

# RF Test Data for 2.4G Wi-Fi (Conducted Measurements)

General Description of EUT	
<b>Product Name:</b>	Multimedia projector
<b>HVIN/Models No.</b>	C1
<b>Sample ID:</b>	20210907-01-2#
Environmental Conditions	
<b>Temperature:</b>	23.8°C
<b>Relative Humidity:</b>	48%
<b>Test Voltage:</b>	Input: 100-240V~, 50/60Hz Output: DC 24V/1.8A, 13V/1.7A
<b>Test Engineer:</b>	Huang jian ping
Note: For a more detailed features description, please refer to the report TB-RF184539	

## Contents

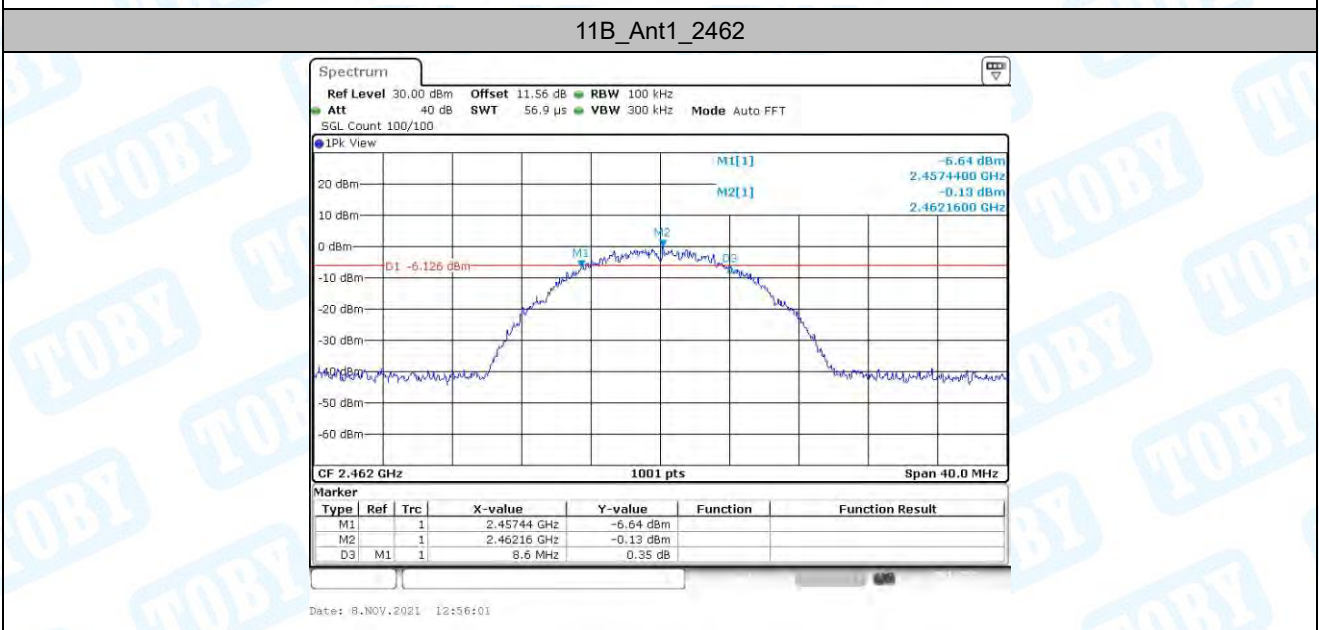
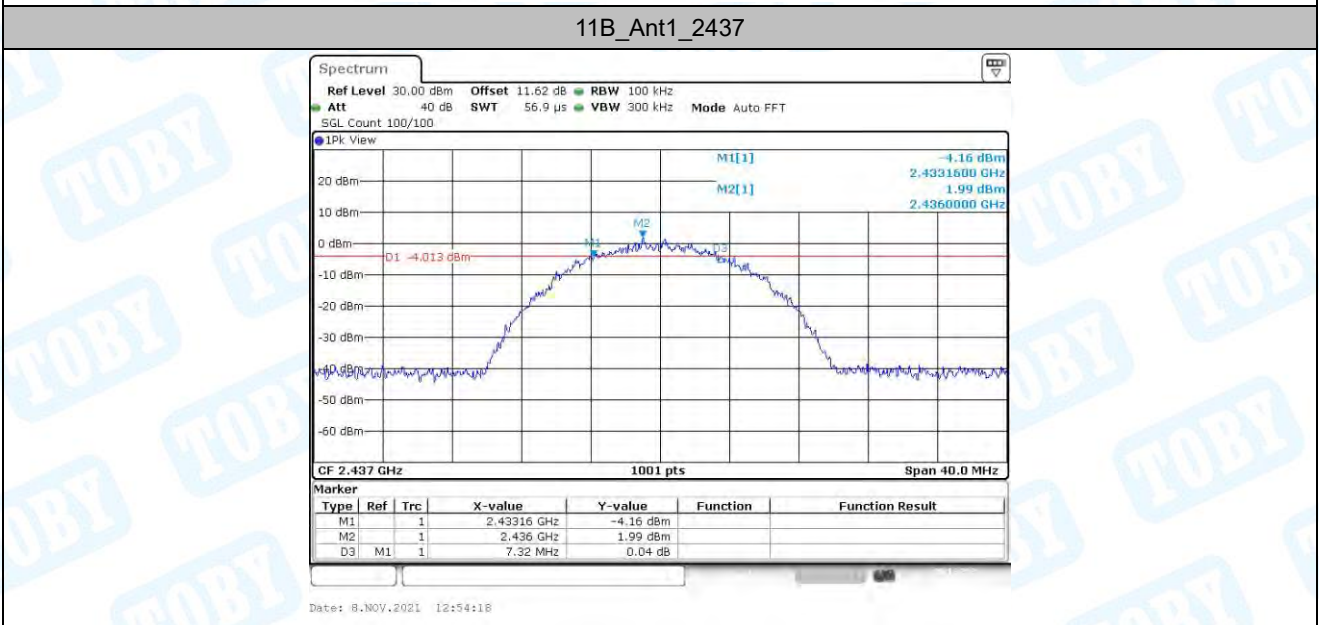
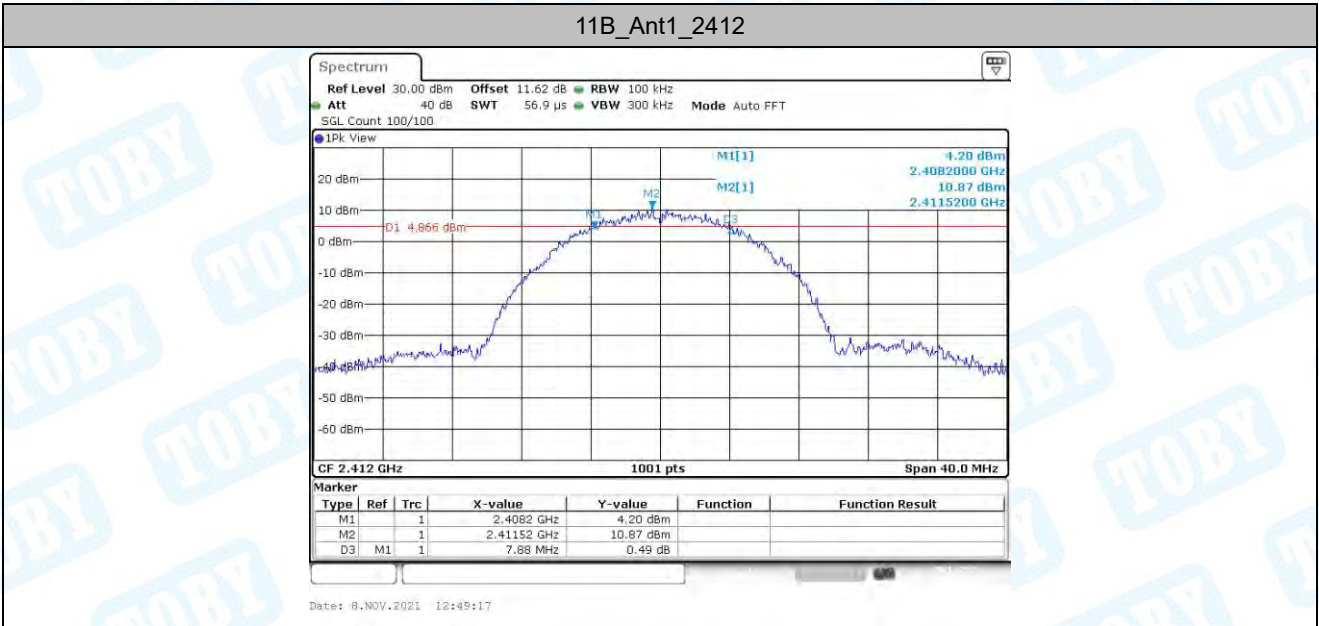
1. DTS Bandwidth.....	3
1.1. Test Result.....	3
1.2. Test Graphs .....	4
2. Occupied Channel Bandwidth.....	8
2.1. Test Result.....	8
2.2. Test Graphs .....	9
3. Maximum conducted output power.....	13
3.1. Test Result.....	13
4. Maximum power spectral density .....	14
4.1. Test Result.....	14
4.2. Test Graphs .....	15
5. Band edge measurements .....	19
5.1. Test Result.....	19
5.2. Test Graphs .....	20
6. Conducted Spurious Emission.....	23
6.1. Test Result.....	23
6.2. Test Graphs .....	24
7. Duty Cycle .....	36
7.1. Test Result.....	36
7.2. Test Graphs .....	37
8. Emissions in Restricted Bands.....	41
8.1. Test Result.....	41
8.2. Test Graphs .....	43

# 1. DTS Bandwidth

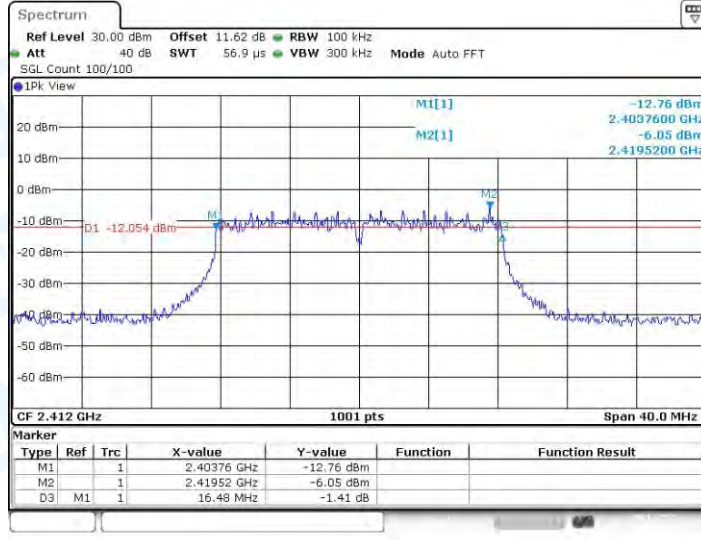
## 1.1. Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	7.880	2408.200	2416.080	0.5	PASS
		2437	7.320	2433.160	2440.480	0.5	PASS
		2462	8.600	2457.440	2466.040	0.5	PASS
11G	Ant1	2412	16.480	2403.760	2420.240	0.5	PASS
		2437	16.520	2428.760	2445.280	0.5	PASS
		2462	16.480	2453.720	2470.200	0.5	PASS
11N20SISO	Ant1	2412	17.760	2403.120	2420.880	0.5	PASS
		2437	17.640	2428.160	2445.800	0.5	PASS
		2462	17.760	2453.120	2470.880	0.5	PASS
11N40SISO	Ant1	2422	36.000	2403.680	2439.680	0.5	PASS
		2437	36.560	2418.680	2455.240	0.5	PASS
		2452	35.600	2434.080	2469.680	0.5	PASS

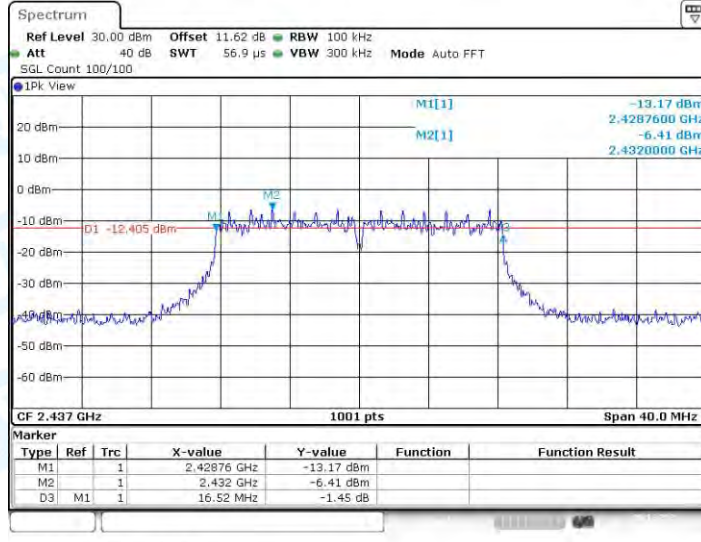
**1.2. Test Graphs**



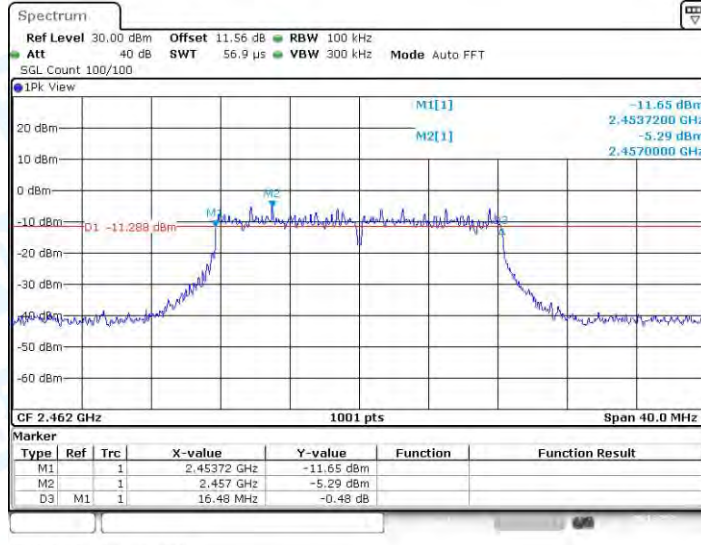
11G\_Ant1\_2412



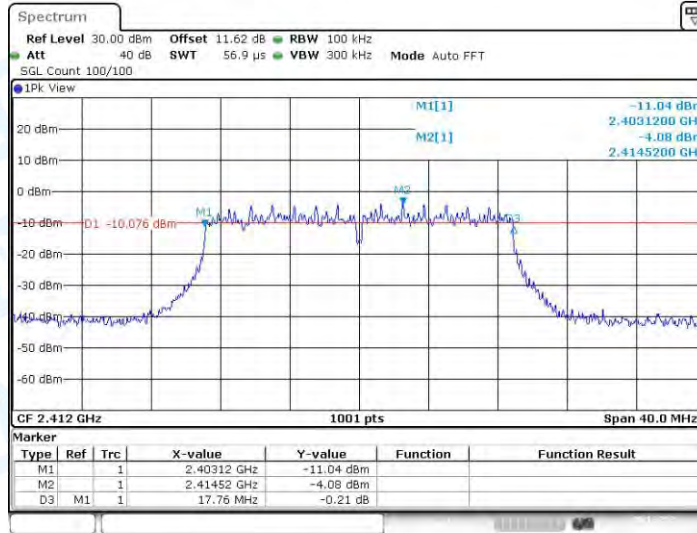
11G\_Ant1\_2437



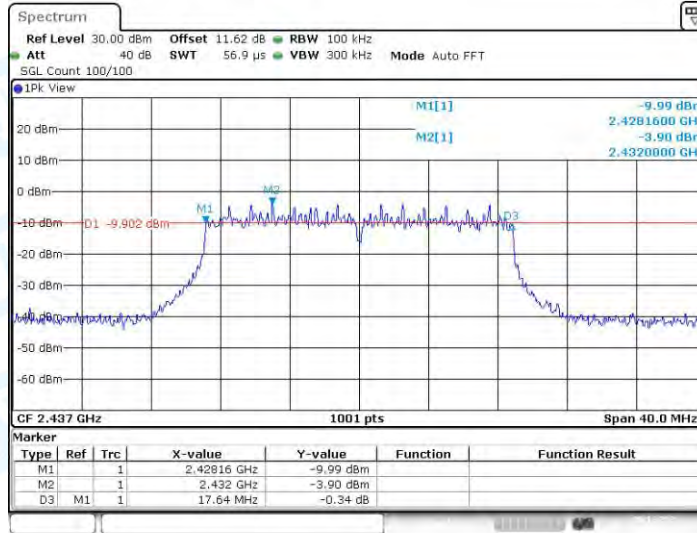
11G\_Ant1\_2462



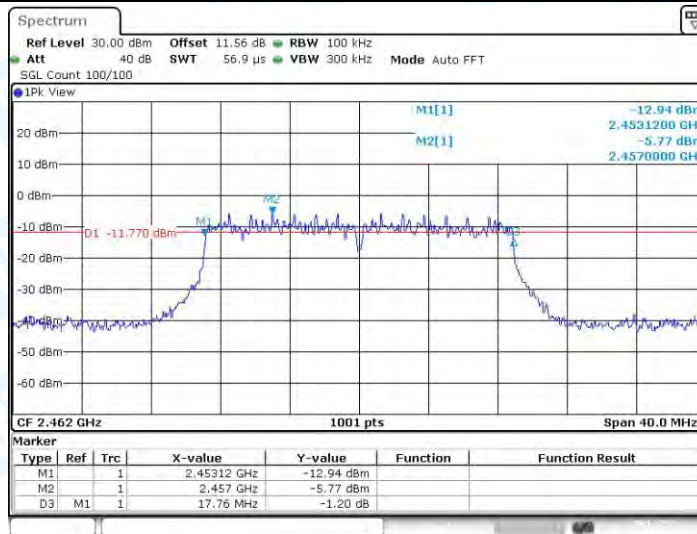
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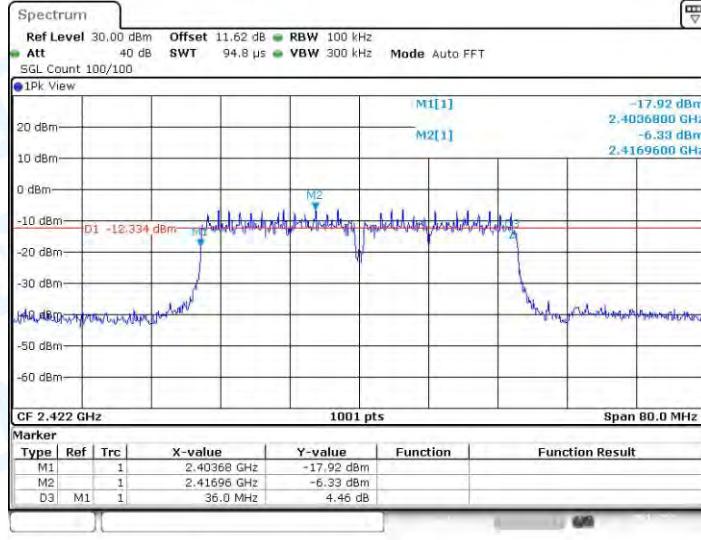
11N20SISO\_Ant1\_2437



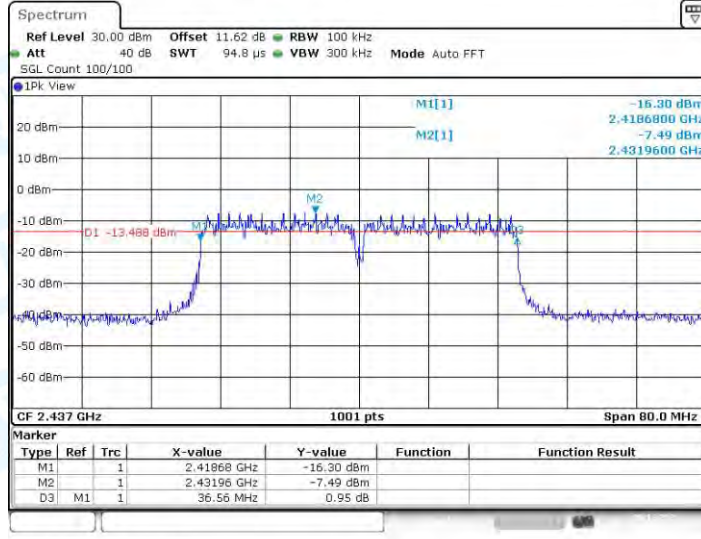
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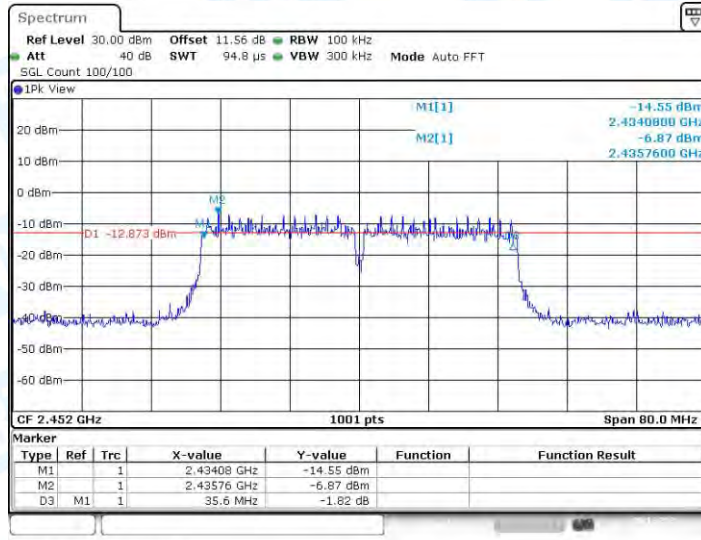
11N40SISO\_Ant1\_2422



11N40SISO\_Ant1\_2437



11N40SISO\_Ant1\_2452



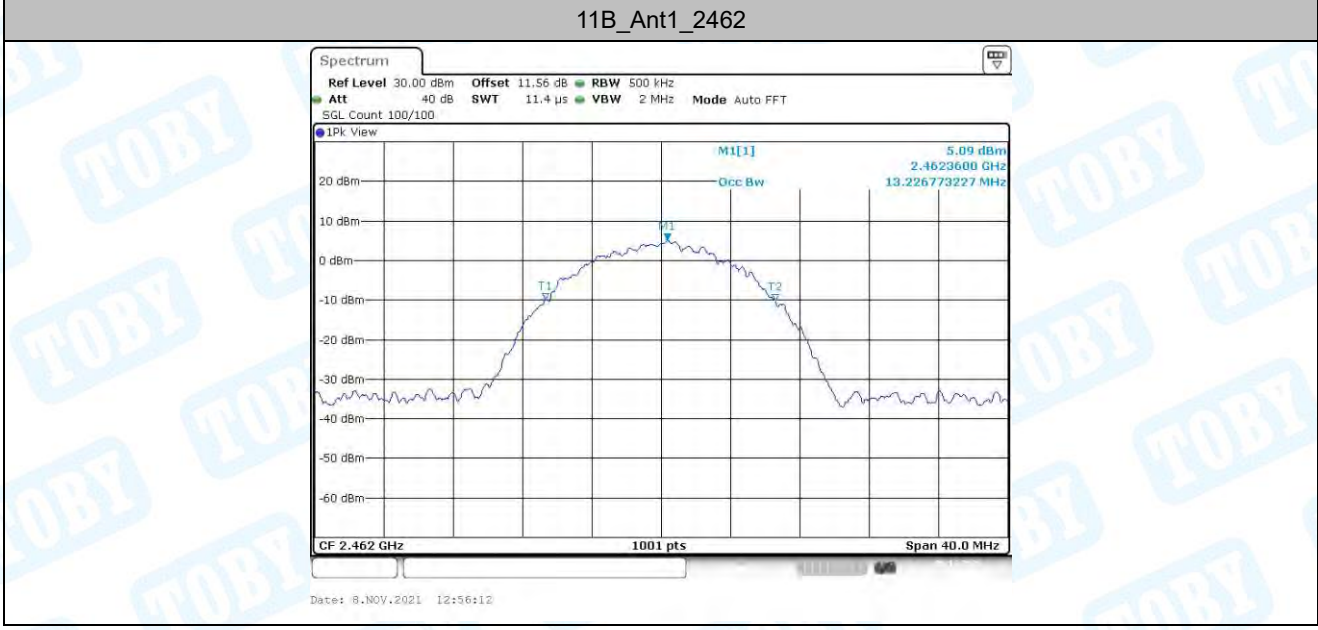
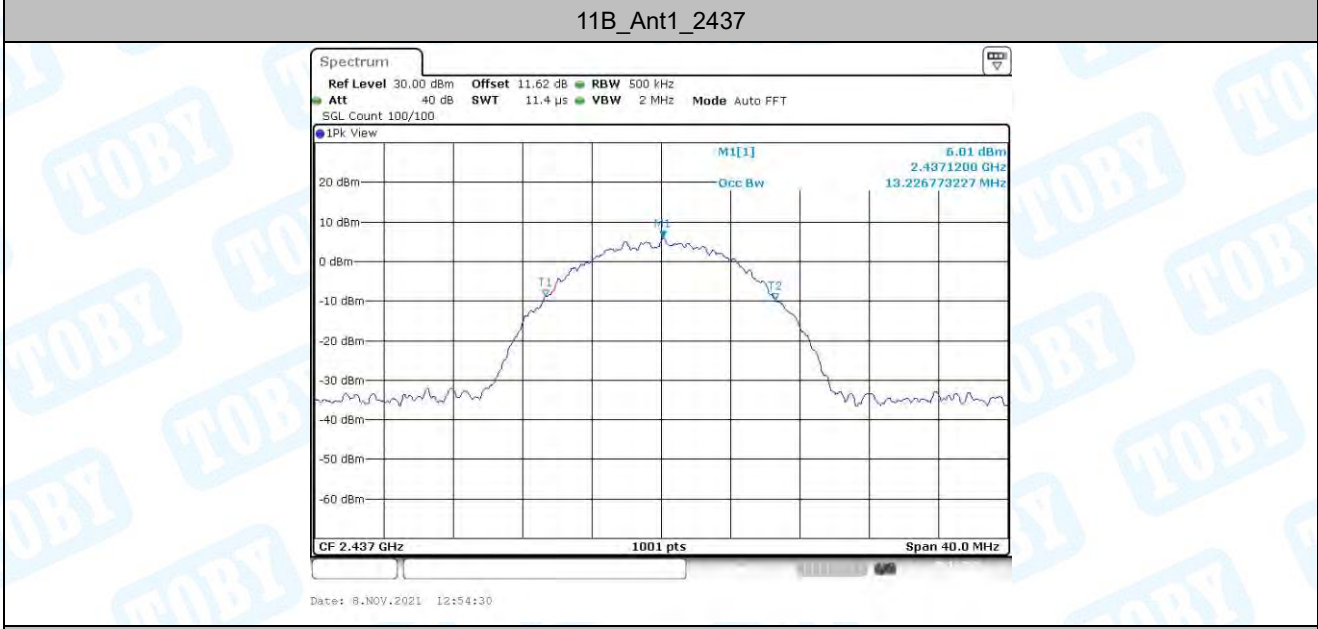
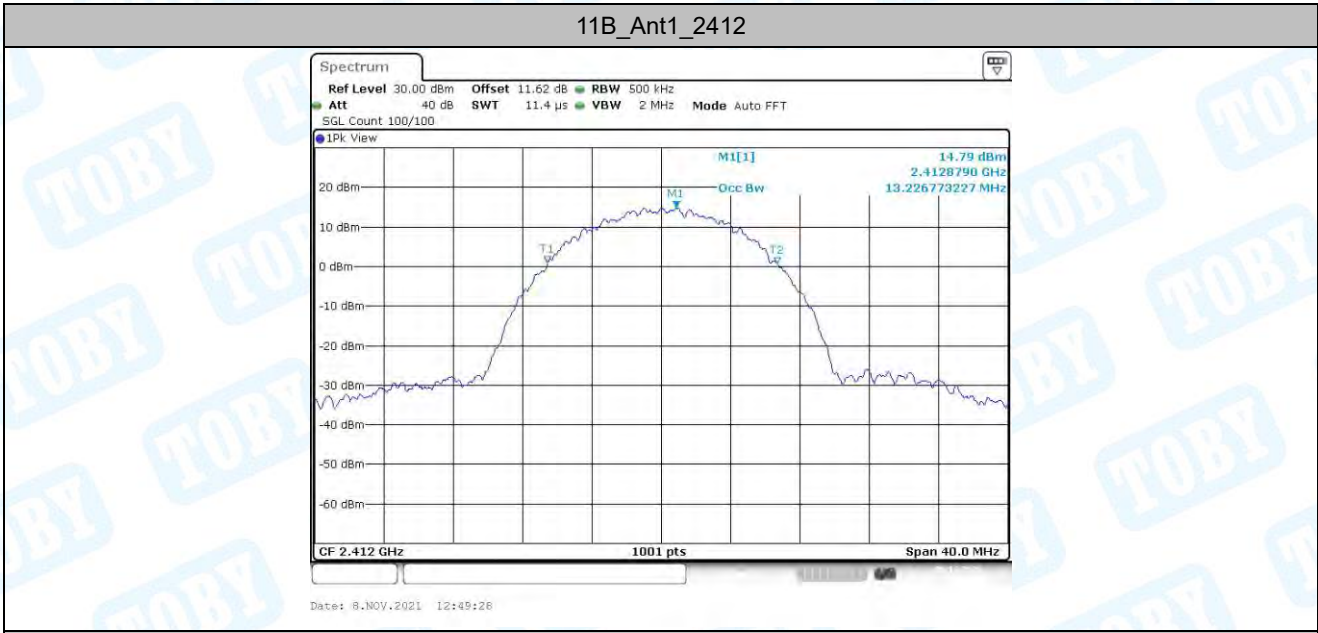
## 2. Occupied Channel Bandwidth

### 2.1. Test Result

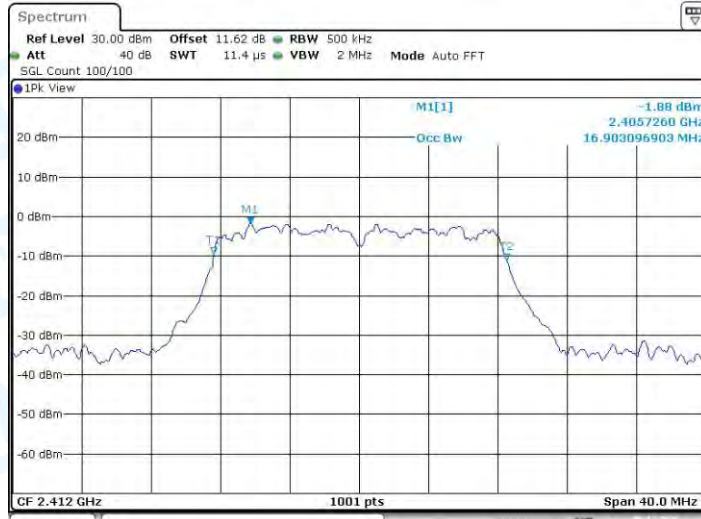
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	13.227	2405.447	2418.673	---	PASS
		2437	13.227	2430.327	2443.553	---	PASS
		2462	13.227	2455.327	2468.553	---	PASS
11G	Ant1	2412	16.903	2403.608	2420.511	---	PASS
		2437	17.183	2428.289	2445.472	---	PASS
		2462	17.063	2453.449	2470.511	---	PASS
11N20SISO	Ant1	2412	18.062	2403.009	2421.071	---	PASS
		2437	18.022	2427.929	2445.951	---	PASS
		2462	18.022	2453.049	2471.071	---	PASS
11N40SISO	Ant1	2422	36.444	2403.698	2440.142	---	PASS
		2437	36.523	2418.618	2455.142	---	PASS
		2452	36.444	2433.858	2470.302	---	PASS



## 2.2. Test Graphs

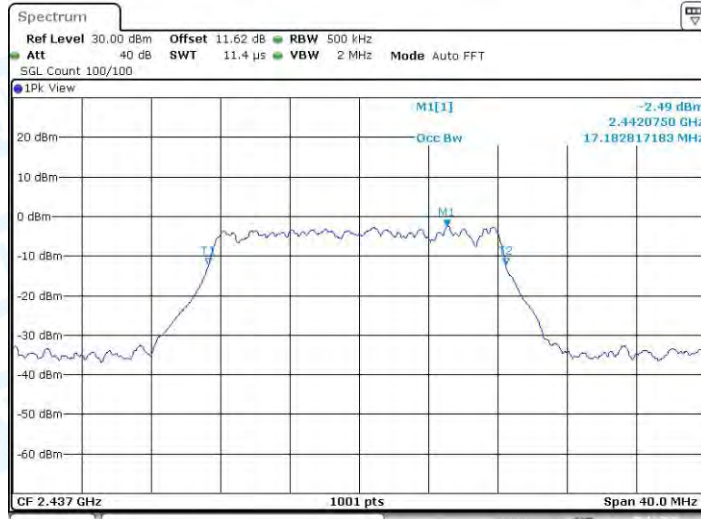


11G\_Ant1\_2412



Date: 8.NOV.2021 13:02:36

11G\_Ant1\_2437



Date: 8.NOV.2021 13:06:21

11G\_Ant1\_2462



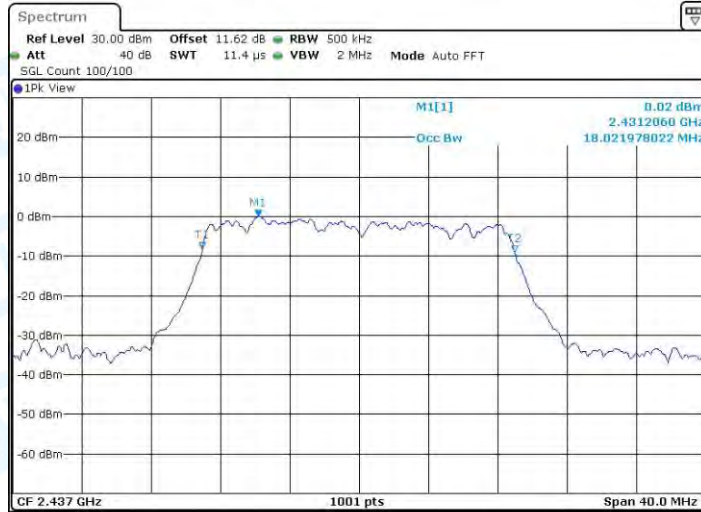
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11N20SISO\_Ant1\_2412



Date: 8.NOV.2021 13:11:56

11N20SISO\_Ant1\_2437



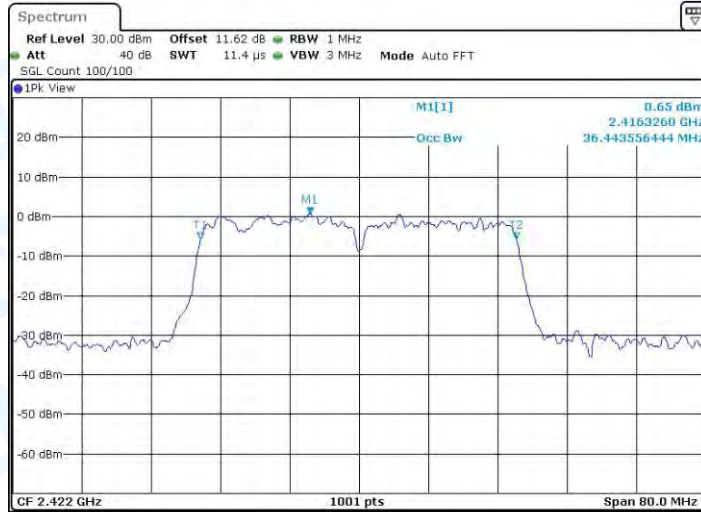
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11N20SISO\_Ant1\_2462



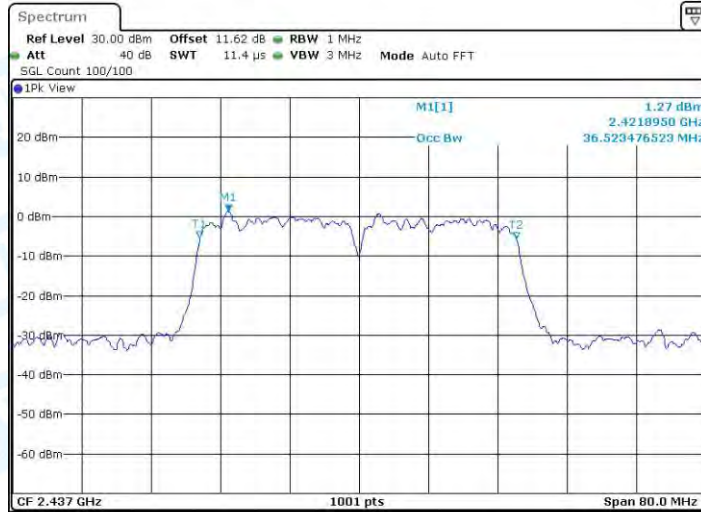
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11N40SISO\_Ant1\_2422



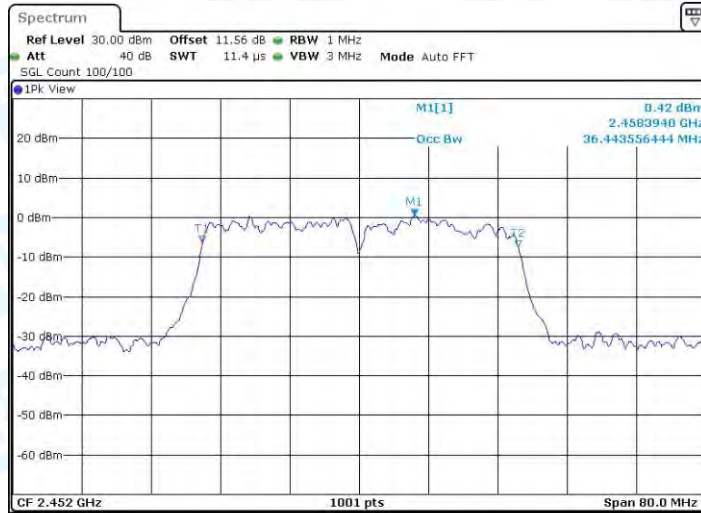
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11N40SISO\_Ant1\_2437



Date: 8.NOV.2021 13:22:42

11N40SISO\_Ant1\_2452



Date: 8.NOV.2021 13:25:37

### 3. Maximum conducted output power

#### 3.1. Test Result

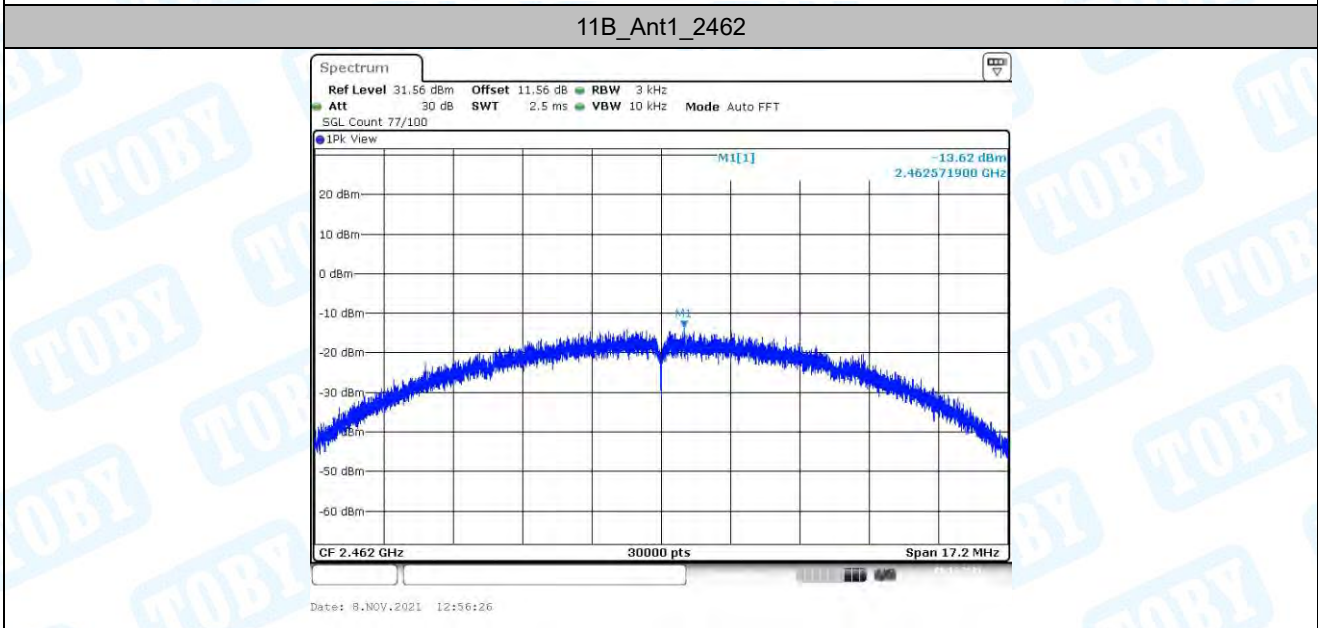
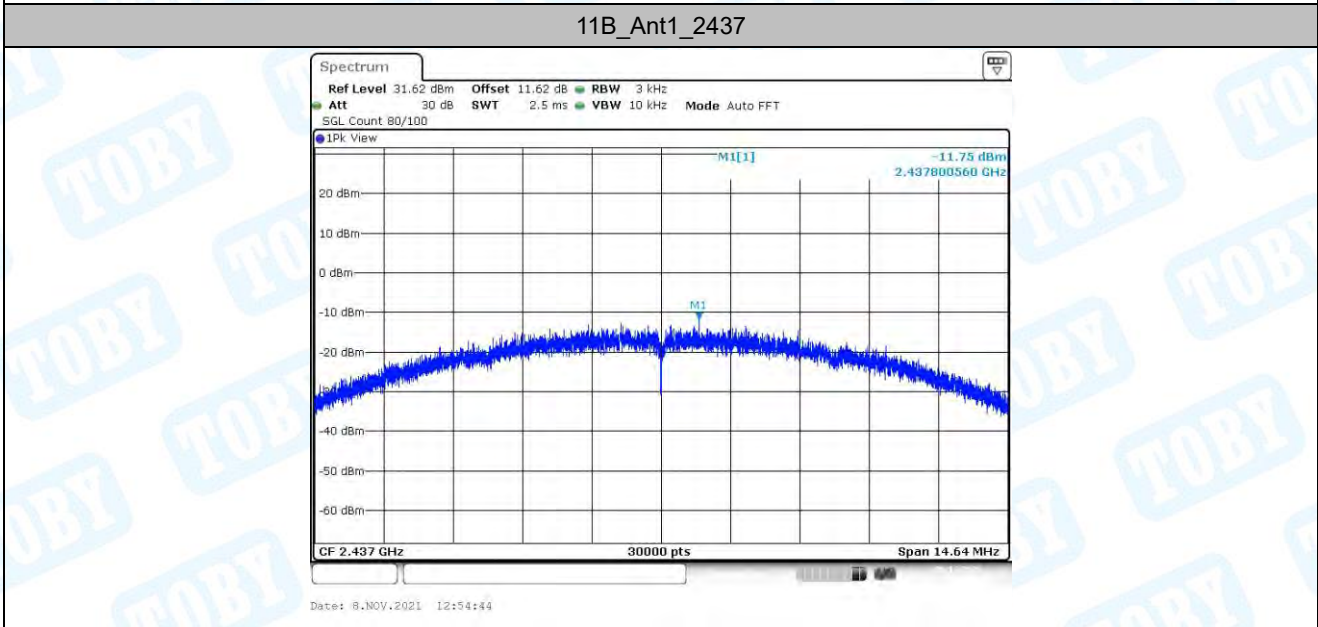
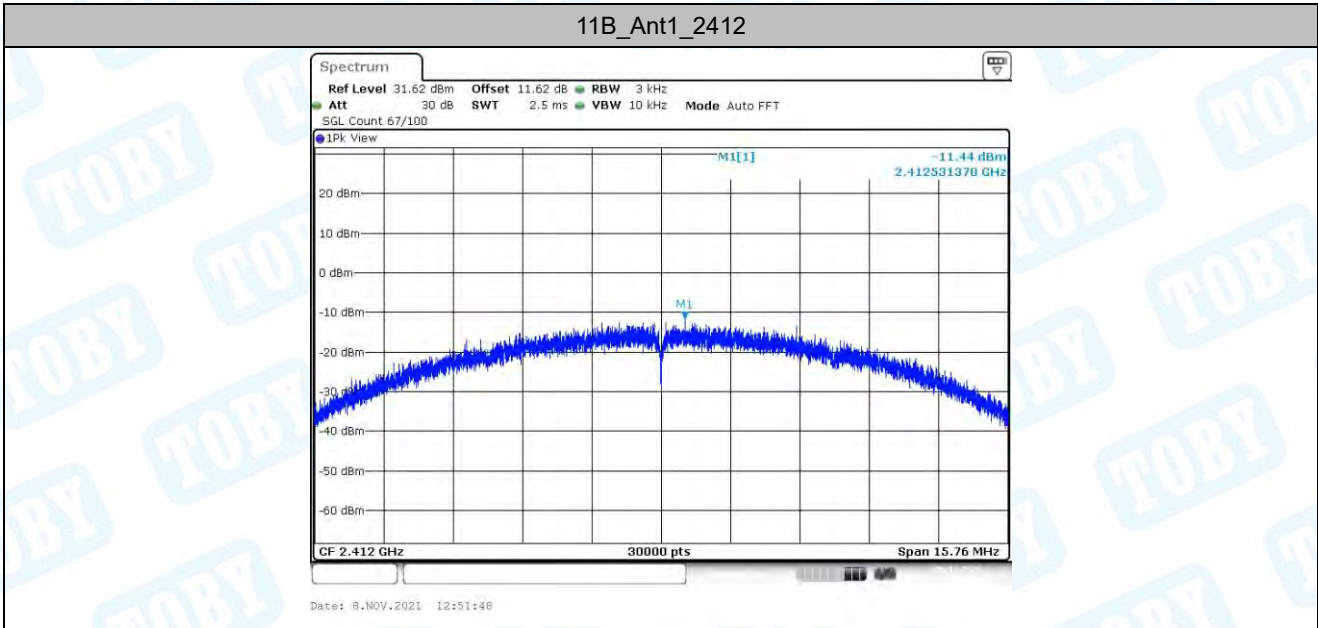
TestMode	Antenna	Channel	Power [dBm]	Limit [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	16.85	≤30	18.85	≤36	PASS
		2437	16.13	≤30	18.13	≤36	PASS
		2462	15.16	≤30	17.16	≤36	PASS
11G	Ant1	2412	15.27	≤30	17.27	≤36	PASS
		2437	14.72	≤30	16.72	≤36	PASS
		2462	13.49	≤30	15.49	≤36	PASS
11N20SISO	Ant1	2412	14.76	≤30	16.76	≤36	PASS
		2437	14.37	≤30	16.37	≤36	PASS
		2462	13.45	≤30	15.45	≤36	PASS
11N40SISO	Ant1	2422	14.69	≤30	16.69	≤36	PASS
		2437	14.47	≤30	16.47	≤36	PASS
		2452	14.14	≤30	16.14	≤36	PASS

## 4. Maximum power spectral density

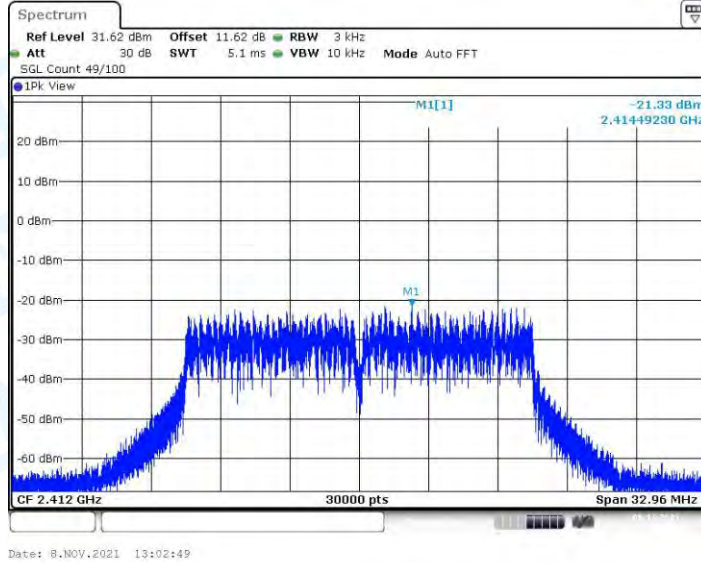
### 4.1. Test Result

TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-11.44	≤8	PASS
		2437	-11.75	≤8	PASS
		2462	-13.62	≤8	PASS
11G	Ant1	2412	-21.33	≤8	PASS
		2437	-20.58	≤8	PASS
		2462	-19.98	≤8	PASS
11N20SISO	Ant1	2412	-18.86	≤8	PASS
		2437	-19.69	≤8	PASS
		2462	-18.19	≤8	PASS
11N40SISO	Ant1	2422	-21.05	≤8	PASS
		2437	-20.97	≤8	PASS
		2452	-20.65	≤8	PASS

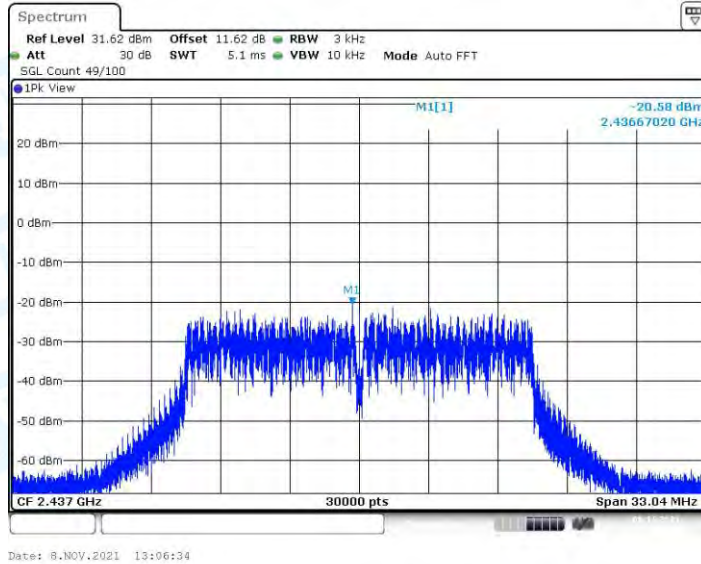
### 4.2. Test Graphs



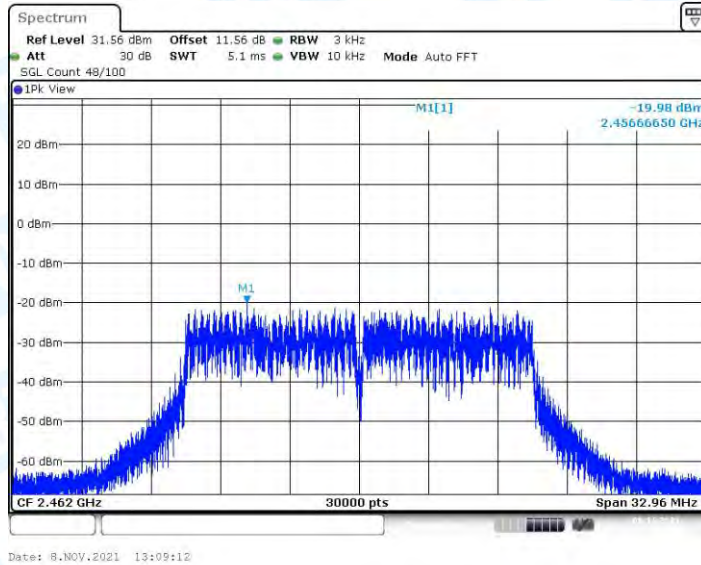
11G\_Ant1\_2412



11G\_Ant1\_2437

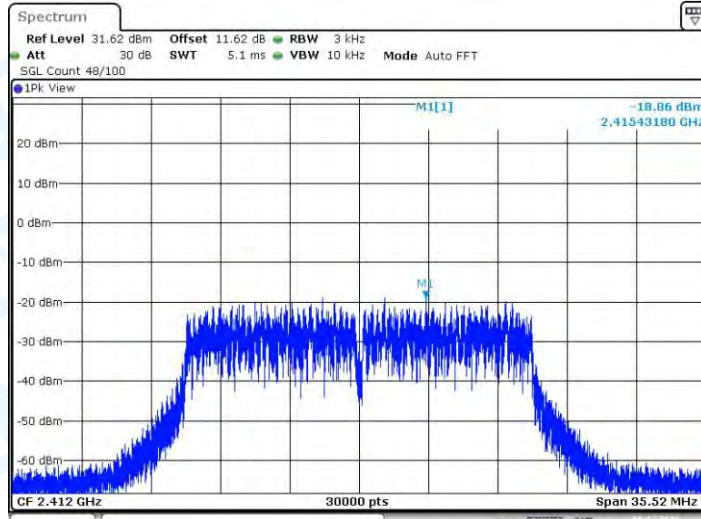


11G\_Ant1\_2462



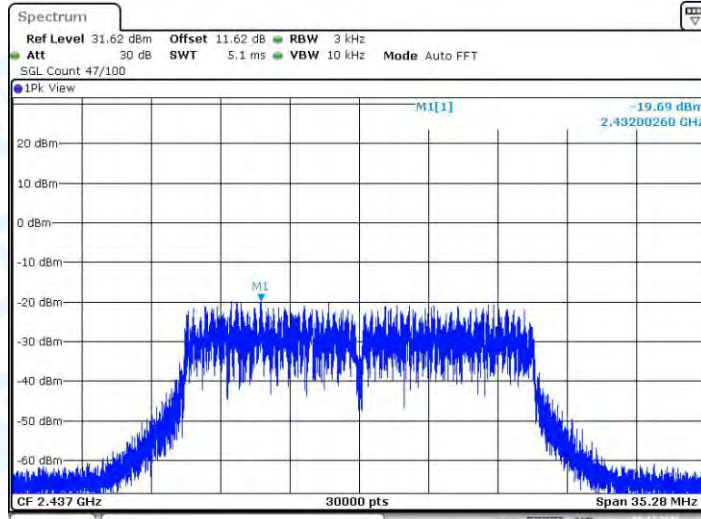


11N20SISO\_Ant1\_2412



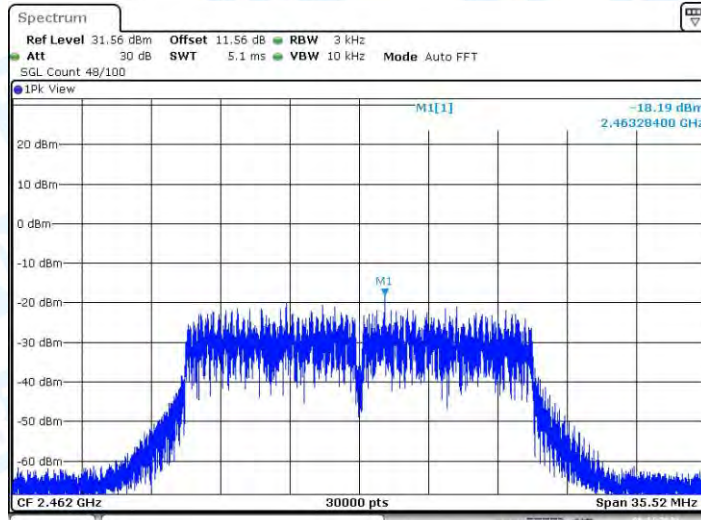
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11N20SISO\_Ant1\_2437



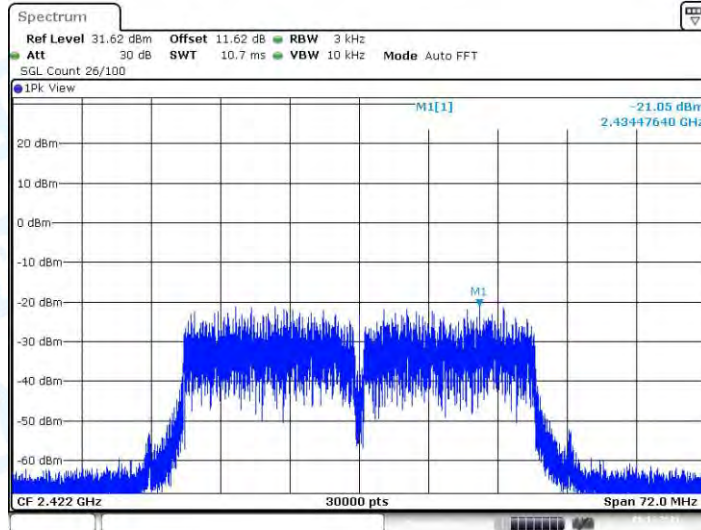
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11N20SISO\_Ant1\_2462



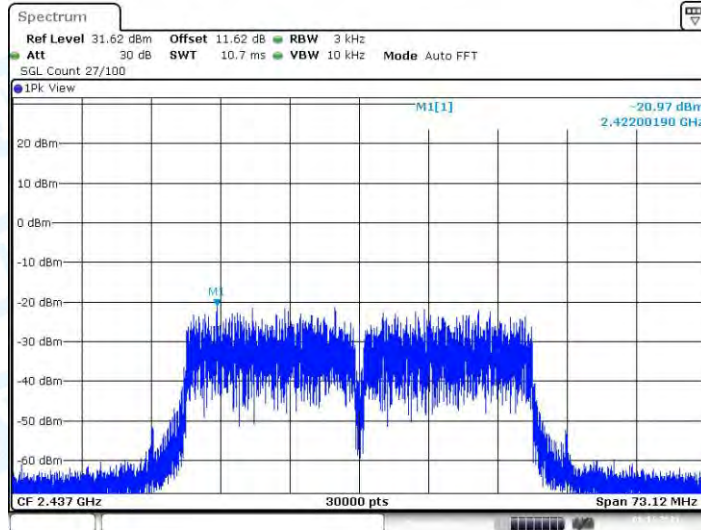
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11N40SISO\_Ant1\_2422



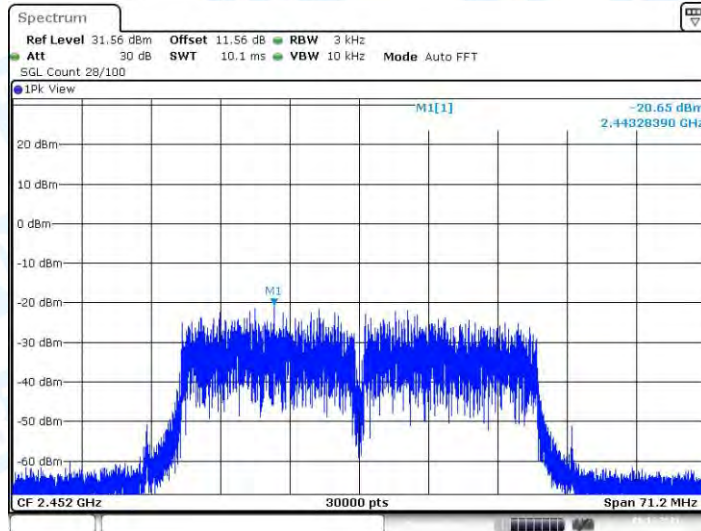
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11N40SISO\_Ant1\_2437



Date: 8.NOV.2021 13:22:55

11N40SISO\_Ant1\_2452



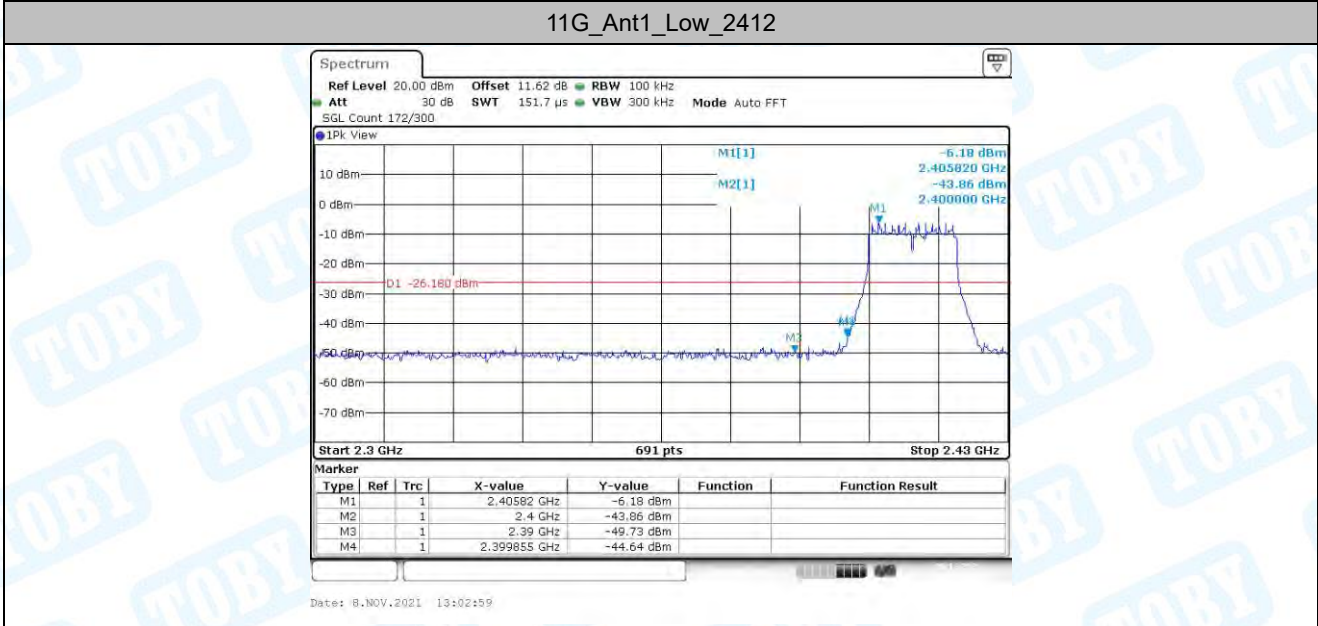
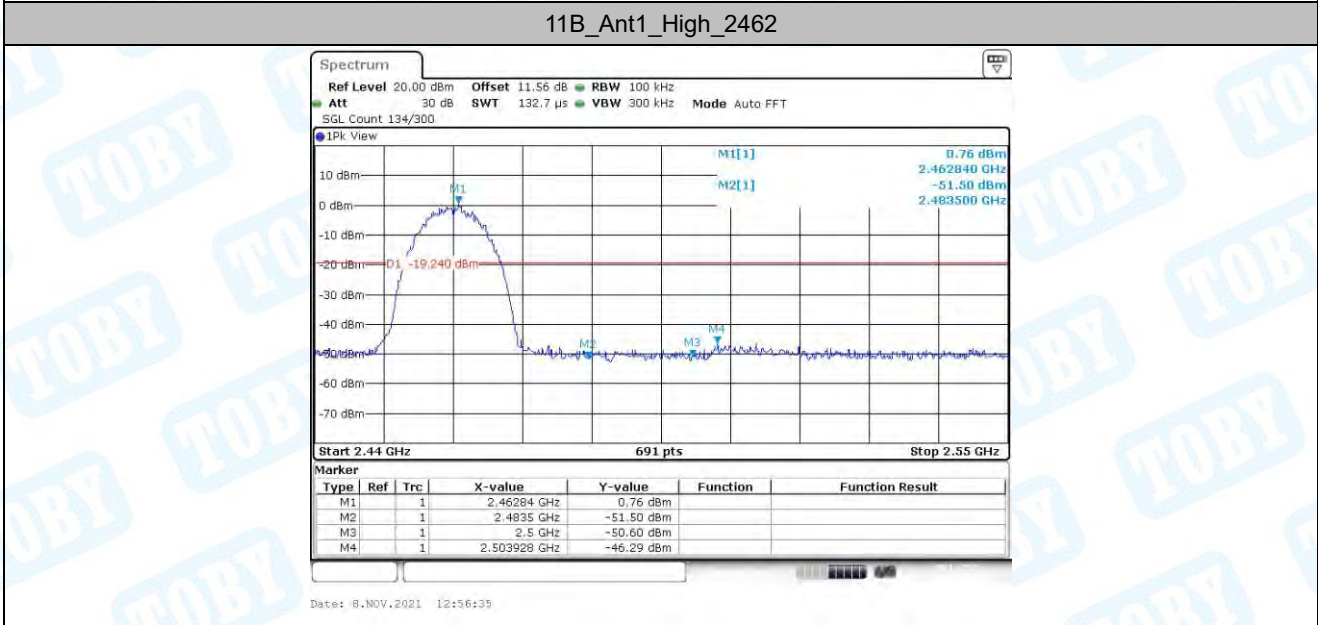
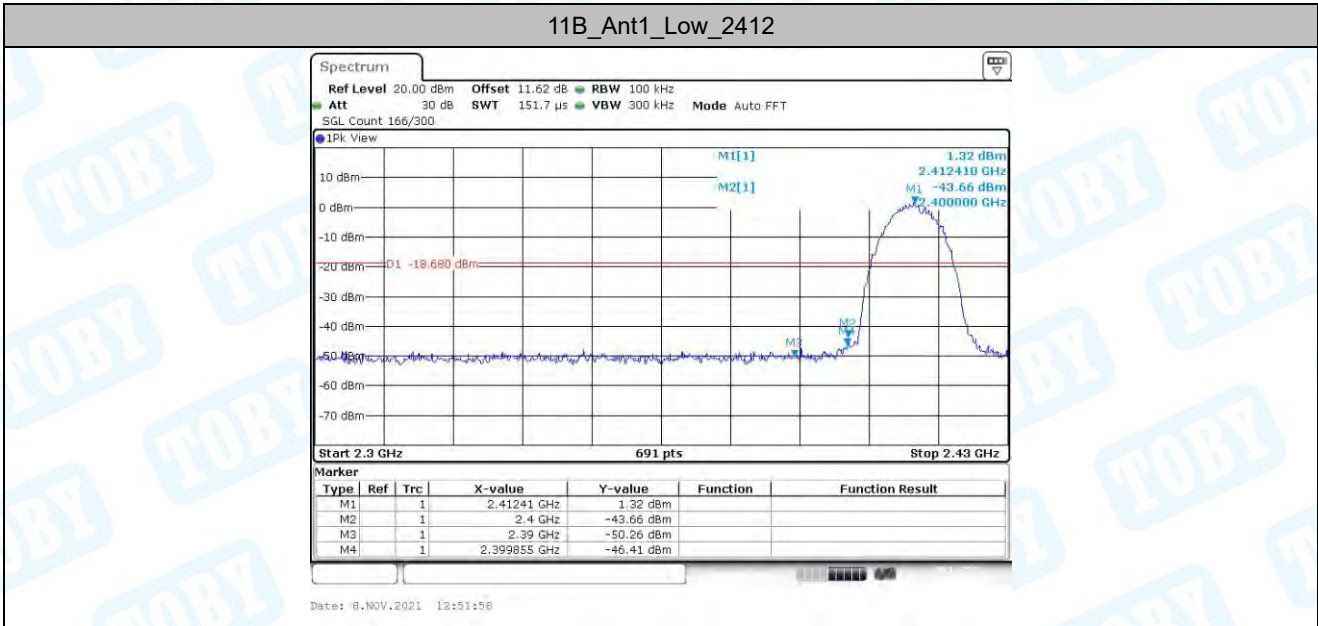
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## 5. Band edge measurements

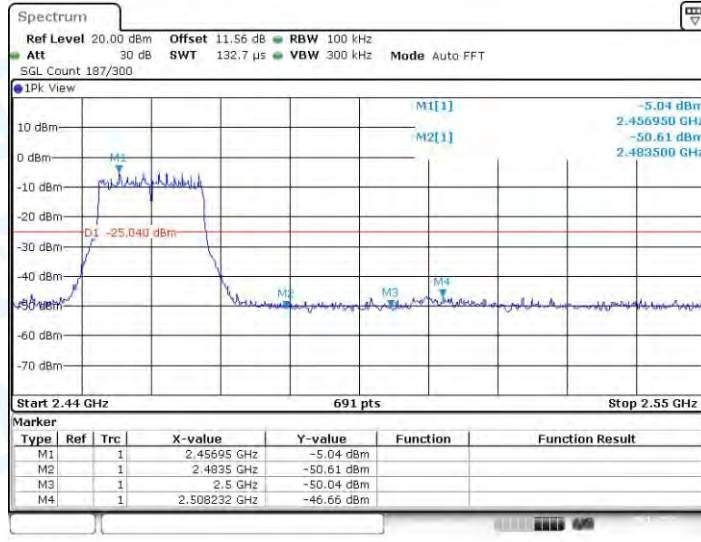
### 5.1. Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	1.32	-46.41	≤-18.68	PASS
		High	2462	0.76	-46.29	≤-19.24	PASS
11G	Ant1	Low	2412	-6.18	-44.64	≤-26.18	PASS
		High	2462	-5.04	-46.66	≤-25.04	PASS
11N20SISO	Ant1	Low	2412	-3.62	-42.33	≤-23.62	PASS
		High	2462	-5.62	-45.77	≤-25.62	PASS
11N40SISO	Ant1	Low	2422	-6.71	-43.23	≤-26.71	PASS
		High	2452	-7.08	-45.88	≤-27.08	PASS

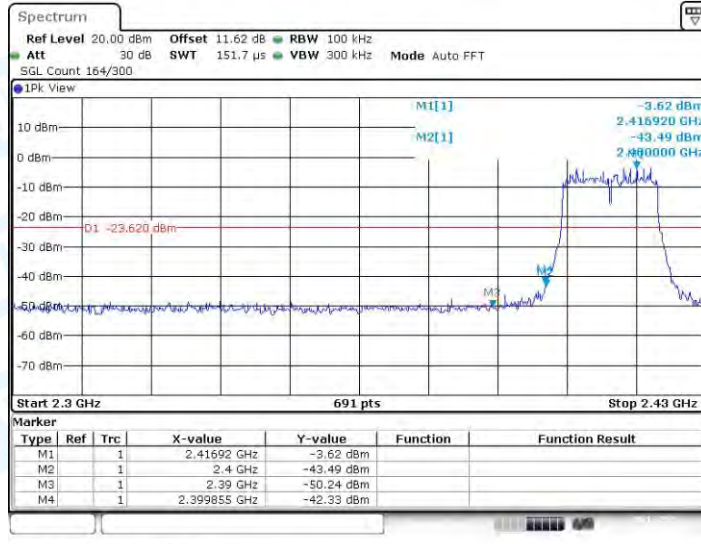
### 5.2. Test Graphs



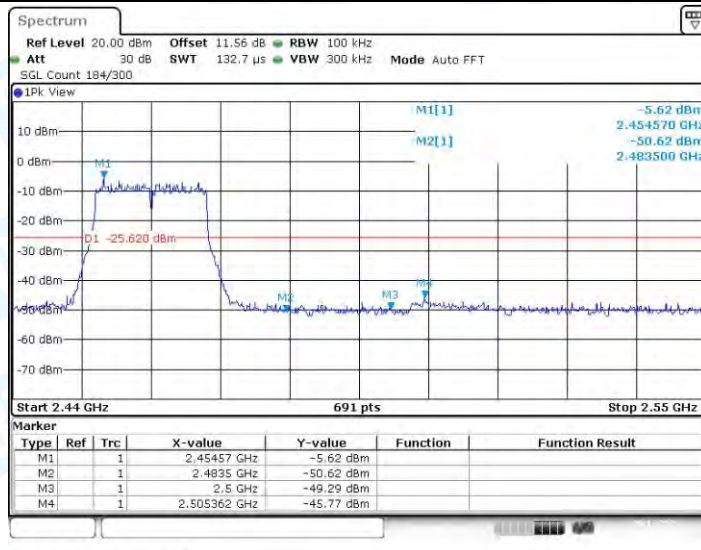
### 11G\_Ant1\_High\_2462



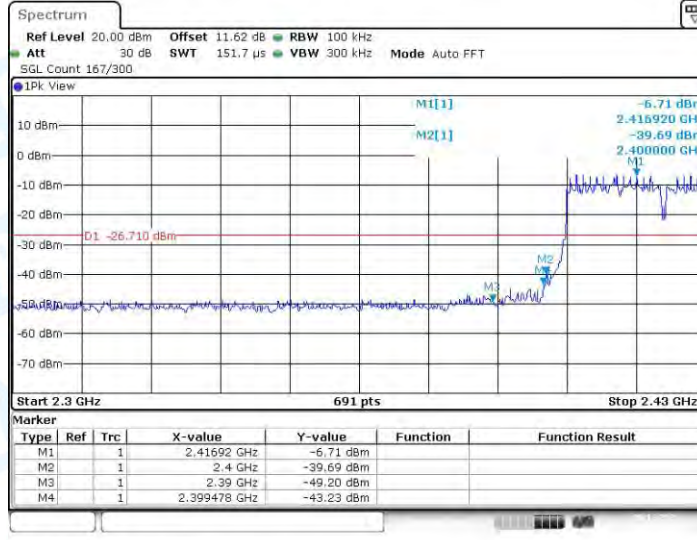
### 11N20SISO\_Ant1\_Low\_2412



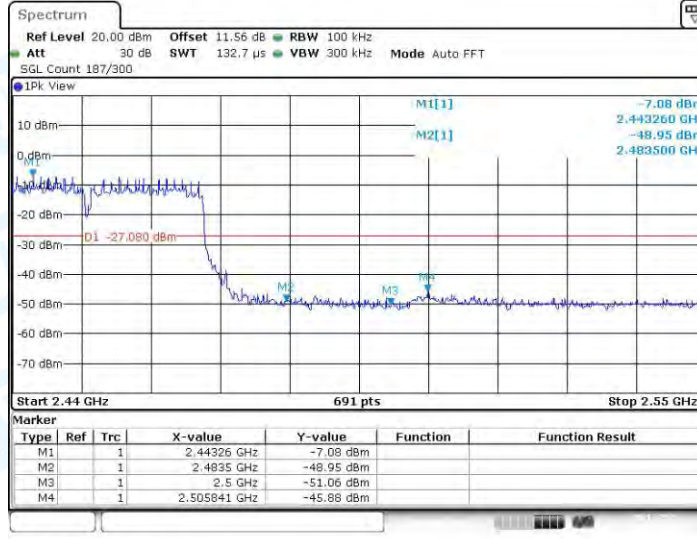
### 11N20SISO\_Ant1\_High\_2462



11N40SISO\_Ant1\_Low\_2422



11N40SISO\_Ant1\_High\_2452

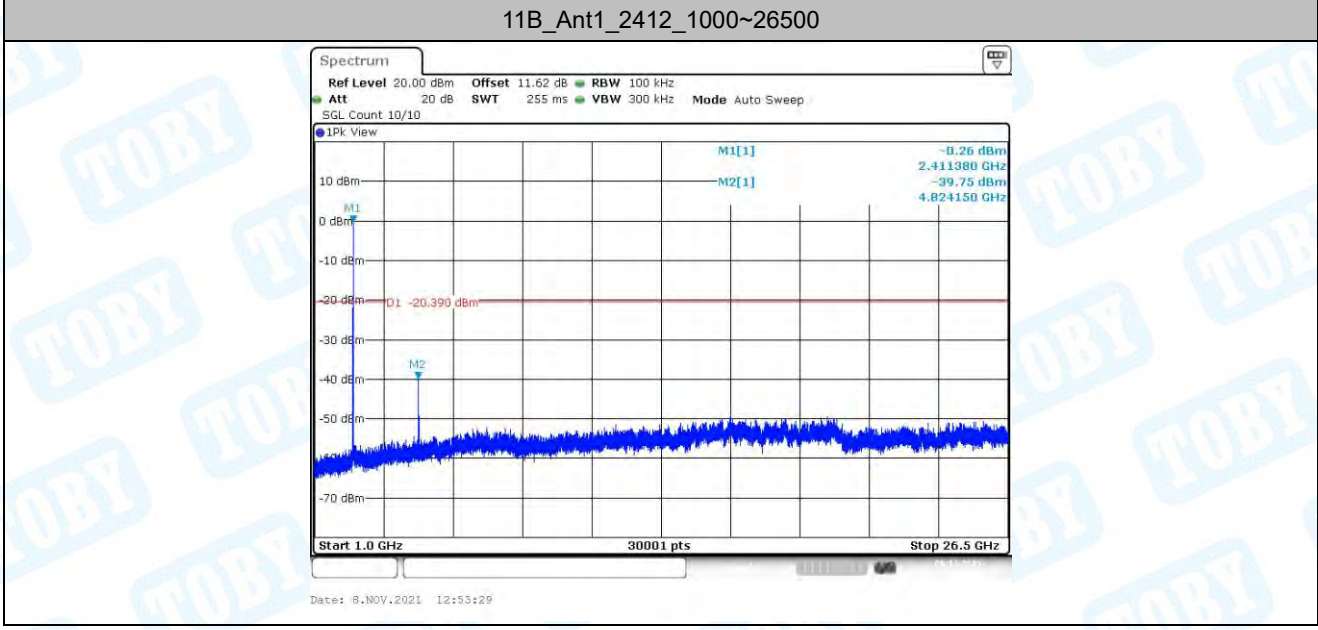
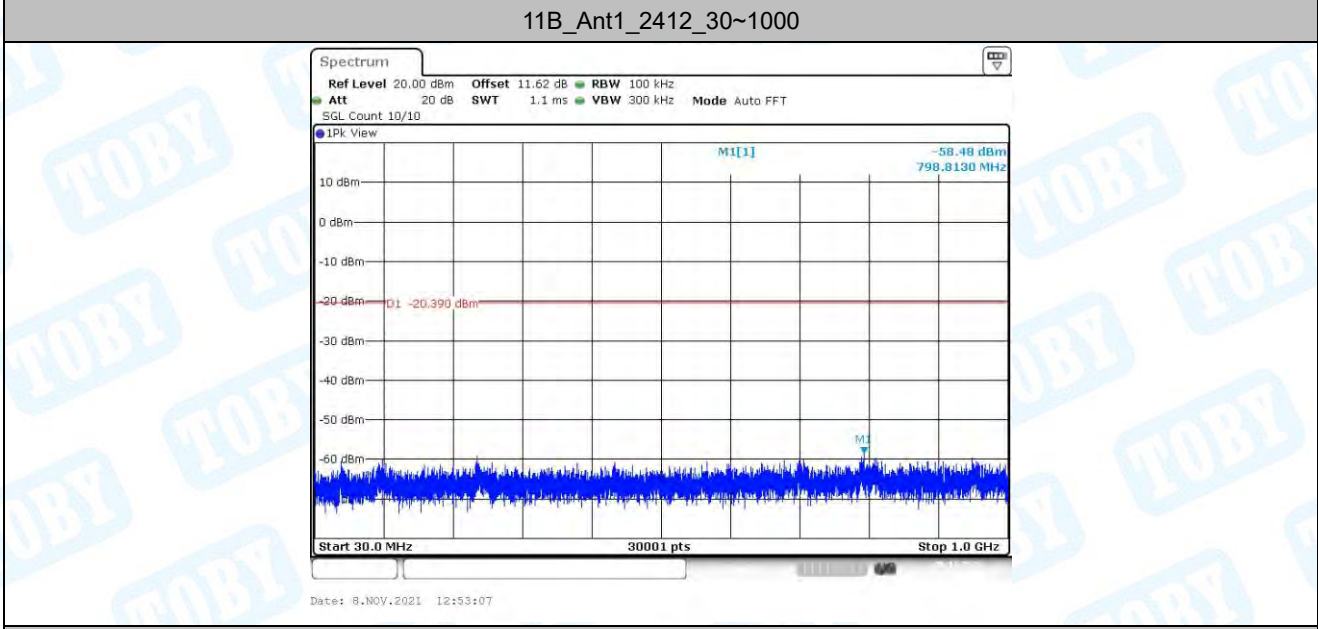
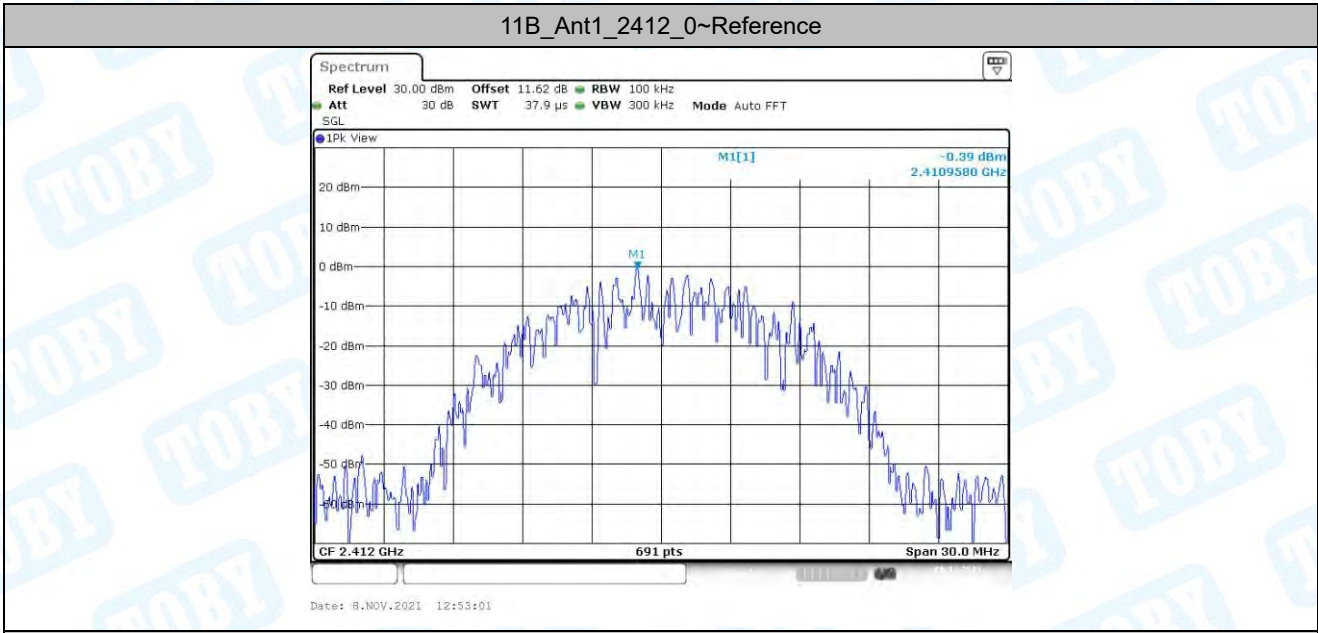


## 6. Conducted Spurious Emission

### 6.1. Test Result

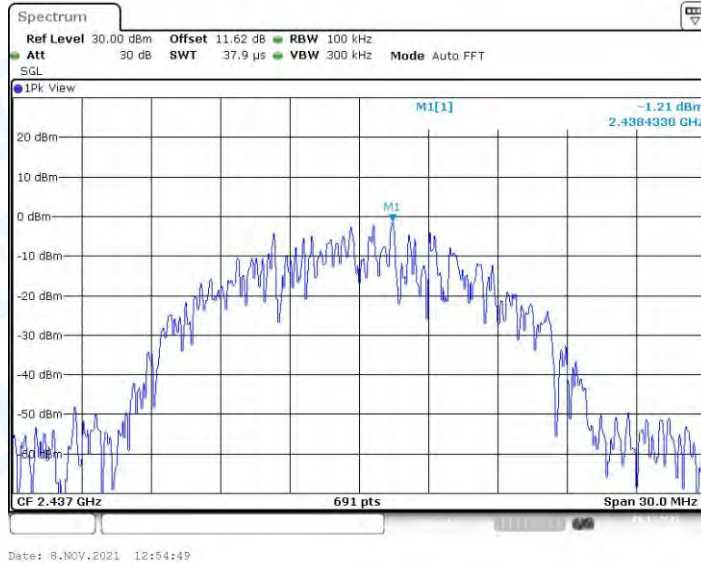
TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	-0.39	-0.39	---	PASS
			30~1000	-0.39	-58.48	≤-20.39	PASS
			1000~26500	-0.39	-39.75	≤-20.39	PASS
		2437	Reference	-1.21	-1.21	---	PASS
			30~1000	-1.21	-59.07	≤-21.21	PASS
			1000~26500	-1.21	-40.78	≤-21.21	PASS
		2462	Reference	-3.31	-3.31	---	PASS
			30~1000	-3.31	-58.48	≤-23.31	PASS
			1000~26500	-3.31	-43.9	≤-23.31	PASS
11G	Ant1	2412	Reference	-9.12	-9.12	---	PASS
			30~1000	-9.12	-58.57	≤-29.12	PASS
			1000~26500	-9.12	-48.65	≤-29.12	PASS
		2437	Reference	-6.08	-6.08	---	PASS
			30~1000	-6.08	-58.14	≤-26.08	PASS
			1000~26500	-6.08	-49.24	≤-26.08	PASS
		2462	Reference	-4.72	-4.72	---	PASS
			30~1000	-4.72	-57.62	≤-24.72	PASS
			1000~26500	-4.72	-49.39	≤-24.72	PASS
11N20SISO	Ant1	2412	Reference	-7.83	-7.83	---	PASS
			30~1000	-7.83	-58.54	≤-27.83	PASS
			1000~26500	-7.83	-49.01	≤-27.83	PASS
		2437	Reference	-6.29	-6.29	---	PASS
			30~1000	-6.29	-59.16	≤-26.29	PASS
			1000~26500	-6.29	-48.82	≤-26.29	PASS
		2462	Reference	-9.28	-9.28	---	PASS
			30~1000	-9.28	-57.53	≤-29.28	PASS
			1000~26500	-9.28	-49.67	≤-29.28	PASS
11N40SISO	Ant1	2422	Reference	-6.55	-6.55	---	PASS
			30~1000	-6.55	-58.88	≤-26.55	PASS
			1000~26500	-6.55	-49.16	≤-26.55	PASS
		2437	Reference	-10.80	-10.80	---	PASS
			30~1000	-10.80	-58	≤-30.8	PASS
			1000~26500	-10.80	-49.28	≤-30.8	PASS
		2452	Reference	-6.76	-6.76	---	PASS
			30~1000	-6.76	-58.1	≤-26.76	PASS
			1000~26500	-6.76	-49.63	≤-26.76	PASS

## 6.2. Test Graphs

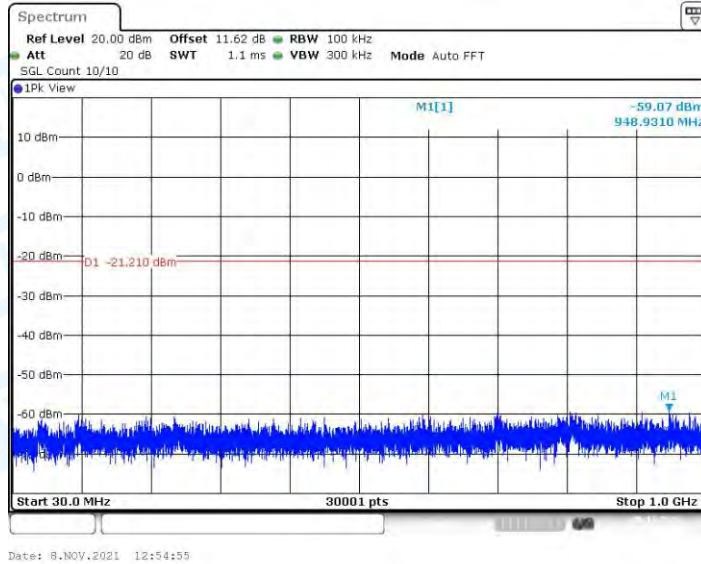




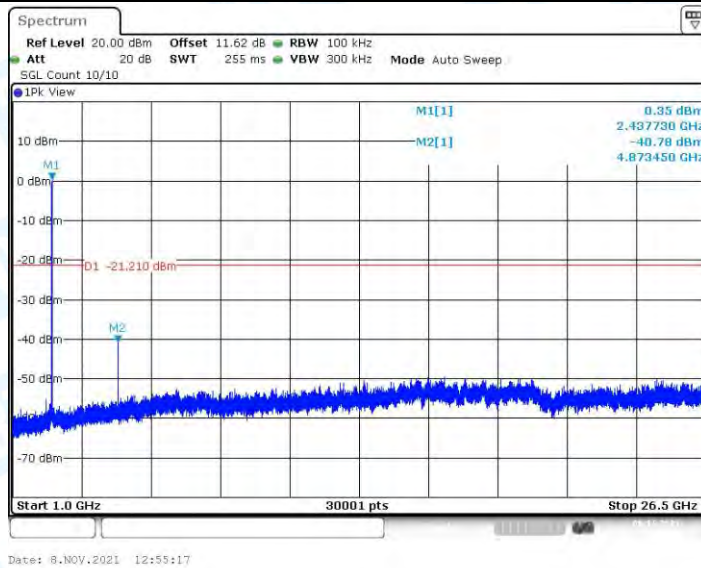
11B\_Ant1\_2437\_0~Reference



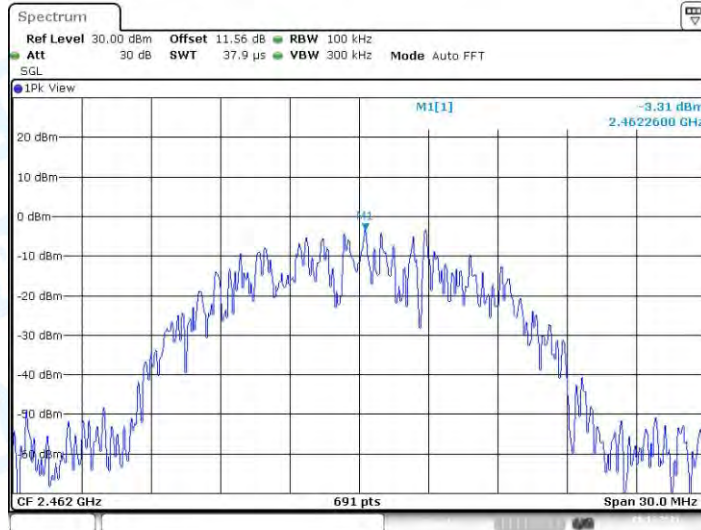
11B\_Ant1\_2437\_30~1000



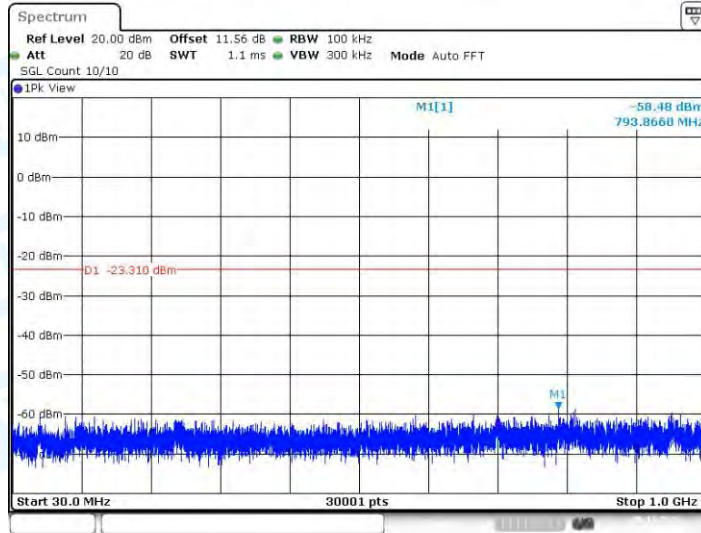
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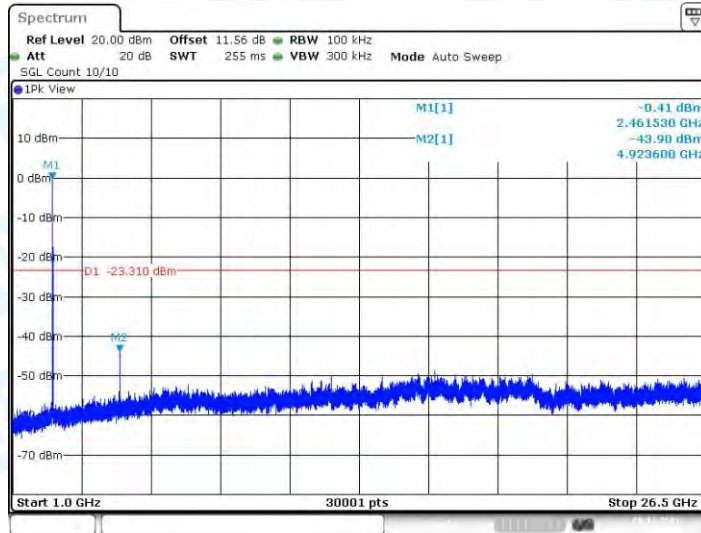
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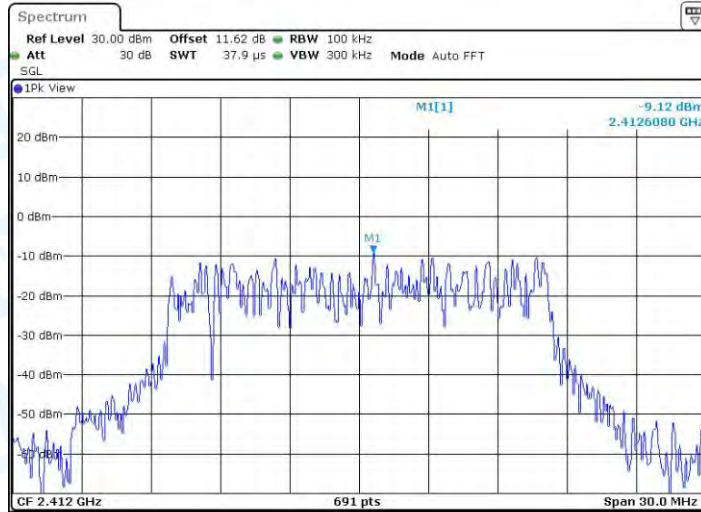
11B\_Ant1\_2462\_30~1000



11B\_Ant1\_2462\_1000~26500

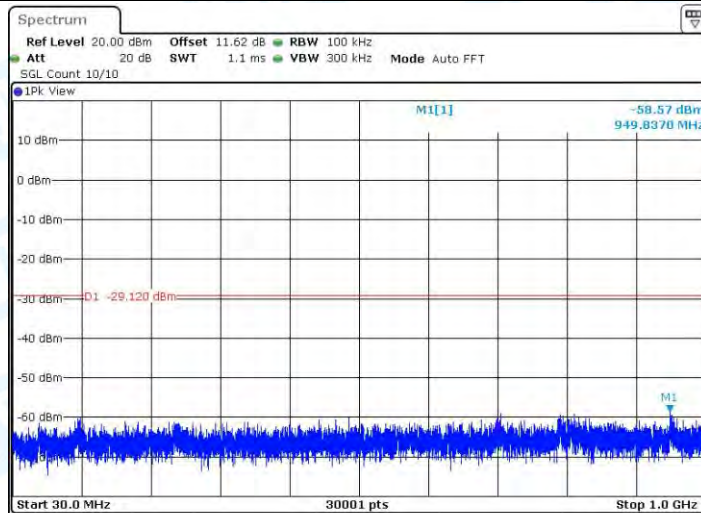


11G\_Ant1\_2412\_0~Reference



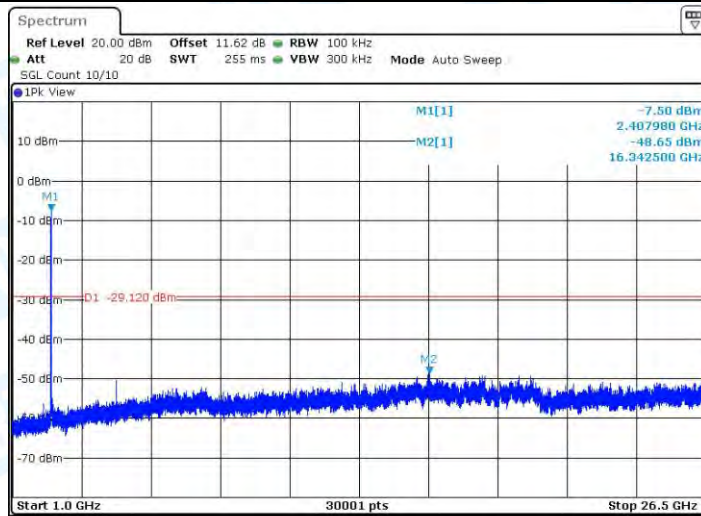
Date: 8.NOV.2021 13:04:56

11G\_Ant1\_2412\_30~1000



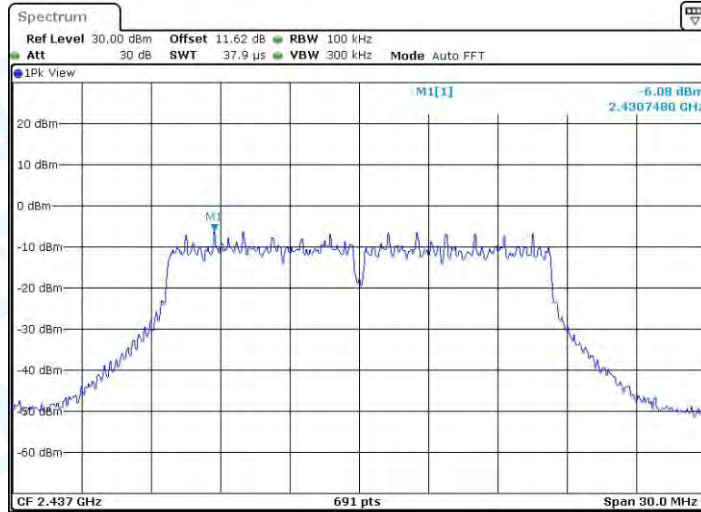
Date: 8.NOV.2021 13:05:02

11G\_Ant1\_2412\_1000~26500



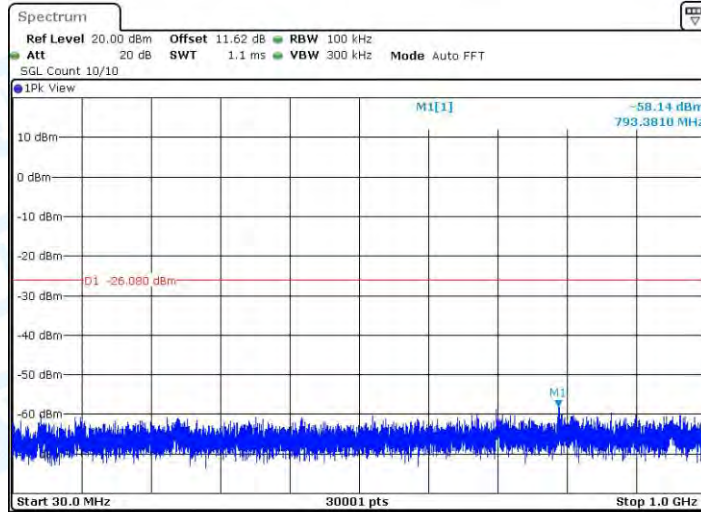
Date: 8.NOV.2021 13:05:24

11G\_Ant1\_2437\_0~Reference



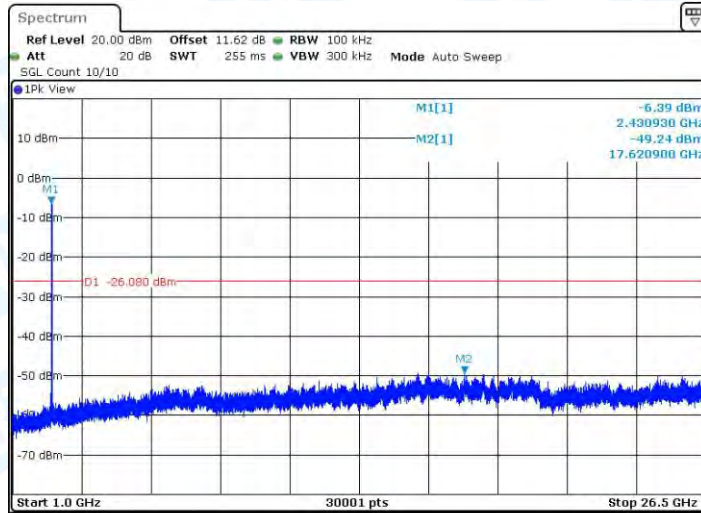
Date: 8.NOV.2021 13:07:41

11G\_Ant1\_2437\_30~1000



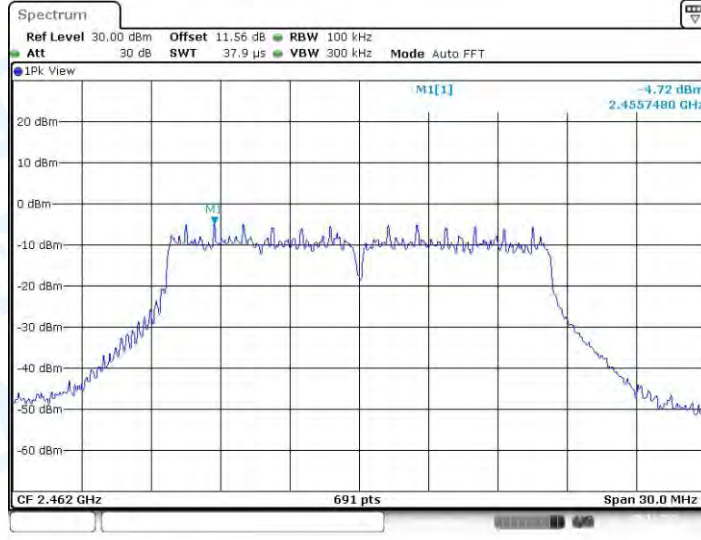
Date: 8.NOV.2021 13:07:46

11G\_Ant1\_2437\_1000~26500



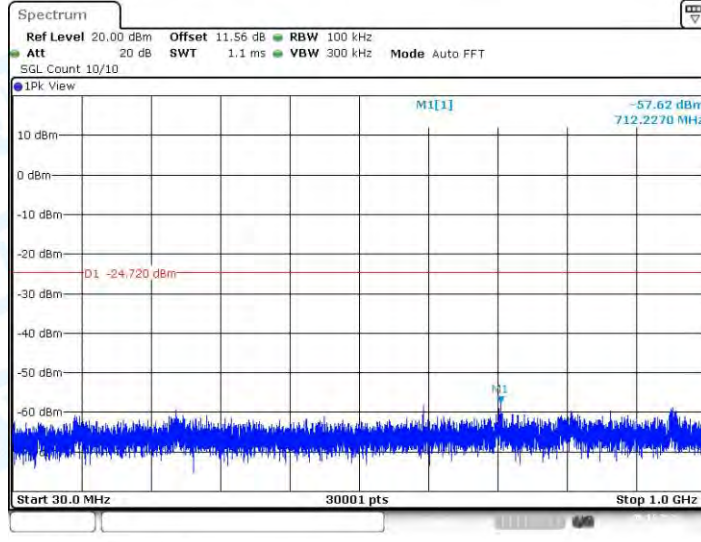
Date: 8.NOV.2021 13:08:09

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



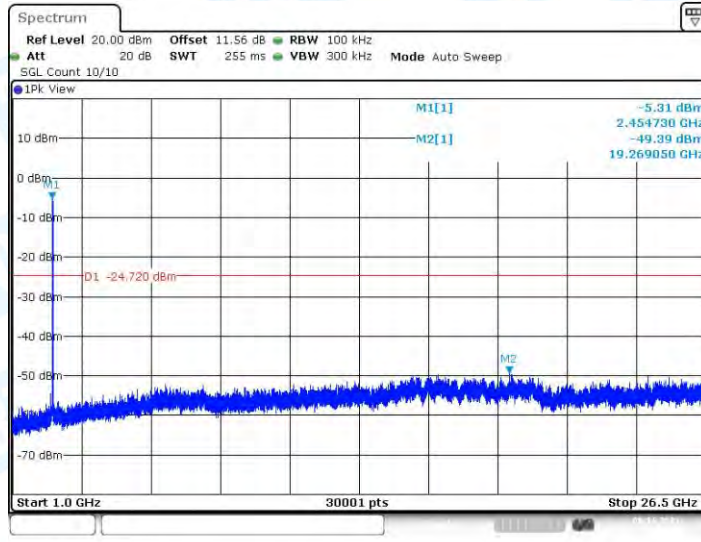
Date: 8.NOV.2021 13:10:29

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



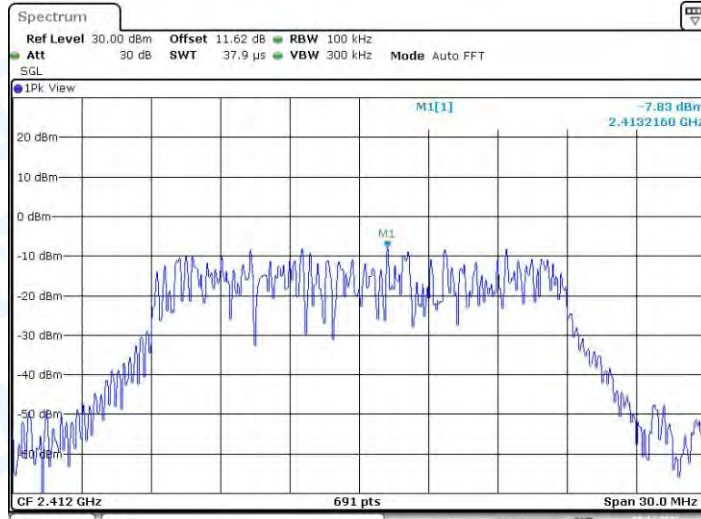
Date: 8.NOV.2021 13:10:34

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



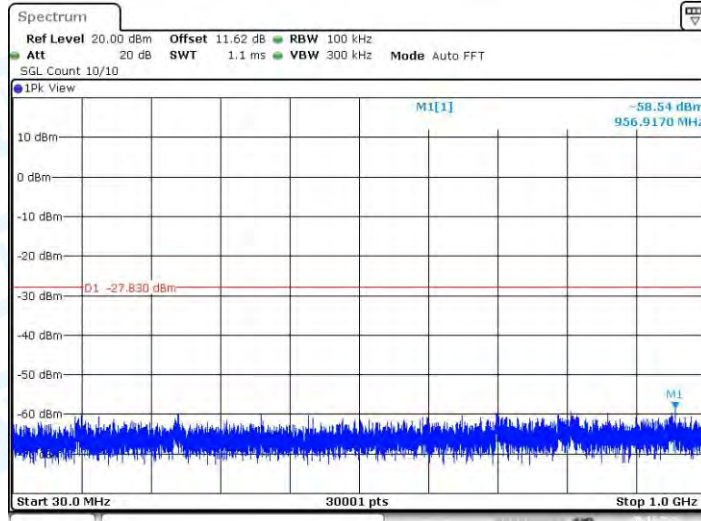
Date: 8.NOV.2021 13:10:57

11N20SISO\_Ant1\_2412\_0~Reference



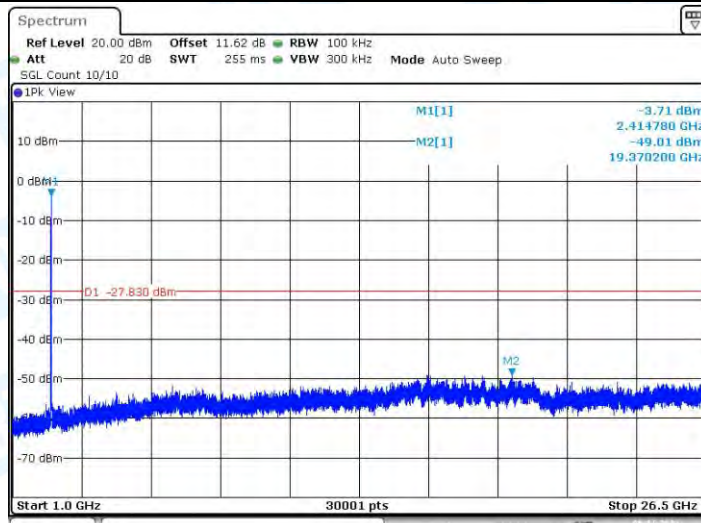
Date: 8.NOV.2021 13:13:23

11N20SISO\_Ant1\_2412\_30~1000



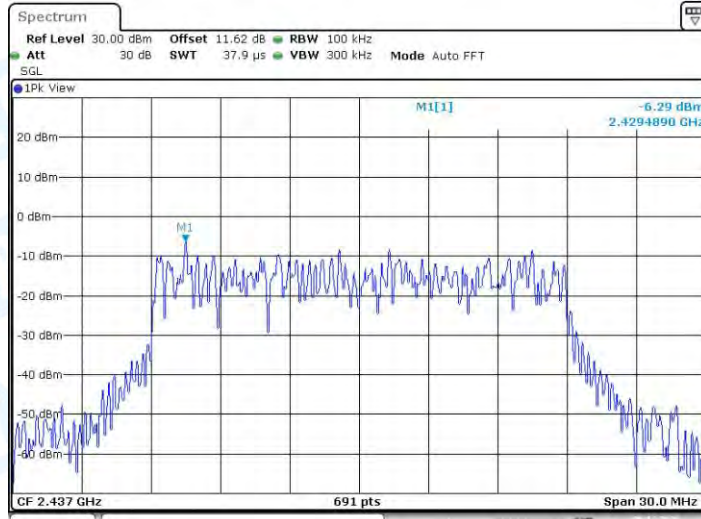
Date: 8.NOV.2021 13:13:28

11N20SISO\_Ant1\_2412\_1000~26500

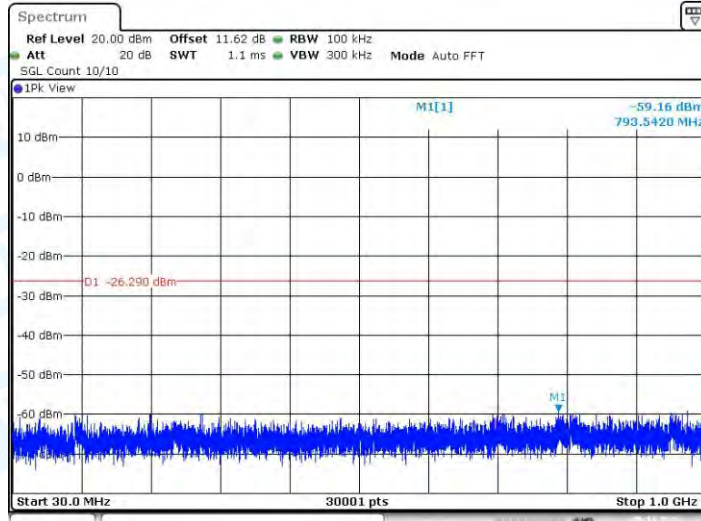


Date: 8.NOV.2021 13:13:51

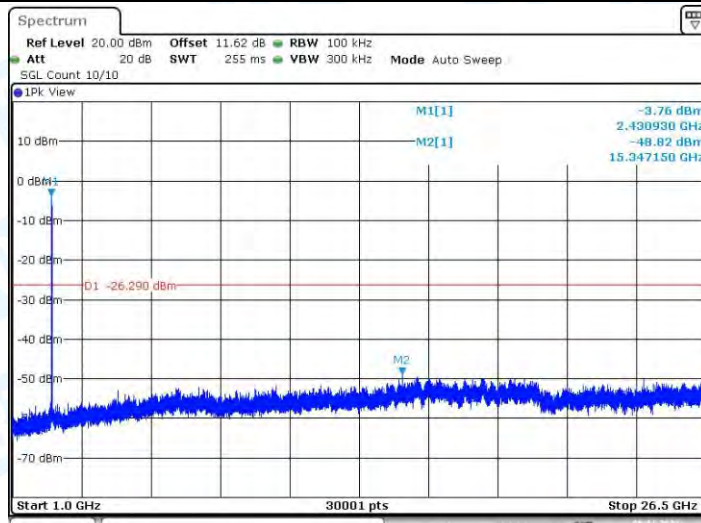
11N20SISO\_Ant1\_2437\_0~Reference



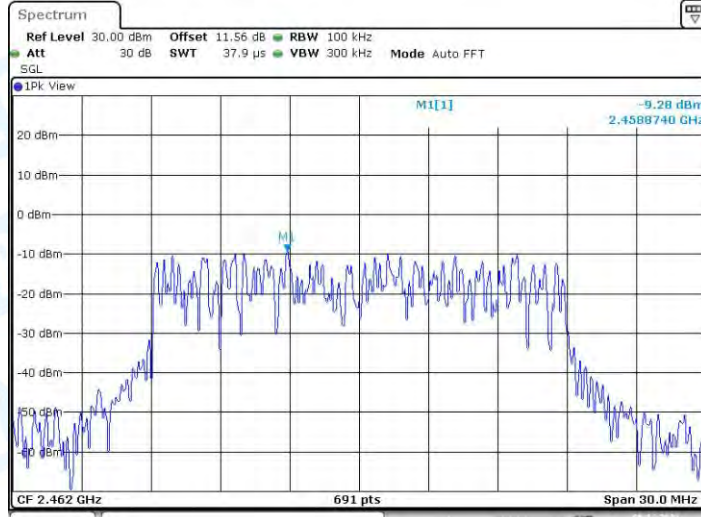
11N20SISO\_Ant1\_2437\_30~1000



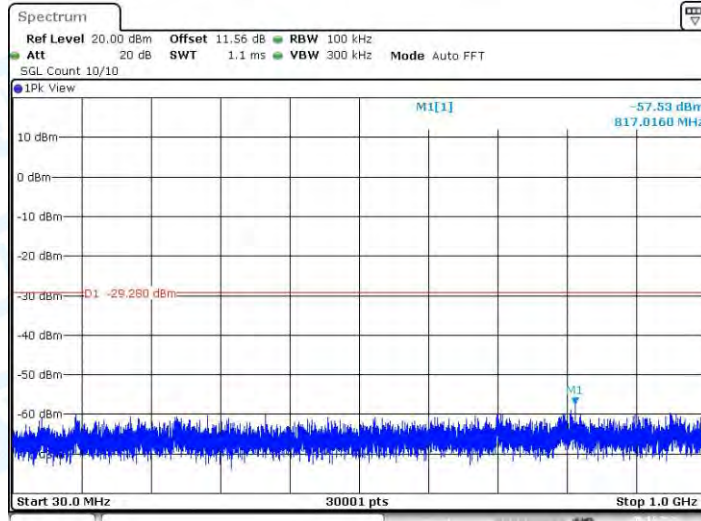
11N20SISO\_Ant1\_2437\_1000~26500



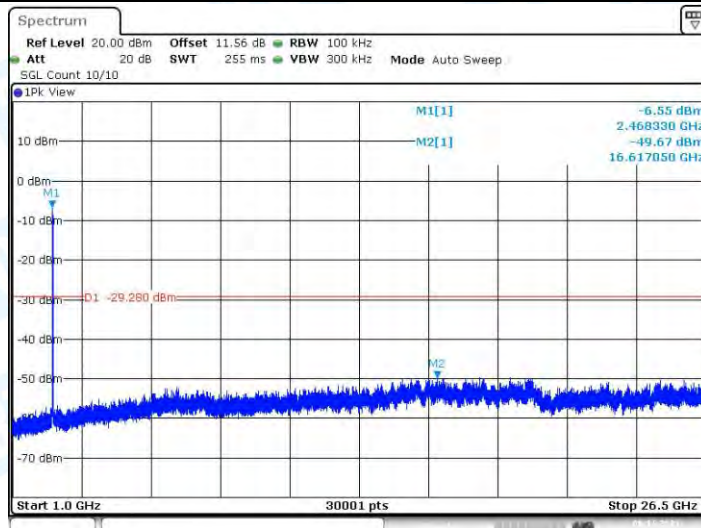
11N20SISO\_Ant1\_2462\_0~Reference



11N20SISO\_Ant1\_2462\_30~1000

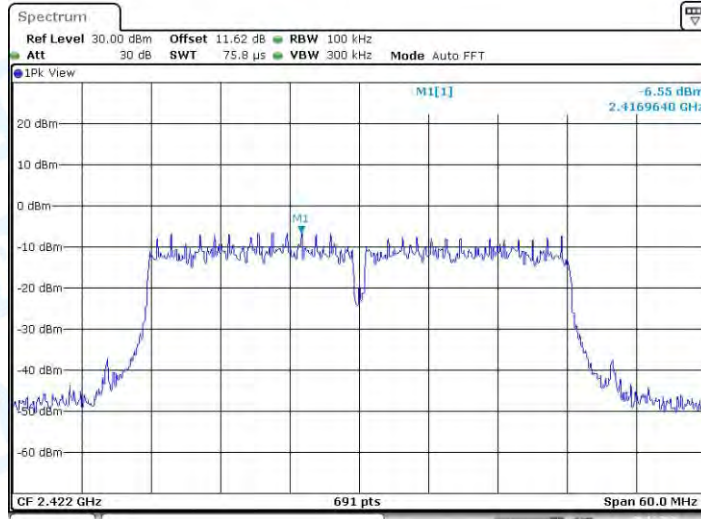


11N20SISO\_Ant1\_2462\_1000~26500



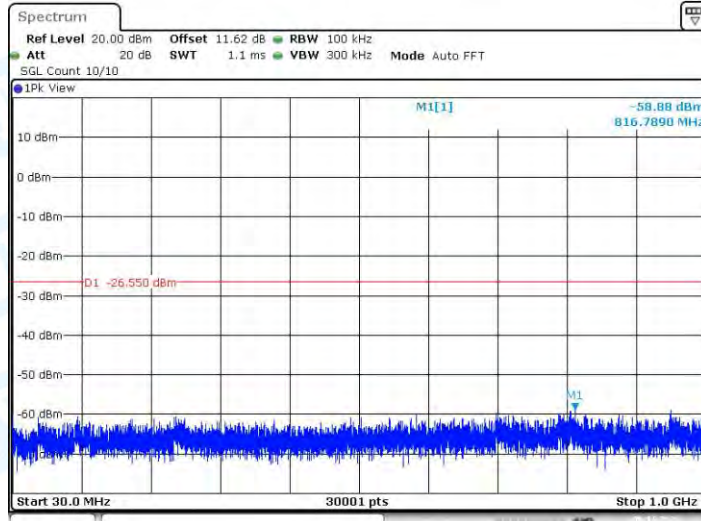


11N40SISO\_Ant1\_2422\_0~Reference



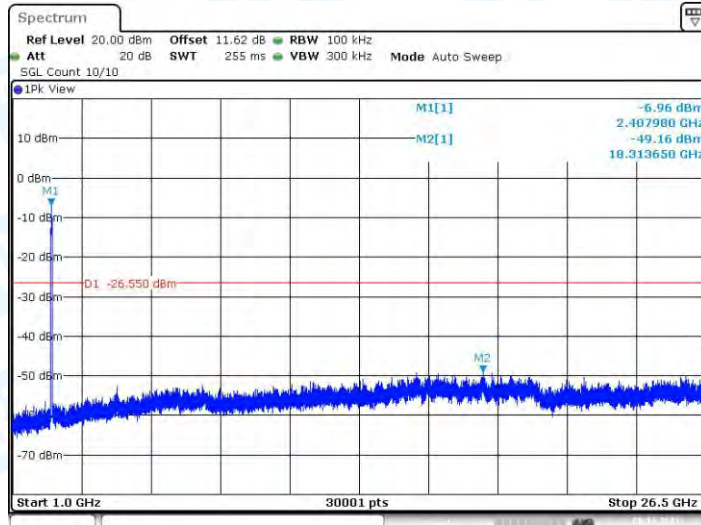
Date: 8.NOV.2021 13:20:55

11N40SISO\_Ant1\_2422\_30~1000



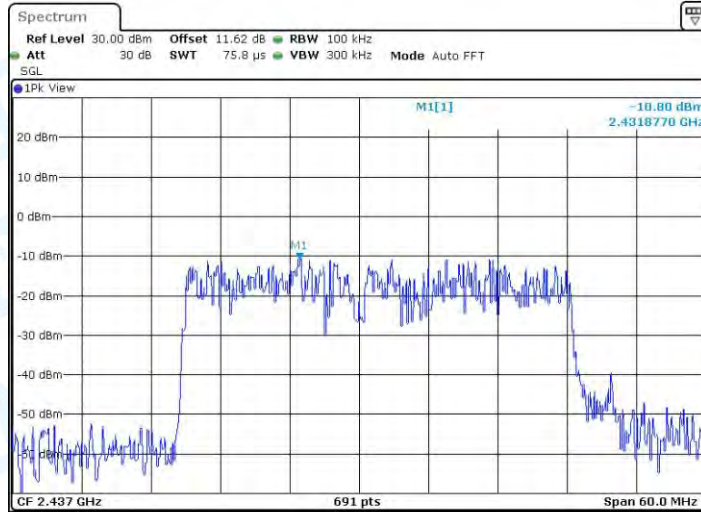
Date: 8.NOV.2021 13:21:00

11N40SISO\_Ant1\_2422\_1000~26500

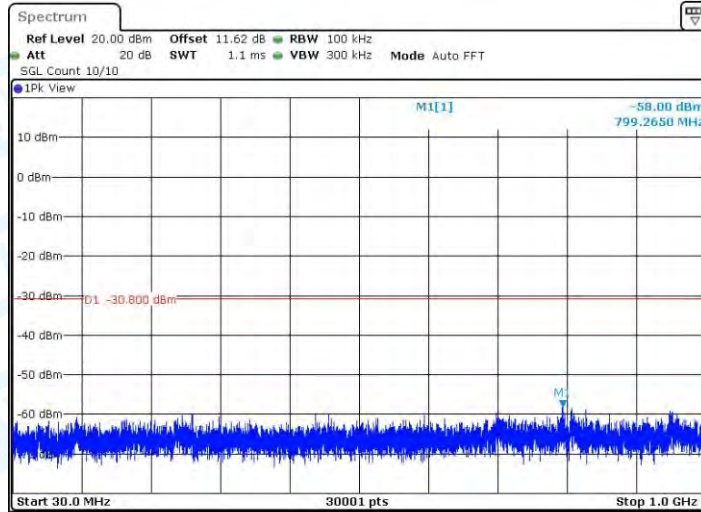


Date: 8.NOV.2021 13:21:23

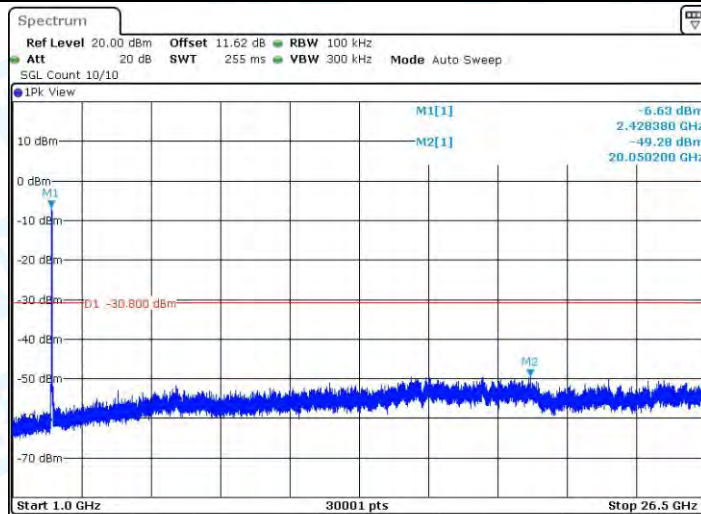
11N40SISO\_Ant1\_2437\_0~Reference



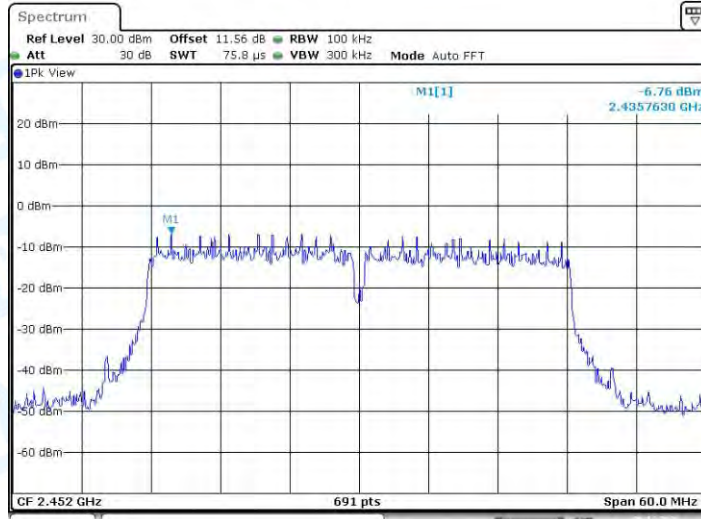
11N40SISO\_Ant1\_2437\_30~1000



11N40SISO\_Ant1\_2437\_1000~26500

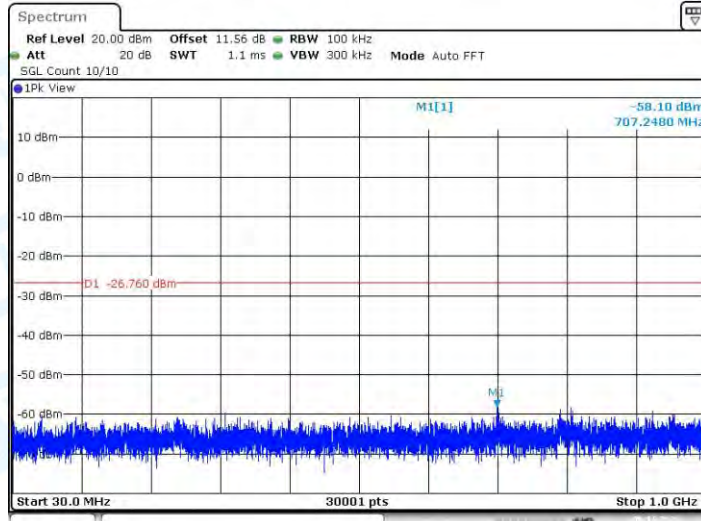


11N40SISO\_Ant1\_2452\_0~Reference



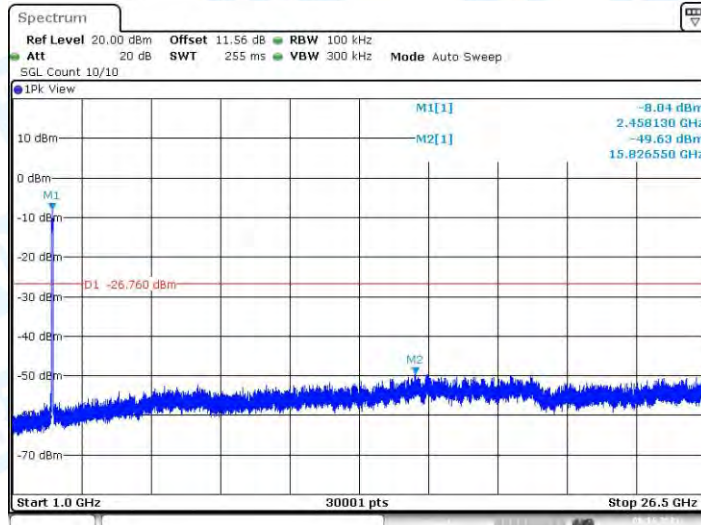
Date: 8.NOV.2021 13:27:09

11N40SISO\_Ant1\_2452\_30~1000



Date: 8.NOV.2021 13:27:14

11N40SISO\_Ant1\_2452\_1000~26500



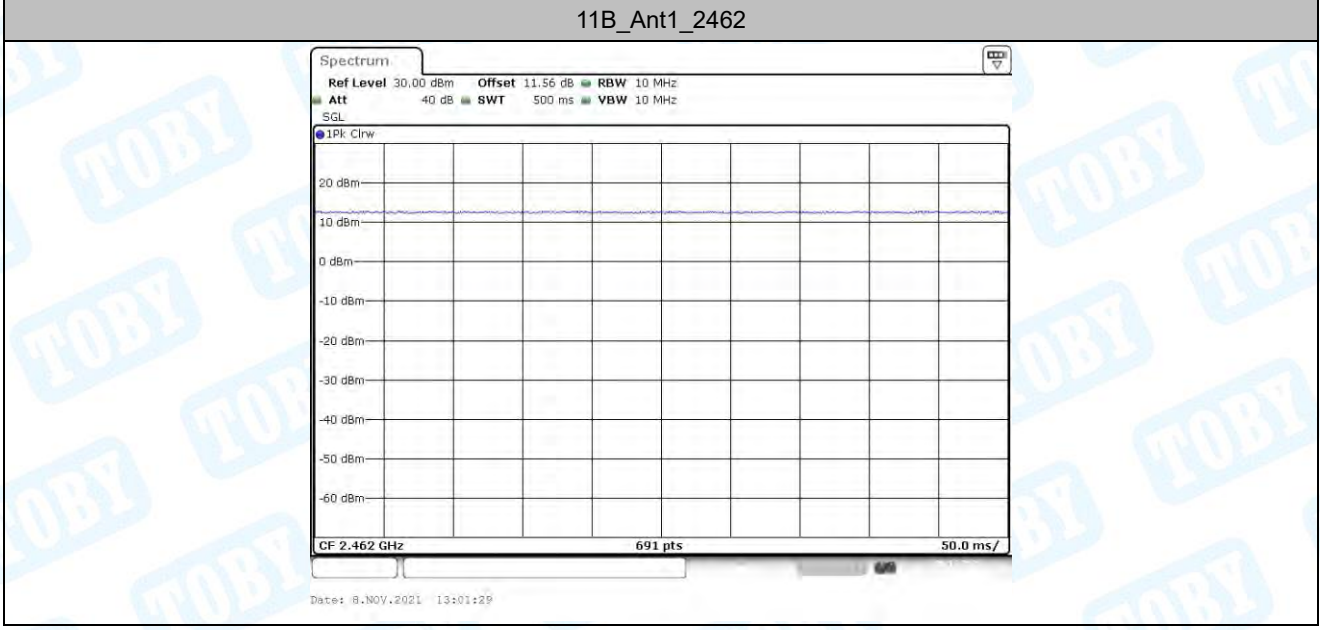
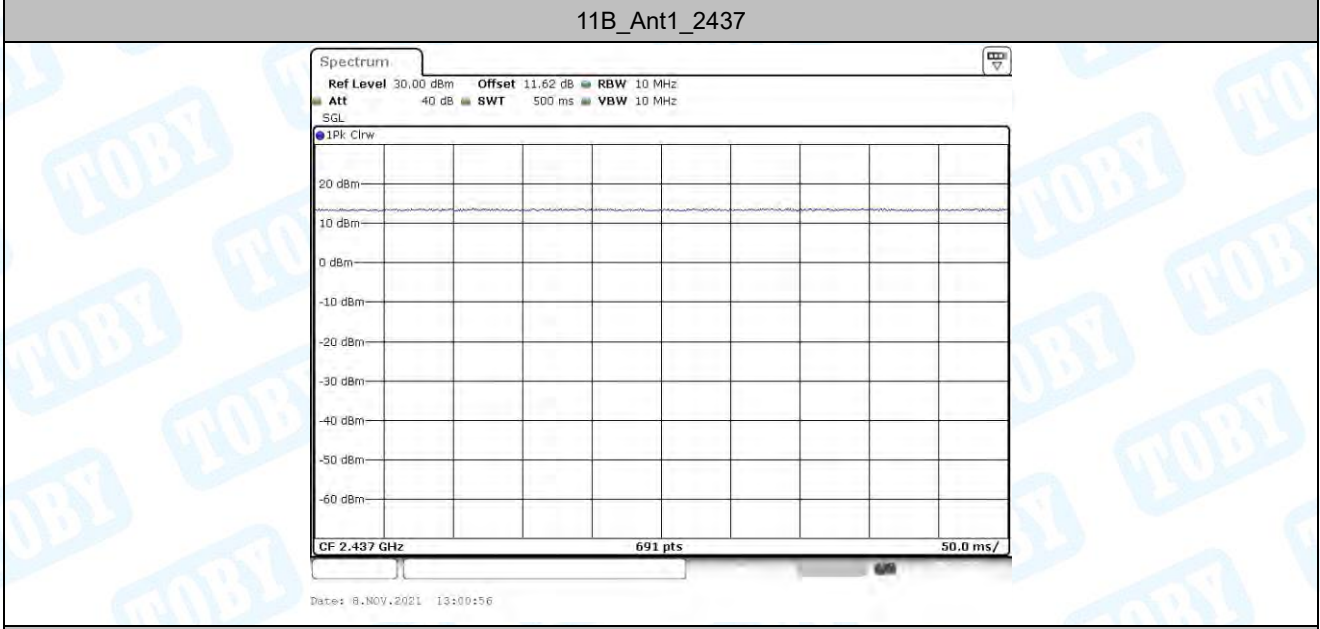
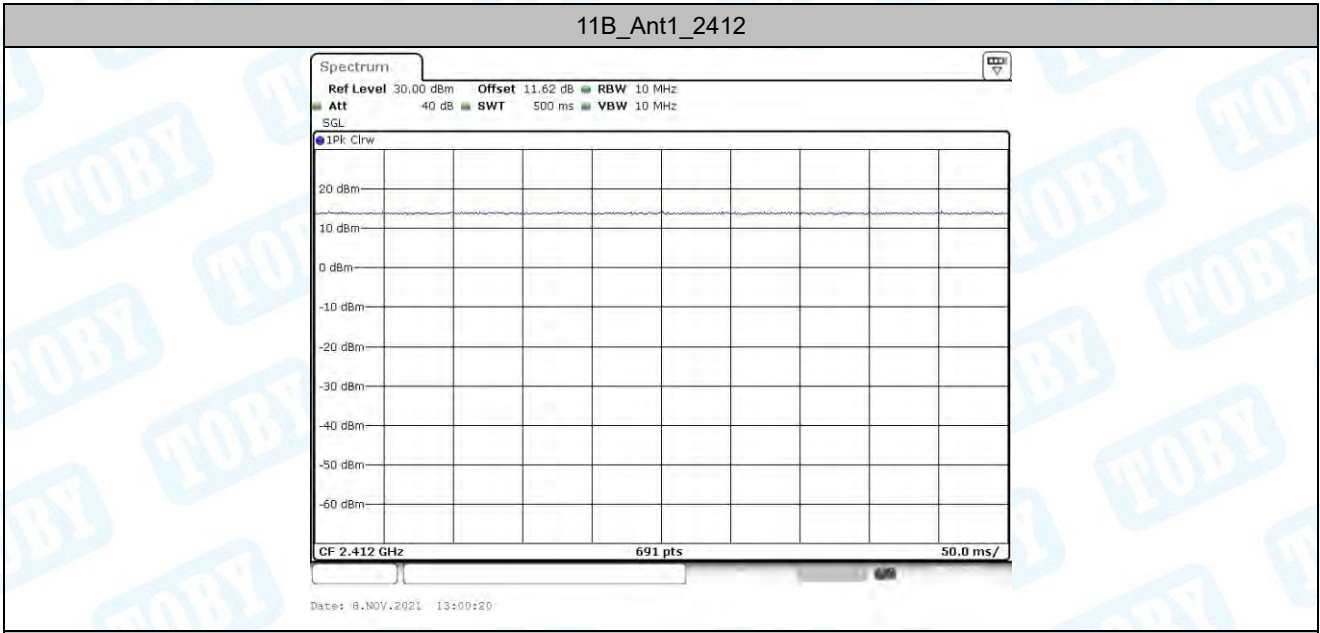
Date: 8.NOV.2021 13:27:37

## 7. Duty Cycle

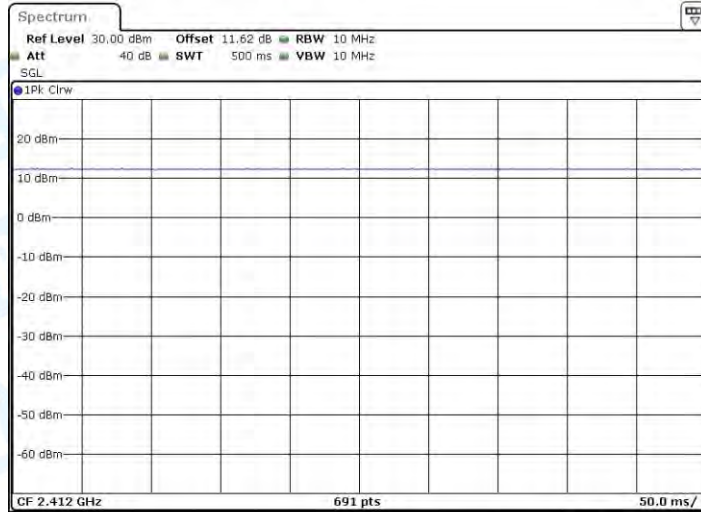
### 7.1. Test Result

TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Limit	Verdict
11B	Ant1	2412	0.00	0.00	100	---	PASS
		2437	0.00	0.00	100	---	PASS
		2462	0.00	0.00	100	---	PASS
11G	Ant1	2412	0.00	0.00	100	---	PASS
		2437	0.00	0.00	100	---	PASS
		2462	0.00	0.00	100	---	PASS
11N20SISO	Ant1	2412	0.00	0.00	100	---	PASS
		2437	0.00	0.00	100	---	PASS
		2462	0.00	0.00	100	---	PASS
11N40SISO	Ant1	2422	0.00	0.00	100	---	PASS
		2437	0.00	0.00	100	---	PASS
		2452	0.00	0.00	100	---	PASS

### 7.2. Test Graphs



11G\_Ant1\_2412



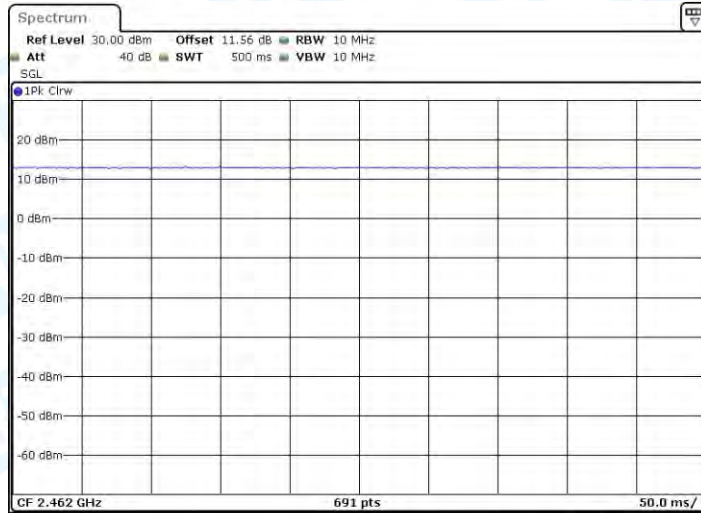
Date: 8.NOV.2021 13:02:11

11G\_Ant1\_2437



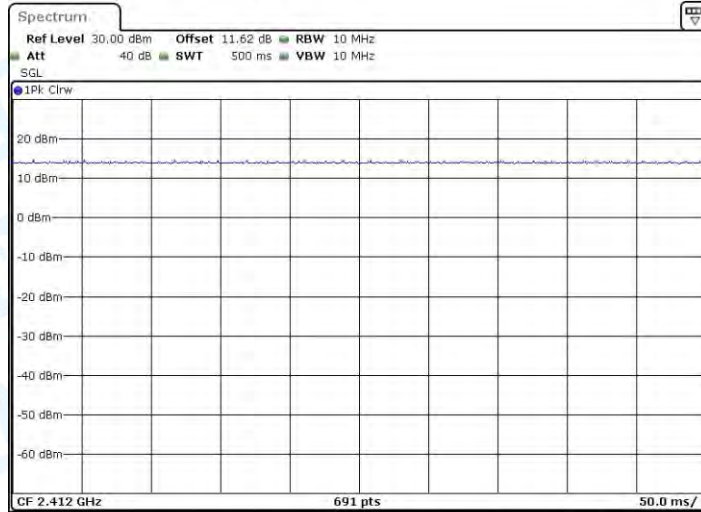
Date: 8.NOV.2021 13:05:57

11G\_Ant1\_2462



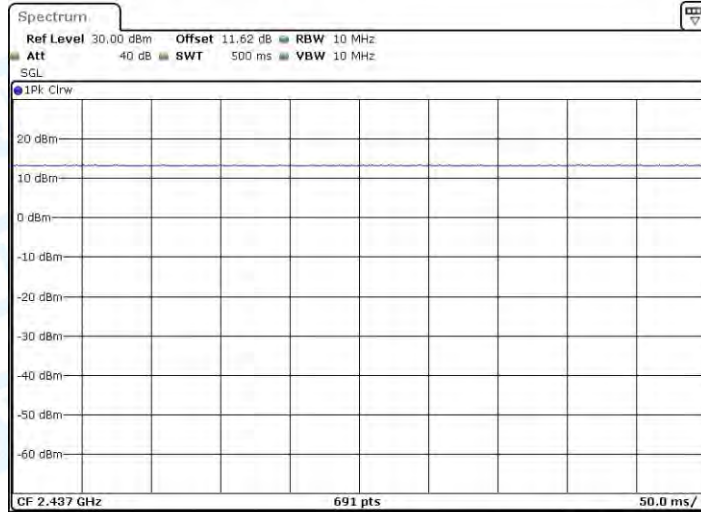
Date: 8.NOV.2021 13:08:34

11N20SISO\_Ant1\_2412



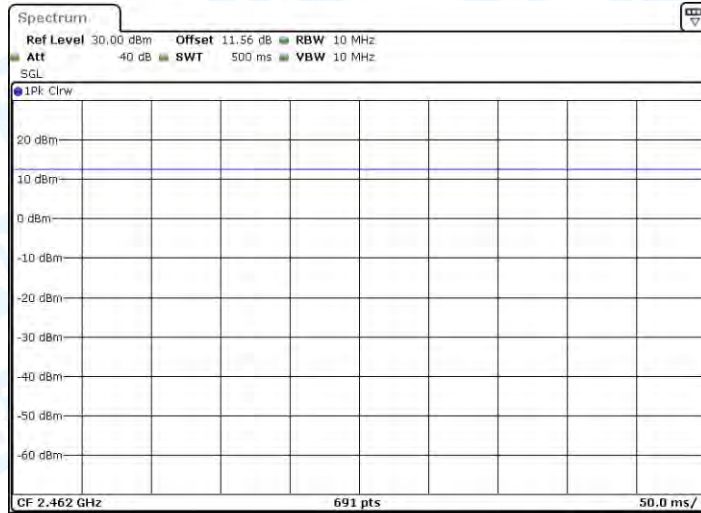
Date: 8.NOV.2021 13:11:32

11N20SISO\_Ant1\_2437



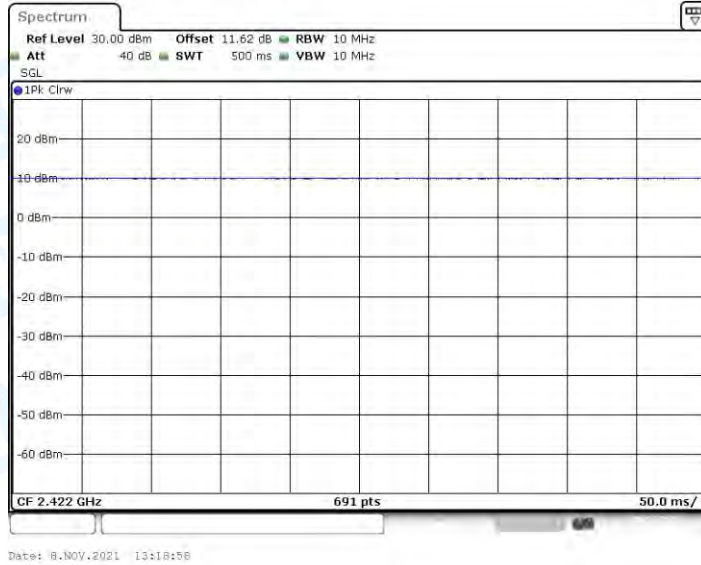
Date: 8.NOV.2021 13:14:39

11N20SISO\_Ant1\_2462

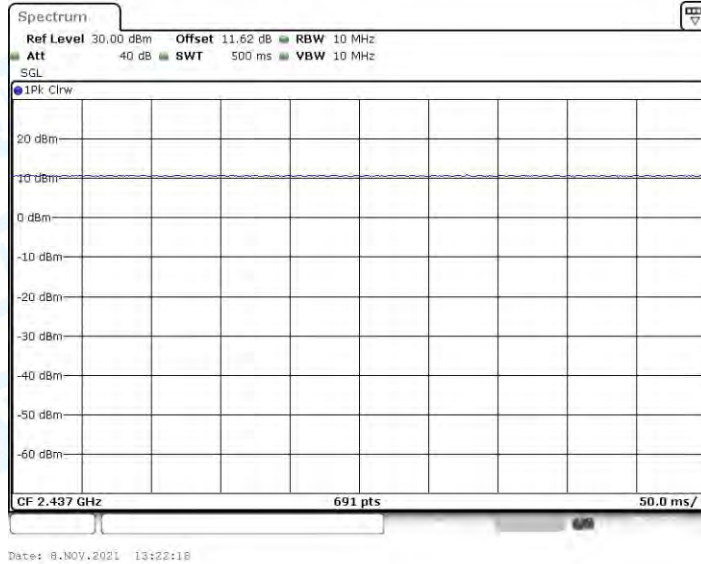


Date: 8.NOV.2021 13:16:11

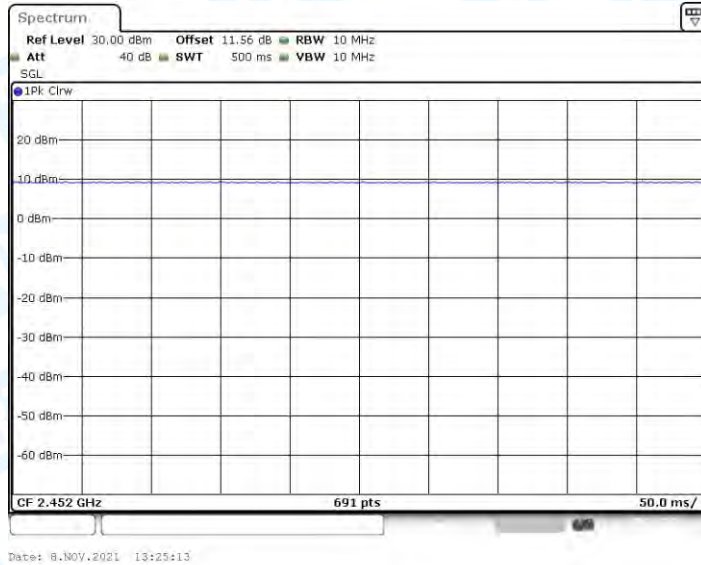
11N40SISO\_Ant1\_2422



11N40SISO\_Ant1\_2437



11N40SISO\_Ant1\_2452





## 8. Emissions in Restricted Bands

### 8.1. Test Result

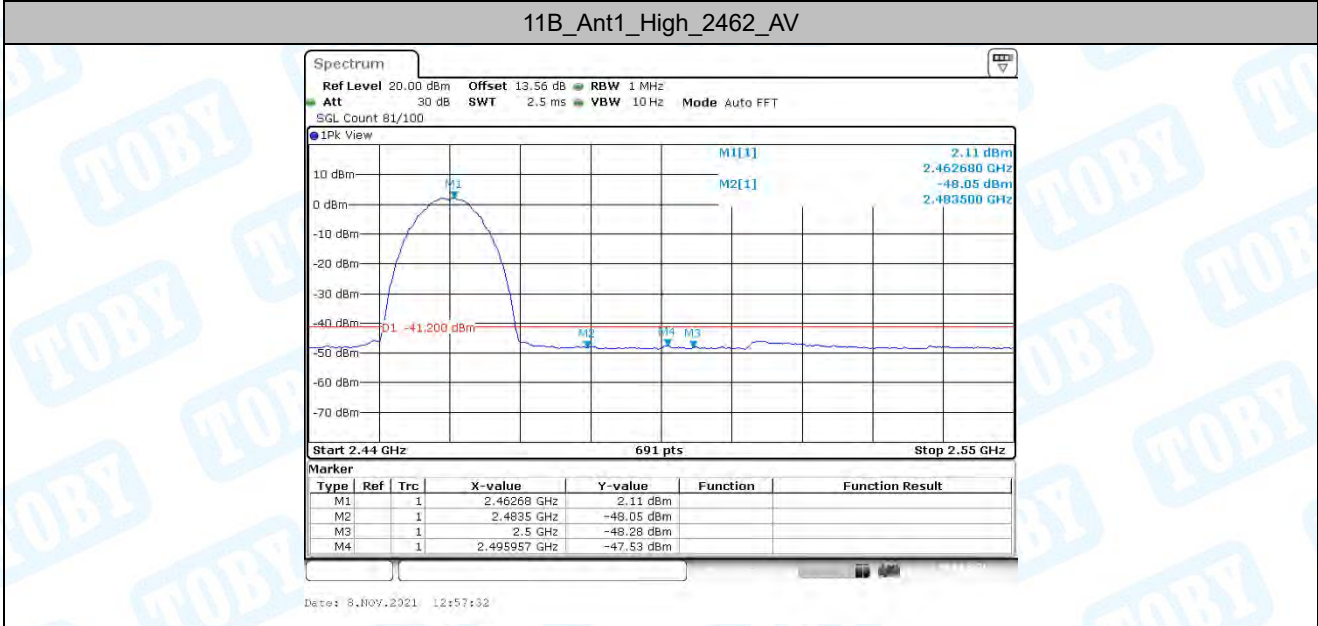
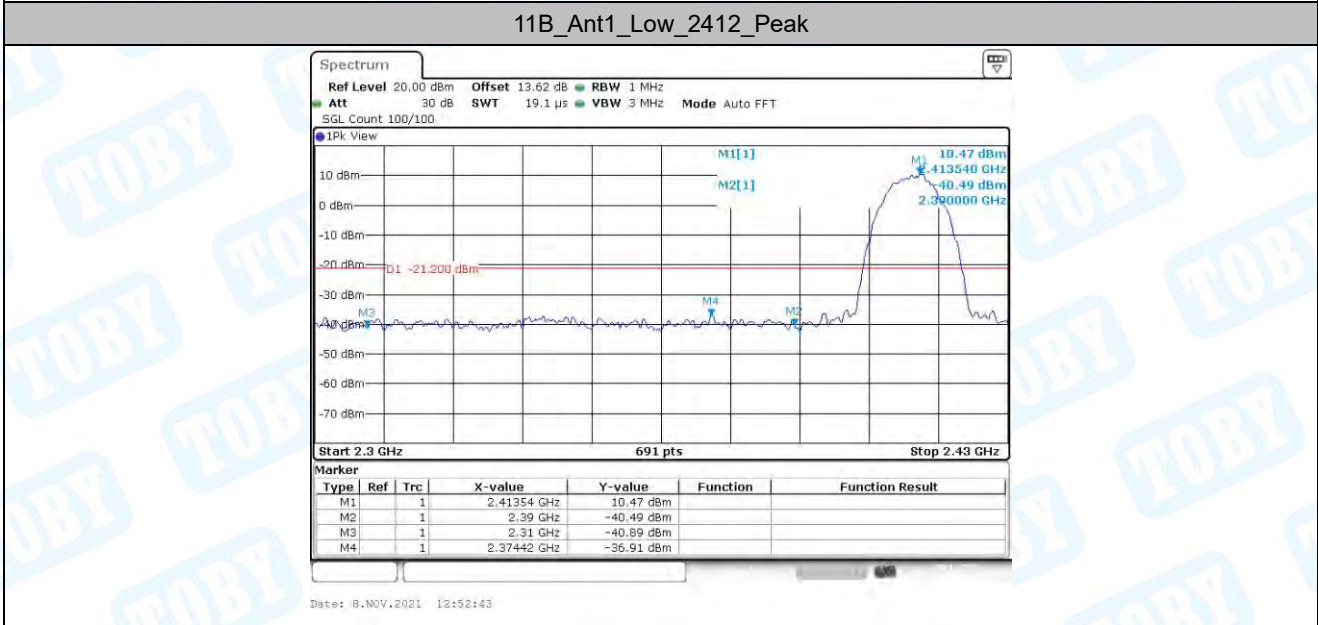
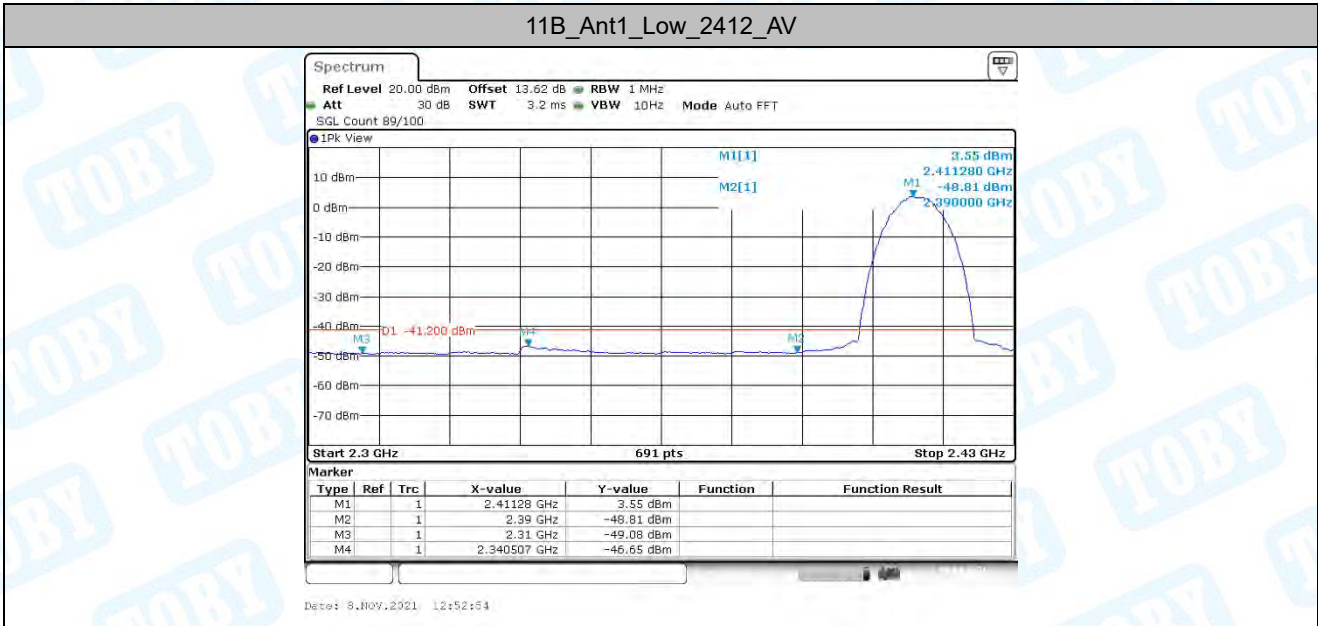
TestMode	Antenna	ChName	Channel	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	Low	2412	AV	2310.000	-49.08	≤-41.20	PASS
				AV	2340.507	-46.65	≤-41.20	PASS
				AV	2390.000	-48.81	≤-41.20	PASS
				Peak	2310.000	-40.89	≤-21.20	PASS
				Peak	2374.420	-36.91	≤-21.20	PASS
				Peak	2390.000	-40.49	≤-21.20	PASS
		High	2462	AV	2483.500	-48.05	≤-41.20	PASS
				AV	2495.957	-47.53	≤-41.20	PASS
				AV	2500.000	-48.28	≤-41.20	PASS
				Peak	2483.500	-39.43	≤-21.20	PASS
				Peak	2493.565	-37.26	≤-21.20	PASS
				Peak	2500.000	-39.72	≤-21.20	PASS
11G	Ant1	Low	2412	AV	2310.000	-49.93	≤-41.20	PASS
				AV	2339.942	-47.57	≤-41.20	PASS
				AV	2390.000	-49.63	≤-41.20	PASS
				Peak	2310.000	-40.76	≤-21.20	PASS
				Peak	2339.942	-36.91	≤-21.20	PASS
				Peak	2390.000	-40.85	≤-21.20	PASS
		High	2462	AV	2483.500	-48.65	≤-41.20	PASS
				AV	2495.638	-48.57	≤-41.20	PASS
				AV	2500.000	-49.02	≤-41.20	PASS
				Peak	2483.500	-40.86	≤-21.20	PASS
				Peak	2494.681	-39.92	≤-21.20	PASS
				Peak	2500.000	-45.63	≤-21.20	PASS
11N20SISO	Ant1	Low	2412	AV	2310.000	-49.92	≤-41.20	PASS
				AV	2340.130	-47.53	≤-41.20	PASS
				AV	2390.000	-49.4	≤-41.20	PASS
				Peak	2310.000	-41.1	≤-21.20	PASS
				Peak	2348.797	-37.61	≤-21.20	PASS
				Peak	2390.000	-40.93	≤-21.20	PASS
		High	2462	AV	2483.500	-48.59	≤-41.20	PASS
				AV	2483.522	-48.59	≤-41.20	PASS
				AV	2500.000	-49.04	≤-41.20	PASS
				Peak	2483.500	-43.81	≤-21.20	PASS
				Peak	2487.986	-39.68	≤-21.20	PASS
				Peak	2500.000	-42.78	≤-21.20	PASS
11N40SISO	Ant1	Low	2422	AV	2310.000	-49.93	≤-41.20	PASS
				AV	2339.942	-47.57	≤-41.20	PASS
				AV	2390.000	-48.75	≤-41.20	PASS
				Peak	2310.000	-40.24	≤-21.20	PASS
				Peak	2386.855	-37.9	≤-21.20	PASS

			Peak	2390.000	-42.03	≤-21.20	PASS
			AV	2483.500	-48.22	≤-41.20	PASS
			AV	2483.522	-48.22	≤-41.20	PASS
			AV	2500.000	-49.02	≤-41.20	PASS
		High	Peak	2483.500	-42.07	≤-21.20	PASS
		2452	Peak	2488.145	-39.21	≤-21.20	PASS
			Peak	2500.000	-44.61	≤-21.20	PASS

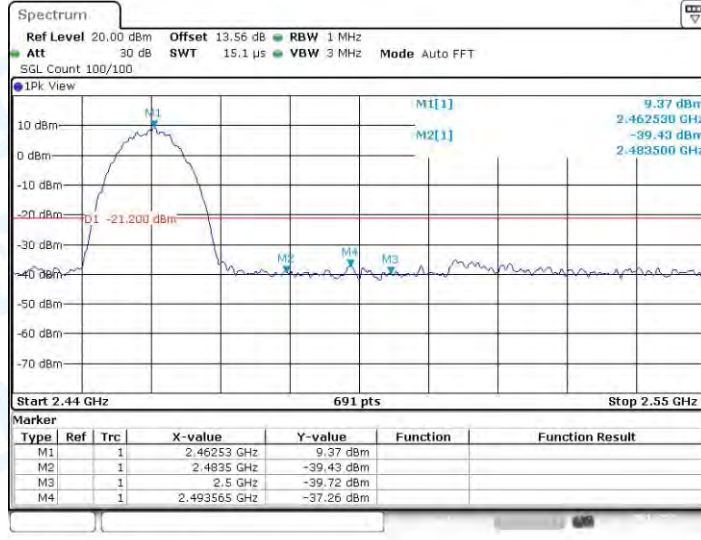
## Note:

1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a) or RSS-Gen 8.10. The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

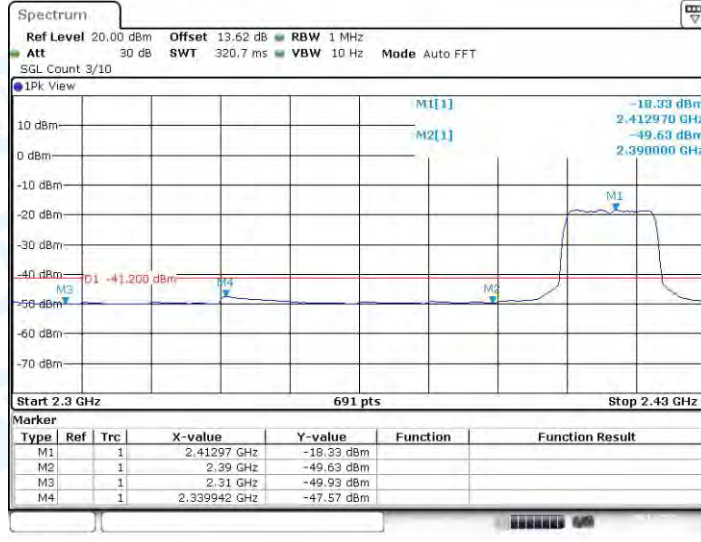
**8.2. Test Graphs**



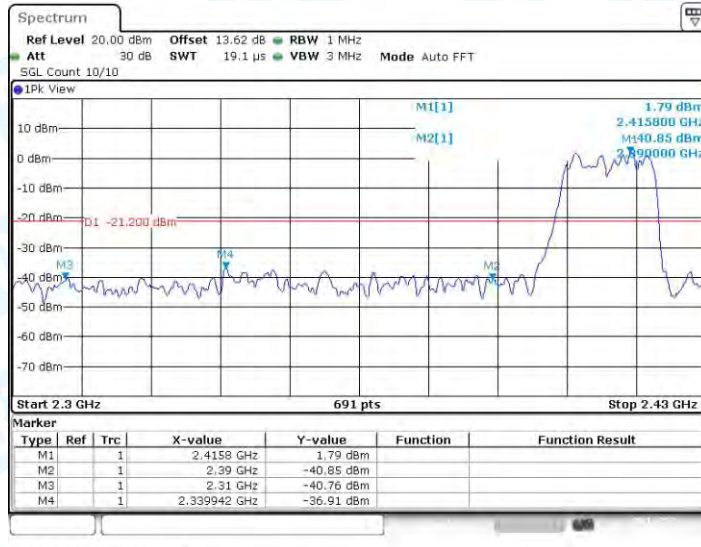
### 11B\_Ant1\_High\_2462\_Peak



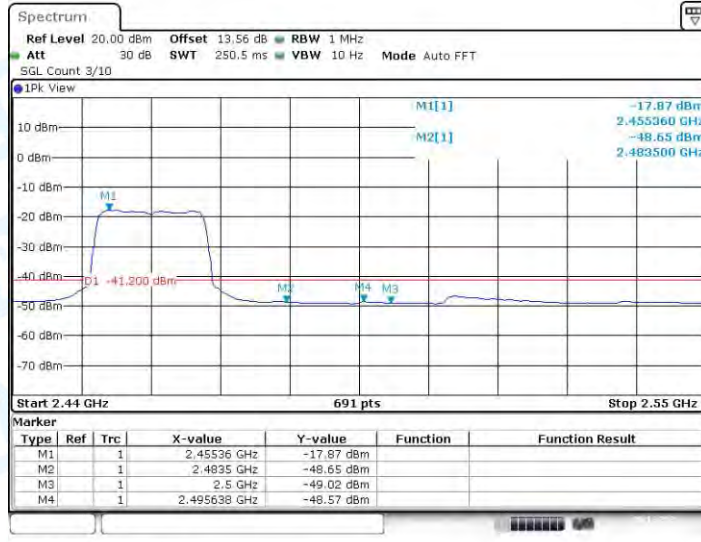
### 11G\_Ant1\_Low\_2412\_AV



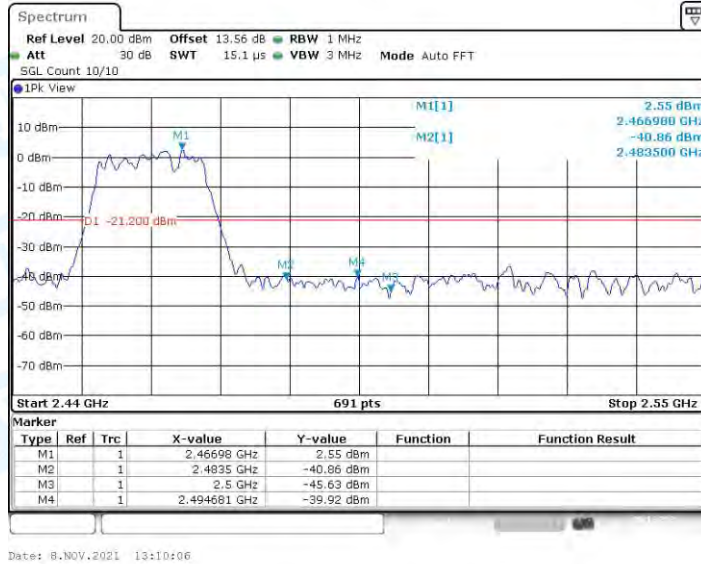
### 11G\_Ant1\_Low\_2412\_Peak



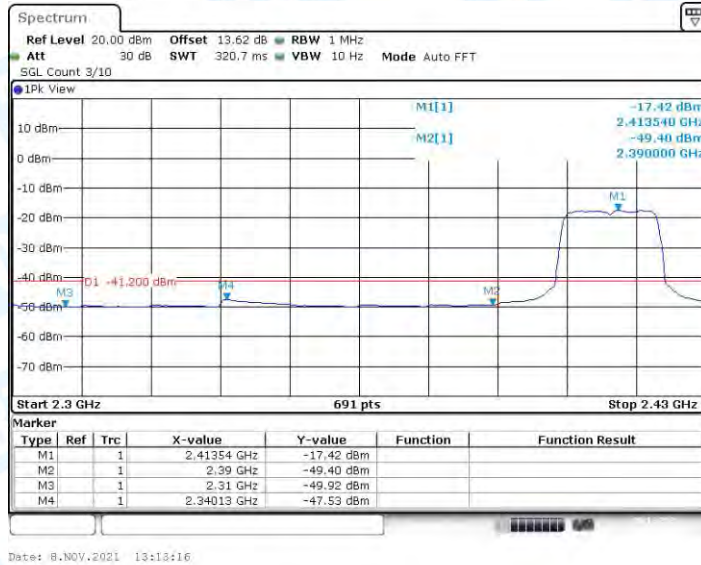
11G\_Ant1\_High\_2462\_AV



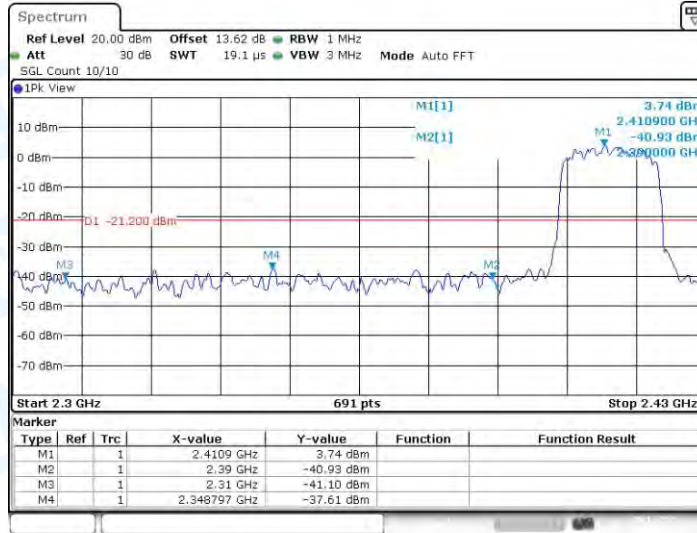
11G\_Ant1\_High\_2462\_Peak



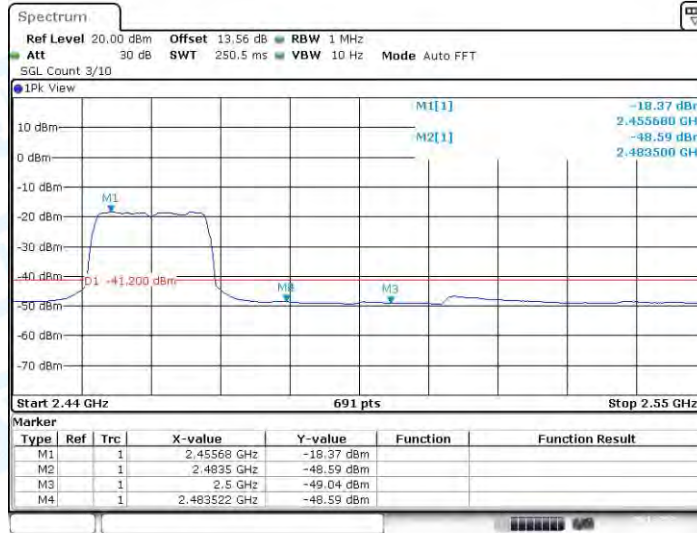
11N20SISO\_Ant1\_Low\_2412\_AV



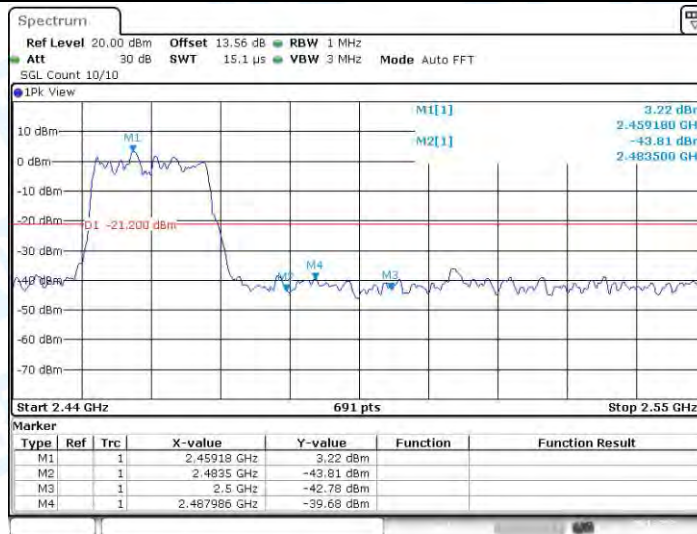
11N20SISO\_Ant1\_Low\_2412\_Peak



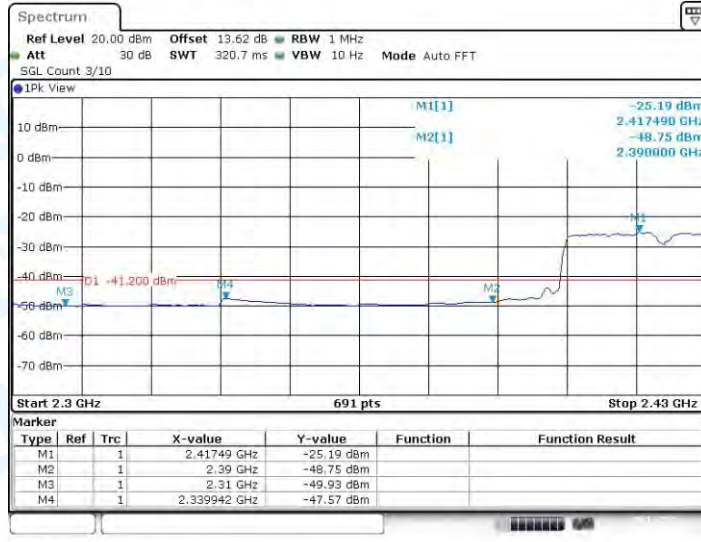
11N20SISO\_Ant1\_High\_2462\_AV



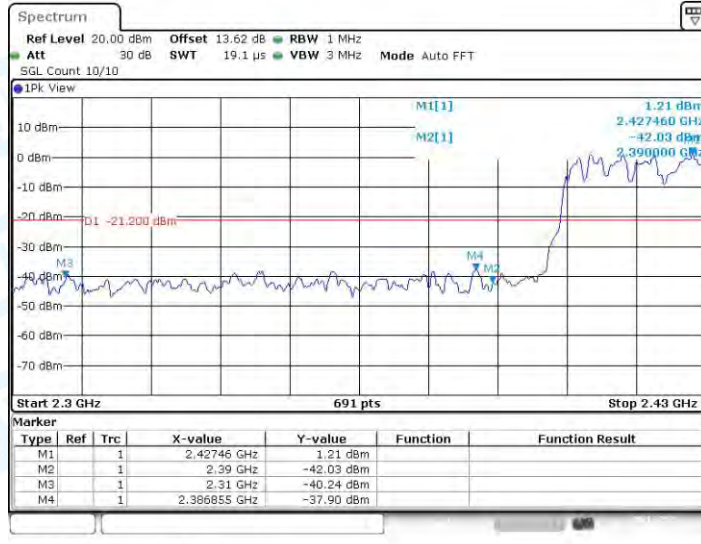
11N20SISO\_Ant1\_High\_2462\_Peak



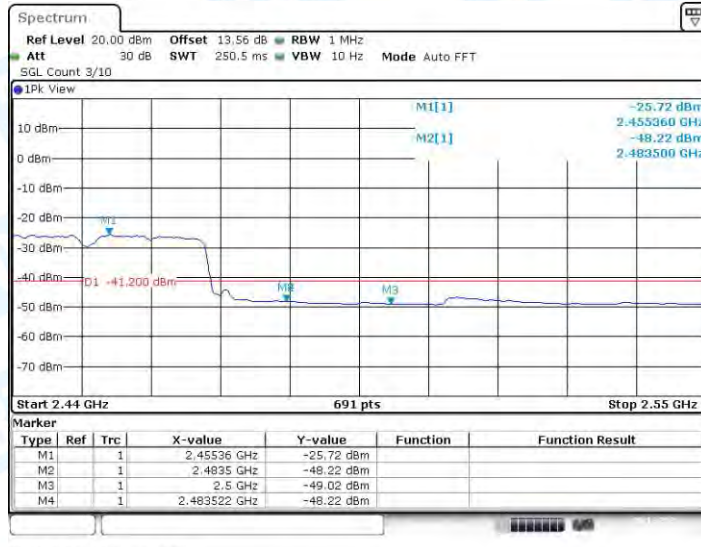
11N40SISO\_Ant1\_Low\_2422\_AV



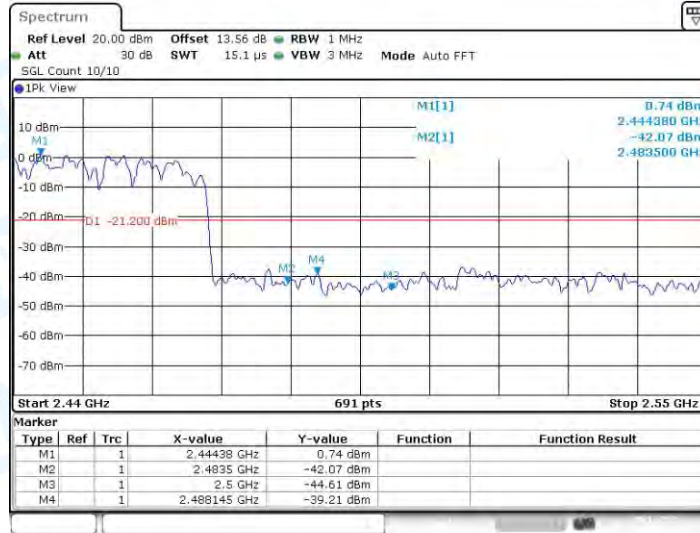
11N40SISO\_Ant1\_Low\_2422\_Peak



11N40SISO\_Ant1\_High\_2452\_AV



11N40SISO\_Ant1\_High\_2452\_Peak



Date: 8.NOV.2021 13:26:46

-----End of the report-----