

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

General Description of EUT	
<b>Product Name:</b>	Light Hotspot Miner
<b>Test Model:</b>	HL100
<b>Sample ID:</b>	202203-0298-3-2#
Environmental Conditions	
<b>Temperature:</b>	24°C
<b>Relative Humidity:</b>	50%
<b>Test Voltage:</b>	DC 5V
<b>Test Engineer:</b>	Huangjianping
Note: For a more detailed features description, please refer to the report TBR-C-202203-0298-5.	

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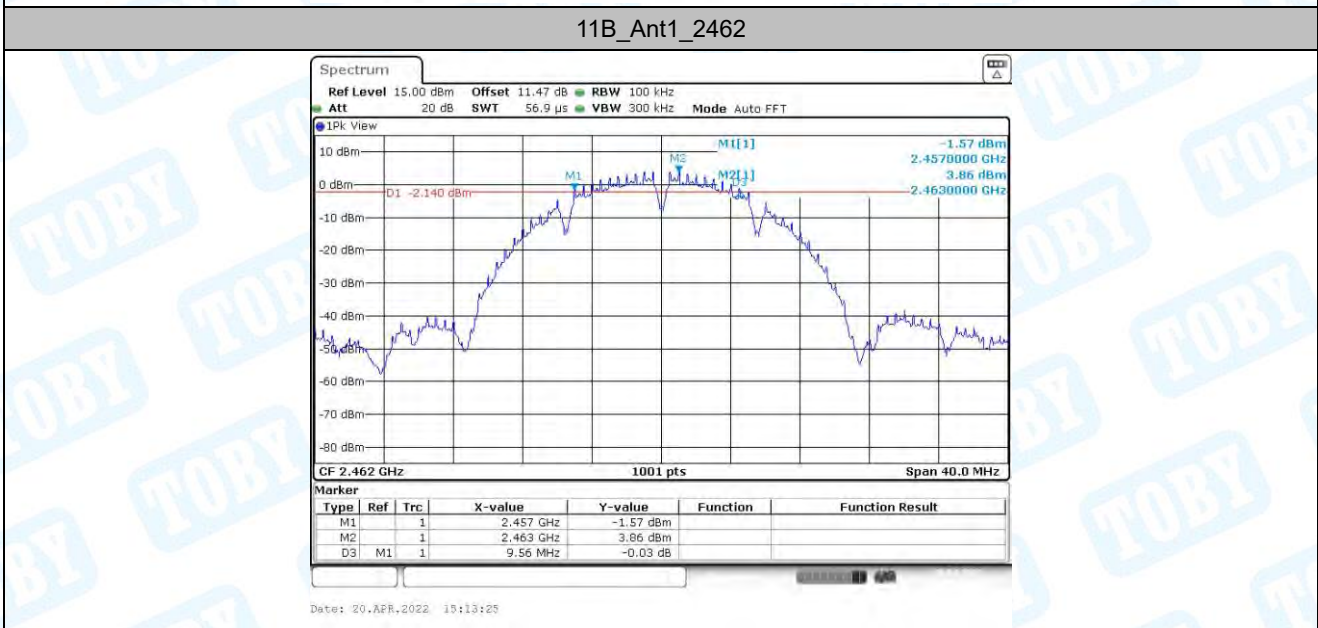
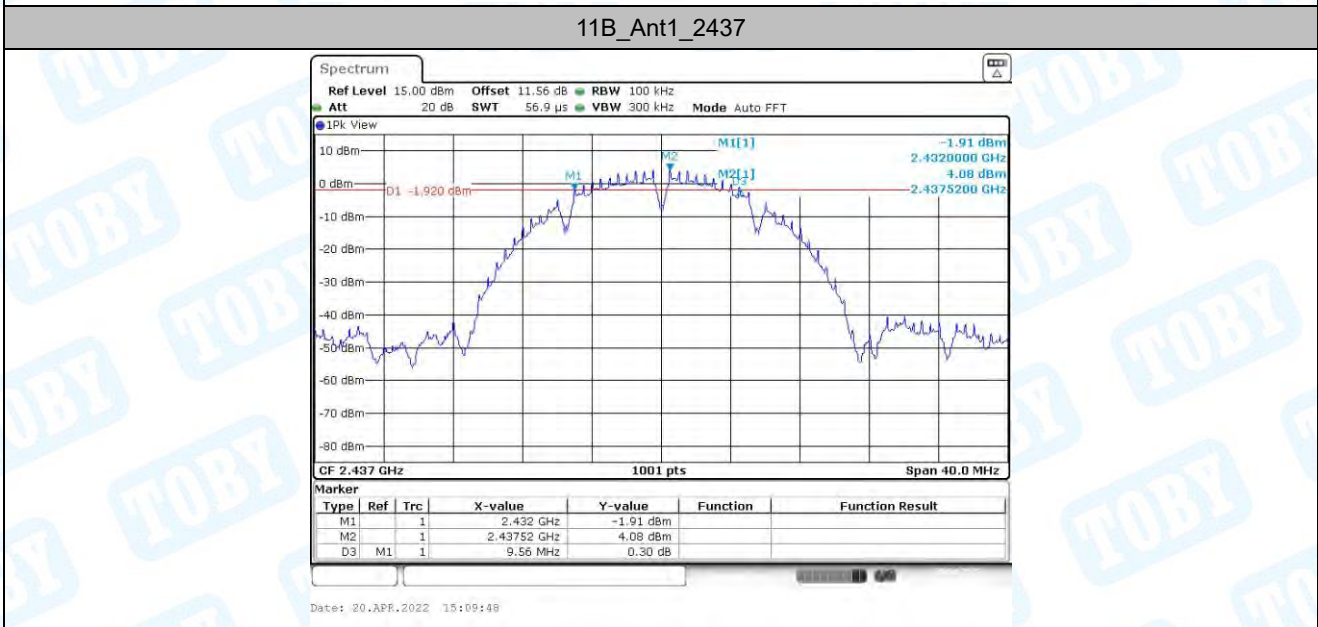
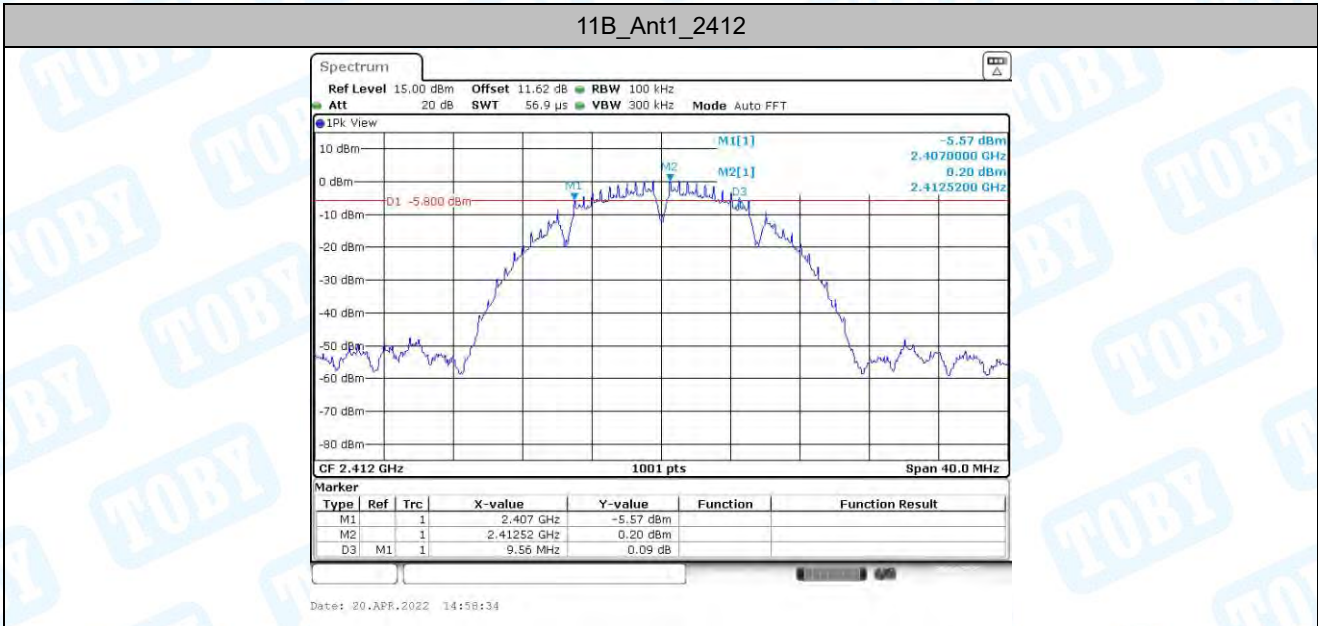


## 1. DTS Bandwidth

### 1.1. Test Result

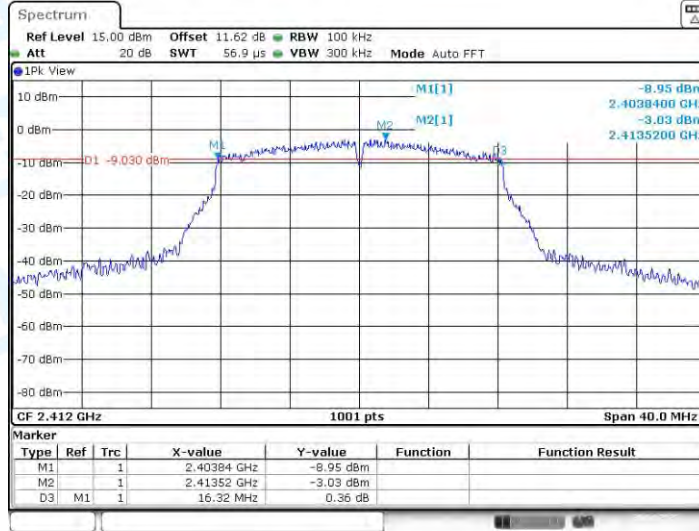
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.56	2407.00	2416.56	0.5	PASS
		2437	9.56	2432.00	2441.56	0.5	PASS
		2462	9.56	2457.00	2466.56	0.5	PASS
11G	Ant1	2412	16.32	2403.84	2420.16	0.5	PASS
		2437	16.32	2428.84	2445.16	0.5	PASS
		2462	16.32	2453.84	2470.16	0.5	PASS
11N20SISO	Ant1	2412	17.56	2403.24	2420.80	0.5	PASS
		2437	17.56	2428.24	2445.80	0.5	PASS
		2462	17.32	2453.24	2470.56	0.5	PASS
11N40SISO	Ant1	2422	35.44	2404.08	2439.52	0.5	PASS
		2437	35.68	2418.84	2454.52	0.5	PASS
		2452	33.60	2433.84	2467.44	0.5	PASS

**1.2. Test Graphs**



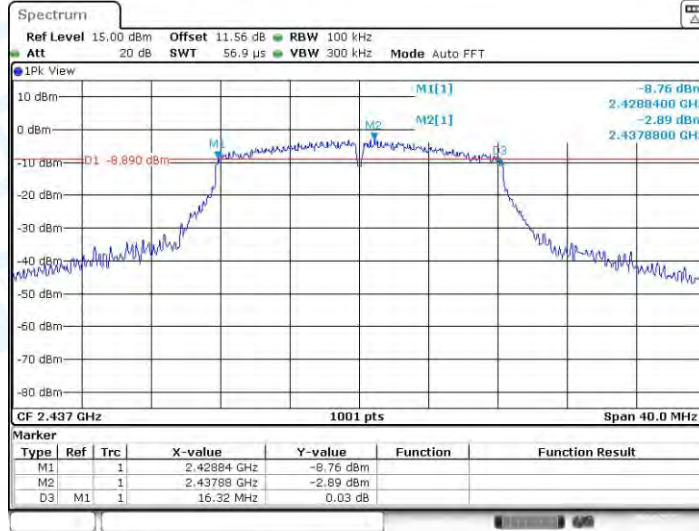


11G\_Ant1\_2412



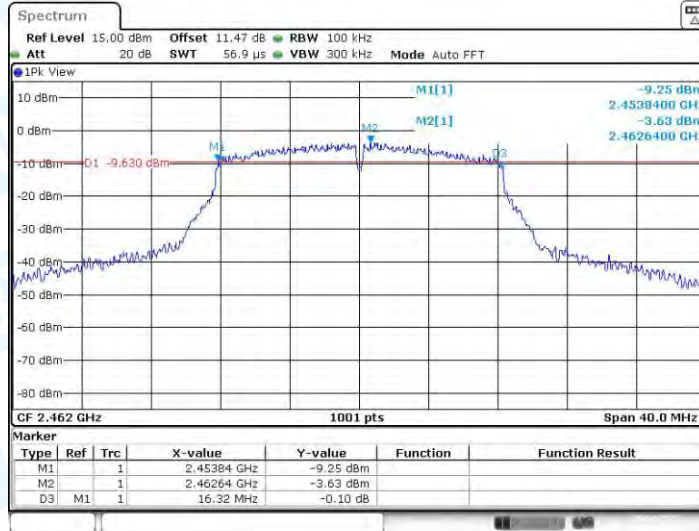
Date: 20.APR.2022 15:23:53

11G\_Ant1\_2437



Date: 20.APR.2022 15:29:51

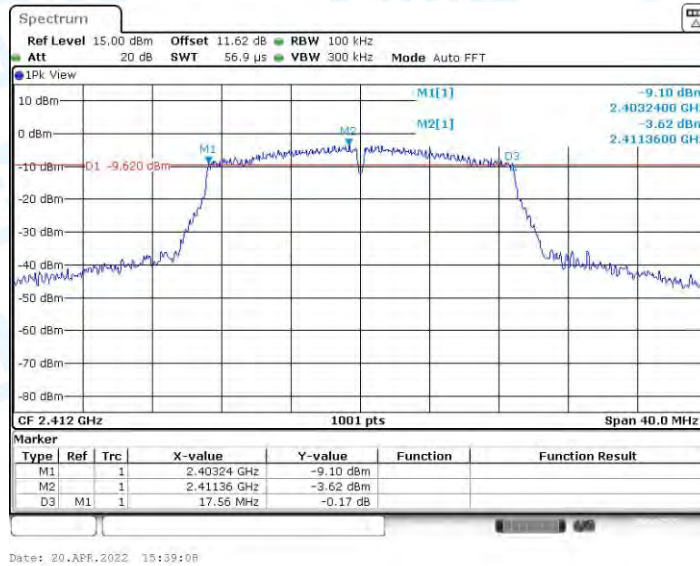
11G\_Ant1\_2462



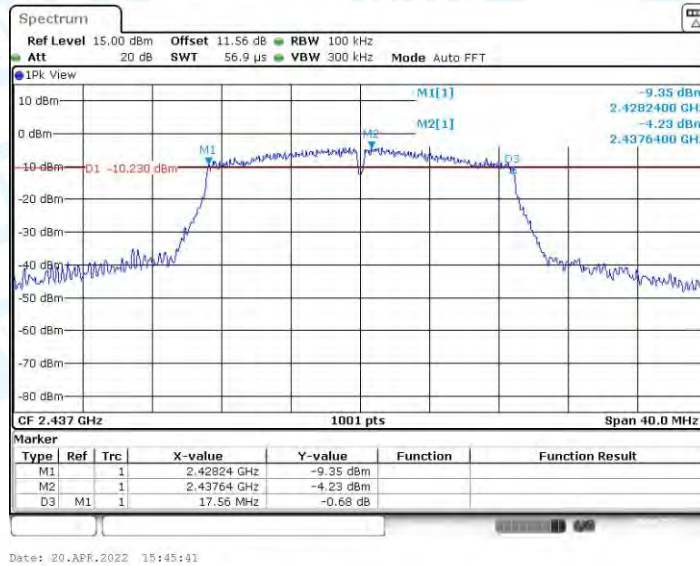
Date: 20.APR.2022 15:33:01

11N20SISO\_Ant1\_2412

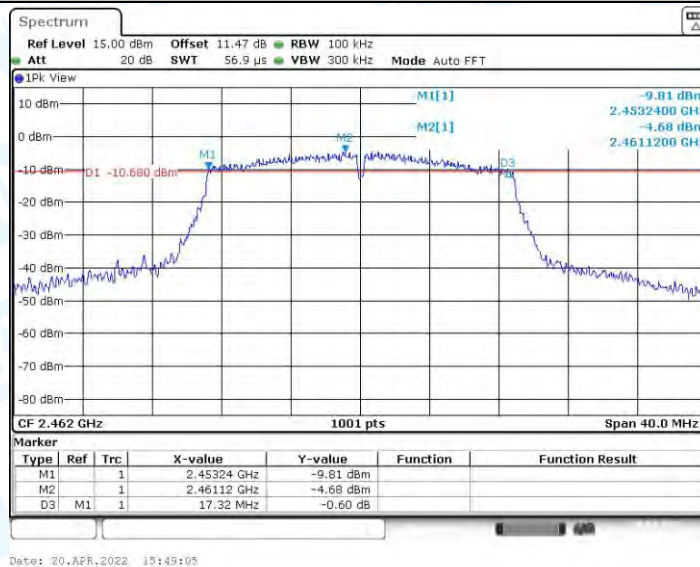




11N20SISO\_Ant1\_2437

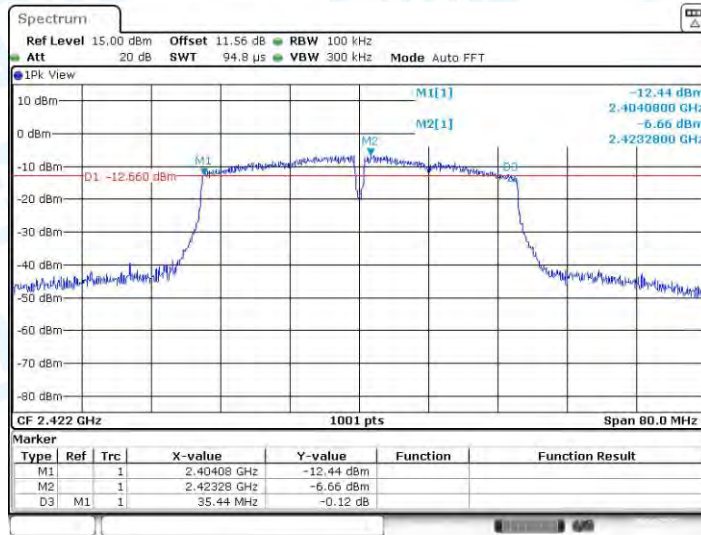


11N20SISO\_Ant1\_2462

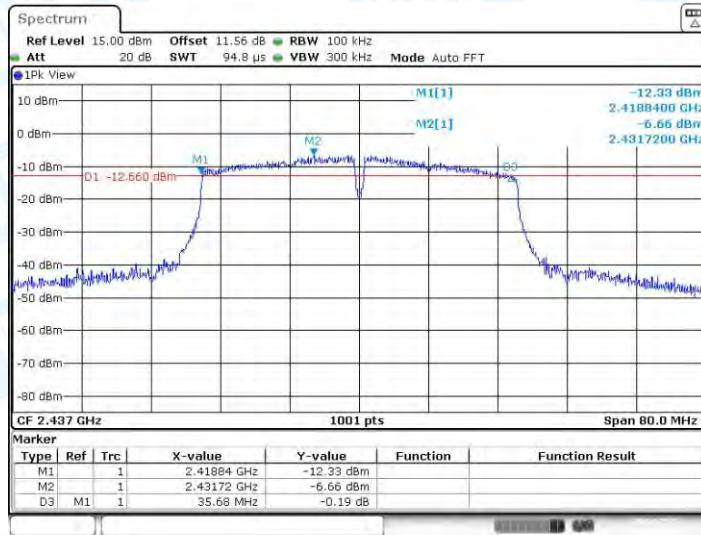


11N40SISO\_Ant1\_2422

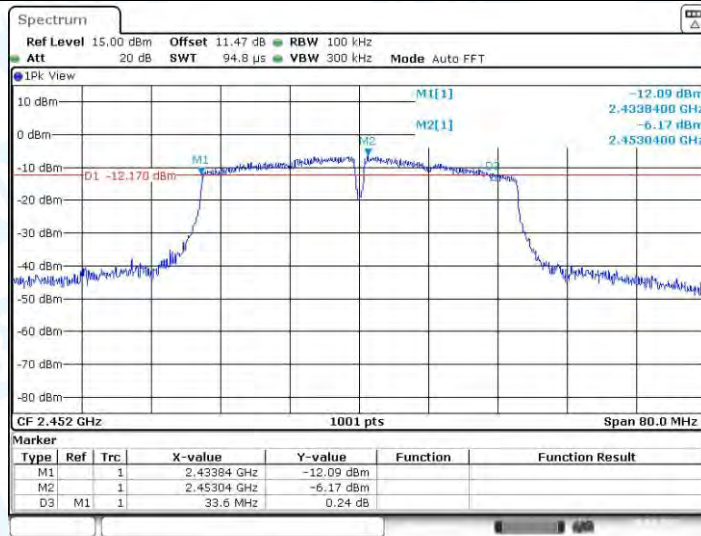




### 11N40SISO\_Ant1\_2437



### 11N40SISO\_Ant1\_2452



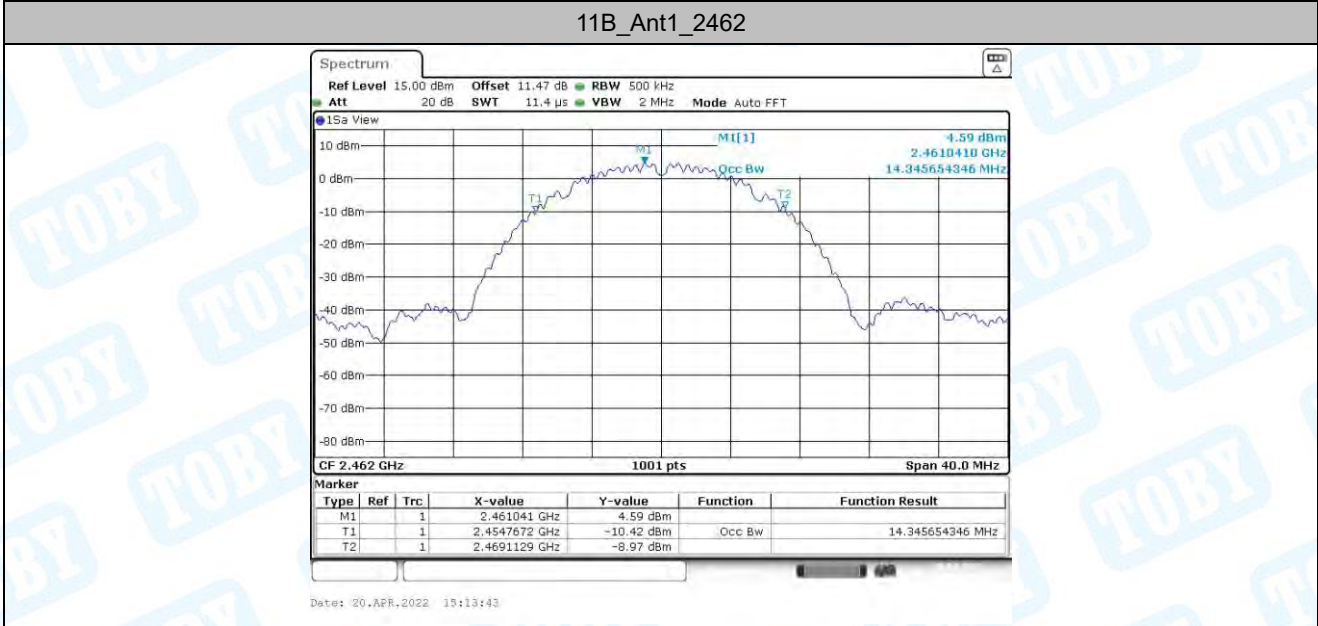
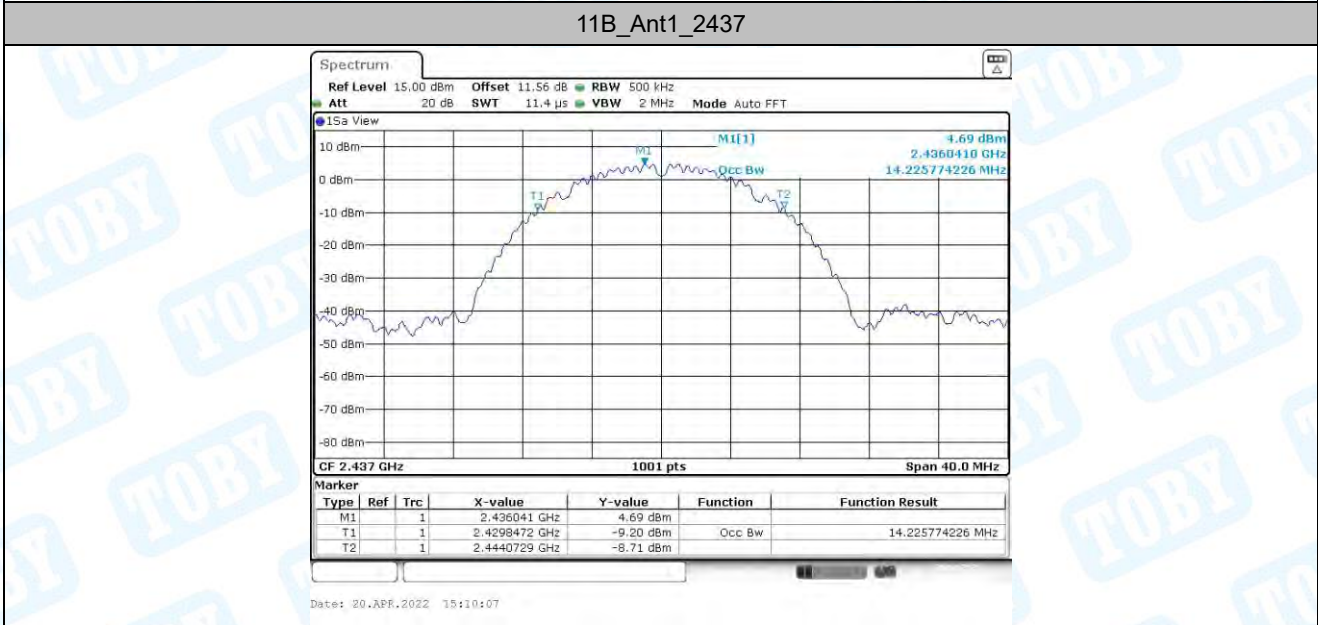
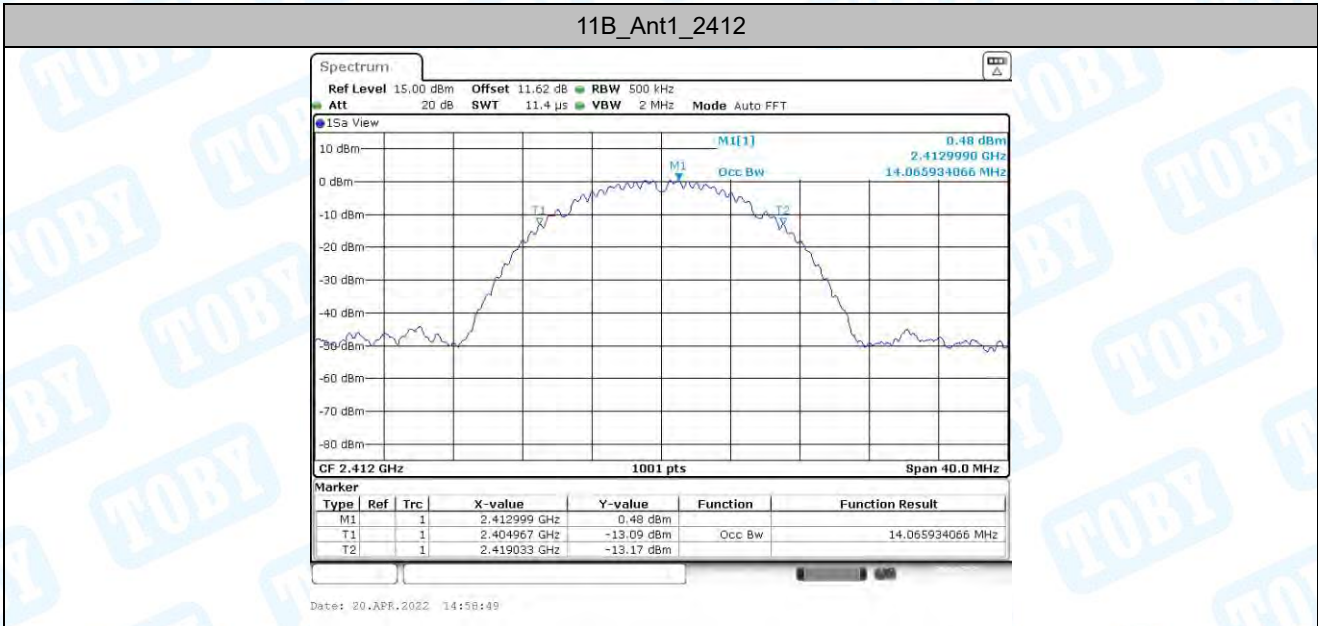
## 2. Occupied Channel Bandwidth

### 2.1. Test Result

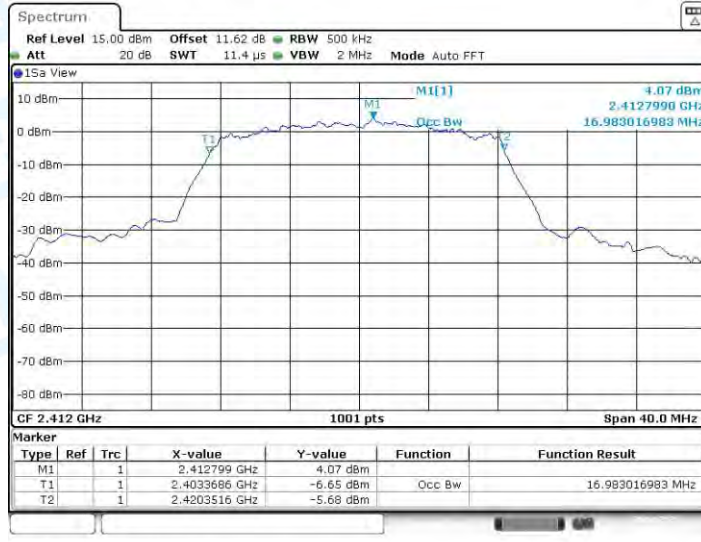
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	14.066	2404.967	2419.033	---	---
		2437	14.226	2429.847	2444.073	---	---
		2462	14.346	2454.767	2469.113	---	---
11G	Ant1	2412	16.983	2403.369	2420.352	---	---
		2437	16.983	2428.528	2445.511	---	---
		2462	16.863	2453.568	2470.432	---	---
11N20SISO	Ant1	2412	17.942	2403.009	2420.951	---	---
		2437	17.942	2428.009	2445.951	---	---
		2462	17.862	2453.049	2470.911	---	---
11N40SISO	Ant1	2422	36.044	2403.858	2439.902	---	---
		2437	36.044	2418.858	2454.902	---	---
		2452	36.204	2433.618	2469.822	---	---



**2.2. Test Graphs**

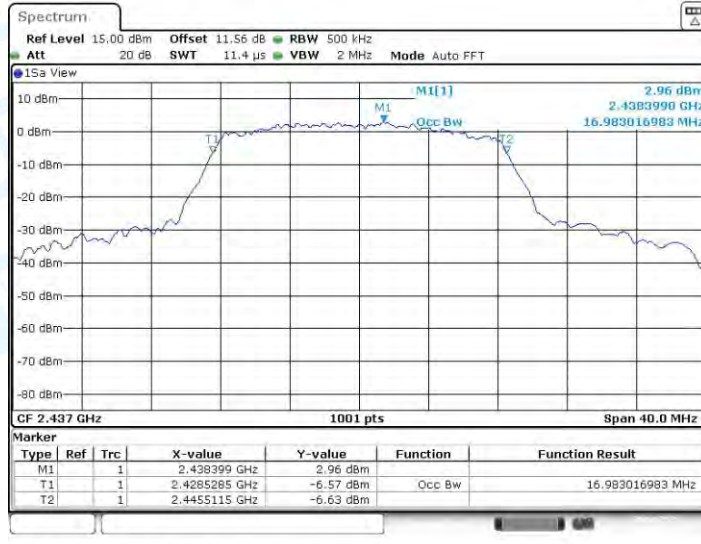


11G\_Ant1\_2412



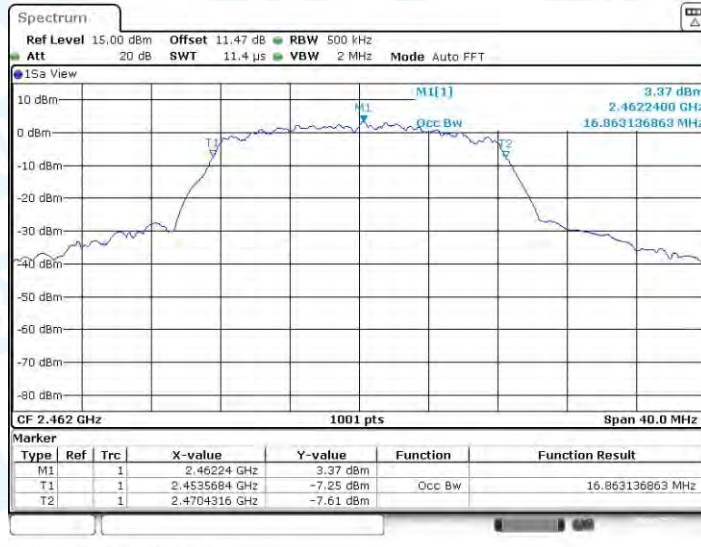
Date: 20.APR.2022 15:24:11

11G\_Ant1\_2437



Date: 20.APR.2022 15:30:10

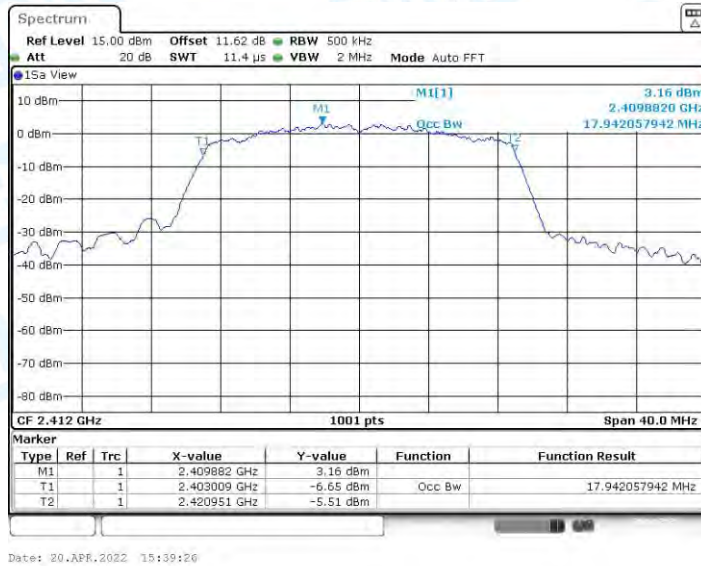
11G\_Ant1\_2462



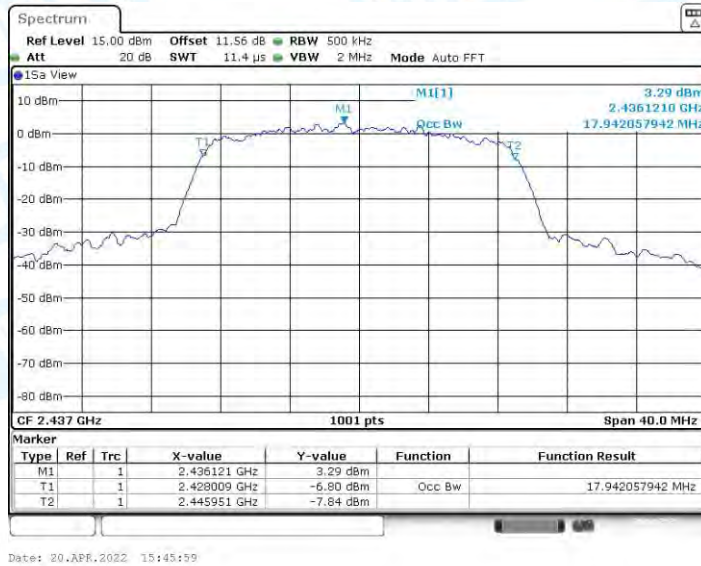
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11N20SISO\_Ant1\_2412





### 11N20SISO\_Ant1\_2437

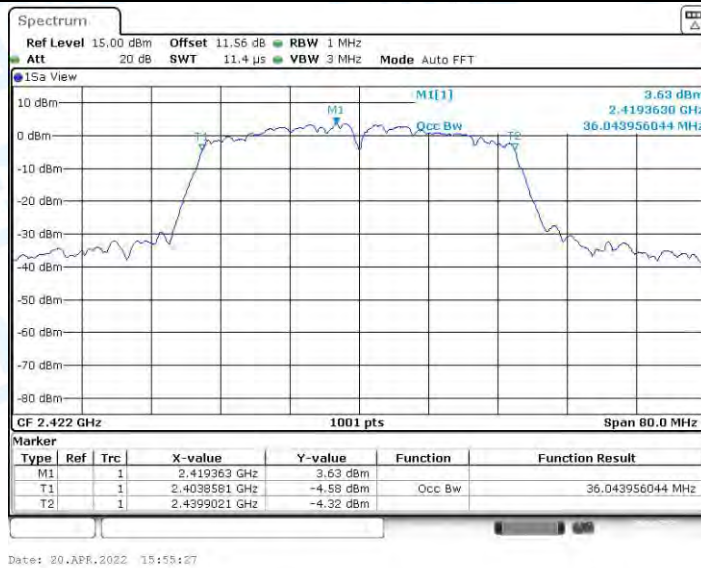


### 11N20SISO\_Ant1\_2462

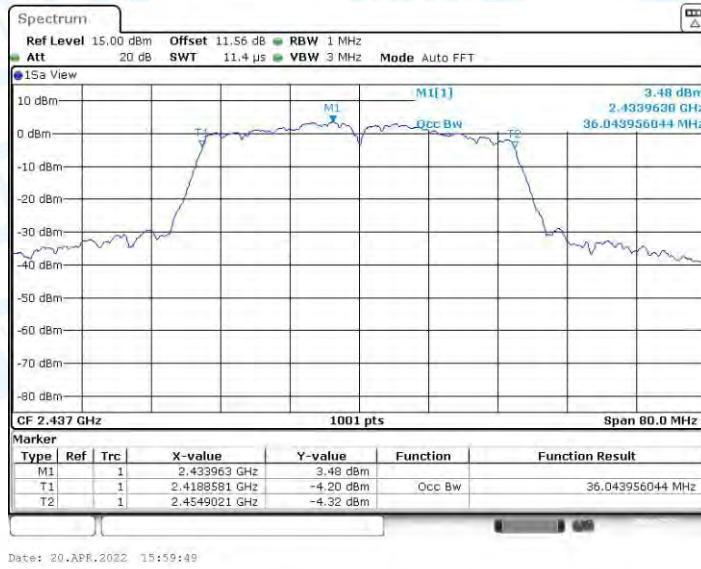


### 11N40SISO\_Ant1\_2422

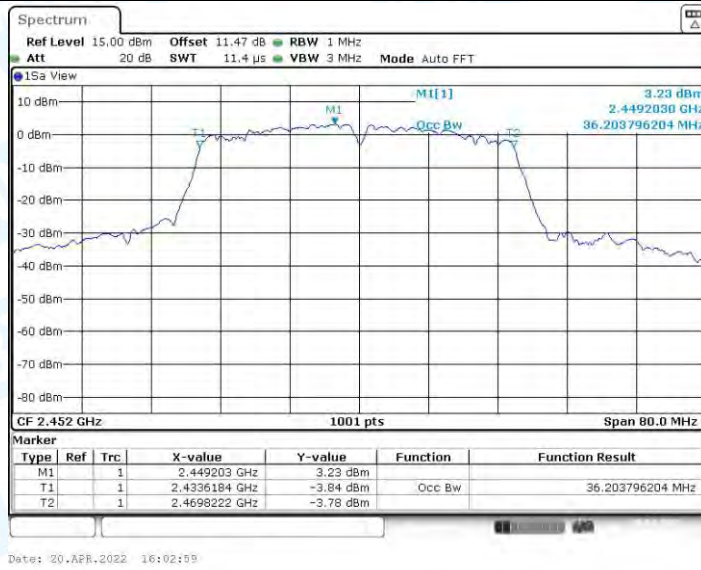




### 11N40SISO\_Ant1\_2437



### 11N40SISO\_Ant1\_2452





### 3. Maximum conducted output power

#### 3.1. Test Result

TestMode	Antenna	Channel	Power [dBm]	Limit [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	16.37	≤30.00	18.37	≤36.00	PASS
		2437	16.01	≤30.00	18.01	≤36.00	PASS
		2462	15.94	≤30.00	17.94	≤36.00	PASS
11G	Ant1	2412	17.74	≤30.00	19.74	≤36.00	PASS
		2437	17.66	≤30.00	19.66	≤36.00	PASS
		2462	17.16	≤30.00	19.16	≤36.00	PASS
11N20SISO	Ant1	2412	17.52	≤30.00	19.52	≤36.00	PASS
		2437	16.92	≤30.00	18.92	≤36.00	PASS
		2462	16.39	≤30.00	18.39	≤36.00	PASS
11N40SISO	Ant1	2422	17.41	≤30.00	19.41	≤36.00	PASS
		2437	17.38	≤30.00	19.38	≤36.00	PASS
		2452	17.47	≤30.00	19.47	≤36.00	PASS

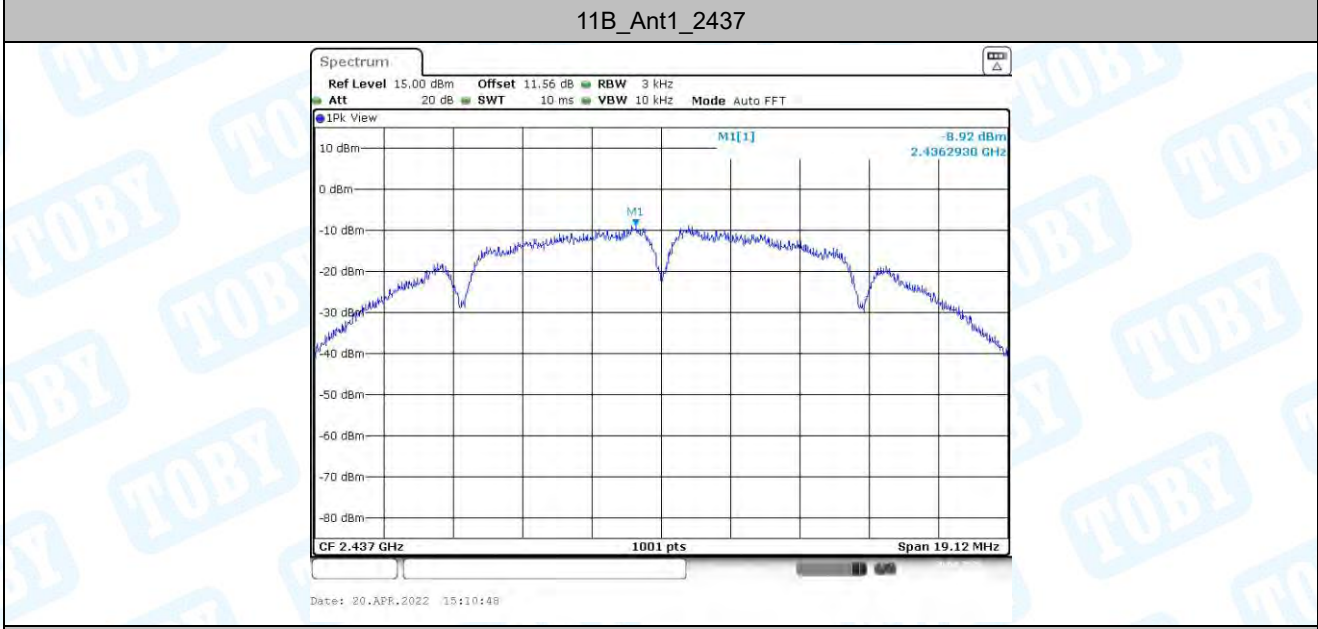
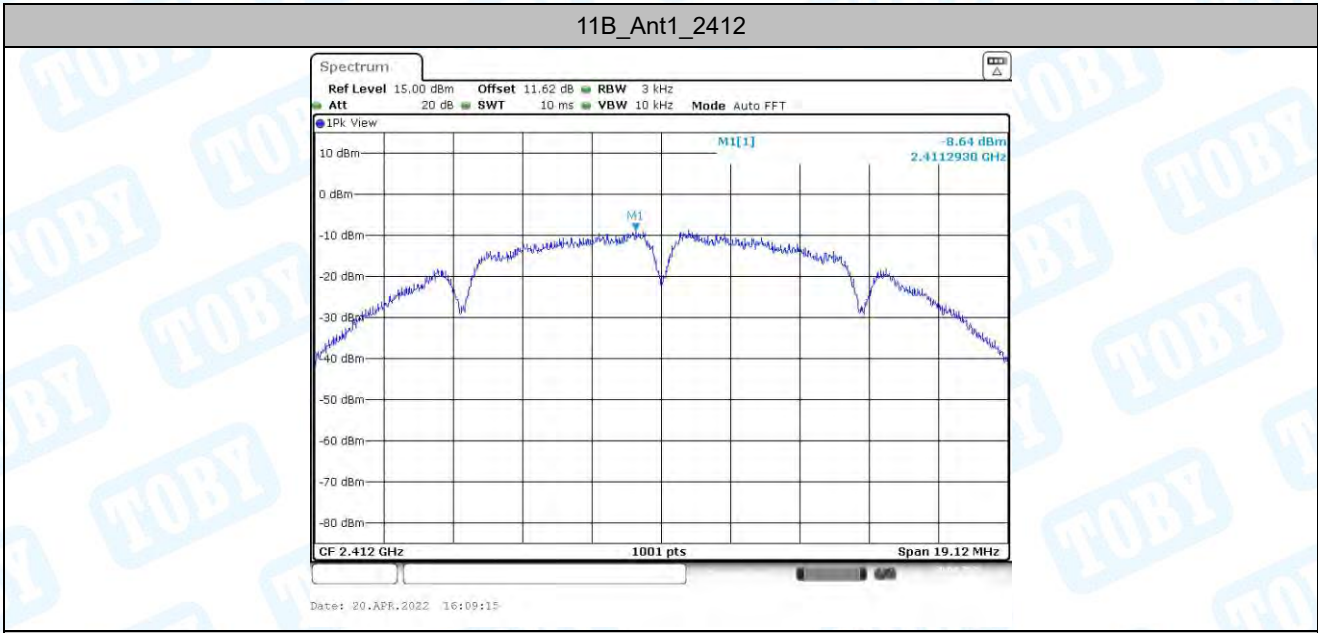
## 4. Maximum power spectral density

### 4.1. Test Result

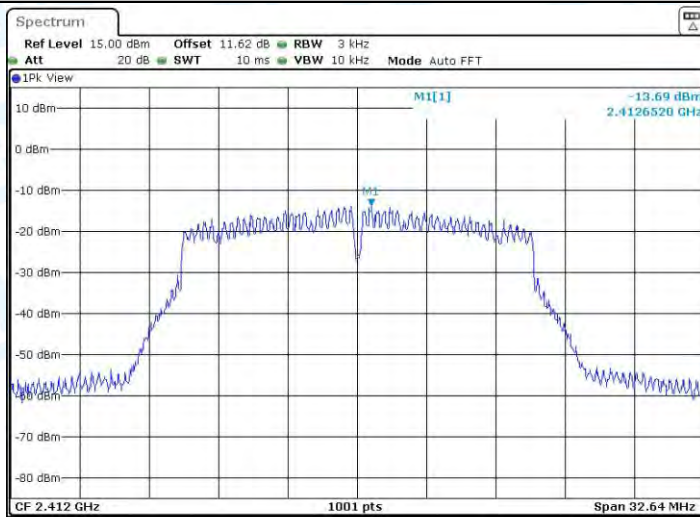
TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-8.64	≤8.00	PASS
		2437	-8.92	≤8.00	PASS
		2462	-9.08	≤8.00	PASS
11G	Ant1	2412	-13.69	≤8.00	PASS
		2437	-13.79	≤8.00	PASS
		2462	-14.34	≤8.00	PASS
11N20SISO	Ant1	2412	-14.08	≤8.00	PASS
		2437	-14.89	≤8.00	PASS
		2462	-15.29	≤8.00	PASS
11N40SISO	Ant1	2422	-17.67	≤8.00	PASS
		2437	-17	≤8.00	PASS
		2452	-16.44	≤8.00	PASS



## 4.2. Test Graphs



11G\_Ant1\_2412



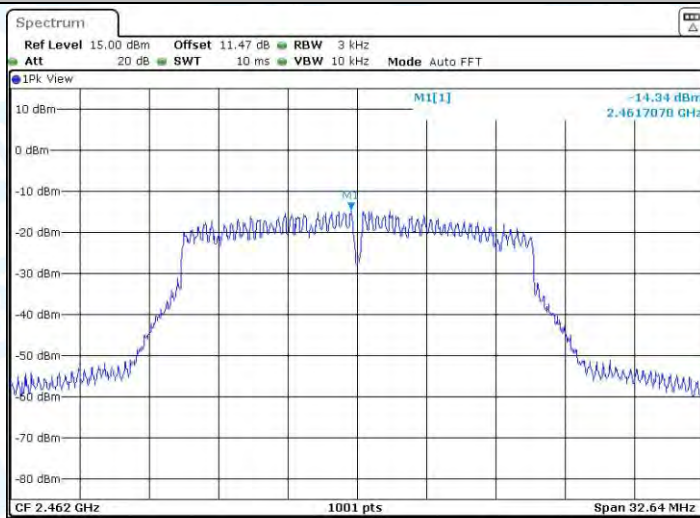
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11G\_Ant1\_2437



Date: 20.APR.2022 15:30:46

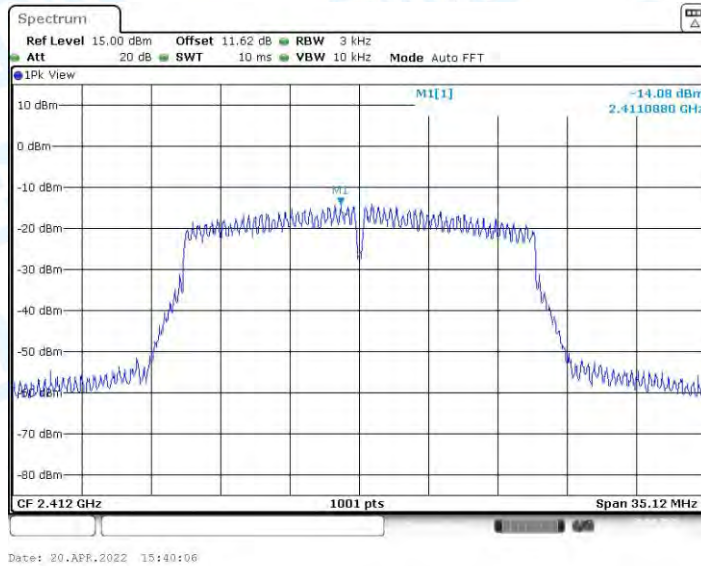
11G\_Ant1\_2462



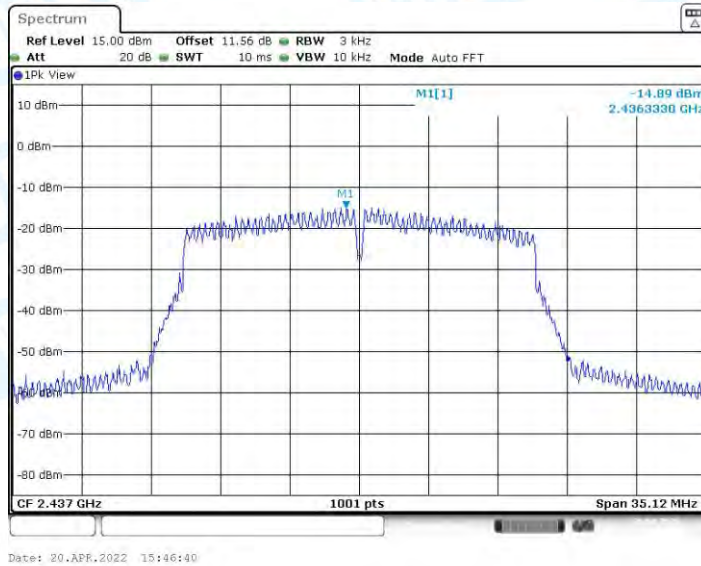
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11N20SISO\_Ant1\_2412

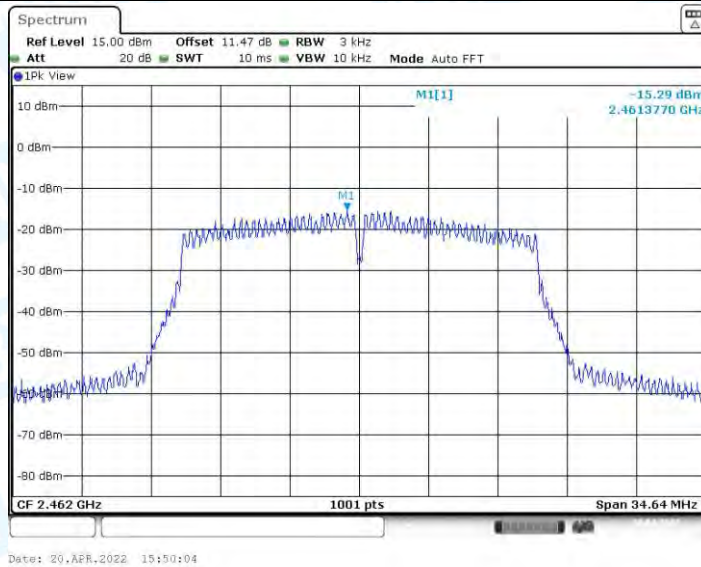




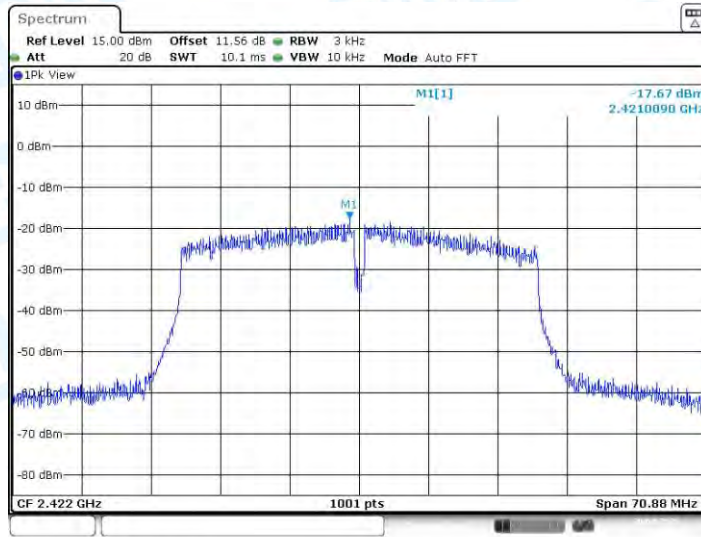
11N20SISO\_Ant1\_2437



11N20SISO\_Ant1\_2462

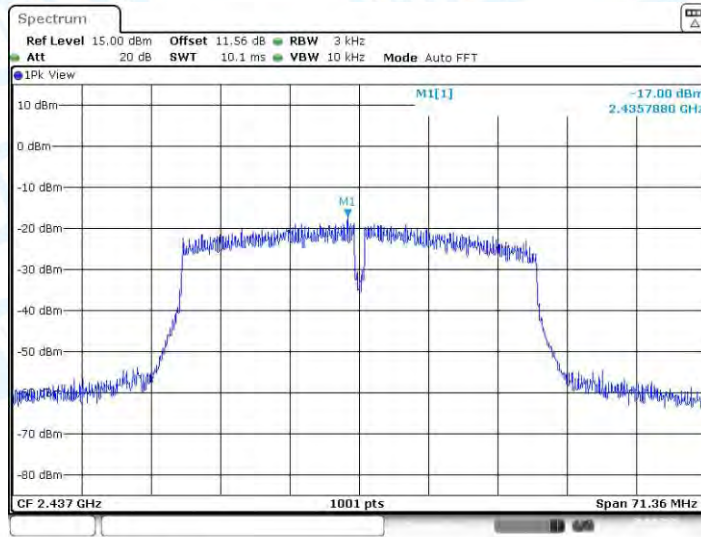


11N40SISO\_Ant1\_2422



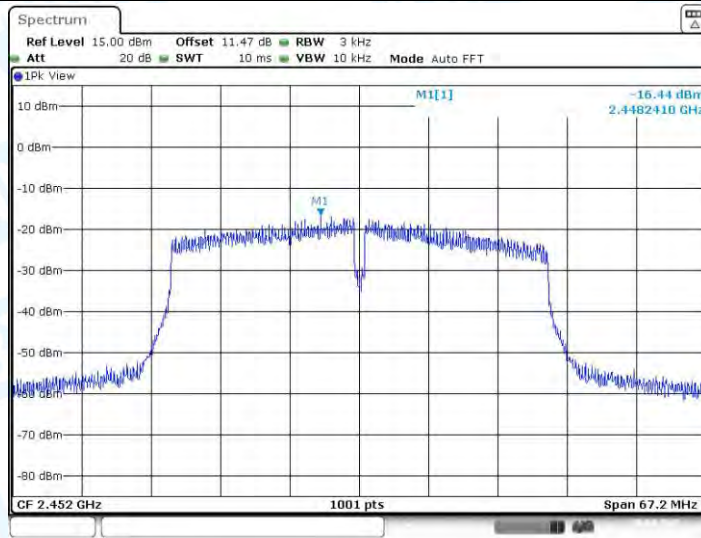
Date: 20.APR.2022 15:56:11

11N40SISO\_Ant1\_2437



Date: 20.APR.2022 16:00:34

11N40SISO\_Ant1\_2452



Date: 20.APR.2022 16:03:40

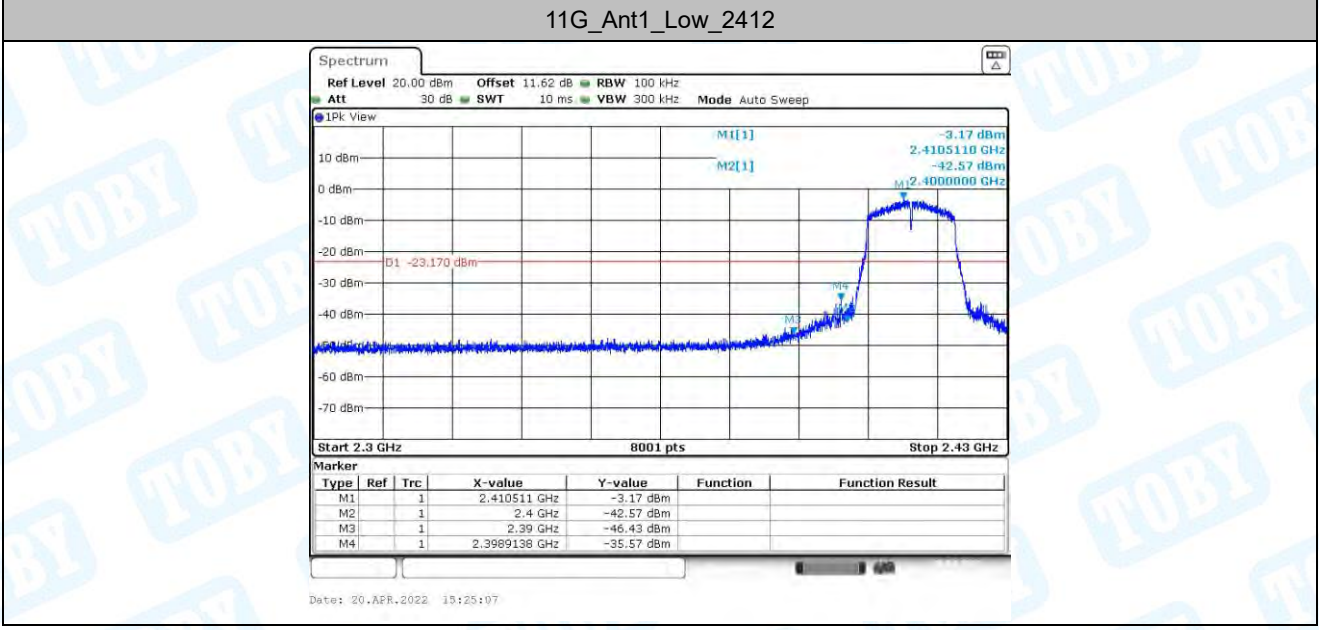
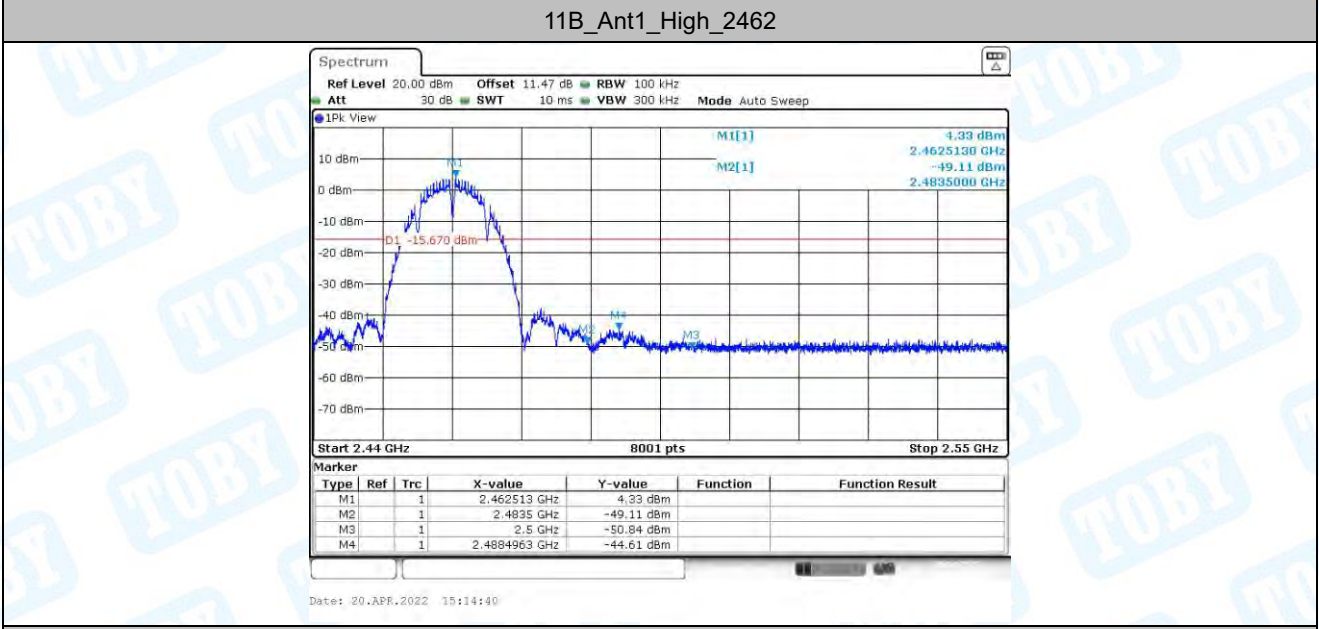
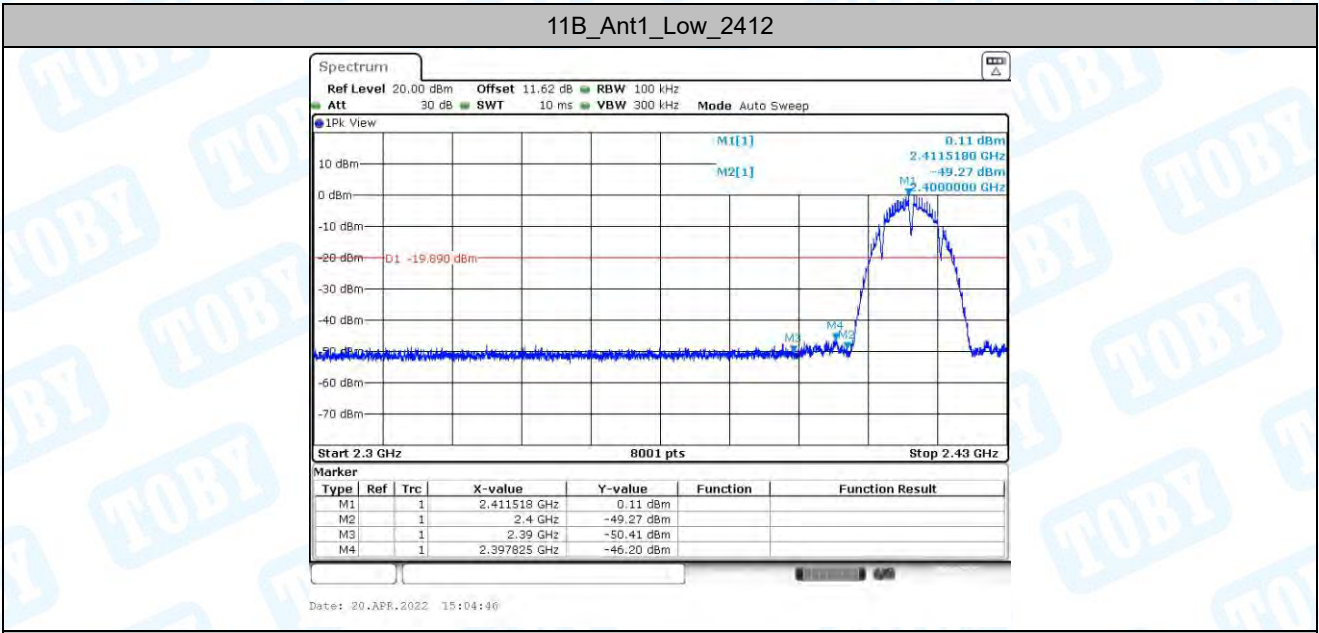


## 5. Band edge measurements

### 5.1. Test Result

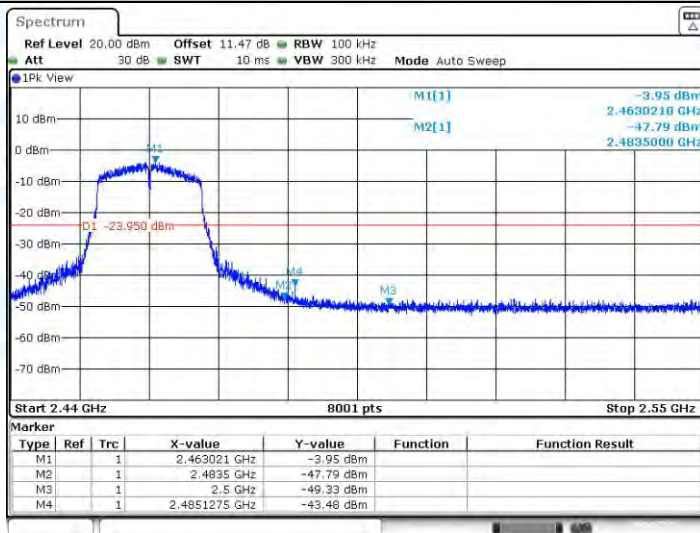
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	0.11	-46.2	≤-19.89	PASS
		High	2462	4.33	-44.61	≤-15.67	PASS
11G	Ant1	Low	2412	-3.17	-35.57	≤-23.17	PASS
		High	2462	-3.95	-43.48	≤-23.95	PASS
11N20SISO	Ant1	Low	2412	-3.68	-37.42	≤-23.68	PASS
		High	2462	-4.77	-45.55	≤-24.77	PASS
11N40SISO	Ant1	Low	2422	-6.60	-40	≤-26.6	PASS
		High	2452	-6.56	-42.63	≤-26.56	PASS

**5.2. Test Graphs**



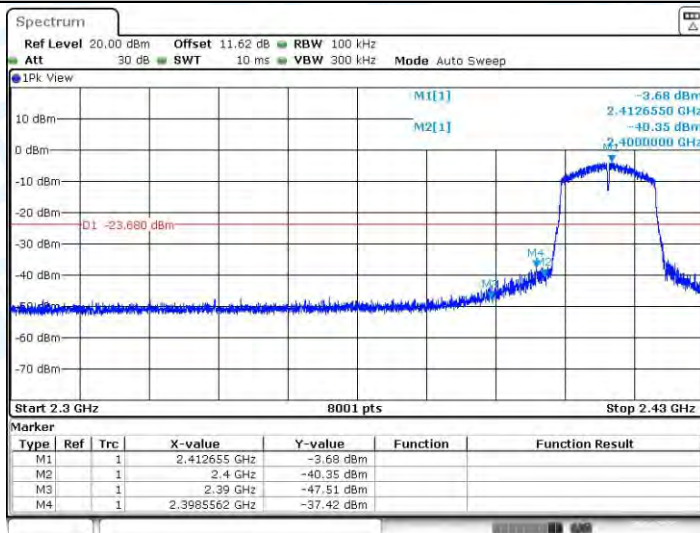


11G\_Ant1\_High\_2462



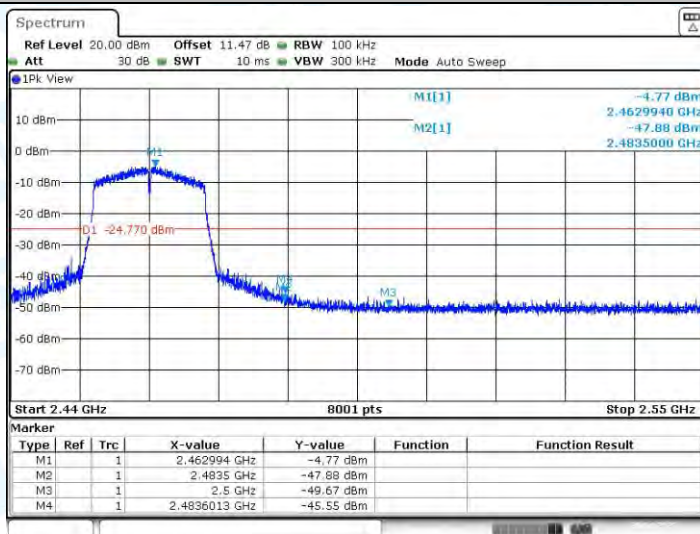
Date: 20.APR.2022 15:34:17

11N20SISO\_Ant1\_Low\_2412



Date: 20.APR.2022 15:40:25

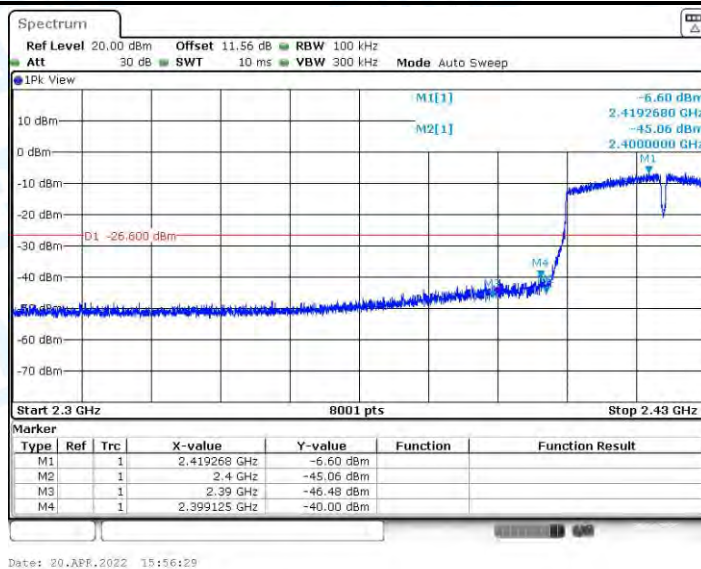
11N20SISO\_Ant1\_High\_2462



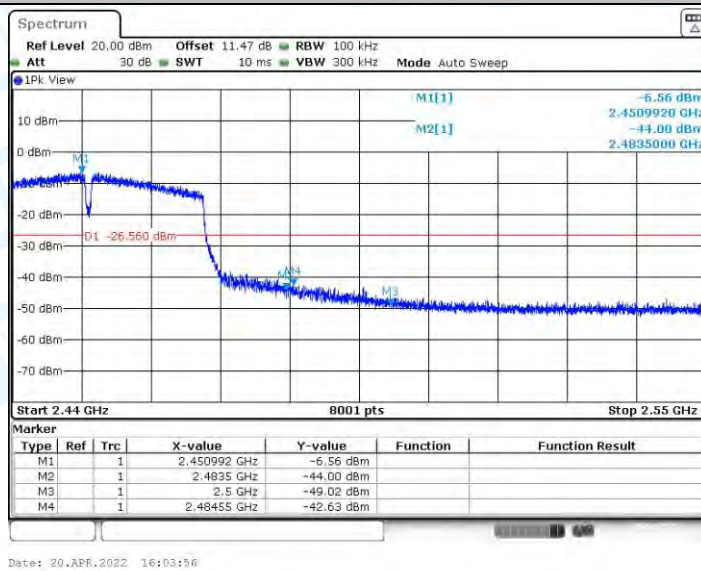
Date: 20.APR.2022 15:50:23

11N40SISO\_Ant1\_Low\_2422





11N40SISO\_Ant1\_High\_2452





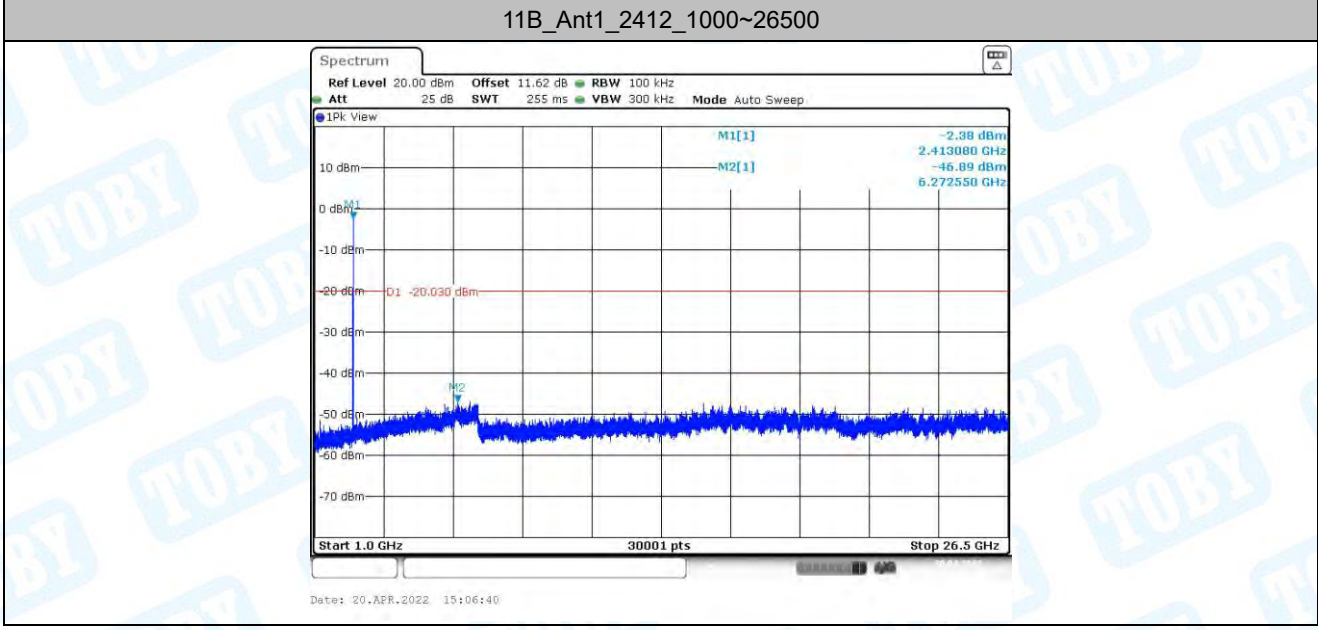
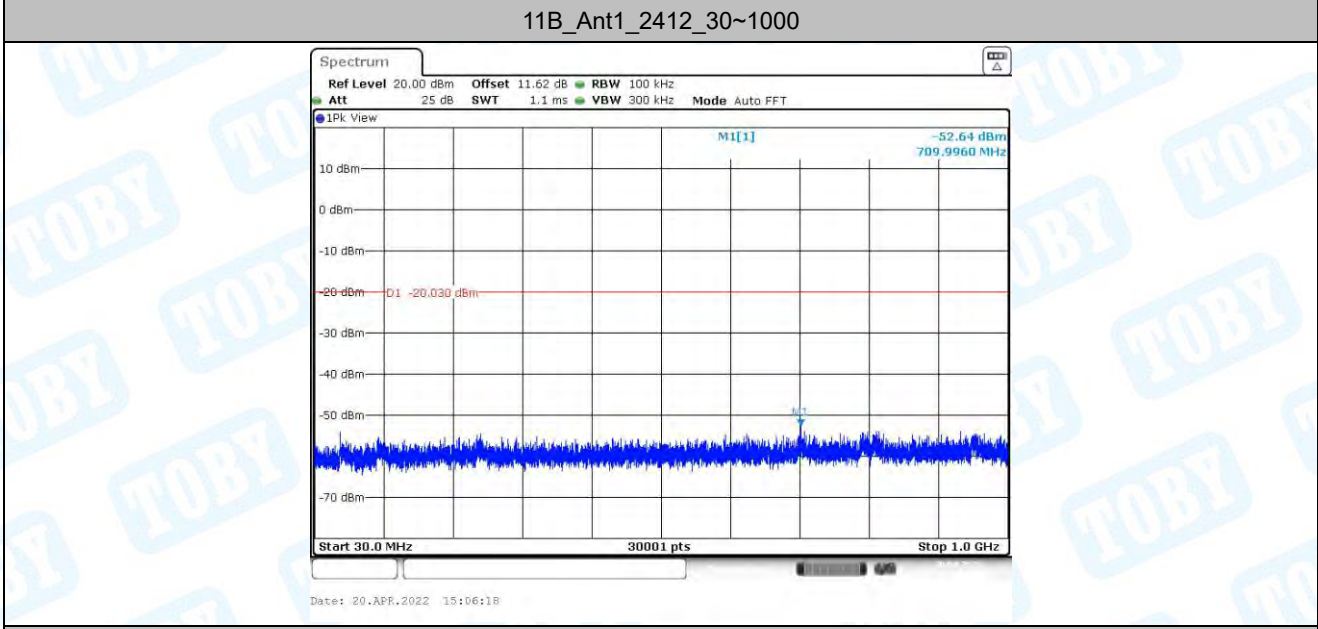
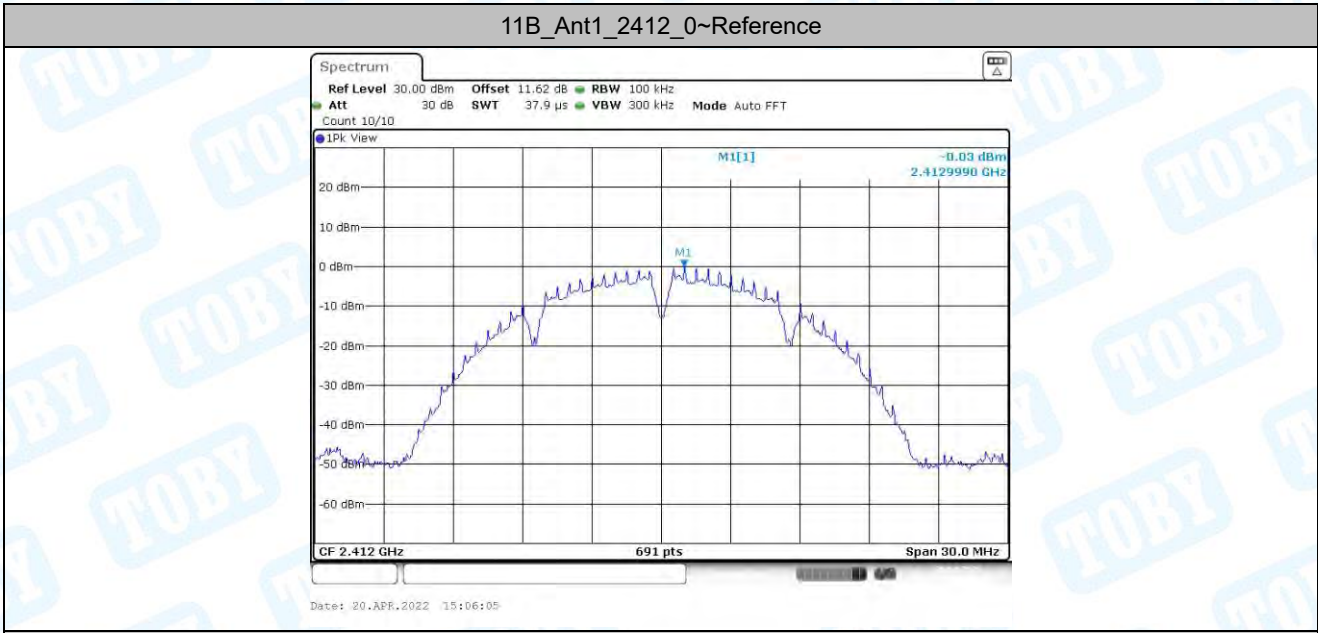
## 6. Conducted Spurious Emission

### 6.1. Test Result

TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	-0.03	-0.03	---	PASS
			30~1000	-0.03	-52.64	≤-20.03	PASS
			1000~26500	-0.03	-46.89	≤-20.03	PASS
		2437	Reference	4.24	4.24	---	PASS
			30~1000	4.24	-53.07	≤-15.76	PASS
			1000~26500	4.24	-46.7	≤-15.76	PASS
		2462	Reference	3.95	3.95	---	PASS
			30~1000	3.95	-52.22	≤-16.05	PASS
			1000~26500	3.95	-47.21	≤-16.05	PASS
11G	Ant1	2412	Reference	-3.25	-3.25	---	PASS
			30~1000	-3.25	-52.82	≤-23.25	PASS
			1000~26500	-3.25	-47.4	≤-23.25	PASS
		2437	Reference	-3.55	-3.55	---	PASS
			30~1000	-3.55	-53.44	≤-23.55	PASS
			1000~26500	-3.55	-47.16	≤-23.55	PASS
		2462	Reference	-3.62	-3.62	---	PASS
			30~1000	-3.62	-53.17	≤-23.62	PASS
			1000~26500	-3.62	-47.56	≤-23.62	PASS
11N20SISO	Ant1	2412	Reference	-3.57	-3.57	---	PASS
			30~1000	-3.57	-52.95	≤-23.57	PASS
			1000~26500	-3.57	-46.86	≤-23.57	PASS
		2437	Reference	-4.07	-4.07	---	PASS
			30~1000	-4.07	-52.88	≤-24.07	PASS
			1000~26500	-4.07	-47.18	≤-24.07	PASS
		2462	Reference	-4.95	-4.95	---	PASS
			30~1000	-4.95	-52.91	≤-24.95	PASS
			1000~26500	-4.95	-47.01	≤-24.95	PASS
11N40SISO	Ant1	2422	Reference	-6.85	-6.85	---	PASS
			30~1000	-6.85	-50.71	≤-26.85	PASS
			1000~26500	-6.85	-47.28	≤-26.85	PASS
		2437	Reference	-6.81	-6.81	---	PASS
			30~1000	-6.81	-51.01	≤-26.81	PASS
			1000~26500	-6.81	-47.01	≤-26.81	PASS
		2452	Reference	-6.51	-6.51	---	PASS
			30~1000	-6.51	-50.54	≤-26.51	PASS
			1000~26500	-6.51	-46.73	≤-26.51	PASS

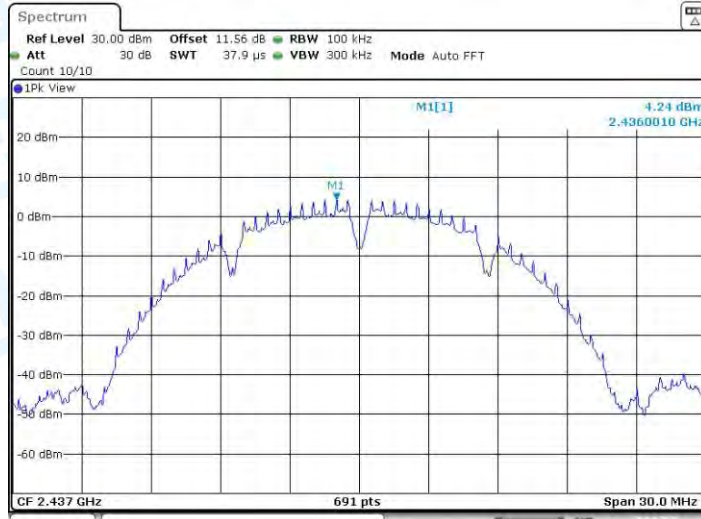


## 6.2. Test Graphs



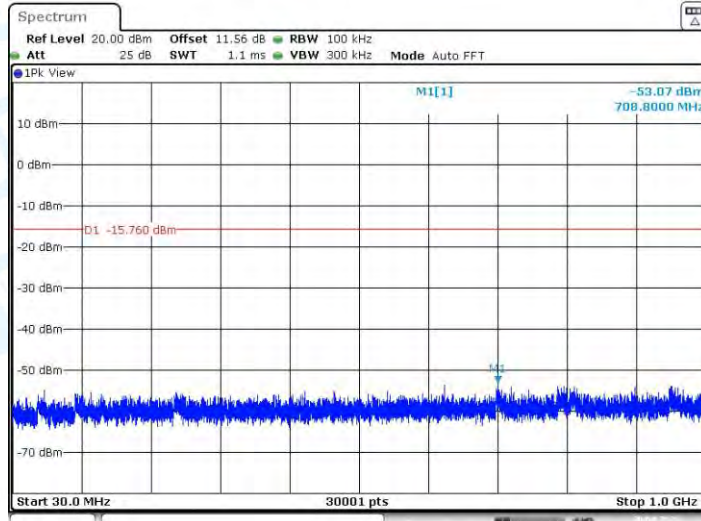


11B\_Ant1\_2437\_0~Reference



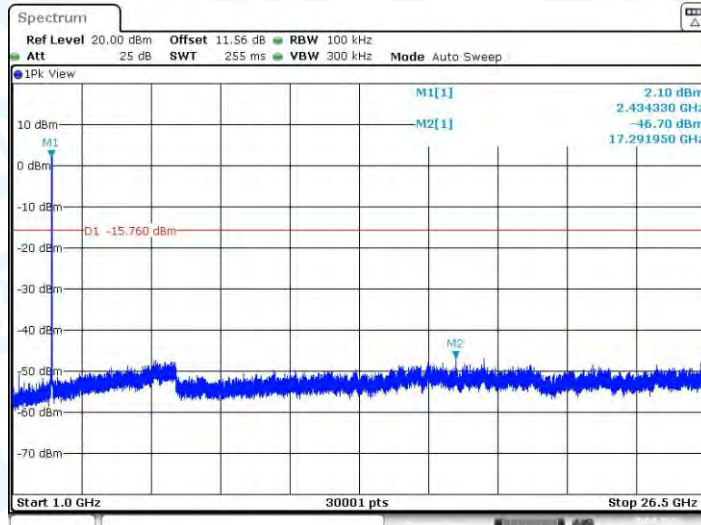
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11B\_Ant1\_2437\_30~1000



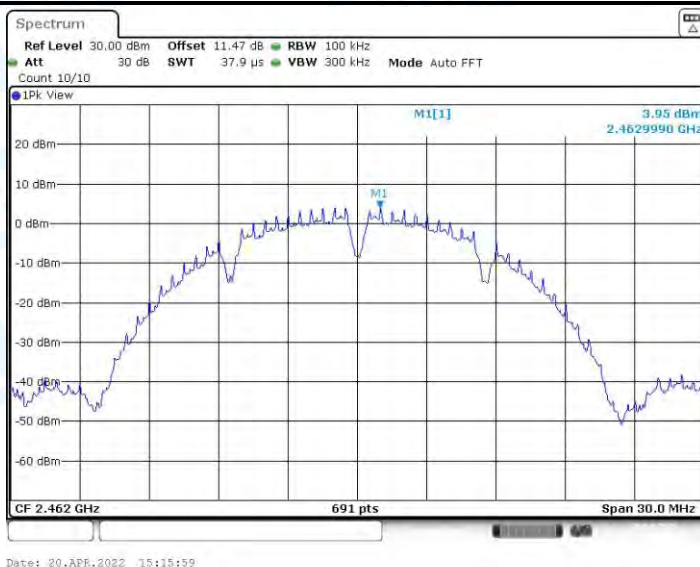
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11B\_Ant1\_2437\_1000~26500

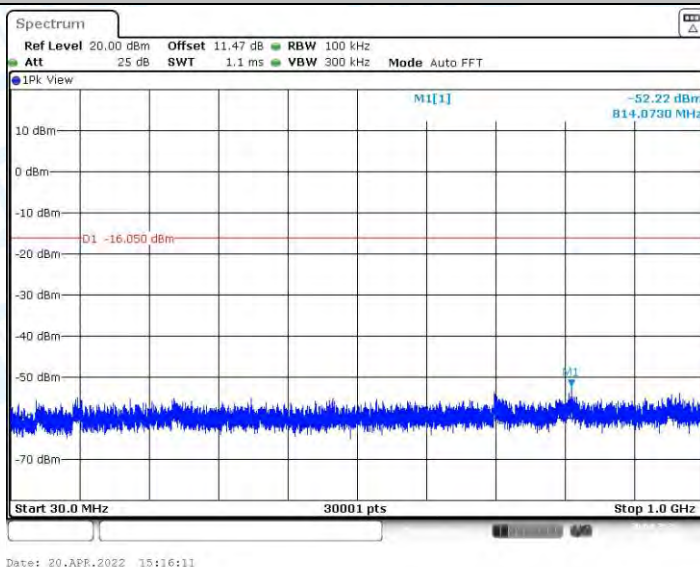


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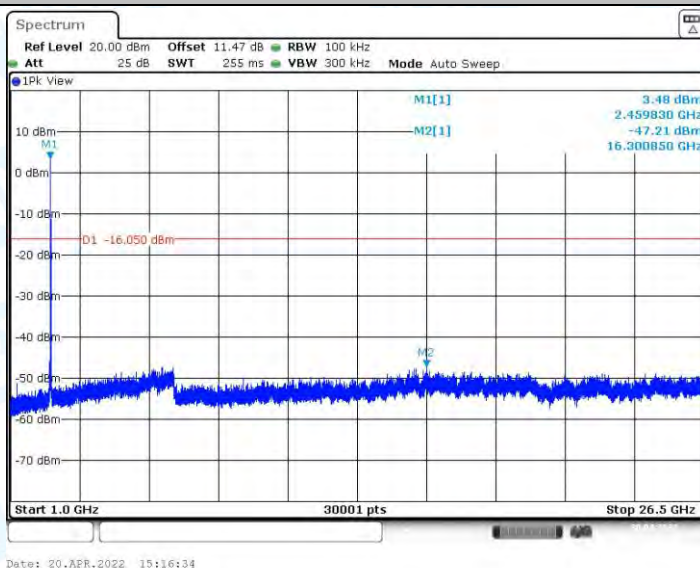
11B\_Ant1\_2462\_0~Reference



11B\_Ant1\_2462\_30~1000

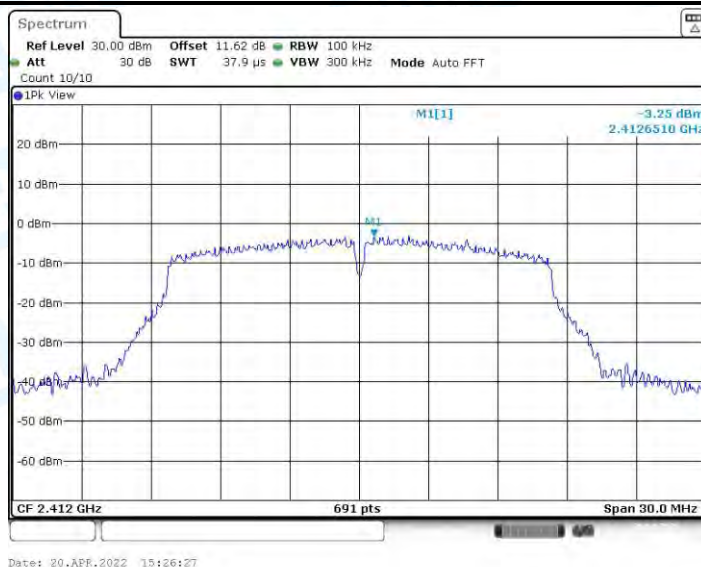


11B\_Ant1\_2462\_1000~26500

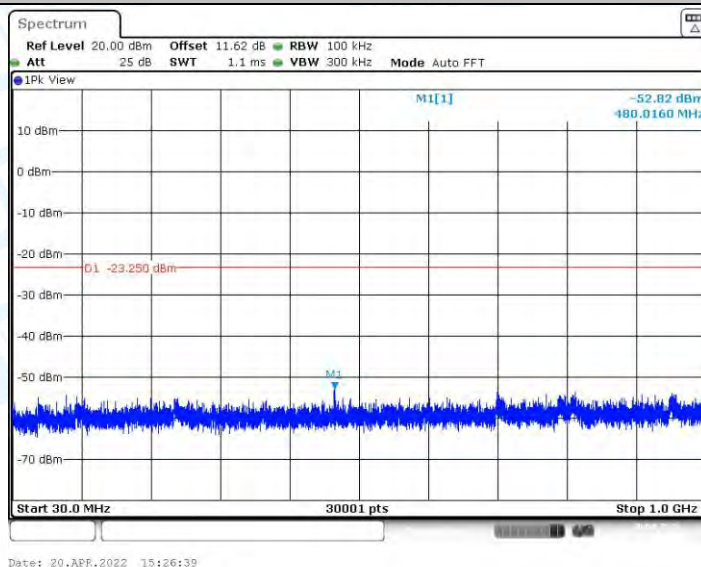


11G\_Ant1\_2412\_0~Reference

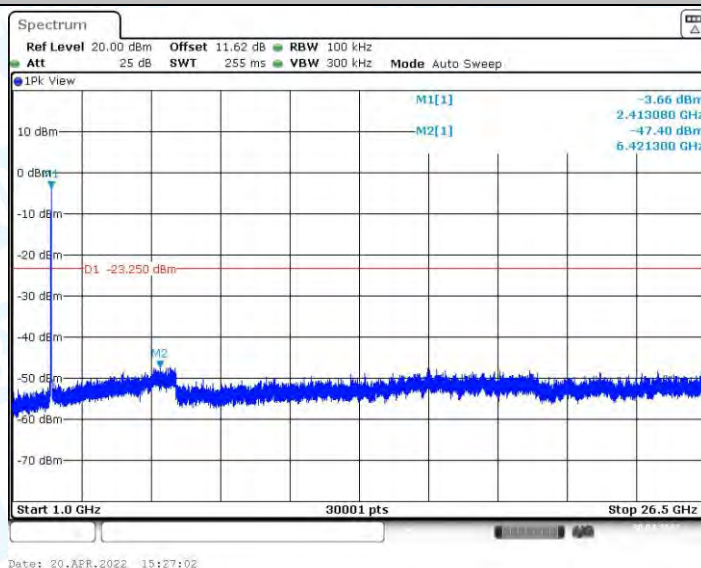




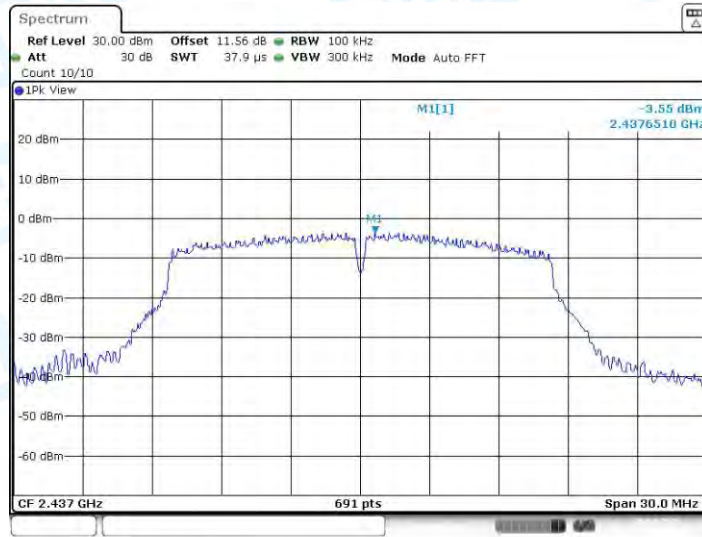
11G\_Ant1\_2412\_30~1000



11G\_Ant1\_2412\_1000~26500

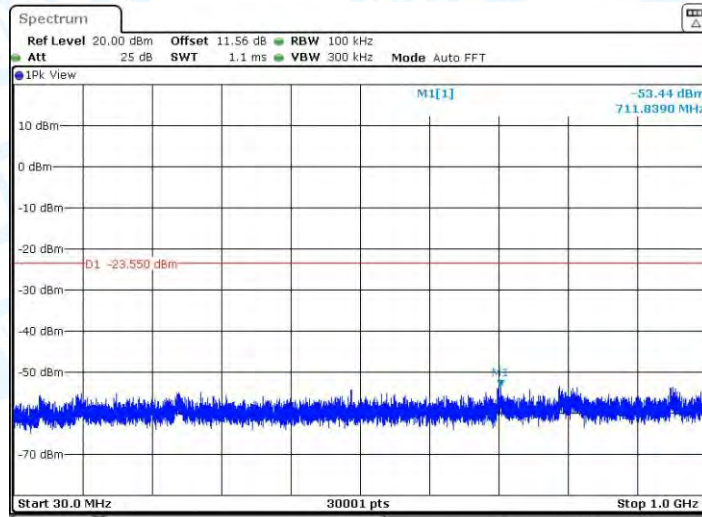


11G\_Ant1\_2437\_0~Reference



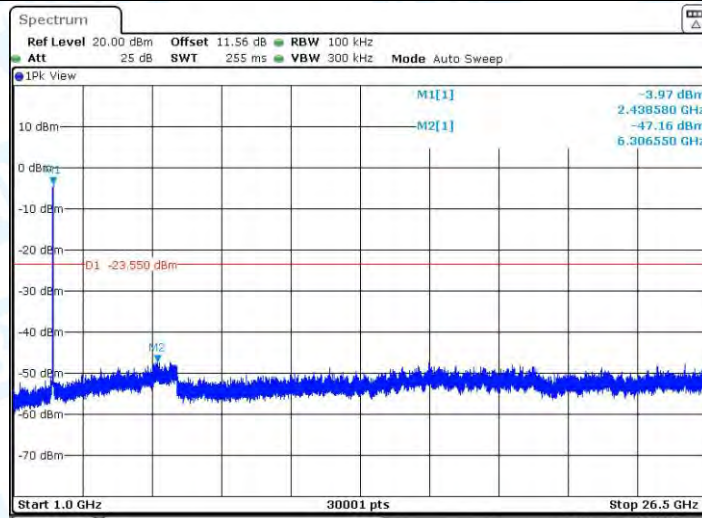
Date: 20.APR.2022 15:31:00

11G\_Ant1\_2437\_30~1000



Date: 20.APR.2022 15:31:12

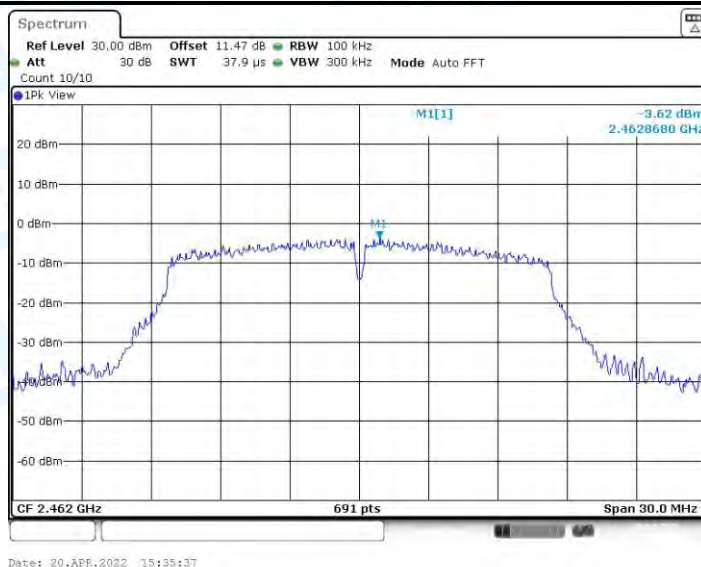
11G\_Ant1\_2437\_1000~26500



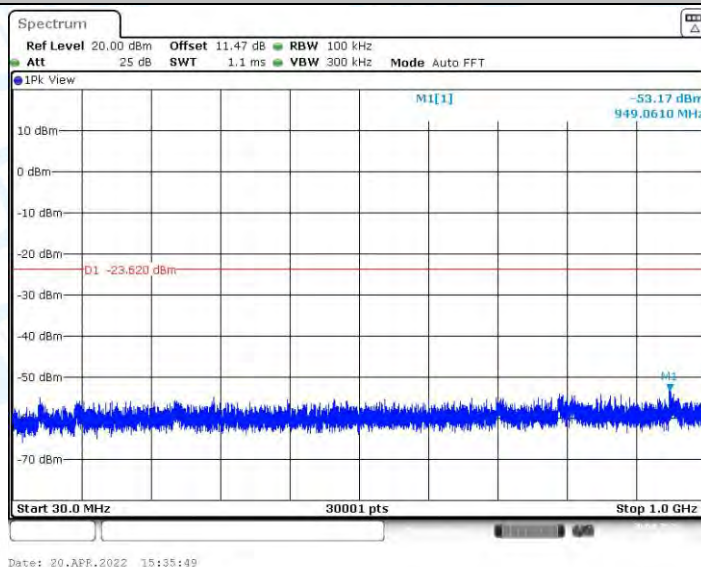
Date: 20.APR.2022 15:31:35

11G\_Ant1\_2462\_0~Reference

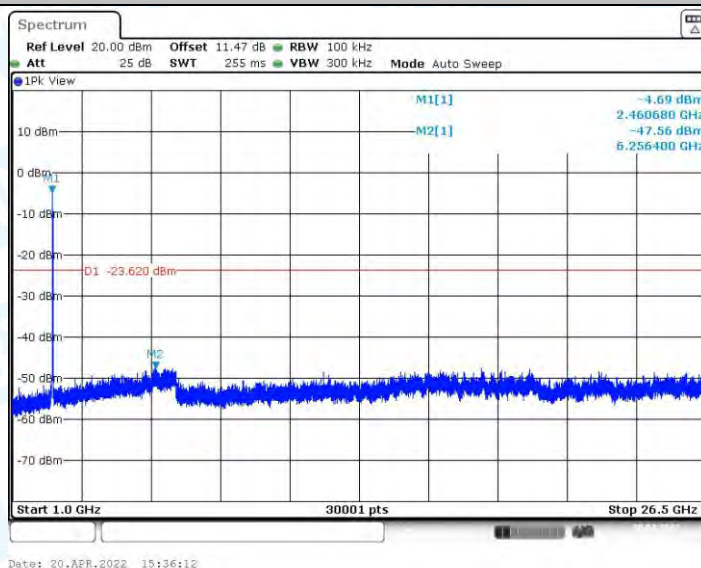




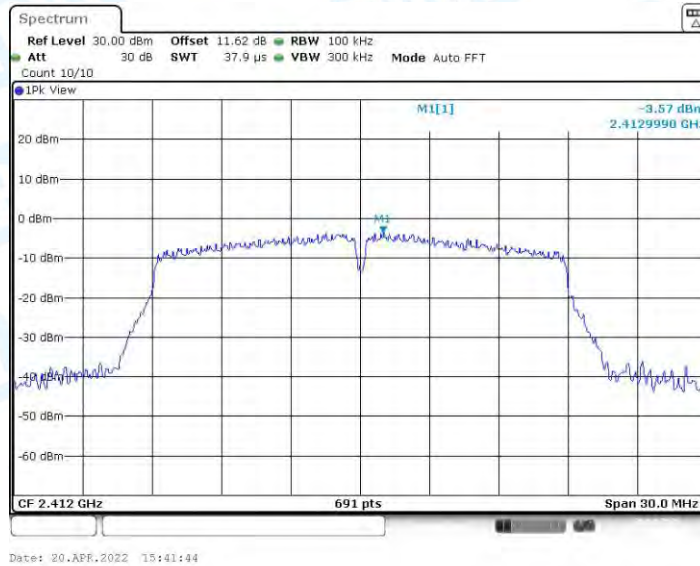
11G\_Ant1\_2462\_30~1000



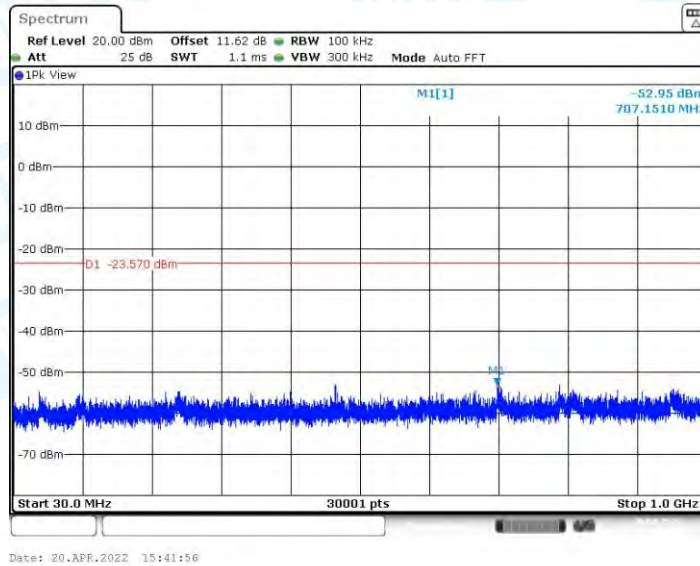
11G\_Ant1\_2462\_1000~26500



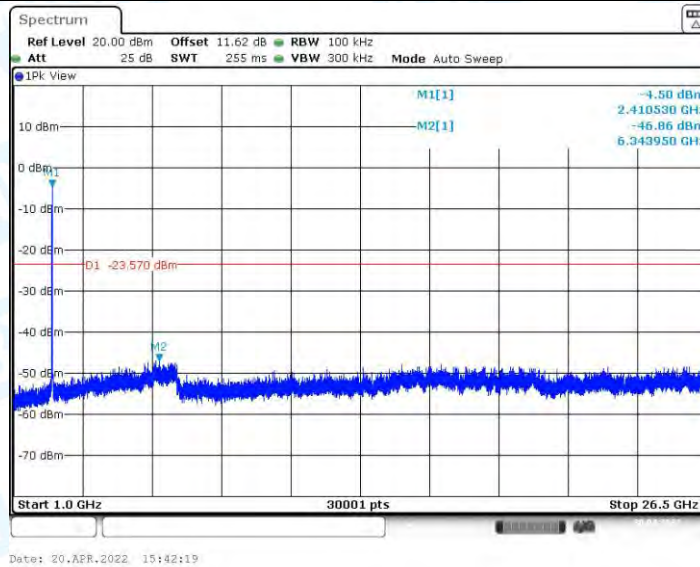
11N20SISO\_Ant1\_2412\_0~Reference



11N20SISO\_Ant1\_2412\_30~1000

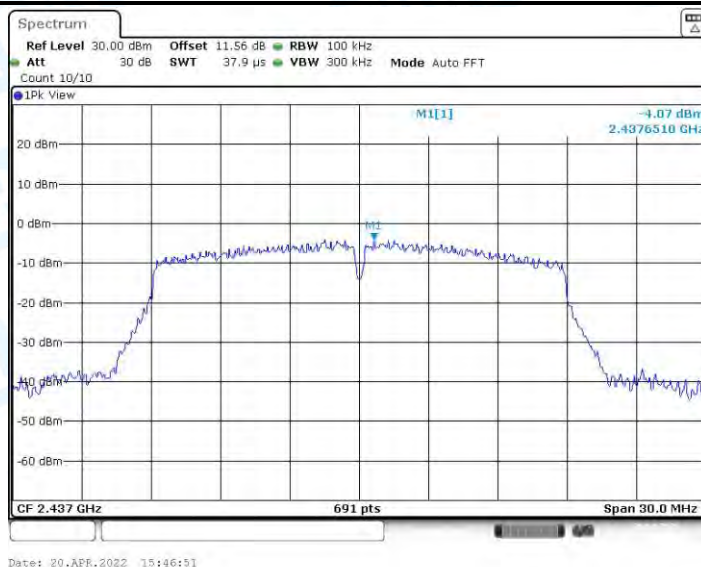


11N20SISO\_Ant1\_2412\_1000~26500

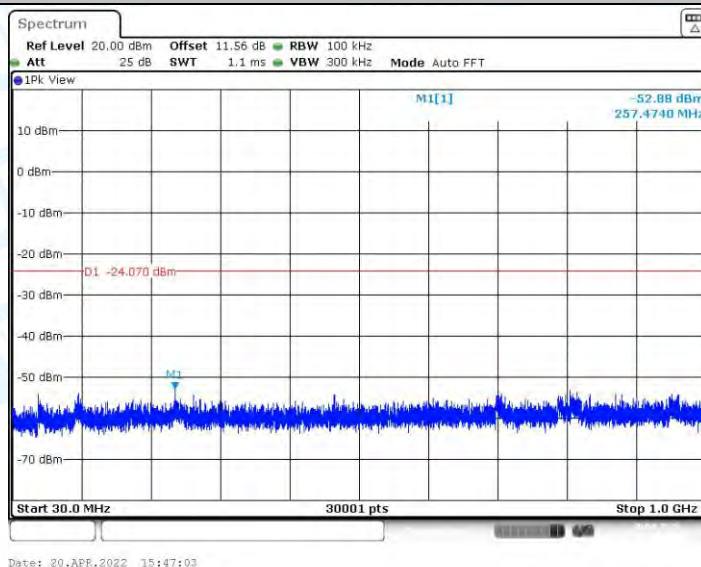


11N20SISO\_Ant1\_2437\_0~Reference

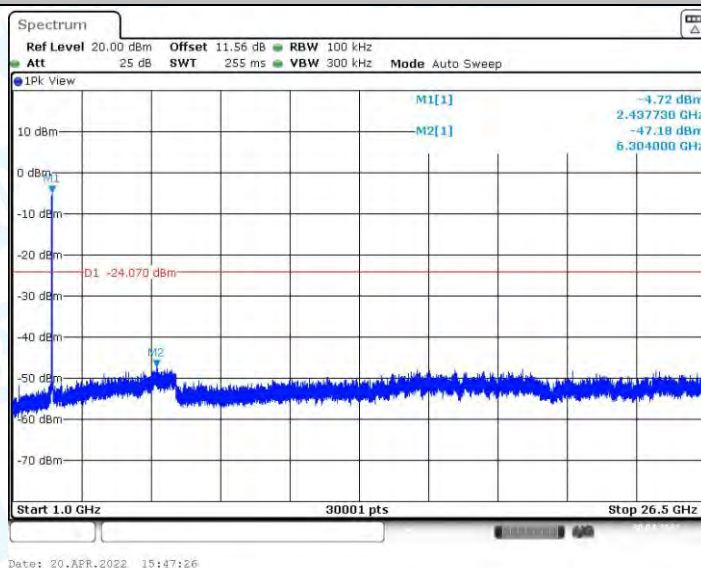




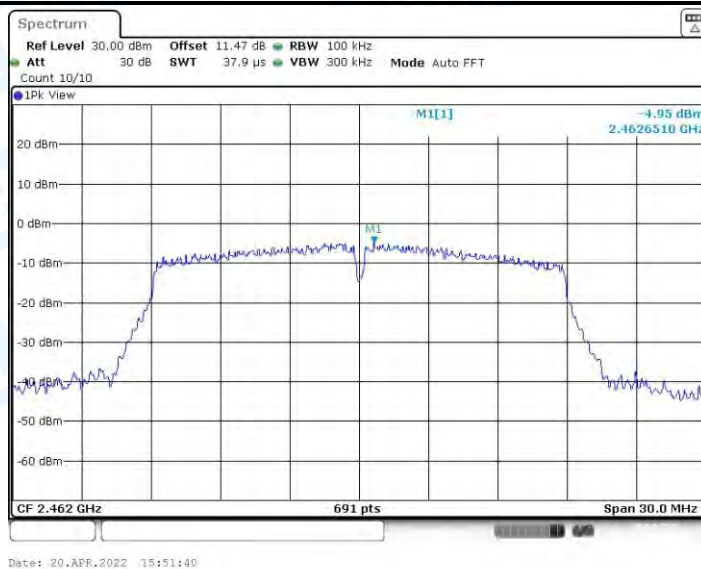
11N20SISO\_Ant1\_2437\_30~1000



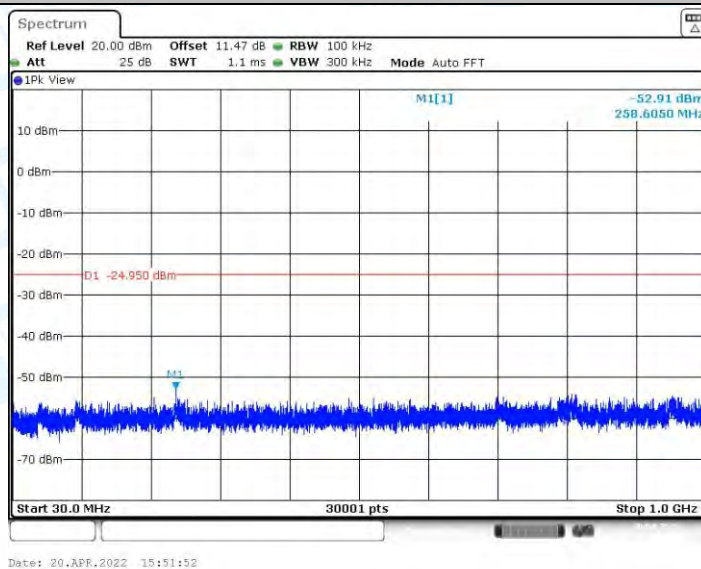
11N20SISO\_Ant1\_2437\_1000~26500



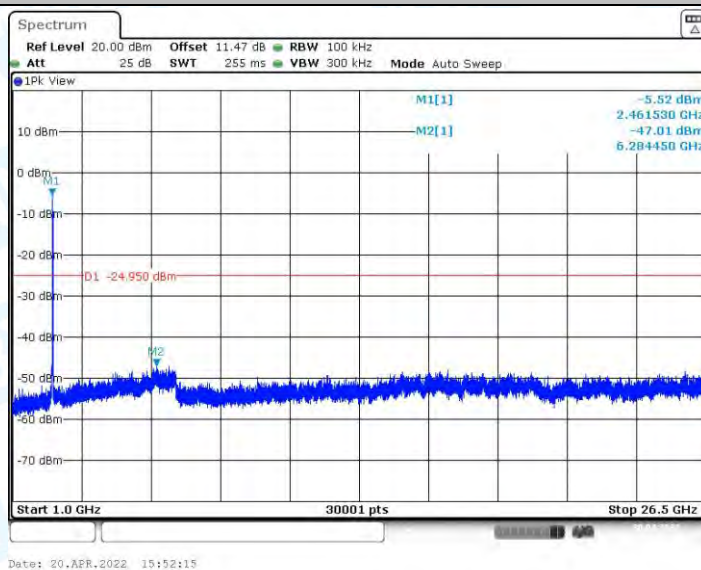
11N20SISO\_Ant1\_2462\_0~Reference



11N20SISO\_Ant1\_2462\_30~1000

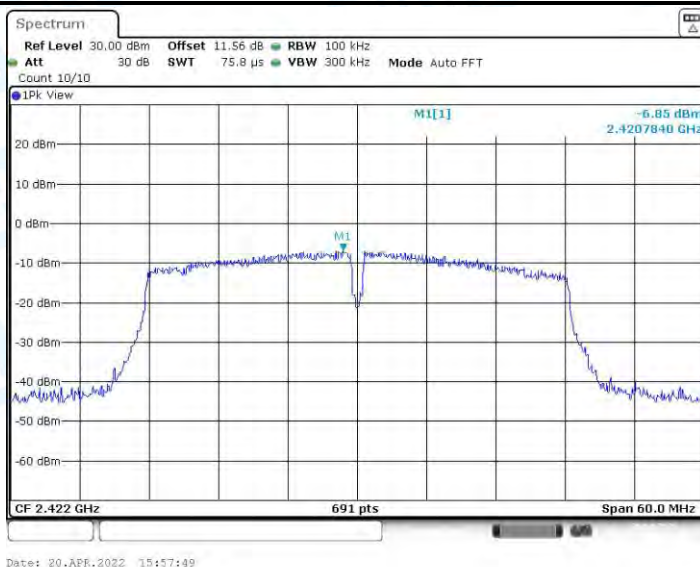


11N20SISO\_Ant1\_2462\_1000~26500

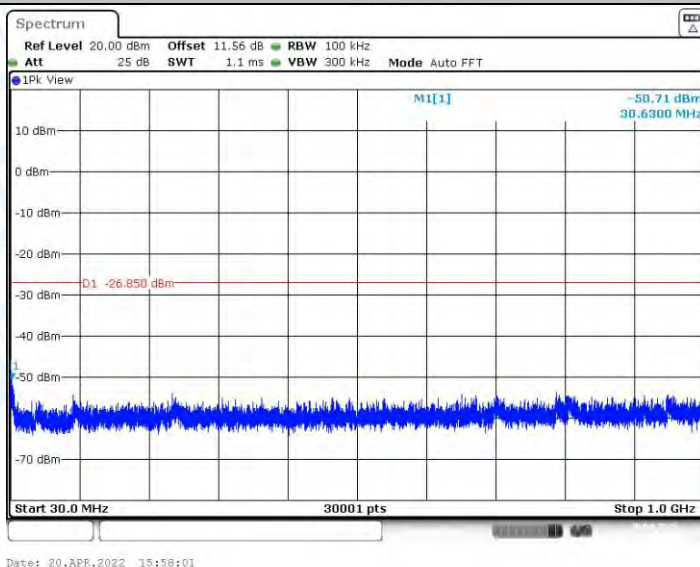


11N40SISO\_Ant1\_2422\_0~Reference

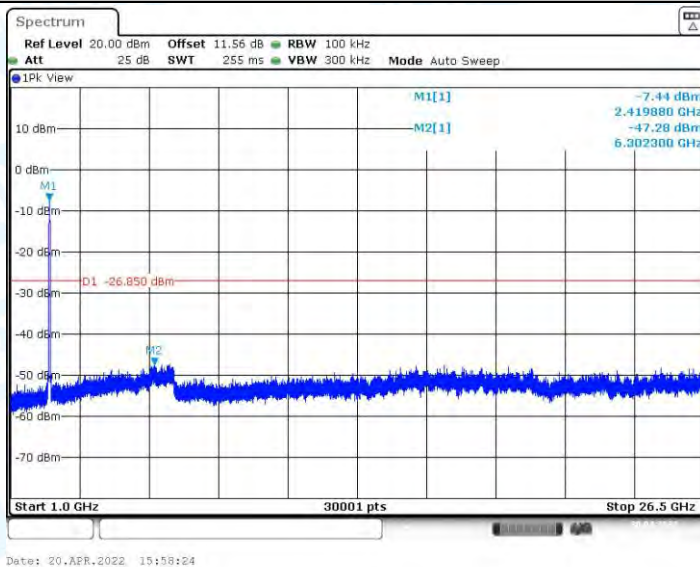




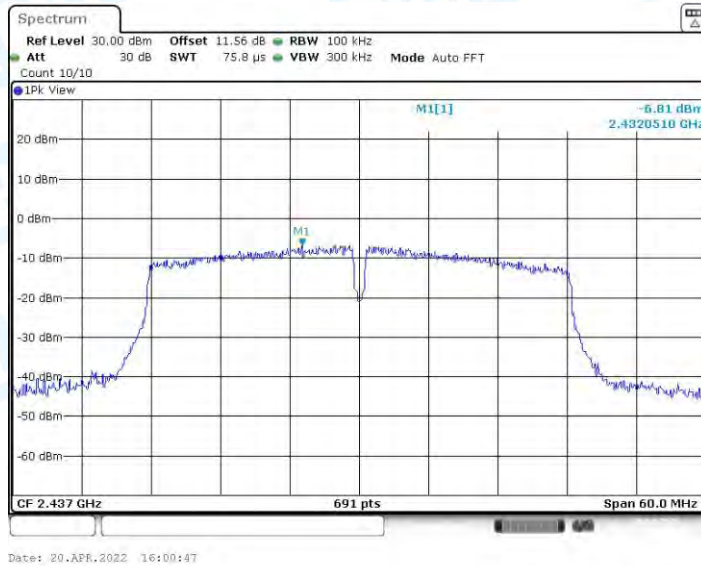
11N40SISO\_Ant1\_2422\_30~1000



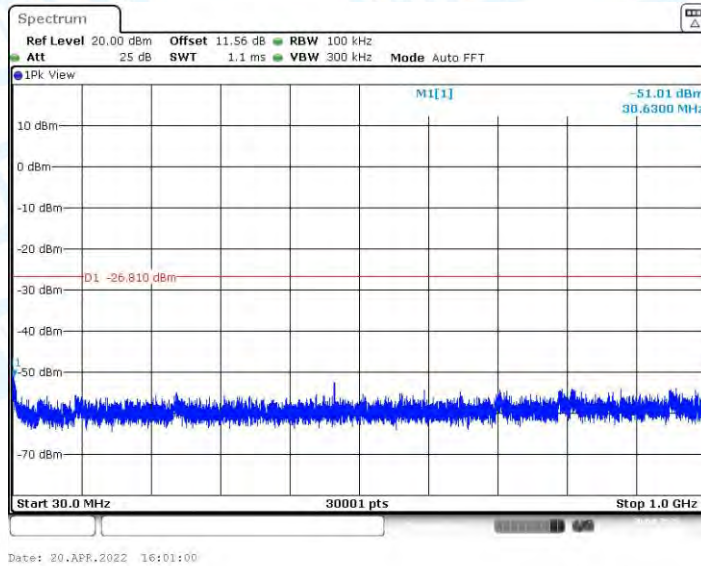
11N40SISO\_Ant1\_2422\_1000~26500



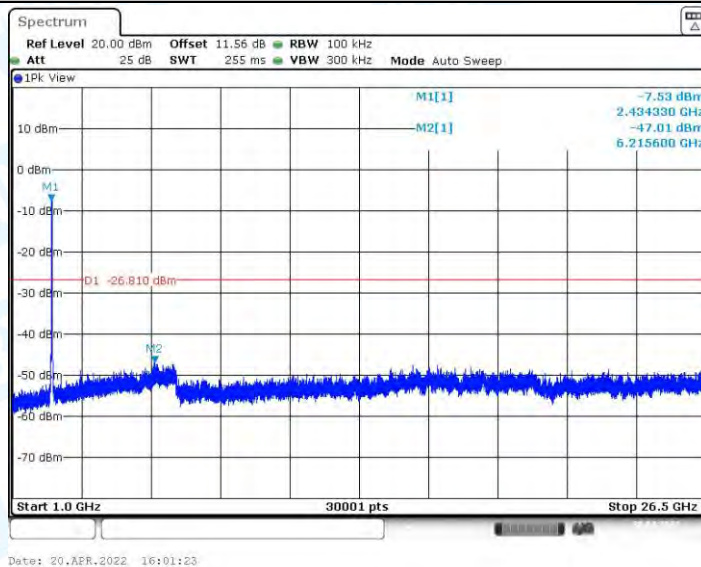
11N40SISO\_Ant1\_2437\_0~Reference



11N40SISO\_Ant1\_2437\_30~1000

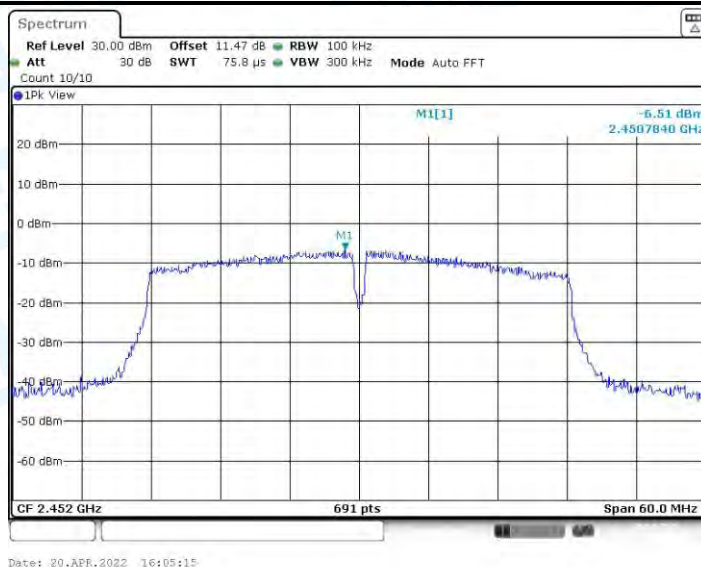


11N40SISO\_Ant1\_2437\_1000~26500

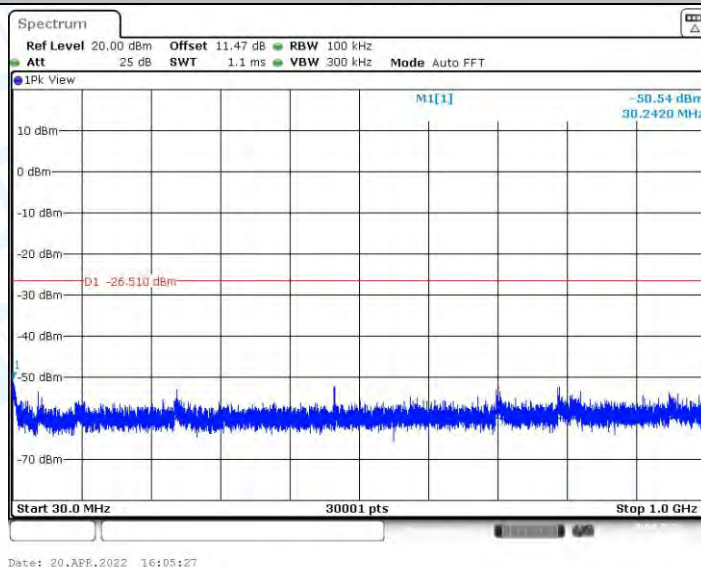


11N40SISO\_Ant1\_2452\_0~Reference

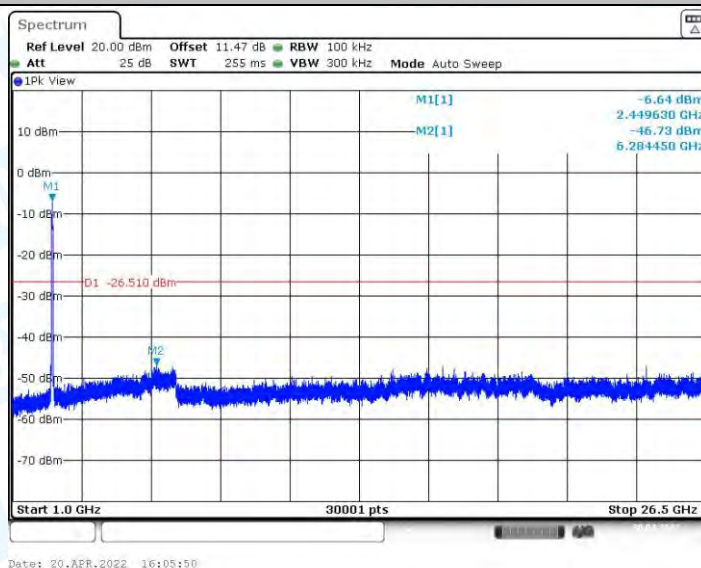




11N40SISO\_Ant1\_2452\_30~1000



11N40SISO\_Ant1\_2452\_1000~26500



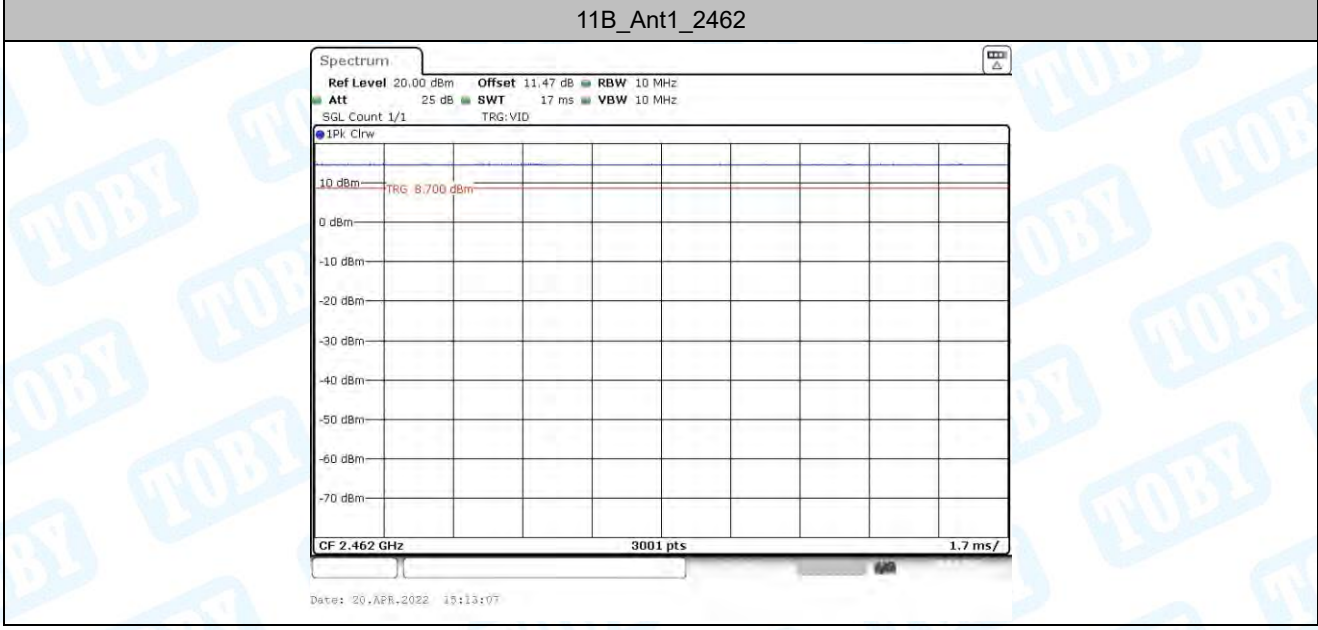
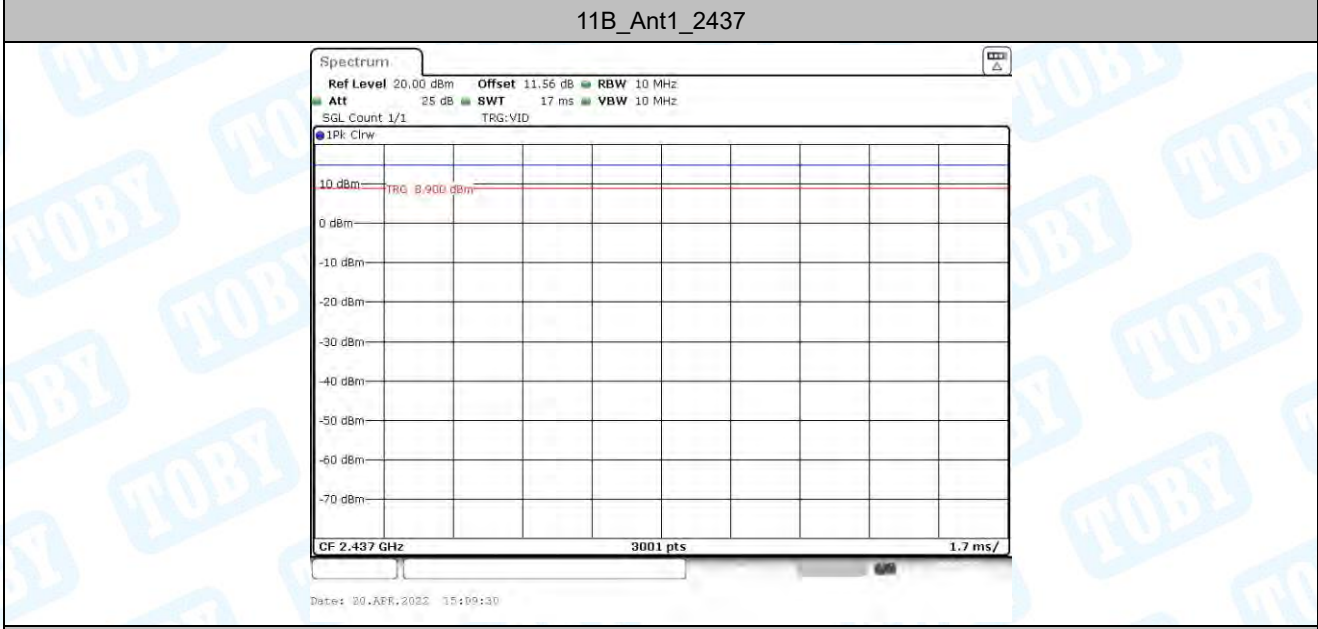
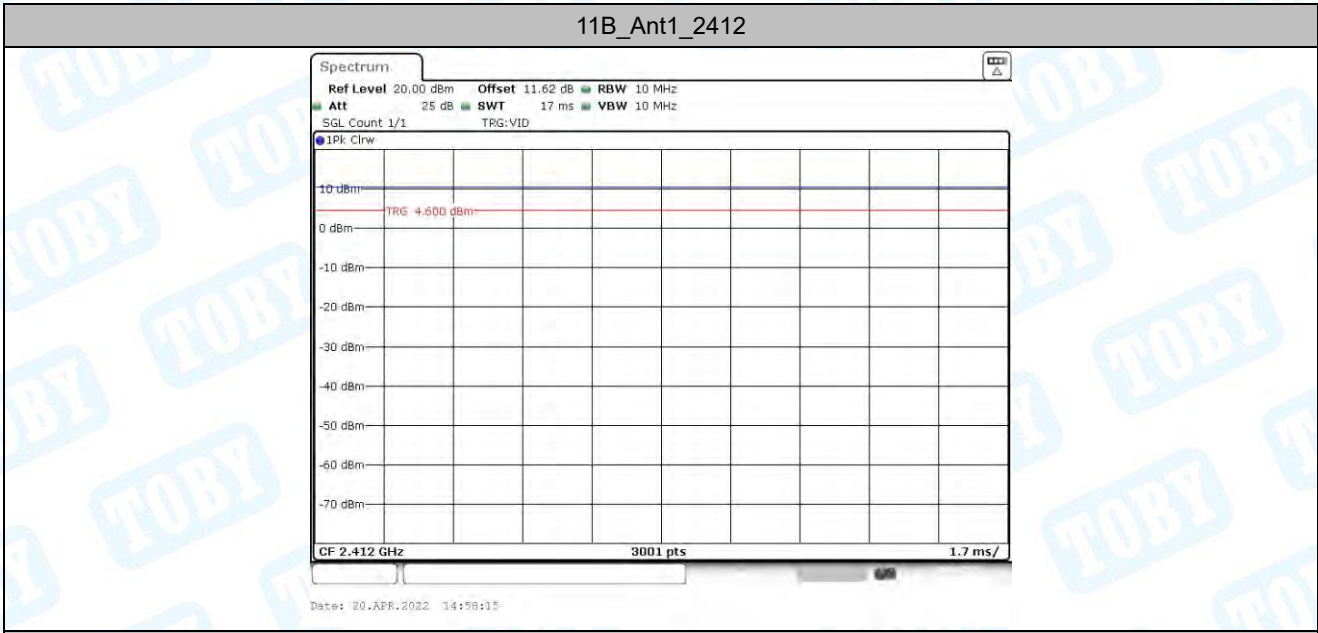
## 7. Duty Cycle

### 7.1. Test Result

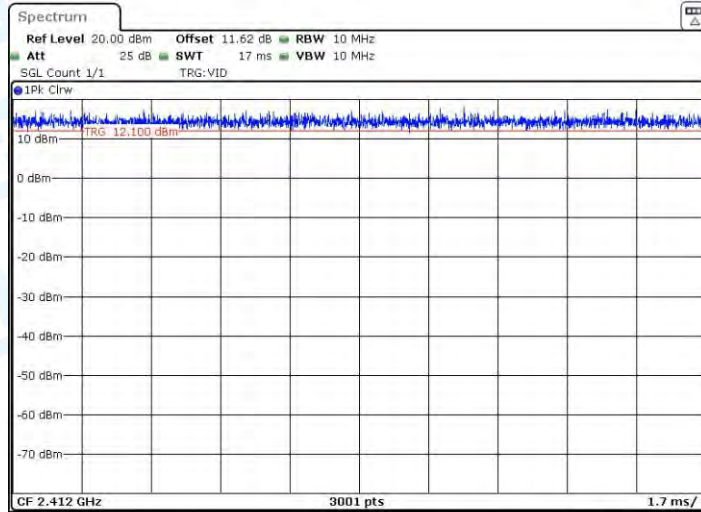
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Limit	Verdict
11B	Ant1	2412	17.00	17.00	100.00	---	---
		2437	17.00	17.00	100.00	---	---
		2462	17.00	17.00	100.00	---	---
11G	Ant1	2412	17.00	17.00	100.00	---	---
		2437	17.00	17.00	100.00	---	---
		2462	17.00	17.00	100.00	---	---
11N20SISO	Ant1	2412	17.00	17.00	100.00	---	---
		2437	17.00	17.00	100.00	---	---
		2462	17.00	17.00	100.00	---	---
11N40SISO	Ant1	2422	17.00	17.00	100.00	---	---
		2437	17.00	17.00	100.00	---	---
		2452	17.00	17.00	100.00	---	---



## 7.2. Test Graphs

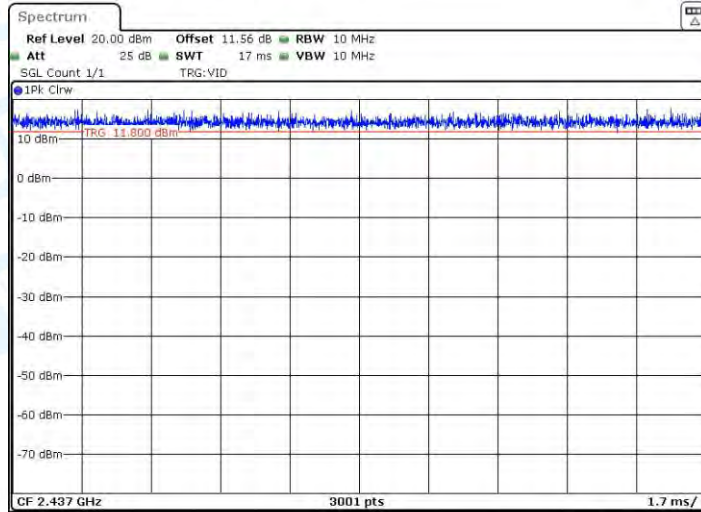


11G\_Ant1\_2412



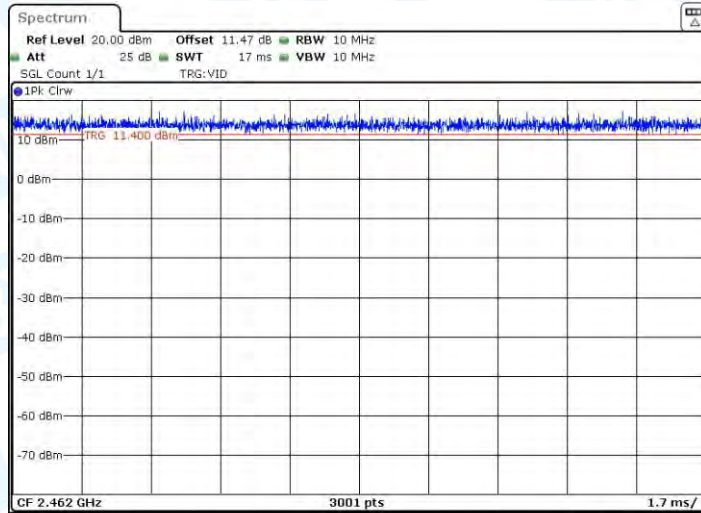
Date: 20.APR.2022 15:23:35

11G\_Ant1\_2437



Date: 20.APR.2022 15:29:30

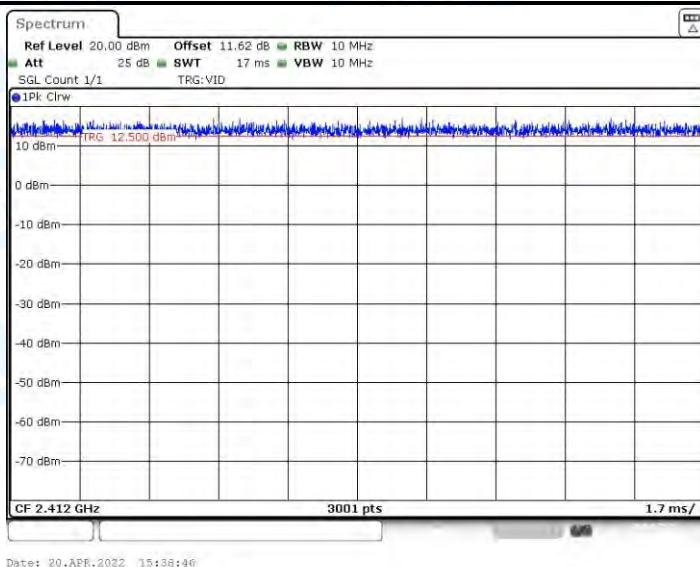
11G\_Ant1\_2462



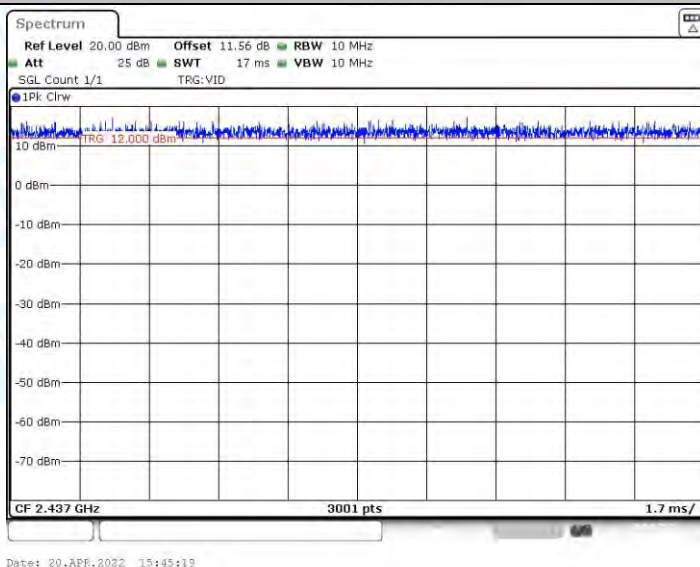
Date: 20.APR.2022 15:32:41

11N20SISO\_Ant1\_2412

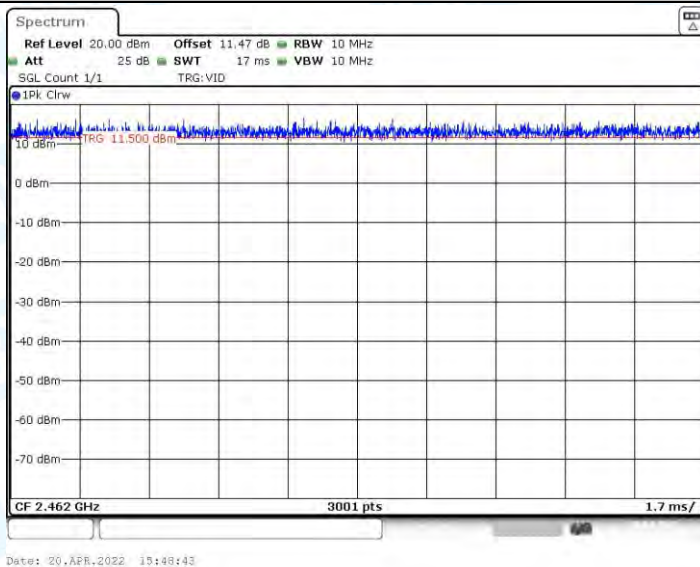




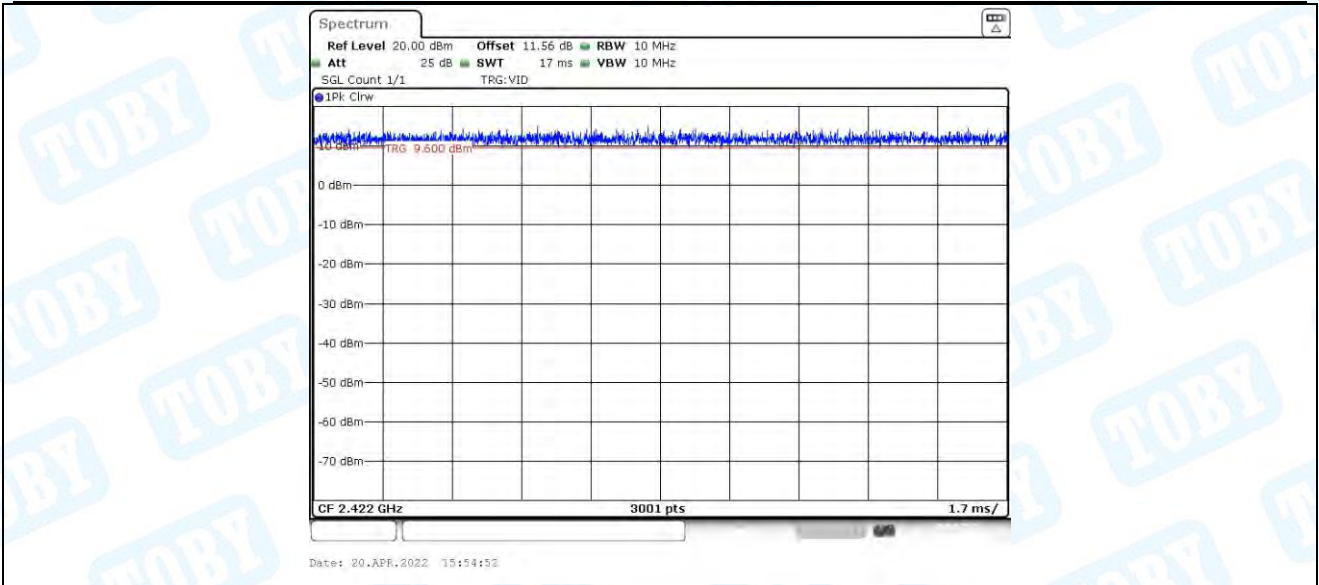
11N20SISO\_Ant1\_2437



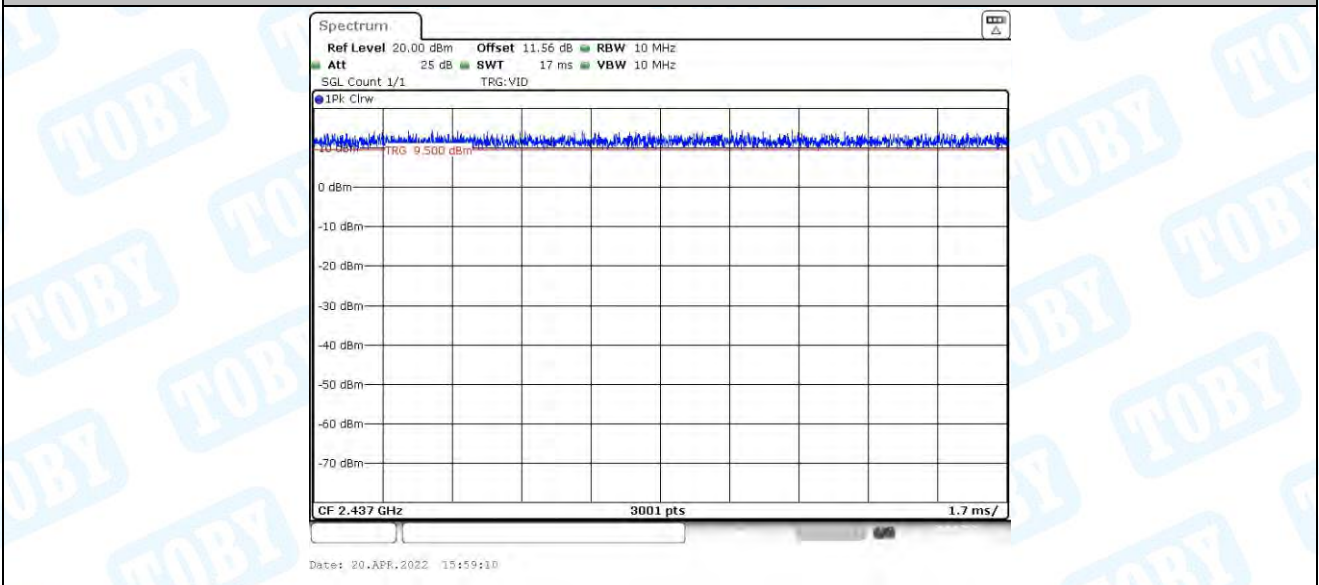
11N20SISO\_Ant1\_2462



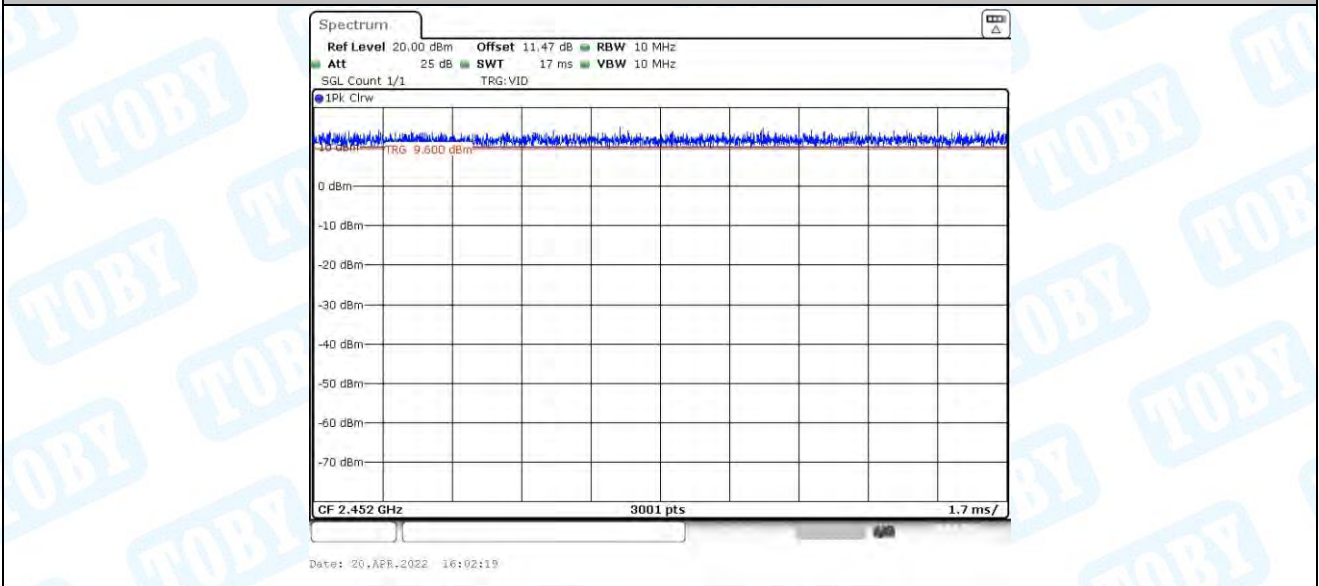
11N40SISO\_Ant1\_2422



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	-50.39	≤-41.20	PASS
				AV	2340.130	-48.08	≤-41.20	PASS
				AV	2390.000	-50.21	≤-41.20	PASS
				Peak	2310.000	-39.65	≤-21.20	PASS
				Peak	2340.319	-36.46	≤-21.20	PASS
				Peak	2390.000	-40.1	≤-21.20	PASS
		High	2462	AV	2483.500	-47.06	≤-41.20	PASS
				AV	2487.188	-43.93	≤-41.20	PASS
				AV	2500.000	-48.95	≤-41.20	PASS
				Peak	2483.500	-36.14	≤-21.20	PASS
				Peak	2488.623	-33.57	≤-21.20	PASS
				Peak	2500.000	-37.64	≤-21.20	PASS
11G	Ant1	Low	2412	AV	2310.000	-50.01	≤-41.20	PASS
				AV	2389.870	-46.44	≤-41.20	PASS
				AV	2390.000	-46.39	≤-41.20	PASS
				Peak	2310.000	-36.86	≤-21.20	PASS
				Peak	2389.681	-31.79	≤-21.20	PASS
				Peak	2390.000	-31.19	≤-21.20	PASS
		High	2462	AV	2483.500	-46.35	≤-41.20	PASS
				AV	2483.522	-46.35	≤-41.20	PASS
				AV	2500.000	-49.3	≤-41.20	PASS
				Peak	2483.500	-34.59	≤-21.20	PASS
				Peak	2483.522	-34.59	≤-21.20	PASS
				Peak	2500.000	-36.56	≤-21.20	PASS
11N20SISO	Ant1	Low	2412	AV	2310.000	-50.03	≤-41.20	PASS
				AV	2389.870	-46.15	≤-41.20	PASS
				AV	2390.000	-46.11	≤-41.20	PASS
				Peak	2310.000	-38.51	≤-21.20	PASS
				Peak	2389.870	-30.67	≤-21.20	PASS
				Peak	2390.000	-30.37	≤-21.20	PASS
		High	2462	AV	2483.500	-46.49	≤-41.20	PASS
				AV	2483.522	-46.49	≤-41.20	PASS
				AV	2500.000	-49.22	≤-41.20	PASS
				Peak	2483.500	-32.23	≤-21.20	PASS
				Peak	2483.522	-32.23	≤-21.20	PASS
				Peak	2500.000	-38.62	≤-21.20	PASS
11N40SISO	Ant1	Low	2422	AV	2310.000	-50.21	≤-41.20	PASS
				AV	2389.870	-43.96	≤-41.20	PASS
				AV	2390.000	-43.96	≤-41.20	PASS
				Peak	2310.000	-39.39	≤-21.20	PASS



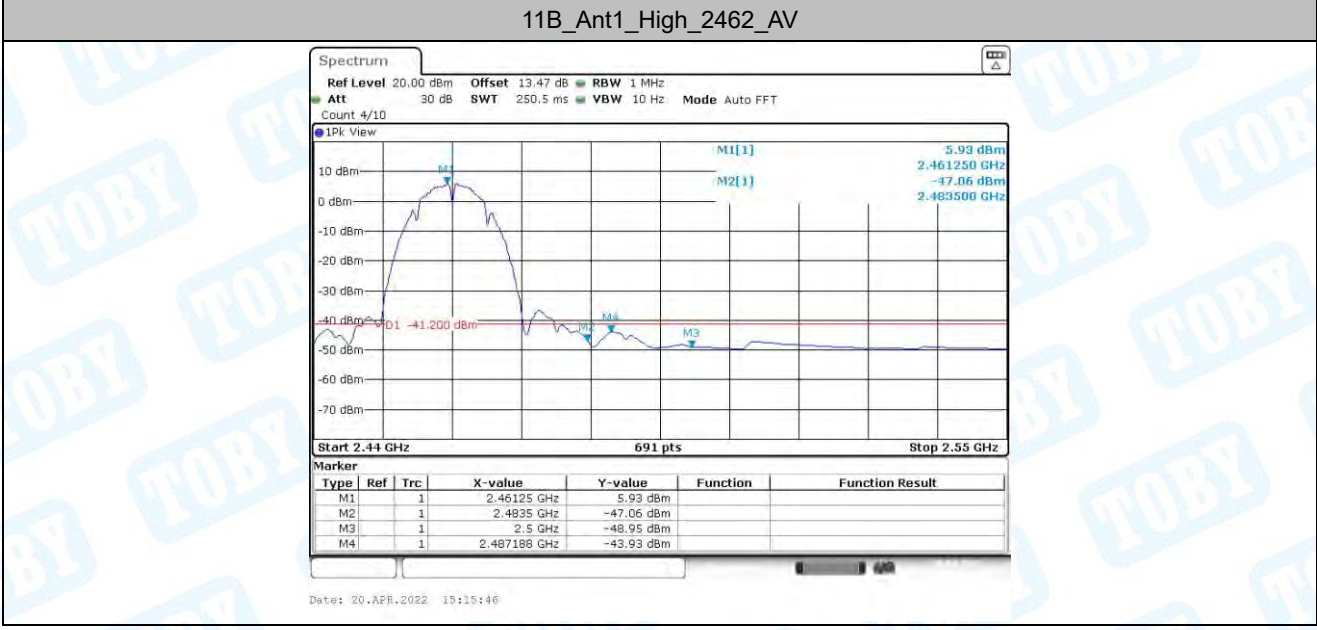
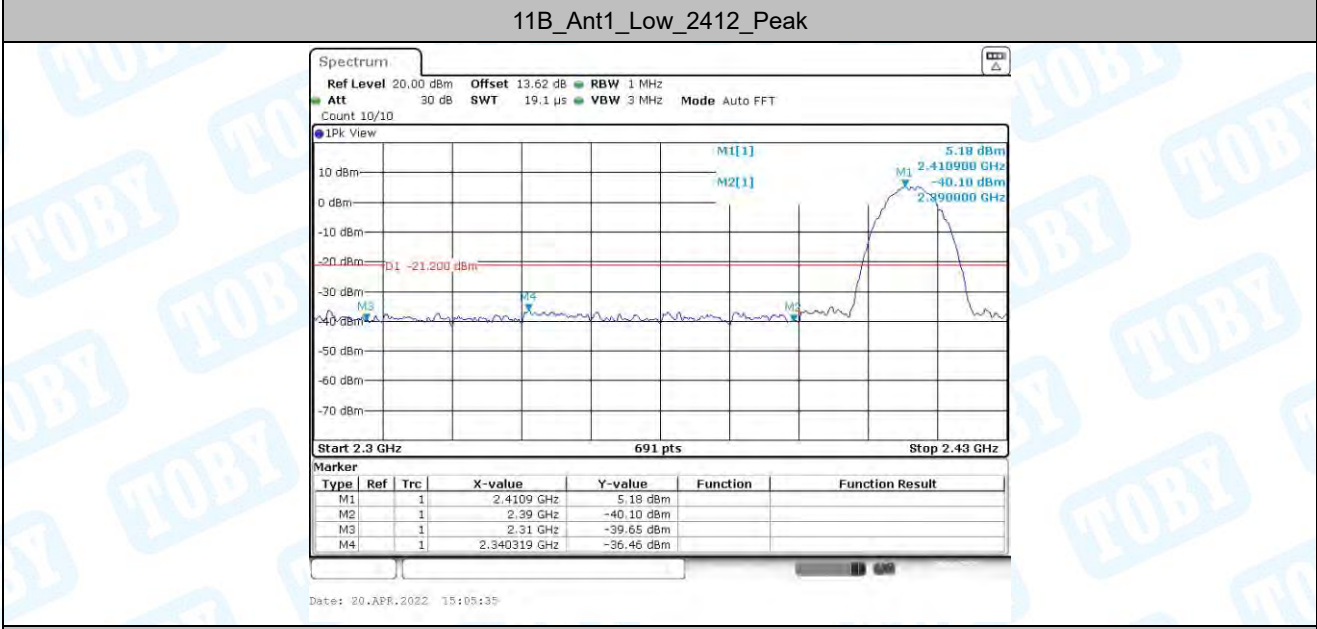
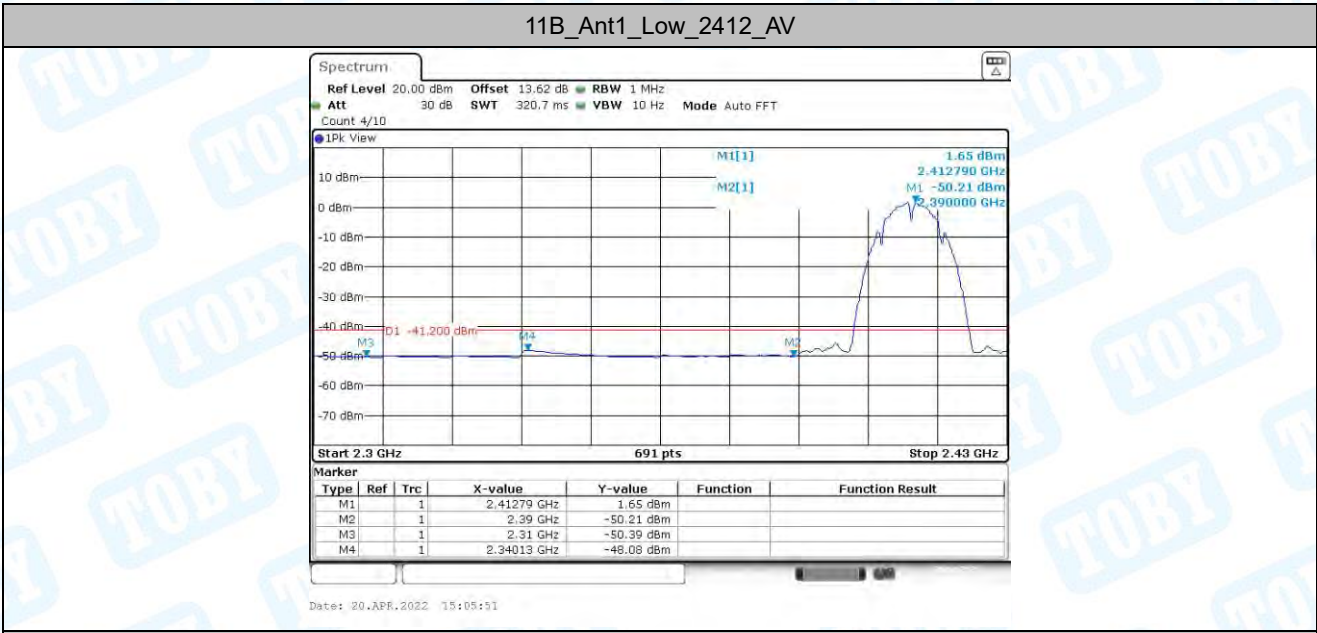
				Peak	2389.870	-29.66	≤-21.20	PASS
				Peak	2390.000	-29.67	≤-21.20	PASS
		High	2452	AV	2483.500	-42.94	≤-41.20	PASS
				AV	2483.522	-42.94	≤-41.20	PASS
				AV	2500.000	-47.42	≤-41.20	PASS
				Peak	2483.500	-30.22	≤-21.20	PASS
				Peak	2484.478	-29.49	≤-21.20	PASS
				Peak	2500.000	-34.74	≤-21.20	PASS

Note:

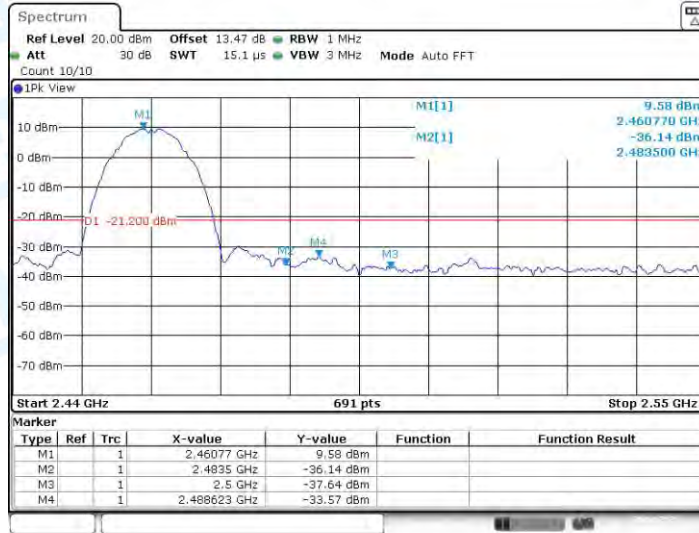
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a) or RSS-Gen 8.10. The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.



## 8.2. Test Graphs

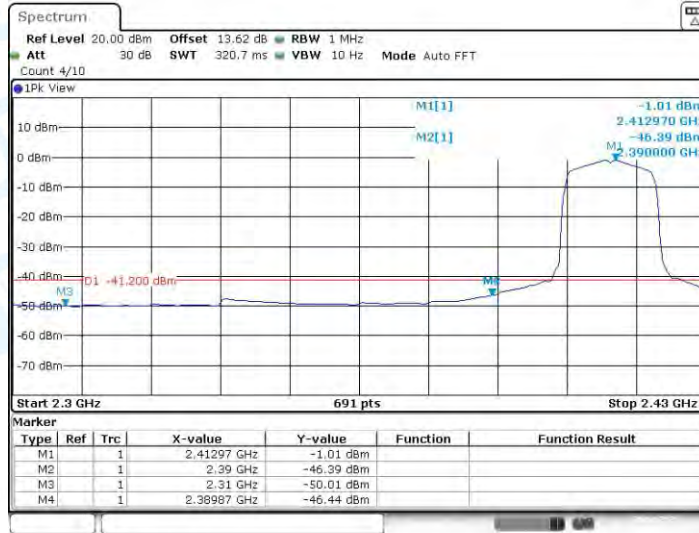


11B\_Ant1\_High\_2462\_Peak



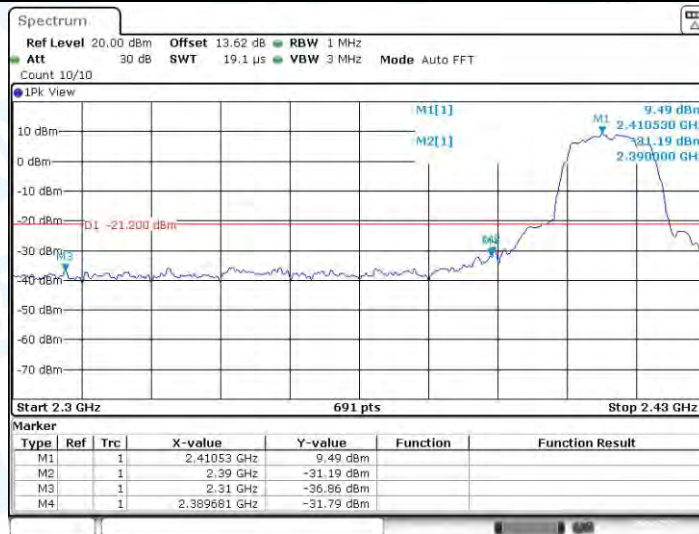
Date: 20.APR.2022 15:15:30

11G\_Ant1\_Low\_2412\_AV



Date: 20.APR.2022 15:26:13

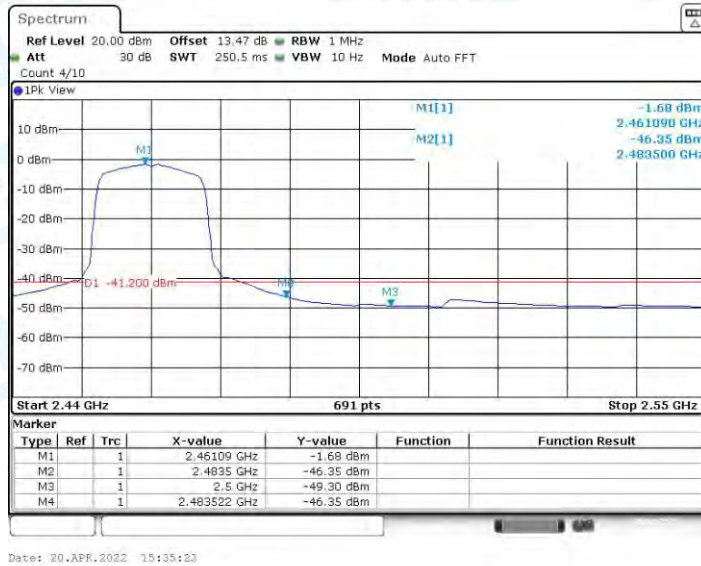
11G\_Ant1\_Low\_2412\_Peak



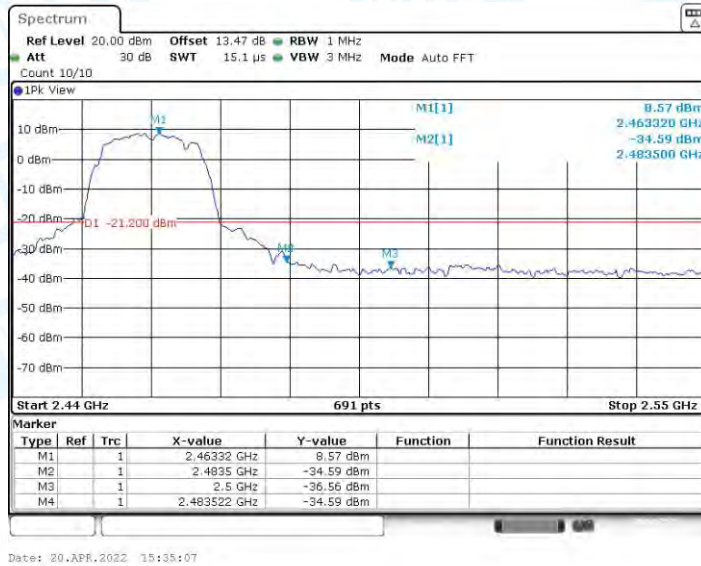
Date: 20.APR.2022 15:25:57

11G\_Ant1\_High\_2462\_AV

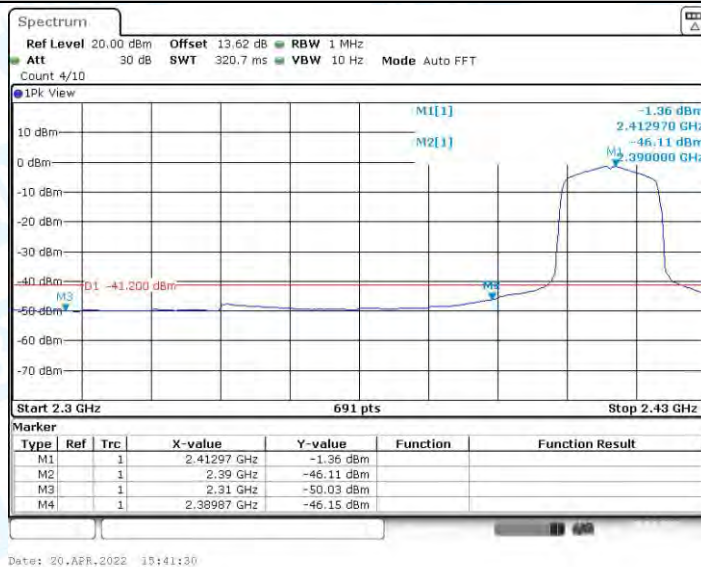




11G\_Ant1\_High\_2462\_Peak

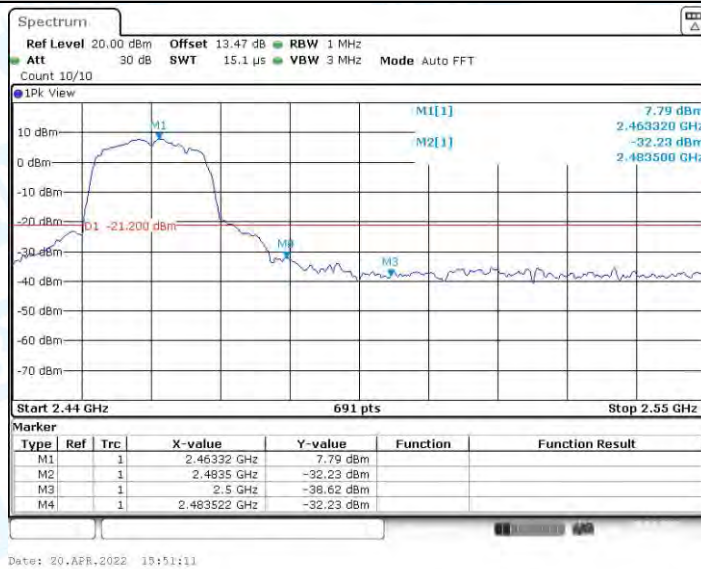
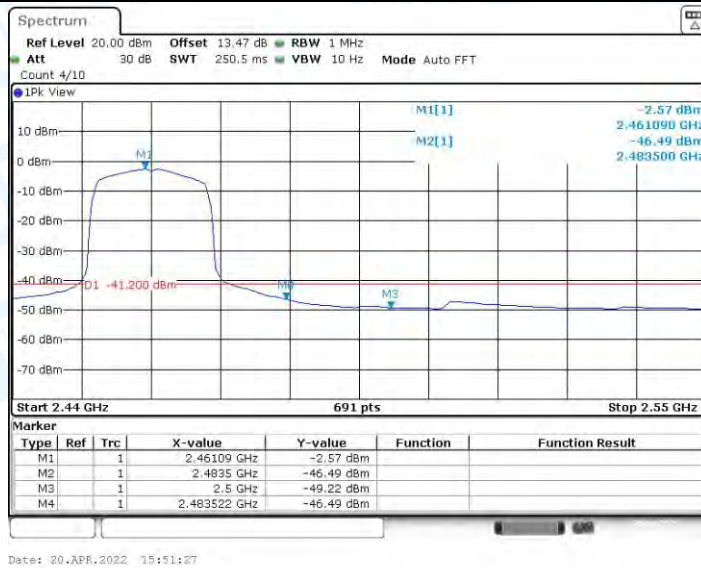
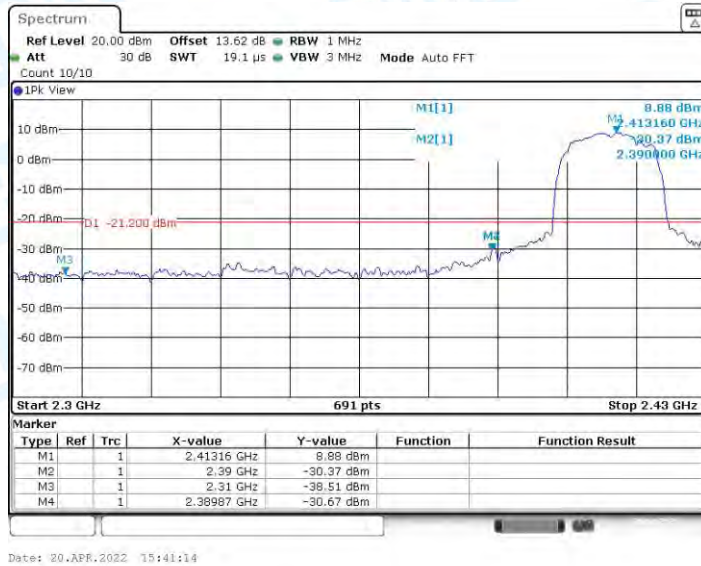


11N20SISO\_Ant1\_Low\_2412\_AV

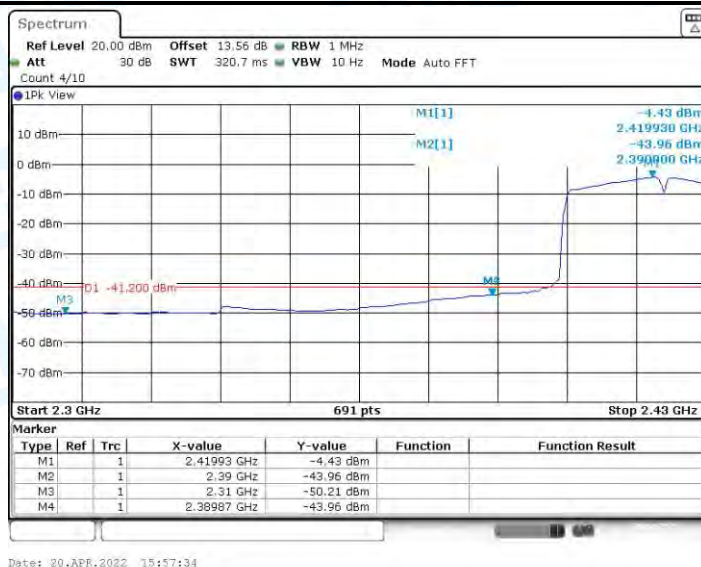


11N20SISO\_Ant1\_Low\_2412\_Peak

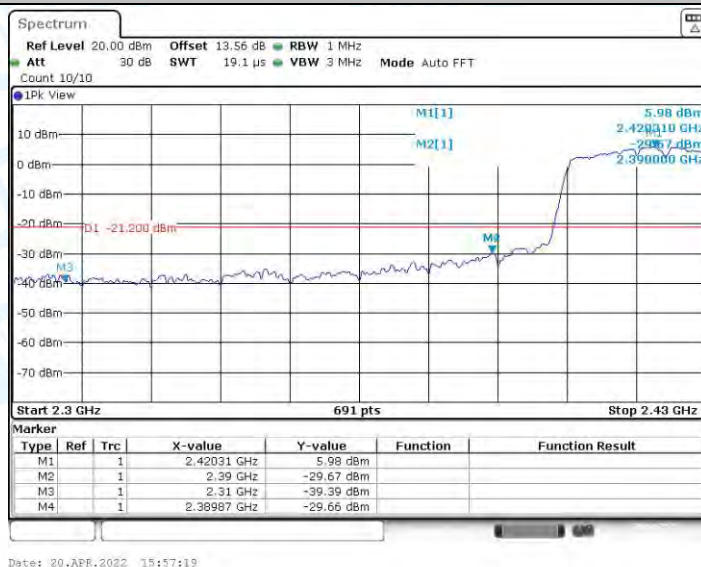




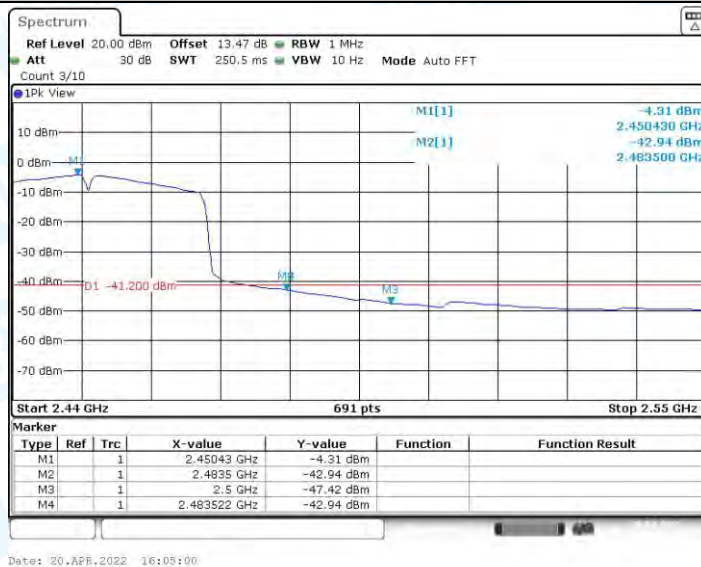




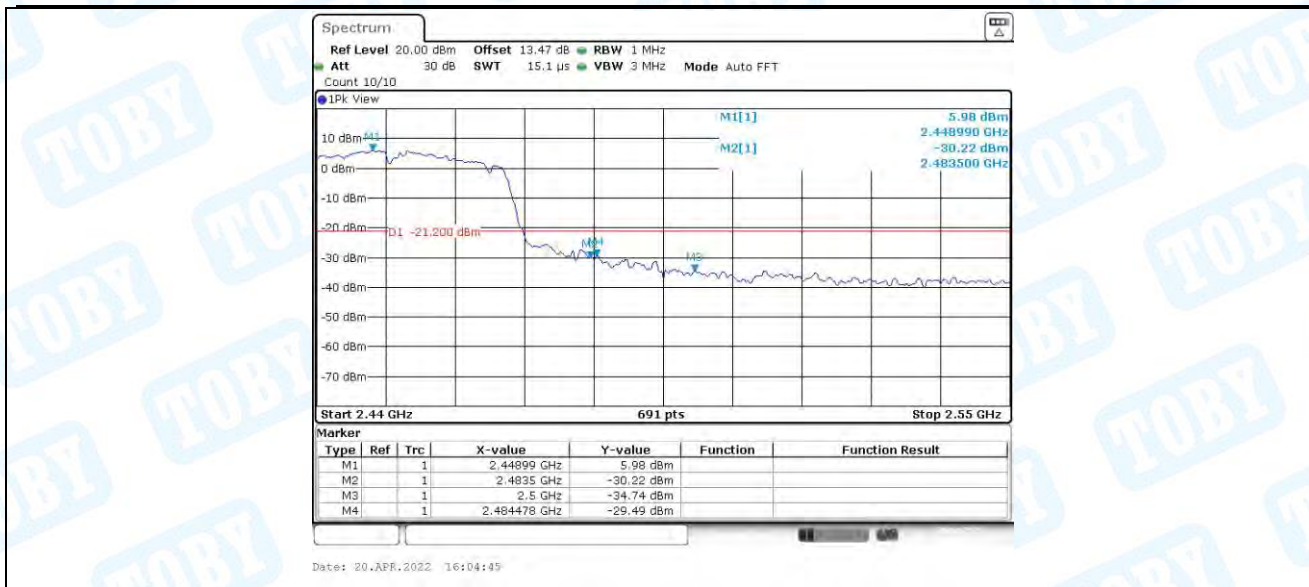
11N40SISO\_Ant1\_Low\_2422\_Peak



11N40SISO\_Ant1\_High\_2452\_AV



11N40SISO\_Ant1\_High\_2452\_Peak



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