

TEST REPORT

Applicant : ARCTIC (HK) Ltd.

Address : Unit 3001-3007, The Octagon, 6 Sha Tsui Road, Tsuen Wan, N.T.,
Hong Kong, China

Manufacturer : ARCTIC (HK) Ltd.

Address : Unit 3001-3007, The Octagon, 6 Sha Tsui Road, Tsuen Wan, N.T.,
Hong Kong, China

Factory : ARCTIC (HK) Ltd.

Address : Unit 3001-3007, The Octagon, 6 Sha Tsui Road, Tsuen Wan, N.T.,
Hong Kong, China

Product Name : Senza

Model Number : AI 370

Trademark : 

FCC ID : Z3ASENZAAI370

Test Date : Oct. 08, 2025 - Sep. 03, 2026

Date of Report : Sep. 03, 2026

Test Result : This device described above has been tested by BKC, and the test results show that the equipment under test (EUT) is in compliance with the Standard requirements. And it is applicable only to the tested sample identified in the report.

Test Procedure Used:

Standards : FCC CFR Title 47 Part 15 Subpart C Section 15.247
ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to
C63.10a-2024

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Approved(Manager):
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[illegible]

1. General Information

1.1. Description of Device (EUT)

EUT Name : Senza

Model No. : AI 370

Model Difference : /

Power supply : Input: 19.0V $\pm$ 6.3A

SWITCHING ADAPTER : Model: SOY-1900630-410-B
Information Input: 100-240V~ 50/60Hz 2.5A Max
Output 19.0V $\pm$ 6.3A 119.7W
Manufacturer: Shenzhen SOY Technology Co., Ltd.

Operation frequency : 2.412-2.462GHz

Max. RF output power: : 12.99 dBm

Modulation : 802.11b: Direct Sequence Spread Spectrum(DSSS)
802.11g/802.11n(H20)/802.11n(H40):
Orthogonal Frequency Division Multiplexing(OFDM)

Antenna Type : Antenna 0: FPC antenna, Maximum Gain is 5.52dBi
Antenna 1: FPC antenna, Maximum Gain is 3.56dBi

System : SISO

Intend use environment : Residential, commercial and light industrial environment

1.2. Channel List

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

1.3. Summary of test result

RF PART		
Test Items	Test Requirement	Result
Antenna requirement	FCC part 15.203/15.247(b)(4)	PASS
AC Power Line Conducted Emission	FCC part 15.207	PASS
Conducted Peak Output Power	FCC part 15.247 (b)(3)	PASS
Channel Bandwidth& 99% OCB	FCC part 15.247 (a)(2)	PASS
Power Spectral Density	FCC part 15.247 (e)	PASS

Band Edge	FCC part 15.247(d)	PASS
Spurious Emission	FCC part 15.205/15.209	PASS
Remark: N/A is an abbreviation for Not Applicable. Measurement Uncertainty is not taken into account for conformity statement		

1.4.Special Accessories and Auxiliary Equipment

Description	Manufacturer	Model No.	Serial Number
SWITCHING ADAPTER	SOY	SOY-1900630-410-B	N/A
Hub	ARCTIC	Senza AI 370	N/A

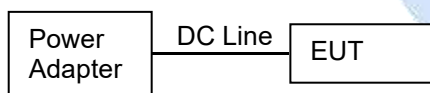
1.5.Test mode

The special RF test software was used to control EUT work in Continuous WIFI TX mode, and select test channel, wireless mode.

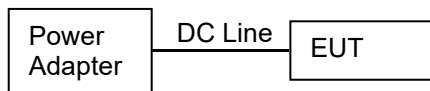
2.4 GHz Band			
Modulation Mode	Low channel	Middle channel	High channel
802.11b	2412	2437	2462
802.11g	2412	2437	2462
802.11n20	2412	2437	2462
802.11n40	2422	2437	2452

1.6.Block Diagram

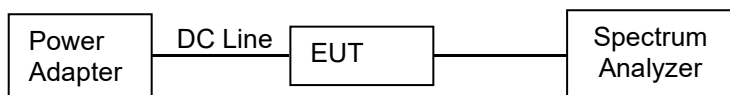
Conducted Emission



Radiated Emission



RF Conducted Test



1.7. Test Conditions

Category	Normal Conditions	Extreme Conditions
Temperature range	15-35°C	N/A
Humidity range	20-75%	N/A
Pressure range	86-106kPa	N/A
Power supply	120VAC/60Hz by adapter	N/A
Note: N/A is an abbreviation for Not Applicable.		

1.8. Measurement Uncertainty (95% confidence levels, k=2)

Item	MU	Remark
Uncertainty for radio frequency	$\pm 7 \times 10^{-8}$	
Conducted Emissions (150kHz~30MHz)	$\pm 2.54\text{dB}$	
Radiated Emission(9KHz~30MHz)	$\pm 1.6\text{ dB}$	
Radiated Emission(30MHz~1GHz)	Vertical: $\pm 4.14\text{dB}$ Horizontal: $\pm 4.25\text{dB}$	
Radiated Emission(1GHz~6GHz)	$\pm 3.9\text{dB}$	
Radiated Emission(6GHz~18GHz)	$\pm 4.3\text{dB}$	
Radiated Emission(18GHz~40GHz)	$\pm 3.38\text{dB}$	
Uncertainty for conducted RF Power	$\pm 0.20\text{dB}$	
Conducted spurious emissions	$\pm 0.24\text{dB}$	
Uncertainty for temperature	0.6°C	
Uncertainty for humidity	1%	
Bandwidth	$\pm 1.5 \times 10^{-6}$	
Time	$\pm 2\%$	
Duty Cycle	$\pm 2\%$	
Remark: The coverage Factor (k=2), and measurement Uncertainty for a level of Confidence of 95%		

1.9. Test Facility

Site Description		
Name of Firm	:	Shenzhen BKC Testing Co., Ltd.
Site Location	:	Room 103, 1/F, Huaya Building, Huaya Industrial Park, Longhua Community, Longhua District, Shenzhen, Guangdong, China.
ISED CAB identifier	:	CN0188
ISED Company Number	:	34333
FCC Designation Number	:	CN1416
FCC Test Firm Registration Number	:	701543

1.1. Test Equipment

Conducted Test Site

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	LISN	R&S	ENV216	102762	Mar. 10. 2025	Mar. 09. 2026
					Mar. 11. 2026	Mar. 10. 2027
2	EMI Test Receiver	R&S	ESCI	101424	Mar. 10. 2025	Mar. 09. 2026
					Mar. 11. 2026	Mar. 10. 2027
3	Rf cables	HTEC	HCE 2M-CE	N/A	Mar. 10. 2025	Mar. 09. 2026
					Mar. 11. 2026	Mar. 10. 2027
4	Coupling/ Decoupling Network	Diamond	CX210	N/A	Mar. 10. 2025	Mar. 09. 2026
					Mar. 11. 2026	Mar. 10. 2027
5	10 db attenuator	N/A	DC-6G-10DB-N -JK	N/A	May. 27. 2025	May. 26. 2026
					May. 18. 2026	May. 17. 2027
6	CE Testing software	EZ	EZ-EMC	/	/	/

Radiated Test Site(Below 1G and Above 1G)

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	Antenna	Schwarzbeck	VULB 9168	01321	Mar. 20. 2025	Mar. 19. 2028
2	EMI Test Receiver	R&S	ESRP	101478	Mar. 10. 2025	Mar. 09. 2026
					Mar. 11. 2026	Mar. 10. 2027
3	Preamplifier	HP	8447D	2727A05345	Mar. 10. 2025	Mar. 09. 2026
					Mar. 11. 2026	Mar. 10. 2027
4	Double Ridged Broadband	SCHWARZBEC K	BBHA 9120D	02621	Mar. 10. 2025	Mar. 19. 2028
5	Preamplifier	Schwarzbeck	BBV 9718D	00041	Mar. 10. 2025	Mar. 09. 2026
					Mar. 11. 2026	Mar. 10. 2027
6	Rf cables	HUBER+SUHNE R	8M-RE	N/A	Mar. 10. 2025	Mar. 09. 2026
					Mar. 11. 2026	Mar. 10. 2027
7	Rf cables	HUBER+SUHNE R	1.5M-RE	N/A	Mar. 10. 2025	Mar. 09. 2026
					Mar. 11. 2026	Mar. 10. 2027
8	Rf cables	HUBER+SUHNE R	1.5M-AP-RE	N/A	Mar. 10. 2025	Mar. 09. 2026
					Mar. 09. 2026	Mar. 10. 2027
9	Spectrum	Agilent	N9020A	MY50510311	Mar. 09. 2025	Mar. 10. 2026
					Mar. 11. 2026	Mar. 10. 2027
10	Spectrum analyzer	R&S	FSP40	200061	Feb. 13. 2025	Feb. 12. 2026
					Mar. 11. 2026	Mar. 10. 2027



11	Double Ridged Broadband Horn Antenna	COM-POWER	AH-1840	10100009	Mar. 09. 2025	Mar. 10. 2026
					Mar. 11. 2026	Mar. 10. 2027
12	RE Testing software	EZ	EZ-EMC	/	/	/

RF Test Site

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	Spectrum	Agilent	N9020A	MY50510311	Mar. 09. 2025	Mar. 10. 2026
					Mar. 11. 2026	Mar. 10. 2027
2	Vector source	Agilent	N5182A	MY47420223	Mar. 09. 2025	Mar. 10. 2026
					Mar. 11. 2026	Mar. 10. 2027
3	All instrument	Rohde & Schwarz	CMW 500	101131	Mar. 09. 2025	Mar. 10. 2026
					Mar. 11. 2026	Mar. 10. 2027
4	control unit	MW	MW100-RFCB	MW200411BK-34	Mar. 09. 2025	Mar. 10. 2026
					Mar. 11. 2026	Mar. 10. 2027
5	RF Testing software	MW	MTS 8310	/	/	/
6	Spectrum analyzer	R&S	FSP40	200061	Feb. 13. 2025	Feb. 12. 2026
					Mar. 11. 2026	Mar. 10. 2027

Test software

Software name	RF Testing software
Software version	2.0.0.0
Software name	RE Testing software
Software version	EMEC-03A2 RE+
Software name	CE Testing software
Software version	EMEC-3A1+

2. Conducted emission at the mains terminals test

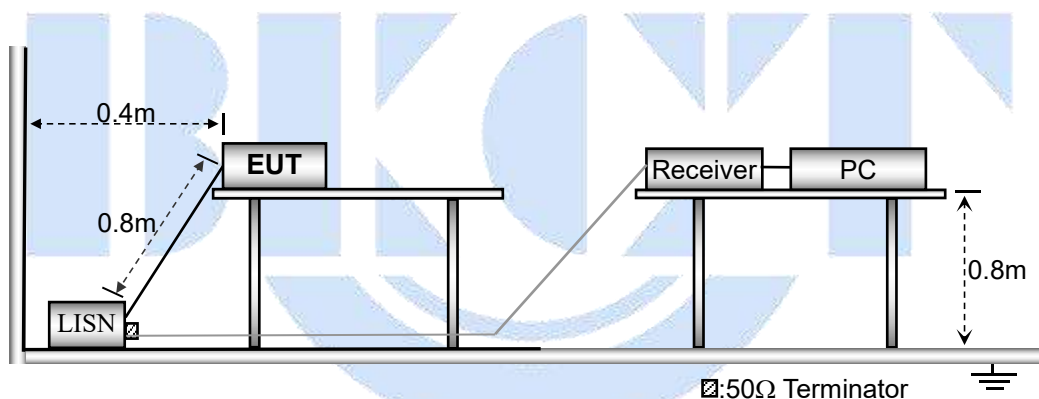
2.1.Limit

Test Requirement:	FCC Part15 C Section 15.207
Test Method:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024
Test Frequency Range:	150KHz to 30MHz
Receiver setup:	RBW=9KHz, VBW=30KHz, Sweep time=auto

Frequency MHz	Limits dB(μ V)	
	Quasi-peak Level	Average Level
0.15 ~ 0.50	66 ~ 56*	56 ~ 46*
0.50 ~ 5.00	56	46
5.00 ~ 30.00	60	50

Notes: 1. *Decreasing linearly with logarithm of frequency.
2. The lower limit shall apply at the transition frequencies.

2.2.Test Setup

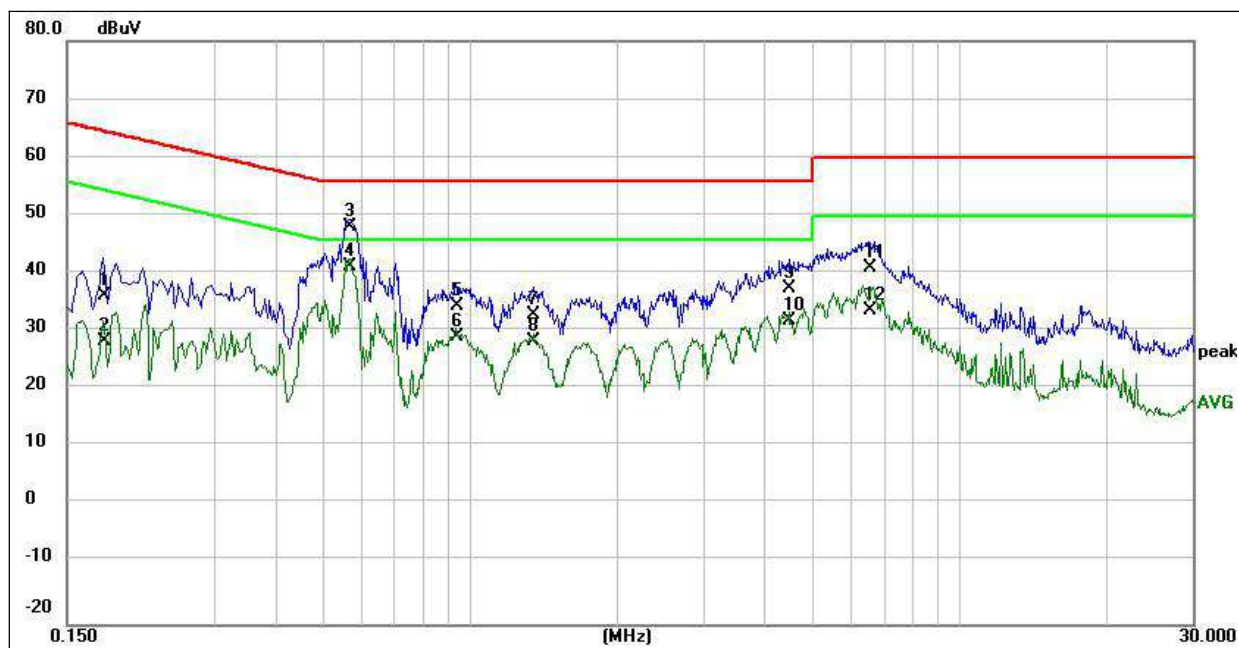


2.3.Test Procedure

1. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
2. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
3. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
4. LISN at least 80 cm from nearest part of EUT chassis.
5. For the actual test configuration, please refer to the related Item - EUT Test Photos.

2.4.Test Result

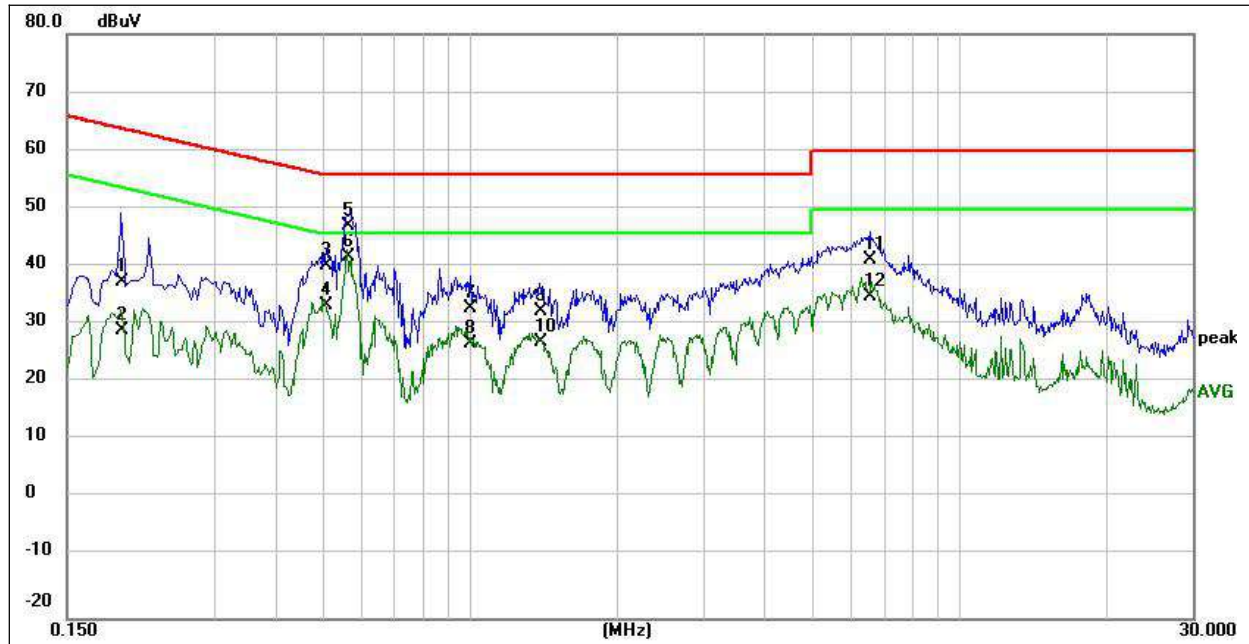
Conducted Emission At The Mains Terminals Test Data			
Temperature:	25.1℃	Relative Humidity:	56%
Pressure:	1008hPa	Phase :	Line
Test Voltage :	AC 120V/60Hz	Test Mode:	Working



No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measurement(dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1780	16.79	19.55	36.34	64.58	-28.24	QP
2	0.1780	9.11	19.55	28.66	54.58	-25.92	AVG
3	0.5660	28.61	19.54	48.15	56.00	-7.85	QP
4	0.5660	21.86	19.54	41.40	46.00	-4.60	AVG
5	0.9380	15.07	19.56	34.63	56.00	-21.37	QP
6	0.9380	9.92	19.56	29.48	46.00	-16.52	AVG
7	1.3500	13.59	19.56	33.15	56.00	-22.85	QP
8	1.3500	9.01	19.56	28.57	46.00	-17.43	AVG
9	4.4820	18.11	19.60	37.71	56.00	-18.29	QP
10	4.4820	12.64	19.60	32.24	46.00	-13.76	AVG
11	6.5500	21.50	19.63	41.13	60.00	-18.87	QP
12	6.5500	14.31	19.63	33.94	50.00	-16.06	AVG

Conducted Emission At The Mains Terminals Test Data

Temperature:	25.1℃	Relative Humidity:	56%
Pressure:	1008hPa	Phase :	Neutral
Test Voltage :	AC 120V/60Hz	Test Mode:	Working



No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measure-ment(dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1940	18.03	19.54	37.57	63.86	-26.29	QP
2	0.1940	9.90	19.54	29.44	53.86	-24.42	AVG
3	0.5100	20.91	19.54	40.45	56.00	-15.55	QP
4	0.5100	14.02	19.54	33.56	46.00	-12.44	AVG
5	0.5620	27.78	19.54	47.32	56.00	-8.68	QP
6	0.5620	22.29	19.54	41.83	46.00	-4.17	AVG
7	1.0020	13.53	19.55	33.08	56.00	-22.92	QP
8	1.0020	7.66	19.55	27.21	46.00	-18.79	AVG
9	1.3900	12.98	19.55	32.53	56.00	-23.47	QP
10	1.3900	7.85	19.55	27.40	46.00	-18.60	AVG
11	6.5820	21.91	19.63	41.54	60.00	-18.46	QP
12	6.5820	15.50	19.63	35.13	50.00	-14.87	AVG

3. Radiated Spurious Emissions

3.1.Limit

Test Requirement: FCC CFR47 Part 15 Section 15.209 & 15.247
Test Method: ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024
Test Result: PASS
Measurement Distance: 3m

Frequency	Detector	RBW	VBW	Value
9KHz-150KHz	Quasi-peak	200Hz	600Hz	Quasi-peak
150KHz-30MHz	Quasi-peak	9KHz	30KHz	Quasi-peak
30MHz-1GHz	Quasi-peak	100KHz	300KHz	Quasi-peak
Above 1GHz	Peak	1MHz	3MHz	Peak
	Peak	1MHz	10Hz	Average

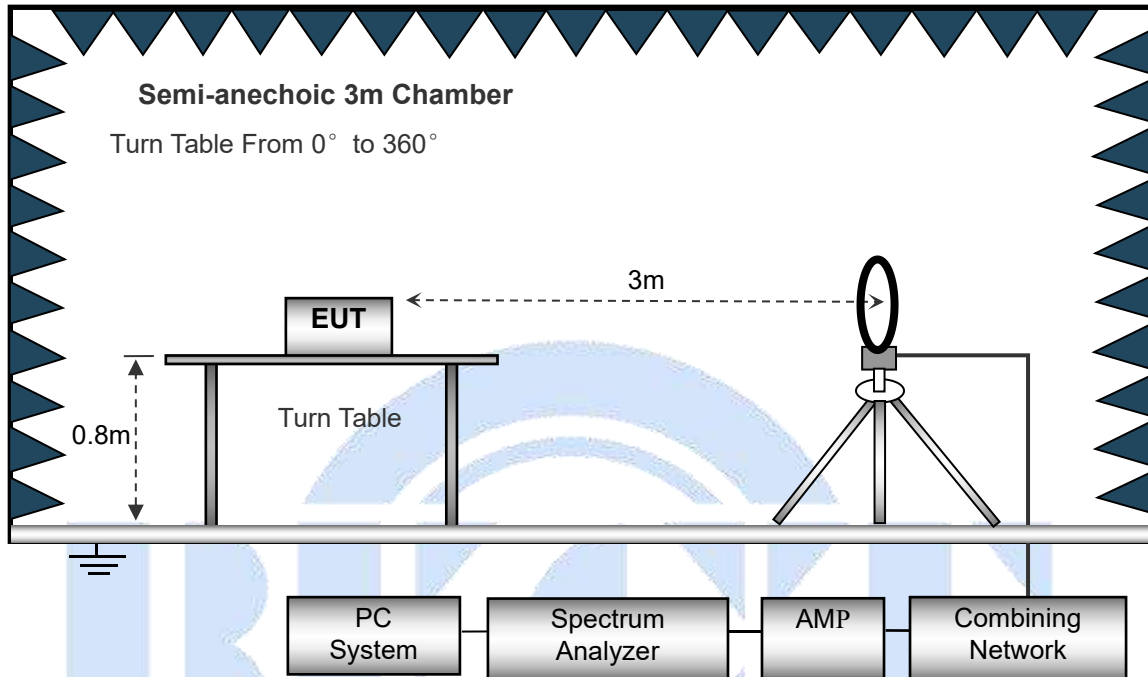
Limit:

Frequency (MHz)	Field Strength		Field Strength Limit at 3m Measurement Dist	
	uV/m	Distance (m)	uV/m	dBuV/m
0.009 ~ 0.490	$2400/F(\text{kHz})$	300	$10000 * 2400/F(\text{kHz})$	$20\log(2400/F(\text{kHz})) + 80$
0.490 ~ 1.705	$24000/F(\text{kHz})$	30	$100 * 24000/F(\text{kHz})$	$20\log(24000/F(\text{kHz})) + 40$
1.705 ~ 30	30	30	$100 * 30$	$20\log(30) + 40$
30 ~ 88	100	3	100	$20\log(100)$
88 ~ 216	150	3	150	$20\log(150)$
216 ~ 960	200	3	200	$20\log(200)$
Above 960	500	3	500	$20\log(500)$

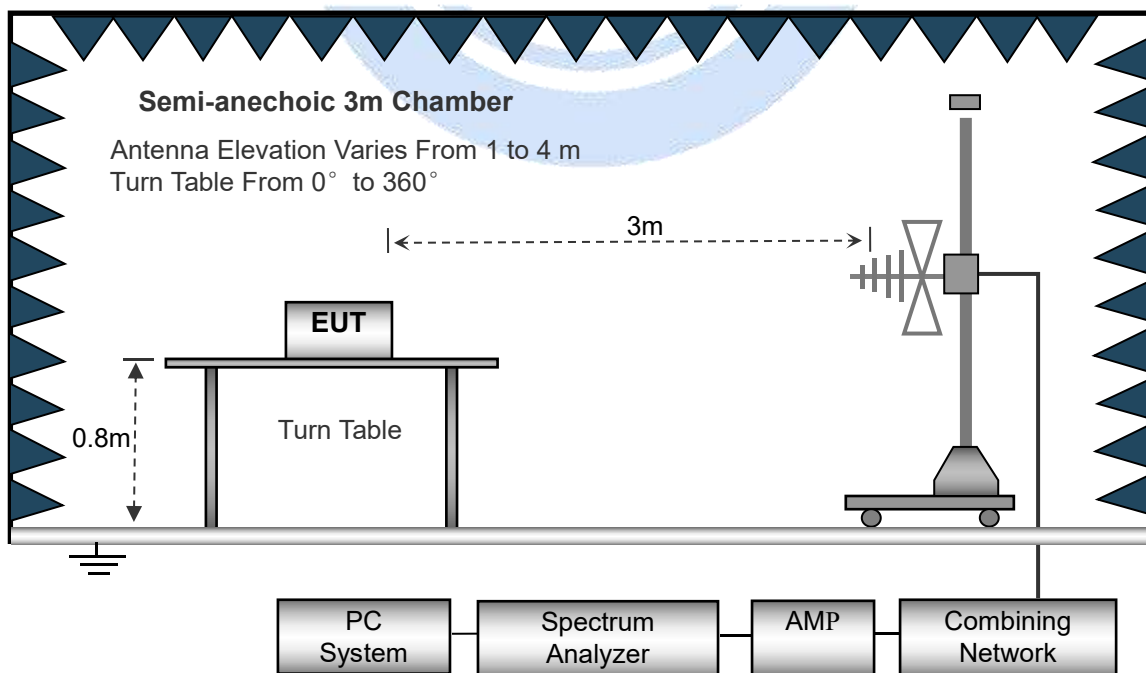
3.2. Test Setup

The radiated emission tests were performed in the 3m Semi- Anechoic Chamber test site, using the setup accordance with the ANSI C63.10.

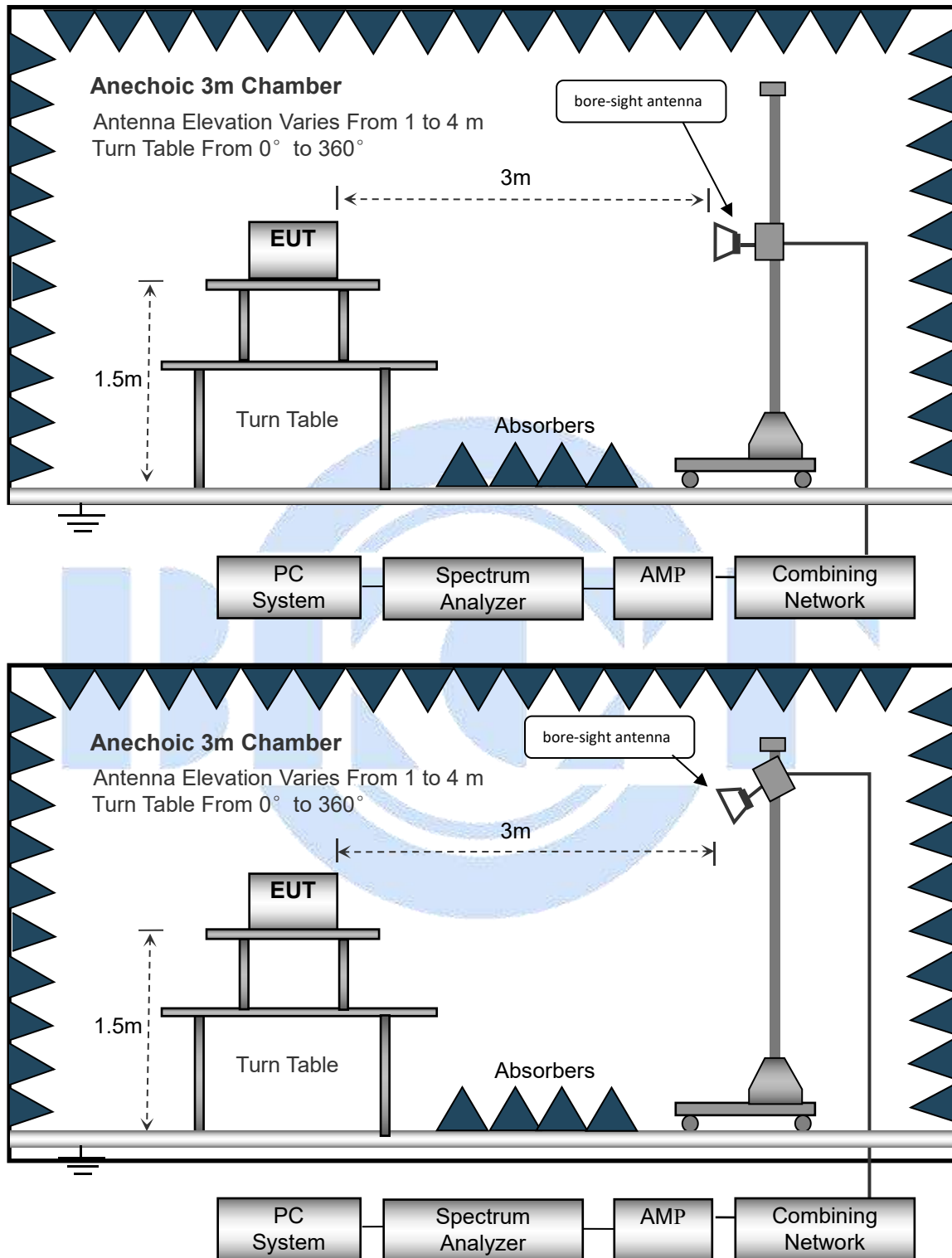
The test setup for emission measurement below 30MHz.



The test setup for emission measurement from 30 MHz to 1 GHz.



The test setup for emission measurement above 1 GHz.



3.3. Test Procedure

1. The EUT is placed on a turntable, which is 0.8m above ground plane for below 1GHz and 1.5m for above 1GHz.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is moved from 1m to 4m to find out the maximum emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Repeat above procedures until the measurements for all frequencies are complete.
7. The radiation measurements are performed in X,Y and Z axis positioning(X denotes lying on the table, Y denotes side stand and Z denotes vertical stand),the worst condition was tested putting the eut in Z axis,so the worst data were shown as follow.
8. A 2.4GHz high - pass filter is used during radiated emissions above 1GHz measurement.
9. Remark: $\text{Level} = \text{Reading} + \text{Factor}$, $\text{Margin} = \text{Level} - \text{Limit}$



3.4. Test Result

Test Frequency: 9KHz~30MHz

The measurements were more than 20 dB below the limit and not reported.

Note: Only the worst Data (Ant 0 :802.11b_2412MHz) Record in the report.

Test Frequency : 30MHz ~ 1GHz

Radiation Emission Test Data			
Temperature:	25.1℃	Relative Humidity:	56%
Pressure:	1008hPa	Phase :	Horizontal
Test Voltage :	AC 120V/60Hz	Test Mode	802.11b_2412MHz



No.	Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB/m)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark			
1	98.4866	38.09	-5.40	32.69	43.50	-10.81	QP			
2	130.3789	32.23	-3.25	28.98	43.50	-14.52	QP			
3	140.3421	32.61	-2.60	30.01	43.50	-13.49	QP			
4	195.1365	35.85	-7.06	28.79	43.50	-14.71	QP			
5	240.8304	34.72	-4.62	30.10	46.00	-15.90	QP			
6	271.3246	29.83	-2.88	26.95	46.00	-19.05	QP			

Radiation Emission Test Data			
Temperature:	25.1°C	Relative Humidity:	56%
Pressure:	1008hPa	Phase :	Vertical
Test Voltage :	AC 120V/60Hz	Test Mode	802.11b_2412MHz



No.	Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB/m)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark			
1	37.8121	36.15	-2.05	34.10	40.00	-5.90	QP			
2	98.4866	37.38	-5.40	31.98	43.50	-11.52	QP			
3	147.4036	33.33	-3.23	30.10	43.50	-13.40	QP			
4	155.9101	35.05	-4.06	30.99	43.50	-12.51	QP			
5	199.2855	34.65	-7.06	27.59	43.50	-15.91	QP			
6	241.6763	31.43	-4.51	26.92	46.00	-19.08	QP			

Test Frequency 1GHz-25GHz:

All modes 2.4G 802.11b/g/n have been tested, and the worst result (Ant 0: 802.11b) recorded was report as below:

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-ampl ifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detect or Type
Low Channel:2412MHz									
H	4824.00	51.66	33.53	5.83	25.60	49.56	74.00	-24.44	Pk
H	4824.00	43.54	33.53	5.83	25.60	41.44	54.00	-12.56	AV
H	7236.00	54.12	32.31	6.35	26.10	54.26	74.00	-19.74	Pk
H	7236.00	43.77	32.31	6.35	26.10	43.91	54.00	-10.09	AV
H	9648.00	54.28	31.84	7.48	27.90	57.82	74.00	-16.18	Pk
H	9648.00	43.20	31.84	7.48	27.90	46.74	54.00	-7.26	AV
H	12060.00	50.74	31.01	9.03	29.10	57.86	74.00	-16.14	Pk
H	12060.00	43.04	31.01	9.03	29.10	50.16	54.00	-3.84	AV
V	4824.00	53.12	33.53	5.83	25.60	51.02	74.00	-22.98	Pk
V	4824.00	43.66	33.53	5.83	25.60	41.56	54.00	-12.44	AV
V	7236.00	54.30	32.31	6.35	26.10	54.44	74.00	-19.56	Pk
V	7236.00	43.05	32.31	6.35	26.10	43.19	54.00	-10.81	AV
V	9648.00	50.84	31.84	7.48	27.90	54.38	74.00	-19.62	Pk
V	9648.00	43.32	31.84	7.48	27.90	46.86	54.00	-7.14	AV
V	12060.00	51.03	31.01	9.03	29.10	58.15	74.00	-15.85	Pk
V	12060.00	43.37	31.01	9.03	29.10	50.49	54.00	-3.51	AV

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-ampl ifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detect or Type
Low Channel:2437MHz									
H	4874.00	50.12	33.51	5.85	25.64	48.10	74.00	-25.90	Pk
H	4874.00	43.34	33.51	5.85	25.64	41.32	54.00	-12.68	AV
H	7311.00	53.32	32.29	6.38	26.13	53.54	74.00	-20.46	Pk
H	7311.00	43.87	32.29	6.38	26.13	44.09	54.00	-9.91	AV
H	9748.00	54.91	31.81	7.51	27.92	58.53	74.00	-15.47	Pk
H	9748.00	43.35	31.81	7.51	27.92	46.97	54.00	-7.03	AV
H	12185.00	54.70	31.11	9.07	29.14	61.80	74.00	-12.20	Pk
H	12185.00	43.44	31.11	9.07	29.14	50.54	54.00	-3.46	AV
V	4874.00	50.90	33.51	5.85	25.64	48.88	74.00	-25.12	Pk
V	4874.00	43.33	33.51	5.85	25.64	41.31	54.00	-12.69	AV
V	7311.00	51.97	32.29	6.38	26.13	52.19	74.00	-21.81	Pk
V	7311.00	43.27	32.29	6.38	26.13	43.49	54.00	-10.51	AV
V	9748.00	52.08	31.81	7.51	27.92	55.70	74.00	-18.30	Pk
V	9748.00	43.89	31.81	7.51	27.92	47.51	54.00	-6.49	AV
V	12185.00	51.61	31.11	9.07	29.14	58.71	74.00	-15.29	Pk
V	12185.00	43.39	31.11	9.07	29.14	50.49	54.00	-3.51	AV

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-ampl ifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detect or Type
Low Channel:2462MHz									
H	4924.00	53.90	33.52	5.89	25.67	51.94	74.00	-22.06	Pk
H	4924.00	43.57	33.52	5.89	25.67	41.61	54.00	-12.39	AV
H	7386.00	52.91	32.28	6.39	26.17	53.19	74.00	-20.81	Pk
H	7386.00	43.24	32.28	6.39	26.17	43.52	54.00	-10.48	AV
H	9848.00	52.58	31.80	7.54	27.98	56.30	74.00	-17.70	Pk
H	9848.00	43.61	31.80	7.54	27.98	47.33	54.00	-6.67	AV
H	12310.00	52.66	31.09	9.11	29.19	59.87	74.00	-14.13	Pk
H	12310.00	43.76	31.09	9.11	29.19	50.97	54.00	-3.03	AV
V	4924.00	52.96	33.52	5.89	25.67	51.00	74.00	-23.00	Pk
V	4924.00	43.62	33.52	5.89	25.67	41.66	54.00	-12.34	AV
V	7386.00	53.80	32.28	6.39	26.17	54.08	74.00	-19.92	Pk
V	7386.00	43.25	32.28	6.39	26.17	43.53	54.00	-10.47	AV
V	9848.00	50.68	31.80	7.54	27.98	54.40	74.00	-19.60	Pk
V	9848.00	43.27	31.80	7.54	27.98	46.99	54.00	-7.01	AV
V	12310.00	52.60	31.09	9.11	29.19	59.81	74.00	-14.19	Pk
V	12310.00	43.28	31.09	9.11	29.19	50.49	54.00	-3.51	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss - Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Spurious Emission in Restricted Band 2310-2390MHz and 2483.5-2500MHz

All modes 2.4G 802.11b/g/n have been tested, and the worst result (Ant 0: 802.11b) recorded was report as below:

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV/m)	Detector Type	Result
Low Channel: 2412MHz									
H	2310.00	53.46	34.58	5.61	24.69	49.18	74.00	Pk	PASS
H	2310.00	44.18	34.58	5.61	24.69	39.90	54.00	AV	PASS
H	2390.00	54.40	34.57	5.73	24.51	50.07	74.00	Pk	PASS
H	2390.00	44.02	34.57	5.73	24.51	39.69	54.00	AV	PASS
V	2310.00	54.08	34.58	5.61	24.69	49.80	74.00	Pk	PASS
V	2310.00	44.42	34.58	5.61	24.69	40.14	54.00	AV	PASS
V	2390.00	54.62	34.57	5.73	24.51	50.29	74.00	Pk	PASS
V	2390.00	44.16	34.57	5.73	24.51	39.83	54.00	AV	PASS
High Channel: 2462MHz									
H	2483.50	54.98	34.22	7.85	24.98	53.59	74.00	Pk	PASS
H	2483.50	44.88	34.22	7.85	24.98	43.49	54.00	AV	PASS
H	2500.00	53.82	34.19	7.86	25.03	52.52	74.00	Pk	PASS
H	2500.00	44.13	34.19	7.86	25.03	42.83	54.00	AV	PASS
V	2483.50	53.24	30.22	7.85	24.98	55.85	74.00	Pk	PASS
V	2483.50	44.59	30.22	7.85	24.98	47.20	54.00	AV	PASS
V	2500.00	54.48	30.22	7.86	25.03	57.15	74.00	Pk	PASS
V	2500.00	44.54	30.22	7.86	25.03	47.21	54.00	AV	PASS

Remark:

1. Emission Level = Meter Reading+Antenna Factor+Cable Loss-Pre-amplifier, Margin= Emission Level-Limit
2. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

4. Conducted Spurious Emissions

4.1.Limit

Test Requirement: FCC CFR47 Part 15 Section 15.247
Test Method: ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024
Test Result: PASS

Limit:

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 Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

4.2.Test Setup



4.3.Test Procedure

- 1) Remove the antenna from the EUT and connect to the spectrum analyzer via a low loss RF cable.
- 2) Set instrument center frequency to DTS channel center frequency.
- 3) Set the span to 1.5 times the DTS bandwidth.
- 4) Set the RBW = 100 kHz.
- 5) Set the VBW [3 × RBW].
- 6) Detector = peak.
- 7) Sweep time = auto couple.
- 8) Trace mode = max hold.
- 9) Allow trace to fully stabilize.
- 10) Use the peak marker function to determine the maximum PSD level.

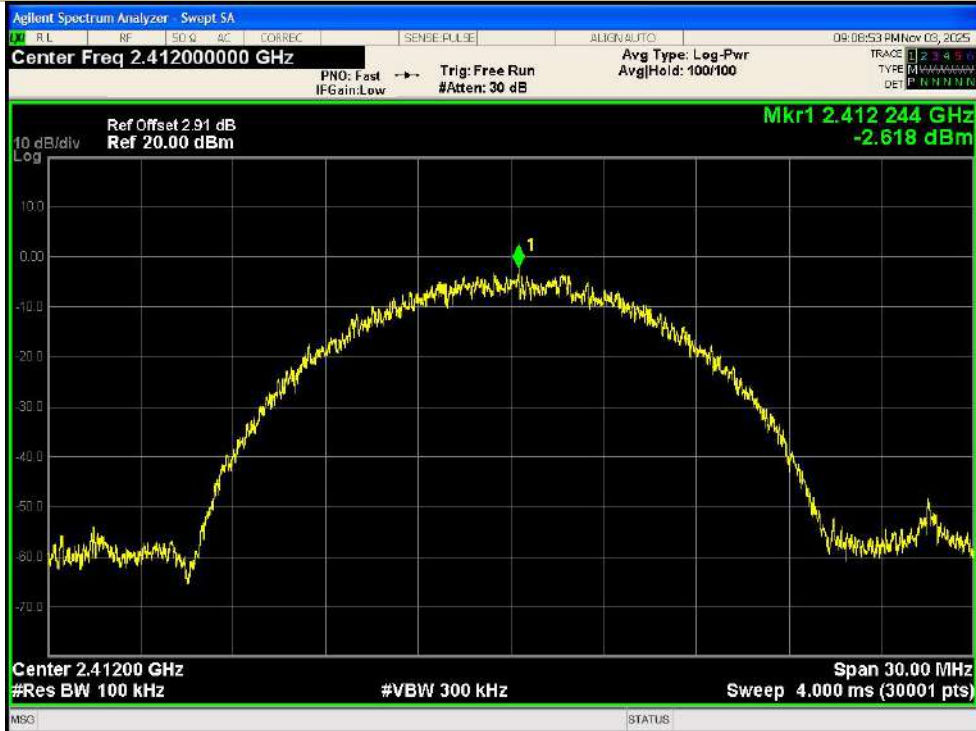
Emission level measurement:

- 1) Set the center frequency and span to encompass frequency range to be measured.
- 2) Set the RBW = 100 kHz.
- 3) Set the VBW [3 × RBW].
- 4) Detector = peak.
- 5) Sweep time = auto couple.
- 6) Trace mode = max hold.
- 7) Allow trace to fully stabilize.
- 8) Use the peak marker function to determine the maximum amplitude level.

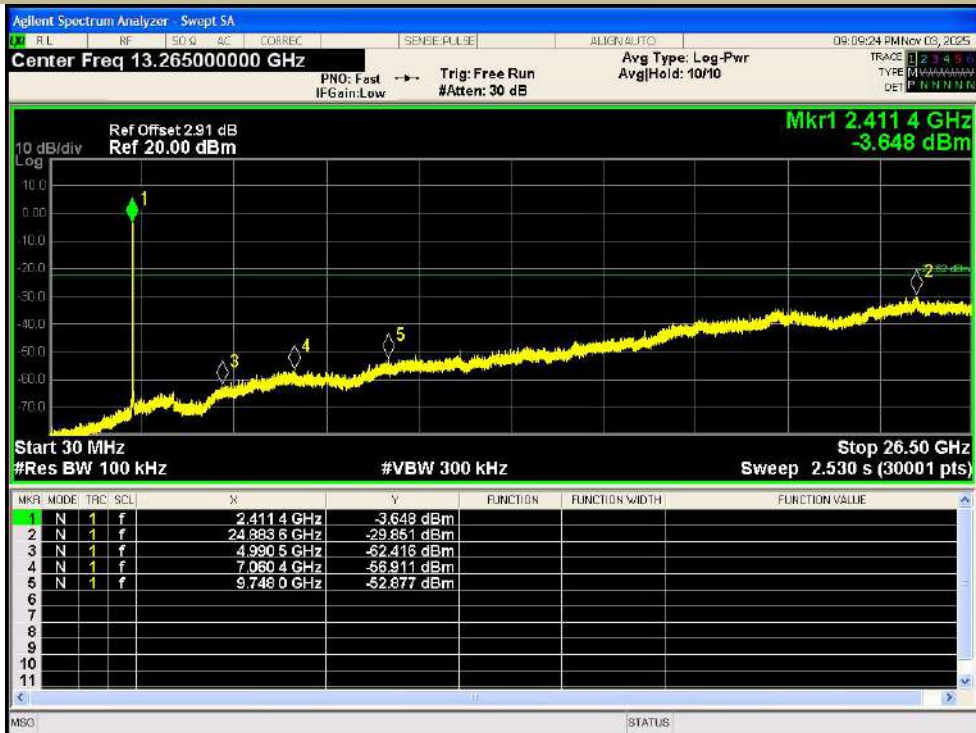
4.4.Test Result

Antenna 0 TX:

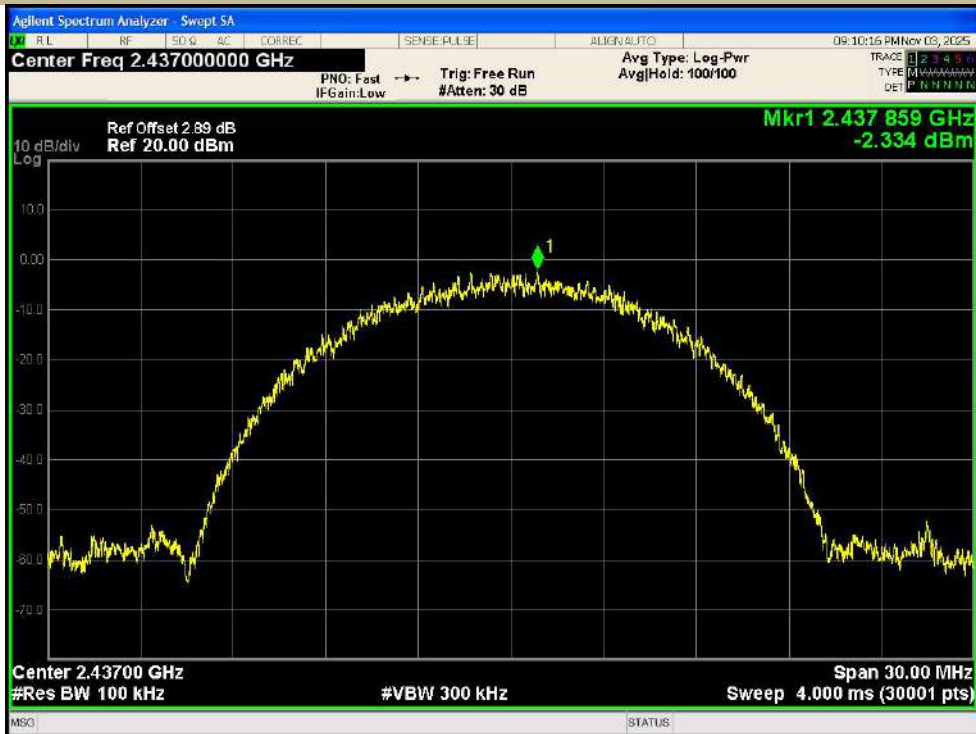
Test Model Maximum Conducted Level RBW=100kHz
Channel 1: 2412MHz 802.11b



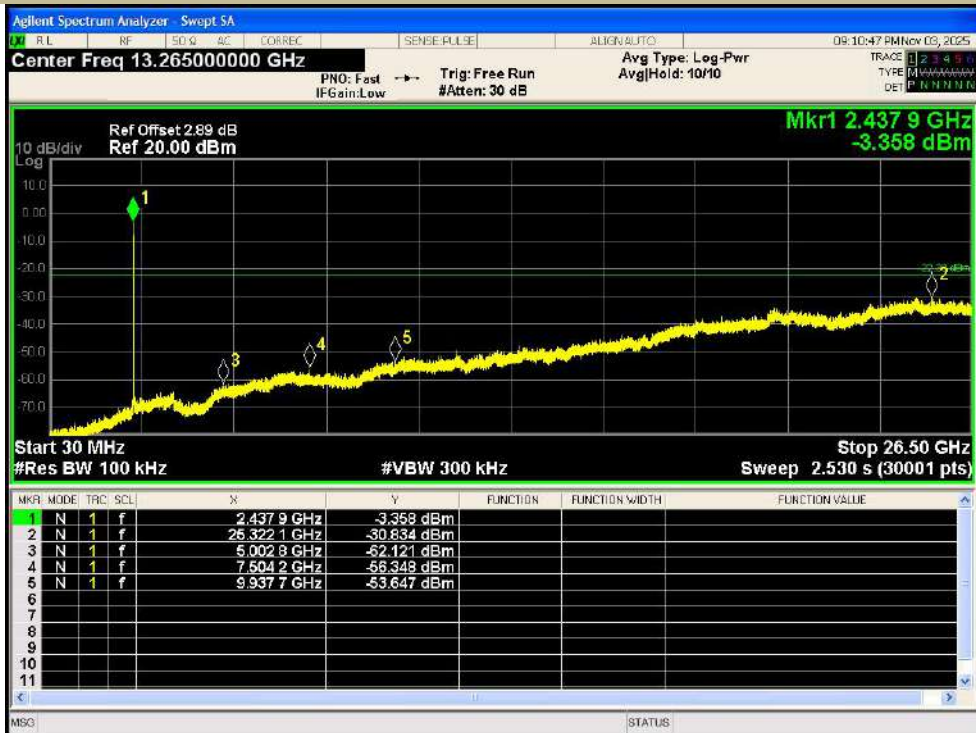
Test Model Conducted Spurious RF Conducted Emission
Channel 1: 2412MHz 802.11b



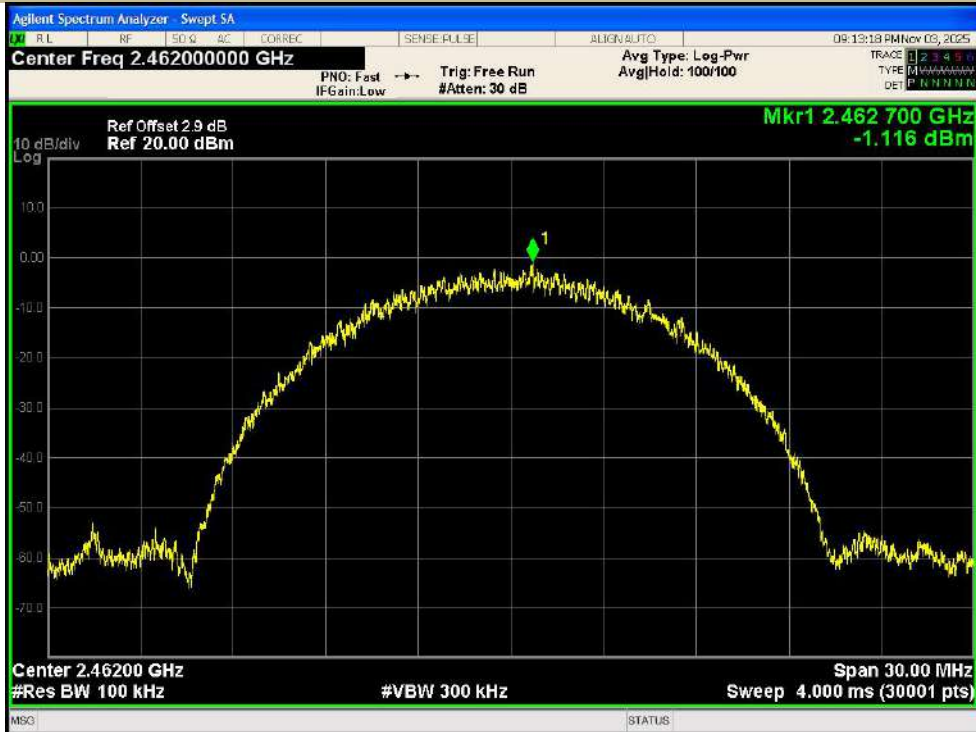
Test Model

Maximum Conducted Level RBW=100kHz
Channel 6: 2437MHz 802.11b


Test Model

Conducted Spurious RF Conducted Emission
Channel 6: 2437MHz 802.11b


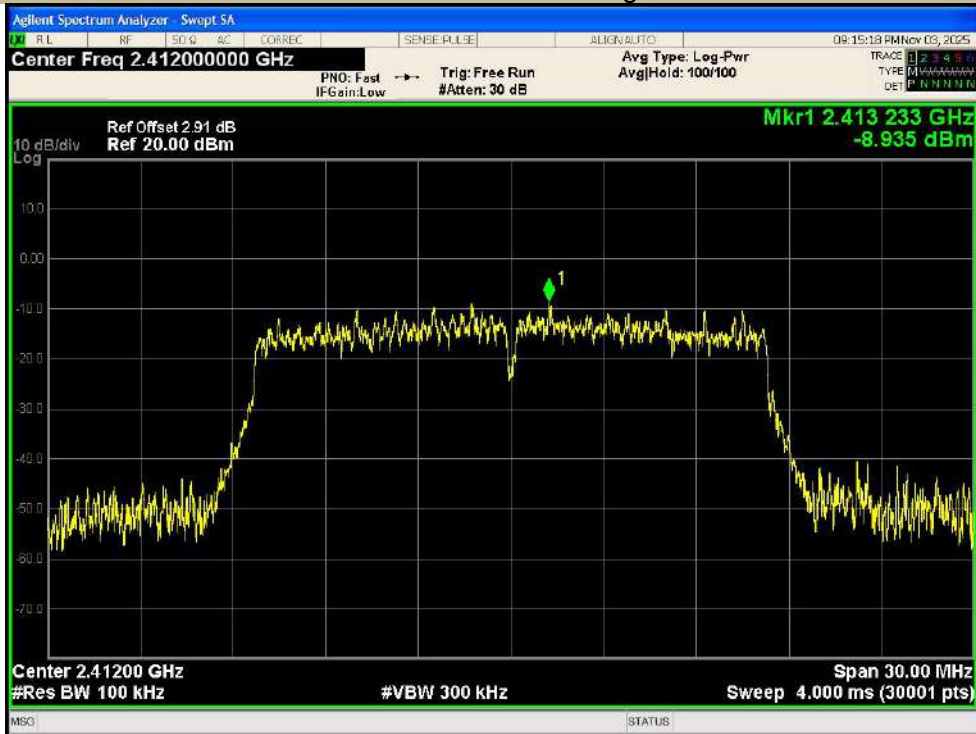
Test Model

Maximum Conducted Level RBW=100kHz
Channel 11: 2462MHz 802.11b


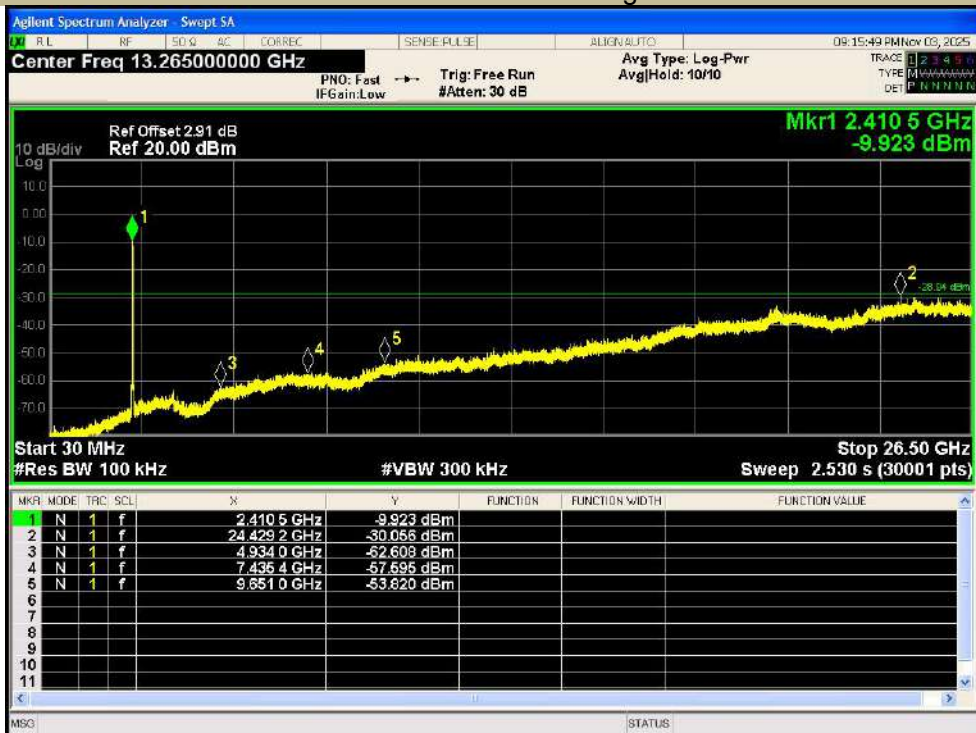
Test Model

Conducted Spurious RF Conducted Emission
Channel 11: 2462MHz 802.11b

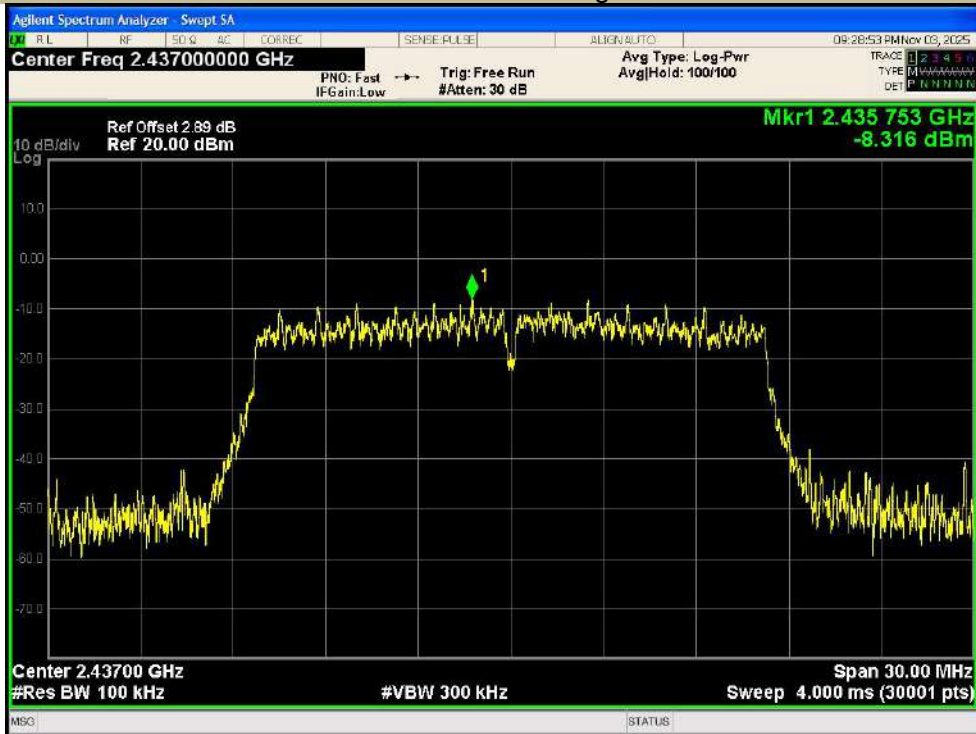

Test Model Maximum Conducted Level RBW=100kHz
Channel 1: 2412MHz 802.11g



Test Model Conducted Spurious RF Conducted Emission
Channel 1: 2412MHz 802.11g



Test Model Maximum Conducted Level RBW=100kHz
Channel 6: 2437MHz 802.11g



Test Model Conducted Spurious RF Conducted Emission
Channel 6: 2437MHz 802.11g



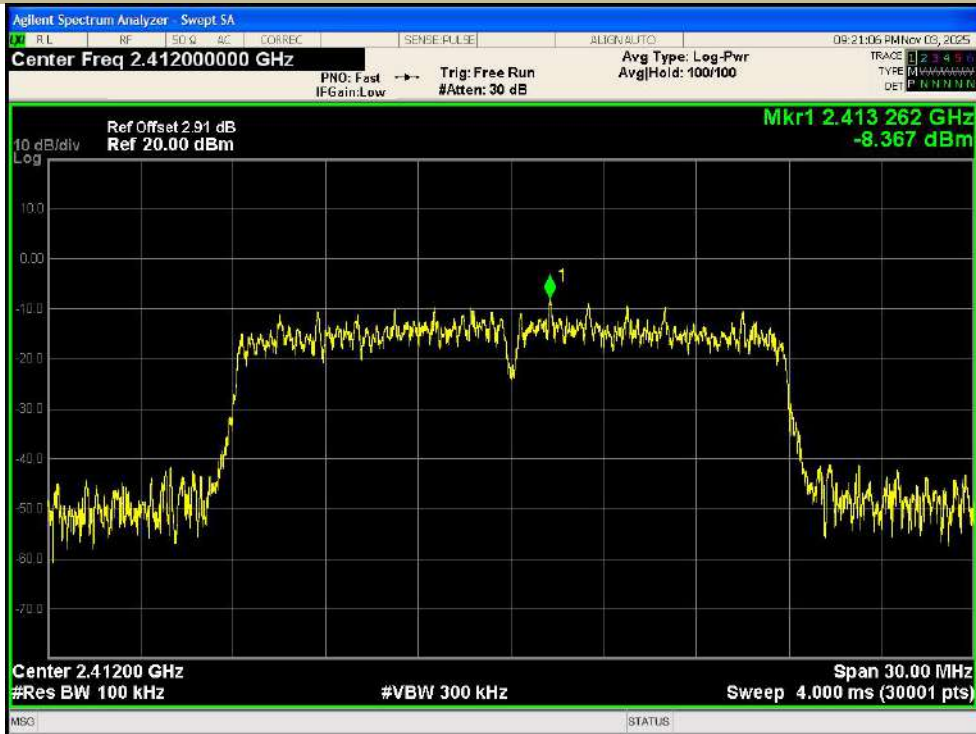
Test Model Maximum Conducted Level RBW=100kHz
Channel 11: 2462MHz 802.11g



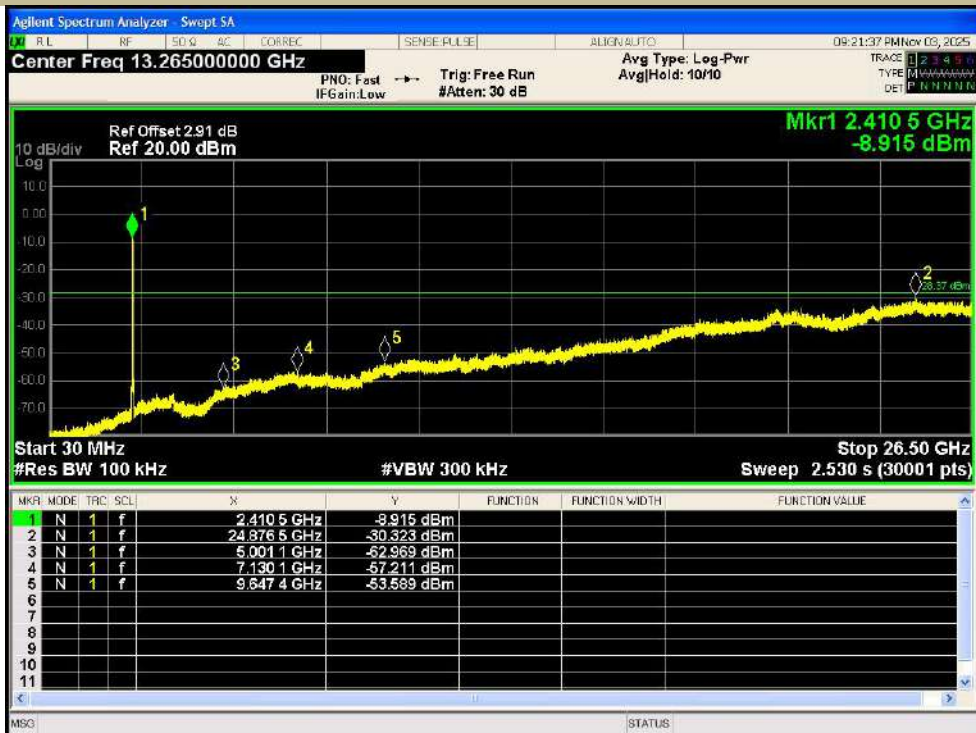
Test Model Conducted Spurious RF Conducted Emission
Channel 11: 2462MHz 802.11g



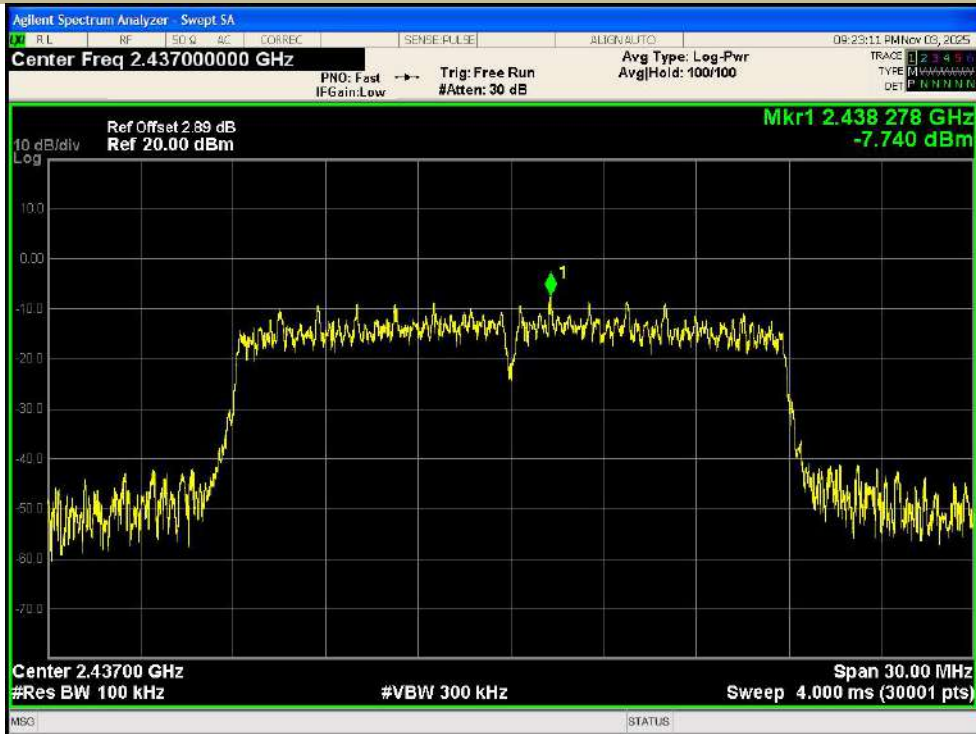
Test Model Maximum Conducted Level RBW=100kHz
Channel 1: 2412MHz 802.11n20



Test Model Conducted Spurious RF Conducted Emission
Channel 1: 2412MHz 802.11n20



Test Model Maximum Conducted Level RBW=100kHz
Channel 6: 2437MHz 802.11n20



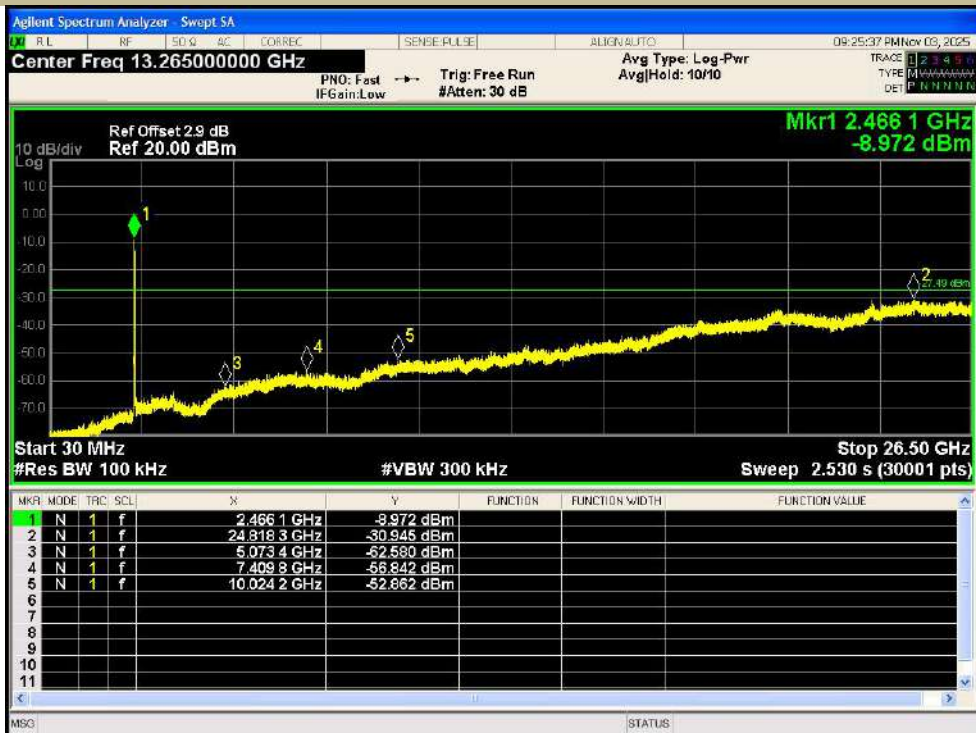
Test Model Conducted Spurious RF Conducted Emission
Channel 6: 2437MHz 802.11n20



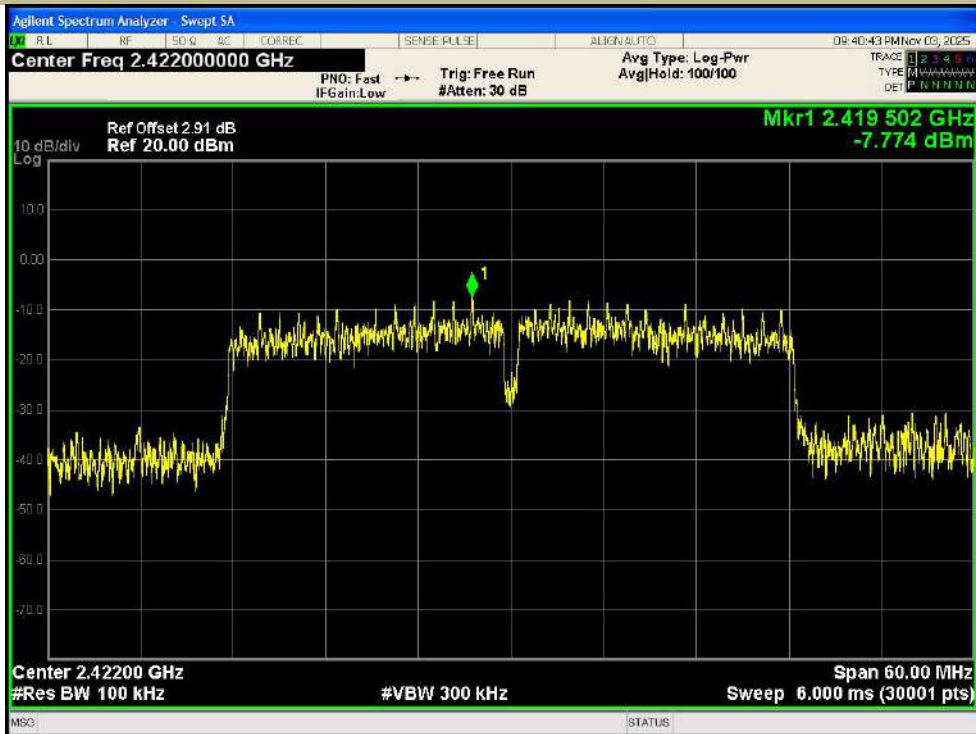
Test Model Maximum Conducted Level RBW=100kHz
Channel 11: 2462MHz 802.11n20



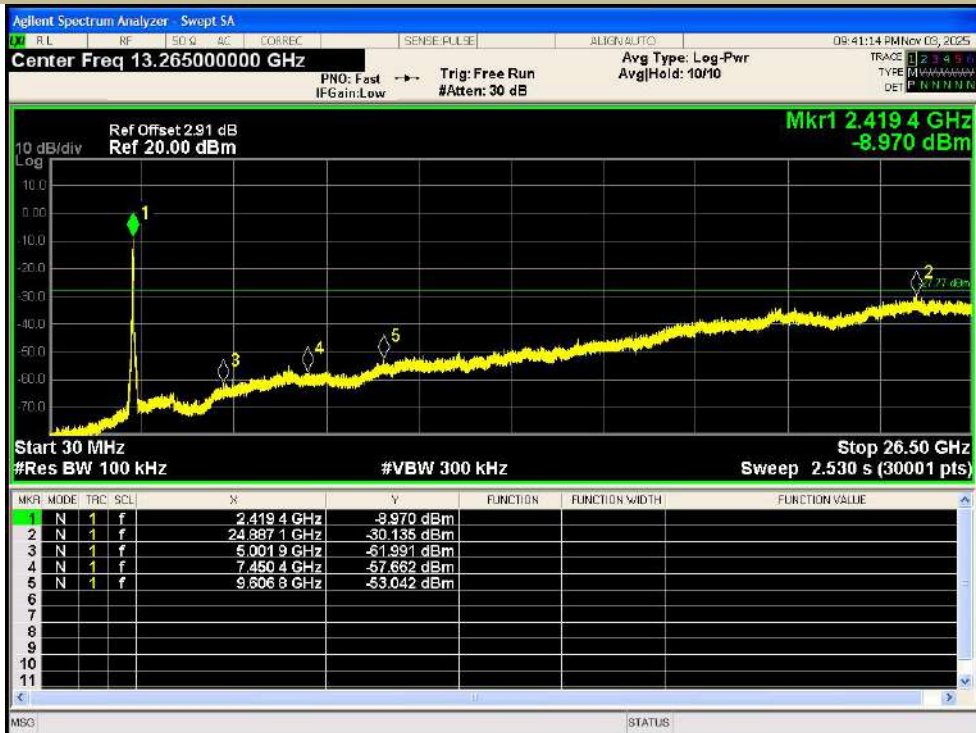
Test Model Conducted Spurious RF Conducted Emission
Channel 11: 2462MHz 802.11n20



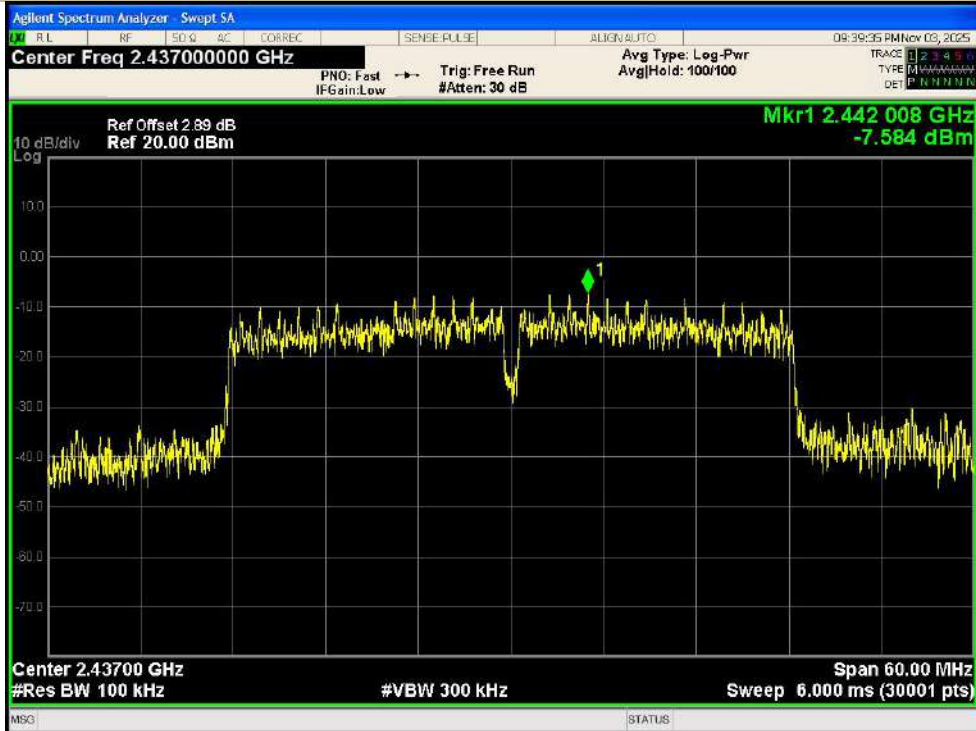
Test Model

Maximum Conducted Level RBW=100kHz
Channel 3: 2422MHz 802.11n40


Test Model

Conducted Spurious RF Conducted Emission
Channel 3: 2422MHz 802.11n40


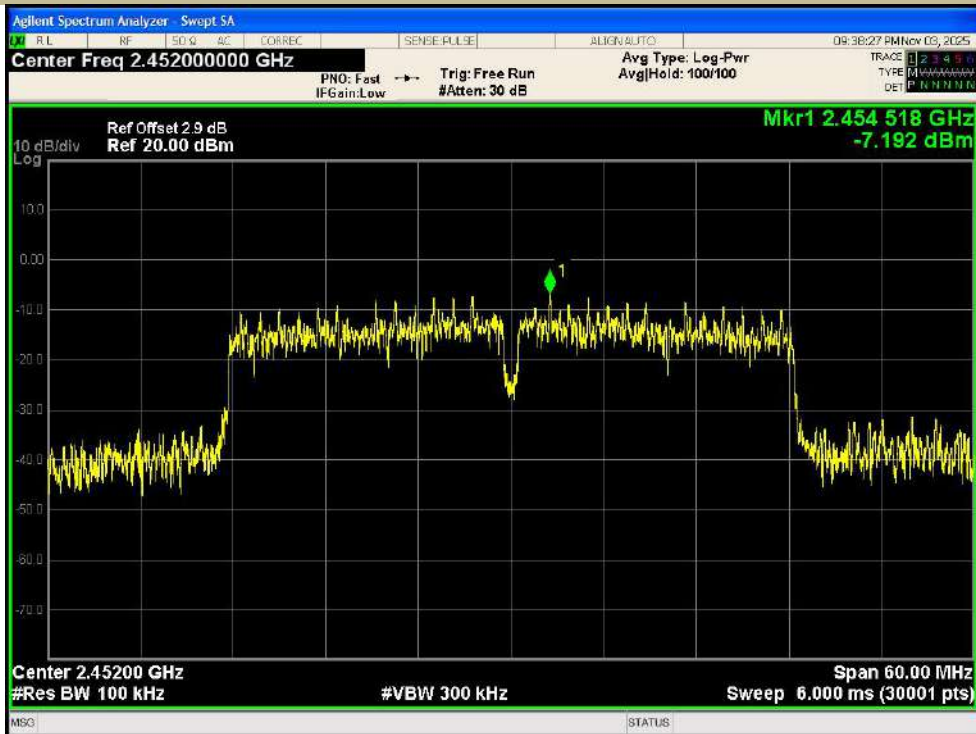
Test Model

Maximum Conducted Level RBW=100kHz
Channel 6: 2437MHz 802.11n40


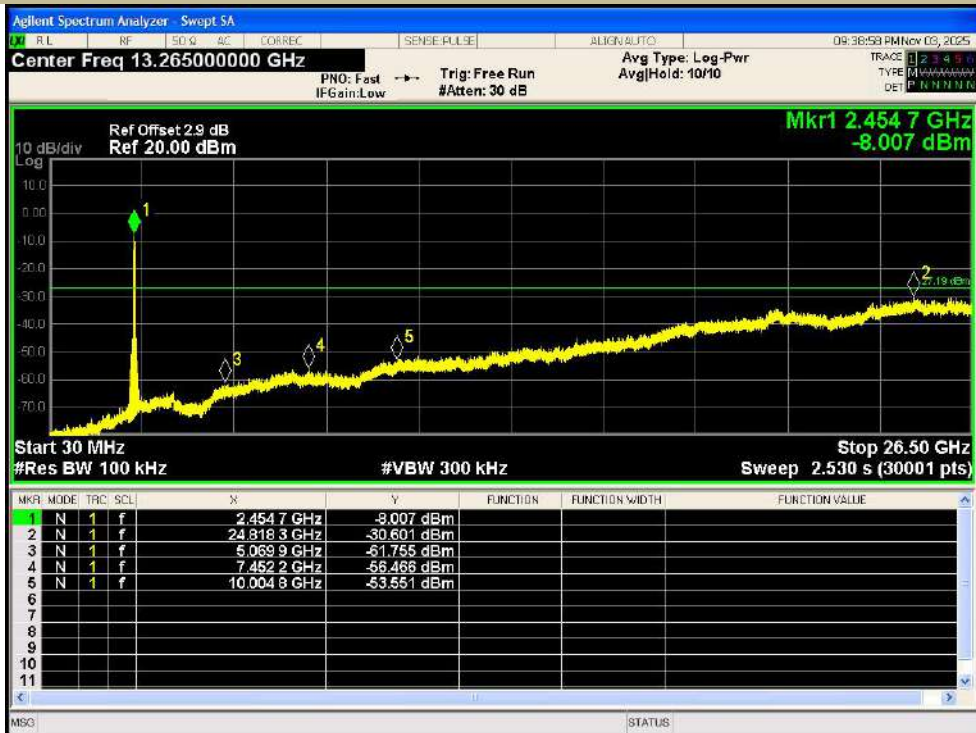
Test Model

Conducted Spurious RF Conducted Emission
Channel 6: 2437MHz 802.11n40


Test Model

Maximum Conducted Level RBW=100kHz
Channel 9: 2452MHz 802.11n40


Test Model

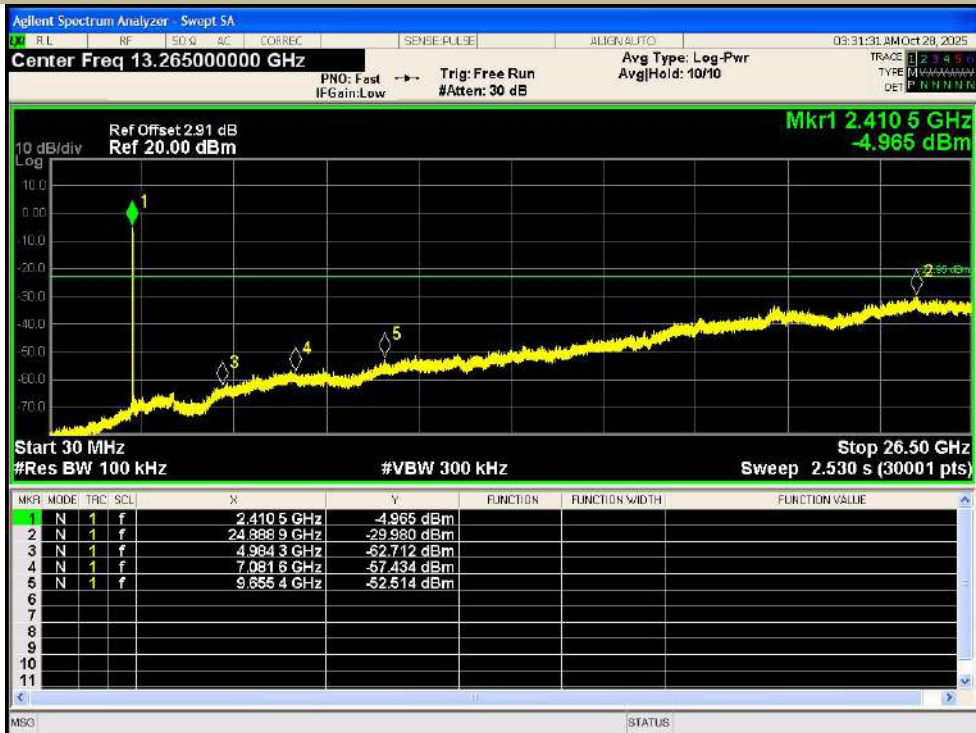
Conducted Spurious RF Conducted Emission
Channel 9: 2452MHz 802.11n40


Antenna 1 TX:

Test Model Maximum Conducted Level RBW=100kHz
Channel 1: 2412MHz 802.11b



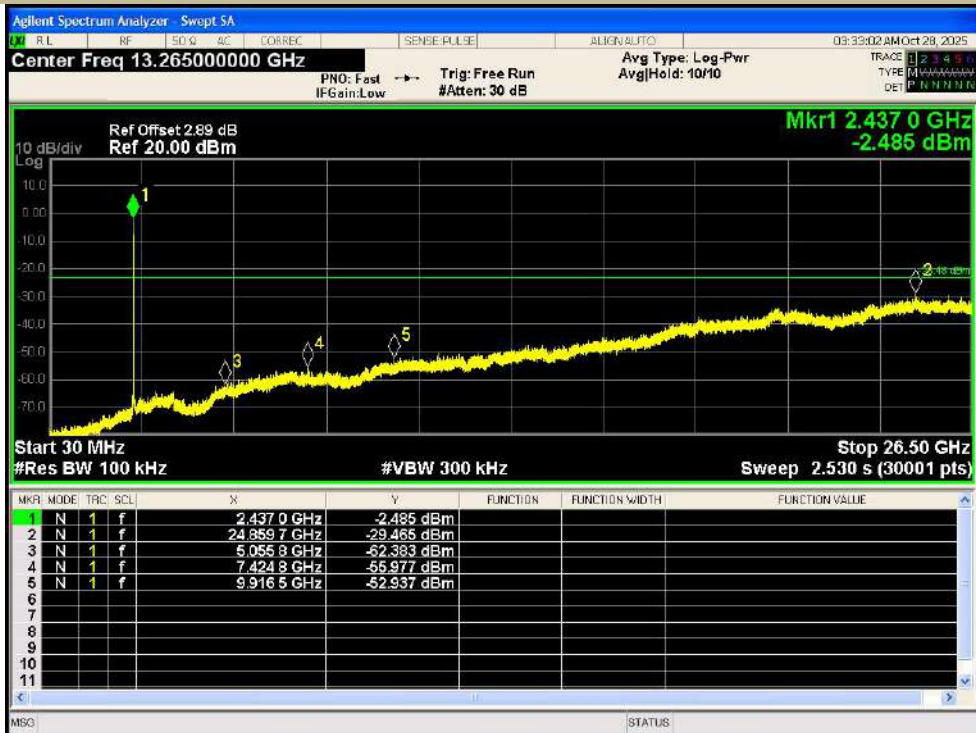
Test Model Conducted Spurious RF Conducted Emission
Channel 1: 2412MHz 802.11b



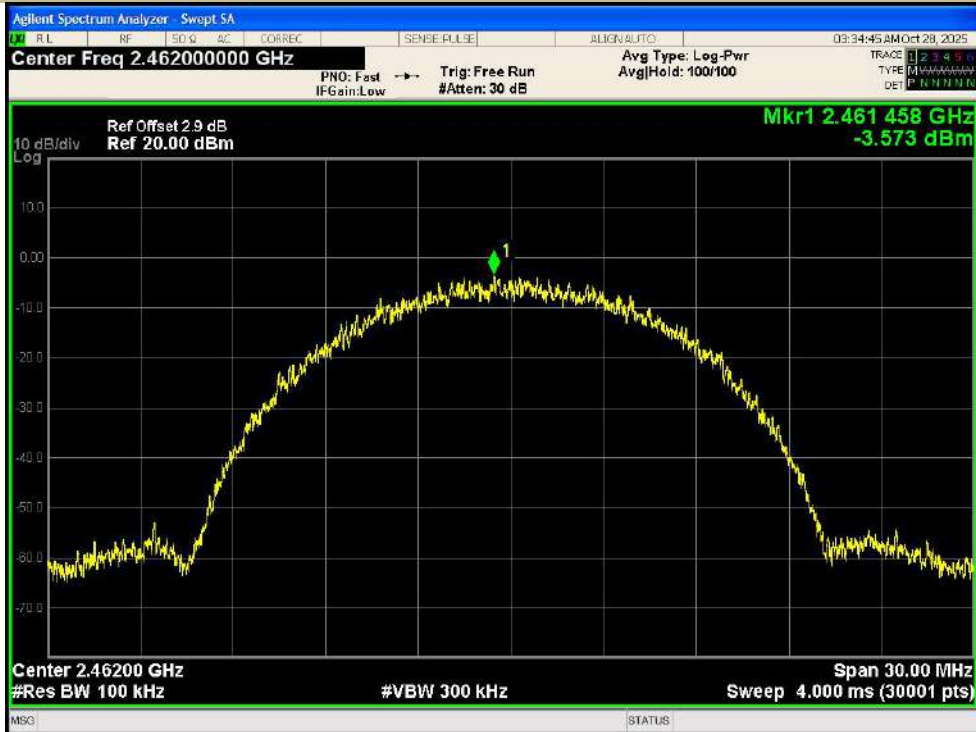
Test Model

Maximum Conducted Level RBW=100kHz
Channel 6: 2437MHz 802.11b


Test Model

Conducted Spurious RF Conducted Emission
Channel 6: 2437MHz 802.11b


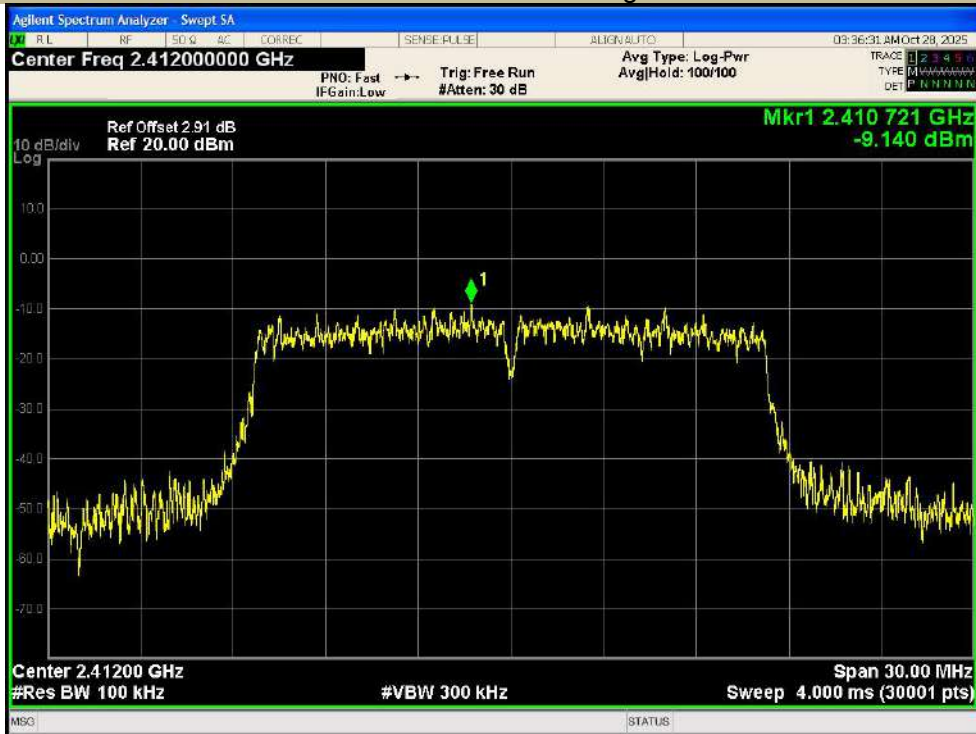
Test Model

Maximum Conducted Level RBW=100kHz
Channel 11: 2462MHz 802.11b


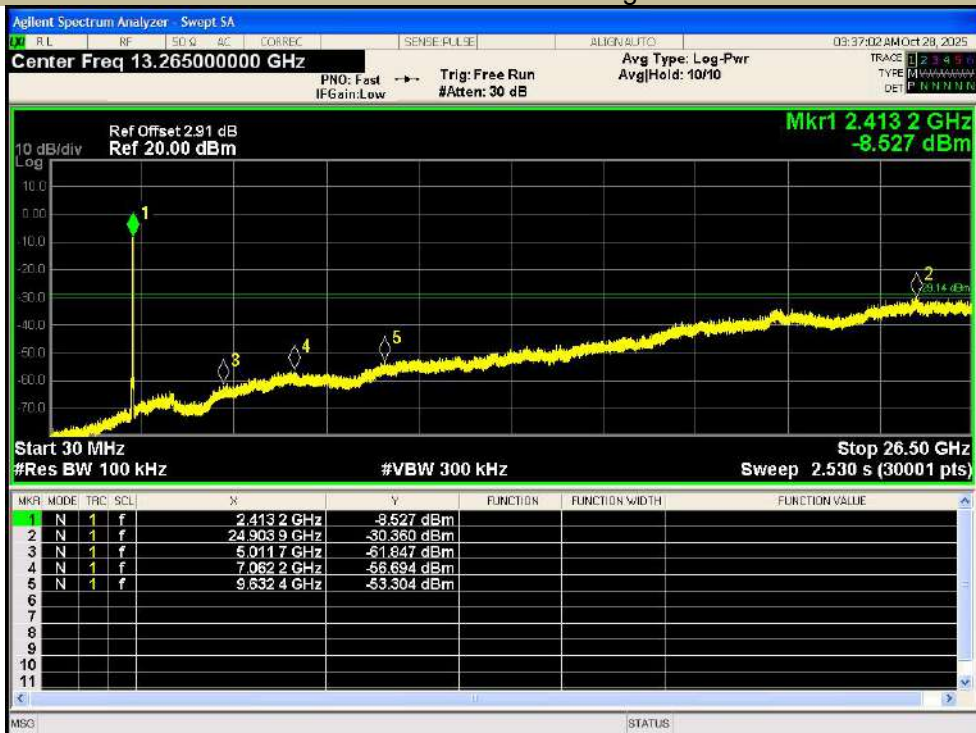
Test Model

Conducted Spurious RF Conducted Emission
Channel 11: 2462MHz 802.11b

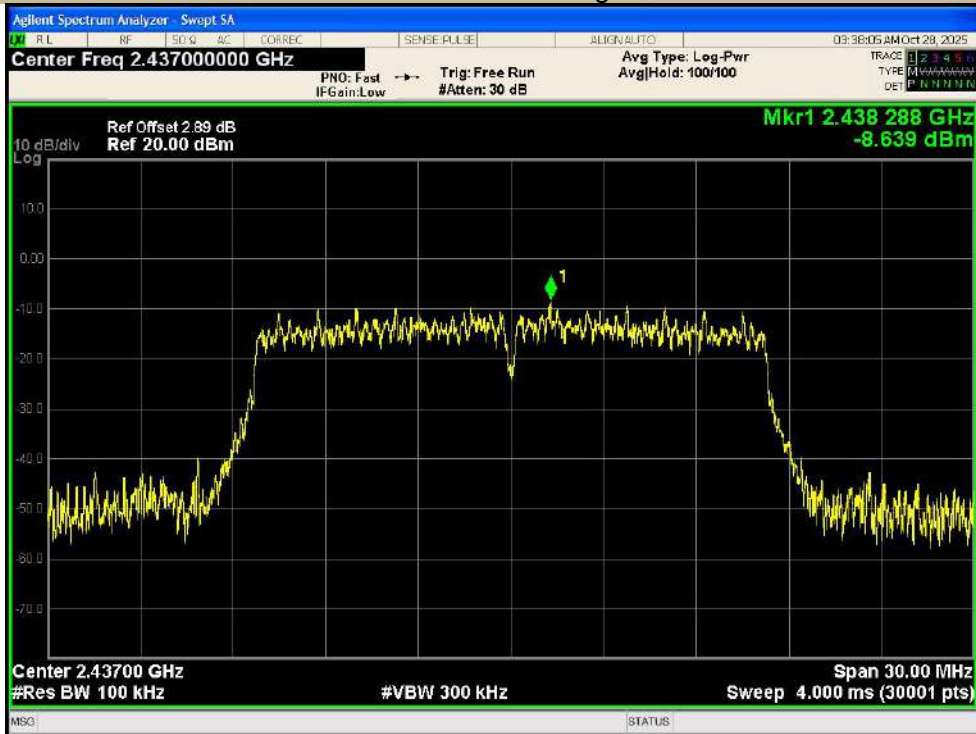

Test Model Maximum Conducted Level RBW=100kHz
Channel 1: 2412MHz 802.11g



Test Model Conducted Spurious RF Conducted Emission
Channel 1: 2412MHz 802.11g



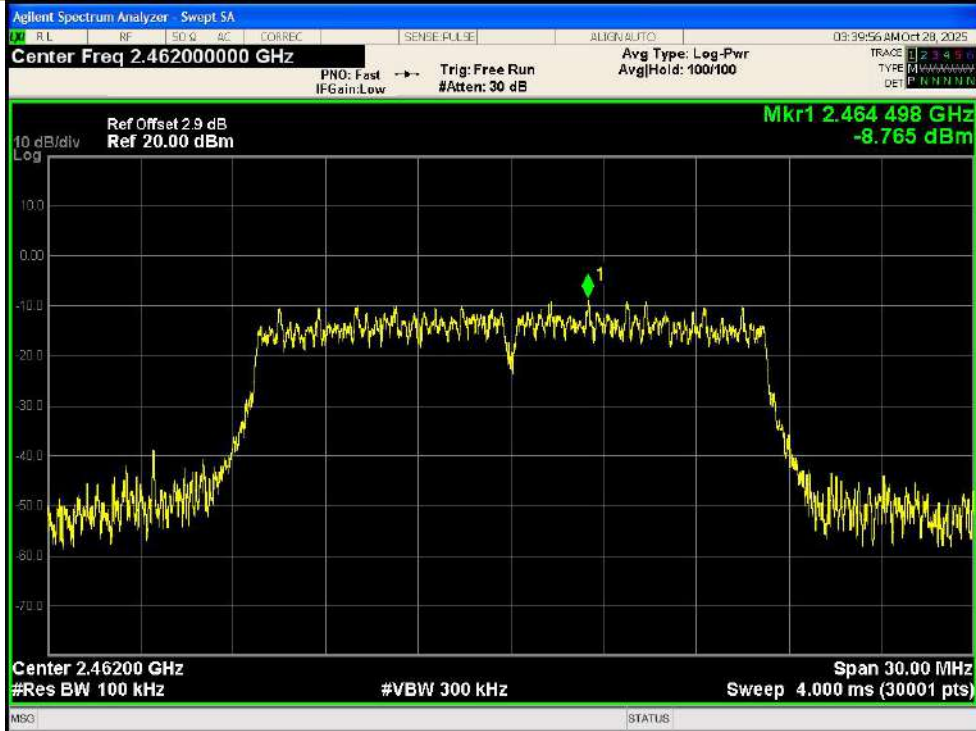
Test Model Maximum Conducted Level RBW=100kHz
Channel 6: 2437MHz 802.11g



Test Model Conducted Spurious RF Conducted Emission
Channel 6: 2437MHz 802.11g



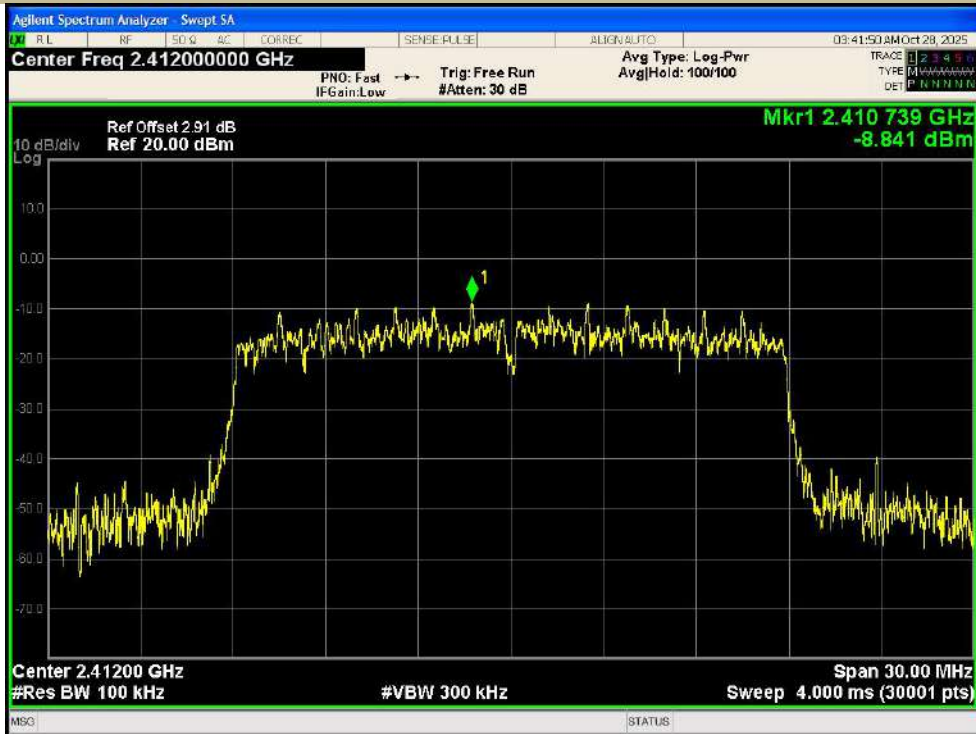
Test Model Maximum Conducted Level RBW=100kHz
Channel 11: 2462MHz 802.11g



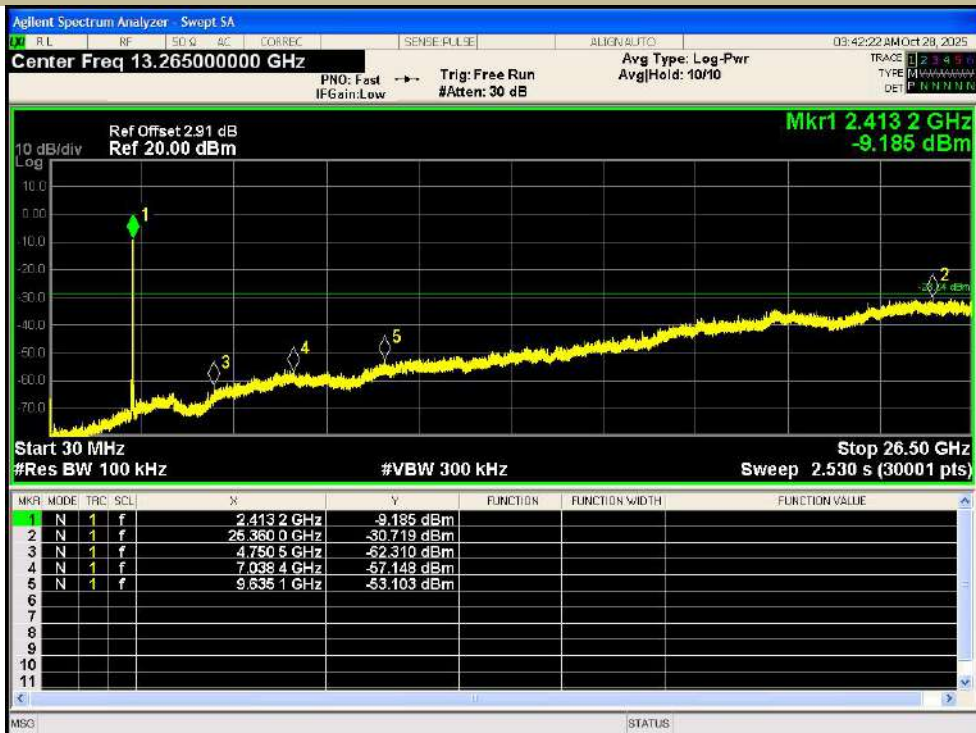
Test Model Conducted Spurious RF Conducted Emission
Channel 11: 2462MHz 802.11g



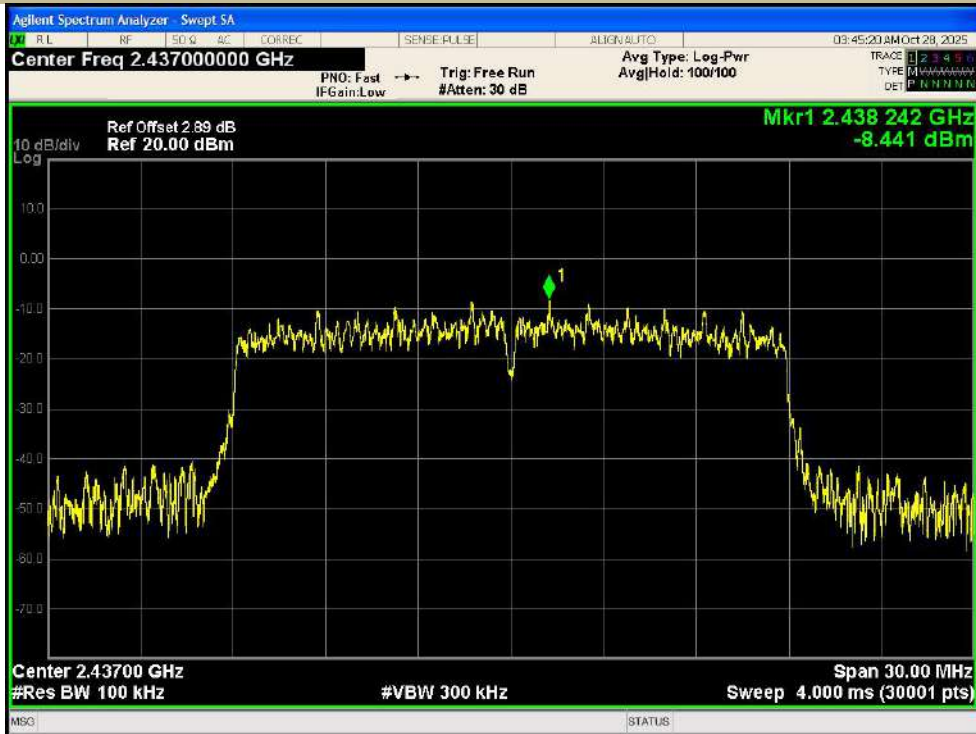
Test Model Maximum Conducted Level RBW=100kHz
Channel 1: 2412MHz 802.11n20



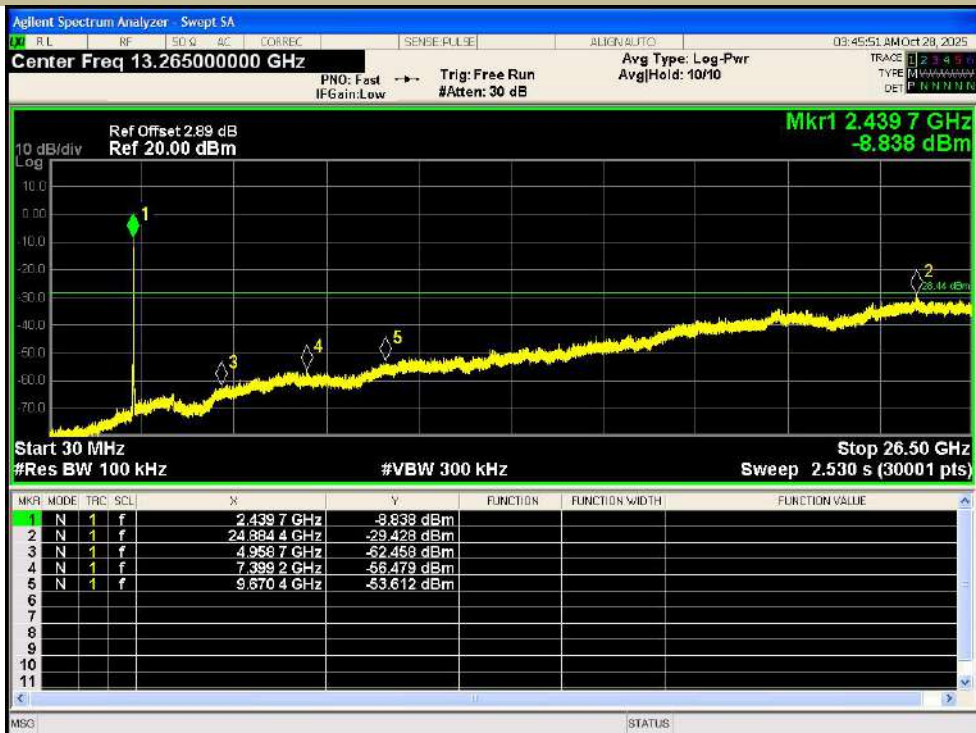
Test Model Conducted Spurious RF Conducted Emission
Channel 1: 2412MHz 802.11n20



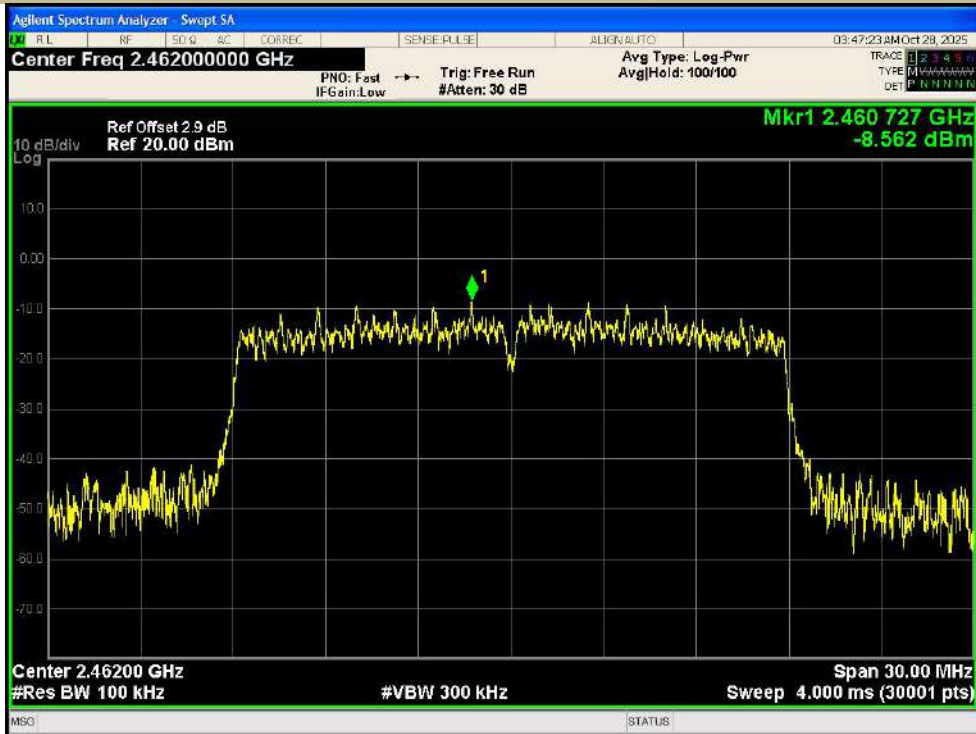
Test Model Maximum Conducted Level RBW=100kHz
Channel 6: 2437MHz 802.11n20



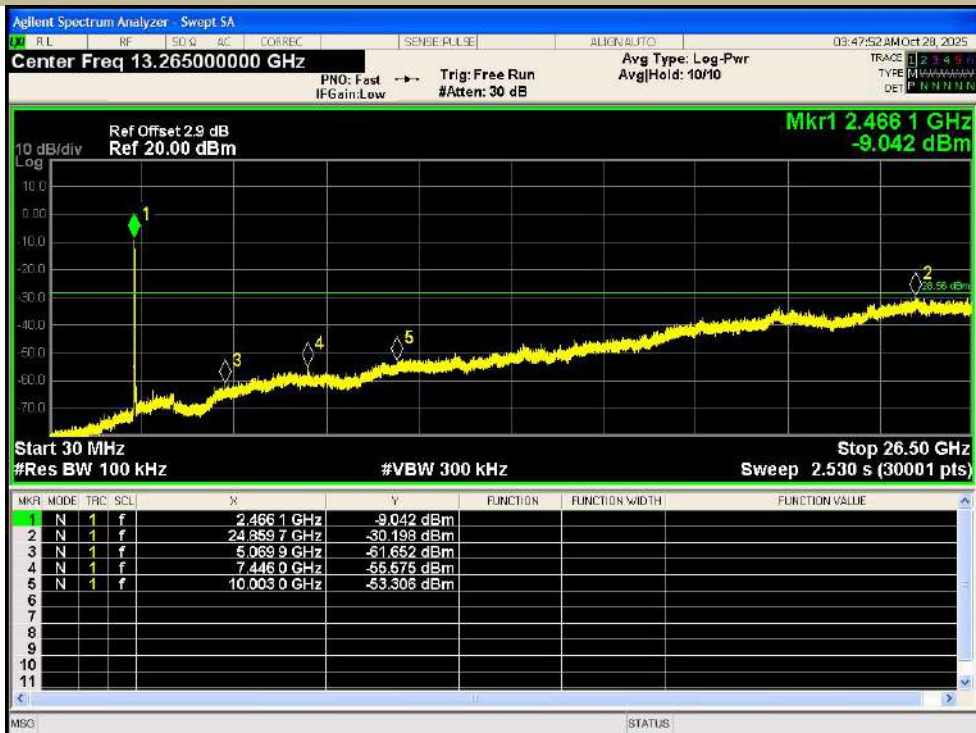
Test Model Conducted Spurious RF Conducted Emission
Channel 6: 2437MHz 802.11n20



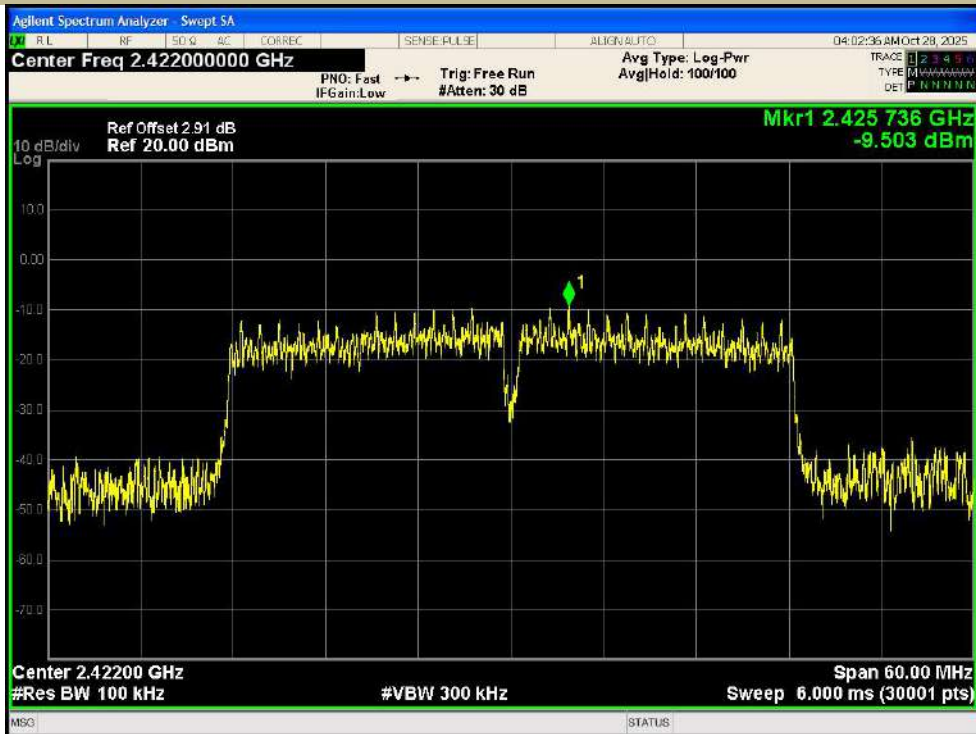
Test Model Maximum Conducted Level RBW=100kHz
Channel 11: 2462MHz 802.11n20



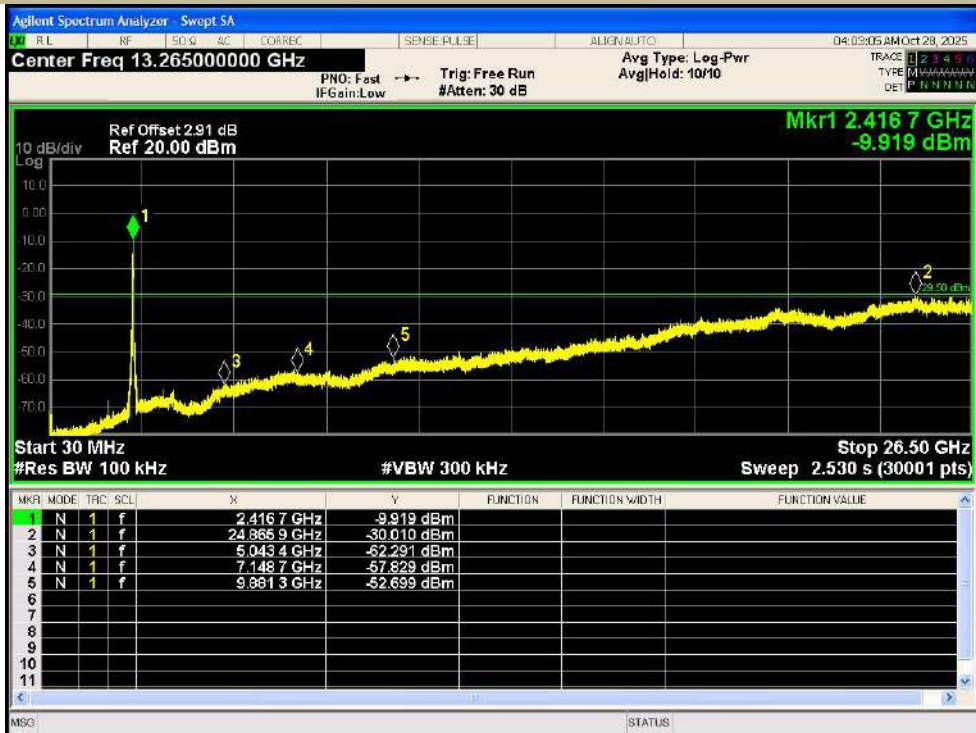
Test Model Conducted Spurious RF Conducted Emission
Channel 11: 2462MHz 802.11n20



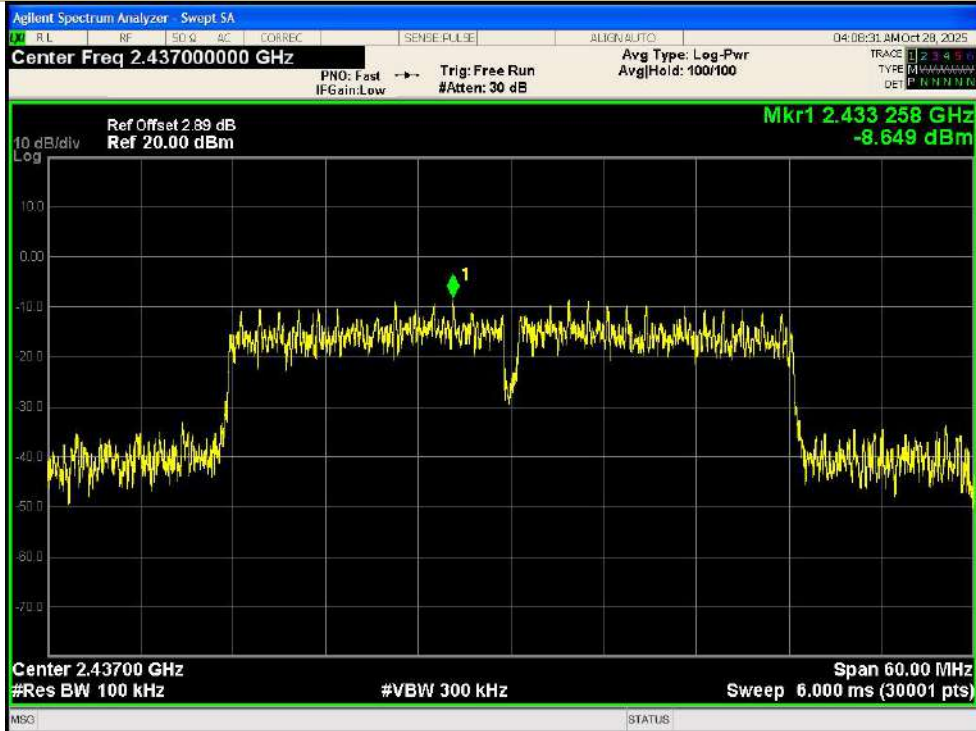
Test Model

Maximum Conducted Level RBW=100kHz
Channel 3: 2422MHz 802.11n40


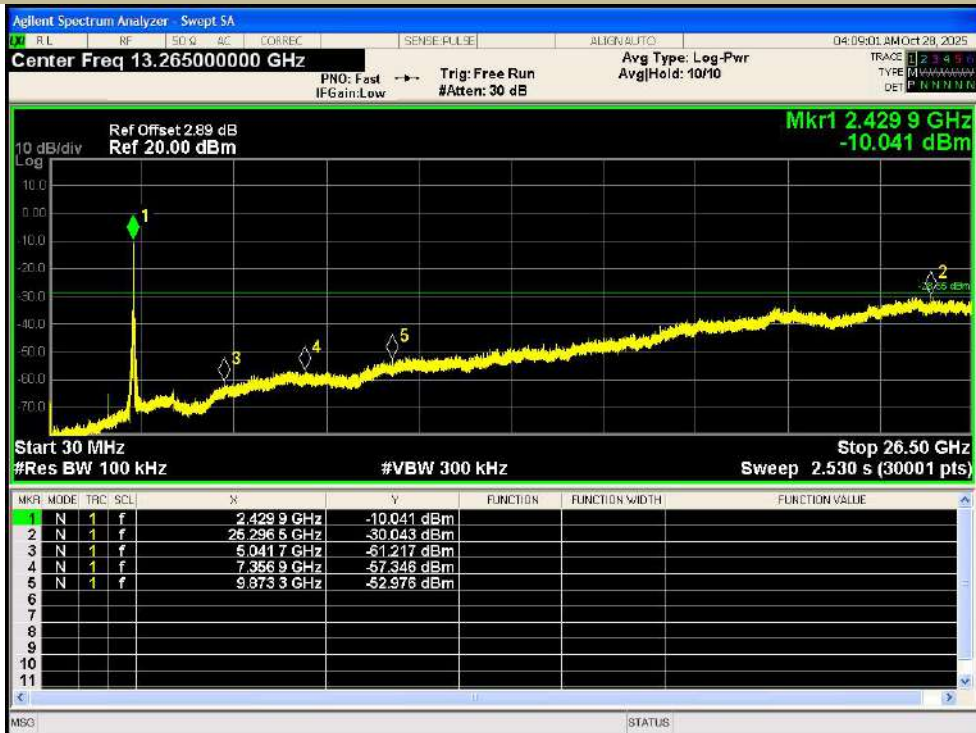
Test Model

Conducted Spurious RF Conducted Emission
Channel 3: 2422MHz 802.11n40


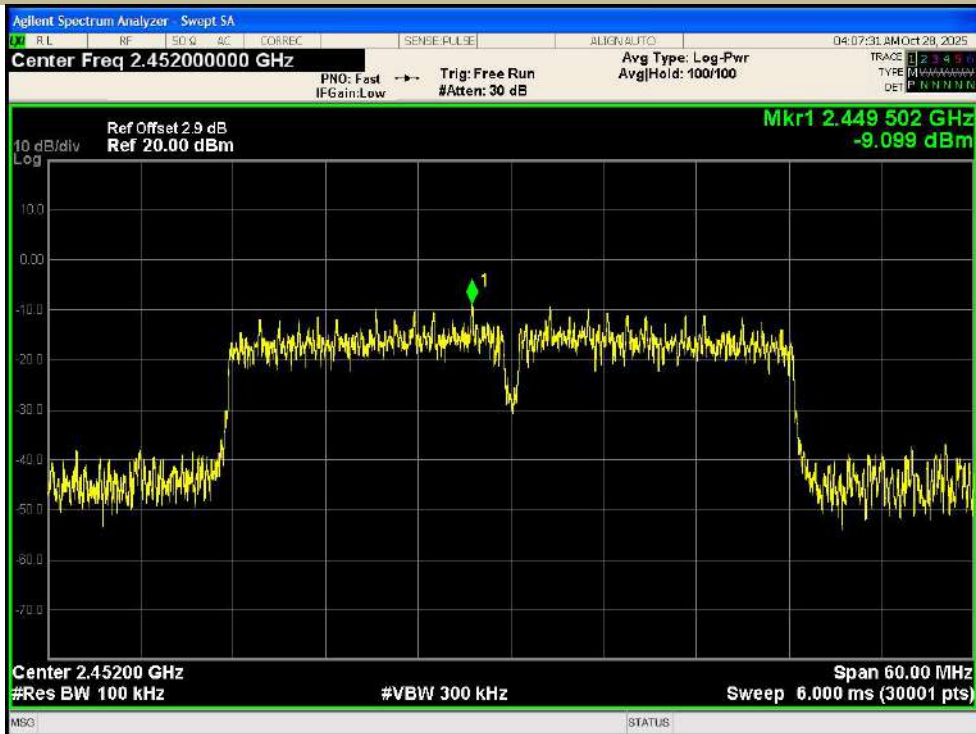
Test Model

Maximum Conducted Level RBW=100kHz
Channel 6: 2437MHz 802.11n40


Test Model

Conducted Spurious RF Conducted Emission
Channel 6: 2437MHz 802.11n40


Test Model

Maximum Conducted Level RBW=100kHz
Channel 9: 2452MHz 802.11n40


Test Model

Conducted Spurious RF Conducted Emission
Channel 9: 2452MHz 802.11n40


5. Band Edge Measurement

5.1.Limit

Test Requirement: FCC CFR47 Part 15 Section 15.247

ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024

Test Limit: Regulation 15.247 (d), In any 100 kHz bandwidth outside the frequency band 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)).

Test Mode: TM1

5.2.Test setup



5.3.Test Procedure

- 1) Remove the antenna from the EUT and connect to the spectrum analyzer via a low loss RF cable.
- 2) Set instrument center frequency to DTS channel center frequency.
- 3) Set the span to 1.5 times the DTS bandwidth.
- 4) Set the RBW = 100 kHz.
- 5) Set the VBW [3 × RBW].
- 6) Detector = peak.
- 7) Sweep time = auto couple.
- 8) Trace mode = max hold.
- 9) Allow trace to fully stabilize.
- 10) Use the peak marker function to determine the maximum PSD level.

Emission level measurement:

- 1) Set the center frequency and span to encompass frequency range to be measured.
- 2) Set the RBW = 100 kHz.
- 3) Set the VBW [3 × RBW].
- 4) Detector = peak.
- 5) Sweep time = auto couple.
- 6) Trace mode = max hold.
- 7) Allow trace to fully stabilize.
- 8) Use the peak marker function to determine the maximum amplitude level.

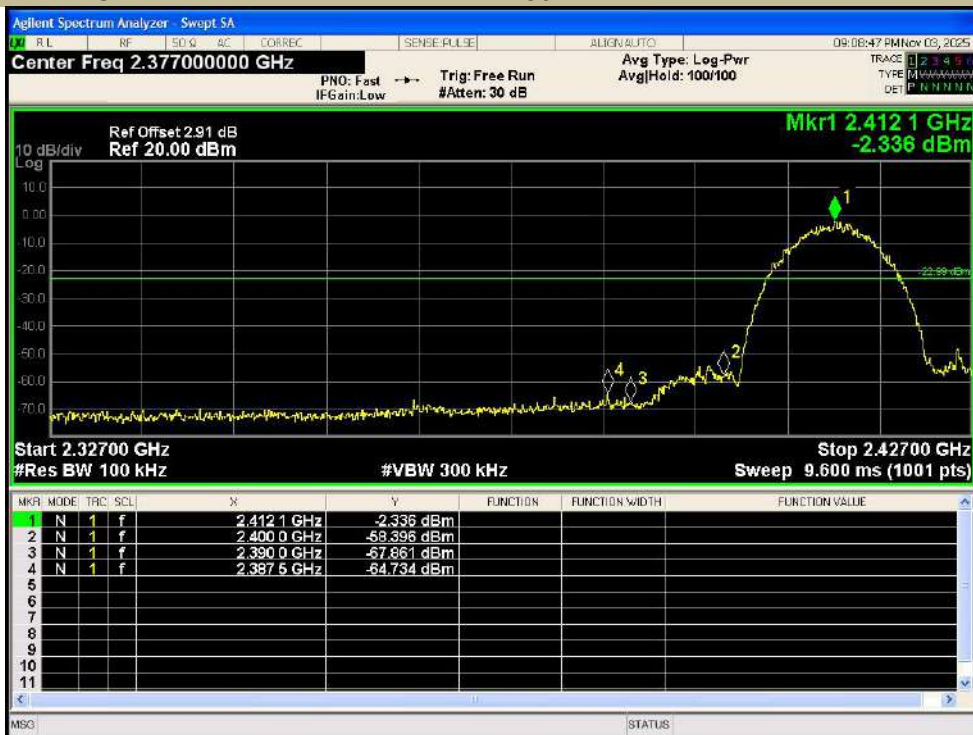
5.4.Test Result

Anenna 0 TX:

Test Model Band-edge Conducted Emissions
Channel 1: 2412MHz 802.11b



Test Model Band-edge Conducted Emissions
Channel 1: 2412MHz 802.11b



Test Model

Band-edge Conducted Emissions
Channel 11: 2462MHz

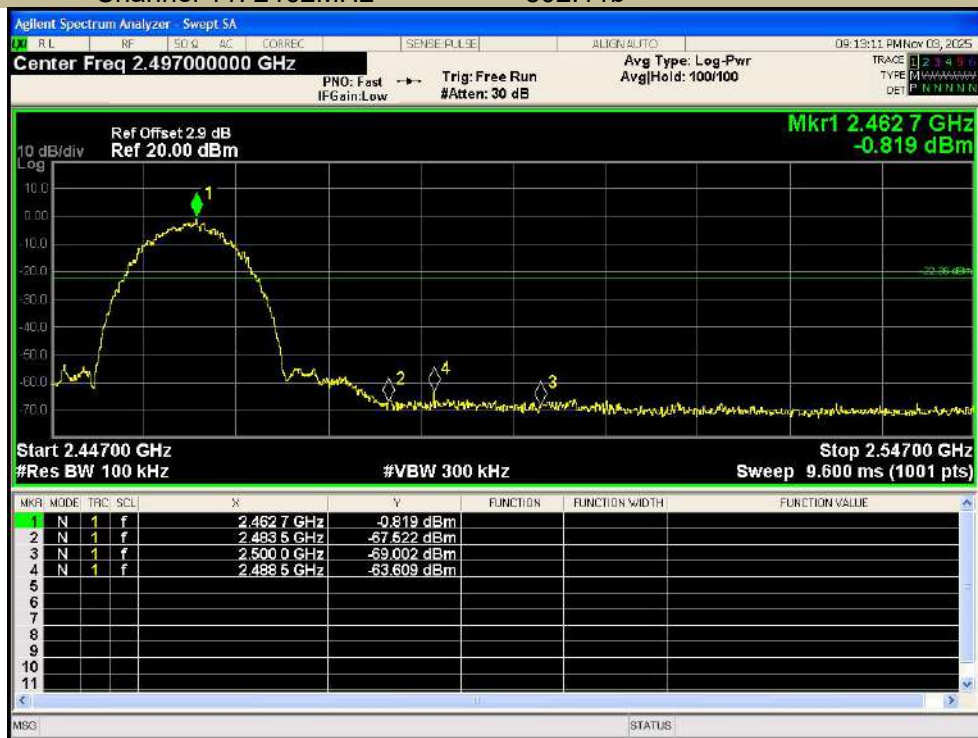
802.11b



Test Model

Band-edge Conducted Emissions
Channel 11: 2462MHz

802.11b



Test Model

Band-edge Conducted Emissions
Channel 1: 2412MHz

802.11g



Test Model

Band-edge Conducted Emissions
Channel 1: 2412MHz

802.11g



Test Model

Band-edge Conducted Emissions
Channel 11: 2462MHz

802.11g



Test Model

Band-edge Conducted Emissions
Channel 11: 2462MHz

802.11g



Test Model

Band-edge Conducted Emissions

Channel 1: 2412MHz

802.11n20

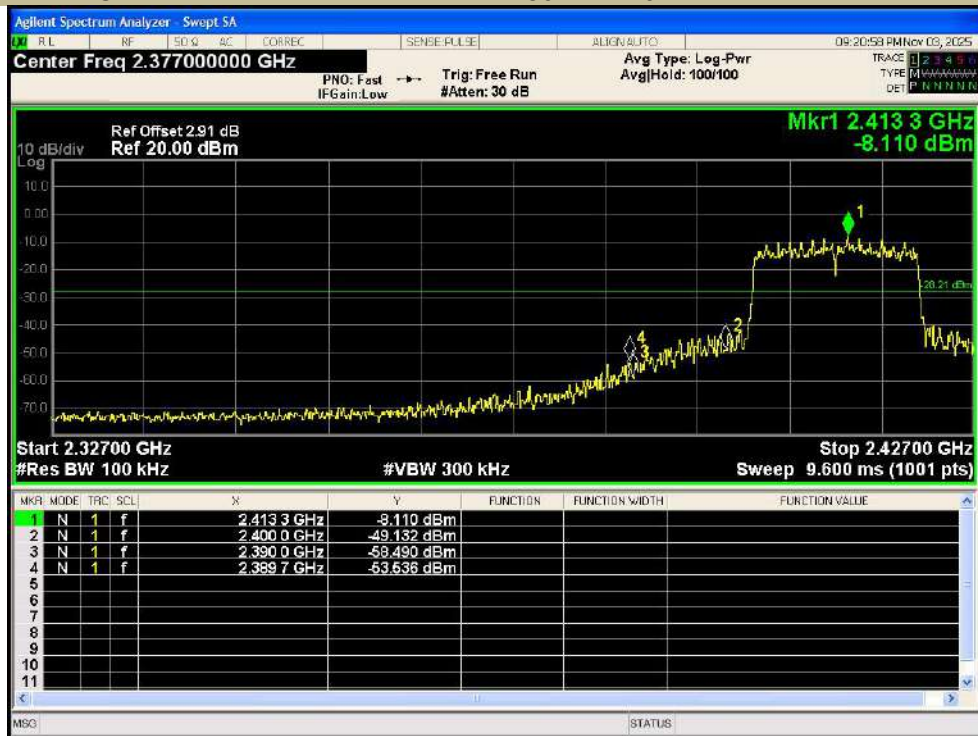


Test Model

Band-edge Conducted Emissions

Channel 1: 2412MHz

802.11n20



Test Model

Band-edge Conducted Emissions
Channel 11: 2462MHz

802.11n20



Test Model

Band-edge Conducted Emissions
Channel 11: 2462MHz

802.11n20



Test Model

Band-edge Conducted Emissions
Channel 3: 2422MHz

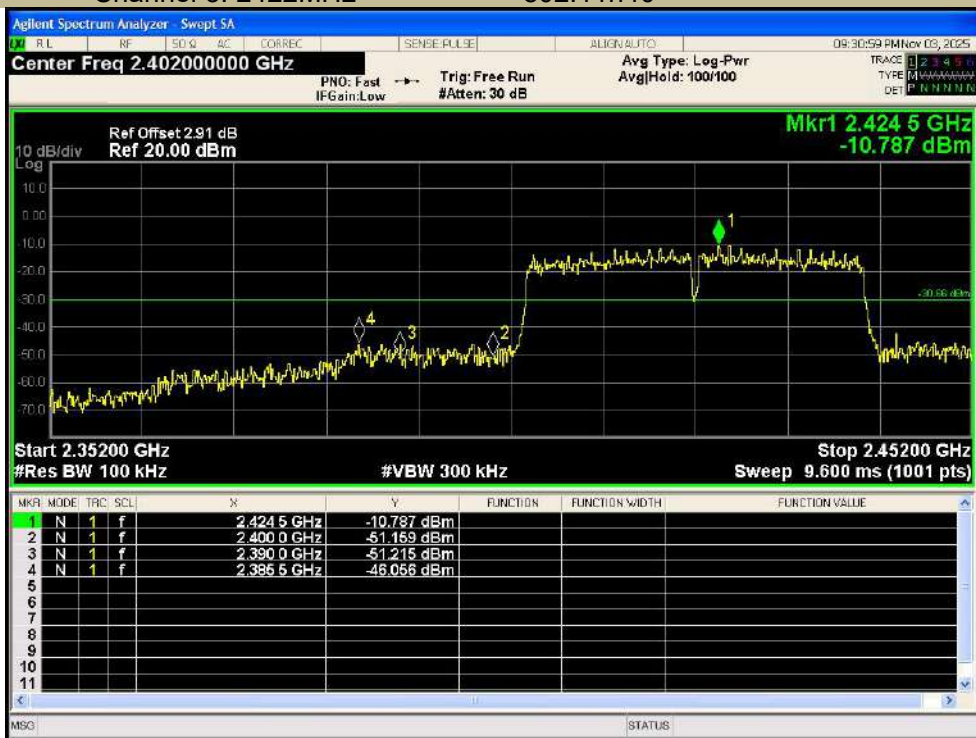
802.11n40



Test Model

Band-edge Conducted Emissions
Channel 3: 2422MHz

802.11n40



Test Model

Band-edge Conducted Emissions
Channel 6: 2452MHz

802.11n40



Test Model

Band-edge Conducted Emissions
Channel 9: 2452MHz

802.11n40

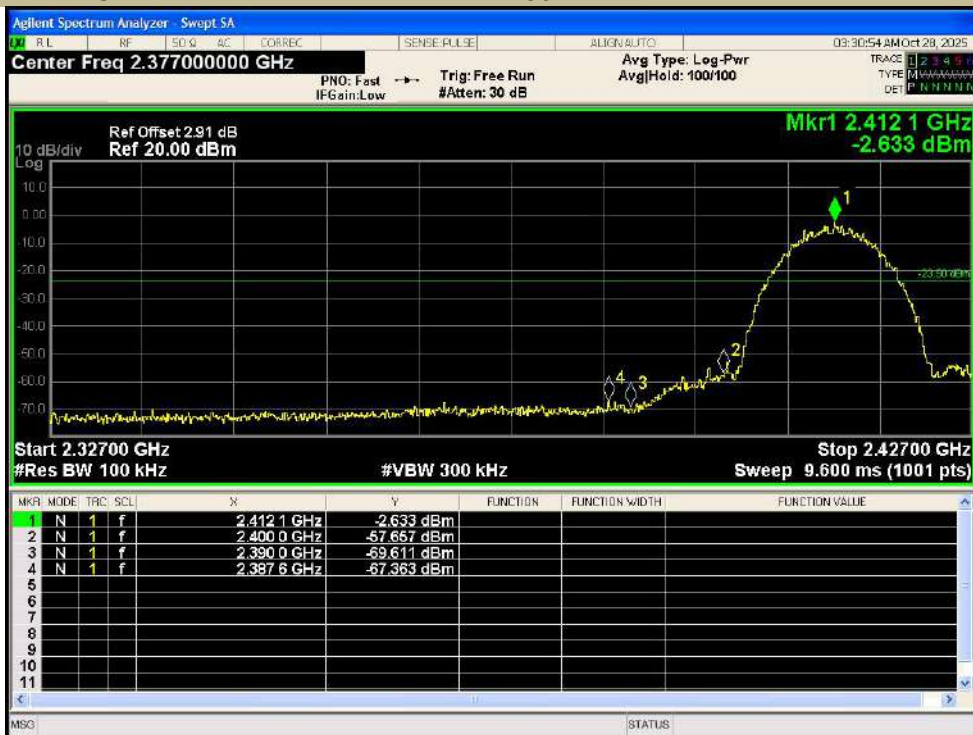


Anenna 1 TX:

Test Model Band-edge Conducted Emissions
Channel 1: 2412MHz 802.11b



Test Model Band-edge Conducted Emissions
Channel 1: 2412MHz 802.11b



Test Model

Band-edge Conducted Emissions
Channel 11: 2462MHz

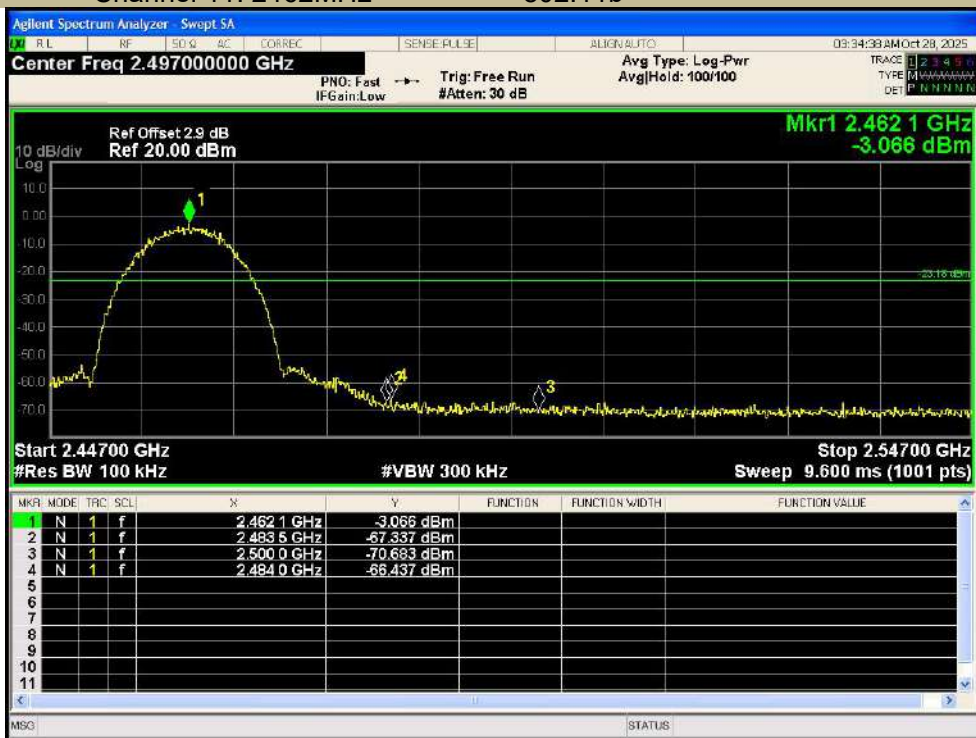
802.11b



Test Model

Band-edge Conducted Emissions
Channel 11: 2462MHz

802.11b



Test Model

Band-edge Conducted Emissions

Channel 1: 2412MHz

802.11g



Test Model

Band-edge Conducted Emissions

Channel 1: 2412MHz

802.11g



Test Model

Band-edge Conducted Emissions

Channel 11: 2462MHz

802.11g



Test Model

Band-edge Conducted Emissions

Channel 11: 2462MHz

802.11g



Test Model

Band-edge Conducted Emissions
Channel 1: 2412MHz

802.11n20



Test Model

Band-edge Conducted Emissions
Channel 1: 2412MHz

802.11n20



Test Model

Band-edge Conducted Emissions
Channel 11: 2462MHz

802.11n20



Test Model

Band-edge Conducted Emissions
Channel 11: 2462MHz

802.11n20

