

## FCC - TEST REPORT

Report Number : **68.950.22.0103.01** Date of Issue: **2022-03-10**

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Model : **CS-C6CN, CS-C6CN (4MP, W2), CS-C6CN-R100-8B4WF**

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Product Type : **Smart Home Camera**

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Applicant : **Hangzhou Ezviz Software Co., Ltd.**

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Address : **Room 302, Unit B, Building 2, 399 Danfeng Road, Binjiang District  
310052 Hangzhou, Zhejiang, PEOPLE'S REPUBLIC OF CHINA**

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Manufacturer : **Hangzhou Ezviz Software Co., Ltd.**

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Address : **Room 302, Unit B, Building 2, 399 Danfeng Road, Binjiang District  
310052 Hangzhou, Zhejiang, PEOPLE'S REPUBLIC OF CHINA**

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Test Result :  **Positive**     **Negative**

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Total pages including Appendices : **94**

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## 2 Details about the Test Laboratory

### Details about the Test Laboratory

#### Test Site 1

Company name: TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch  
Building 12 & 13, Zhiheng Wisdomland Business Park, Nantou Checkpoint  
Road 2, Nanshan District  
Shenzhen 518052  
P.R. China

Telephone: 86 755 8828 6998

Fax: 86 755 8828 5299

FCC Registration No.: 514049

FCC Designation Number: CA5009

IC Registration No.: 10320A

### 3 Description of the Equipment Under Test

Product:	Smart Home Camera
Model no.:	CS-C6CN, CS-C6CN (4MP, W2), CS-C6CN-R100-8B4WF
FCC ID:	2APV2-CSC6CN8B4
Rating:	5VDC, 2A by adapter
Options and accessories:	Adapter
Adapter 1:	Model: DYS05200CQ-E Input:100-240V~50/60Hz 0.3A Max Output:5.0V, 2.0A 10.0W
Adapter 2:	Model: ADS-10RH-06 05010EPB Input:100-240V~50/60Hz 0.3A Max Output:5.0V, 2.0A 10.0W
RF Transmission Frequency:	2412MHz-2462MHz
No. of Operated Channel:	11
Modulation:	DSSS, OFDM
Antenna Type:	Internal Antenna
Antenna Gain:	2.73dBi for Ant1 2.5dBi for Ant2(PCB Antenna)
Description of the EUT:	The Equipment Under Test (EUT) is an Smart Home Camera which support Wi-Fi. The TX and RX range is 2412MHz – 2462MHz for 2.4GHz Wi-Fi

## 4 Summary of Test Standards

Test Standards	
FCC Part 15 Subpart C 10-1-2020 Edition	PART 15 - RADIO FREQUENCY DEVICES Subpart C - Intentional Radiators

All the test methods were according to  
 KDB 558074 D01 15.247 Meas Guidance v05r02,  
 KDB 662911 D01 Multiple Transmitter Output v02r01  
 ANSI C63.10 (2013).

## 5 Summary of Test Results

Technical Requirements						
FCC Part 15 Subpart C						
Test Condition	Pages	Test Site	Test Result			
			Pass	Fail	N/A	
§15.207	Conducted emission AC power port	10	---	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§15.247 (b) (1)	Conducted peak output power	15	Site 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RSS-247 5.4(b)	Equivalent Isotropic Radiated Power	---	---	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
§15.247(a)(1)	20dB bandwidth	---	---	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
§15.247(a)(1)	Carrier frequency separation	---	---	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
§15.247(a)(1)(iii)	Number of hopping frequencies	---	---	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
§15.247(a)(1)(iii)	Dwell Time	---	---	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
§15.247(a)(2)	6dB bandwidth and 99% Occupied Bandwidth	16	Site 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§15.247(e)	Power spectral density	31	Site 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§15.247(d)	Spurious RF conducted emissions	38	Site 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§15.247(d)	Band edge	58	Site 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§15.247(d)& 15.209 & 15.205	Spurious radiated emissions for transmitter	64	Site 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§15.203	Antenna requirement	See note 2		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Note 1: N/A=Not Applicable.

Note 2: The EUT uses an internal antenna, which gain is 2.73dBi for Ant1, 2.5dBi for Ant2(PCB Antenna). In accordance to §15.203, It is considered sufficiently to comply with the provisions of this section.

## 6 General Remarks

### Remarks

This submittal(s) (test report) is intended for FCC ID: 2APV2-CSC6CN8B4, complies with Section 15.207, 15.209, 15.247 of the FCC Part 15, Subpart C rules.

### SUMMARY:

All tests according to the regulations cited on page 5 were

■ - Performed

□ - **Not** Performed

The Equipment Under Test

■ - **Fulfills** the general approval requirements.

□ - **Does not** fulfill the general approval requirements.

Sample Received Date: 2021-12-09

Testing Start Date: 2021-12-09

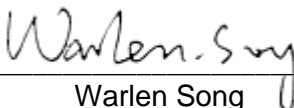
Testing End Date: 2022-03-04

TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch

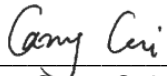
Reviewed by:

  
John Zhi  
Project Manager

Prepared by:

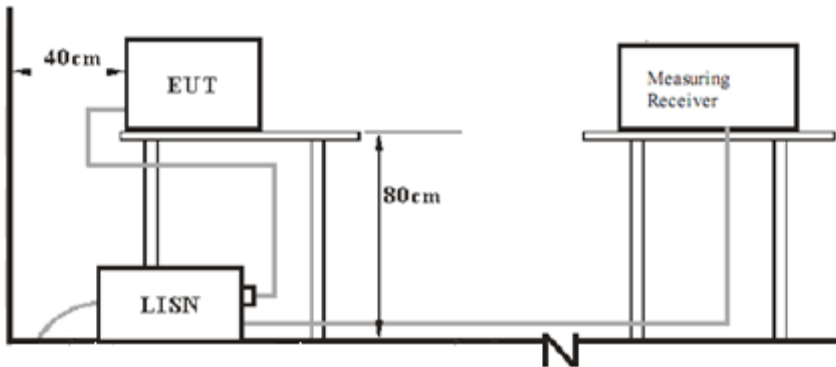
  
Warlen Song  
Project Engineer

Tested by:

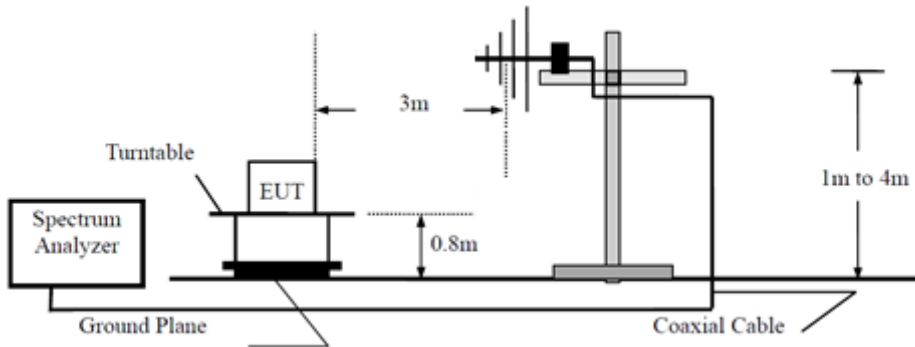
  
Carry Cai  
Test Engineer

## 7 Test Setups

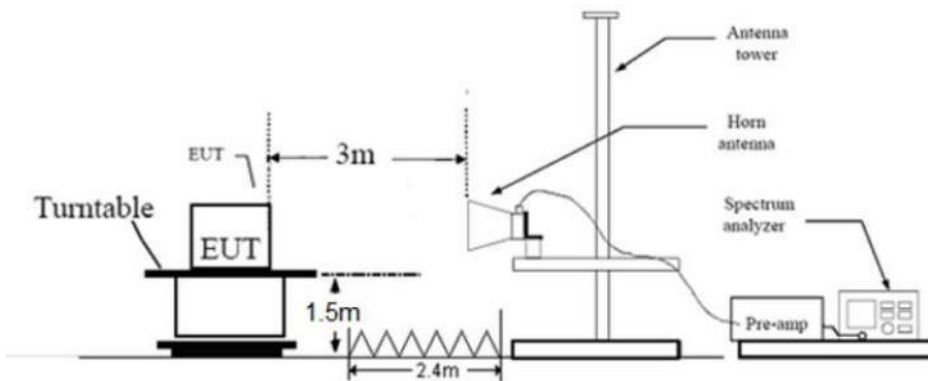
### 7.1 AC Power Line Conducted Emission test setups



### 7.2 Radiated test setups Below 1GHz



### Above 1GHz



### 7.3 Conducted RF test setups





## 8 Systems test configuration

Auxiliary Equipment Used during Test:

DESCRIPTION	MANUFACTURER	MODEL NO.(SHIELD)	S/N(LENGTH)
PC	Lenovo	X240	---

The system was configured to non-hopping mode.

Non-hopping mode: The system was configured to operate at a signal channel transmitting. The test software allows the configuration and operation at the worst-case duty and the highest transmit power. The software for power setting:

Antenna	Mode_Ch	Setting
Ant 1	11b_2412	26
Ant 1	11b_2437	22
Ant 1	11b_2462	26
Ant 1	11g_2412	26
Ant 1	11g_2437	26
Ant 1	11g_2462	26
Ant 1	11n20_2412	26
Ant 1	11n20_2437	26
Ant 1	11n20_2462	26
Ant 2	11b_2412	26
Ant 2	11b_2437	26
Ant 2	11b_2462	26
Ant 2	11g_2412	26
Ant 2	11g_2437	26
Ant 2	11g_2462	26
Ant 2	11n20_2412	26
Ant 2	11n20_2437	26
Ant 2	11n20_2462	26

## 9 Technical Requirement

### 9.1 Conducted Emission

#### Test Method

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. Both sides of AC line were checked for maximum conducted interference.
6. The frequency range from 150 kHz to 30 MHz was searched.
7. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.

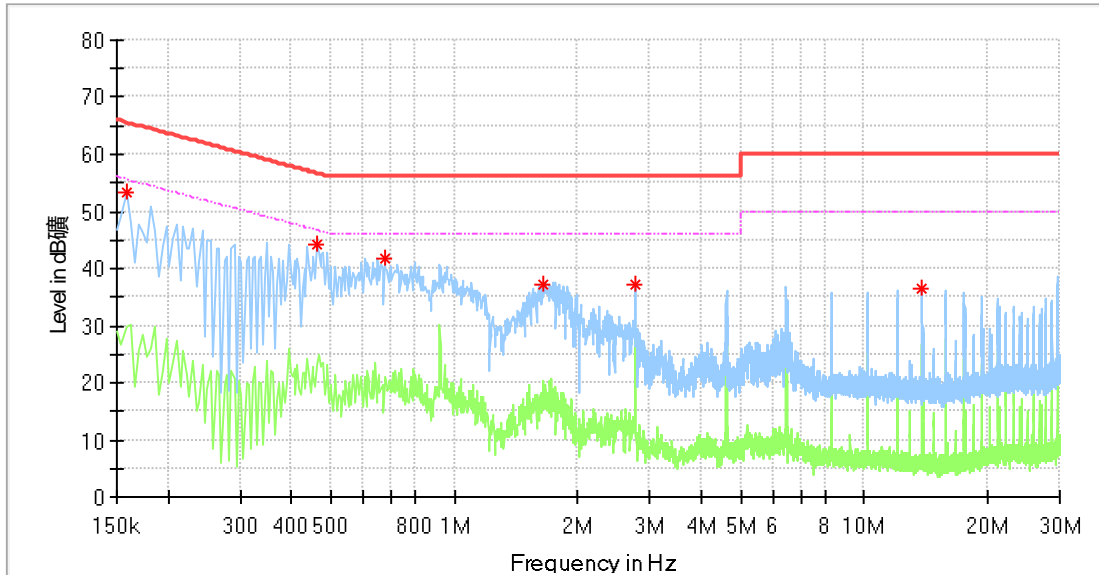
#### Limit

Frequency MHz	QP Limit dB $\mu$ V	AV Limit dB $\mu$ V
0.150-0.500	66-56*	56-46*
0.500-5	56	46
5-30	60	50

\*Decreases with the logarithm of the frequency.

## Conducted Emission

Model: CS-C6CN (4MP, W2)  
 Test mode: Normal Transmitting  
 Test Voltage: AC 120V/60Hz  
 Remark: Adapter: DYS05200CQ-E



### Critical\_Freqs

Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.158000	53.28	---	65.57	12.29	L1	9.74
0.462000	44.37	---	56.66	12.29	L1	9.65
0.674000	41.91	---	56.00	14.09	L1	9.65
1.646000	37.35	---	56.00	18.65	L1	9.68
2.766000	37.16	---	56.00	18.84	L1	9.72
13.878000	36.47	---	60.00	23.53	L1	10.18

### Final Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
---	---	---	---	---	---	---

Remark:

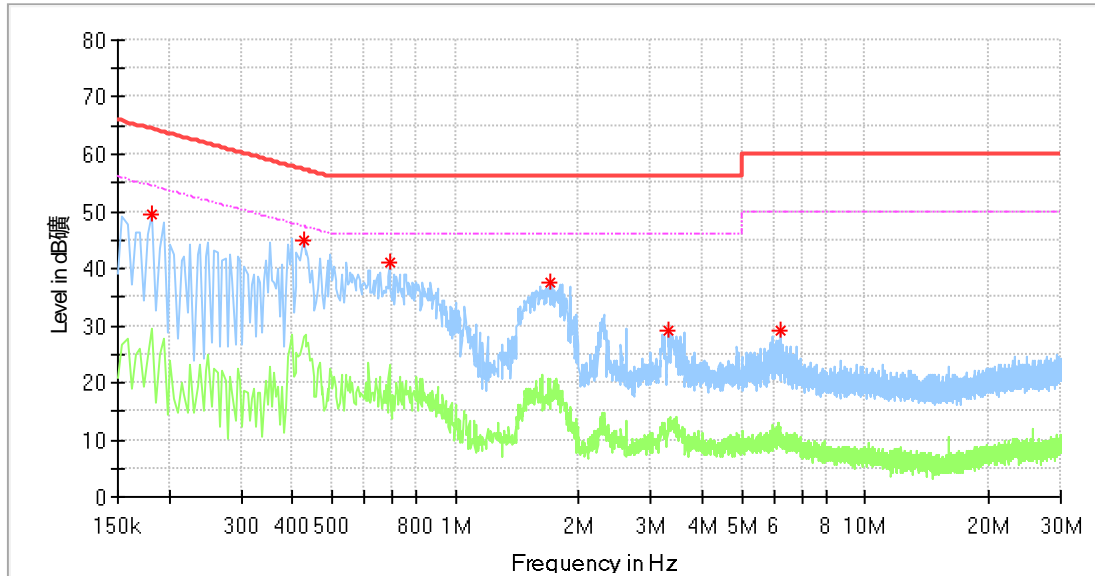
Level=Reading Level + Correction Factor

Correction Factor=Cable Loss + LISN Factor

(The Reading Level is recorded by software which is not shown in the sheet)

## Conducted Emission

Model: CS-C6CN (4MP, W2)  
 Test mode: Normal Transmitting  
 Test Voltage: AC 120V/60Hz  
 Remark: Adapter: DYS05200CQ-E



### Critical Freqs

Frequency (MHz)	MaxPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)
0.182000	49.50	---	64.39	14.89	N	9.75
0.426000	44.85	---	57.33	12.48	N	9.69
0.690000	41.10	---	56.00	14.90	N	9.68
1.694000	37.42	---	56.00	18.58	N	9.72
3.314000	29.15	---	56.00	26.85	N	9.79
6.218000	29.09	---	60.00	30.91	N	9.94

### Final Result

Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)
---	---	---	---	---	---	---

Remark:

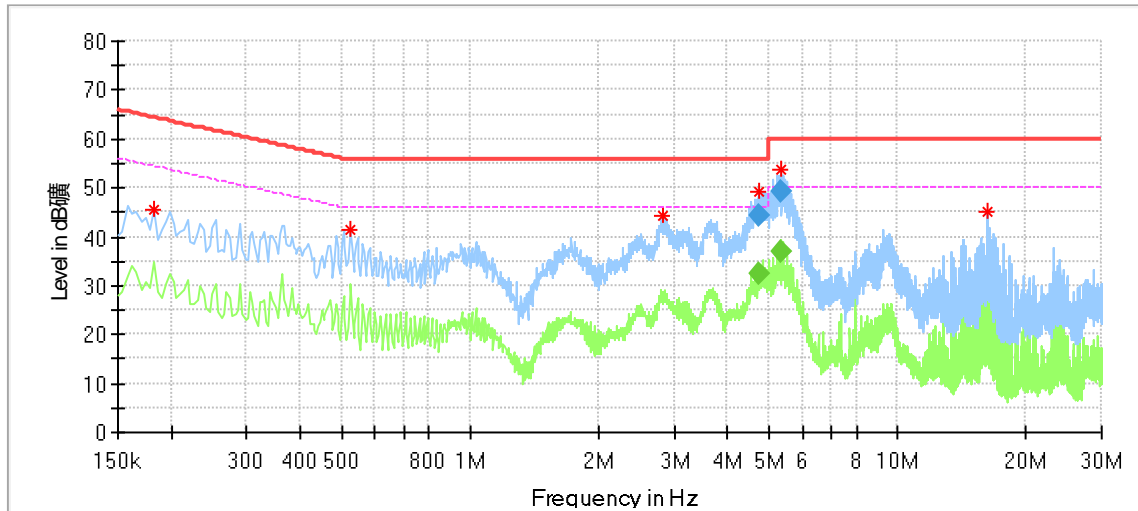
Level=Reading Level + Correction Factor

Correction Factor=Cable Loss + LISN Factor

(The Reading Level is recorded by software which is not shown in the sheet)

## Conducted Emission

Model: CS-C6CN (4MP, W2)  
 Test mode: Normal Transmitting  
 Test Voltage: AC 120V/60Hz  
 Remark: Adapter: ADS-10RH-06 05010EPB



### Critical Freqs

Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.182000	45.65	---	64.39	18.74	L1	9.25
0.526000	41.31	---	56.00	14.69	L1	9.20
2.826000	44.51	---	56.00	11.49	L1	9.25
4.749500	49.33	---	56.00	6.67	L1	9.30
5.309500	53.89	---	60.00	6.11	L1	9.32
16.230000	45.06	---	60.00	14.94	L1	9.40

### Final Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
4.749500	---	32.22	46.00	13.78	L1	9.30
4.749500	44.38	---	56.00	11.62	L1	9.30
5.309500	---	37.01	50.00	12.99	L1	9.32
5.309500	49.38	---	60.00	10.62	L1	9.32

Remark:

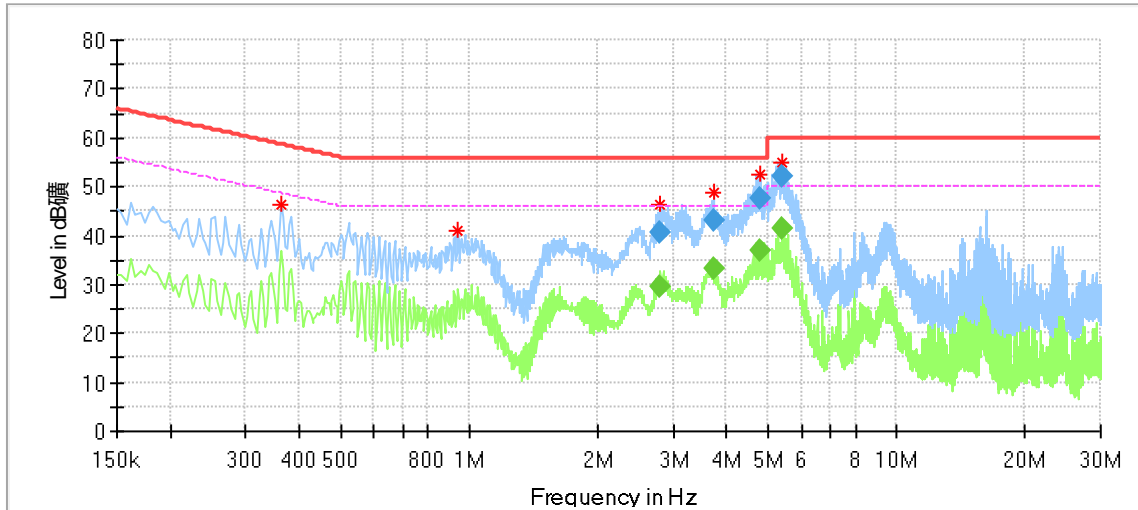
Level=Reading Level + Correction Factor

Correction Factor=Cable Loss + LISN Factor

(The Reading Level is recorded by software which is not shown in the sheet)

## Conducted Emission

Model: CS-C6CN (4MP, W2)  
 Test mode: Normal Transmitting  
 Test Voltage: AC 120V/60Hz  
 Remark: Adapter: ADS-10RH-06 05010EPB



### Critical\_Freqs

Frequency (MHz)	MaxPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)
0.362000	46.25	---	58.68	12.43	N	9.39
0.942000	41.08	---	56.00	14.92	N	9.39
2.794500	46.49	---	56.00	9.51	N	9.44
3.729500	48.65	---	56.00	7.35	N	9.46
4.809500	52.71	---	56.00	3.29	N	9.49
5.397500	54.99	---	60.00	5.01	N	9.51

### Final\_Result

Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)
2.794500	---	29.70	46.00	16.30	N	9.44
2.794500	40.42	---	56.00	15.58	N	9.44
3.729500	---	33.10	46.00	12.90	N	9.46
3.729500	43.16	---	56.00	12.84	N	9.46
4.809500	---	37.11	46.00	8.89	N	9.49
4.809500	47.55	---	56.00	8.45	N	9.49
5.397500	---	41.40	50.00	8.60	N	9.51
5.397500	52.05	---	60.00	7.95	N	9.51

Remark:

Level=Reading Level + Correction Factor

Correction Factor=Cable Loss + LISN Factor

(The Reading Level is recorded by software which is not shown in the sheet)

## 9.2 Conducted peak output power

### Test Method

1. The EUT was placed on 0.8m height table, the RF output of EUT was connected to the power meter by RF cable. The path loss was compensated to the results for each measurement.
2. Setting the highest output power level of the EUT
3. Record the power value.

### Limits

According to §15.247 (b) (3), conducted peak output power limit as below:

Frequency Range MHz	Limit W	Limit dBm
2400-2483.5	≤1	≤30

Test result as below table

802.11b\_ modulation Test Result

Frequency (MHz)	Conducted Peak Output Power (dBm)		Result
	Ant 1	Ant 2	
Low channel 2412MHz	14.0	11.4	Pass
Middle channel 2437MHz	12.0	11.3	Pass
High channel 2462MHz	13.9	11.6	Pass

802.11g\_ modulation Test Result

Frequency (MHz)	Conducted Peak Output Power (dBm)		Result
	Ant 1	Ant 2	
Low channel 2412MHz	13.8	11.8	Pass
Middle channel 2437MHz	13.9	11.2	Pass
High channel 2462MHz	14.0	11.6	Pass

802.11n20\_ modulation Test Result

Frequency (MHz)	Conducted Peak Output Power (dBm)			Result
	Ant 1	Ant 2	MIMO	
Low channel 2412MHz	13.6	11.2	15.57	Pass
Middle channel 2437MHz	13.8	11.1	15.67	Pass
High channel 2462MHz	13.8	11.4	15.77	Pass

### 9.3 6dB bandwidth and 99% Occupied Bandwidth

#### Test Method for 6 dB Bandwidth

1. Use the following spectrum analyzer settings:  
RBW=100K, VBW $\geq$ 3RBW, Sweep = auto, Detector function = peak, Trace = max hold
2. Use the automatic bandwidth measurement capability of an instrument, may be employed using the X dB bandwidth mode with X set to 6 dB, care shall be taken so that the bandwidth measurement is not influenced by any intermediate power nulls in the fundamental emission that might be  $\geq$  6 dB.
3. Allow the trace to stabilize, record the X dB Bandwidth value.

#### Test Method for 99 % Bandwidth

1. Use the following spectrum analyzer settings:  
RBW=1% to 5% of the actual occupied, VBW $\geq$ 3RBW, Sweep = auto, Detector function = peak, Trace = max hold
2. Use the automatic bandwidth measurement capability of an instrument, care shall be taken so that the bandwidth measurement is not influenced by any intermediate power nulls in the fundamental emission that might be  $\geq$  6 dB.
3. Allow the trace to stabilize, record the X dB Bandwidth value.

#### Limit

Limit [kHz]

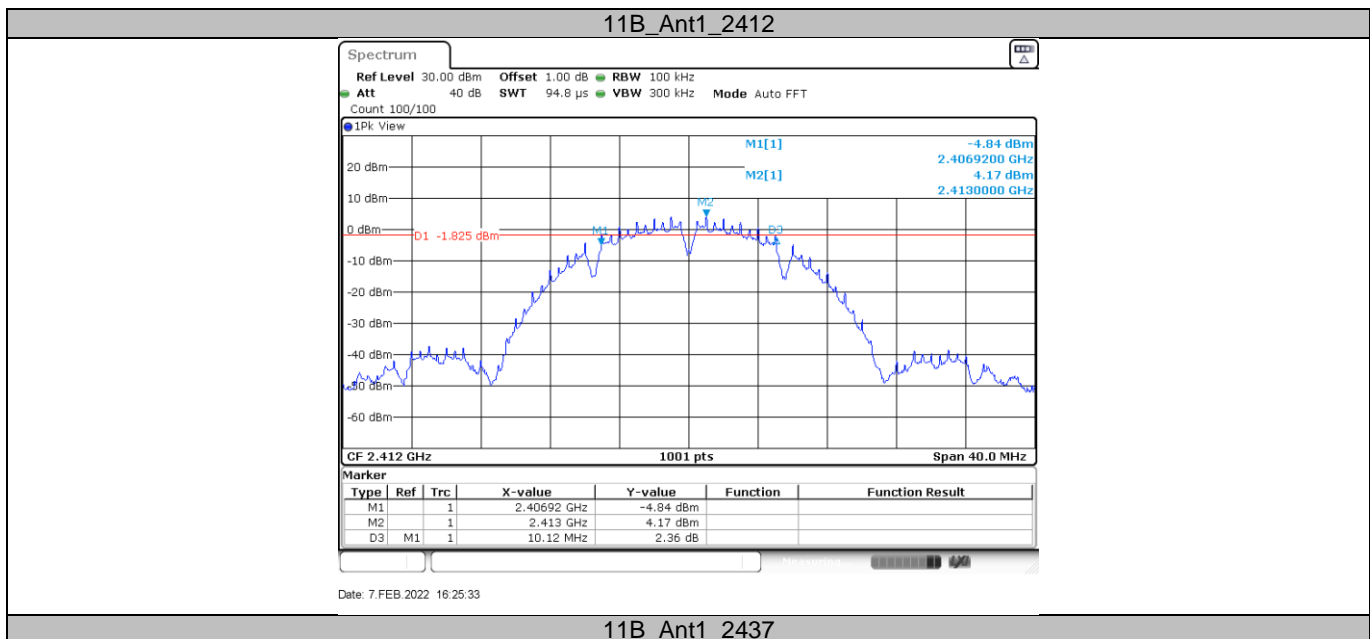
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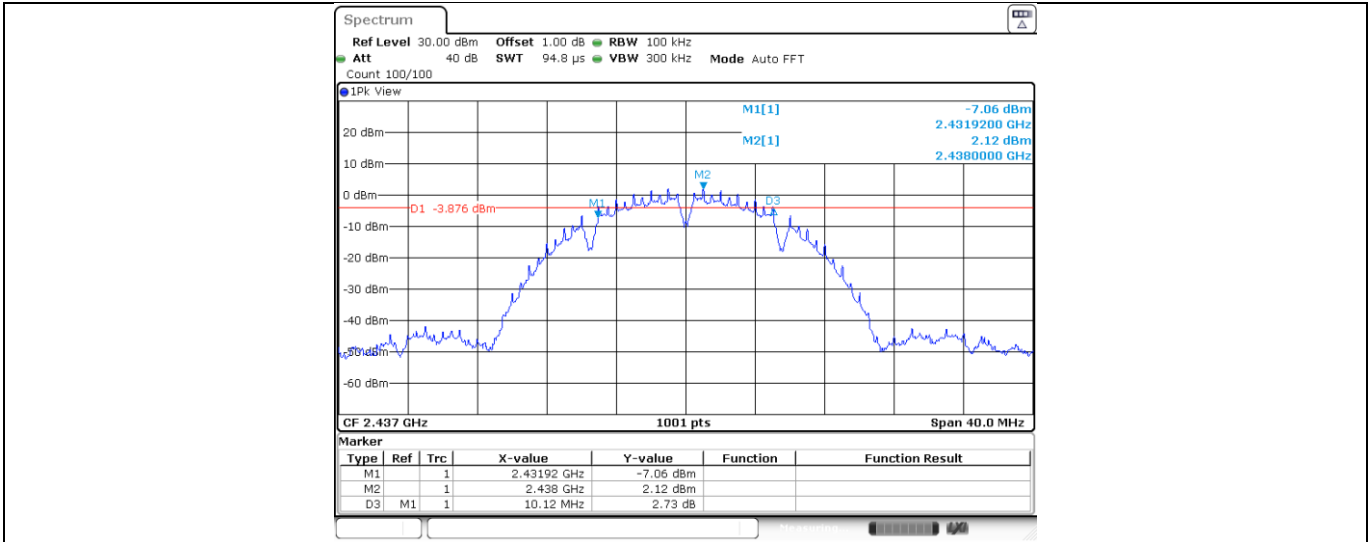
$\geq$ 500



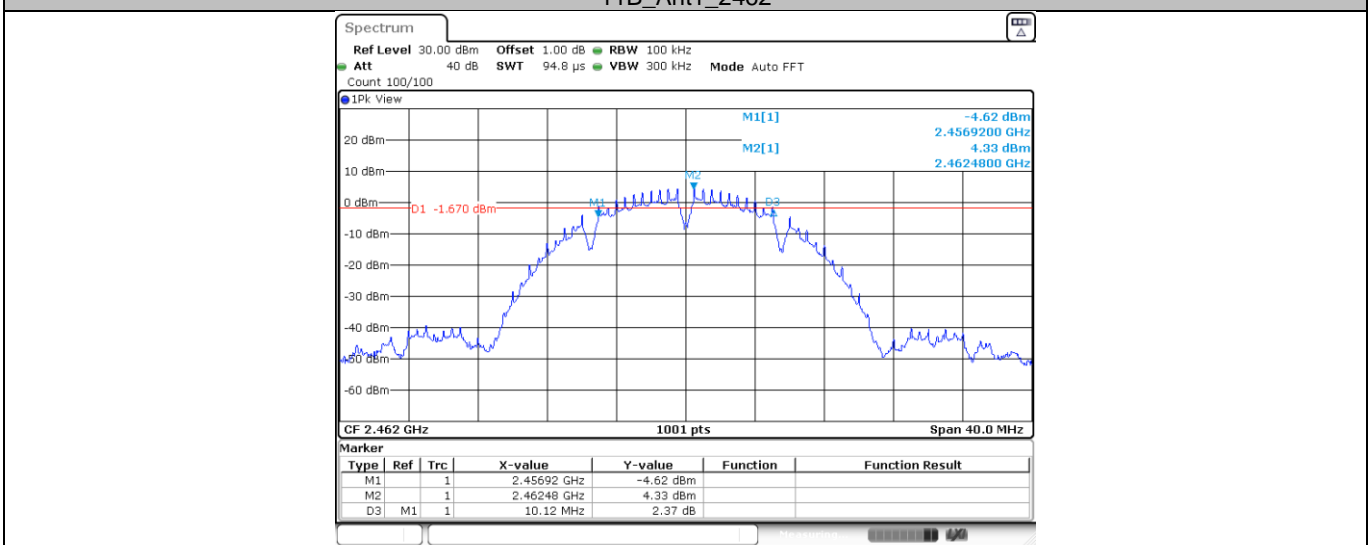
### 6dB Bandwidth

TestMode	Antenna	Channel [MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit [MHz]	Verdict
11B	Ant1	2412	10.120	2406.920	2417.040	0.5	PASS
	Ant1	2437	10.120	2431.920	2442.040	2437	10.120
	Ant1	2462	10.120	2456.920	2467.040	0.5	PASS
11G	Ant1	2412	15.760	2403.840	2419.600	0.5	PASS
	Ant1	2437	15.800	2428.800	2444.600	0.5	PASS
	Ant1	2462	15.800	2453.800	2469.600	0.5	PASS
11N20	Ant1	2412	15.200	2404.400	2419.600	0.5	PASS
	Ant1	2437	15.200	2429.400	2444.600	0.5	PASS
	Ant1	2462	15.200	2454.400	2469.600	0.5	PASS
TestMode	Antenna	Channel [MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit [MHz]	Verdict
11B	Ant2	2412	9.120	2407.920	2417.040	0.5	PASS
	Ant2	2437	9.120	2432.920	2442.040	0.5	PASS
	Ant2	2462	10.080	2456.960	2467.040	0.5	PASS
11G	Ant2	2412	15.200	2404.400	2419.600	0.5	PASS
	Ant2	2437	15.800	2429.400	2445.200	0.5	PASS
	Ant2	2462	16.320	2453.840	2470.160	0.5	PASS
11N20	Ant2	2412	15.200	2404.400	2419.600	0.5	PASS
	Ant2	2437	15.200	2429.400	2444.600	0.5	PASS
	Ant2	2462	15.200	2454.400	2469.600	0.5	PASS



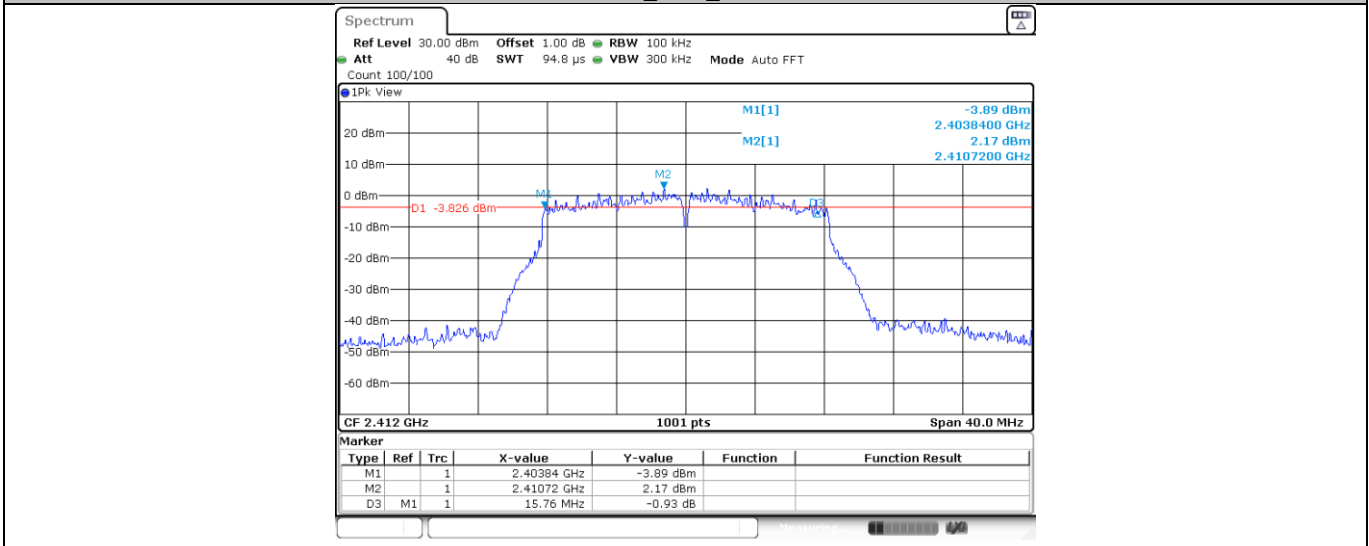


11B\_Ant1\_2462



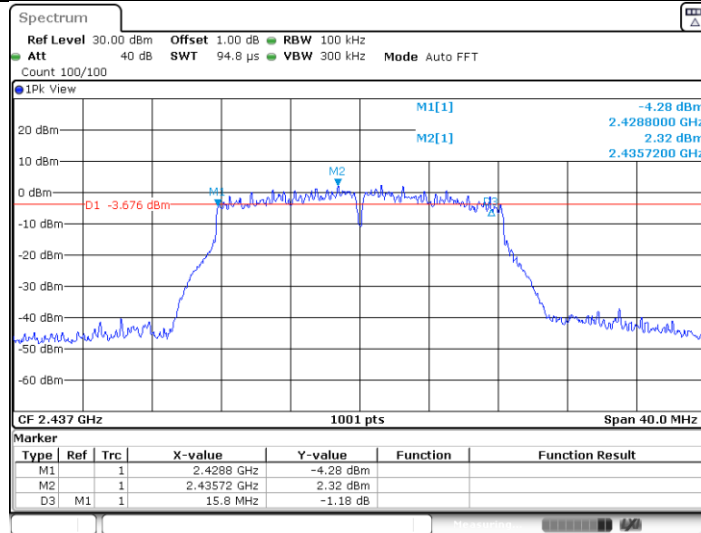
Date: 7.FEB.2022 16:29:55

11G\_Ant1\_2412



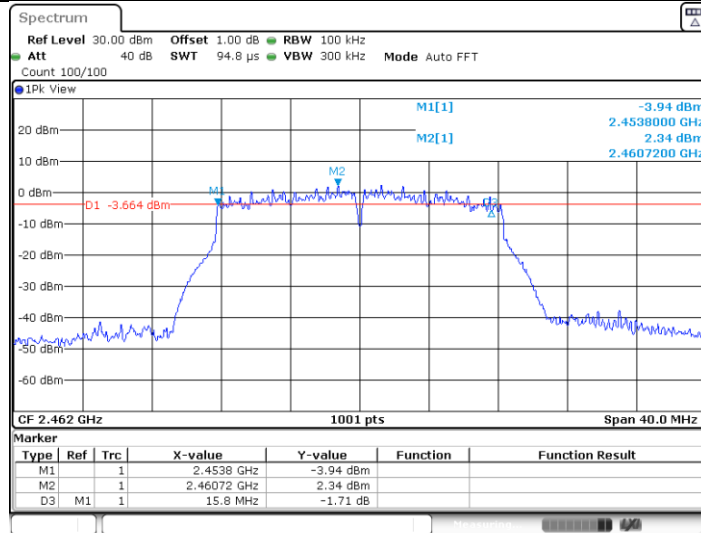
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11G\_Ant1\_2437



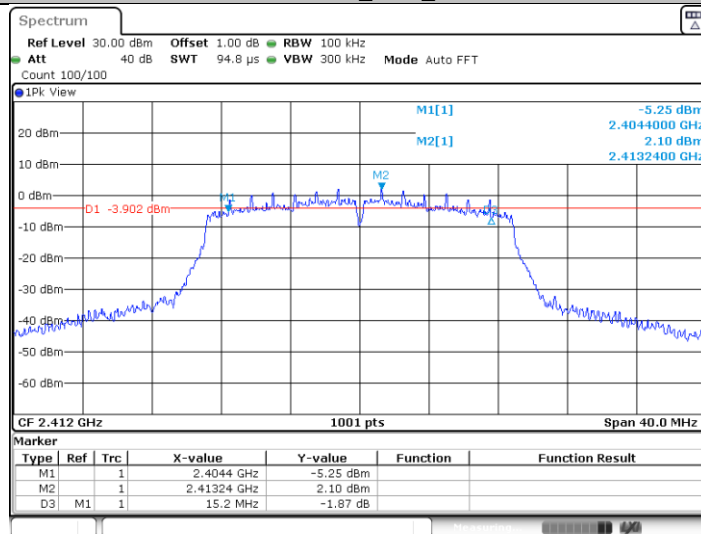
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11G\_Ant1\_2462



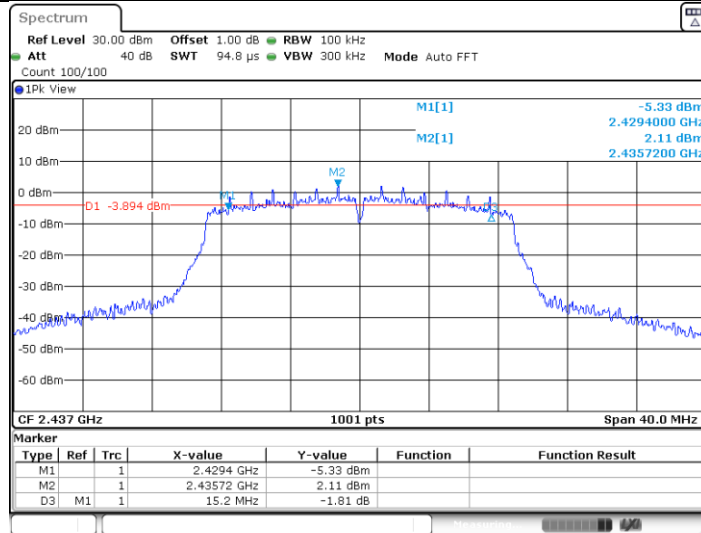
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11N20SISO\_Ant1\_2412



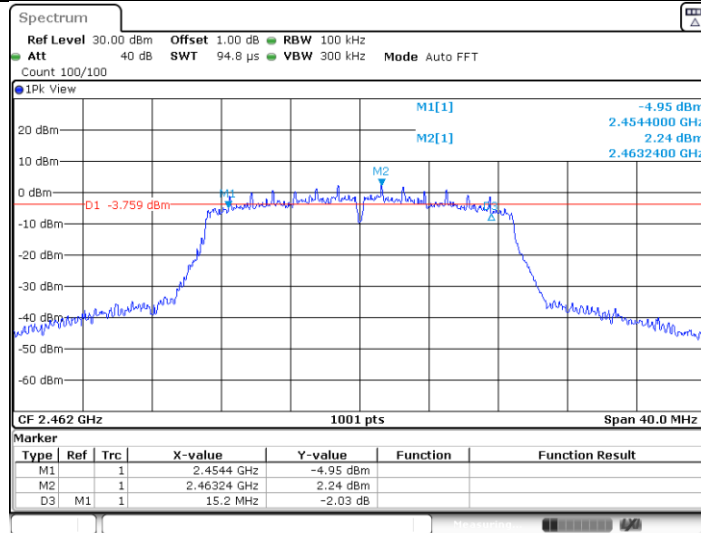
Date: 7.FEB.2022 16:40:51

11N20SISO\_Ant1\_2437



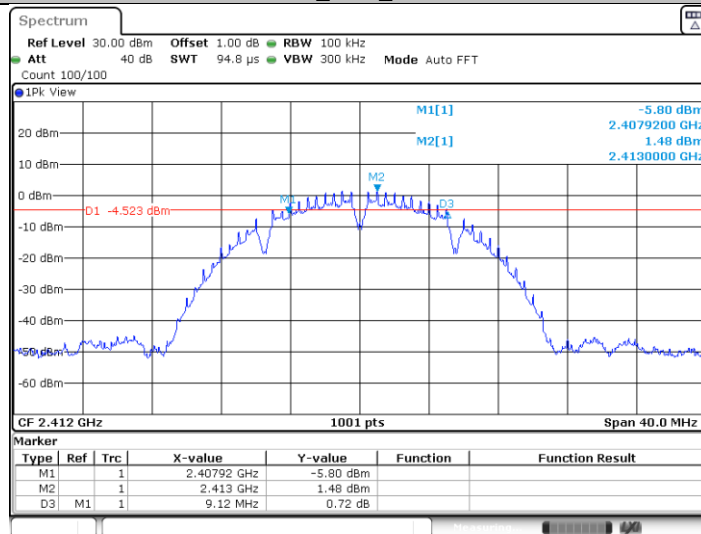
Date: 7.FEB.2022 16:44:10

11N20SISO\_Ant1\_2462



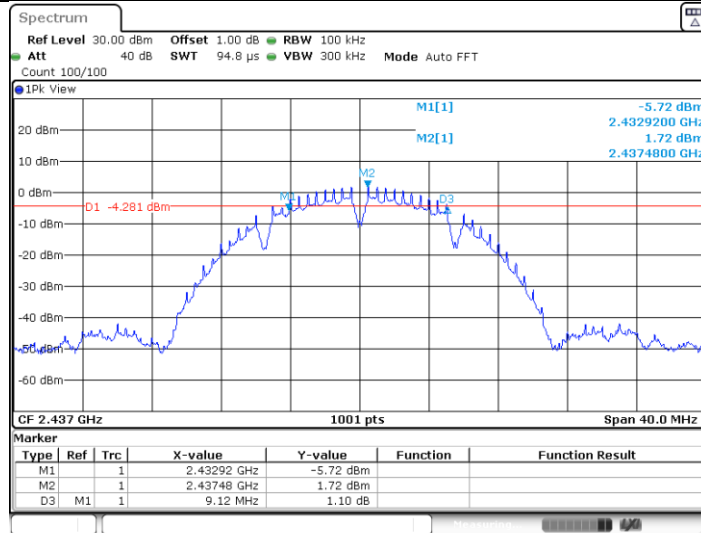
Date: 7.FEB.2022 16:47:12

11B\_Ant2\_2412



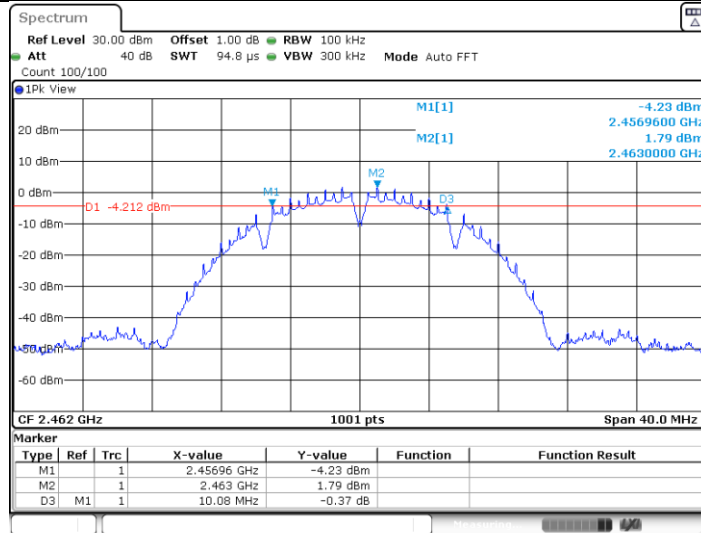
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11B\_Ant2\_2437



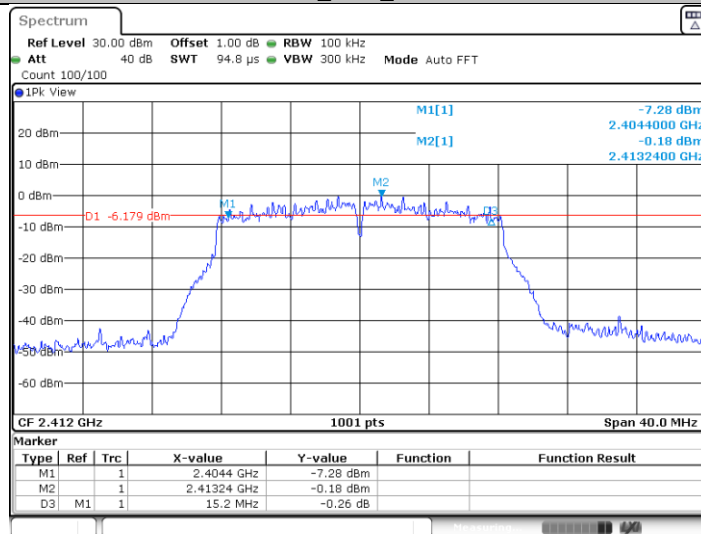
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11B\_Ant2\_2462



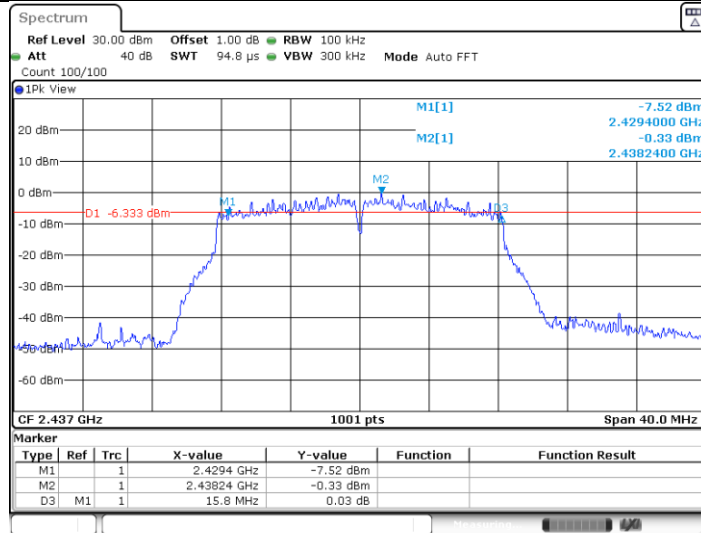
Date: 7.FEB.2022 15:55:23

11G\_Ant2\_2412



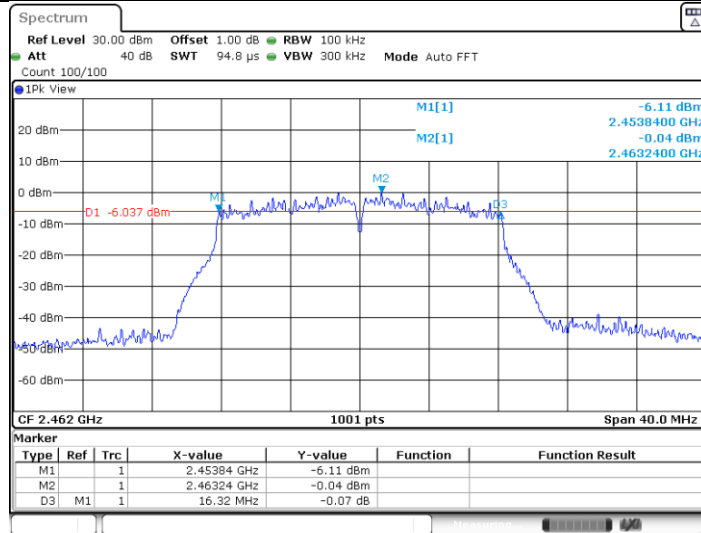
Date: 7.FEB.2022 16:02:38

11G\_Ant2\_2437



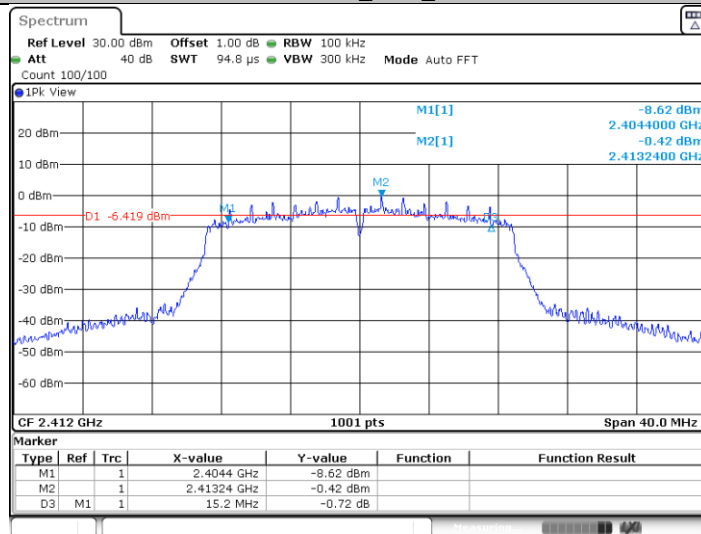
Date: 7.FEB.2022 16:05:26

11G\_Ant2\_2462



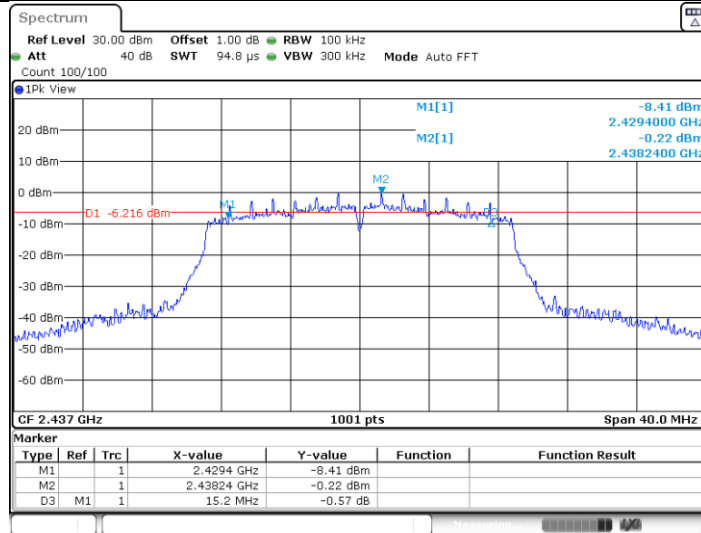
Date: 7.FEB.2022 16:07:24

11N20SISO\_Ant2\_2412



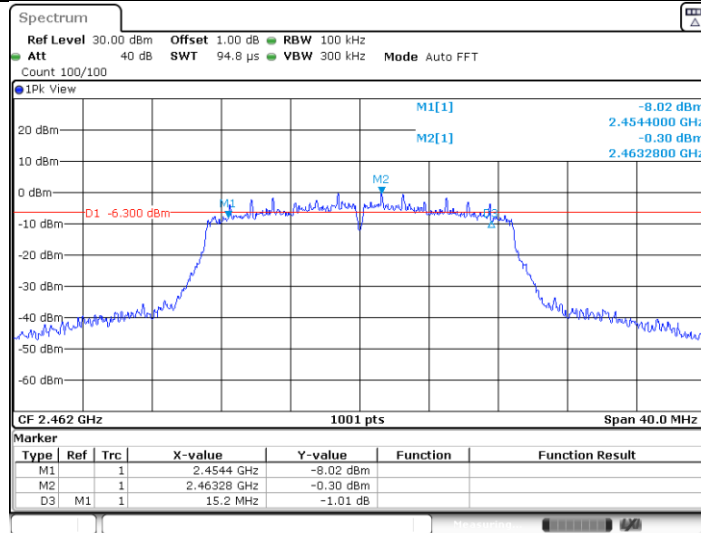
Date: 7.FEB.2022 16:09:34

11N20SISO\_Ant2\_2437



Date: 7.FEB.2022 16:11:32

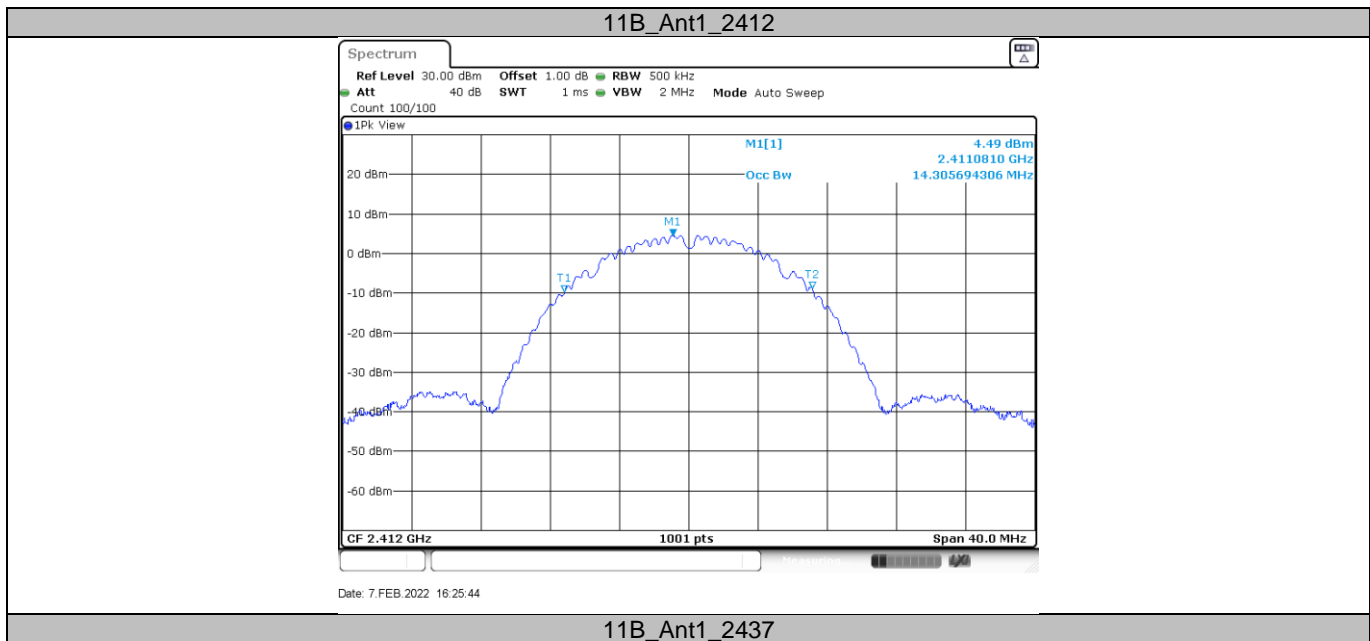
11N20SISO\_Ant2\_2462



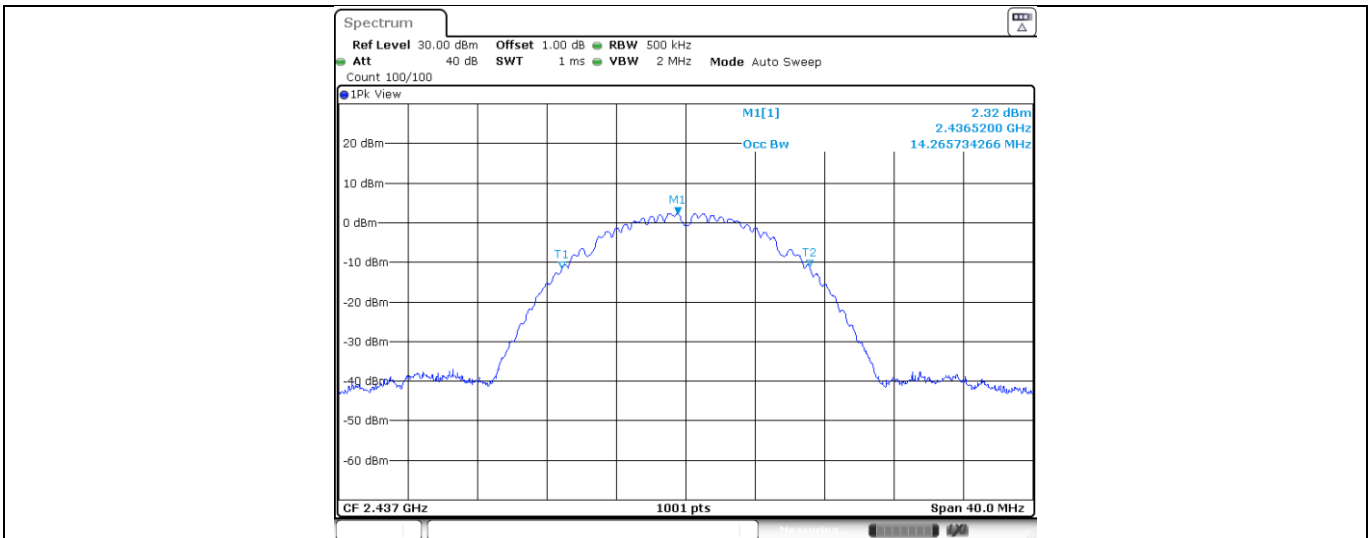
Date: 7.FEB.2022 16:13:11

**99% Bandwidth**

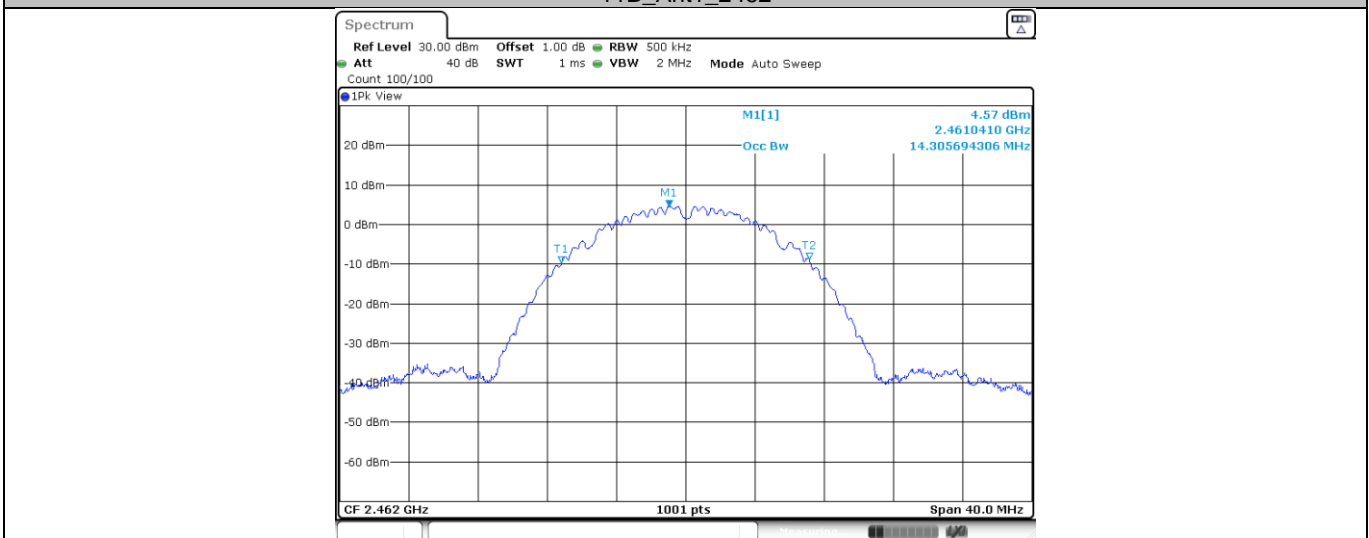
TestMode	Antenna	Channel [MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	14.306	2404.807	2419.113	---	PASS
		2437	14.266	2429.847	2444.113	---	PASS
		2462	14.306	2454.807	2469.113	---	PASS
11G	Ant1	2412	16.823	2403.648	2420.472	---	PASS
		2437	16.863	2428.608	2445.472	---	PASS
		2462	16.783	2453.648	2470.432	---	PASS
11N20SISO	Ant1	2412	17.902	2403.009	2420.911	---	PASS
		2437	17.982	2427.969	2445.951	---	PASS
		2462	17.942	2453.049	2470.991	---	PASS
TestMode	Antenna	Channel [MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant2	2412	14.266	2404.927	2419.193	---	PASS
		2437	14.306	2429.887	2444.193	---	PASS
		2462	14.306	2454.887	2469.193	---	PASS
11G	Ant2	2412	16.823	2403.688	2420.511	---	PASS
		2437	16.863	2428.648	2445.511	---	PASS
		2462	16.863	2453.648	2470.511	---	PASS
11N20SISO	Ant2	2412	17.982	2403.049	2421.031	---	PASS
		2437	17.982	2428.049	2446.031	---	PASS
		2462	17.942	2453.049	2470.991	---	PASS





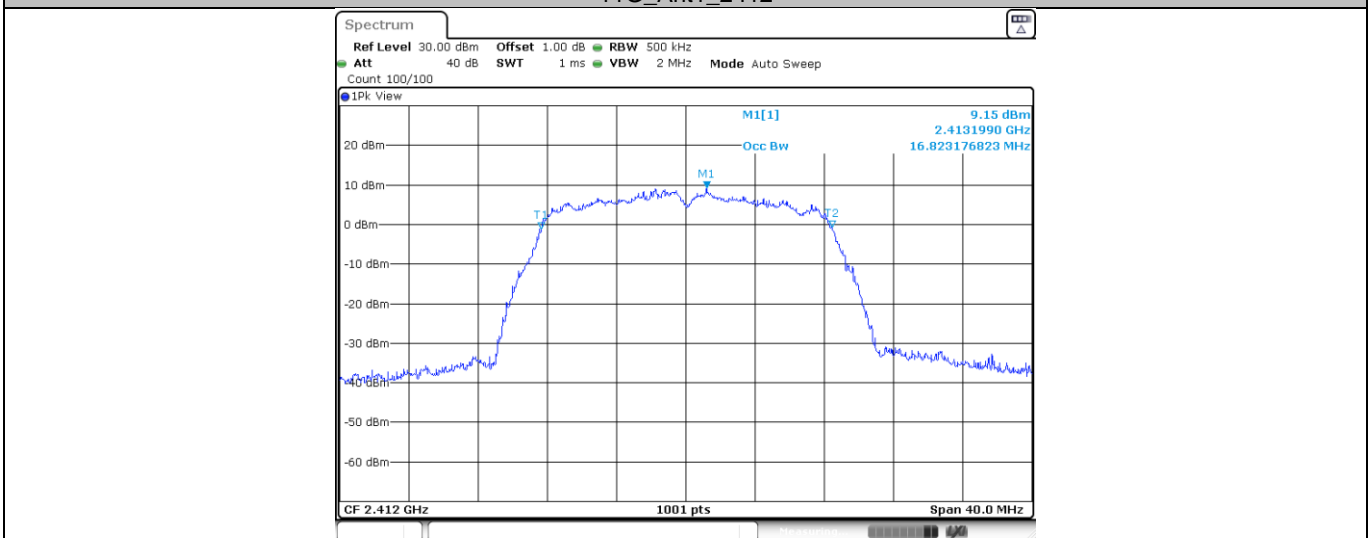


11B\_Ant1\_2462



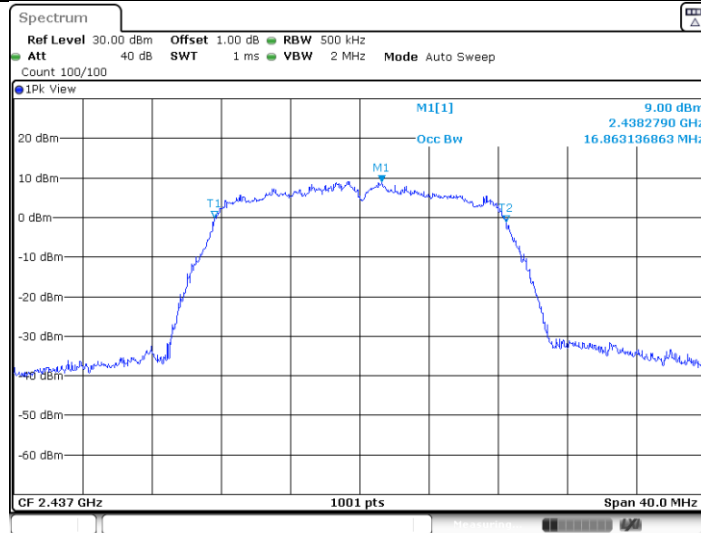
Date: 7.FEB.2022 16:30:06

11G\_Ant1\_2412



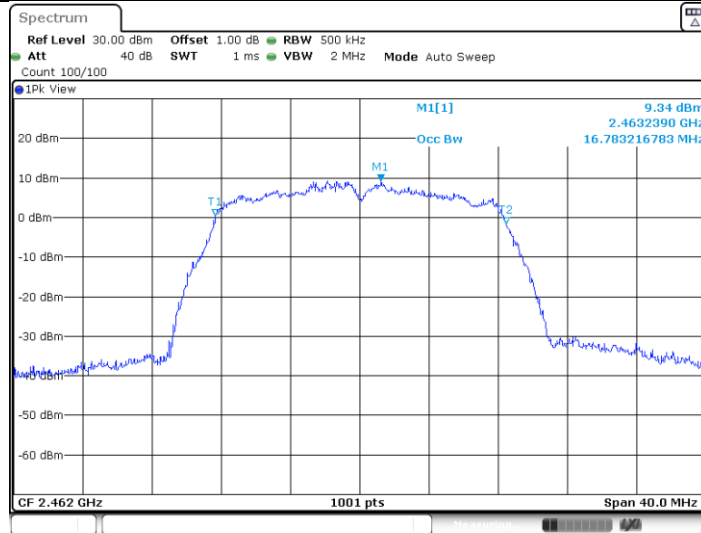
Date: 7.FEB.2022 16:32:17

11G\_Ant1\_2437



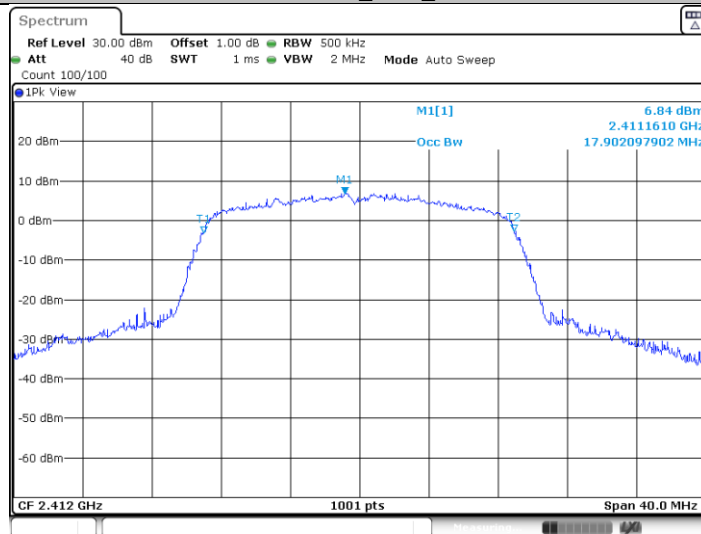
Date: 7.FEB.2022 16:36:10

11G\_Ant1\_2462



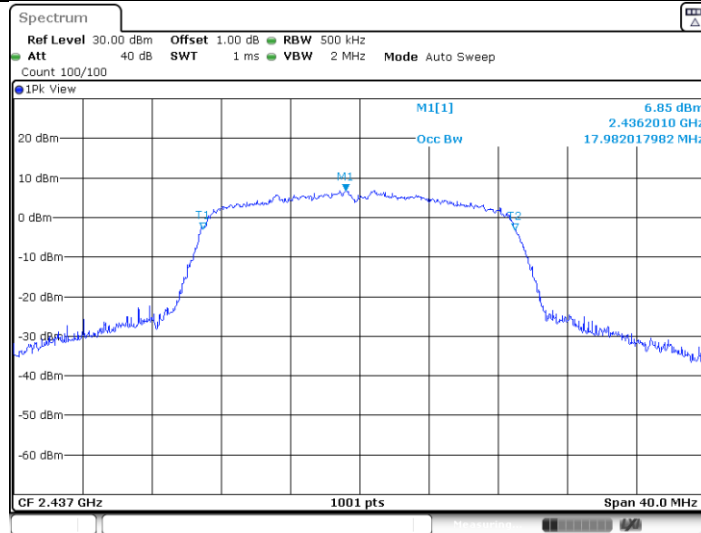
Date: 7.FEB.2022 16:38:32

11N20SISO\_Ant1\_2412



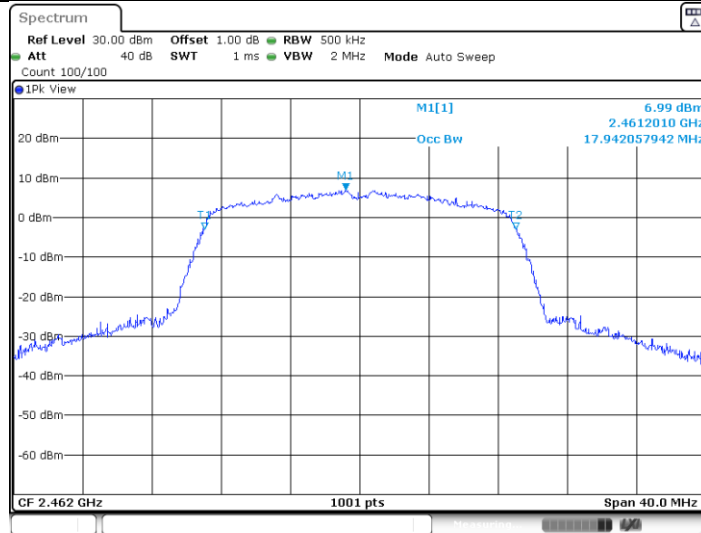
Date: 7.FEB.2022 16:41:02

11N20SISO\_Ant1\_2437



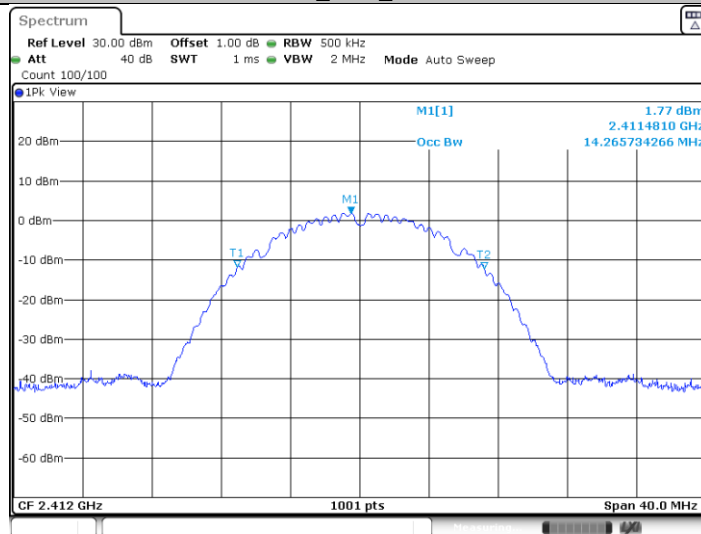
Date: 7.FEB.2022 16:44:21

11N20SISO\_Ant1\_2462



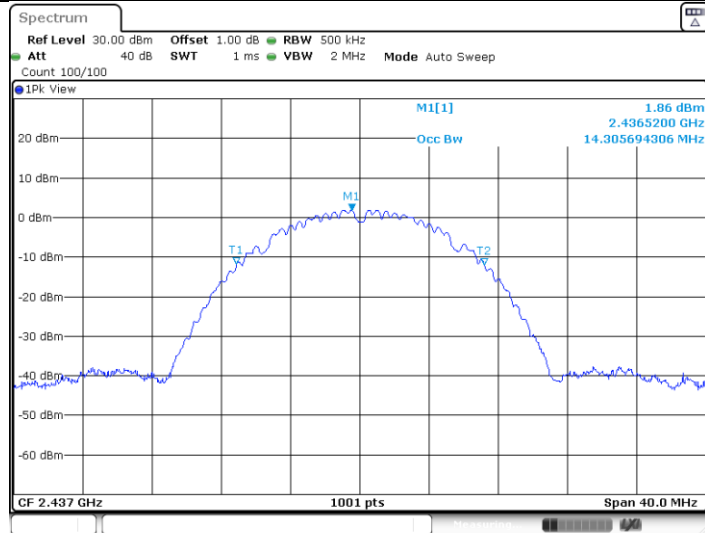
Date: 7.FEB.2022 16:47:23

11B\_Ant2\_2412



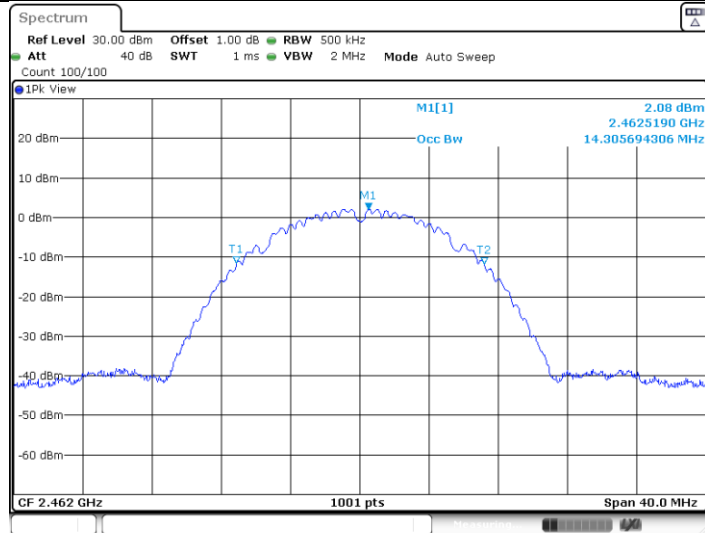
Date: 7.FEB.2022 15:48:36

11B\_Ant2\_2437



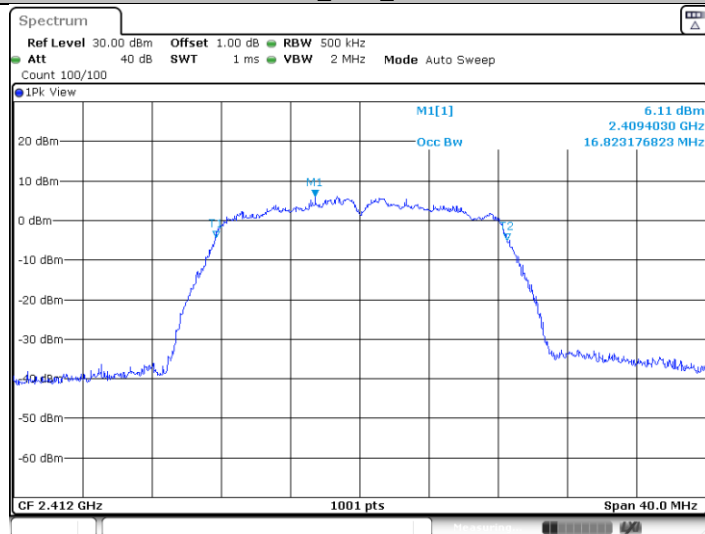
Date: 7.FEB.2022 15:53:30

11B\_Ant2\_2462



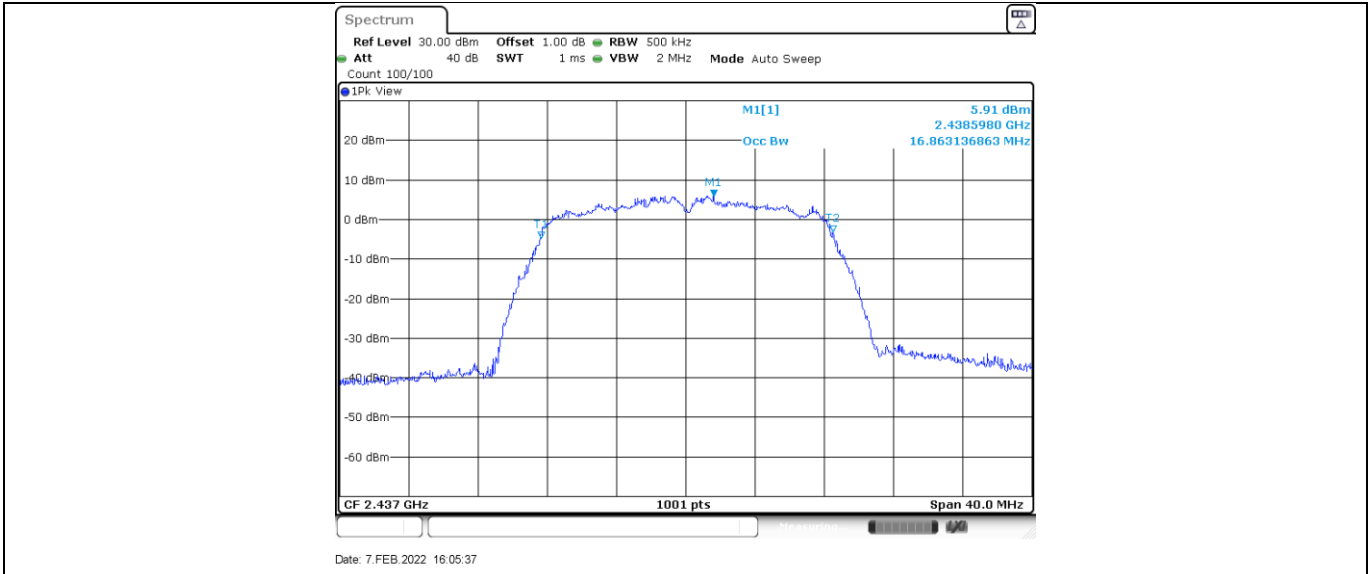
Date: 7.FEB.2022 15:55:34

11G\_Ant2\_2412

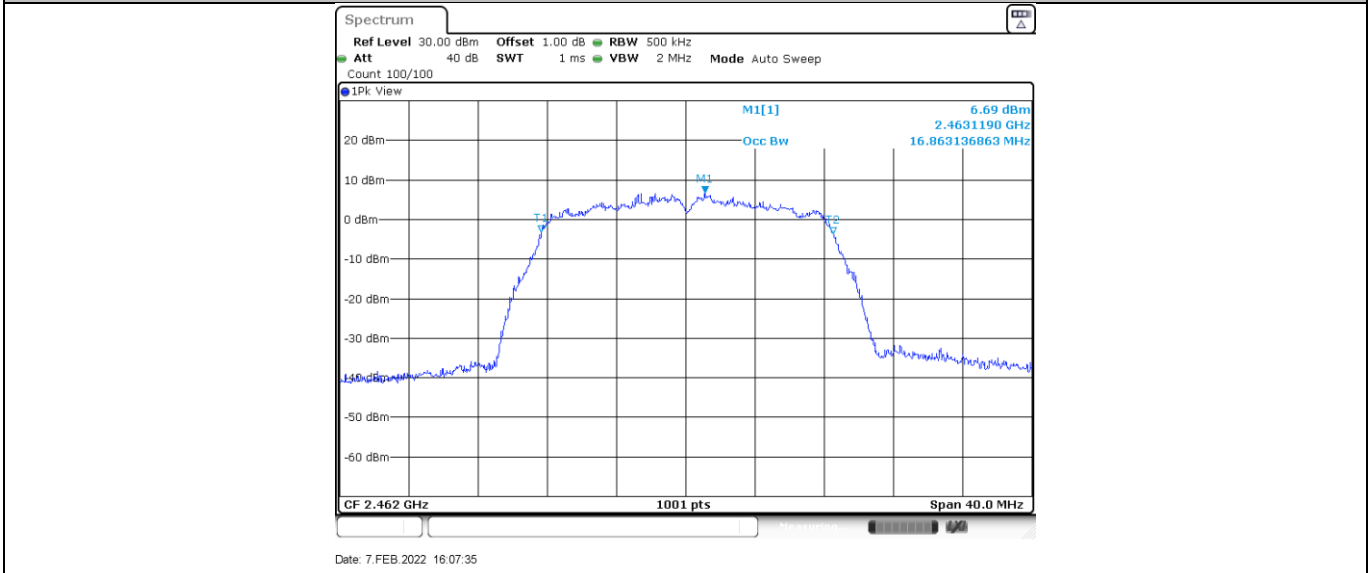


Date: 7.FEB.2022 16:02:48

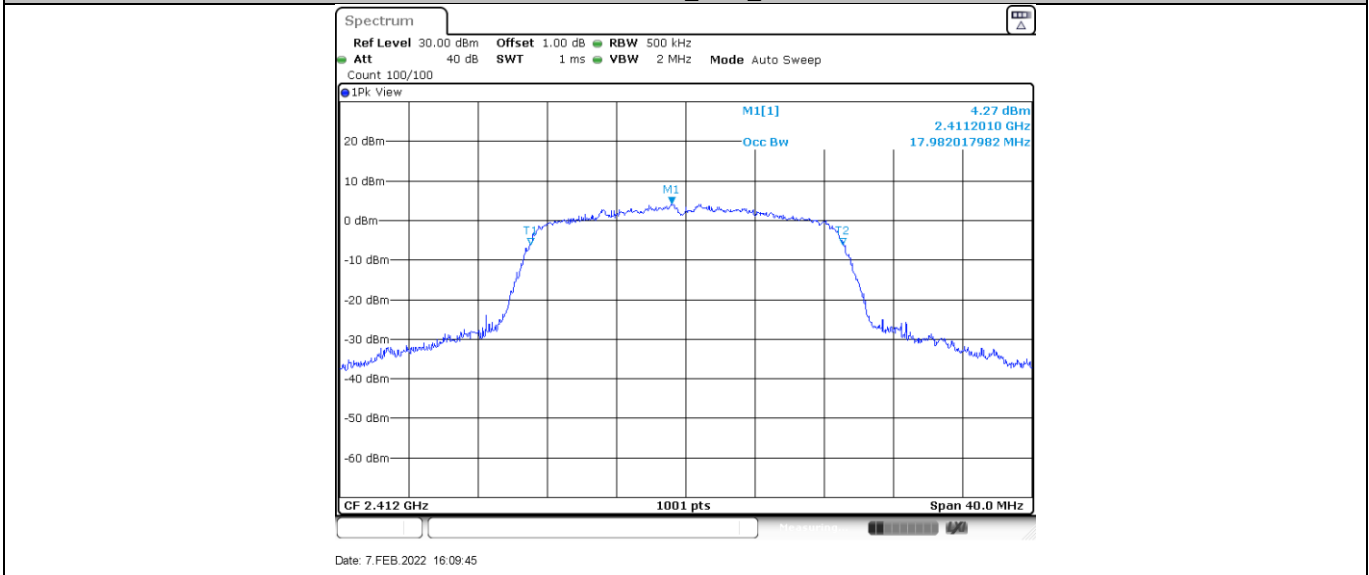
11G\_Ant2\_2437



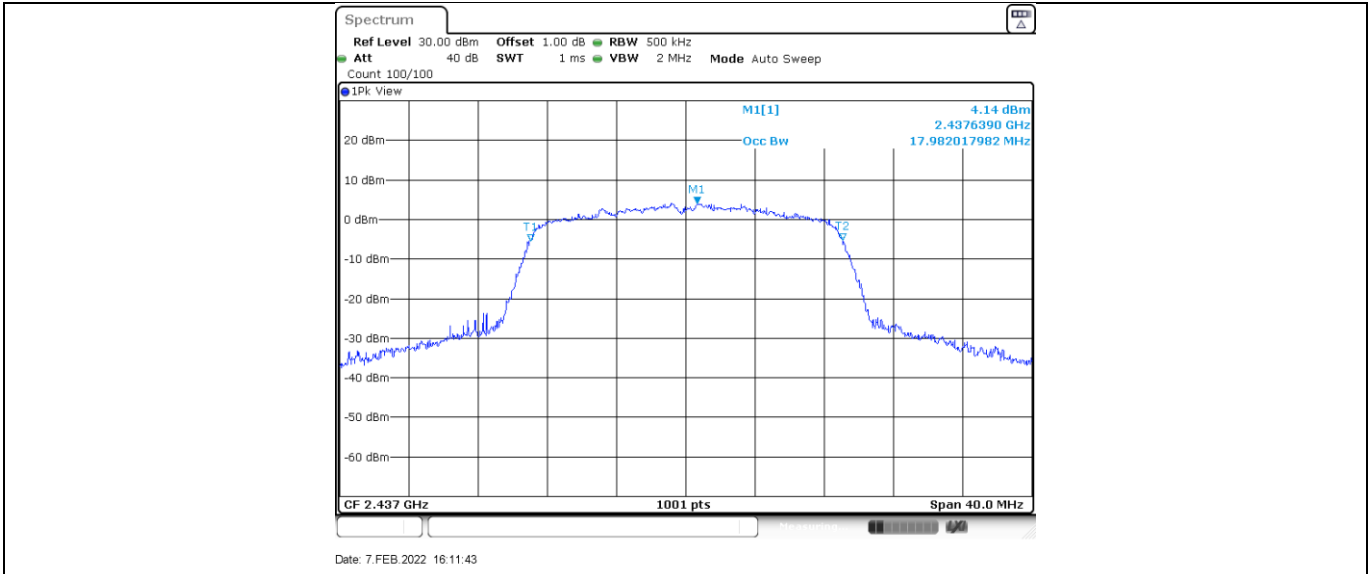
11G\_Ant2\_2462



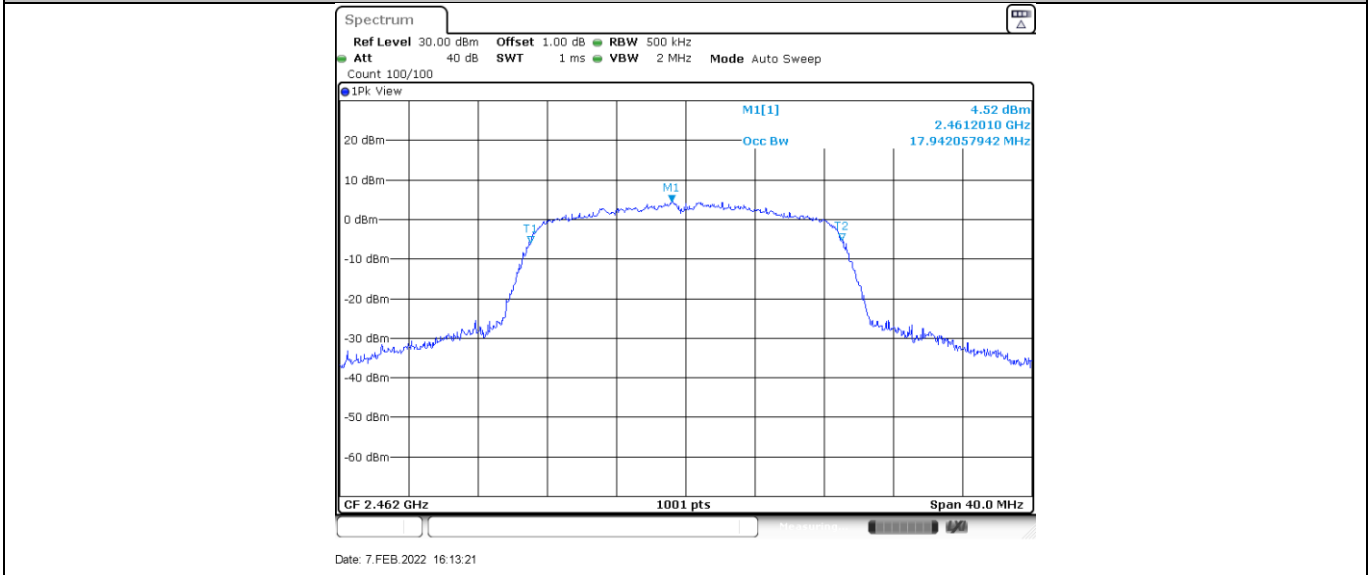
11N20SISO\_Ant2\_2412



11N20SISO\_Ant2\_2437



11N20SISO\_Ant2\_2462



## 9.4 Power spectral density

### Test Method

This procedure shall be used if maximum peak conducted output power was used to demonstrate compliance:

1. The RF output of EUT was connected to the test receiver by RF cable. The path loss was compensated to the results for each measurement.
2. Set analyzer center frequency to DTS channel center frequency. RBW=3kHz, VBW $\geq$ 3RBW, Span=1.5 times DTS bandwidth, Detector=Peak, Sweep=auto, Trace= max hold.
3. Allow trace to fully stabilize, use the peak marker function to determine the maximum amplitude level within the RBW.
4. Repeat above procedures until other frequencies measured were completed.

### Limit

Limit [dBm/3KHz

$\leq 8$

#### 802.11b modulation Test Result

Frequency (MHz)	Power spectral density (dBm/3KHz)		Limit (dBm)	Result
	Ant 1	Ant 2		
Low channel 2412MHz	4.27	0.92	8	Pass
Middle channel 2437MHz	2.10	1.57	8	Pass
High channel 2462MHz	4.13	0.07	8	Pass

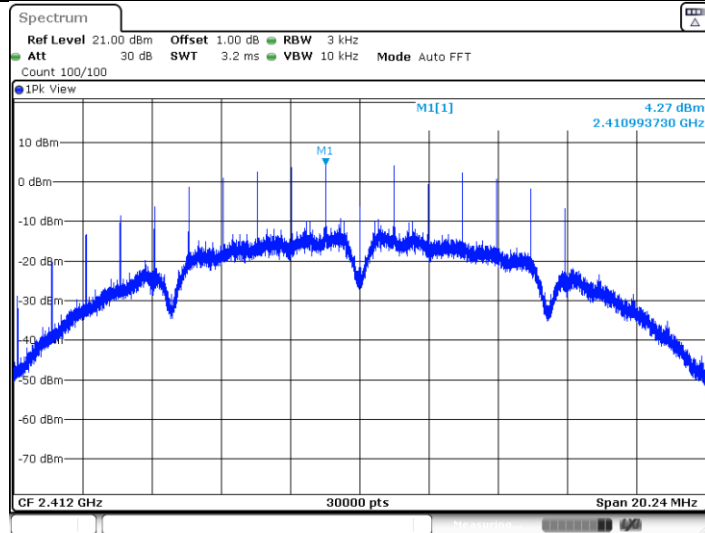
#### 802.11g modulation Test Result

Frequency (MHz)	Power spectral density (dBm/3KHz)		Limit (dBm)	Result
	Ant 1	Ant 2		
Low channel 2412MHz	-12.59	-13.83	8	Pass
Middle channel 2437MHz	-10.17	-14.05	8	Pass
High channel 2462MHz	-12.3	-14.69	8	Pass

#### 802.11n\_HT20 modulation Test Result

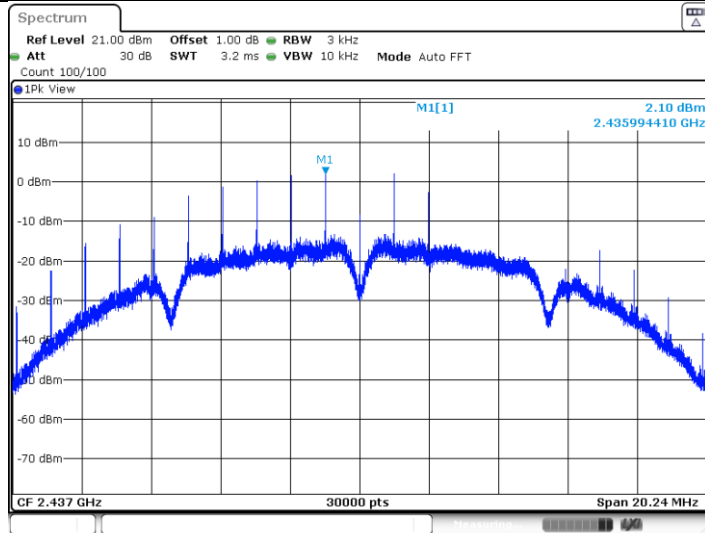
Frequency (MHz)	Power spectral density (dBm/3KHz)			Limit (dBm)	Result
	Ant 1	Ant 2	MiMO		
Low channel 2412MHz	-12.3	-14.46	-10.24	8	Pass
Middle channel 2437MHz	-12.57	-15.2	-10.68	8	Pass
High channel 2462MHz	-12.91	-14.63	-10.68	8	Pass

11B\_Ant1\_2412

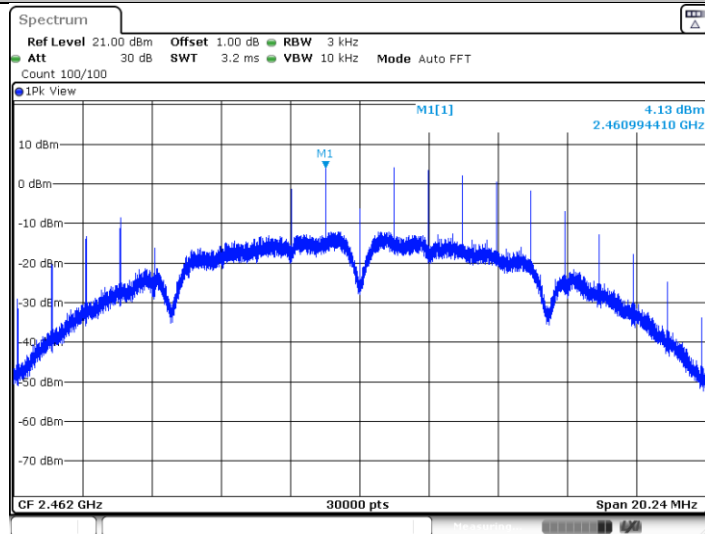


Date: 7.FEB.2022 16:25:56

11B\_Ant1\_2437



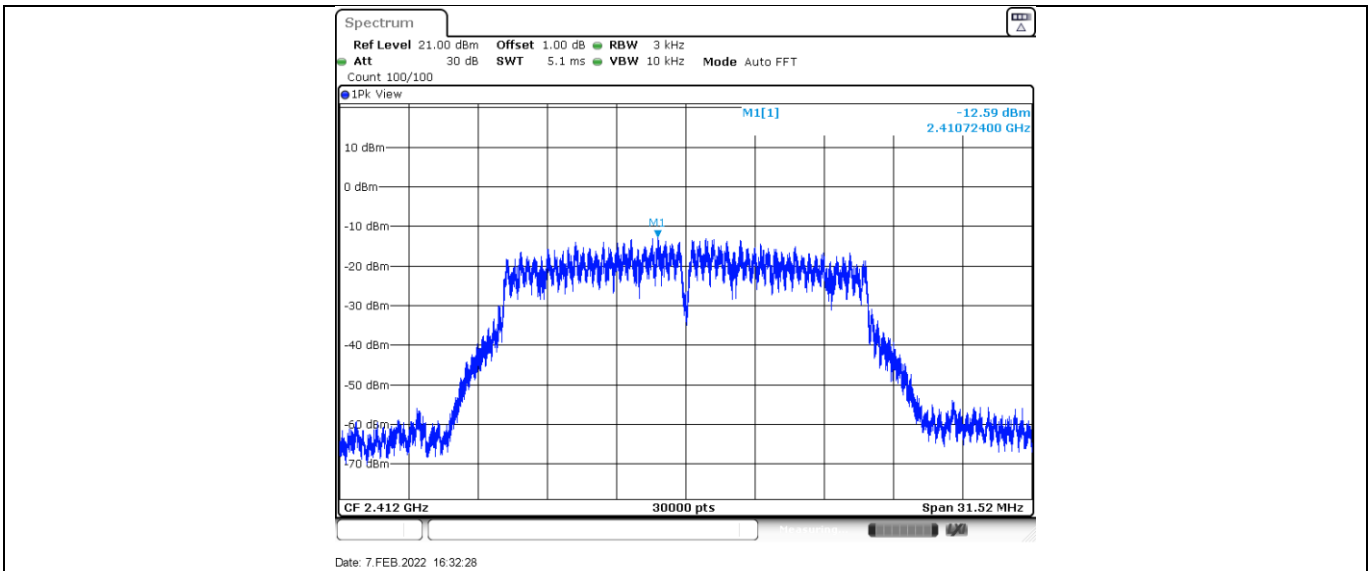
11B\_Ant1\_2462



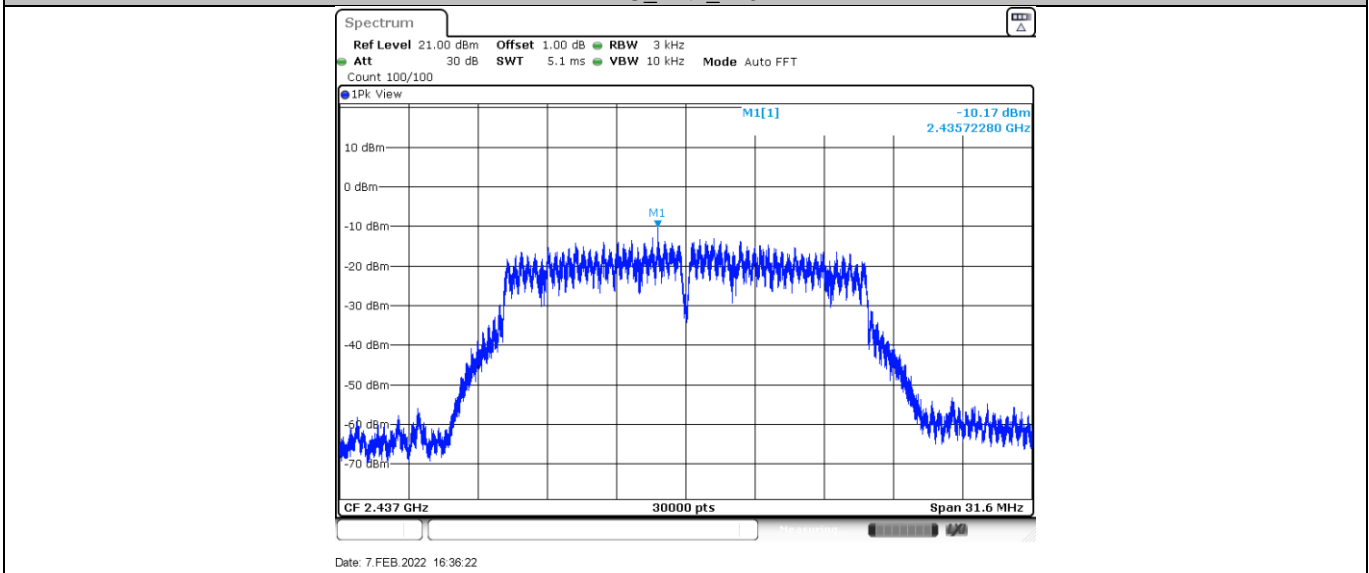
Date: 7.FEB.2022 16:30:17

11G\_Ant1\_2412

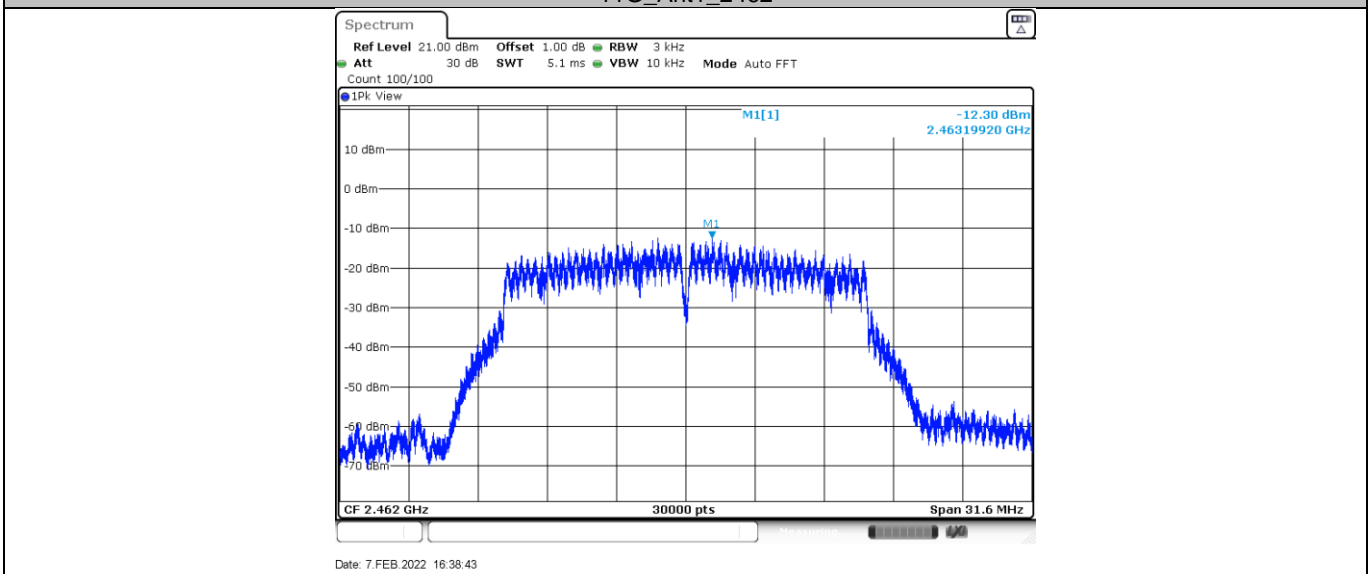




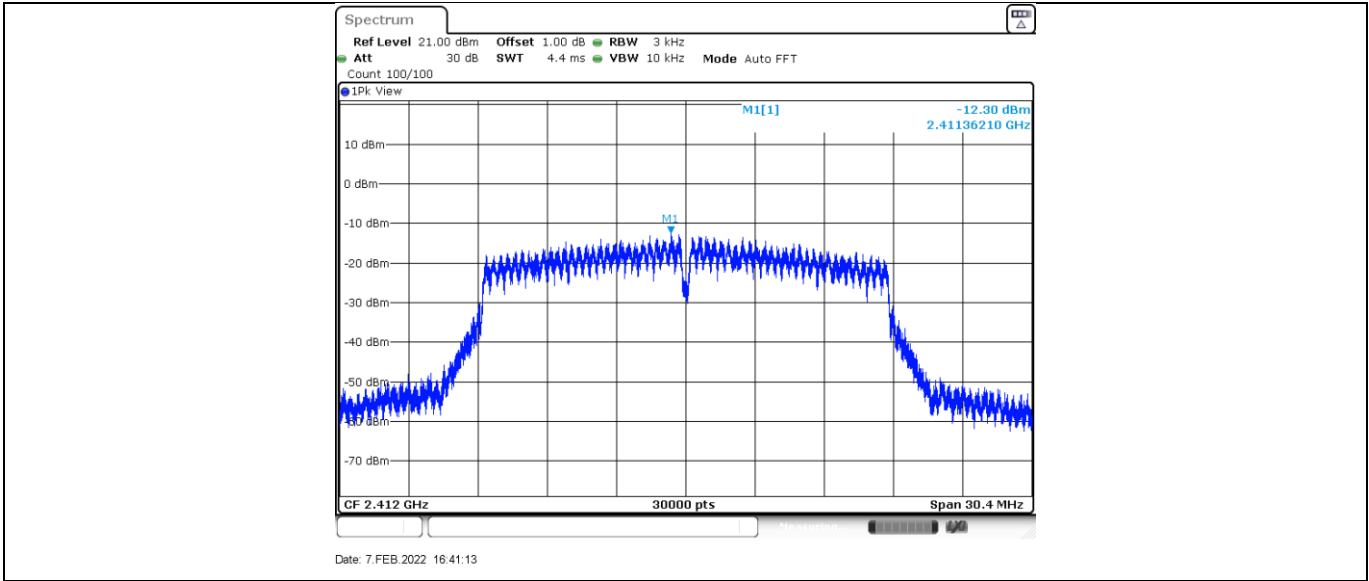
11G\_Ant1\_2437



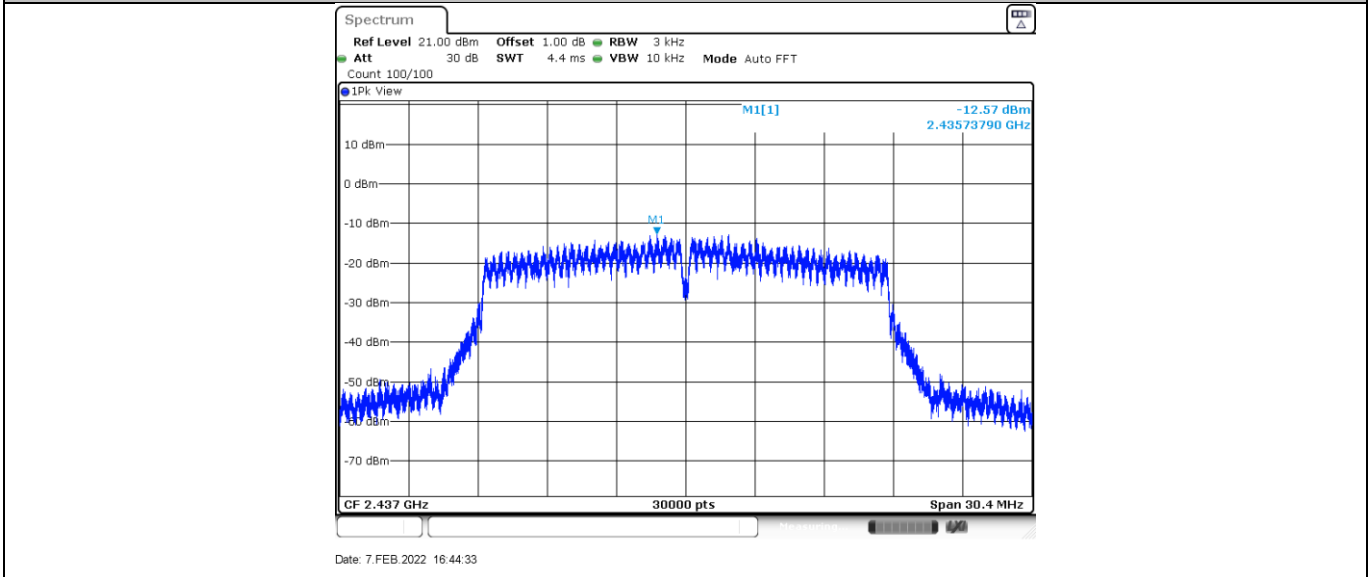
11G\_Ant1\_2462



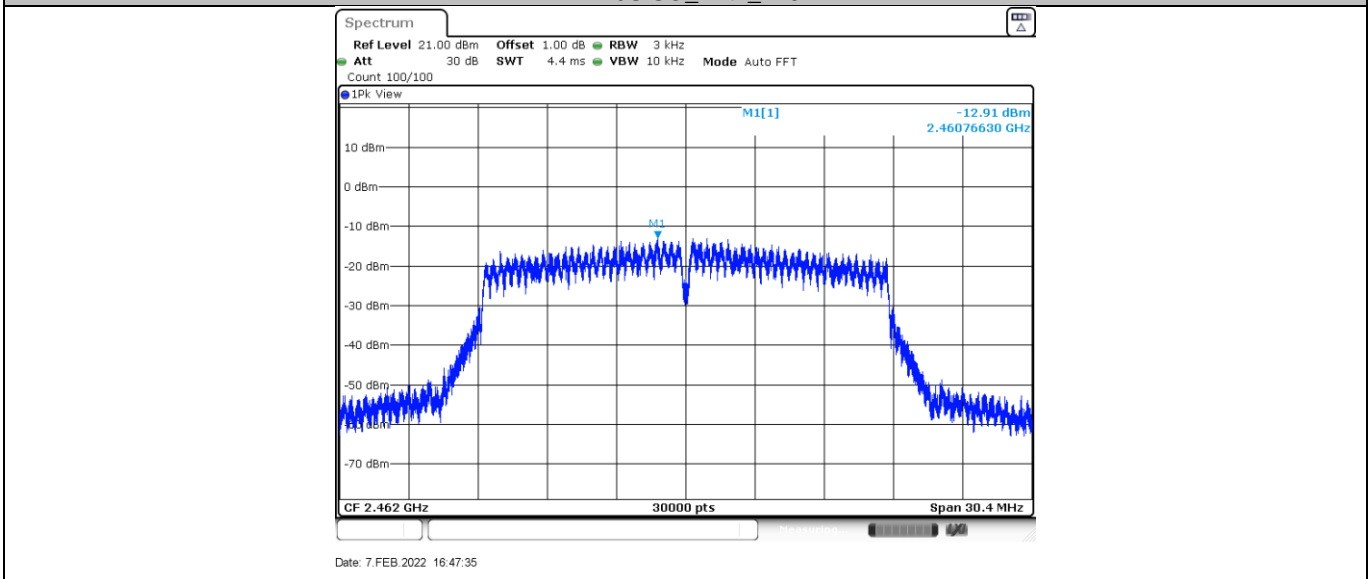
11N20SISO\_Ant1\_2412

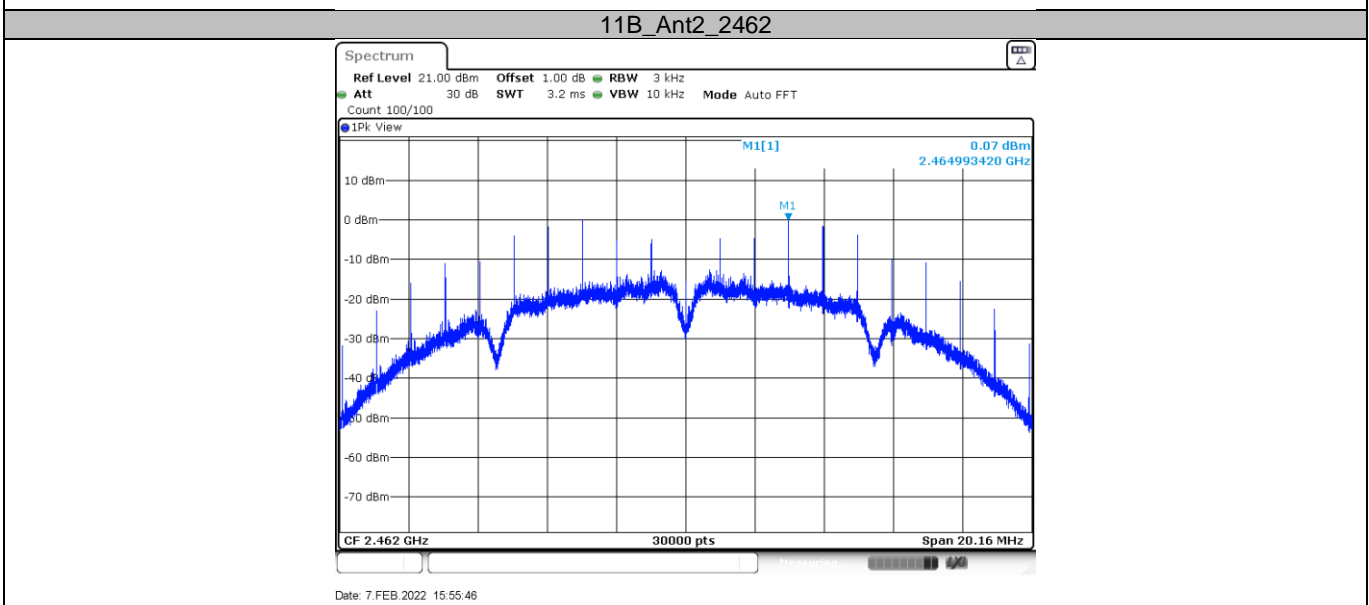
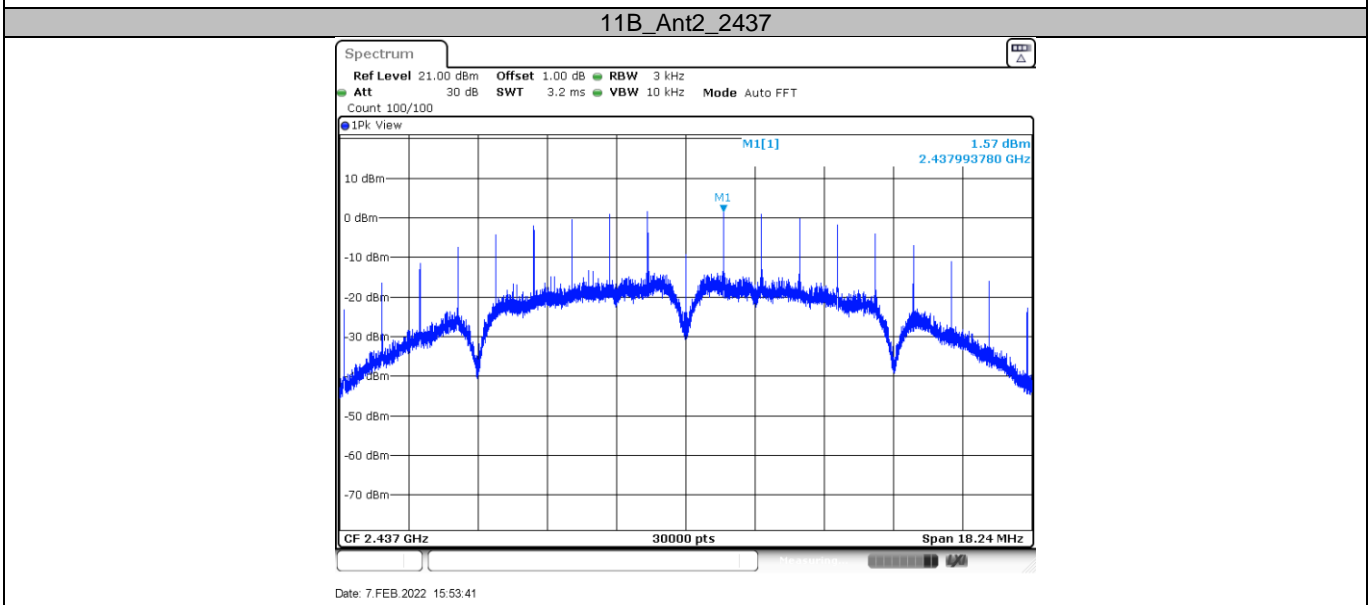
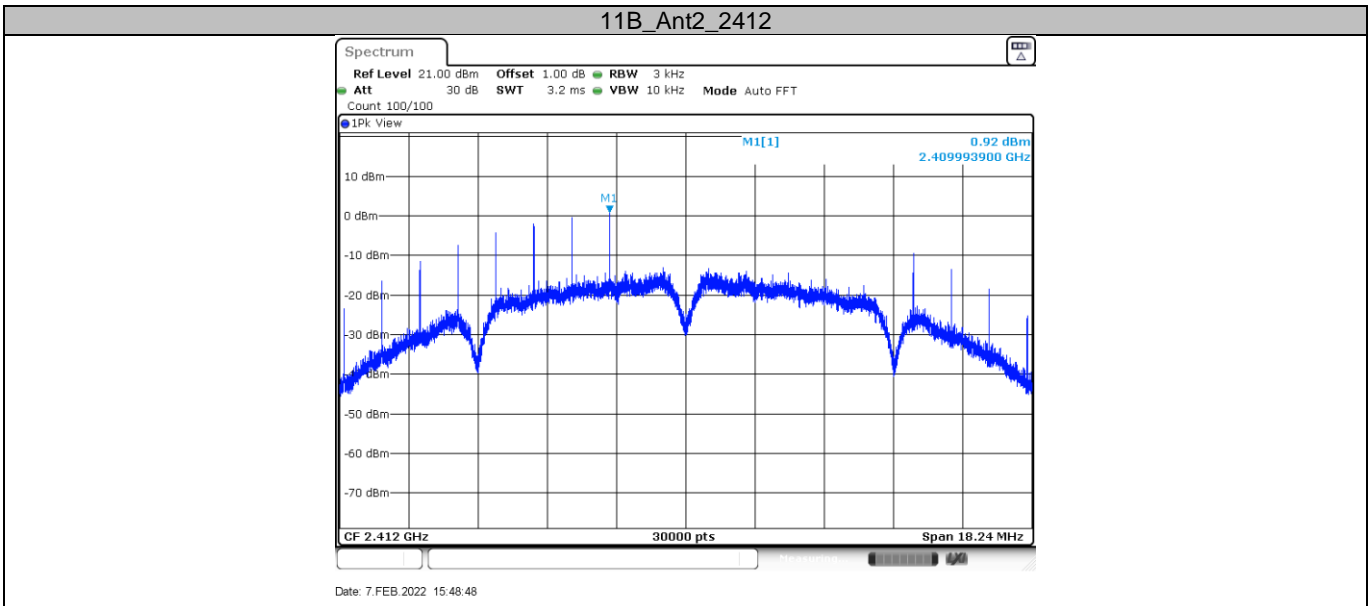


11N20SISO\_Ant1\_2437

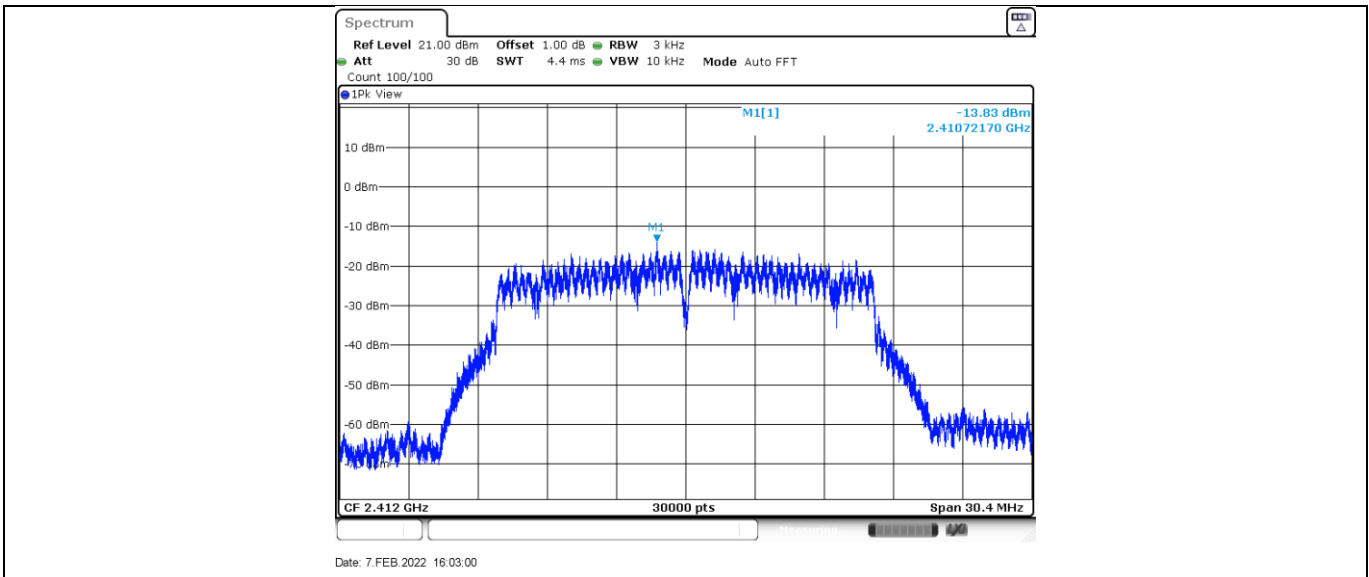


11N20SISO\_Ant1\_2462

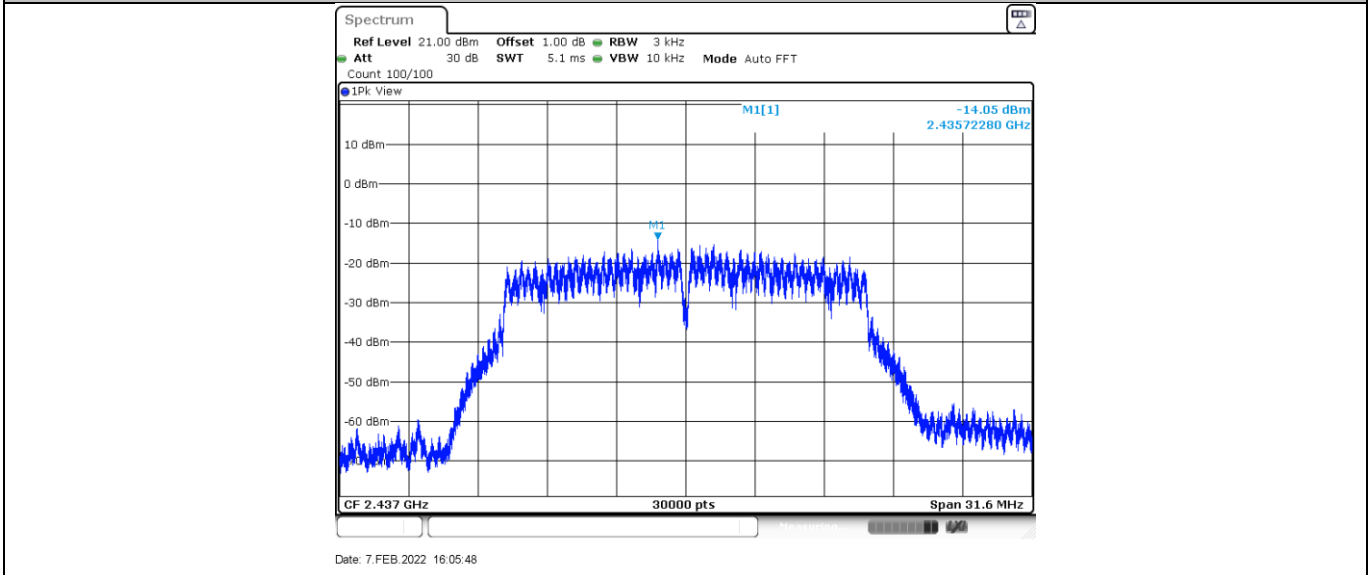




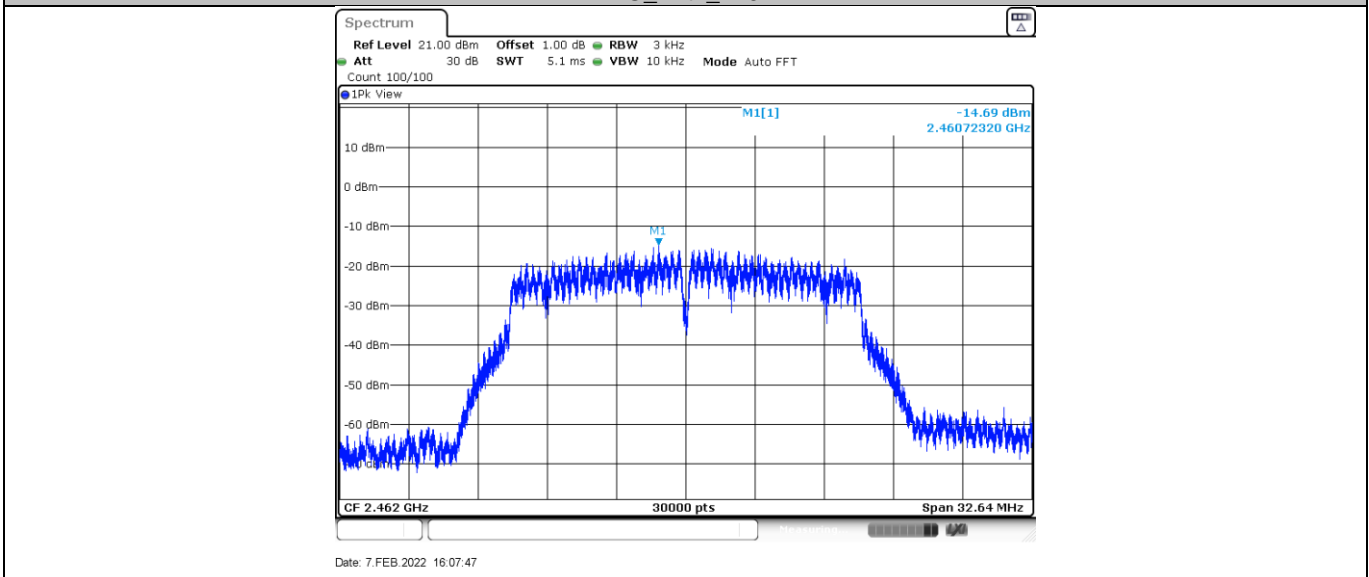
### 11G\_Ant2\_2412



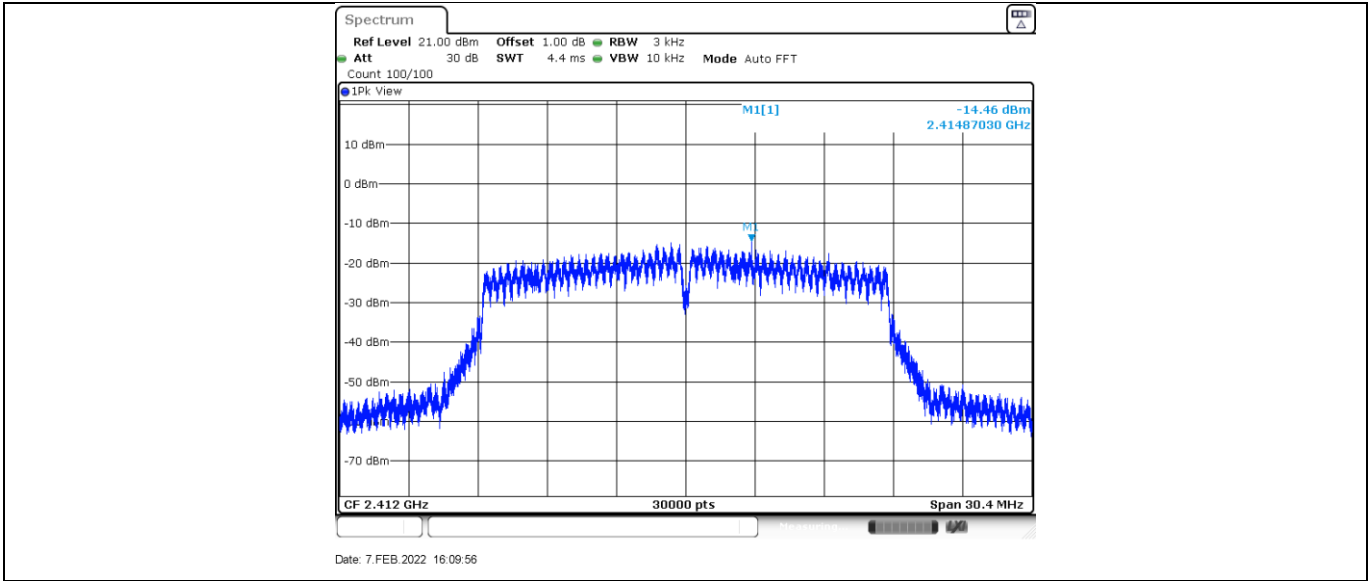
11G\_Ant2\_2437



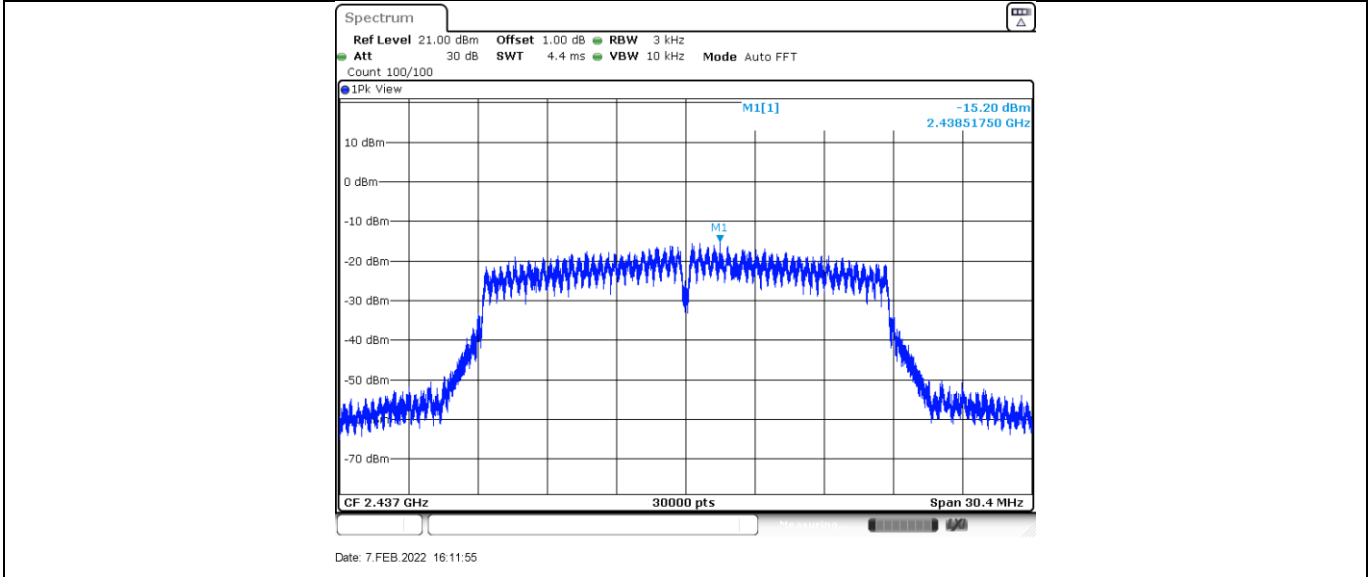
11G\_Ant2\_2462



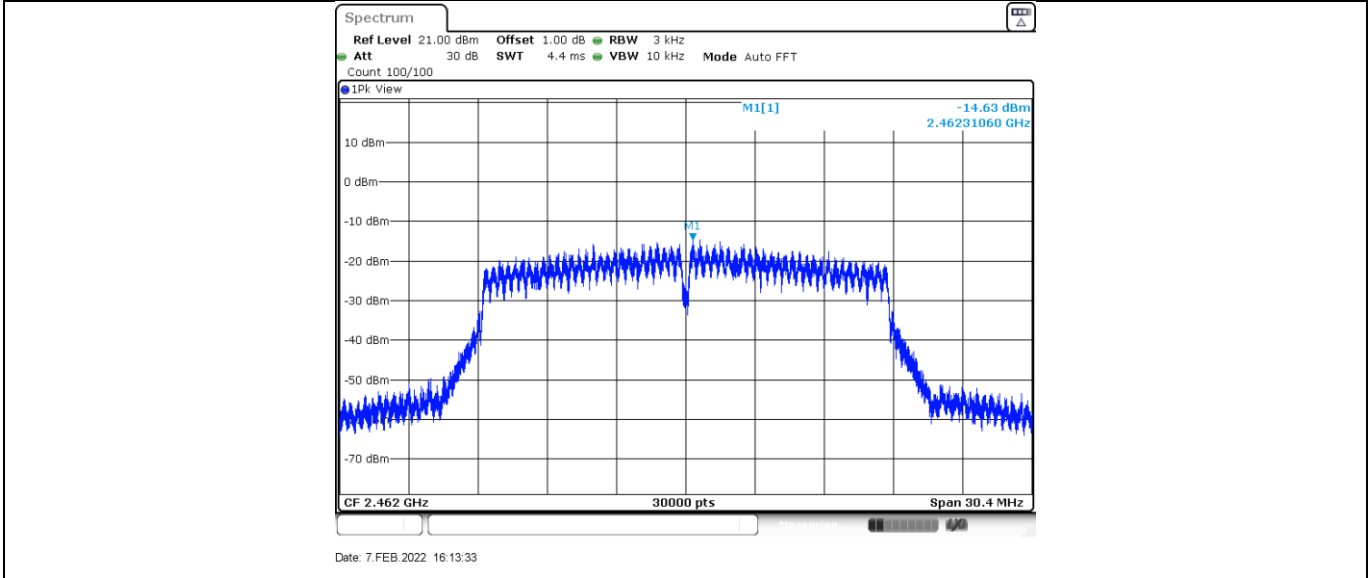
11N20SISO\_Ant2\_2412



11N20SISO\_Ant2\_2437



11N20SISO\_Ant2\_2462



## 9.5 Spurious RF conducted emissions

### Test Method

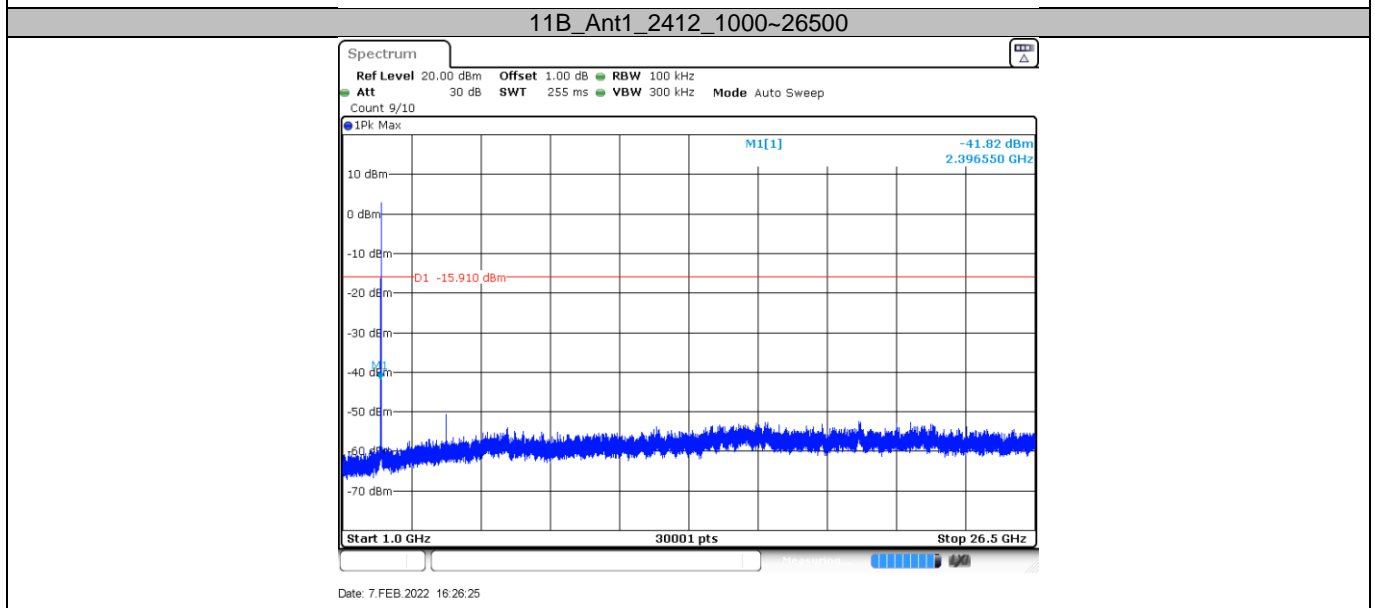
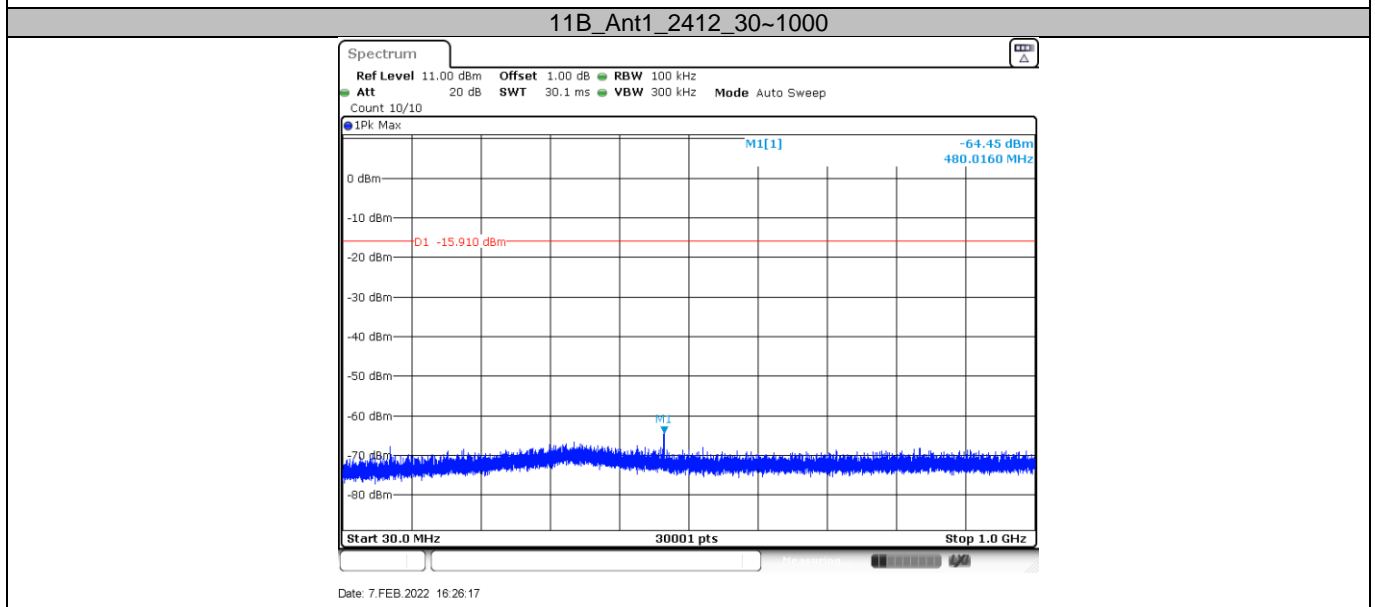
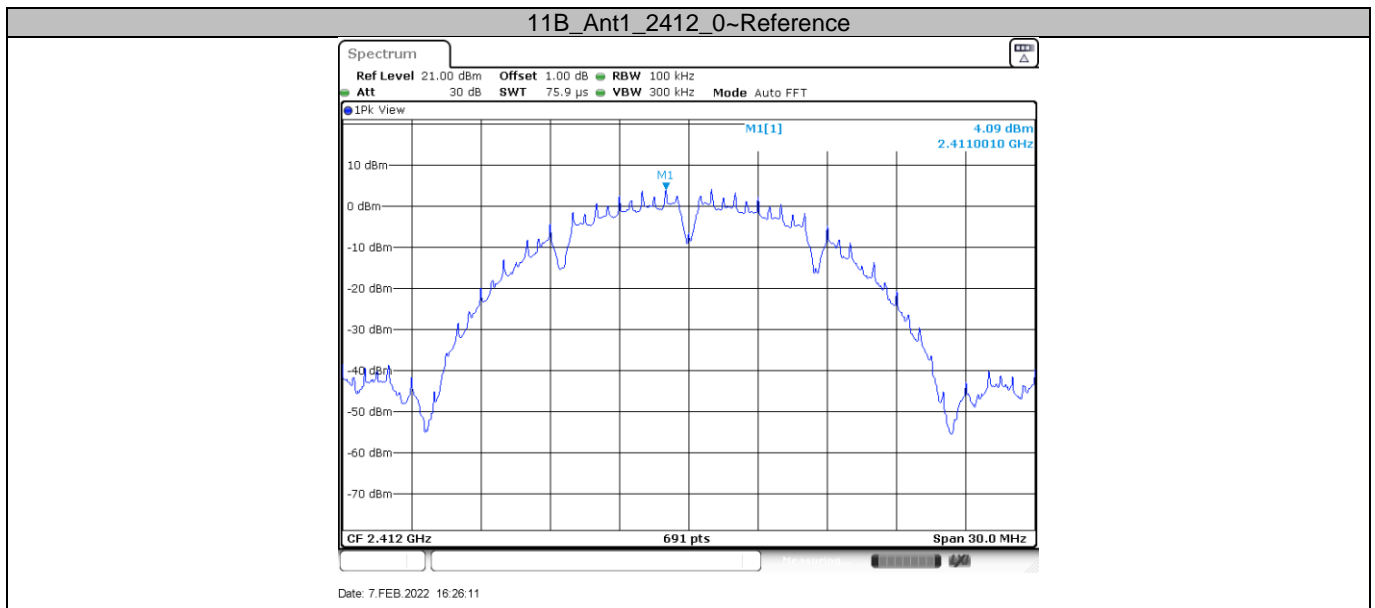
1. The RF output of EUT was connected to the spectrum analyzer by RF cable. The path loss was compensated to the results for each measurement.
2. Use the following spectrum analyzer settings:  
 Span = wide enough to capture the peak level of the in-band emission and all spurious emissions (e.g., harmonics) from the lowest frequency generated in the EUT up through the 10<sup>th</sup> harmonic. Typically, several plots are required to cover this entire span.  
 RBW = 100 kHz, VBW ≥ RBW, Sweep = auto, Detector function = peak, Trace = max hold
3. Allow the trace to stabilize. Set the marker on the peak of any spurious emission recorded.
4. The level displayed must comply with the limit specified in this Section. Submit these plots.
5. Repeat above procedures until all frequencies measured were complete.

### Limit

Frequency Range MHz	Limit (dBm)
30-25000	-20

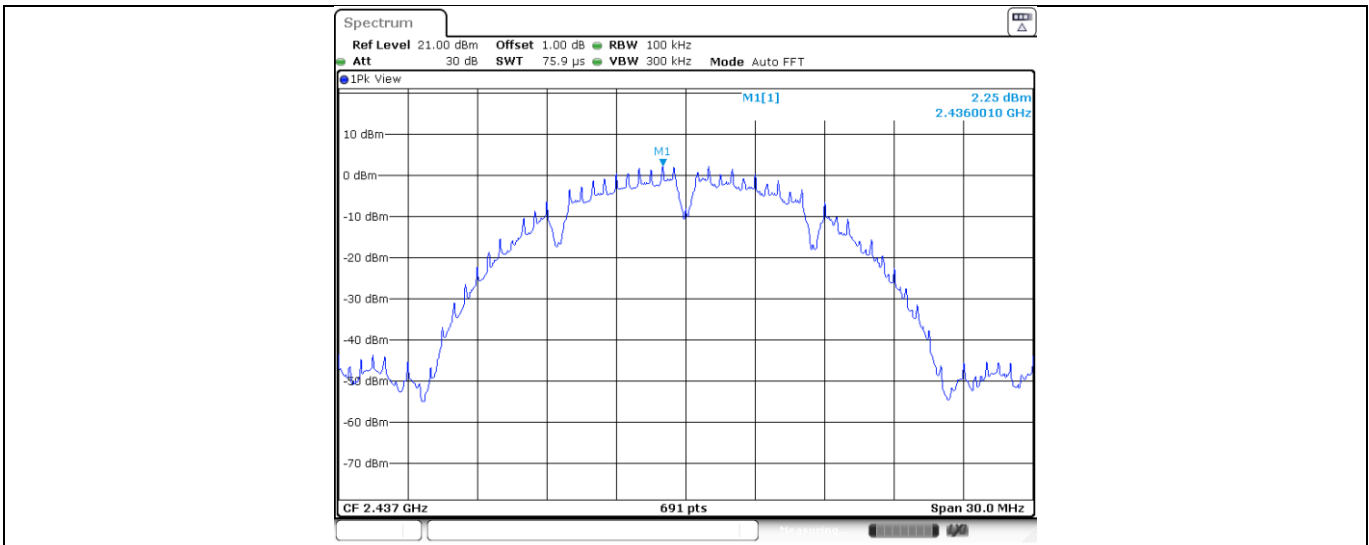
**Spurious RF conducted emissions**

TestMode	Antenna	Channel(dBm)	FreqRange(MHz)	RefLevel	Result(dBm)	Limit(dBm)	Verdict
11B	Ant1	2412	Reference	4.09 dBm	4.09	---	PASS
			30~1000	30~1000 MHz	-64.45	<=-15.91	PASS
			1000~26500	1000~26500 MHz	-41.82	<=-15.91	PASS
	Ant1	2437	Reference	2.25 dBm	2.25	---	PASS
			30~1000	30~1000 MHz	-66.16	<=-17.75	PASS
			1000~26500	1000~26500 MHz	-51.86	<=-17.75	PASS
	Ant1	2462	Reference	4.24 dBm	4.24	---	PASS
			30~1000	30~1000 MHz	-63.06	<=-15.76	PASS
			1000~26500	1000~26500 MHz	-51.37	<=-15.76	PASS
11G	Ant1	2412	Reference	2.37 dBm	2.37	---	PASS
			30~1000	30~1000 MHz	-61.05	<=-17.63	PASS
			1000~26500	1000~26500 MHz	-43.78	<=-17.63	PASS
	Ant1	2437	Reference	2.32 dBm	2.32	---	PASS
			30~1000	30~1000 MHz	-59.96	<=-17.68	PASS
			1000~26500	1000~26500 MHz	-50.97	<=-17.68	PASS
	Ant1	2462	Reference	2.32 dBm	2.32	---	PASS
			30~1000	30~1000 MHz	-59.66	<=-17.68	PASS
			1000~26500	1000~26500 MHz	-50.98	<=-17.68	PASS
11N20SISO	Ant1	2412	Reference	1.32 dBm	1.32	---	PASS
			30~1000	30~1000 MHz	-59.71	<=-18.68	PASS
			1000~26500	1000~26500 MHz	-37.64	<=-18.68	PASS
	Ant1	2437	Reference	1.89 dBm	1.89	---	PASS
			30~1000	30~1000 MHz	-59.08	<=-18.11	PASS
			1000~26500	1000~26500 MHz	-51.87	<=-18.11	PASS
	Ant1	2462	Reference	2.33 dBm	2.33	---	PASS
			30~1000	30~1000 MHz	-58.96	<=-17.67	PASS
			1000~26500	1000~26500 MHz	-51.99	<=-17.67	PASS
TestMode	Antenna	Channel(dBm)	FreqRange(MHz)	RefLevel	Result(dBm)	Limit(dBm)	Verdict
11B	Ant2	2412	Reference	1.69 dBm	1.69	---	PASS
			30~1000	30~1000 MHz	-62.52	<=-18.31	PASS
			1000~26500	1000~26500 MHz	-49.08	<=-18.31	PASS
	Ant2	2437	Reference	1.53 dBm	1.53	---	PASS
			30~1000	30~1000 MHz	-63.22	<=-18.47	PASS
			1000~26500	1000~26500 MHz	-51.93	<=-18.47	PASS
	Ant2	2462	Reference	2.12 dBm	2.12	---	PASS
			30~1000	30~1000 MHz	-62.91	<=-17.88	PASS
			1000~26500	1000~26500 MHz	-52.24	<=-17.88	PASS
11G	Ant2	2412	Reference	-0.40 dBm	-0.40	---	PASS
			30~1000	30~1000 MHz	-57.45	<=-20.4	PASS
			1000~26500	1000~26500 MHz	-46.25	<=-20.4	PASS
	Ant2	2437	Reference	-0.49 dBm	-0.49	---	PASS
			30~1000	30~1000 MHz	-58.65	<=-20.49	PASS
			1000~26500	1000~26500 MHz	-51.99	<=-20.49	PASS
	Ant2	2462	Reference	0.05 dBm	0.05	---	PASS
			30~1000	30~1000 MHz	-58.87	<=-19.95	PASS
			1000~26500	1000~26500 MHz	-51.13	<=-19.95	PASS
11N20SISO	Ant2	2412	Reference	-0.32 dBm	-0.32	---	PASS
			30~1000	30~1000 MHz	-57.07	<=-20.32	PASS
			1000~26500	1000~26500 MHz	-37.71	<=-20.32	PASS
	Ant2	2437	Reference	-0.72 dBm	-0.72	---	PASS
			30~1000	30~1000 MHz	-57.33	<=-20.72	PASS
			1000~26500	1000~26500 MHz	-51.71	<=-20.72	PASS
	Ant2	2462	Reference	-1.59 dBm	-1.59	---	PASS
			30~1000	30~1000 MHz	-57.17	<=-21.59	PASS
			1000~26500	1000~26500 MHz	-51.87	<=-21.59	PASS

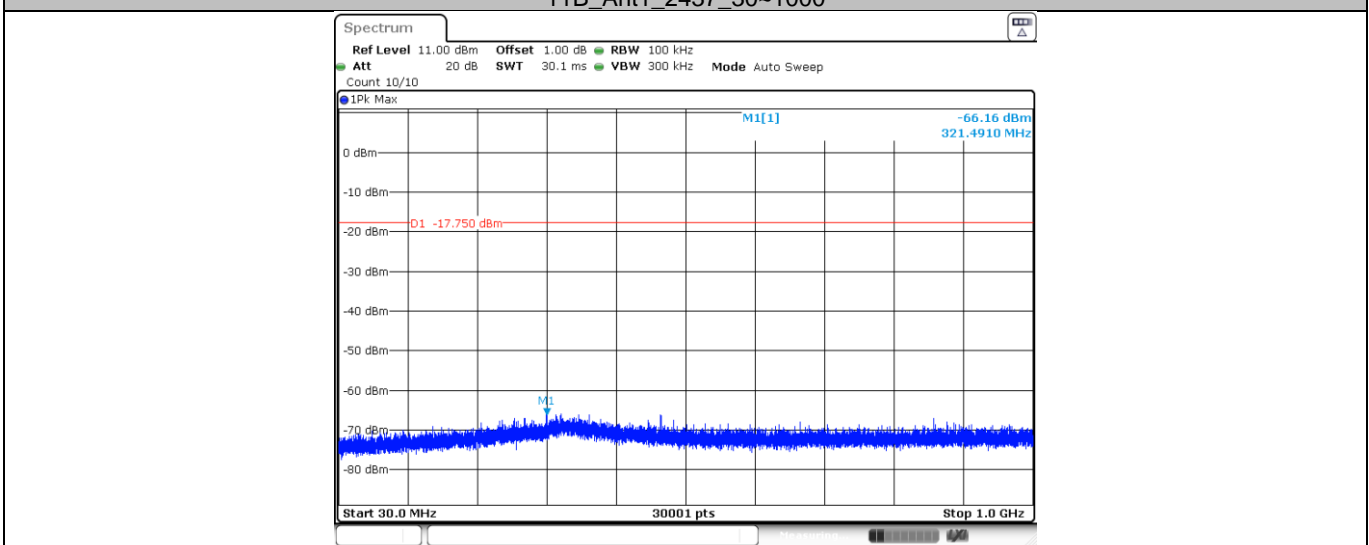


### 11B\_Ant1\_2437\_0~Reference

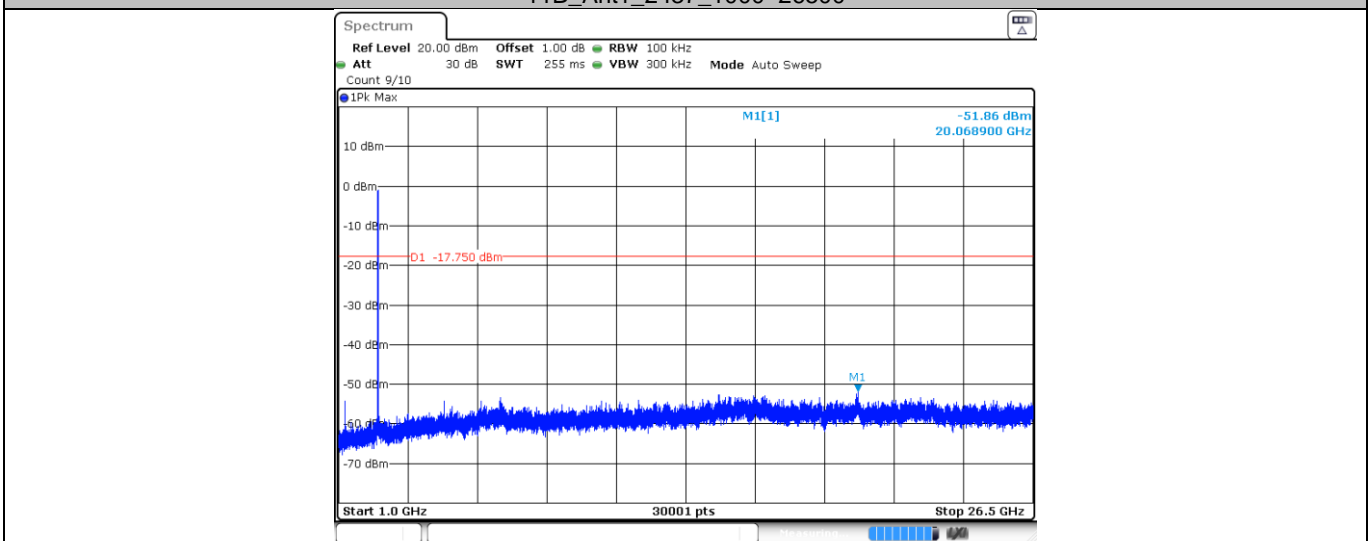




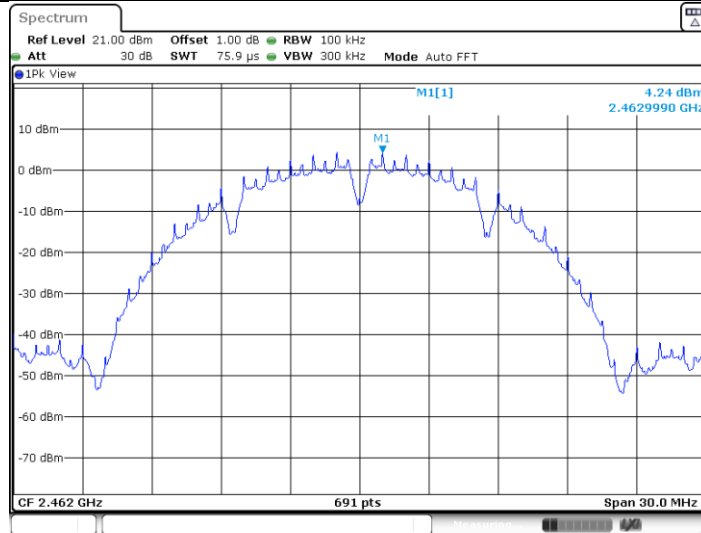
11B\_Ant1\_2437\_30~1000



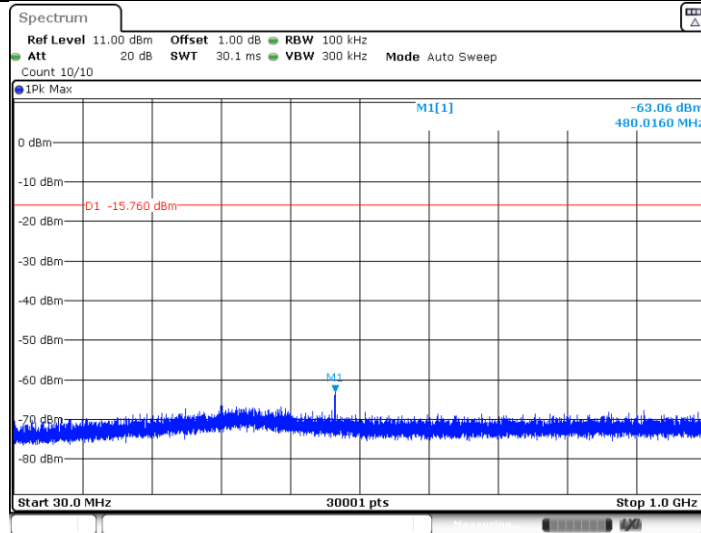
11B\_Ant1\_2437\_1000~26500



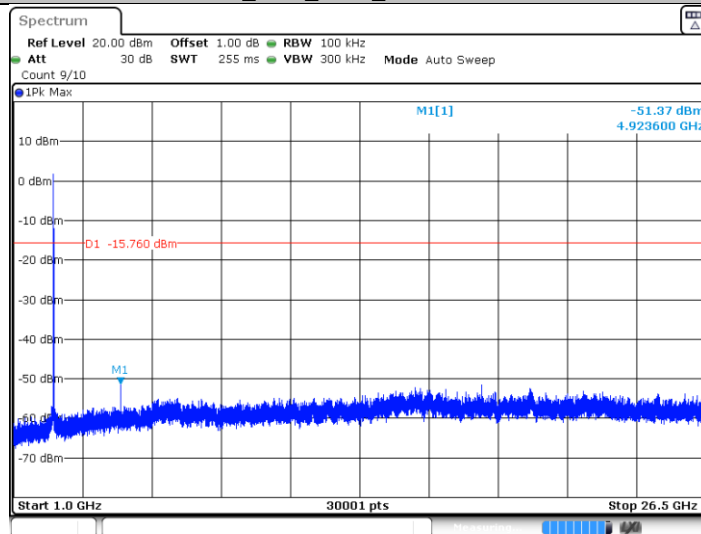
11B\_Ant1\_2462\_0~Reference



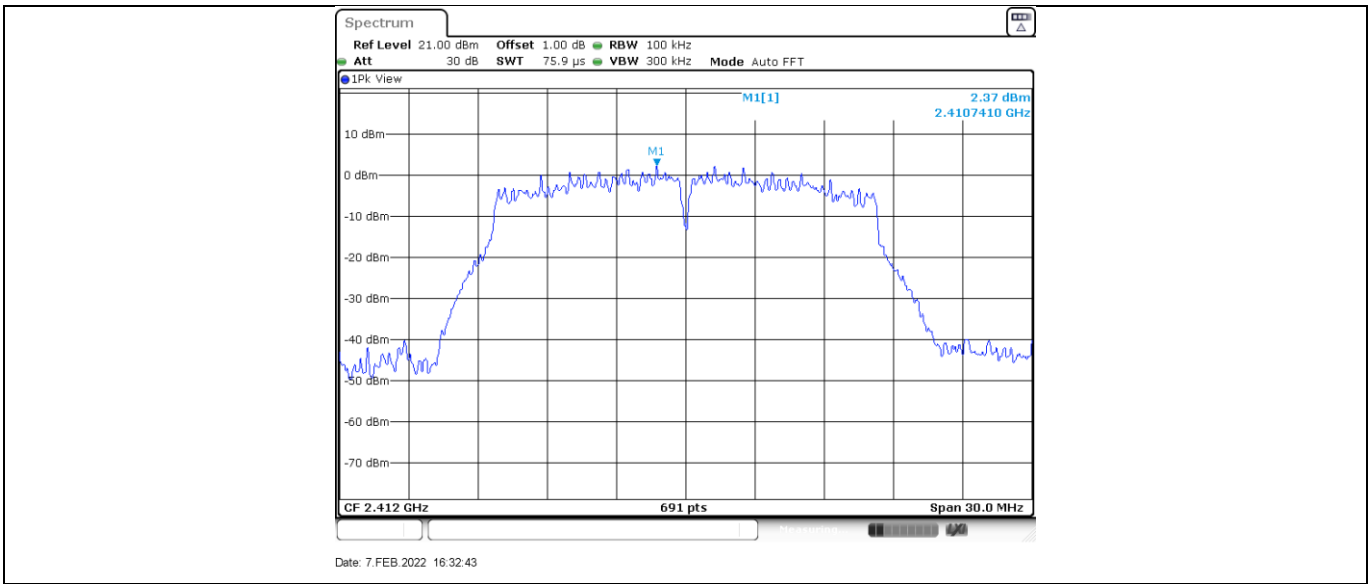
11B\_Ant1\_2462\_30~1000



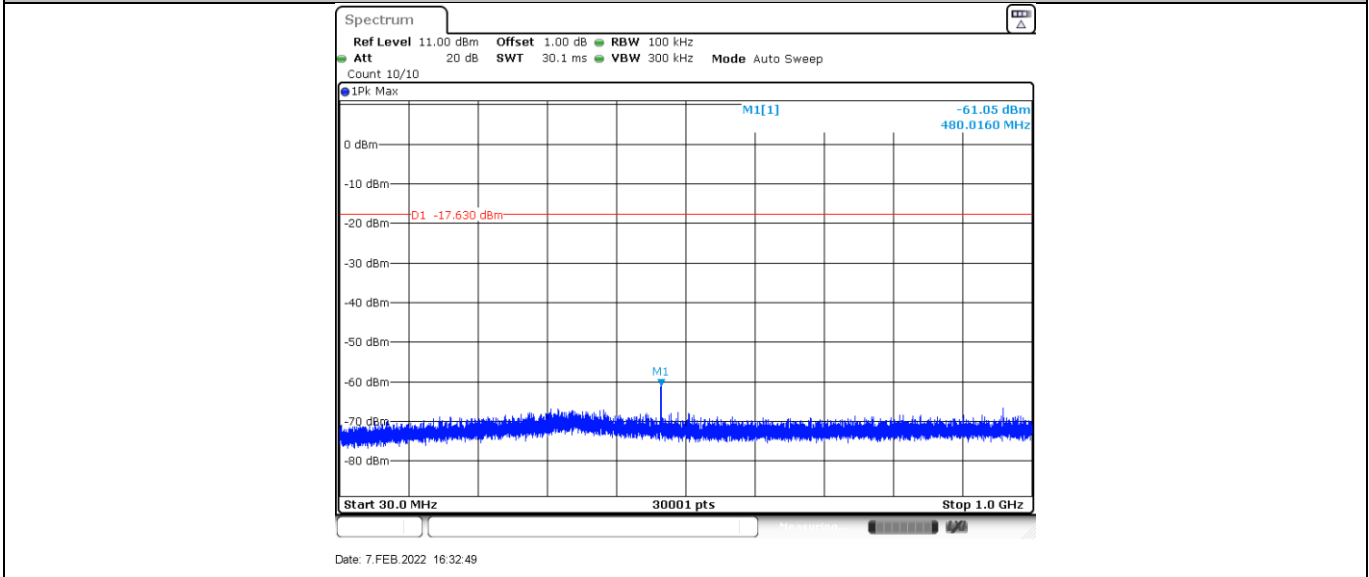
11B\_Ant1\_2462\_1000~26500



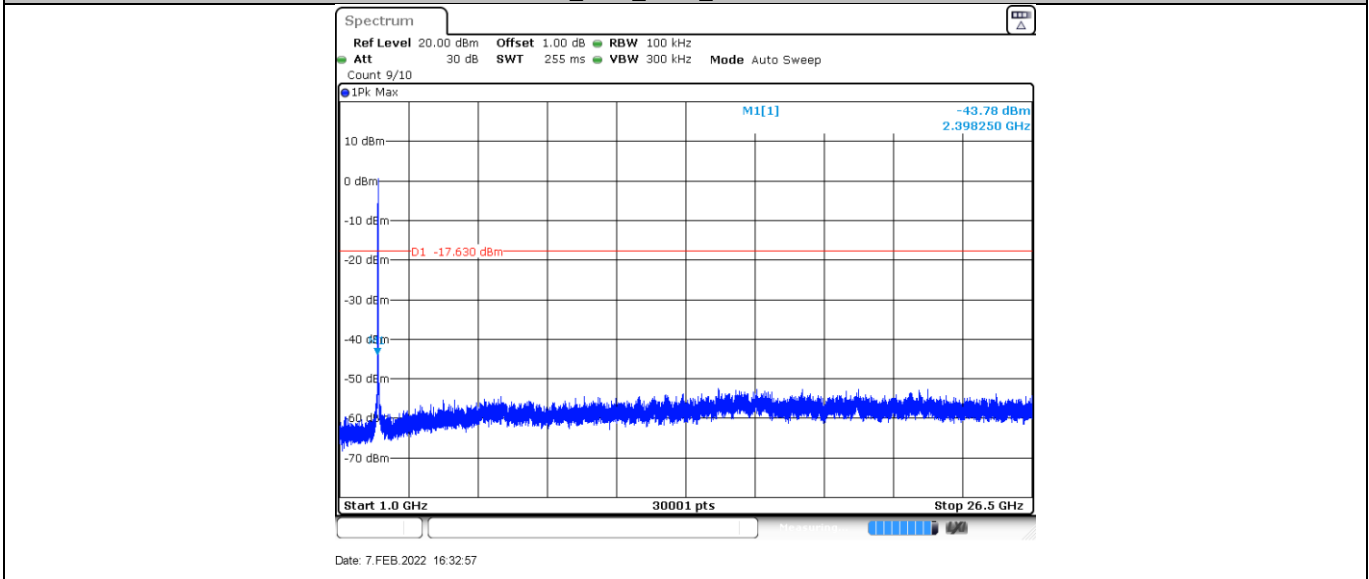
11G\_Ant1\_2412\_0~Reference



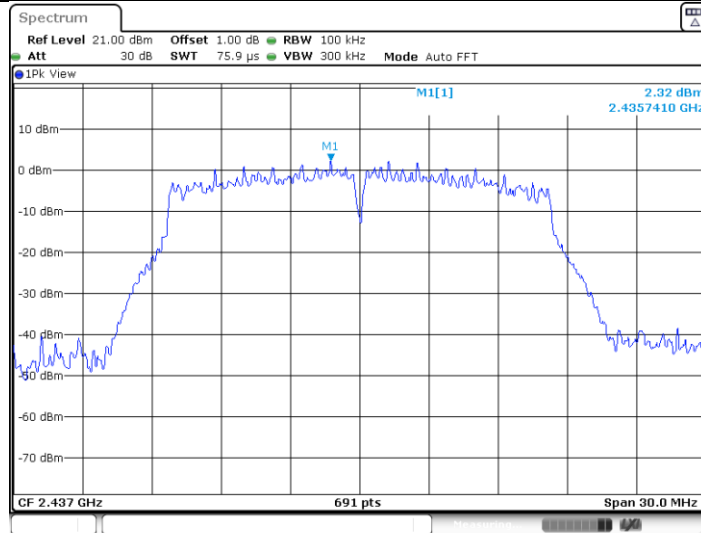
11G\_Ant1\_2412\_30~1000



11G\_Ant1\_2412\_1000~26500

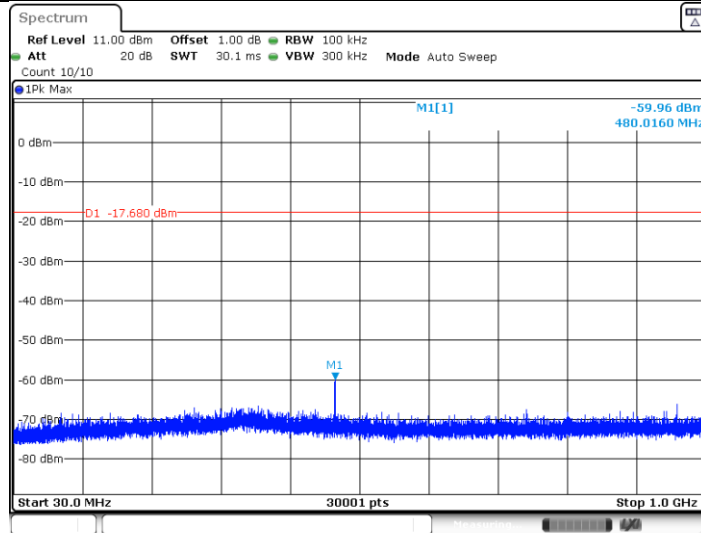


11G\_Ant1\_2437\_0~Reference



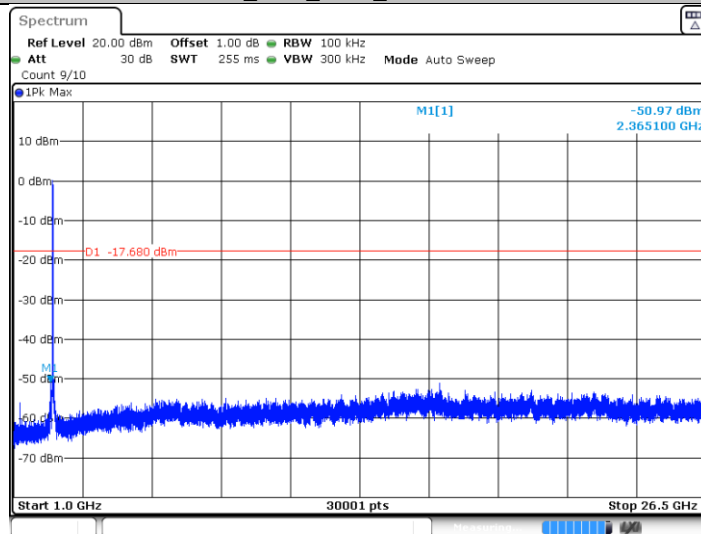
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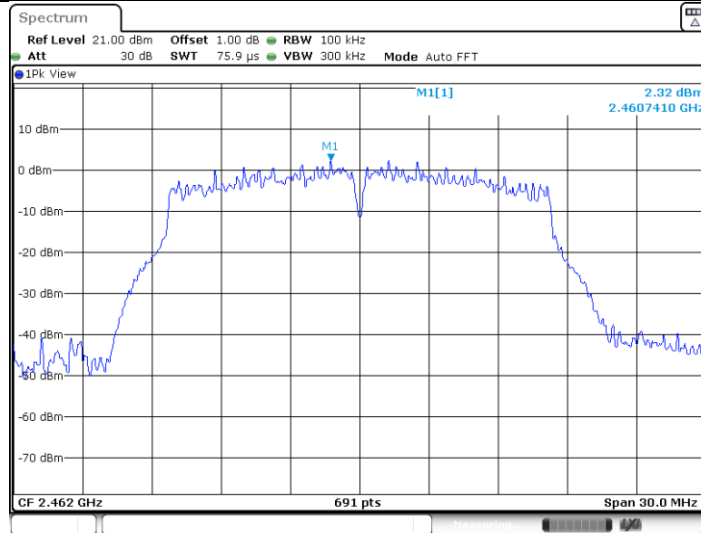
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11G\_Ant1\_2437\_1000~26500



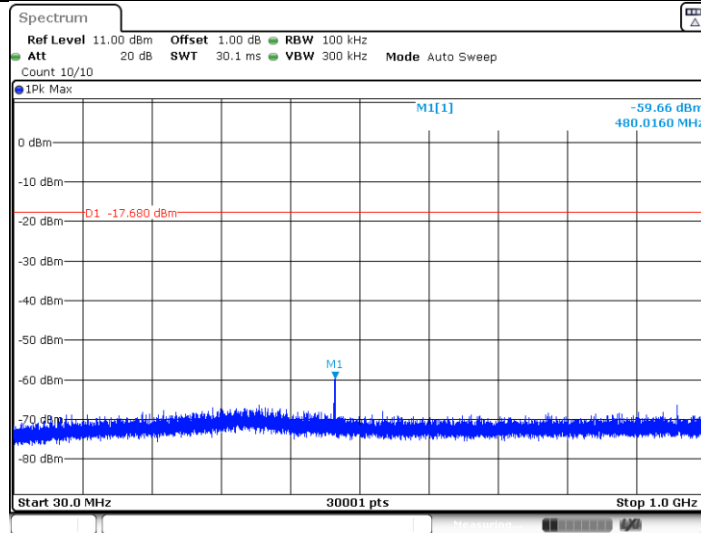
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11G\_Ant1\_2462\_0~Reference



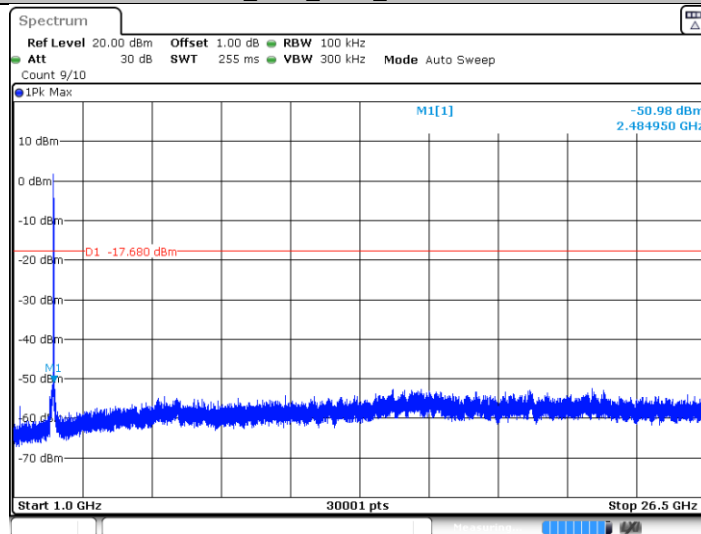
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11G\_Ant1\_2462\_30~1000



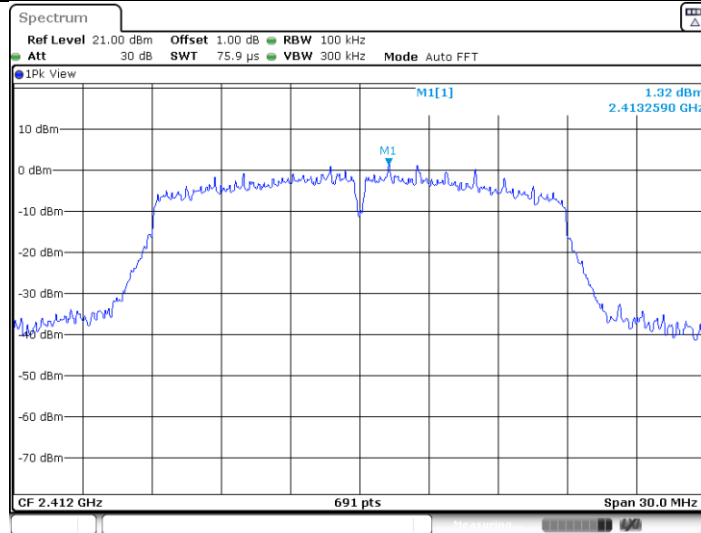
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11G\_Ant1\_2462\_1000~26500



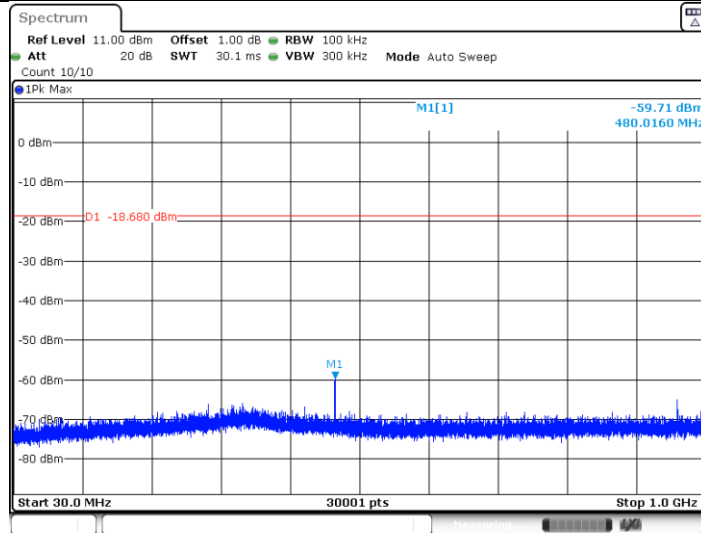
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11N20SISO\_Ant1\_2412\_0~Reference



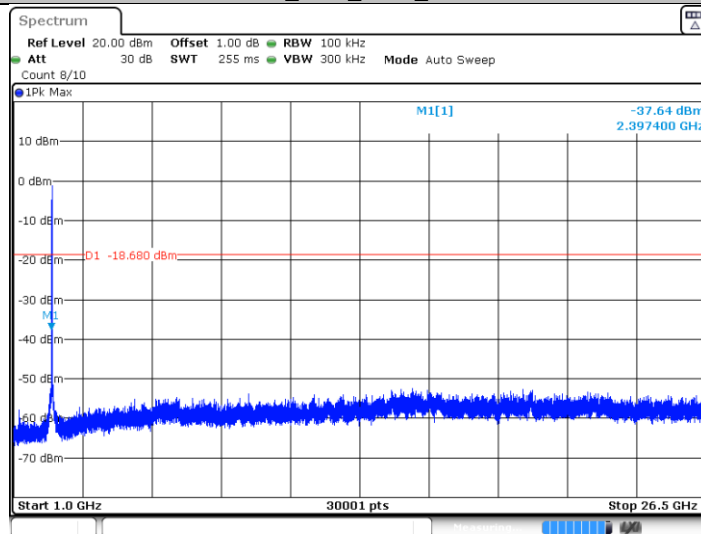
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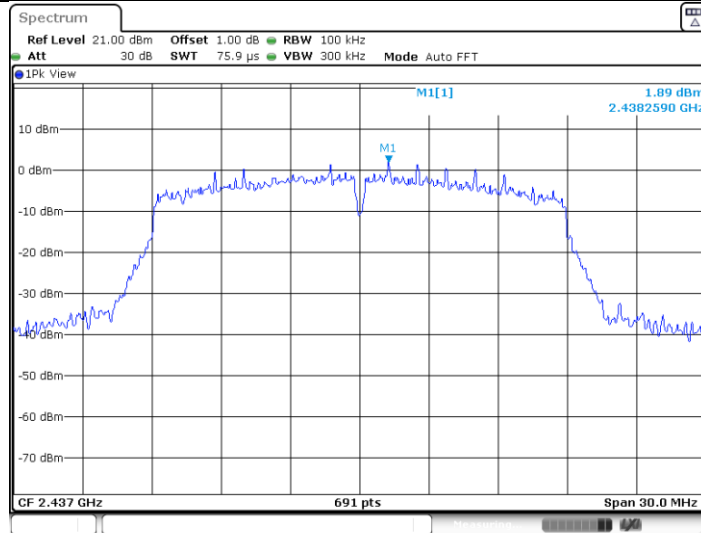
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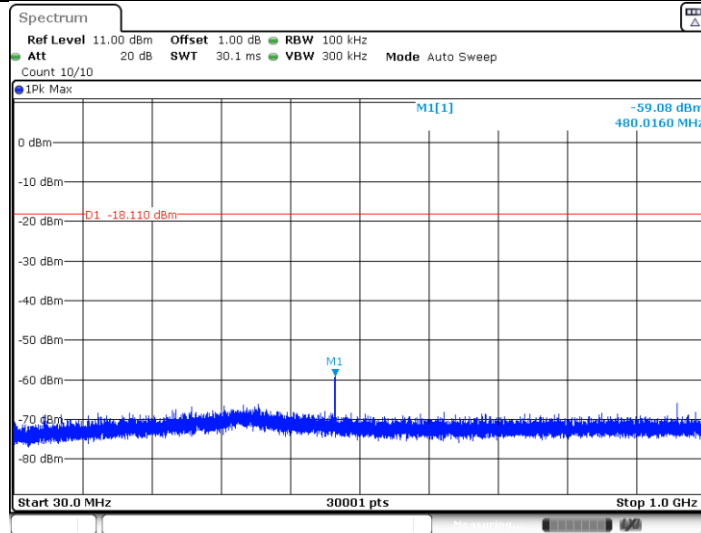
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### 11N20SISO\_Ant1\_2437\_0~Reference



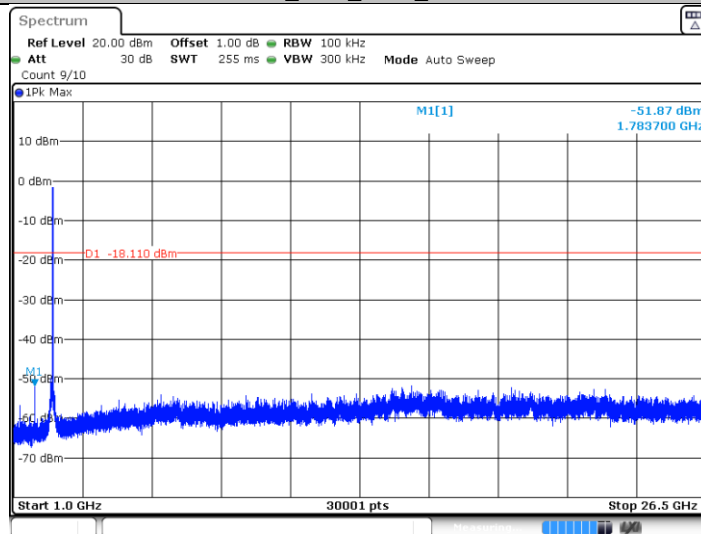
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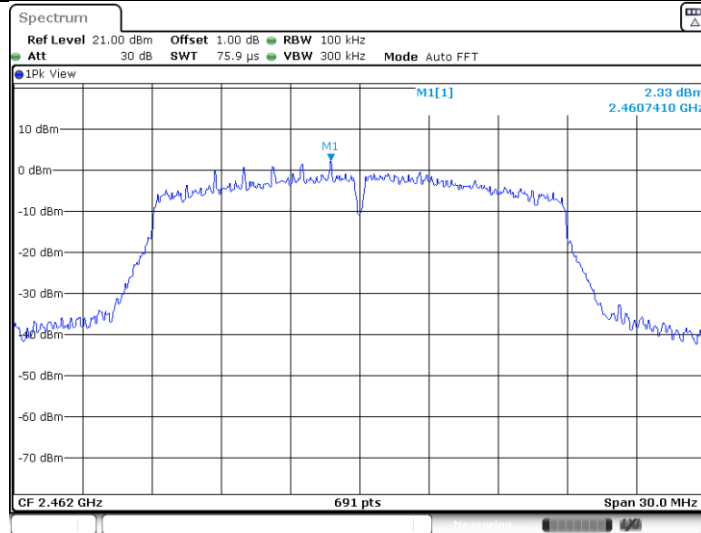
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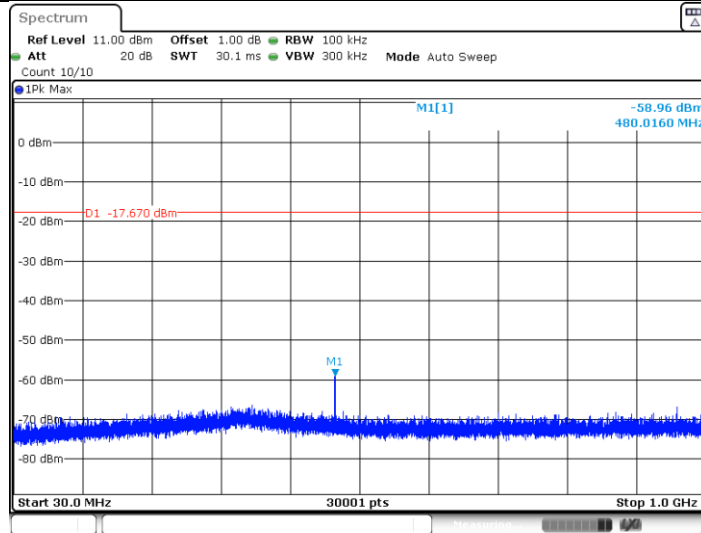
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### 11N20SISO\_Ant1\_2462\_0~Reference



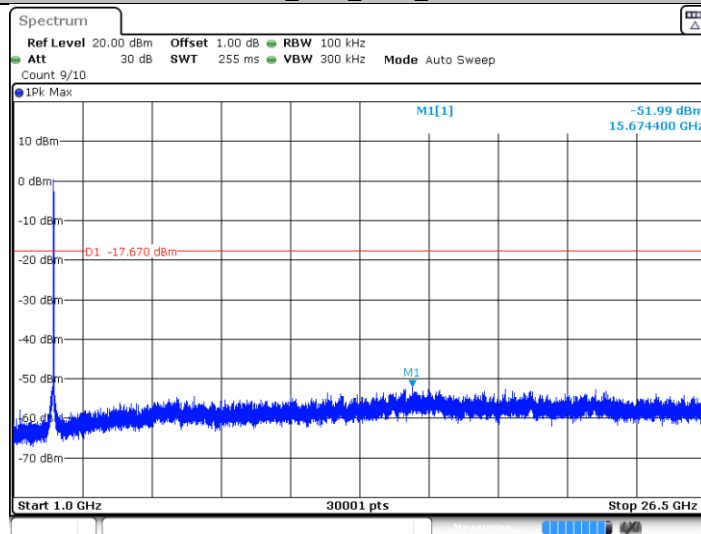
Date: 7.FEB.2022 16:47:50

### 11N20SISO\_Ant1\_2462\_30~1000



Date: 7.FEB.2022 16:47:56

### 11N20SISO\_Ant1\_2462\_1000~26500



Date: 7.FEB.2022 16:48:04