Production ☐ Pre-product ☐ Pro-type
Model Number	:	CFIXRSCR6CRVDMS@
Note	:	@ Can be represented by any letters, numbers, or symbols, which means CRI, CCT, product color, packaging, or internal identification.
Test Model	:	CFIXRSCR6CRVDMS
Radio Tech	:	BLE 5.0; IEEE 802.11 b/g/n.
Channel Freq.	:	BLE: 2402MHz-2480MHz; 802.11b/g/n: 2412MHz-2462MHz.
Modulation	:	BLE: GFSK; 802.11b: DSSS (CCK, DQPSK, DBPSK); 802.11g/n: OFDM (64QAM, 16QAM, QPSK, BPSK).
Antenna Info.	:	Antenna Type: PCB Antenna Antenna Gain: 0.5 dBi
Note	:	The Antenna information was provided by the customer.
Applicant	:	Savant Technologies LLC, dba GE Lighting, a Savant company 1975 Noble Road Cleveland, Ohio United States 44112
Manufacturer	:	same as Applicant

2.2 EUT Specifications Assessed in Current Report

Mode	Modulation	Data Rate(Mbps)
802.11b	DS (DQPSK, DBPSK, CCK)	Up to 11
802.11g	OFDM (64-QAM, 16-QAM, QPSK, BPSK)	Up to 54
802.11n20	OFDM (64-QAM, 16-QAM, QPSK, BPSK)	Up to 72.2

Channel List			
Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)
1	2412	7	2442
2	2417	8	2447
3	2422	9	2452
4	2427	10	2457
5	2432	11	2462
6	2437		

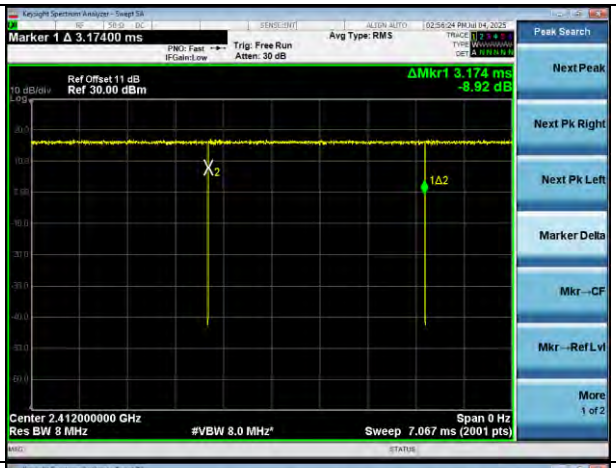
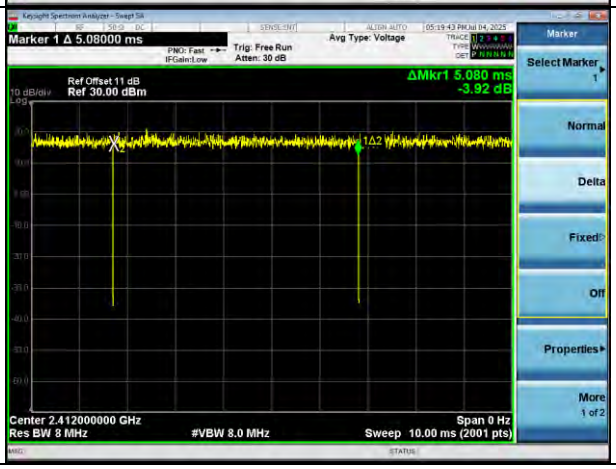
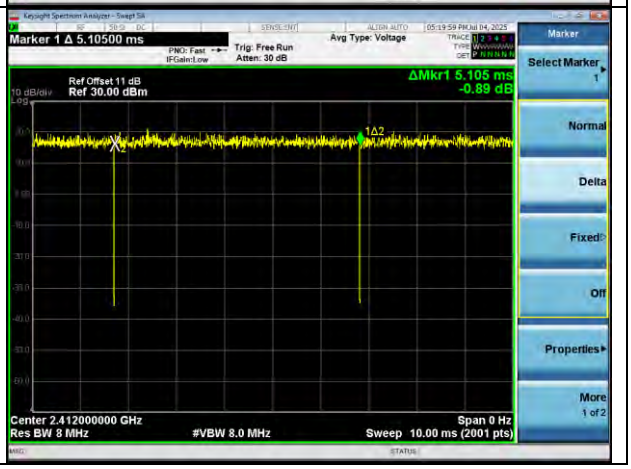
2.3 Test Information

The test software "SSCOM.exe" was used to control EUT work in TX mode, Power Index and select test channel.

Mode	data rate (Mbps)	Attenuator Setting	Test Channel		Frequency (MHz)
802.11b	11	4	Low:	1	2412
		4	Middle:	6	2437
		4	High:	11	2462
802.11g	6	14	Low:	1	2412
		14	Middle:	6	2437
		14	High:	11	2462
802.11n	MCS0	8	Low:	1	2412
		8	Middle:	6	2437
		8	High:	11	2462

2.4 Duty Cycle Check

Mode	Transmission Duration (ms)	Transmission Period (ms)	Duty Cycle (%)	Duty Cycle Correct Factor
802.11b	3.174	3.192	99.44	N/A
802.11g	5.485	5.513	99.49	N/A
802.11n	5.08	5.105	99.51	N/A

Mode	Ton	Ton+off
802.11b		
802.11g		
802.11n		

2.5 Sample Description

Test Item	Model Number	Sample Number	Date of receipted
Conducted Emission	CFIXRSCR6CRVDMS	E20250609371-06/06	2025.06.09
Radiated Emission	CFIXRSCR6CRVDMS	E20250617393-02/03	2025.06.17
Conducted RF Test	CFIXRSCR6CRVDMS	E20250617393-01/03	2025.06.17

2.6 Supported equipment

Brand	:	Acer
Product Name:	:	Notebook PC
Model Name	:	TravelMate P238 series
Model Number	:	N15W8
Product Name	:	Test Fixture
Product Function	:	USB to TTL

2.7 Description of Test Facility

Name of Firm	:	Audix Technology (Shanghai) Co., Ltd.
Site Location	:	3F, Building 34, No. 680 Guiping Rd., Caohejing, Hi-Tech Park, Shanghai 200233, China
Accredited by NVLAP, Lab Code	:	200371-0
FCC Designation Number	:	CN5027
Test Firm Registration Number	:	954668

3 CONDUCTED EMISSION TEST

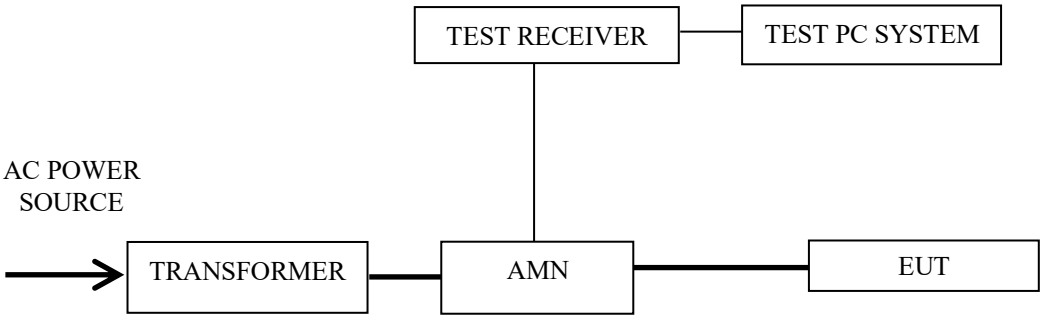
3.1 Test Equipment

The following test equipments are used during the conducted emission test in a shielded room:

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	AMN	R&S	ENV4200	100125	2025/2/22	1 Year
2.	Two-Line V-Network	R&S	ENV216	101514	2024/8/9	1 Year
3.	Impedance	/	BNC/50Ohm	002	2025/2/22	1 Year
4.	Test Receiver	R&S	ESR3	102887	2024/8/9	1 Year
5.	Coaxial Cable(SH.3)	eastsheep	LMR240-N/BNC-JJ-4m	CE-SH3-4m-001	2025/2/22	1 Year
6.	Software	Audix	e3	e3.v9.210616	---	---

3.2 Block Diagram of Test Setup

3.2.1 Conducted Disturbance Test Setup



—— : Signal Line
—— : Power Line

3.3 Conducted Emission Limits (§15.207)

Frequency Range (MHz)	Limits dB(μV)	
	Quasi-peak	Average
0.15 ~ 0.5	66~56	56~46
0.5 ~ 5	56	46
5 ~ 30	60	50

NOTE 1 – The lower limit shall apply at the transition frequencies.

NOTE 2 – The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz~0.50 MHz

3.4 Test Configuration

The EUT (listed in Sec.2.1) was installed as shown on Sec.3.2 to meet FCC requirement and operating in a manner which tends to maximize its emission level in a normal application.

3.5 Operating Condition of EUT

3.5.1 Setup the EUT as shown in Sec. 3.2.

3.5.2 Turn on the power of all equipment.

3.5.3 Turn the EUT on the test mode, and then test.

3.6 Test Procedures

The EUT was placed upon a non-metallic table, which is 0.8 m above the horizontal conducting ground plane and 0.4 m from a vertical reference plane. The EUT was connected to the power mains through an Artificial Mains Network (AMN) to provide a 50 Ω coupling impedance for the measuring equipment. Both sides of AC line (Line & Neutral) were checked to find out the maximum conducted emission according to FCC Part 15 Subpart C and ANSI C63.10: 2013 requirements during conducted disturbance test.

The I.F. bandwidth of Test Receiver ESCI was set at 9 kHz.

The frequency range from 150 kHz to 30 MHz was checked.

Test with a dummy load in lieu of the antenna to determine compliance with Section 15.207 limits within the transmitter's fundamental emission band. (According to KDB 174176 D01 Line Conducted FAQ)

The test modes were done on conducted disturbance test and all the test results are listed in Sec. 3.7

3.7 Test Results

< PASS >

The frequency and amplitude of the highest conducted emission relative the limit is reported. All the emissions not reported below are too low against the FCC limit.

Worst case emission:

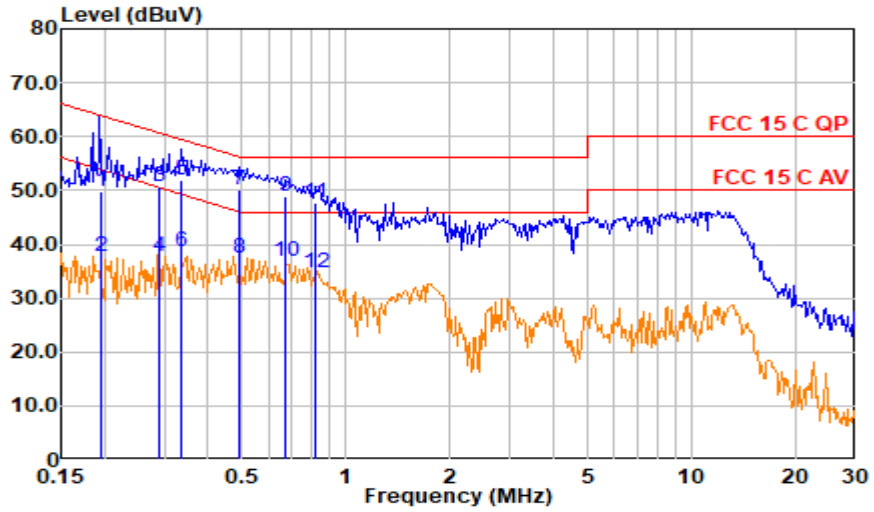
No.	Operation	Mode	Channel	Frequency (MHz)	Data Page
1.	Transmitting	802.11b	1	2412	P13-14

NOTE 1 –Emission Level (dBμV/m) = Read Level (dBμV) + AMN Factor (dB) + + Cable Loss (dB)
Margin (dB) = Limits (dBμV) - Emission Level (dBμV)
NOTE 2 – "QP" means "Quasi-Peak" values
NOTE 3 – The emission levels which not reported are too low against the official limit.

Worst case emission

Test Date:	2025.07.23	Temp./Hum.:	22℃/51%RH	Test By:	JareyLu

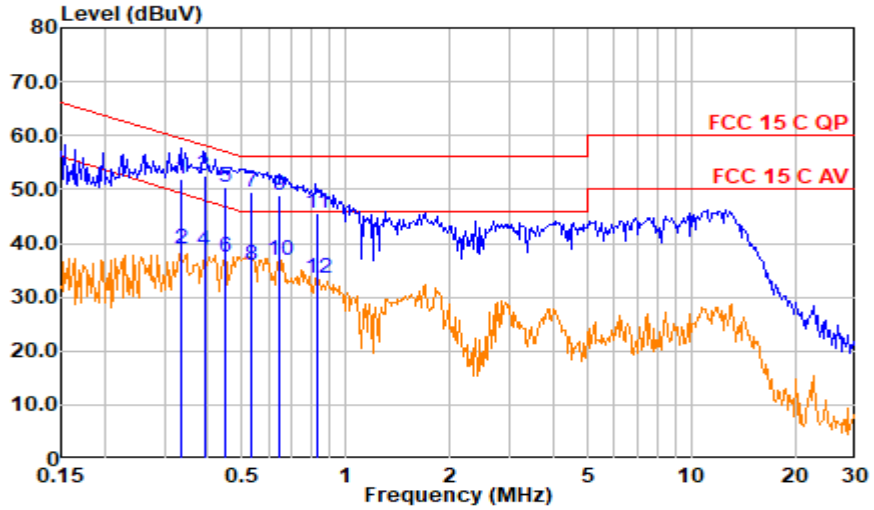
Mode: 802.11b CH2412MHz



Polarization at Line

Frequency (MHz)	Meter Reading dB (μV)	AMN Factor (dB)	Cable Loss (dB)	Emission Level dB (μV)	Limits dB (μV)	Margin (dB)	Remark
0.197	39.03	10.70	0.01	49.74	63.76	14.02	QP
0.197	26.88	10.70	0.01	37.60	53.76	16.16	Average
0.289	40.13	10.70	0.02	50.85	60.55	9.70	QP
0.289	27.13	10.70	0.02	37.85	50.55	12.70	Average
0.332	41.30	10.50	0.02	51.82	59.39	7.58	QP
0.332	28.17	10.50	0.02	38.69	49.39	10.71	Average
0.490	39.78	10.35	0.02	50.15	56.17	6.02	QP
0.490	27.15	10.35	0.02	37.52	46.17	8.66	Average
0.673	38.44	10.45	0.03	48.92	56.00	7.08	QP
0.673	26.44	10.45	0.03	36.92	46.00	9.08	Average
0.813	37.11	10.59	0.03	47.73	56.00	8.27	QP
0.813	24.11	10.59	0.03	34.73	46.00	11.27	Average

Mode: 802.11b CH2412MHz



Polarization at Neutral

Frequency (MHz)	Meter Reading dB (μV)	AMN Factor (dB)	Cable Loss (dB)	Emission Level dB (μV)	Limits dB (μV)	Margin (dB)	Remark
0.332	41.18	10.80	0.02	52.00	59.39	7.40	QP
0.332	27.98	10.80	0.02	38.80	49.39	10.60	Average
0.390	42.30	10.34	0.02	52.66	58.07	5.42	QP
0.390	28.30	10.34	0.02	38.66	48.07	9.42	Average
0.448	40.06	10.45	0.02	50.53	56.92	6.38	QP
0.448	27.06	10.45	0.02	37.53	46.92	9.38	Average
0.535	38.78	10.74	0.02	49.54	56.00	6.46	QP
0.535	25.31	10.74	0.02	36.07	46.00	9.93	Average
0.640	38.06	10.80	0.03	48.88	56.00	7.12	QP
0.640	26.06	10.80	0.03	36.88	46.00	9.12	Average
0.829	35.30	10.30	0.03	45.64	56.00	10.36	QP
0.829	23.30	10.30	0.03	33.64	46.00	12.36	Average

4 RADIATED EMISSION TEST

4.1 Test Equipment

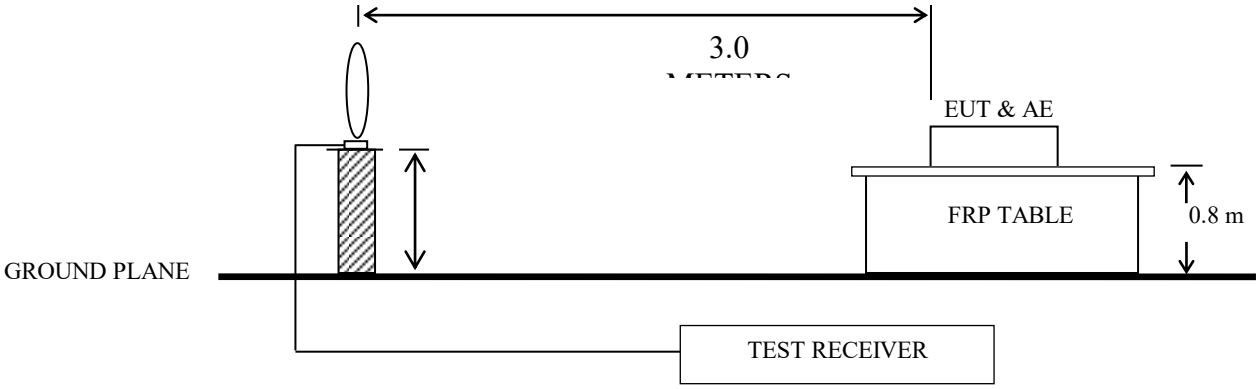
The following test equipment are used during the radiated emission test in a semi-anechoic chamber:

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Loop Antenna	Schaffner	HLA6120	1193	2024/7/10	1 Year
2.	Bilog Antenna+6dB Attenuator	Schwarzbeck	VULB 9168+EMCI-N-6-06	708+AT-N0638	2025/1/15	1 Year
3.	Horn Antenna	EMCO	3115	96074878	2024/7/25	1 Year
4.	Horn Antenna	EMCO	3116	00062643	2025/1/21	2 Year
5.	Preamplifier	Agilent	8447D	2944A10548	2025/2/22	1 Year
6.	Preamplifier	HP	8449B	3008A00864	2025/2/22	1 Year
7.	EXA Signal Analyzer	Agilent	N9010A	MY52221182	2025/7/3	1 Year
8.	Test Receiver	R&S	ESCI	101303	2025/2/22	1 Year
9.	notch filter (2400-2500)	WT	WT-A3882-R10	WT200312-1-1	2025/2/22	1 Year
10.	Coaxial Cable(CH.3)	Mini-Circuits	FLC-2FT-SMSM+	21112086	2025/2/22	1 Year
11.	RE Cable-1m+Coaxial Switch	HARBOUR+ANRITSU	RE Cable-1m+MP59B	RE-1m-00x+6200655086	2025/2/22	1 Year
12.	RE Cable-5m	TIMES	SFT205-SMNM-5.0M	20250211-0001	2025/2/22	1 Year
13.	RE Cable-3m+RE Cable-10m	TIMES+SCHAFFNER	LMR400-NMNM-3.0M+RG 212U-MIL C 17	20250211-0001 +RE-10m-001	2025/2/22	1 Year
14.	Software	Audix	e3	e3.v9.210616	---	---

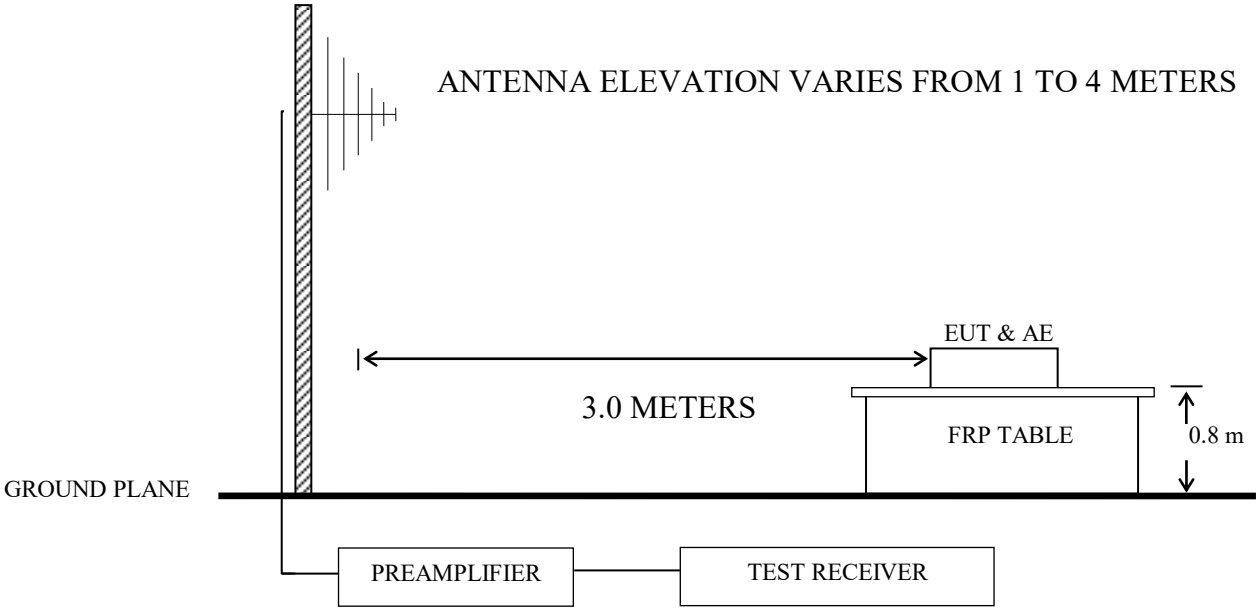
4.2 Block Diagram of Test Setup

4.2.1 EUT & Peripherals

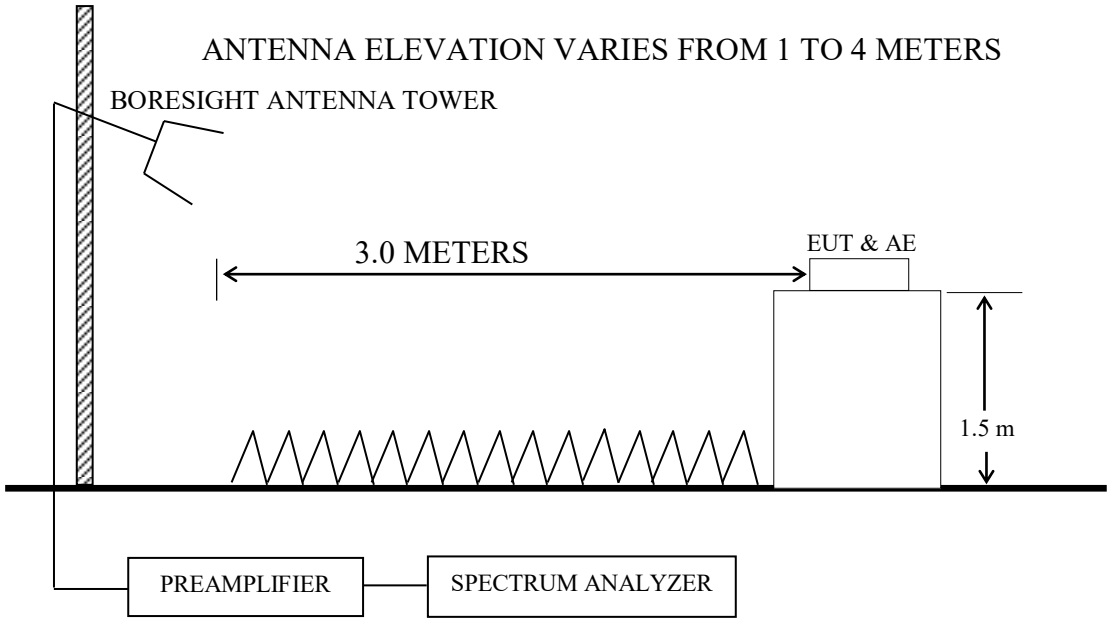
4.2.2 9kHz to 30MHz



4.2.3 Below 1GHz



4.2.4 Above 1GHz



4.3 Radiated Emission Limit (§15.209)

Frequency (MHz)	Distance (m)	Field strength limits (μV/m)	
		(μV/m)	(μV/m)
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
Above 960	3	500	54.0

NOTE 1 - Emission Level dB (μV/m) = 20 log Emission Level (μV/m)
NOTE 2 - The tighter limit applies at the band edges.
NOTE 3 - Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
NOTE 4 - The limits shown are based on Quasi-peak value detector below or equal to 1GHz and Average value detector above 1GHz.
NOTE 5 - Above 1 GHz, the limit on peak emission is 20 dB above the maximum permitted average emission limit applicable to the EUT

4.4 Test Configuration

The EUT (listed in Sec.2.1) and the simulators (listed in Sec.2.2) were installed as shown on Sec.4.2 to meet FCC requirements and operating in a manner that tends to maximize its emission level in a normal application.

4.5 Operating Condition of EUT

4.5.1 Setup the EUT as shown in Sec. 4.2.

4.5.2 Connect the EUT and the TTL terminal of Test Fixture through three HCI cables of EUT, as follows (VCC to 3V3, TX to RXD, RX to TXD, GND to GND). Plug the USB terminal of Test Fixture to the USB port of Notebook PC.

4.5.3 Use the software as section 2.3 to select the test mode, and then remove the test fixture and Notebook PC. Then do the test.

4.5.4 Repeat step 4.5.3 and 4.5.4, until the test of all modes finished.

4.6 Test Procedures

Radiated emission test applies to harmonics/spurs that fall in the restricted bands listed in Section 15.205. The maximum permitted average field strength is listed in Section 15.209. A pre-amp is necessary for this measurement. For measurement above 1 GHz, set RBW = 1MHz, VBW = 10 Hz, Sweep: Auto. If the emission is pulsed, modify the unit for continuous operation; use the settings shown above, then correct the reading by subtracting the peak-average correction factor, derived from the appropriate duty cycle calculation.

The EUT was placed on a turntable. Below 1 GHz, the table height is 80 cm above the reference ground plane. Above 1 GHz, the table height is 1.5 m. The turntable rotated 360 degrees to determine the position of the maximum emission level. The EUT was set 3 meters away from the receiving antenna, which was mounted on an antenna tower. The antenna moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (Calibrated Bilog Antenna) or Horn antenna was used as receiving antenna. Both horizontal and vertical polarizations of the antenna were set on measurement. In order to find the maximum emission, all of the interference cables were manipulated according to ANSI C63.10: 2013 requirements during radiated emission test.

The bandwidth of Test Receiver R&S ESCI was set at 120 kHz from 30MHz to 1000MHz.

The bandwidth of Agilent N9010A was set at 1MHz for above 1GHz.

The frequency range from 30 MHz to 25 GHz (Up to 10^{th} harmonics from fundamental frequency) was checked.

All the test results are listed in Sec.4.7.

4.7 Test Results

<PASS>

The frequency and amplitude of the highest radiated emission relative the limit is reported. All the emissions not reported below are too low against the FCC limit.

Frequency range: below 1GHz (Worst case emission)

No.	Operation	Mode	Channel	Frequency	Data Page
1.	Transmitting	802.11b	1	2412 MHz	P20-21

Frequency range: above 1GHz (Worst case emission)

No.	Operation	Mode	Channel	Frequency	Data Page
1.	Transmitting	802.11b	11	2462 MHz	P22-25
2.		802.11g	11	2462 MHz	P26-29
3.		802.11n	11	2462 MHz	P30-33

Band-Edge and Restricted bands:

No.	Operation	Mode	Channel	Frequency	Data Page
1.	Transmitting	802.11b	1	2412 MHz	P34-35
2.			11	2462 MHz	P36-37
3.		802.11g	1	2412 MHz	P38-39
4.			11	2462 MHz	P40-41
5.		802.11n	1	2412 MHz	P42-43
6.			11	2462 MHz	P44-45

NOTE 1 – Emission Level (dBμV/m) = Read Level (dBμV) + Antenna Factor (dB/m) + Cable Loss (dB) - Preamp Factor (dB)
Margin (dB) = Limits (dBμV/m) - Emission Level (dBμV/m).

NOTE 2 – "QP" means "Quasi-Peak" values

NOTE 3 – 0°was the table front facing the antenna. Degree is calculated from 0°clockwise facing the antenna.

NOTE 4 – The emission levels which not reported are too low against the official limit.

NOTE 5 – The emission levels recorded below is data of EUT configured in Lying direction, for this direction was the maximum emission direction during the test. The data of Side & Standing direction are too low against the official limit to be reported.

NOTE 6 – All reading are Quasi-Peak values below or equal to 1GHz, Peak and Average values above 1GHz.
For above 1GHz test, if the peak measured value complies with the average limit, it is unnecessary to perform an average measurement.

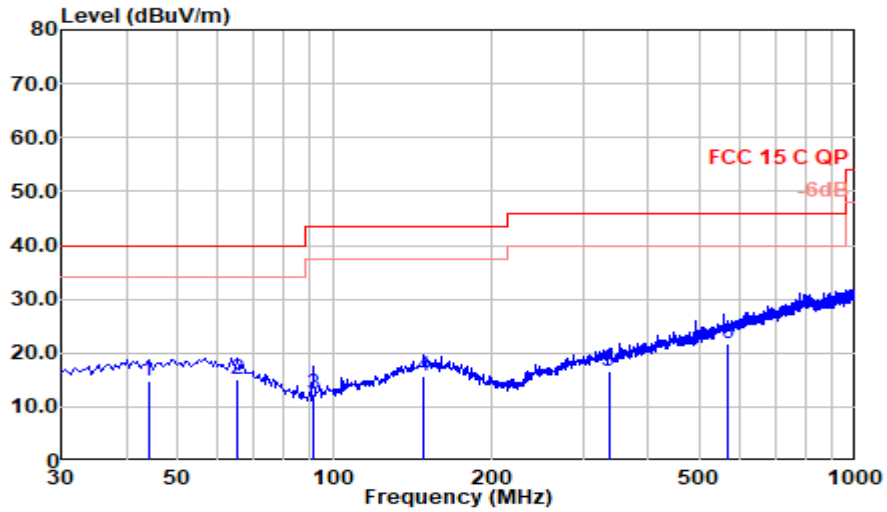
NOTE 7 – The frequency range 2310-2390MHz & 2483.5-2500MHz were tested for Restricted bands.

NOTE 8 – For the Emission 9kHz to 30MHz, the emissions were too low against to the limit.

Radiated emission < 1GHz

Test Date:	2025.07.06	Temp./Hum.:	22°C/51%RH	Test By:	JareyLu

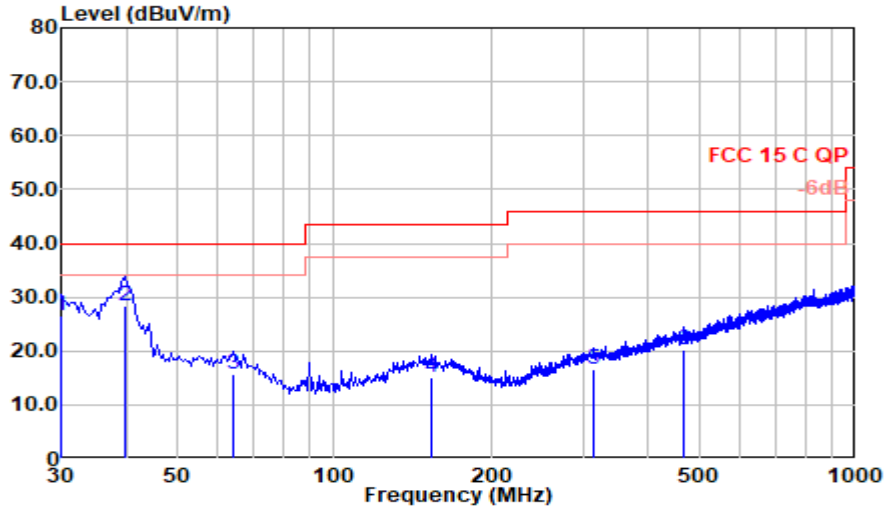
Mode: 802.11b CH2412MHz



Polarization at Horizontal

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
44.065	24.13	19.40	0.80	29.52	14.80	40.00	25.20	QP
65.405	25.14	18.42	0.94	29.44	15.06	40.00	24.94	QP
91.110	27.09	13.61	1.12	29.46	12.37	43.50	31.13	QP
148.340	24.15	19.13	1.35	29.02	15.62	43.50	27.88	QP
336.035	22.95	20.20	2.12	28.57	16.70	46.00	29.30	QP
568.835	23.14	24.58	2.83	28.72	21.83	46.00	24.17	QP

Mode: 802.11b CH2412MHz



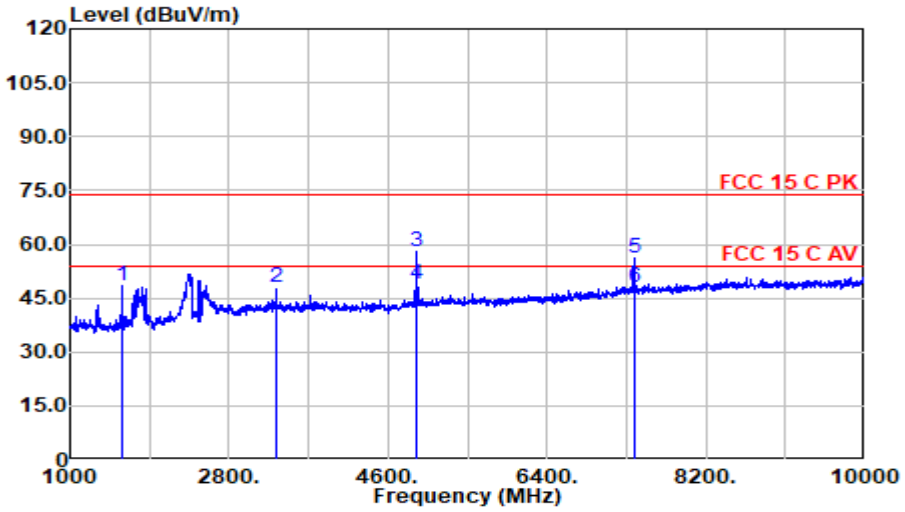
Polarization at Vertical

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
30.000	37.44	18.10	0.68	29.60	26.62	40.00	13.38	QP
39.700	38.14	18.90	0.76	29.55	28.26	40.00	11.74	QP
63.950	25.75	18.60	0.93	29.45	15.84	40.00	24.16	QP
153.190	23.63	19.20	1.38	29.00	15.21	43.50	28.29	QP
315.180	23.07	19.80	2.08	28.36	16.59	46.00	29.41	QP
468.440	24.02	23.07	2.54	29.25	20.37	46.00	25.63	QP

Radiated Emission > 1GHz

Test Date:	2025.07.06	Temp./Hum.:	22℃/51%RH	Test By:	JareyLu

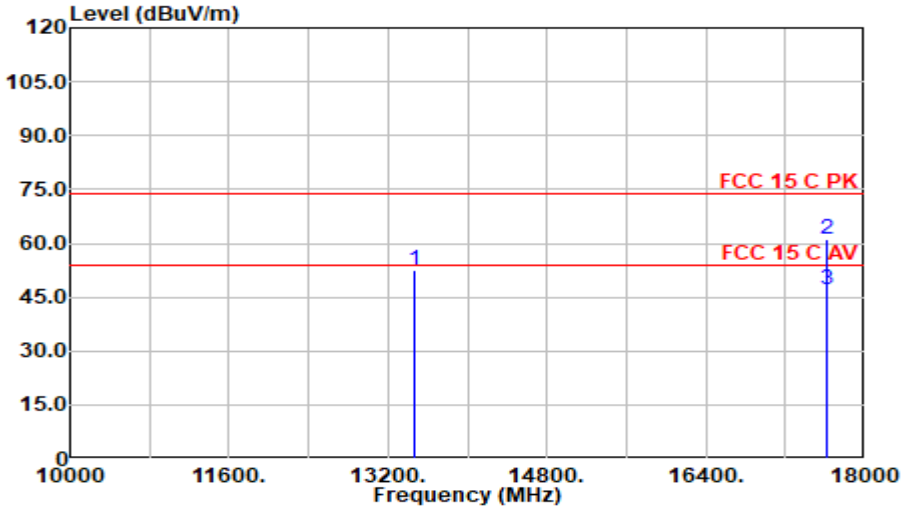
Mode: 802.11b CH2462MHz



Polarization at Horizontal

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
1590.750	56.87	25.88	2.38	36.90	48.23	74.00	25.77	Peak
3324.750	48.91	31.35	3.49	35.65	48.10	74.00	25.90	Peak
4922.750	56.53	33.39	4.56	36.47	58.01	74.00	15.99	Peak
4922.750	47.25	33.39	4.56	36.47	48.73	54.00	5.27	Average
7383.500	50.68	36.97	5.58	37.06	56.16	74.00	17.84	Peak
7383.500	42.37	36.97	5.58	37.06	47.85	54.00	6.15	Average

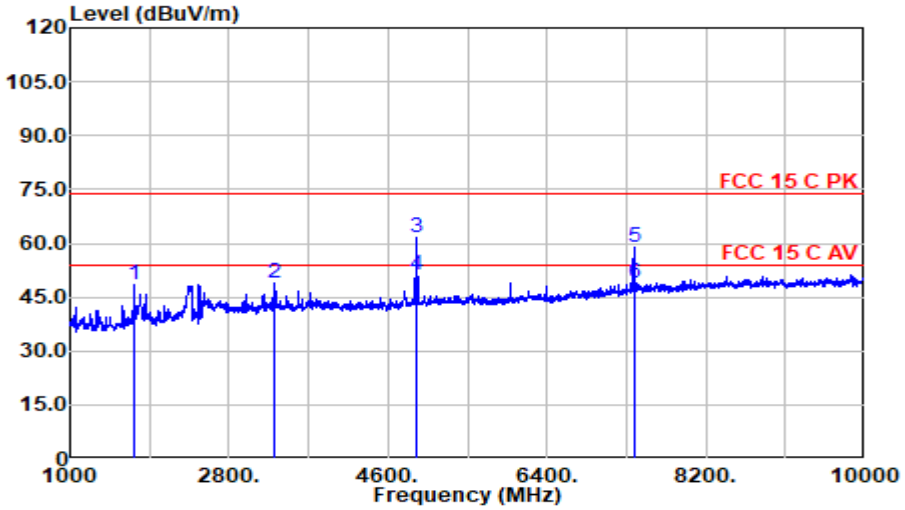
Mode: 802.11b CH2462MHz



Polarization at Horizontal

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
13473.750	40.72	40.35	7.46	35.90	52.62	74.00	21.38	Peak
17609.000	42.67	44.65	8.58	34.55	61.35	74.00	12.65	Peak
17609.000	28.47	44.65	8.58	34.55	47.14	54.00	6.86	Average

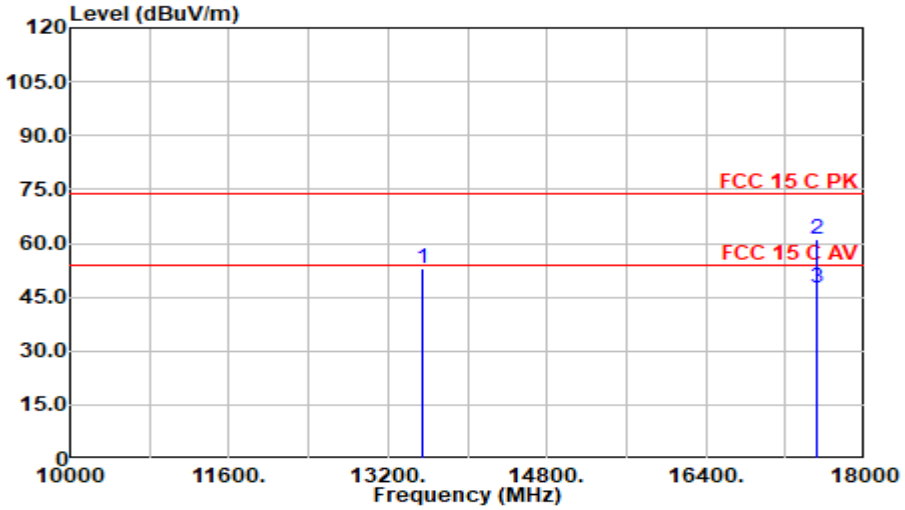
Mode: 802.11b CH2462MHz



Polarization at Vertical

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
1726.750	55.77	26.88	2.47	36.83	48.29	74.00	25.71	Peak
3320.500	49.77	31.34	3.49	35.65	48.95	74.00	25.05	Peak
4922.750	59.90	33.39	4.56	36.47	61.38	74.00	12.62	Peak
4922.750	49.49	33.39	4.56	36.47	50.97	54.00	3.03	Average
7383.500	53.32	36.97	5.58	37.06	58.81	74.00	15.19	Peak
7383.500	43.63	36.97	5.58	37.06	49.12	54.00	4.88	Average

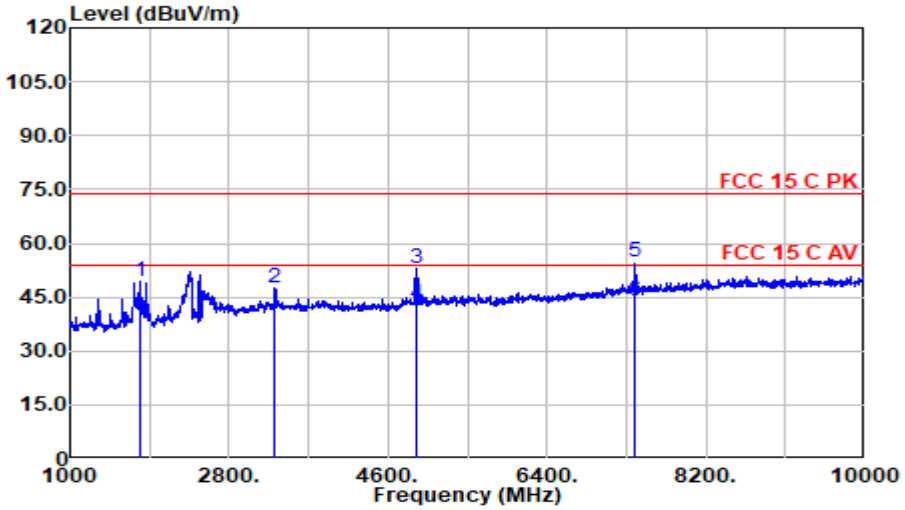
Mode: 802.11b CH2462MHz



Polarization at Vertical

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
13546.000	40.72	40.49	7.49	35.89	52.82	74.00	21.18	Peak
17511.250	42.87	44.25	8.56	34.59	61.08	74.00	12.92	Peak
17511.250	29.39	44.25	8.56	34.59	47.60	54.00	6.40	Average

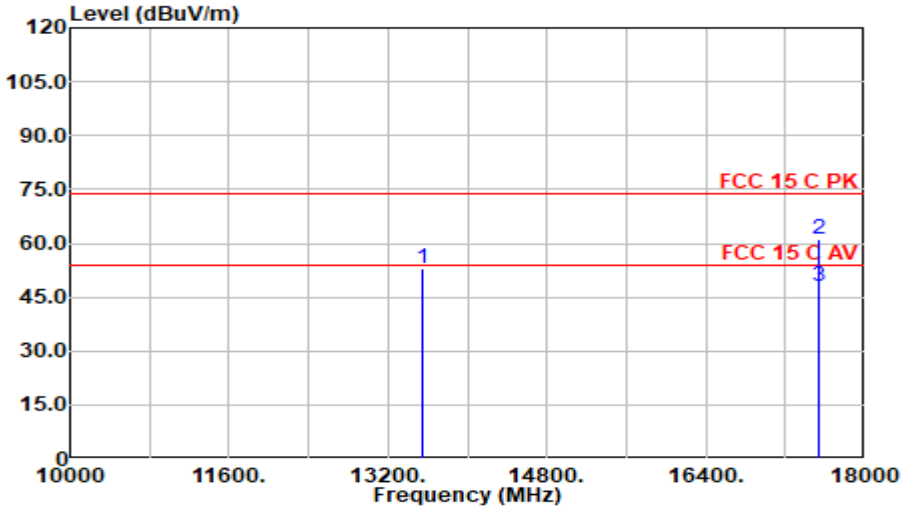
Mode: 802.11g CH2462MHz



Polarization at Horizontal

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
1794.750	56.79	26.84	2.51	36.79	49.35	74.00	24.65	Peak
3320.500	48.14	31.34	3.49	35.65	47.32	74.00	26.68	Peak
4914.250	51.66	33.36	4.56	36.47	53.10	74.00	20.90	Peak
4914.250	41.42	33.36	4.56	36.47	42.86	54.00	11.14	Average
7383.500	49.26	36.97	5.58	37.06	54.75	74.00	19.25	Peak
7383.500	38.33	36.97	5.58	37.06	43.81	54.00	10.19	Average

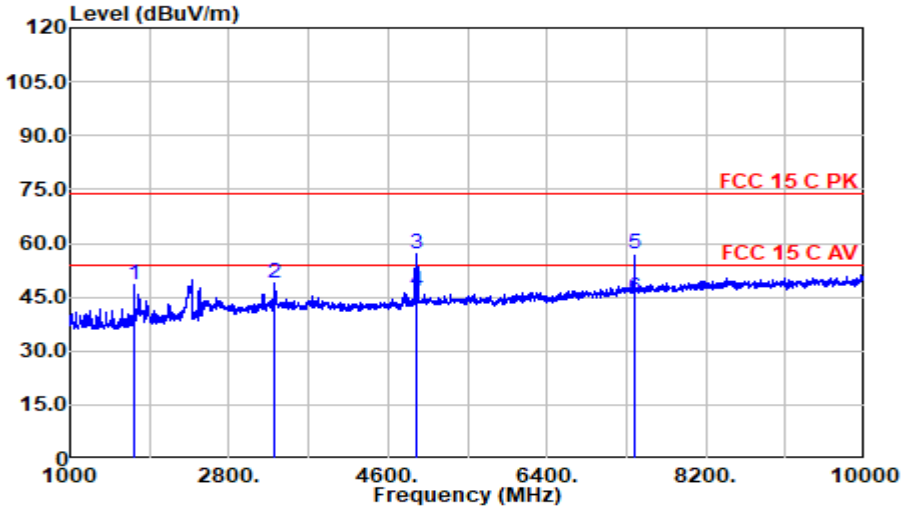
Mode: 802.11g CH2462MHz



Polarization at Horizontal

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
13546.000	40.71	40.49	7.49	35.89	52.80	74.00	21.20	Peak
17545.250	42.62	44.38	8.56	34.58	60.98	74.00	13.02	Peak
17545.250	29.46	44.38	8.56	34.58	47.83	54.00	6.17	Average

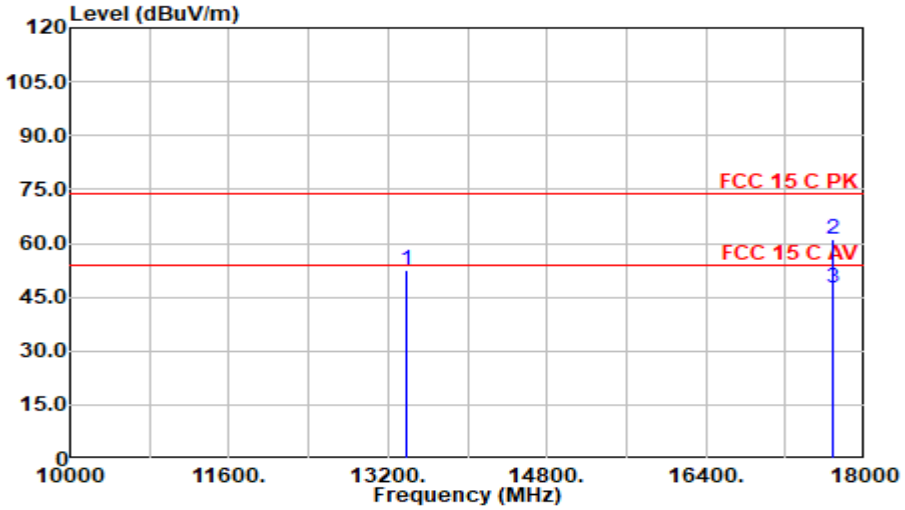
Mode: 802.11g CH2462MHz



Polarization at Vertical

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
1722.500	56.17	26.82	2.46	36.83	48.62	74.00	25.38	Peak
3320.500	49.62	31.34	3.49	35.65	48.80	74.00	25.20	Peak
4922.750	55.49	33.39	4.56	36.47	56.97	74.00	17.03	Peak
4922.750	45.25	33.39	4.56	36.47	46.73	54.00	7.27	Average
7387.750	51.75	36.98	5.58	37.06	57.25	74.00	16.75	Peak
7387.750	39.38	36.98	5.58	37.06	44.87	54.00	9.13	Average

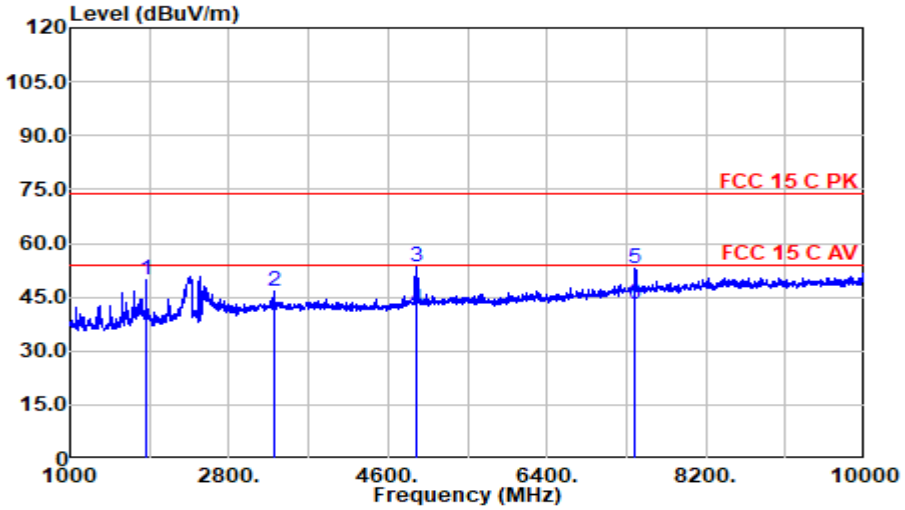
Mode: 802.11g CH2462MHz



Polarization at Vertical

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
13388.750	40.90	40.17	7.42	35.92	52.56	74.00	21.44	Peak
17672.750	41.87	45.04	8.59	34.53	60.97	74.00	13.03	Peak
17672.750	28.59	45.04	8.59	34.53	47.68	54.00	6.32	Average

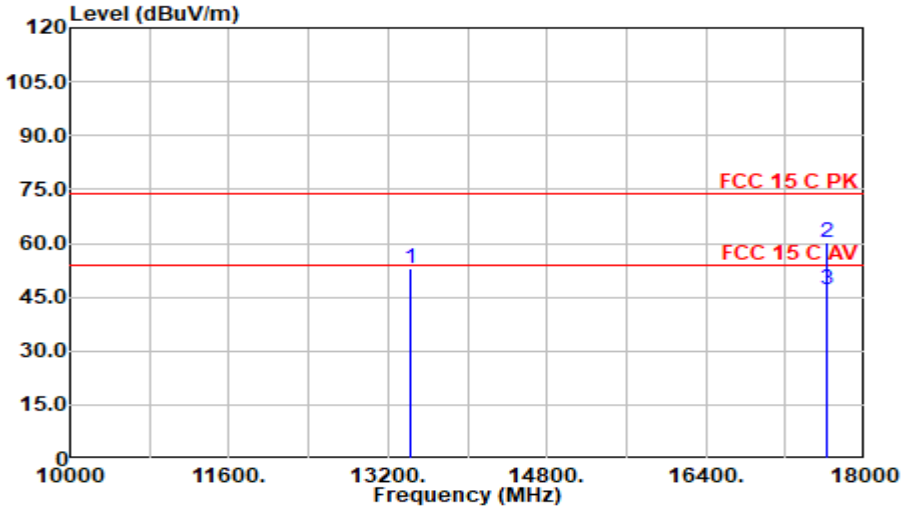
Mode: 802.11n CH2462MHz



Polarization at Horizontal

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
1858.500	56.76	27.19	2.54	36.76	49.72	74.00	24.28	Peak
3316.250	47.67	31.33	3.48	35.64	46.84	74.00	27.16	Peak
4922.750	52.01	33.39	4.56	36.47	53.49	74.00	20.51	Peak
4922.750	40.32	33.39	4.56	36.47	41.80	54.00	12.20	Average
7392.000	47.50	36.98	5.58	37.06	53.00	74.00	21.00	Peak
7392.000	37.35	36.98	5.58	37.06	42.85	54.00	11.15	Average

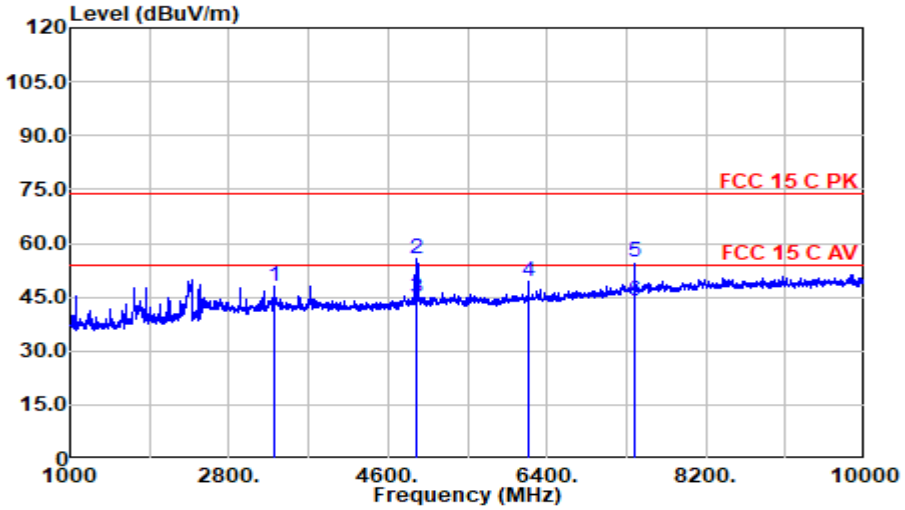
Mode: 802.11n CH2462MHz



Polarization at Horizontal

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
13422.750	41.00	40.25	7.43	35.91	52.77	74.00	21.23	Peak
17609.000	41.76	44.65	8.58	34.55	60.44	74.00	13.56	Peak
17609.000	28.48	44.65	8.58	34.55	47.15	54.00	6.85	Average

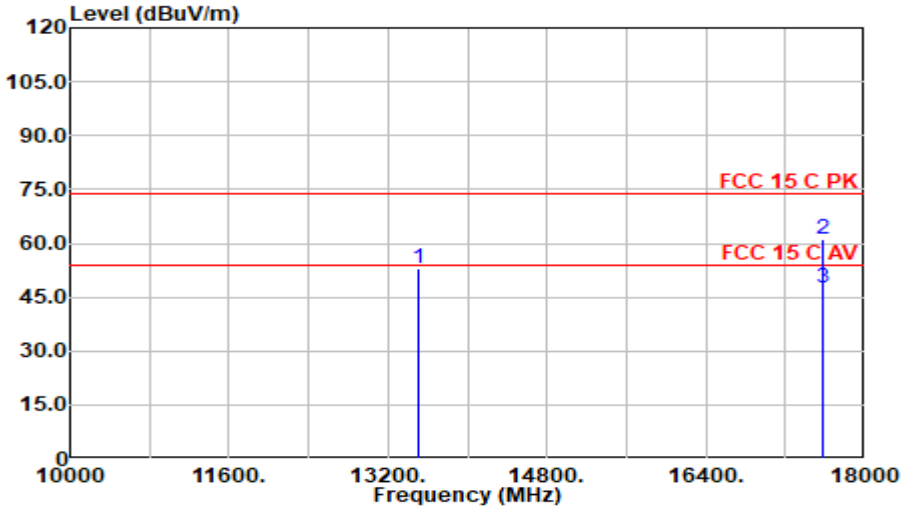
Mode: 802.11n CH2462MHz



Polarization at Vertical

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
3316.250	48.69	31.33	3.48	35.64	47.87	74.00	26.13	Peak
4931.250	54.18	33.43	4.57	36.48	55.70	74.00	18.30	Peak
4931.250	43.43	33.43	4.57	36.48	44.95	54.00	9.05	Average
6189.250	46.31	34.56	5.24	36.82	49.28	74.00	24.72	Peak
7387.750	49.26	36.98	5.58	37.06	54.75	74.00	19.25	Peak
7387.750	38.42	36.98	5.58	37.06	43.92	54.00	10.08	Average

Mode: 802.11n CH2462MHz



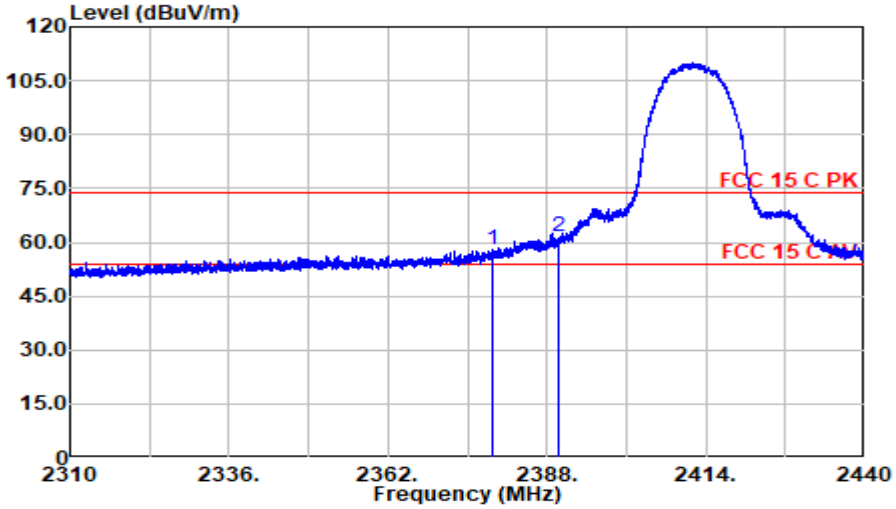
Polarization at Vertical

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
13499.250	40.99	40.40	7.47	35.90	52.96	74.00	21.04	Peak
17570.750	42.50	44.48	8.57	34.57	60.99	74.00	13.01	Peak
17570.750	28.95	44.48	8.57	34.57	47.43	54.00	6.57	Average

Band-Edge and Restricted bands:

Test Date:	2025.07.06	Temp./Hum.:	22°C/51%RH	Test By:	JareyLu

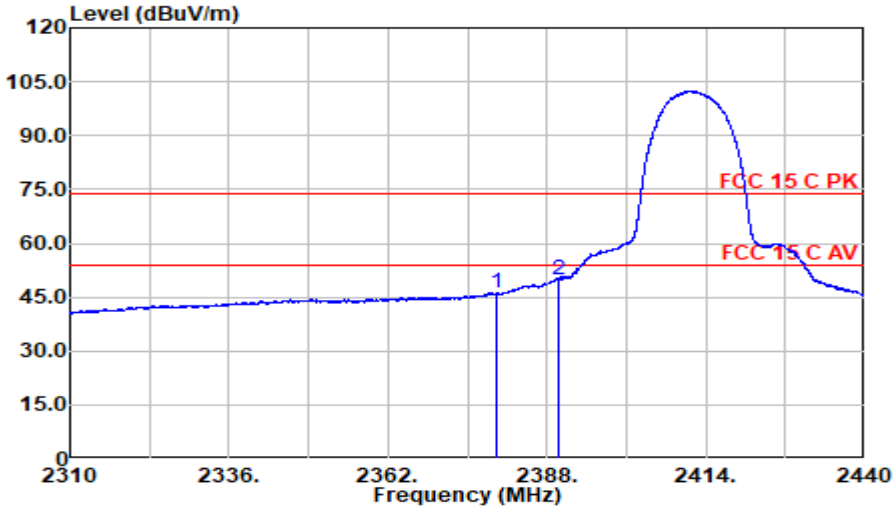
Mode: 802.11b CH2412MHz



Polarization at Horizontal

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
2379.095	62.74	28.56	2.89	36.14	58.05	74.00	15.95	Peak
2390.000	66.09	28.58	2.90	36.13	61.44	74.00	12.56	Peak

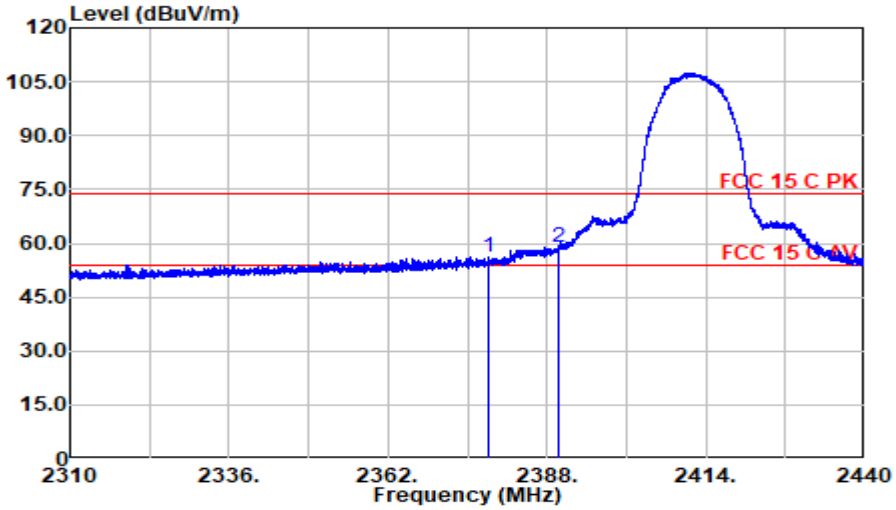
Mode: 802.11b CH2412MHz



Polarization at Horizontal

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
2379.745	50.88	28.56	2.89	36.14	46.19	54.00	7.81	Average
2390.000	54.66	28.58	2.90	36.13	50.01	54.00	3.99	Average

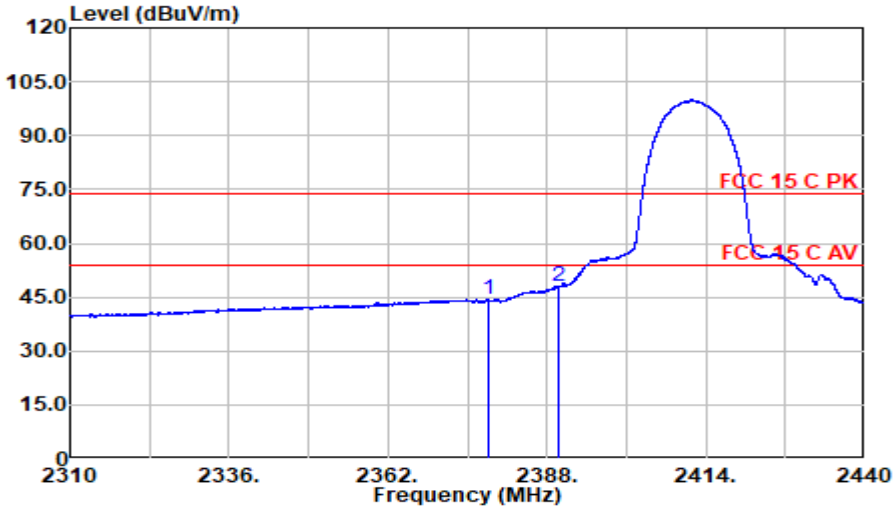
Mode: 802.11b CH2412MHz



Polarization at Vertical

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
2378.445	61.03	28.56	2.89	36.14	56.33	74.00	17.67	Peak
2390.000	63.49	28.58	2.90	36.13	58.84	74.00	15.16	Peak

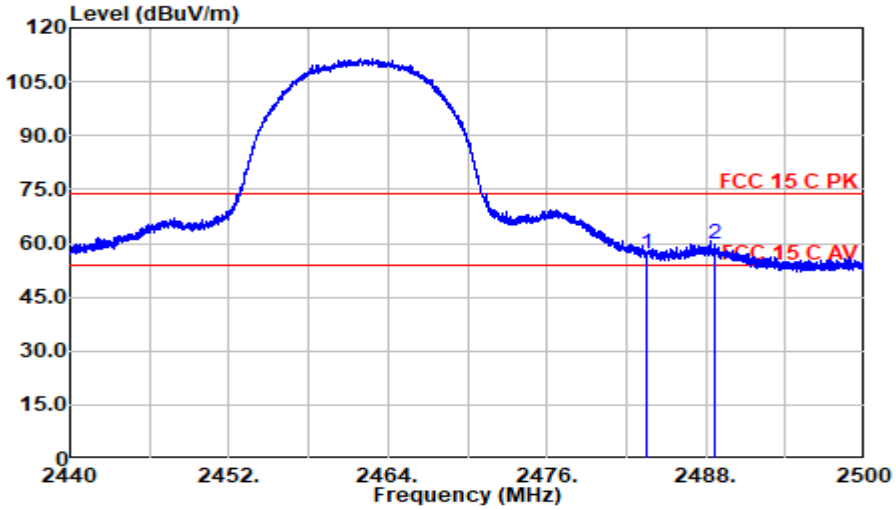
Mode: 802.11b CH2412MHz



Polarization at Vertical

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
2378.315	49.18	28.56	2.89	36.14	44.48	54.00	9.52	Average
2390.000	52.68	28.58	2.90	36.13	48.03	54.00	5.97	Average

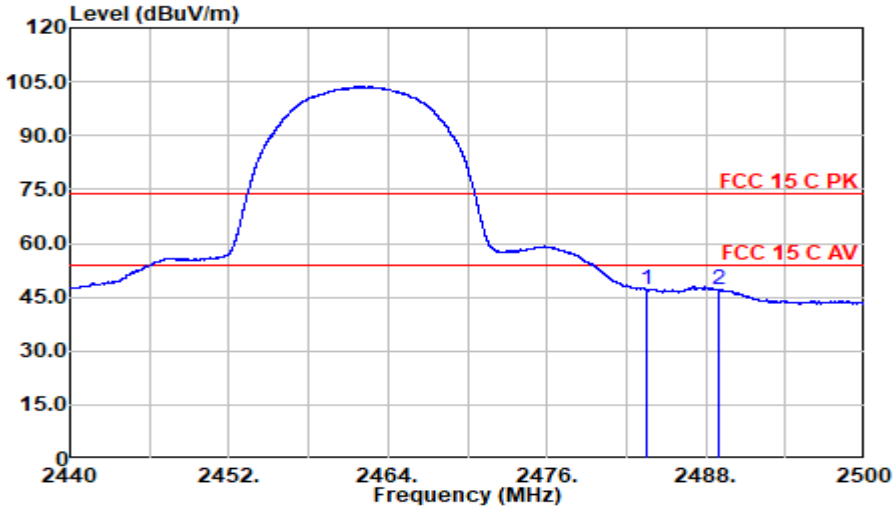
Mode: 802.11b CH2462MHz



Polarization at Horizontal

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
2483.500	61.70	28.50	2.96	36.01	57.15	74.00	16.85	Peak
2488.660	64.20	28.50	2.96	36.00	59.66	74.00	14.34	Peak

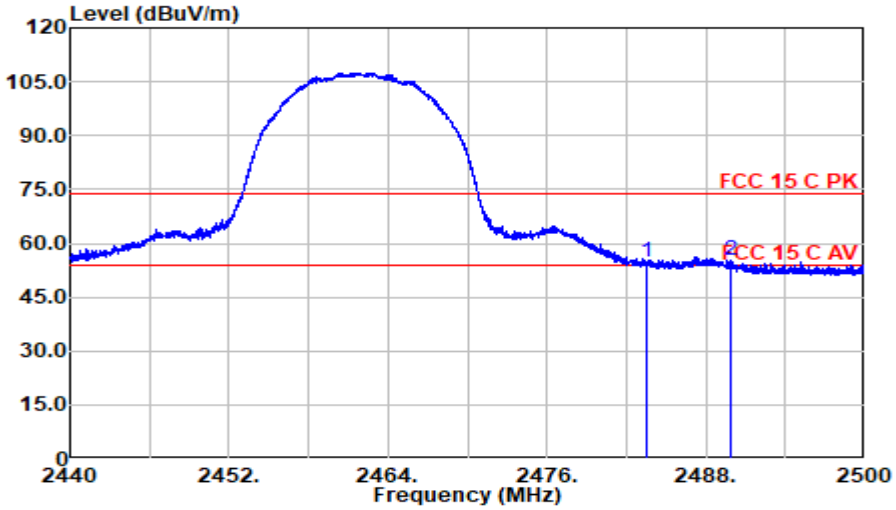
Mode: 802.11b CH2462MHz



Polarization at Horizontal

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
2483.500	51.46	28.50	2.96	36.01	46.91	54.00	7.09	Average
2489.005	51.81	28.50	2.96	36.00	47.28	54.00	6.72	Average

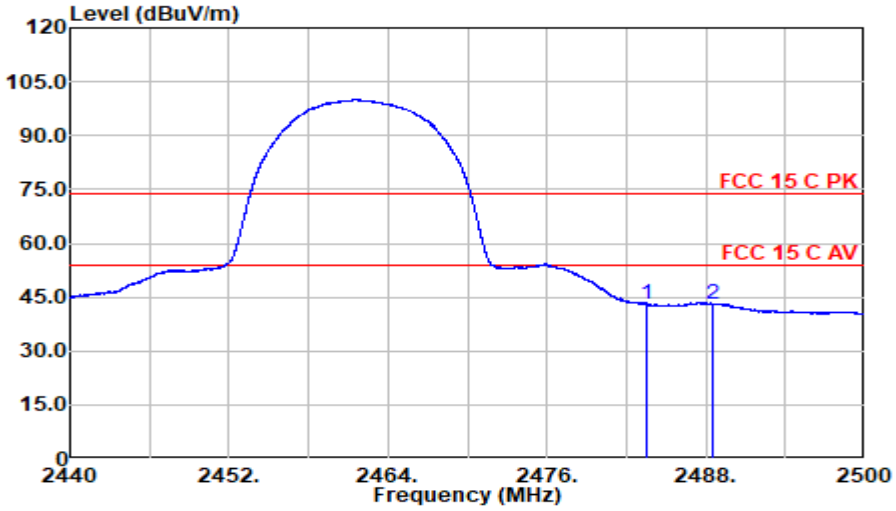
Mode: 802.11b CH2462MHz



Polarization at Vertical

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
2483.500	59.13	28.50	2.96	36.01	54.58	74.00	19.42	Peak
2489.935	59.82	28.50	2.96	36.00	55.28	74.00	18.72	Peak

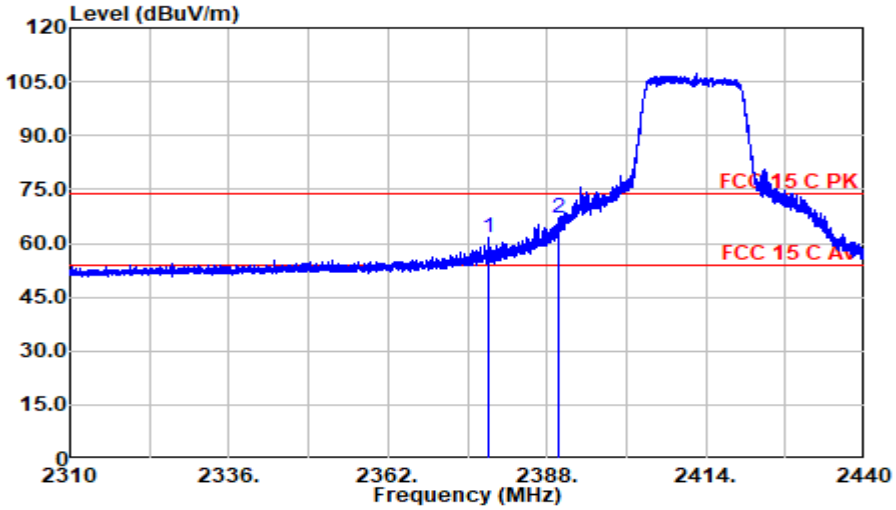
Mode: 802.11b CH2462MHz



Polarization at Vertical

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
2483.500	47.79	28.50	2.96	36.01	43.24	54.00	10.76	Average
2488.510	47.76	28.50	2.96	36.00	43.22	54.00	10.78	Average

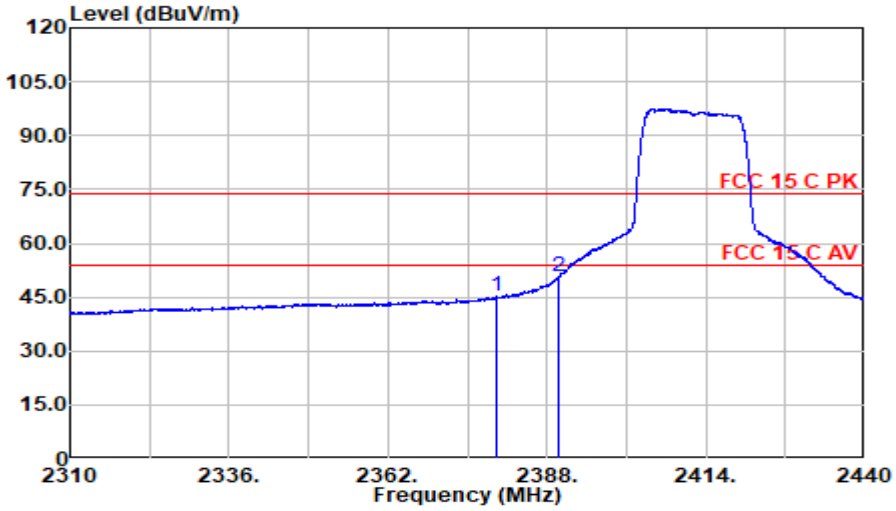
Mode: 802.11g CH2412MHz



Polarization at Horizontal

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
2378.575	66.21	28.56	2.89	36.14	61.51	74.00	12.49	Peak
2390.000	71.60	28.58	2.90	36.13	66.95	74.00	7.05	Peak

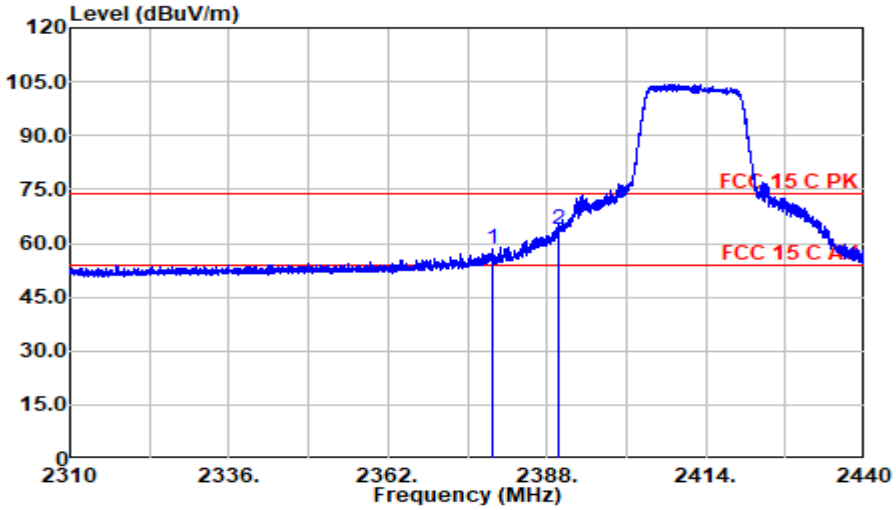
Mode: 802.11g CH2412MHz



Polarization at Horizontal

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
2379.843	49.94	28.56	2.89	36.14	45.24	54.00	8.76	Average
2390.000	55.39	28.58	2.90	36.13	50.74	54.00	3.26	Average

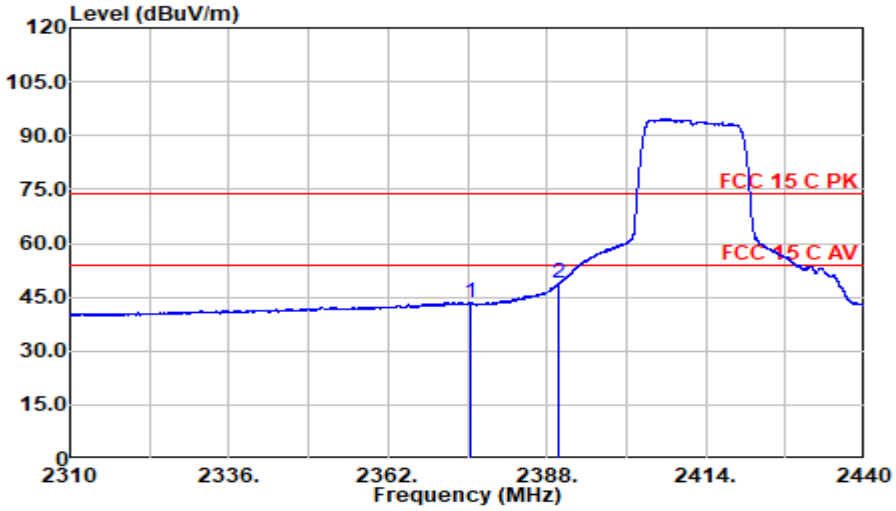
Mode: 802.11g CH2412MHz



Polarization at Vertical

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
2379.030	62.99	28.56	2.89	36.14	58.29	74.00	15.71	Peak
2390.000	68.36	28.58	2.90	36.13	63.71	74.00	10.29	Peak

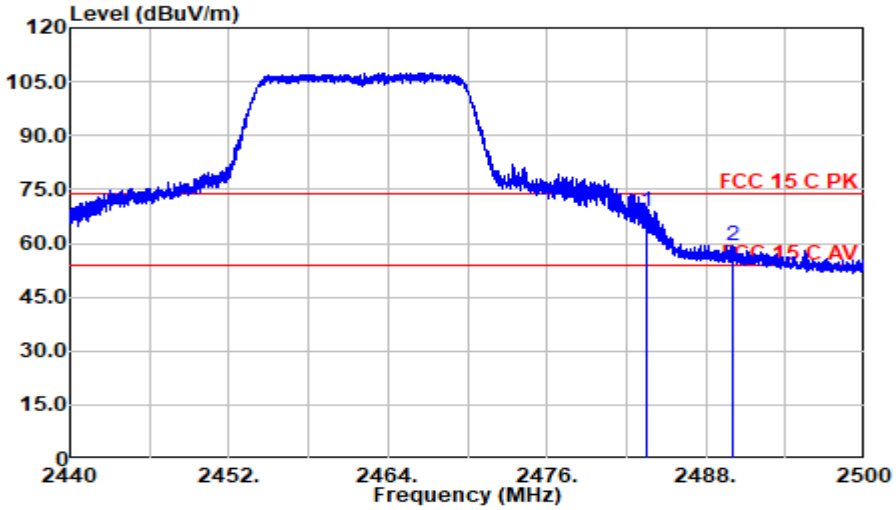
Mode: 802.11g CH2412MHz



Polarization at Vertical

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
2375.520	48.29	28.55	2.89	36.15	43.58	54.00	10.42	Average
2390.000	53.53	28.58	2.90	36.13	48.88	54.00	5.12	Average

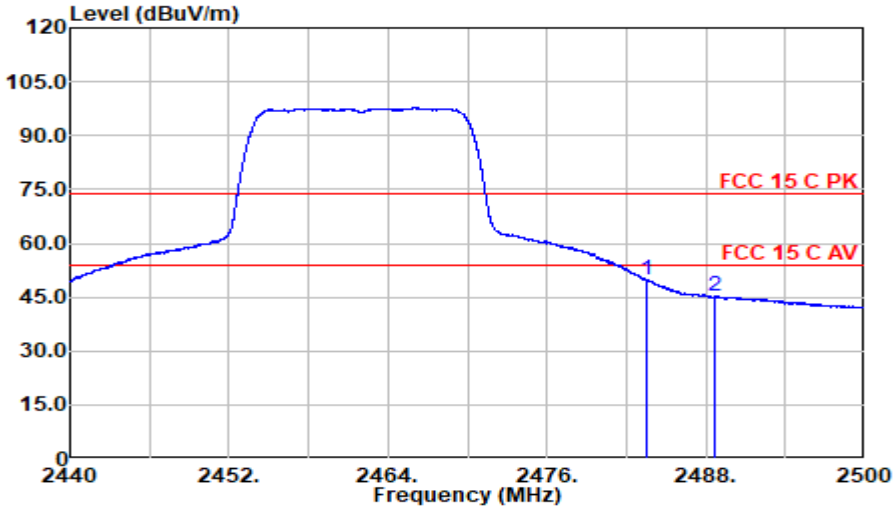
Mode: 802.11g CH2462MHz



Polarization at Horizontal

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
2483.500	73.51	28.50	2.96	36.01	68.96	74.00	5.04	Peak
2490.025	64.05	28.50	2.96	36.00	59.51	74.00	14.49	Peak

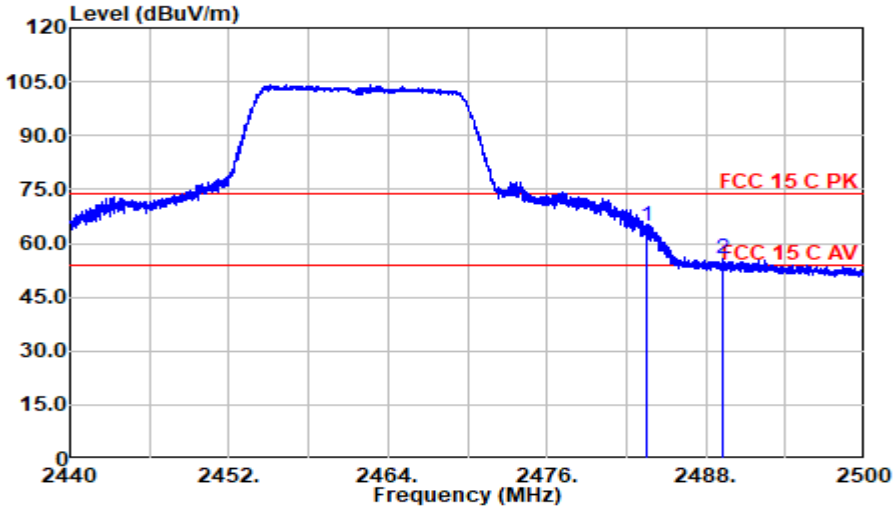
Mode: 802.11g CH2462MHz



Polarization at Horizontal

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
2483.500	54.37	28.50	2.96	36.01	49.82	54.00	4.18	Average
2488.705	49.72	28.50	2.96	36.00	45.18	54.00	8.82	Average

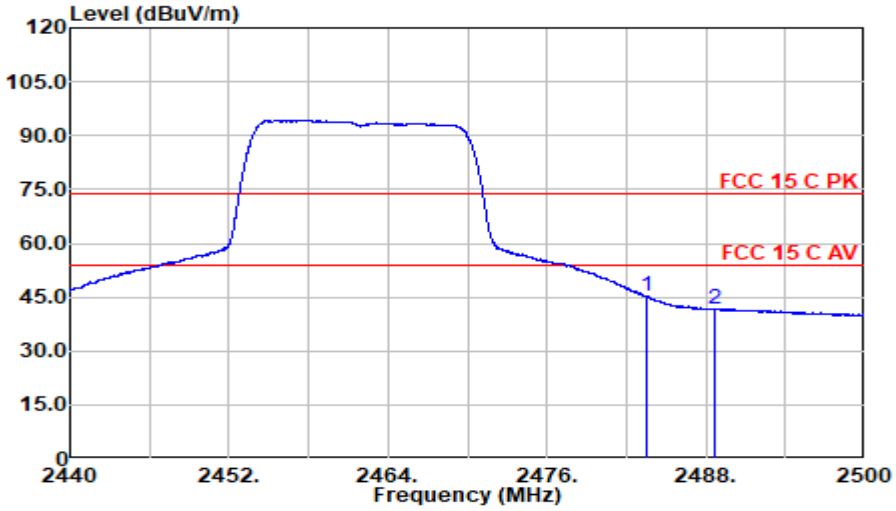
Mode: 802.11g CH2462MHz



Polarization at Vertical

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
2483.500	69.49	28.50	2.96	36.01	64.94	74.00	9.06	Peak
2489.290	60.18	28.50	2.96	36.00	55.65	74.00	18.35	Peak

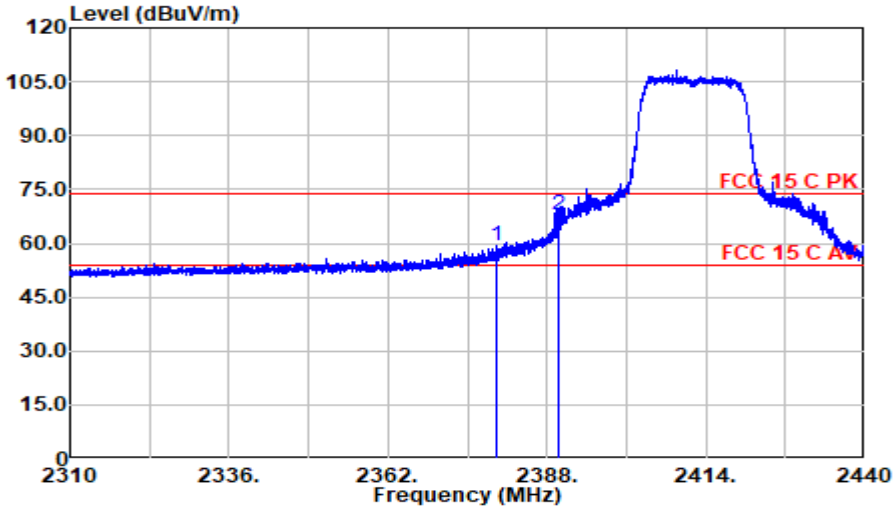
Mode: 802.11g CH2462MHz



Polarization at Vertical

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
2483.500	49.78	28.50	2.96	36.01	45.23	54.00	8.77	Average
2488.735	46.30	28.50	2.96	36.00	41.77	54.00	12.23	Average

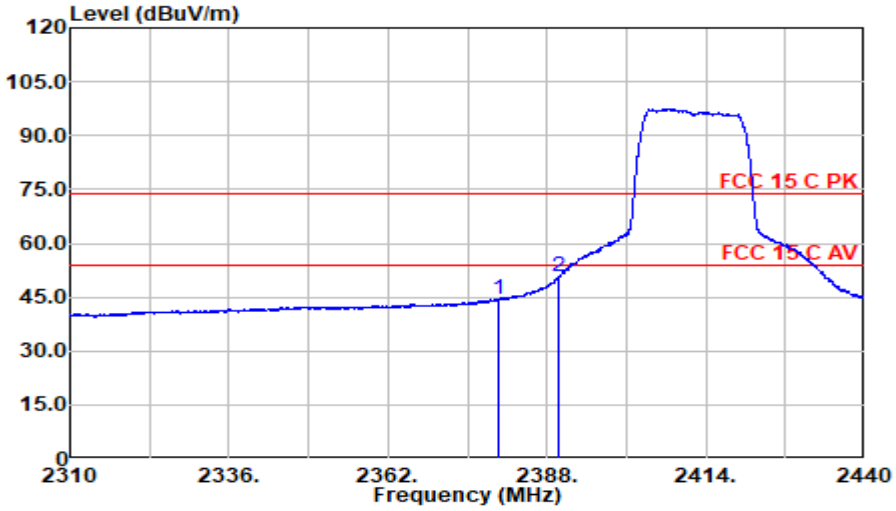
Mode: 802.11n20 CH2412MHz



Polarization at Horizontal

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
2379.907	64.22	28.56	2.89	36.14	59.53	74.00	14.47	Peak
2390.000	72.44	28.58	2.90	36.13	67.79	74.00	6.21	Peak

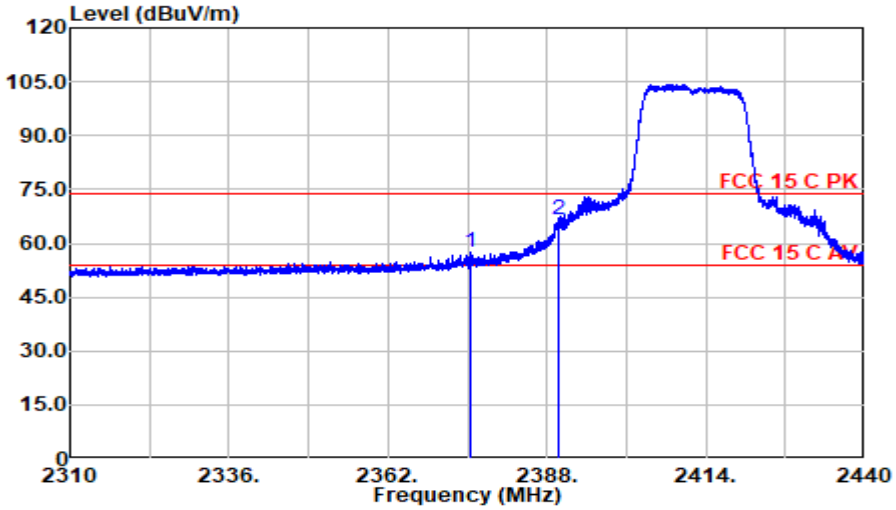
Mode: 802.11n20 CH2412MHz



Polarization at Horizontal

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
2379.972	49.12	28.56	2.89	36.14	44.43	54.00	9.57	Average
2390.000	55.54	28.58	2.90	36.13	50.89	54.00	3.11	Average

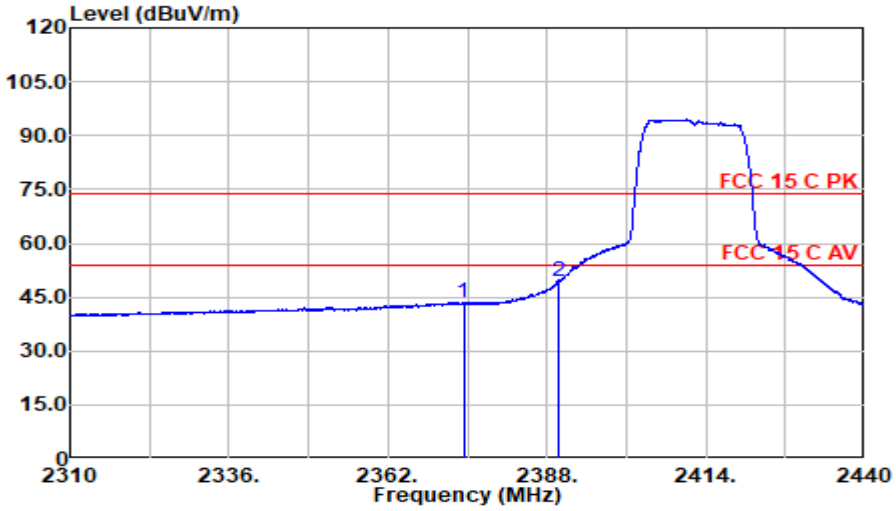
Mode: 802.11n20 CH2412MHz



Polarization at Vertical

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
2375.617	62.05	28.55	2.89	36.15	57.34	74.00	16.66	Peak
2390.000	71.08	28.58	2.90	36.13	66.43	74.00	7.57	Peak

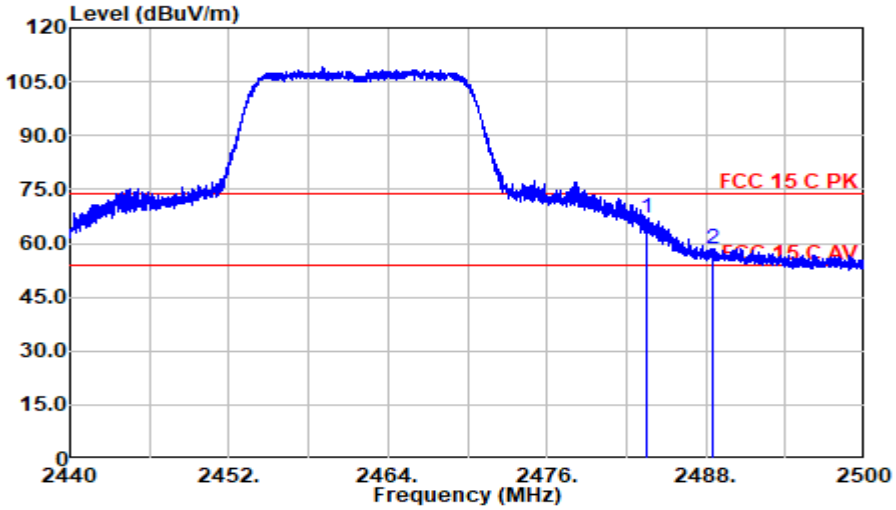
Mode: 802.11n20 CH2412MHz



Polarization at Vertical

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
2374.350	48.33	28.55	2.89	36.15	43.62	54.00	10.38	Average
2390.000	54.17	28.58	2.90	36.13	49.51	54.00	4.49	Average

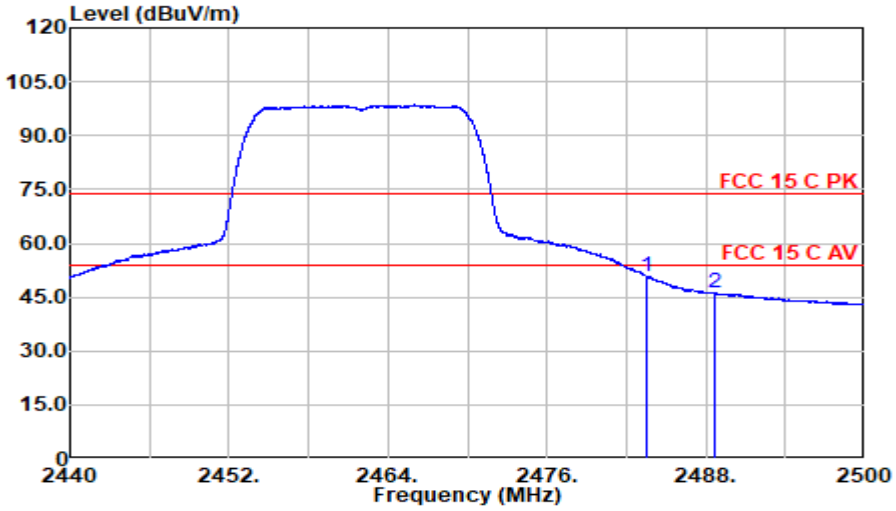
Mode: 802.11n20 CH2462MHz



Polarization at Horizontal

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
2483.500	71.79	28.50	2.96	36.01	67.24	74.00	6.76	Peak
2488.585	62.86	28.50	2.96	36.00	58.32	74.00	15.68	Peak

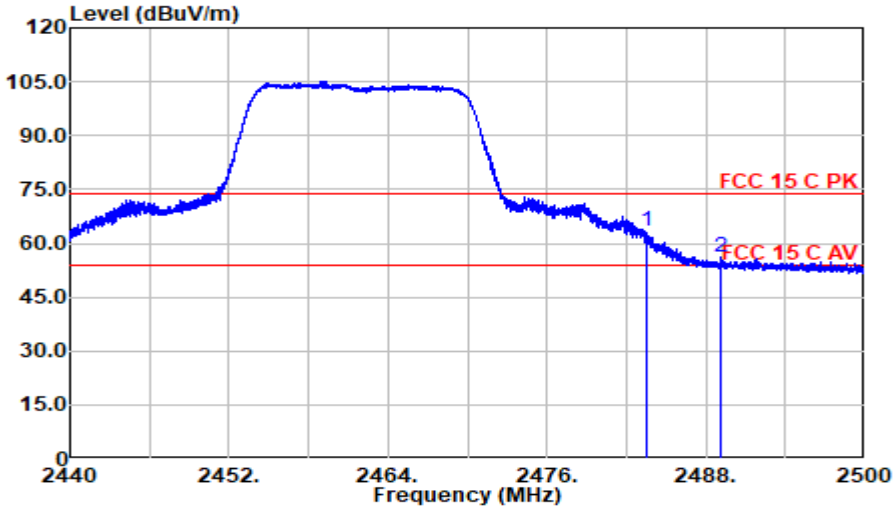
Mode: 802.11n20 CH2462MHz



Polarization at Horizontal

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
2483.500	55.31	28.50	2.96	36.01	50.76	54.00	3.24	Average
2488.735	50.74	28.50	2.96	36.00	46.20	54.00	7.80	Average

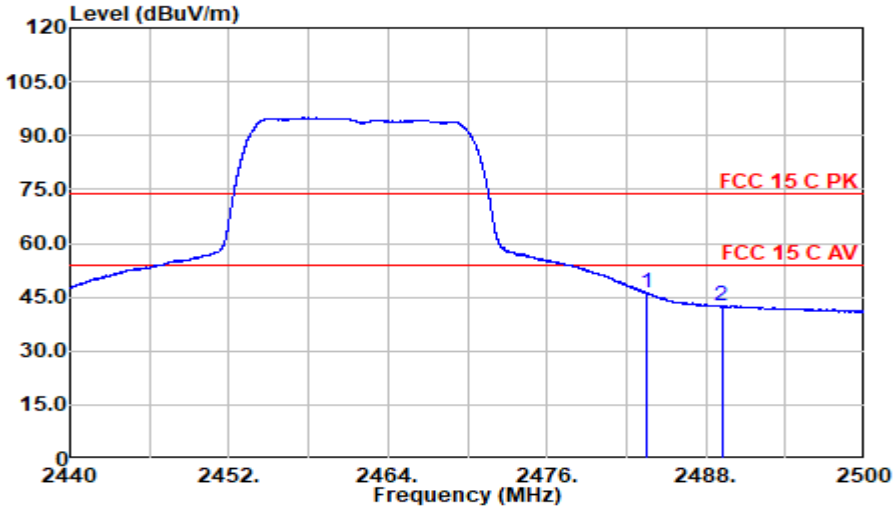
Mode: 802.11n20 CH2462MHz



Polarization at Vertical

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
2483.500	67.73	28.50	2.96	36.01	63.18	74.00	10.82	Peak
2489.095	60.63	28.50	2.96	36.00	56.09	74.00	17.91	Peak

Mode: 802.11n20 CH2462MHz



Polarization at Vertical

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
2483.500	50.88	28.50	2.96	36.01	46.33	54.00	7.67	Average
2489.200	47.23	28.50	2.96	36.00	42.69	54.00	11.31	Average

5 99% OCCUPIED BANDWIDTH MEASUREMENT

5.1 Test Equipment

The following test equipment was used during the Emission Bandwidth measurement:

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Spectrum Analyzer	Agilent	N9010A	MY52221182	202.08.09	1 Year
2.	RF Cable	Mini-Circuits	FLC-3FT-SM SM+	22022838	2024.08.09	1 Year
3.	20 dB Attenuator	Mini-Circuits	BW-S20W2+	2172	2025.02.22	1 Year

5.2 Block Diagram of Test Setup

5.3 Operating Condition of EUT

The software as section 2.3 was used to enable the EUT to change the test mode one by one.

5.4 Test Procedure

The transmitter output was connected to the spectrum analyzer. The bandwidth of 99% power bandwidth was measure by spectrum analyzer with settings: Span = between 1.5 times and 5.0 times of the OBW, RBW = 1% to 5% of the OBW, VBW ≥ 3 × RBW, Detector = Peak, Trace = Max Hold.
Use the 99% power bandwidth function of the instrument and report the measured bandwidth.

The test procedure is defined in ANSI C63.10-2013 (the 6.9.3 Measurement Procedure "Occupied bandwidth—power bandwidth (99%) measurement procedure" was used).

5.5 Test Results

PASSED.

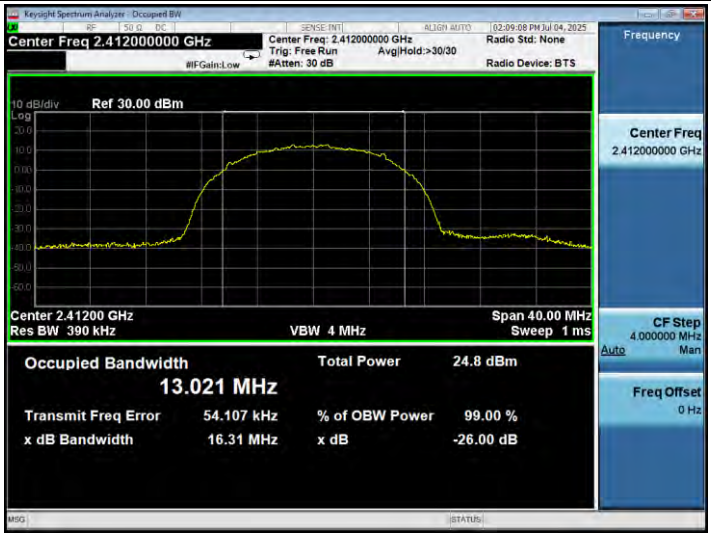
All the test results are attached in next pages.

Test Date:	2025.07.04	Temp./Hum.:	23℃/51%RH	Test By:	DoraMa

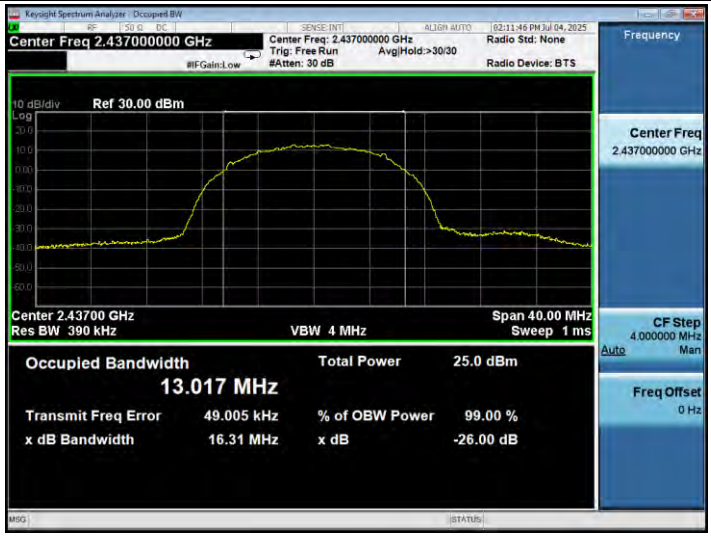
Mode	Channel	Frequency (MHz)	**99% Bandwidth (MHz)**
802.11b	1	2412	**13.021**
	6	2437	**13.017**
	11	2462	**13.042**
802.11g	1	2412	**16.559**
	6	2437	**16.538**
	11	2462	**16.553**
802.11n	1	2412	**17.228**
	6	2437	**17.206**
	11	2462	**17.225**

802.11b

CH2412



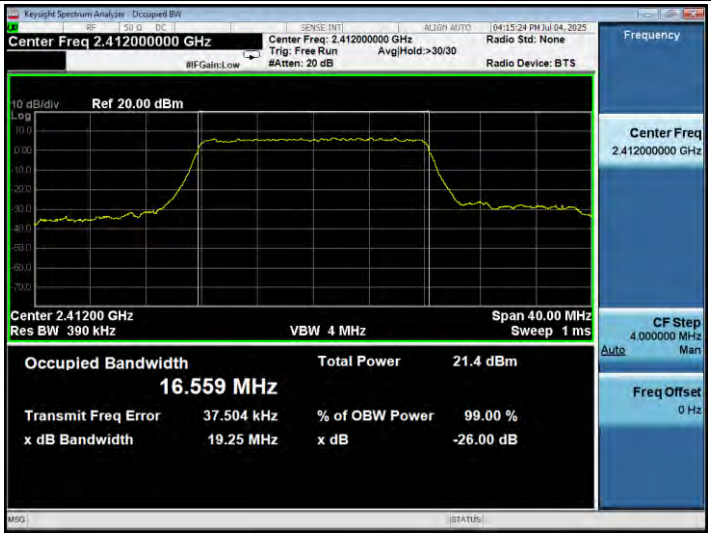
CH2437



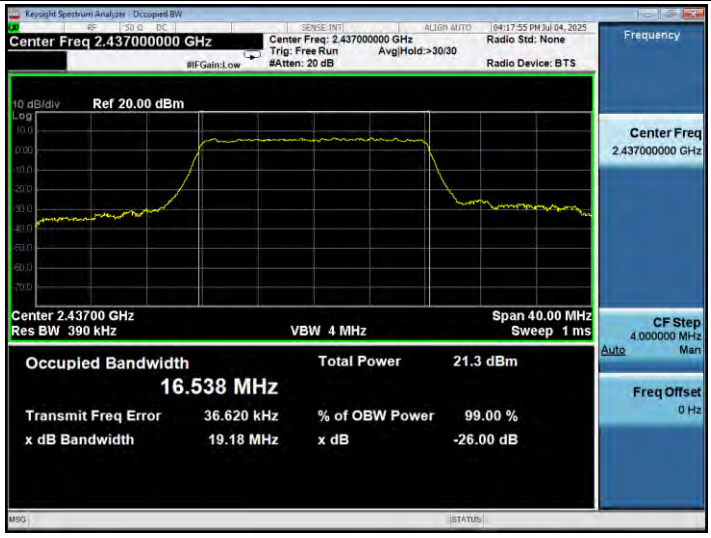
CH2462

802.11g

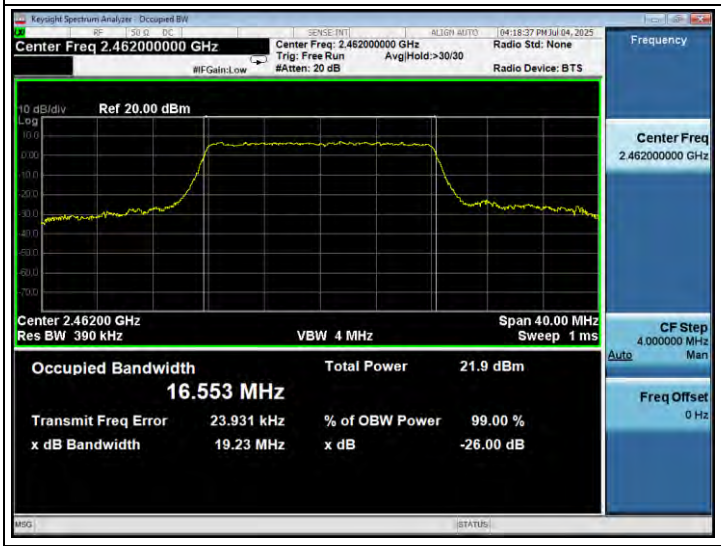
CH2412



CH2437

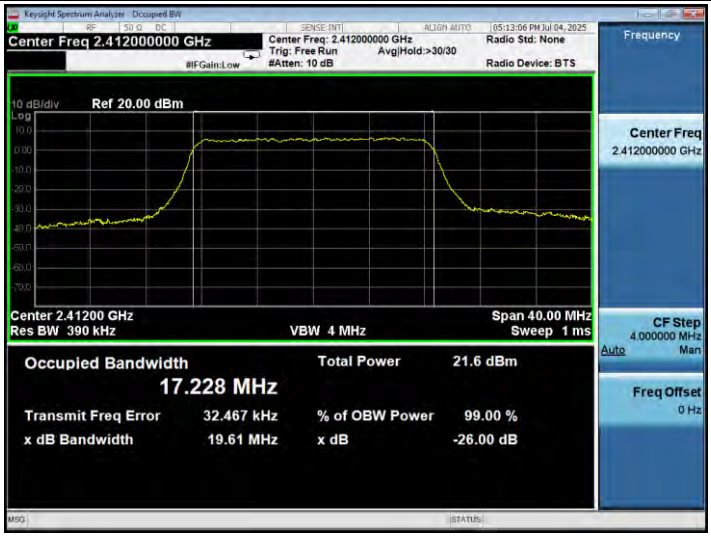


CH2462

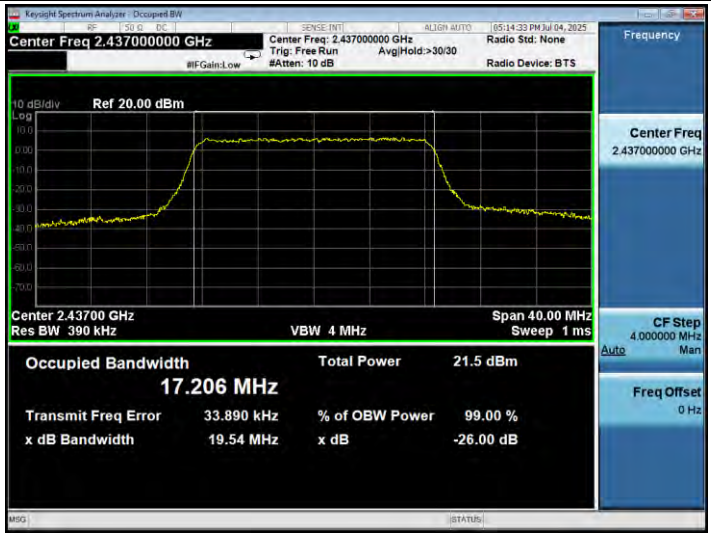


802.11n

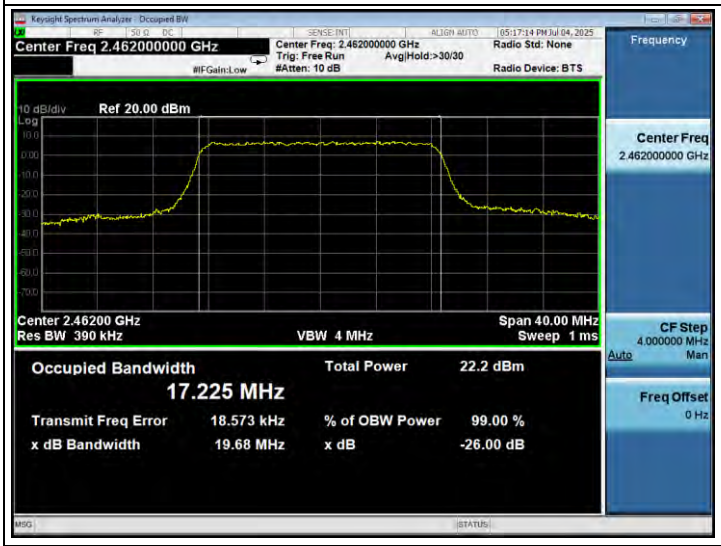
CH2412



CH2437



CH2462



6 6 dB BANDWIDTH MEASUREMENT

6.1 Test Equipment

The Same as Section. 5.1.

6.2 Block Diagram of Test Setup

The Same as Section. 5.2.

6.3 Specification Limits (§15.247(a)(2))

The minimum 6 dB bandwidth shall be at least 500 kHz.

6.4 Operating Condition of EUT

The software as section 2.3 was used to enable the EUT to change the test mode one by one.

6.5 Test Procedure

The transmitter output was connected to the spectrum analyzer. The bandwidth of the fundamental frequency was measure by spectrum analyzer with settings: RBW = 100kHz, VBW ≥ 3 × RBW.

The 6 dB bandwidth is defined as the total spectrum the power of which is lower than peak power minus 6 dB .

The test procedure is defined in ANSI C63.10-2013 (the 11.8.2 Measurement Procedure “Option 2” was used).

6.6 Test Results

PASSED.

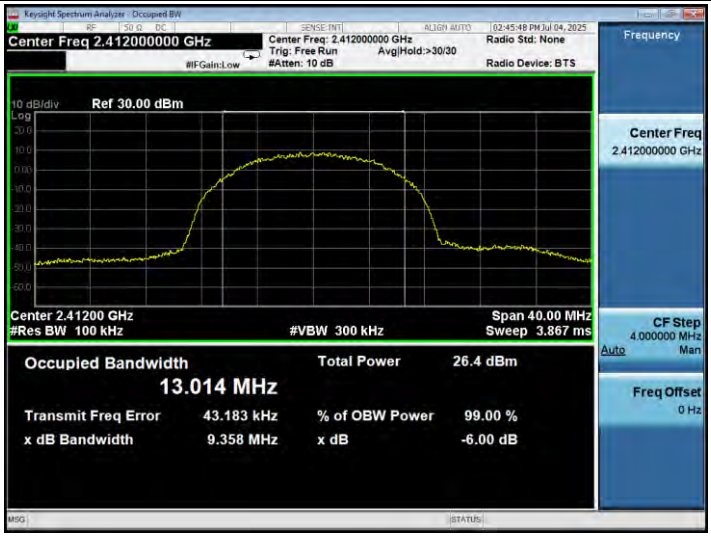
All the test results are attached in next pages.

Test Date:	2025.07.04	Temp./Hum.:	23℃/51%RH	Test By:	DoraMa

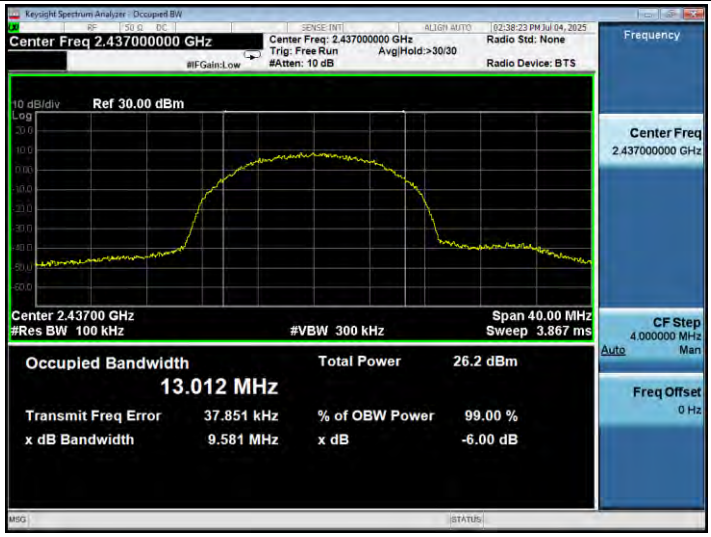
Mode	Channel	Frequency (MHz)	**6dB Bandwidth (MHz)**	Limit
802.11b	1	2412	**9.358**	500 kHz
	6	2437	**9.581**	500 kHz
	11	2462	**9.388**	500 kHz
802.11g	1	2412	**16.37**	500 kHz
	6	2437	**16.37**	500 kHz
	11	2462	**16.37**	500 kHz
802.11n	1	2412	**16.38**	500 kHz
	6	2437	**16.38**	500 kHz
	11	2462	**16.38**	500 kHz

802.11b

CH2412



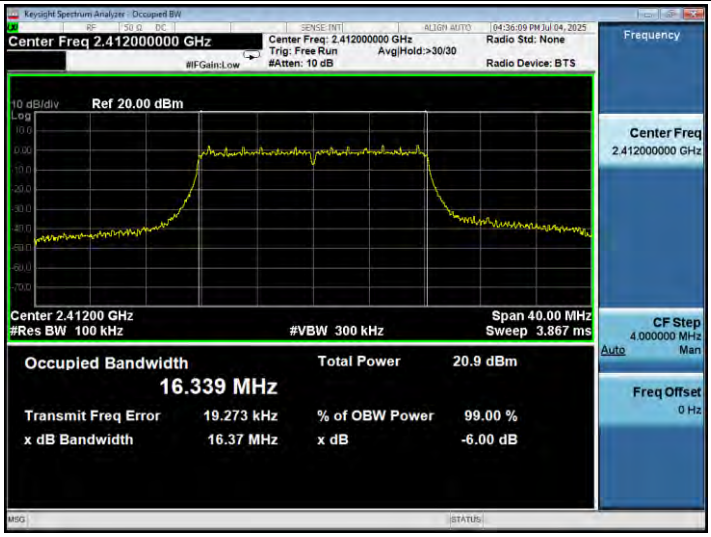
CH2437



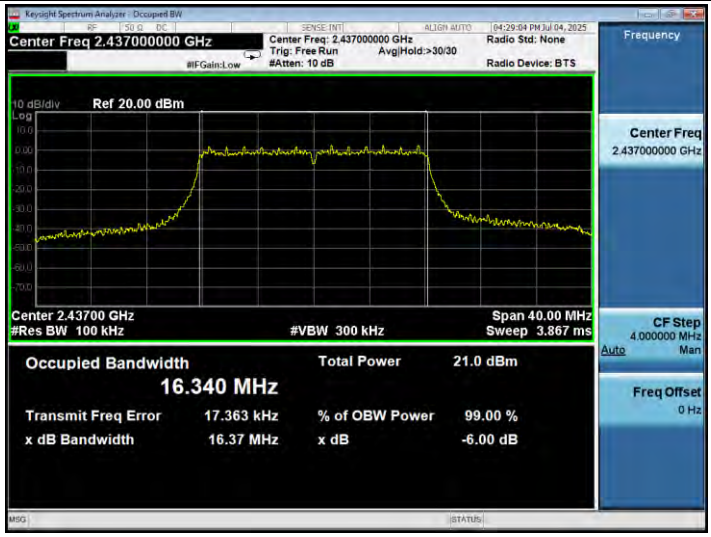
CH2462

802.11g

CH2412



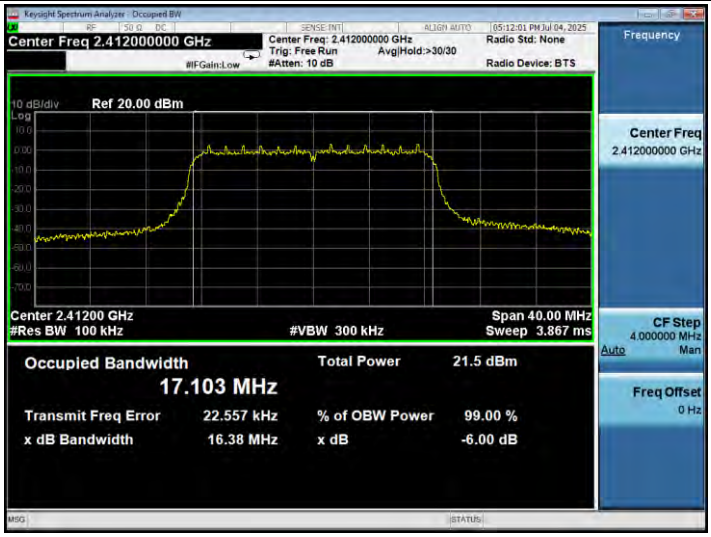
CH2437



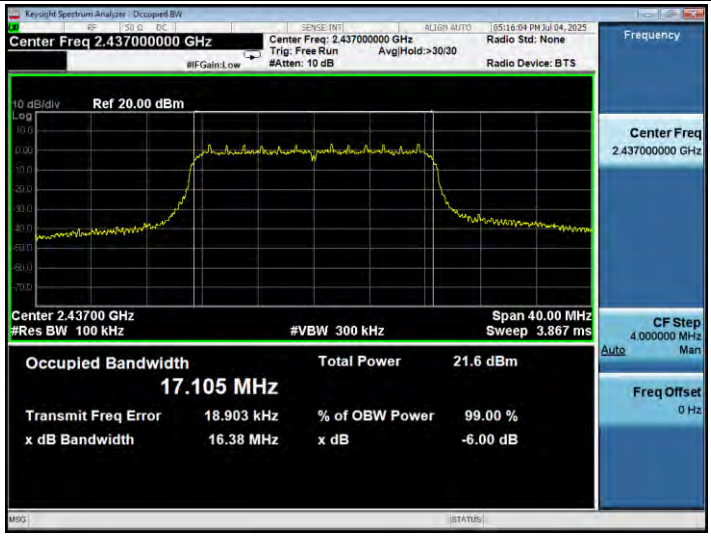
CH2462

802.11n

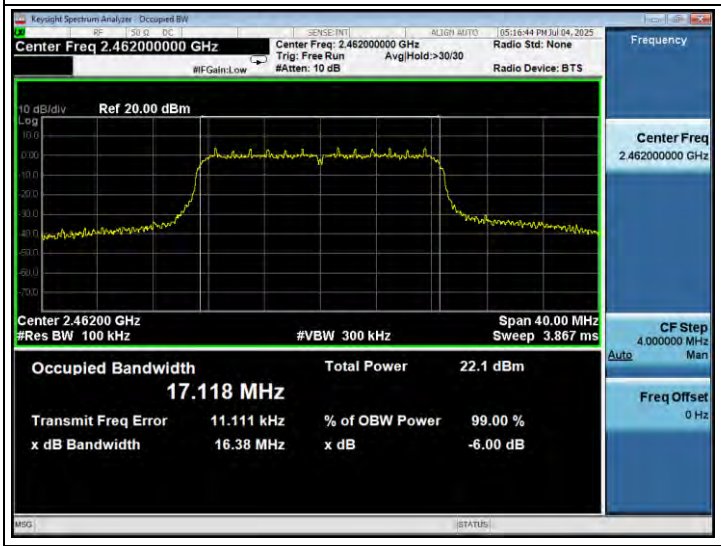
CH2412



CH2437



CH2462



7 MAXIMUM OUTPUT POWER MEASUREMENT

7.1 Test Equipment

The Same as Section. 5.1.

7.2 Block Diagram of Test Setup

The Same as Section. 5.2.

7.3 Specification Limits ((§15.247(b)(3))

The Limits of maximum Peak Output Power for digital modulation in 2400-2483.5 MHz is: 1 Watt. (30 dBm)

7.4 Operating Condition of EUT

The software as section 2.3 was used to enable the EUT to change the test mode one by one.

7.5 Test Procedure

The transmitter output was connected to the spectrum analyzer.

Method AVGSA-1 uses trace averaging with the EUT transmitting at full power throughout each sweep.
The procedure for this method is as follows:
a) Set span to at least 1.5 times the OBW.
b) Set RBW = 1% to 5% of the OBW, not to exceed 1 MHz.
c) Set VBW ≥ [3 × RBW].
d) Number of points in sweep ≥ [2 × span / RBW]. (This gives bin-to-bin spacing ≤ RBW / 2, so that narrowband signals are not lost between frequency bins.)
e) Sweep time = auto.
f) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
g) If transmit duty cycle < 98%, use a sweep trigger with the level set to enable triggering only on full power pulses. The transmitter shall operate at the maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no OFF intervals) or at duty cycle ≥ 98%, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to “free run.”
h) Trace average at least 100 traces in power averaging (rms) mode.
i) Compute power by integrating the spectrum across the OBW of the signal using the instrument’s band power measurement function with band limits set equal to the OBW band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.

The test procedure is defined in ANSI C63.10-2013 (11.9.2.2.2 Measurement Procedure “ Method AVGSA-1” was used).

7.6 Test Results

PASSED.

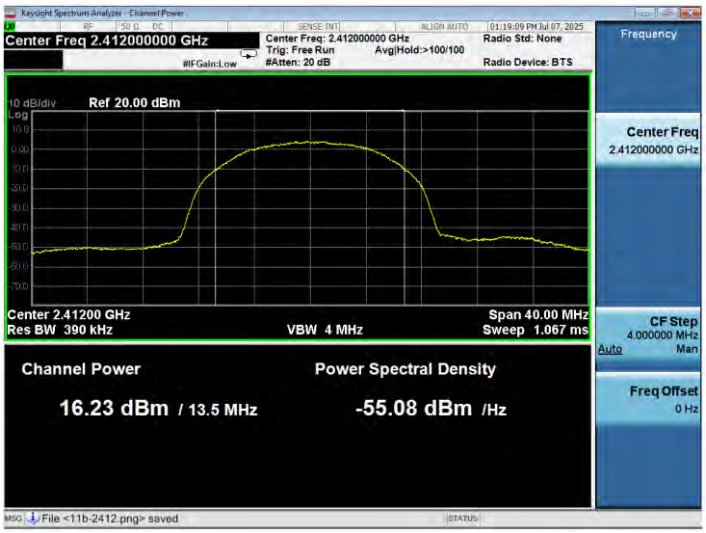
All the test results are listed below.

Test Date:	2025.07.07	Temp./Hum.:	23℃/51%RH	Test By:	DoraMa

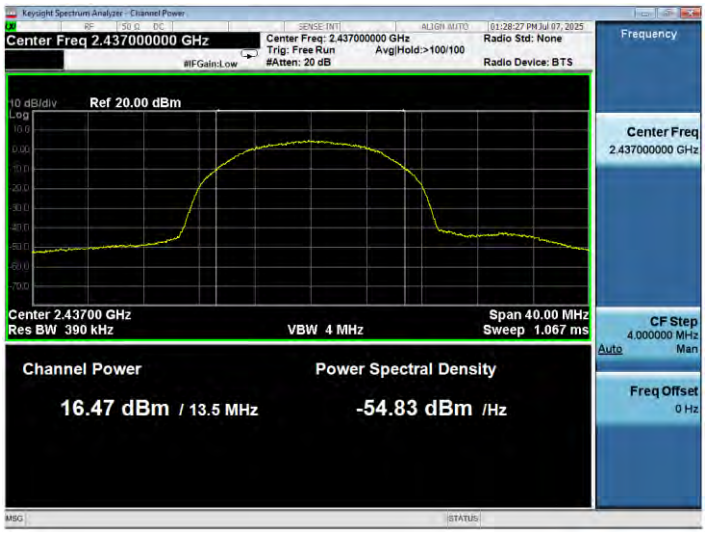
Mode	Channel	Frequency (MHz)	**Maximum conducted (average) Output Power (dBm)**	Limit
802.11b	1	2412	**16.23**	30 dBm
	6	2437	**16.47**	30 dBm
	11	2462	**17.02**	30 dBm
802.11g	1	2412	**12.89**	30 dBm
	6	2437	**13.19**	30 dBm
	11	2462	**13.83**	30 dBm
802.11n	1	2412	**12.96**	30 dBm
	6	2437	**13.15**	30 dBm
	11	2462	**14.02**	30 dBm

802.11b

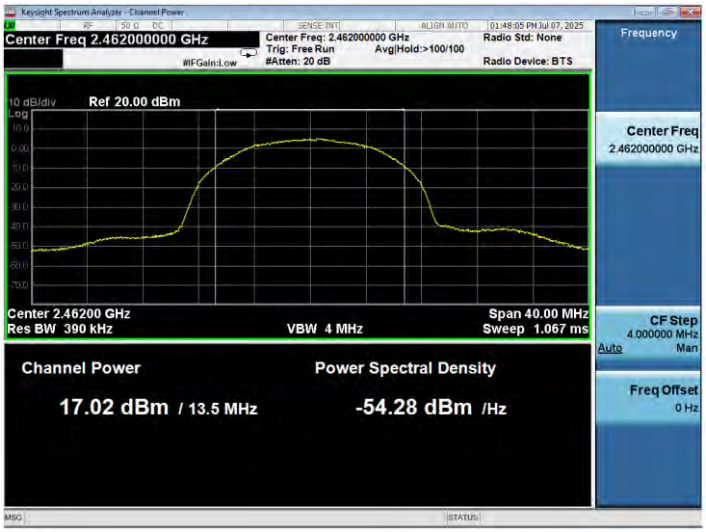
CH2412



CH2437

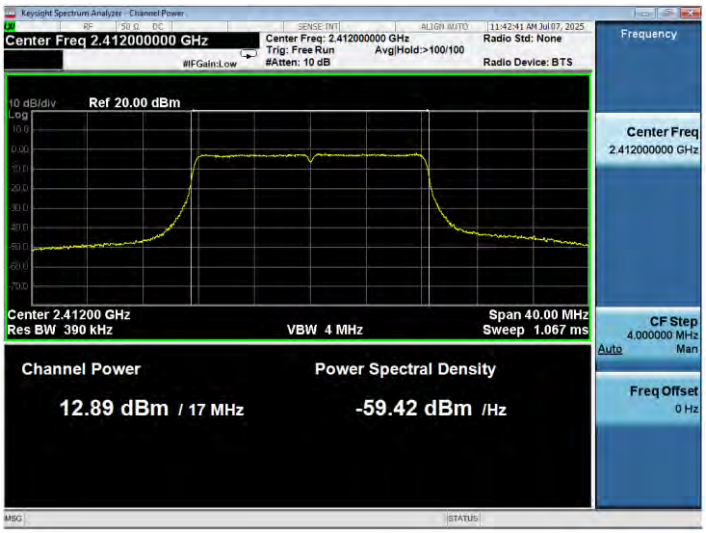


CH2462

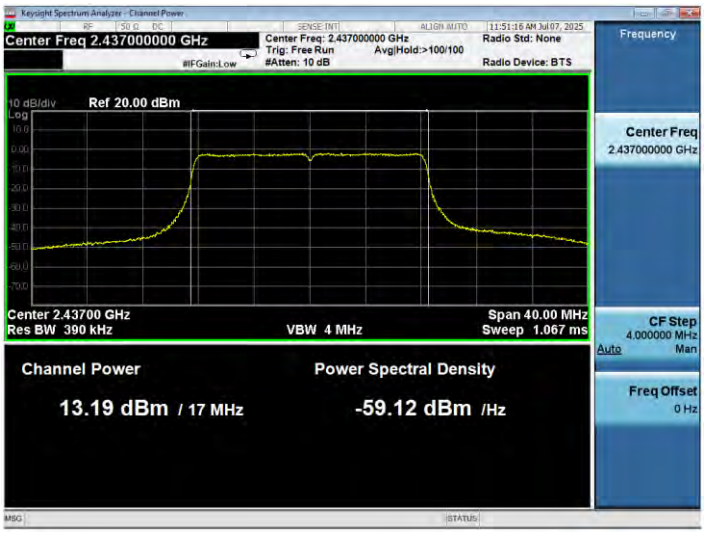


802.11g

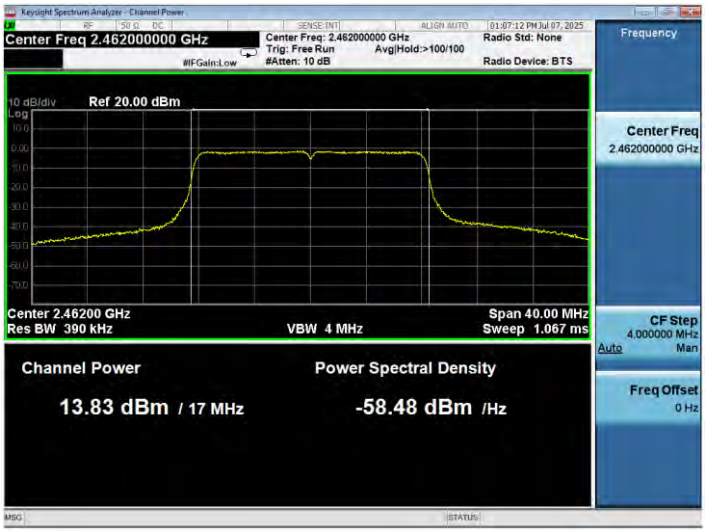
CH2412



CH2437

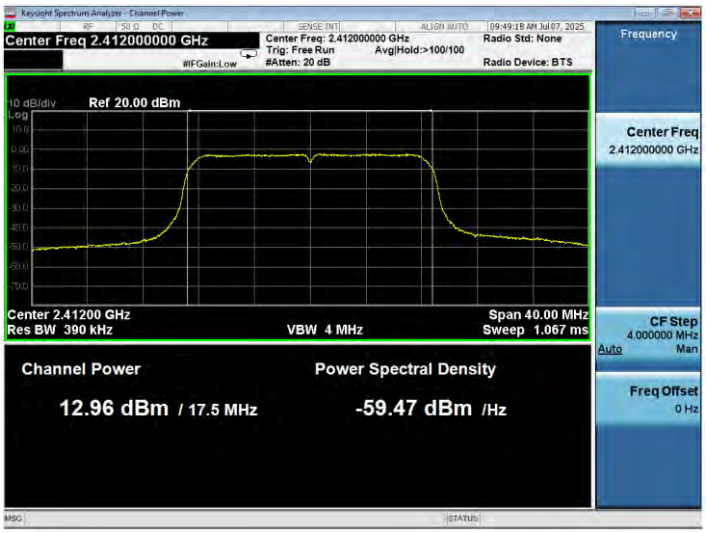


CH2462

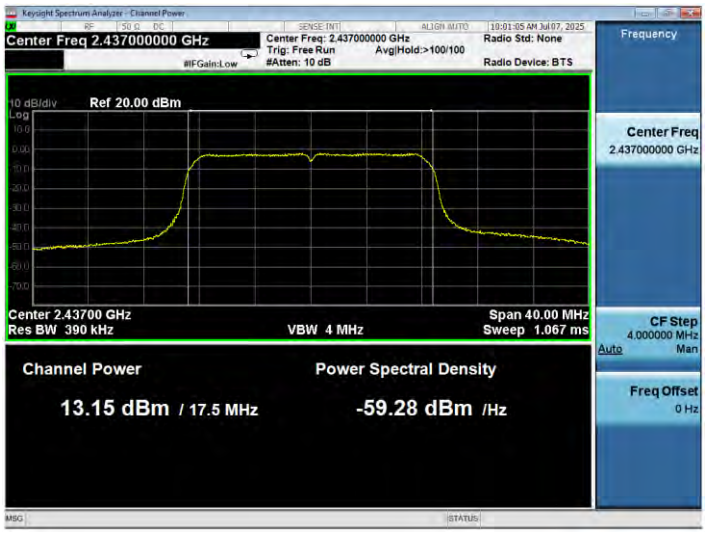


802.11n

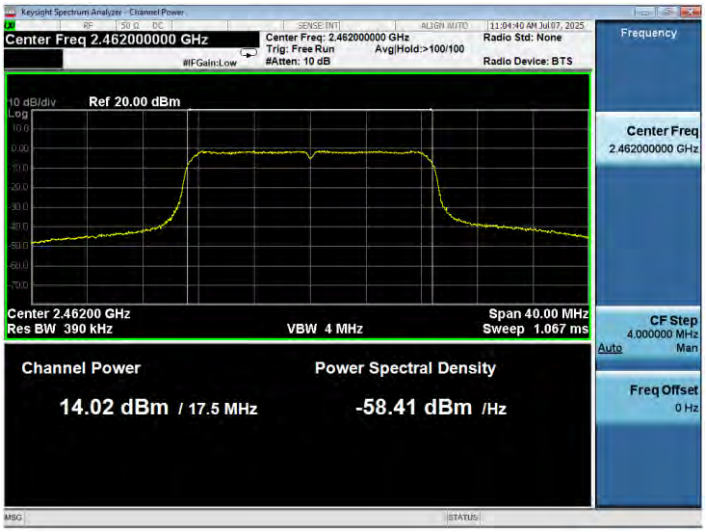
CH2412



CH2437



CH2462



8 EMISSION LIMITATIONS MEASUREMENT

8.1 Test Equipment

The Same as Section. 5.1.

8.2 Block Diagram of Test Setup

The Same as Section. 5.2.

8.3 Specification Limits (§15.247(d))

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 level 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)). (※This test result attaching to Section. 3.7)

8.4 Operating Condition of EUT

The software as section 2.3 was used to enable the EUT to change the test mode one by one.

8.5 Test Procedure

The transmitter output was connected to the spectrum analyzer.

Establish a reference level by using the following procedure:
a) Set instrument center frequency to DTS channel center frequency.
b) Set the span to ≥ 1.5 times the DTS bandwidth.
c) Set the RBW = 100 kHz.
d) Set the VBW ≥ [3 × RBW].
e) Detector = peak.
f) Sweep time = auto couple.
g) Trace mode = max hold.
h) Allow trace to fully stabilize.
i) Use the peak marker function to determine the maximum PSD level.
Note that the channel found to contain the maximum PSD level can be used to establish the reference level.

Establish an emission level by using the following procedure:
a) Set the center frequency and span to encompass frequency range to be measured.
b) Set the RBW = 100 kHz.

c) Set the VBW ≥ [3 × RBW].
d) Detector = peak.
e) Sweep time = auto couple.
f) Trace mode = max hold.
g) Allow trace to fully stabilize.
h) Use the peak marker function to determine the maximum amplitude level.
Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum requirements specified in 11.11. Report the three highest emissions relative to the limit.

Scan up through 10^{th} harmonic.

The test procedure is defined in ANSI C63.10-2013 (11.11.2 Reference level measurement and 11.11.3 Emission level measurement was used).

8.6 Test Results

PASSED.

The test data was attached in the next pages.

Test Date:	2025.07.04	Temp./Hum.:	23℃/51%RH	Test By:	DoraMa

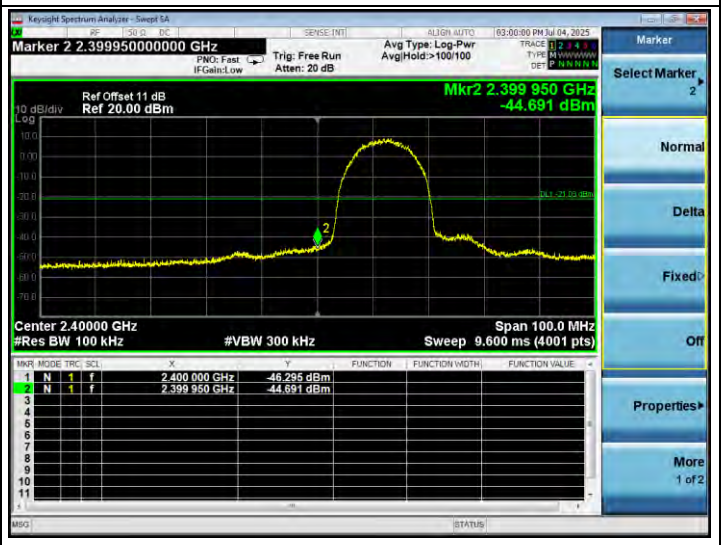
Mode	Channel	Frequency (MHz)	Data Page
802.11b	1	2412	P64
	6	2437	P65
	11	2462	P66
802.11g	1	2412	P67
	6	2437	P68
	11	2462	P69
802.11n	1	2412	P70
	6	2437	P71
	11	2462	P72

802.11b

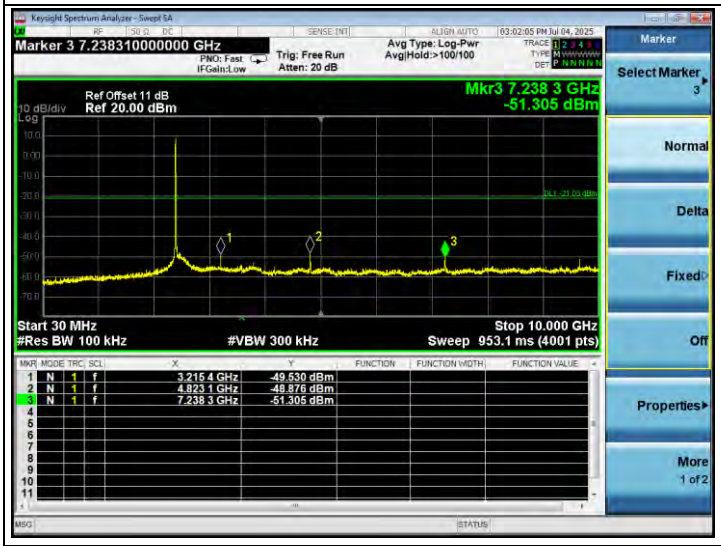
CH2412

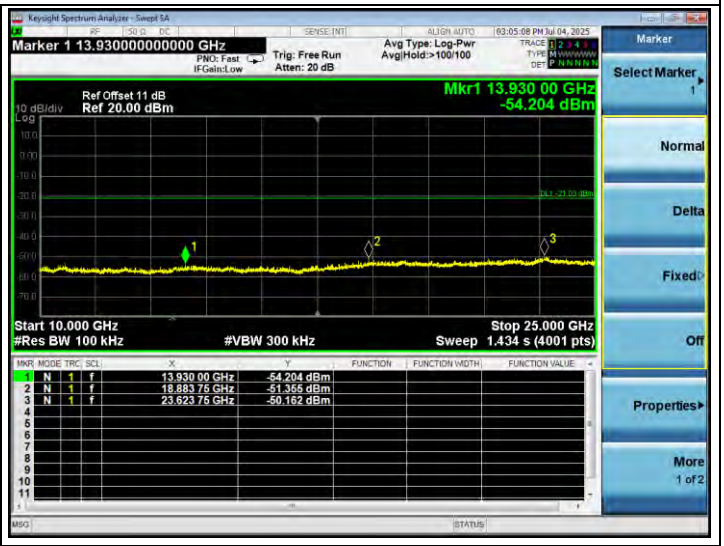
Reference Level

Lower Edge



Emission Level

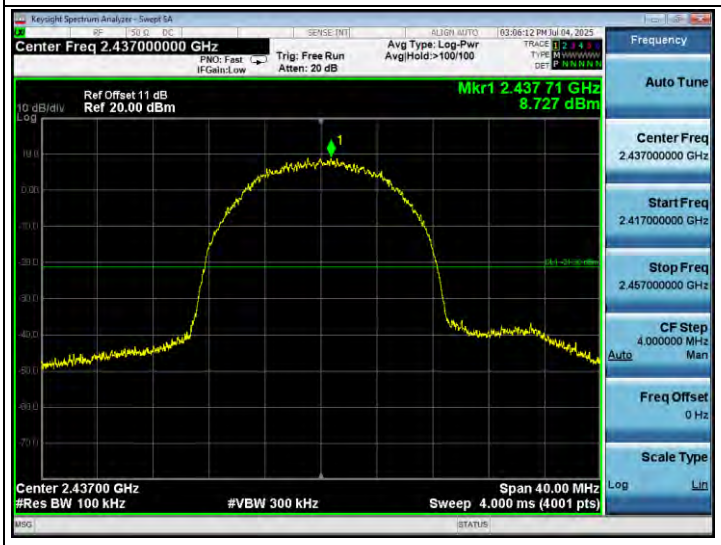




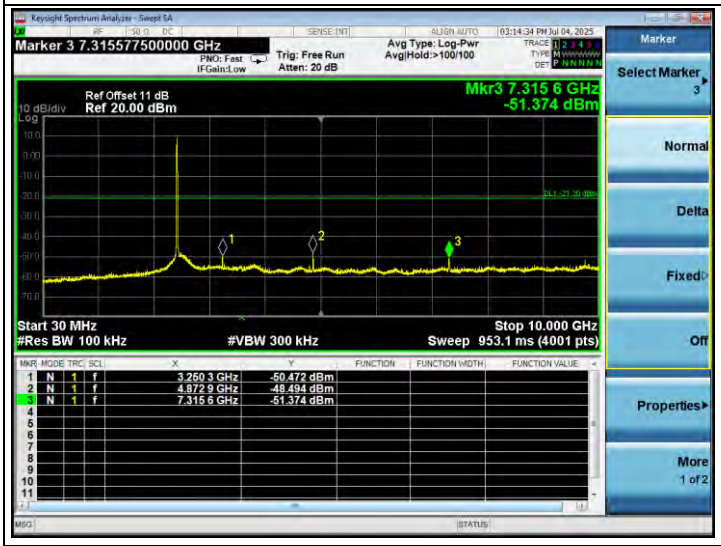
802.11b

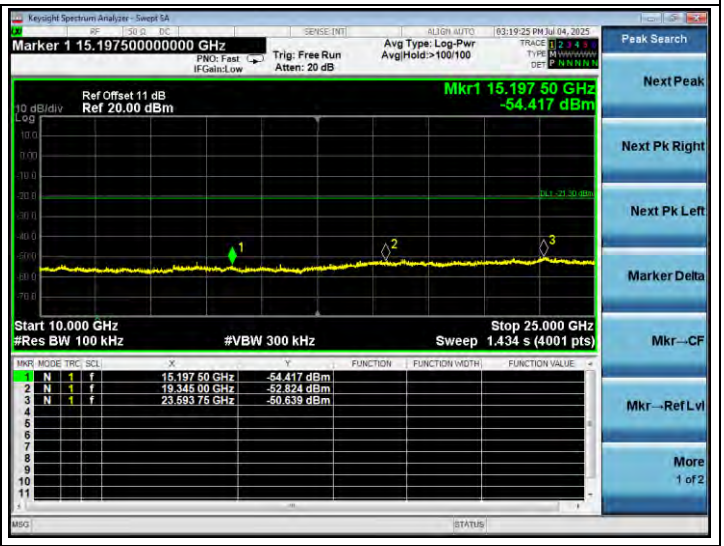
CH2437

Reference Level



Emission Level

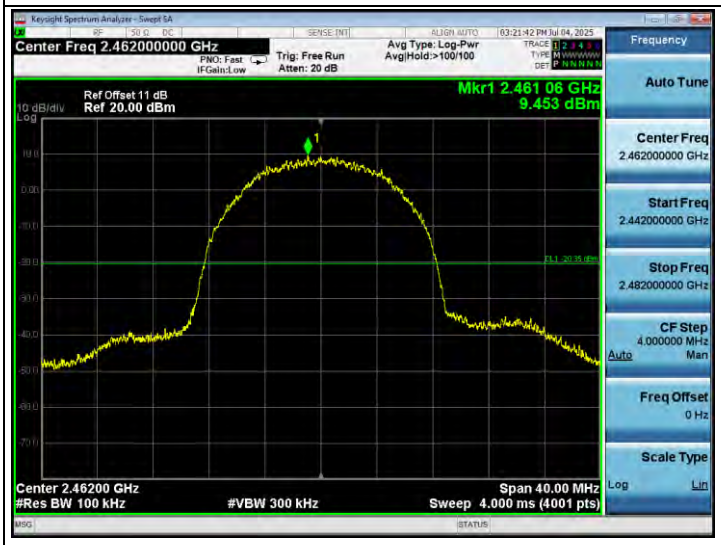




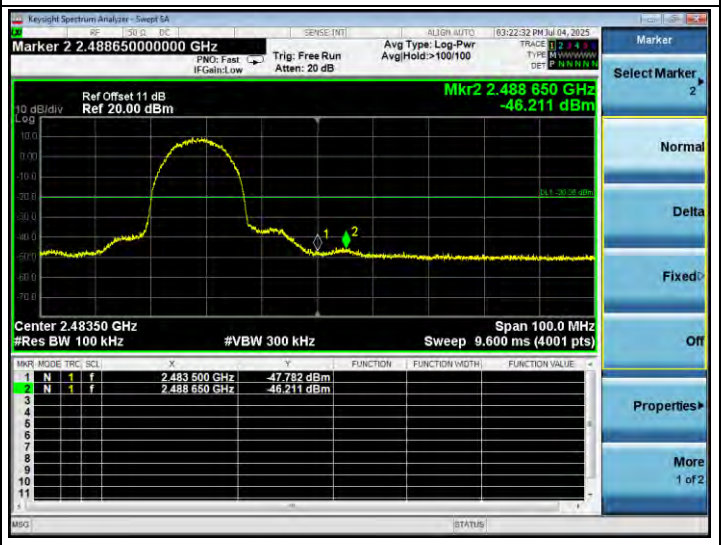
802.11b

CH2462

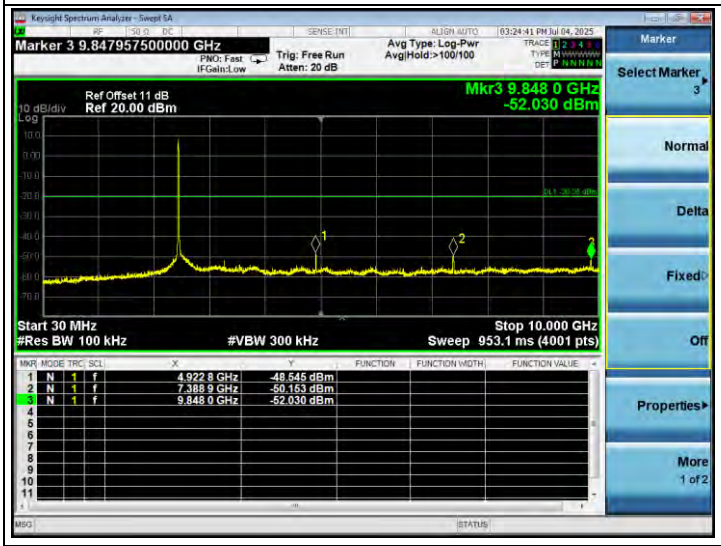
Reference Level

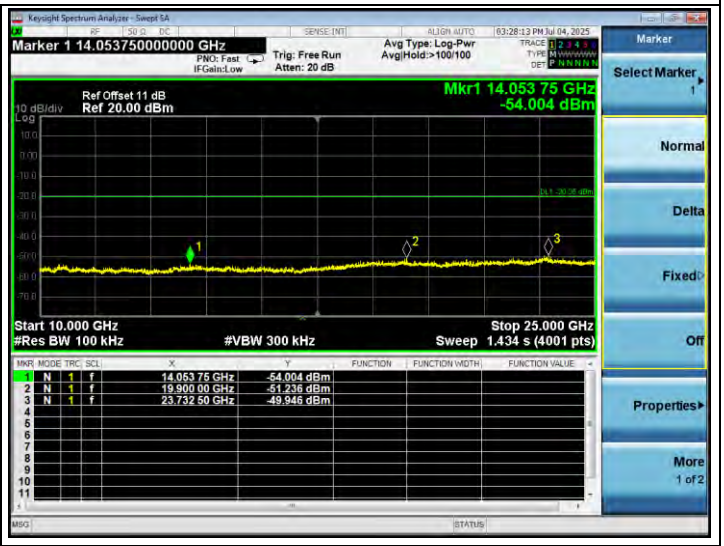


Higher Edge



Emission Level

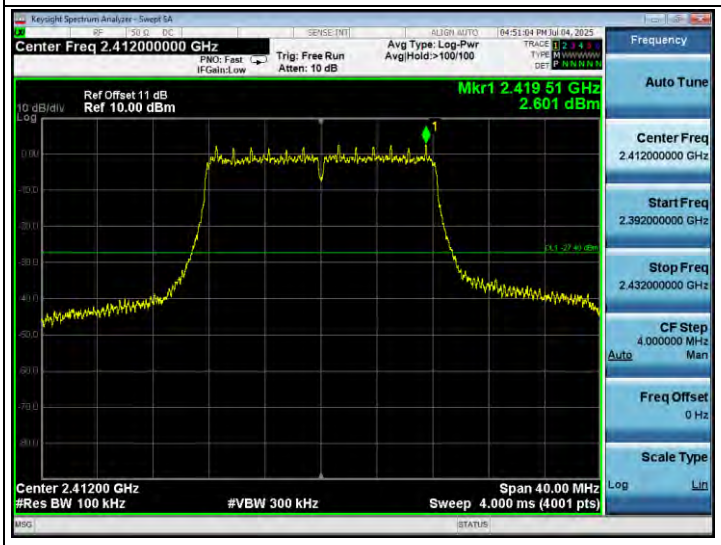




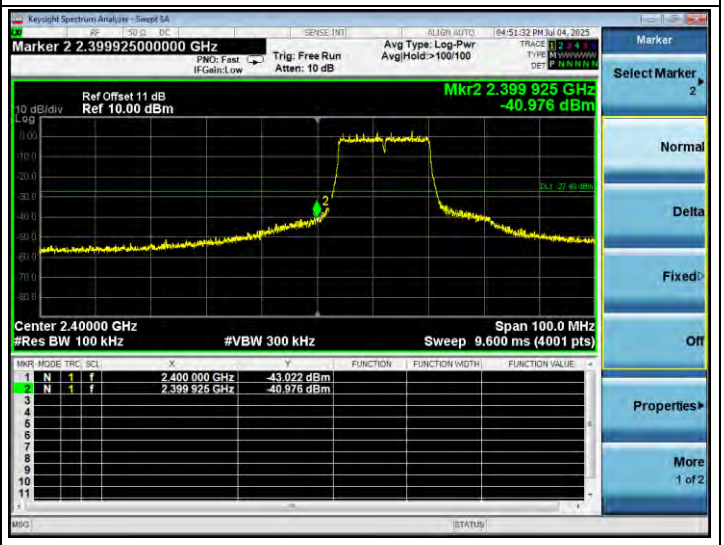
802.11g

CH2412

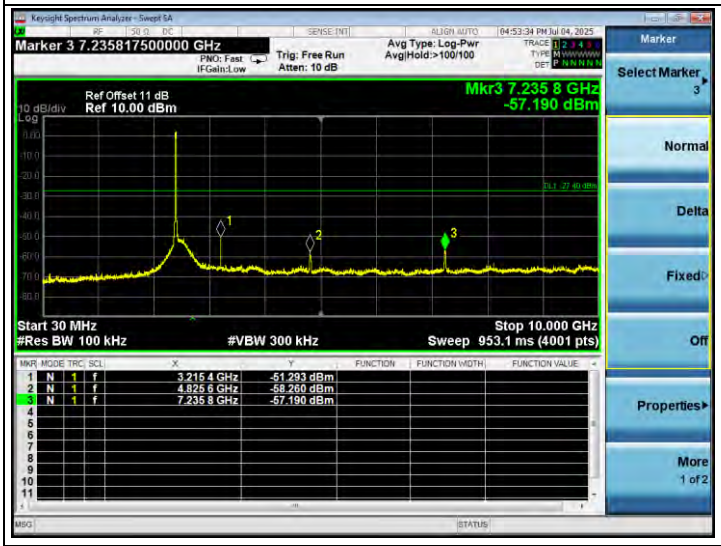
Reference Level

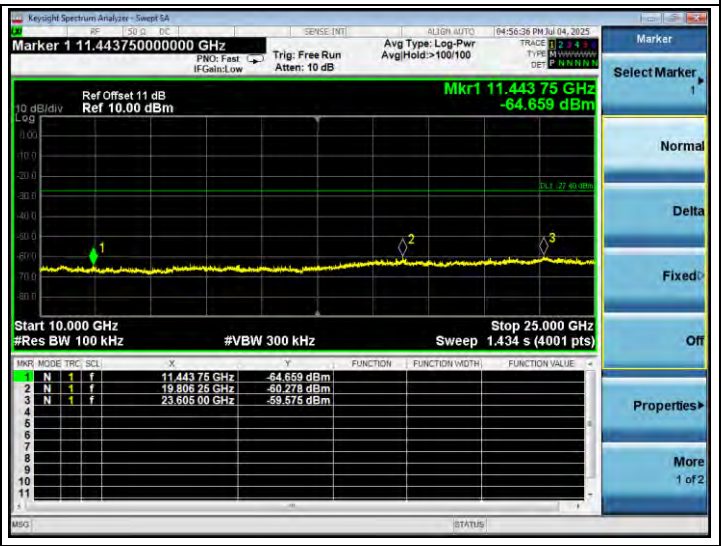


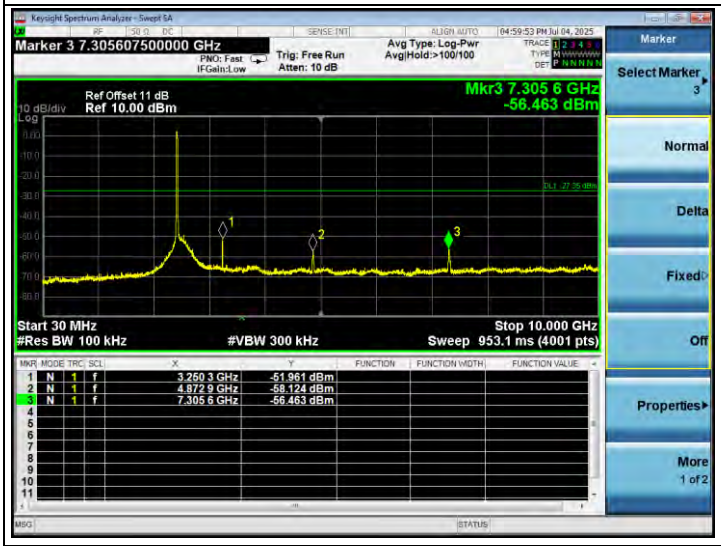
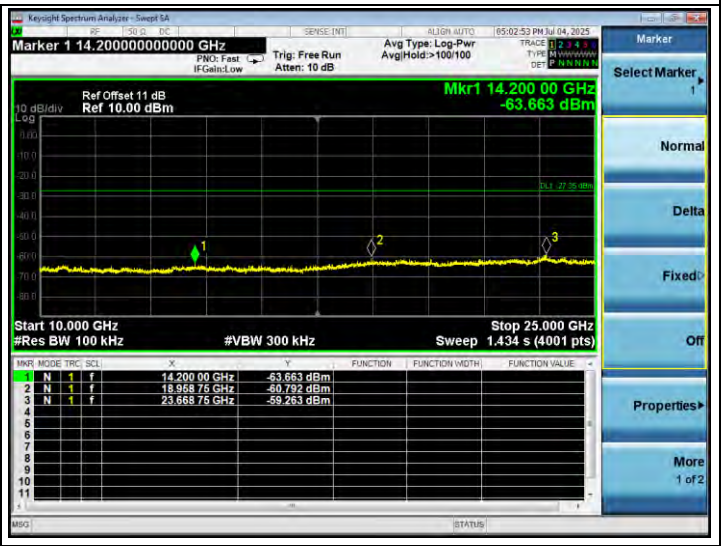
Lower Edge



Emission Level



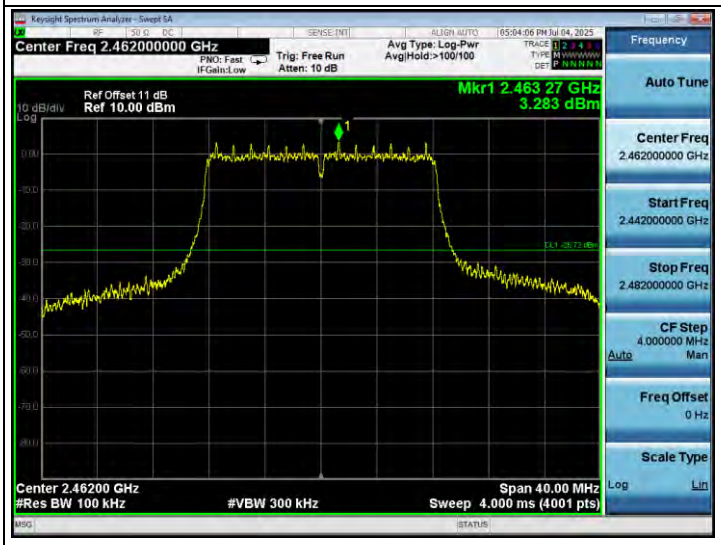


802.11g	
CH2437	
Reference Level	
	
Emission Level	
	

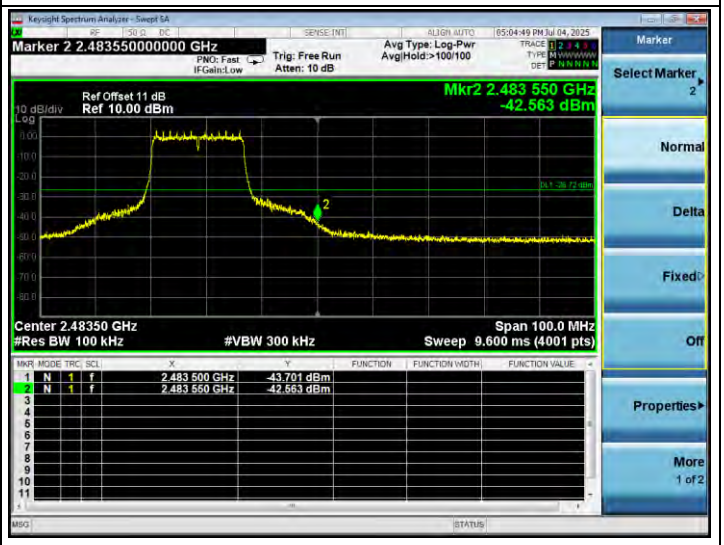
802.11g

CH2462

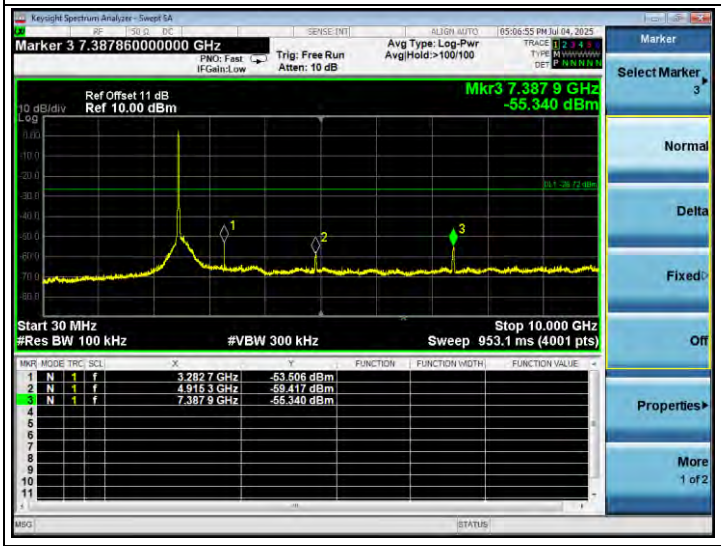
Reference Level

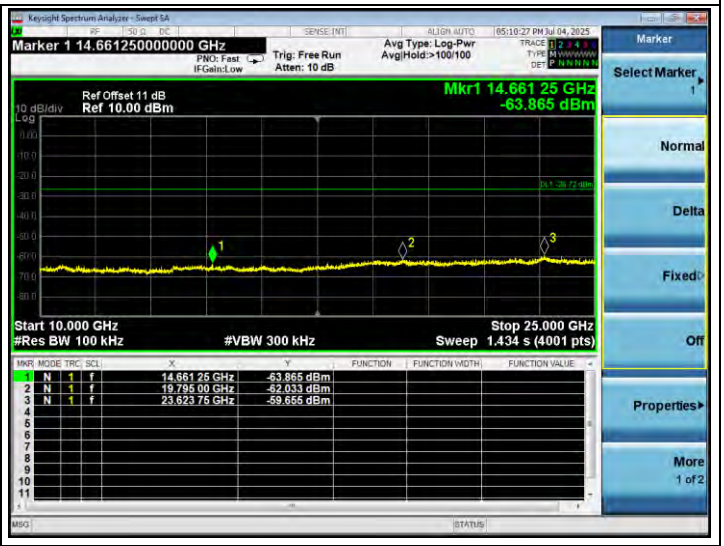


Higher Edge



Emission Level

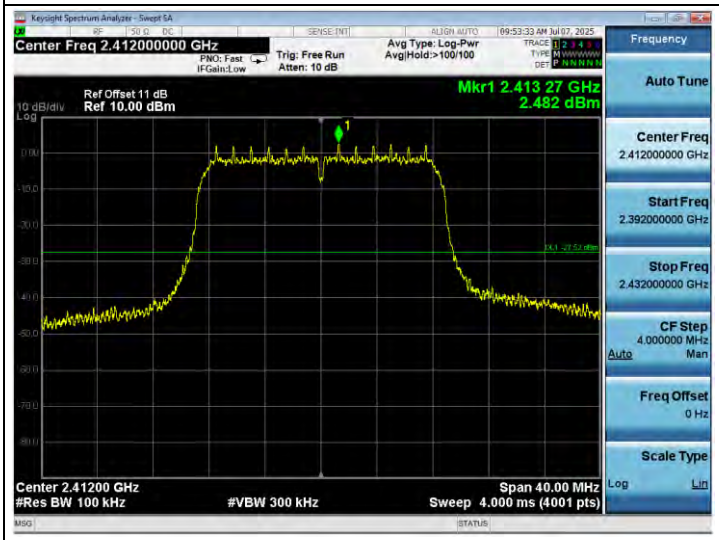




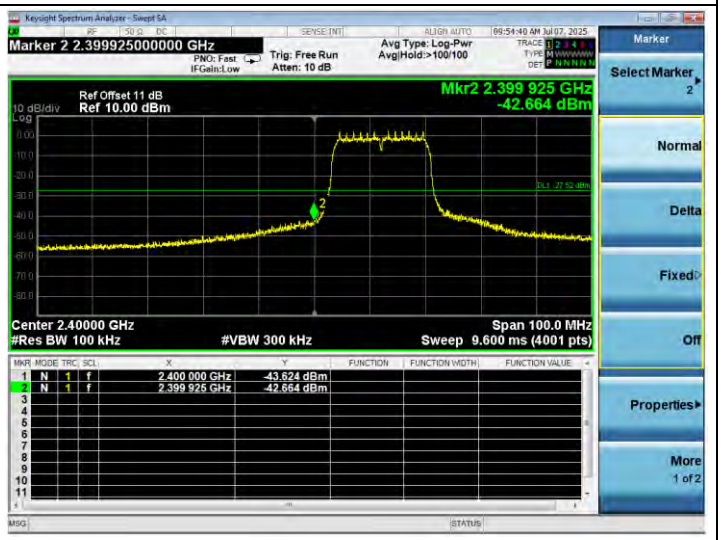
802.11n

CH2412

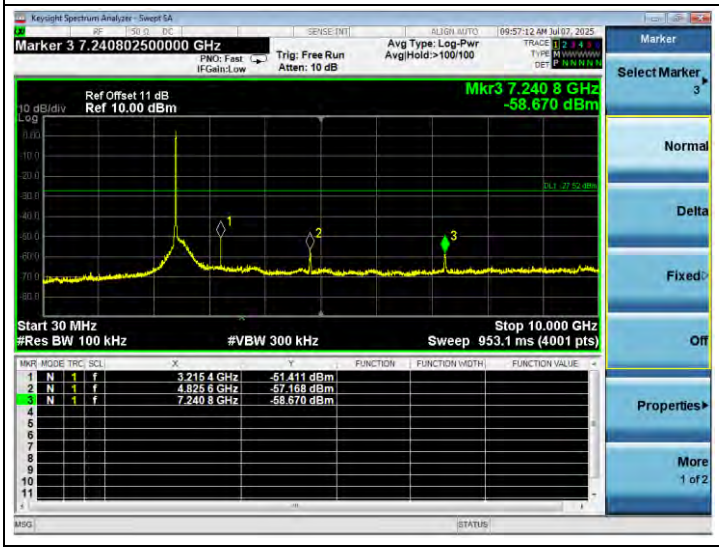
Reference Level

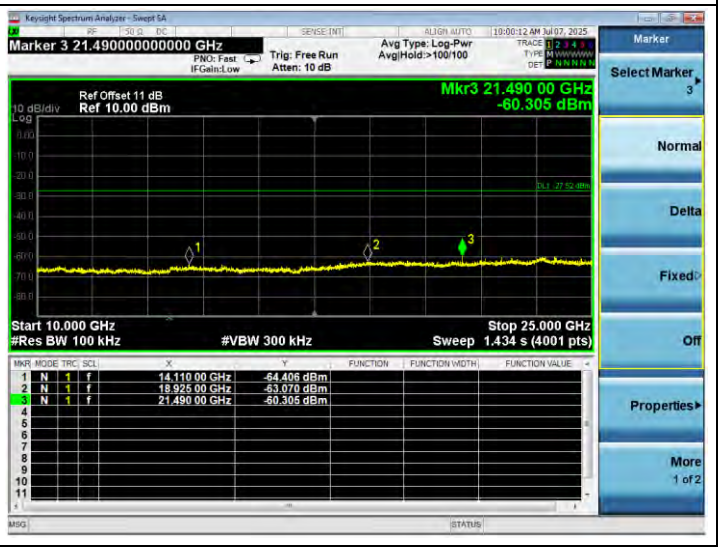


Lower Edge



Emission Level



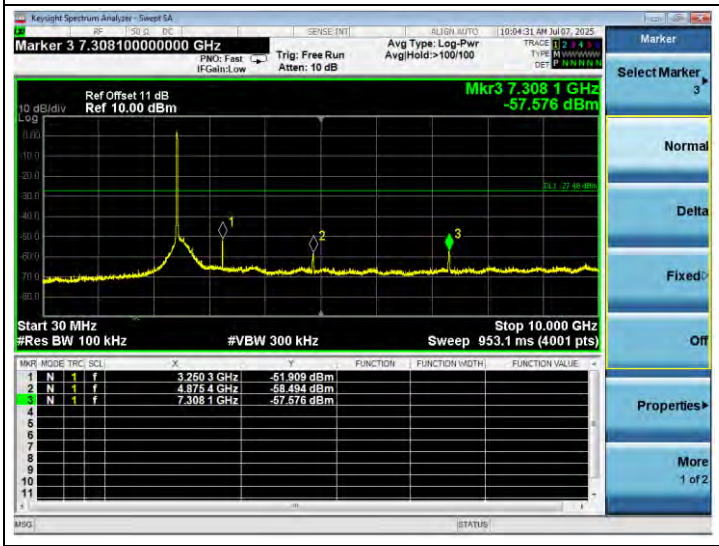


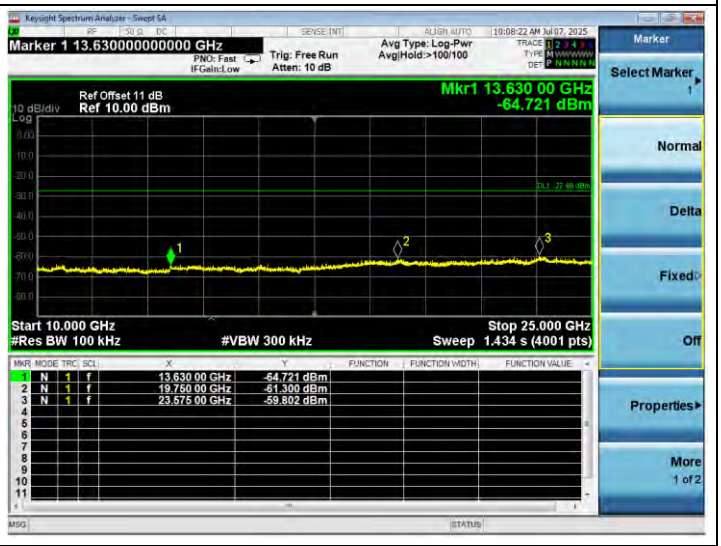
802.11n

CH2437

Reference Level

Emission Level

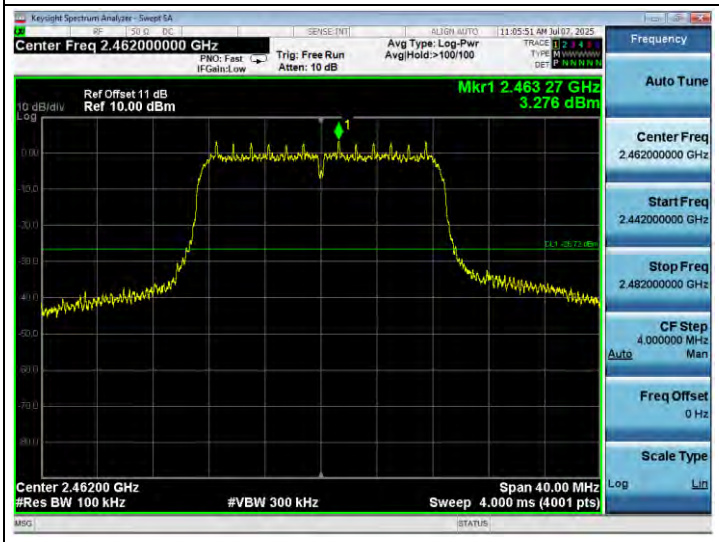




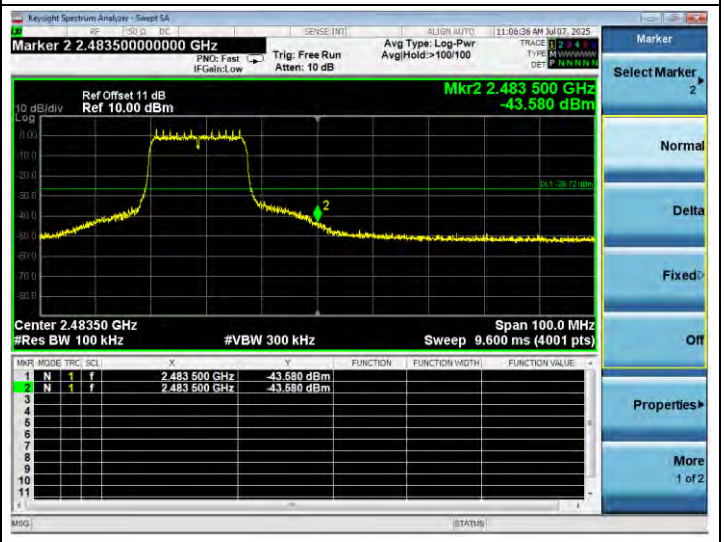
802.11n

CH2462

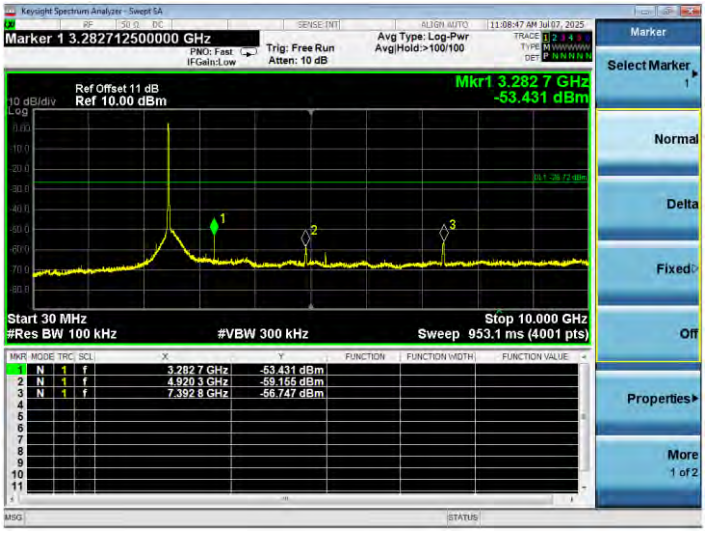
Reference Level

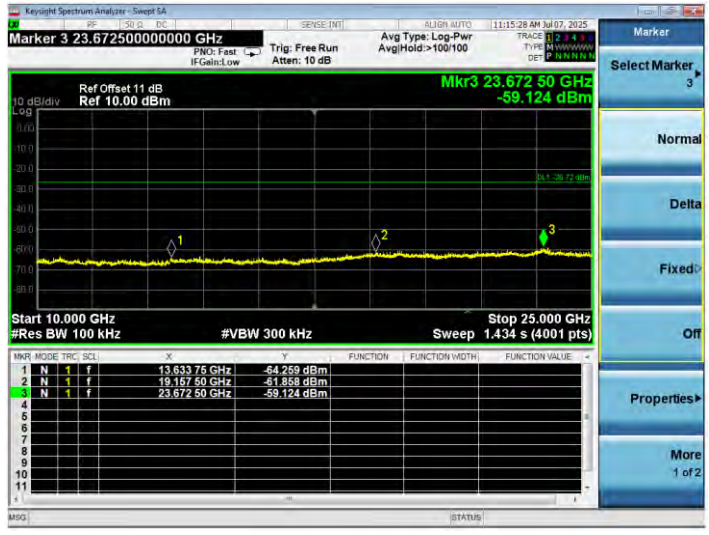


Higher Edge



Emission Level





9 POWER SPECTRAL DENSITY MEASUREMENT

9.1 Test Equipment

The Same as Section. 5.1.

9.2 Block Diagram of Test Setup

The Same as section 5.2.

9.3 Specification Limits (§15.247(e))

The power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band. The same method of determining the conducted output power shall be used to determine the power spectral density.

9.4 Operating Condition of EUT

The software as section 2.3 was used to enable the EUT to change the test mode one by one.

9.5 Test Procedure

The transmitter output was connected to the spectrum analyzer.

Method AVGPSD-1 uses trace averaging with EUT transmitting at full power throughout each sweep.
The following procedure may be used when the maximum (average) conducted output power was used to determine compliance to the fundamental output power limit. This is the baseline method for determining the maximum (average) conducted PSD level. If the instrument has a power averaging (rms) detector, then it must be used; otherwise, use the sample detector. The EUT must be configured to transmit continuously (D ≥ 98%), or else sweep triggering/signal gating must be implemented to ensure that measurements are made only when the EUT is transmitting at its maximum power control level (no transmitter OFF time to be considered):
a) Set analyzer center frequency to DTS channel center frequency.
b) Set the span to at least 1.5 times the OBW.
c) Set the RBW to: 3 kHz ≤ RBW ≤ 100 kHz.
d) Set the VBW ≥ [3 × RBW].
e) Detector = power averaging (rms) or sample detector (when rms not available).
f) Ensure that the number of measurement points in the sweep ≥ [2 × span / RBW].
g) Sweep time = auto couple.
h) Employ trace averaging (rms) mode over a minimum of 100 traces.
i) Use the peak marker function to determine the maximum amplitude level.
j) If the measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat (note that this may require zooming in on the emission of interest and reducing the span to meet the minimum measurement point requirement as the RBW is reduced).

The test procedure is defined in ANSI C63.10-2013 (11.10.5 Measurement

Procedure “Method AVGPSD-1” was used).

9.6 Test Results

PASSED.

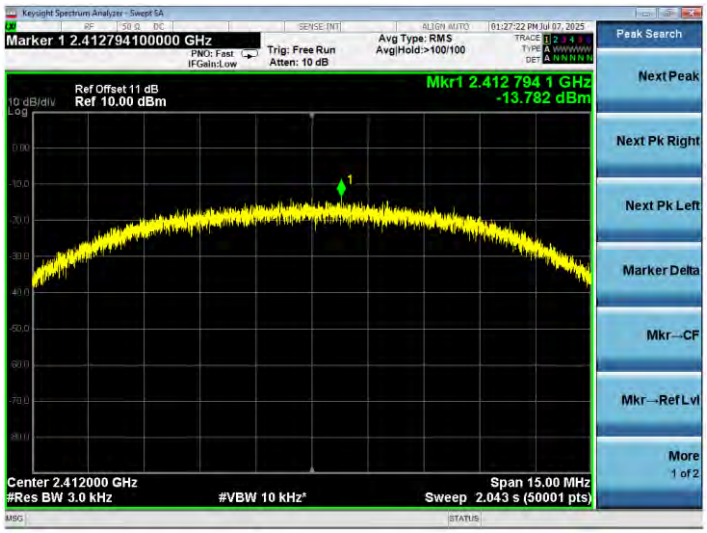
All the test results are attached in next pages.

Test Date:	2025.07.07	Temp./Hum.:	23℃/51%RH	Test By:	DoraMa

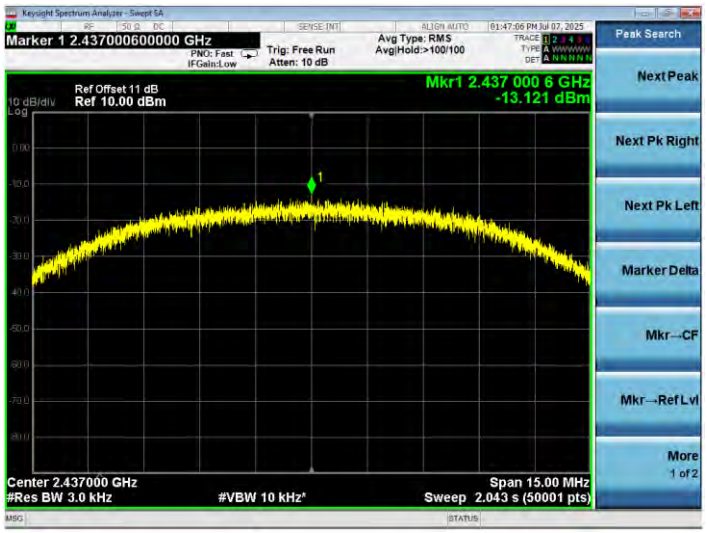
Mode	Channel	Frequency (MHz)	**Power Spectral Density (dBm)**	Limit
802.11b	1	2412	**-13.782**	8 dBm
	6	2437	**-13.121**	8 dBm
	11	2462	**-12.159**	8 dBm
802.11g	1	2412	**-17.683**	8 dBm
	6	2437	**-16.922**	8 dBm
	11	2462	**-16.711**	8 dBm
802.11n	1	2412	**-17.754**	8 dBm
	6	2437	**-17.119**	8 dBm
	11	2462	**-15.981**	8 dBm

802.11b

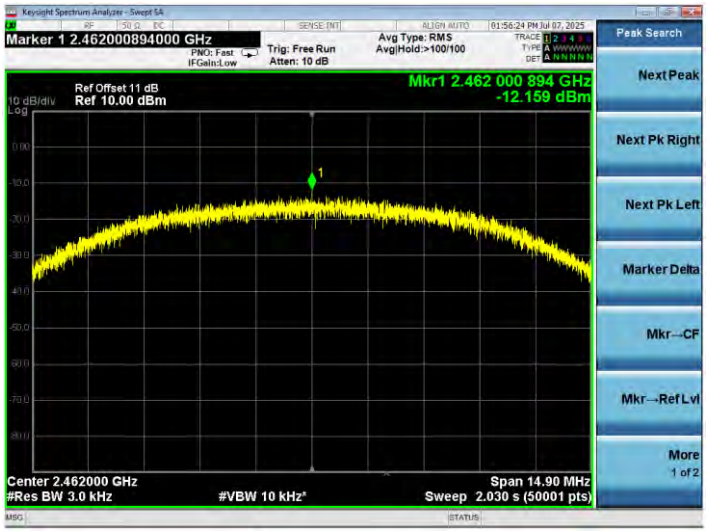
CH2412



CH2437

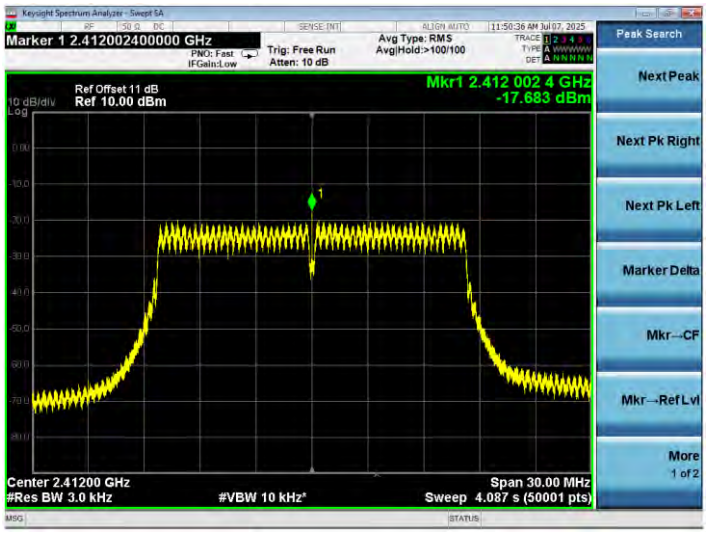


CH2462

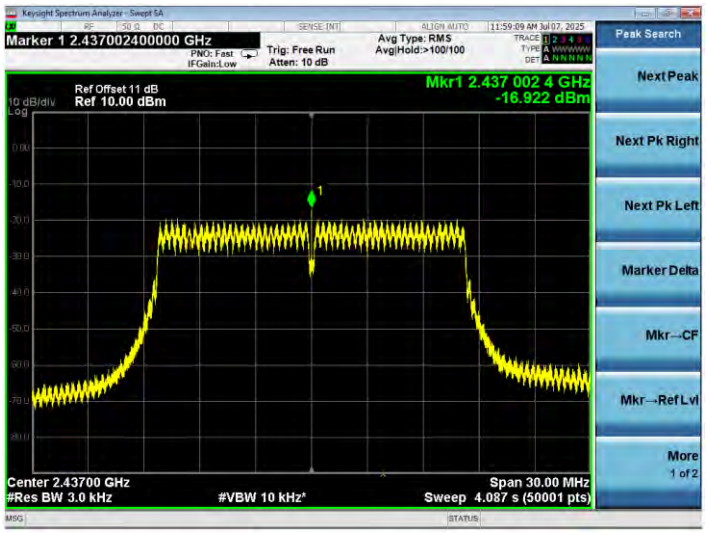


802.11g

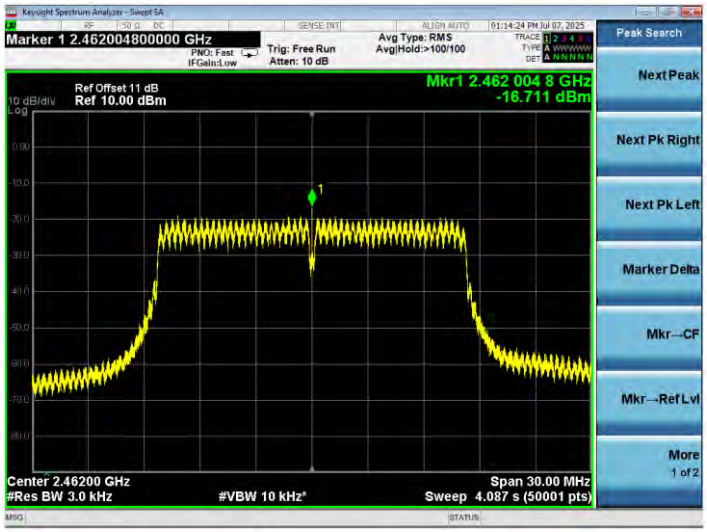
CH2412



CH2437

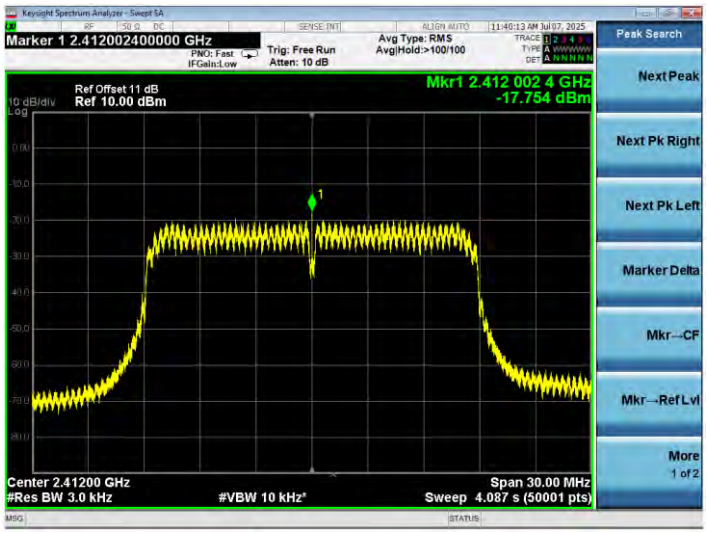


CH2462

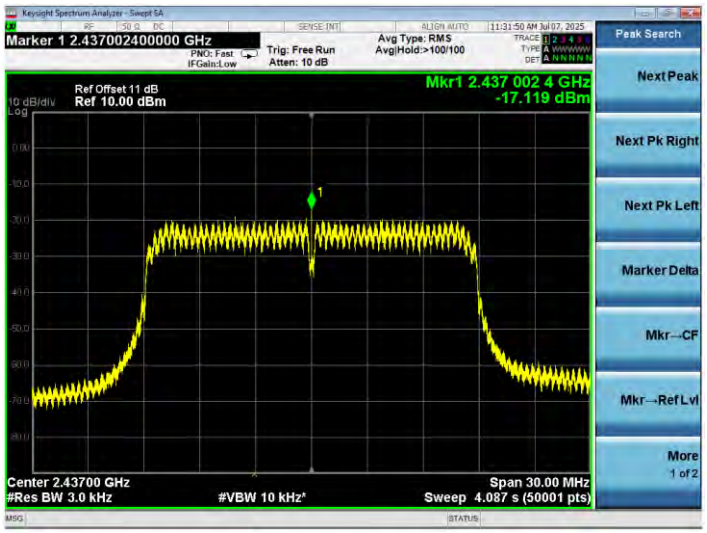


802.11n

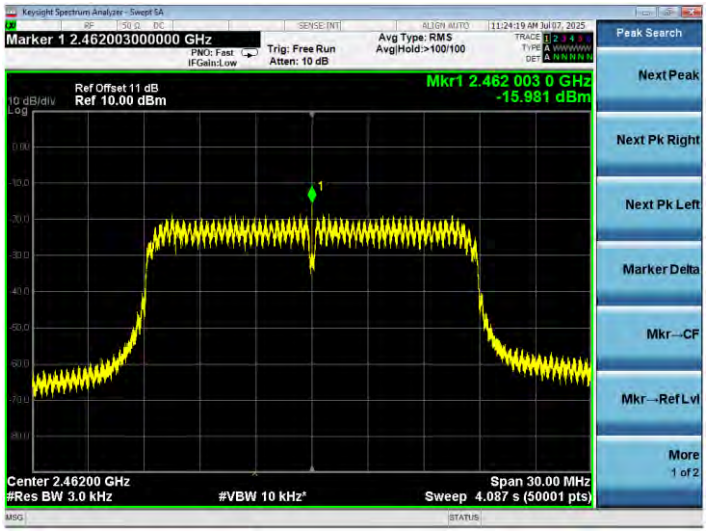
CH2412



CH2437



CH2462



10 ANTENNA REQUIREMENT

10.1 Specification Limits (§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.

10.2 Result

According to KDB 353028 D1, the following describes the three ways that can be used to demonstrate compliance to Section 15.203: a) Antenna permanently attached. b) Unique (non-standard) antenna connector. c) Professional installation.
For this product, the antenna is: ☑ Antenna permanently attached ☐ Unique (non-standard) antenna connector ☐ Professional installation ☐ not meet any of ways list above that ☑ compliant ☐ not compliant with the requirement of Section 15.203.

11 MEASUREMENT UNCERTAINTY LIST

The measurement uncertainty was estimated for test on the EUT according to CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage of K=2.
The uncertainties value is not used in determining the PASS/FAIL results.

Test Items/Facilities	Frequency/Equipment/Unit	Uncertainty
Conducted Emission No.1 Shielded Room	9kHz~150kHz	±3.1 dB
	150kHz~30MHz	±2.6 dB
Conducted Emission No.3 Shielded Room	9kHz~150kHz	±3.1 dB
	150kHz~30MHz	±2.6 dB
Radiated Emission	30MHz~200MHz, Horizontal	±3.8 dB
	30MHz~200MHz, Vertical	±4.1 dB
	200MHz~1000MHz, Horizontal	±3.6 dB
	200MHz~1000MHz, Vertical	±5.1 dB
	1GHz~6GHz	±5.3 dB
	6GHz~18GHz	±5.3 dB
	18GHz~40GHz	±3.5 dB
Output Power Test	50MHz~18GHz	0.77 dB
Power Density Test	9kHz~6GHz	1.08 dB
RF Frequency Test	9kHz~40GHz	$6*10^{-4}$
Bandwidth Test	9kHz~6GHz	$1.5*10^{-3}$
RF Radiated Power Test	30MHz~1000MHz	3.06 dB
Conducted Output Power Test	50MHz~18GHz	0.83 dB
AC Voltage(<10kHz) Test	120V~230V	0.04 %
DC Power Test	0V~30V	0.4 %
Temperature	-40℃~+100℃	0.52 ℃
Humidity	30%~95%	2.6 %