

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

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

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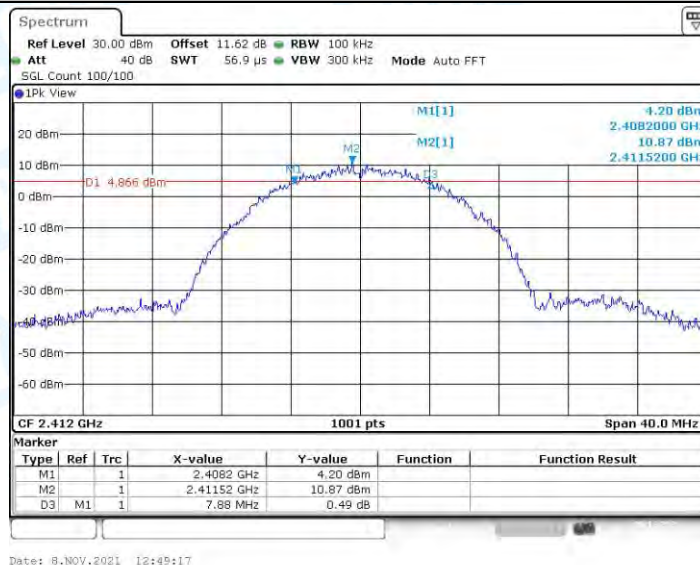
1. DTS Bandwidth

1.1. Test Result

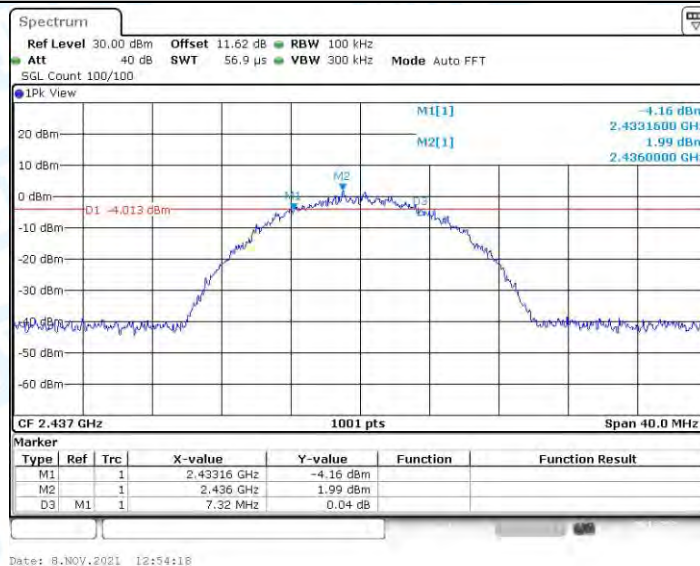
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	7.880	2408.200	2416.080	0.5	PASS
		2437	7.320	2433.160	2440.480	0.5	PASS
		2462	8.600	2457.440	2466.040	0.5	PASS
11G	Ant1	2412	16.480	2403.760	2420.240	0.5	PASS
		2437	16.520	2428.760	2445.280	0.5	PASS
		2462	16.480	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

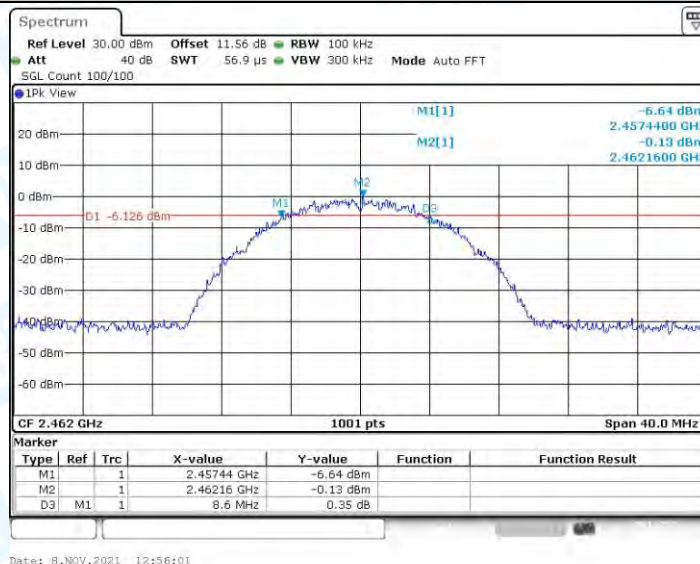
11B_Ant1_2412



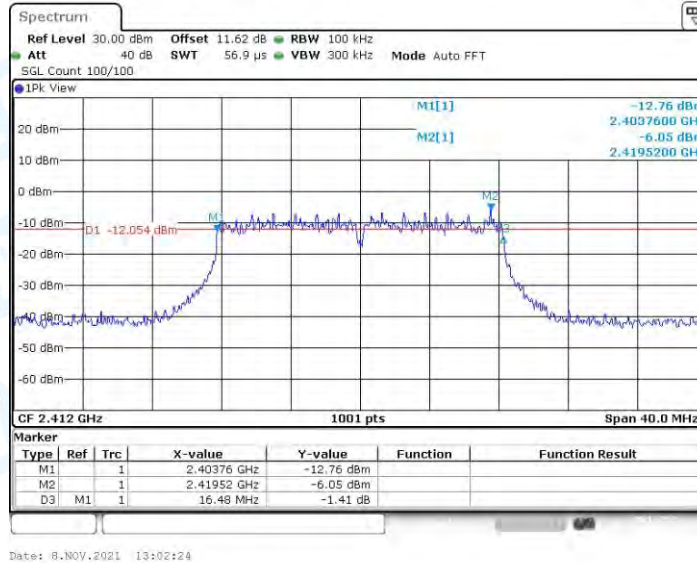
11B_Ant1_2437



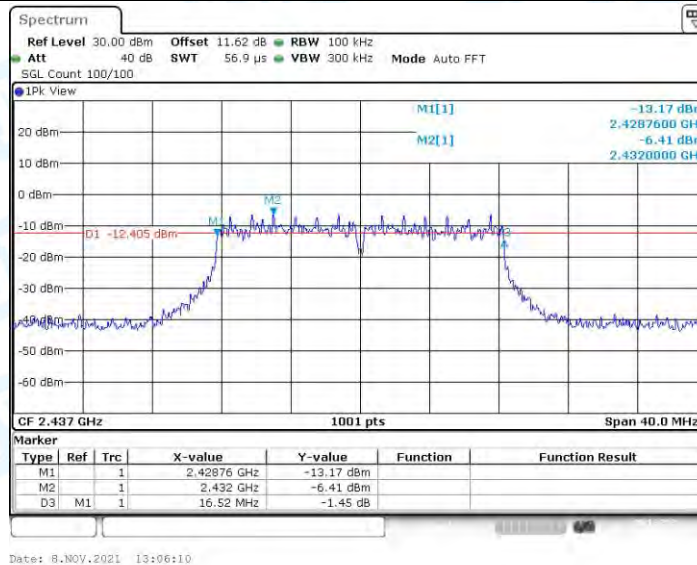
11B_Ant1_2462



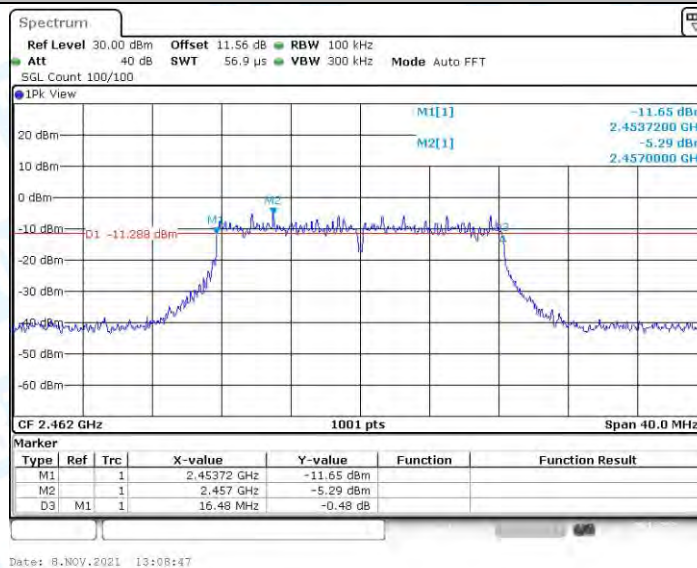
11G_Ant1_2412



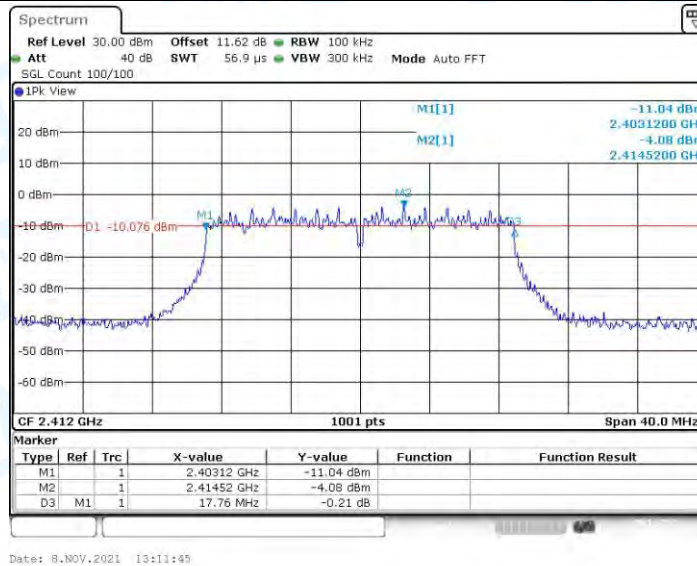
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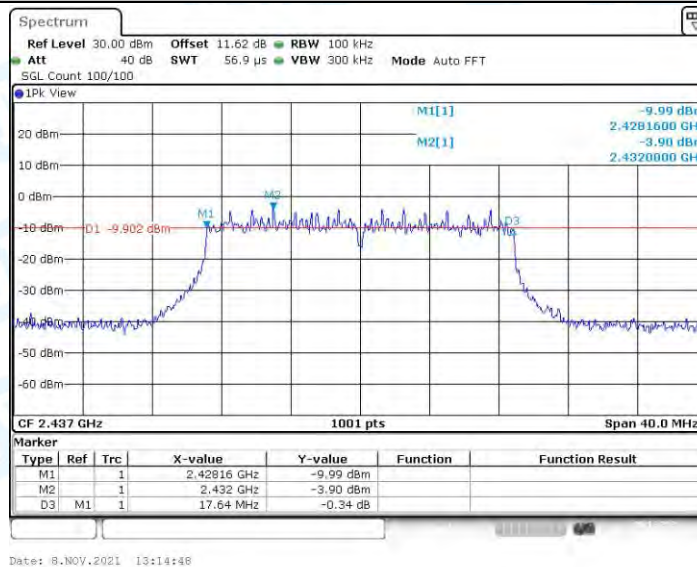
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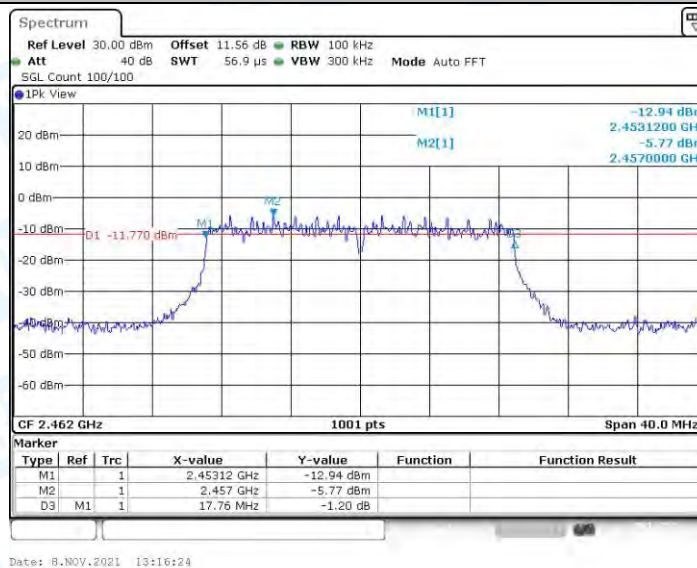
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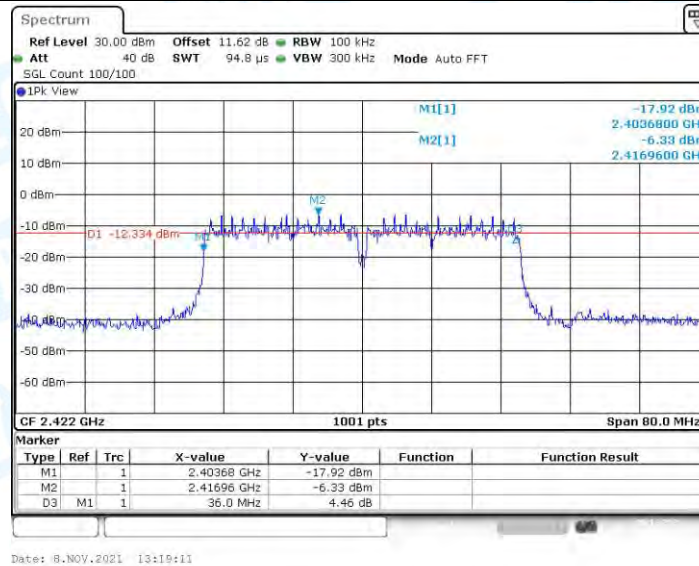
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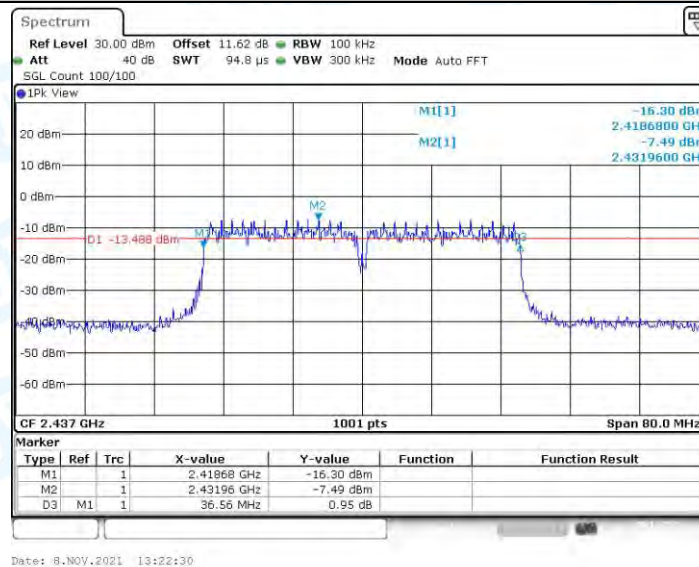
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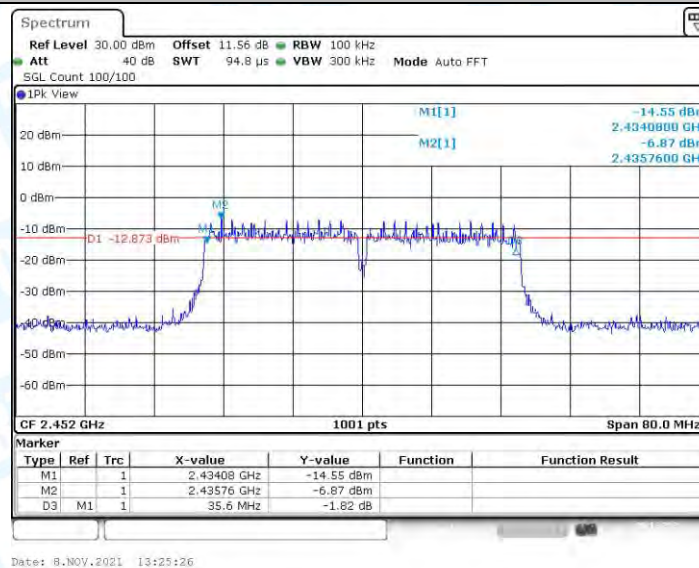
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452

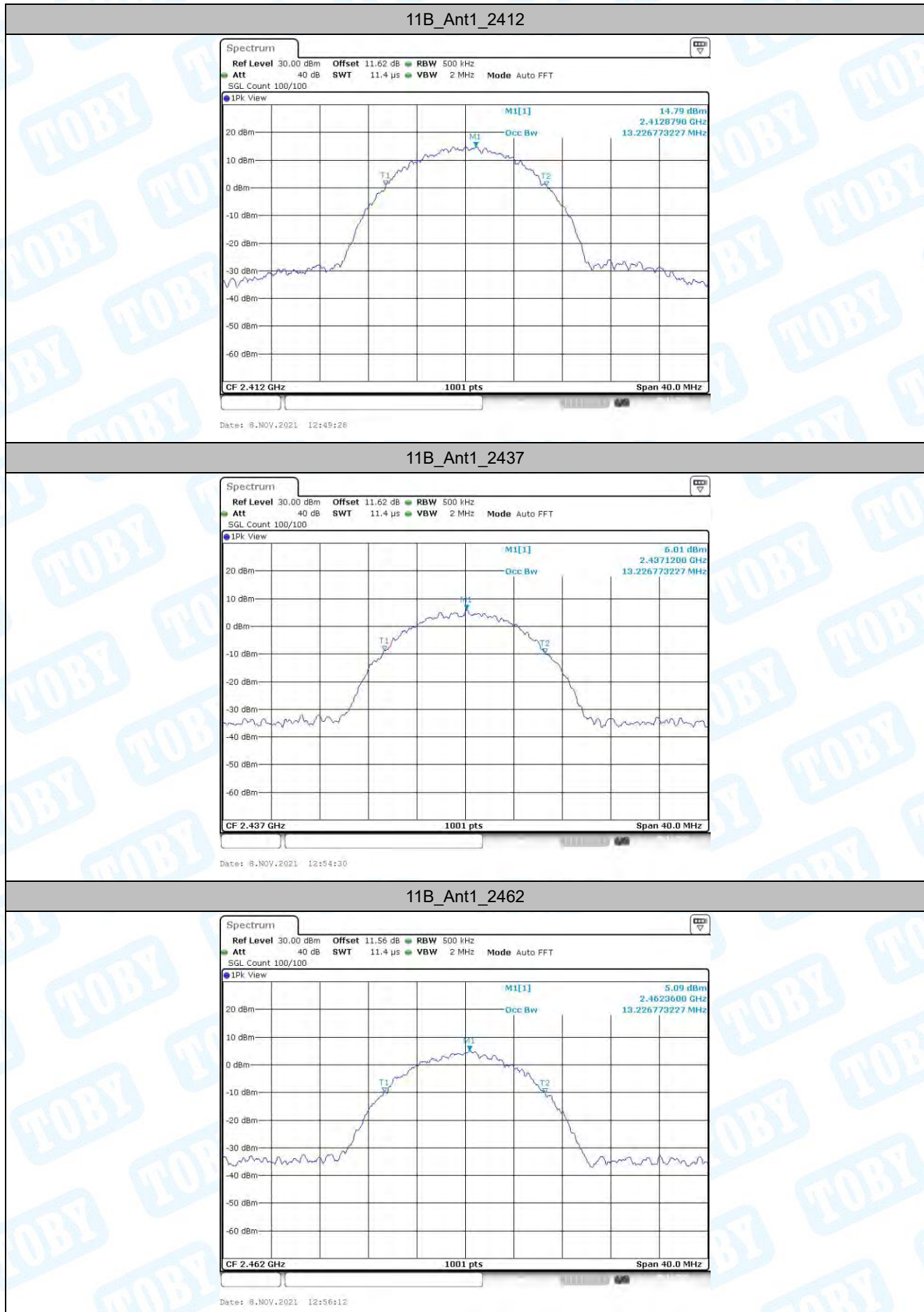


2. Occupied Channel Bandwidth

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



11G_Ant1_2437



11G_Ant1_2462



11N20SISO_Ant1_2412



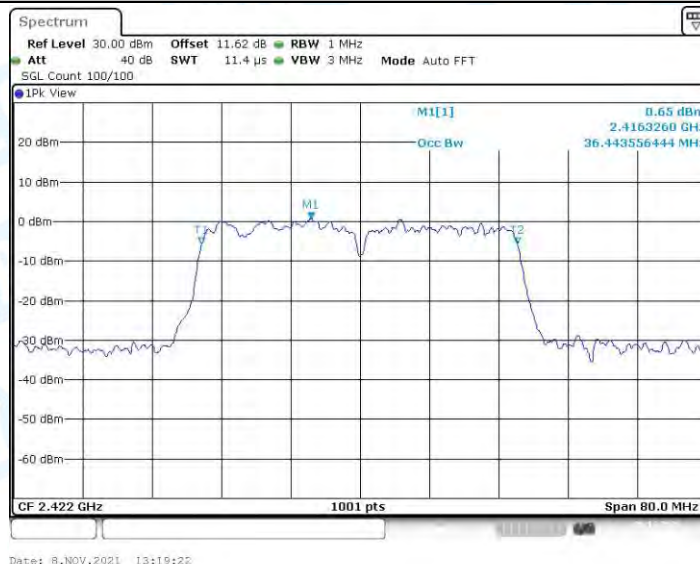
11N20SISO_Ant1_2437



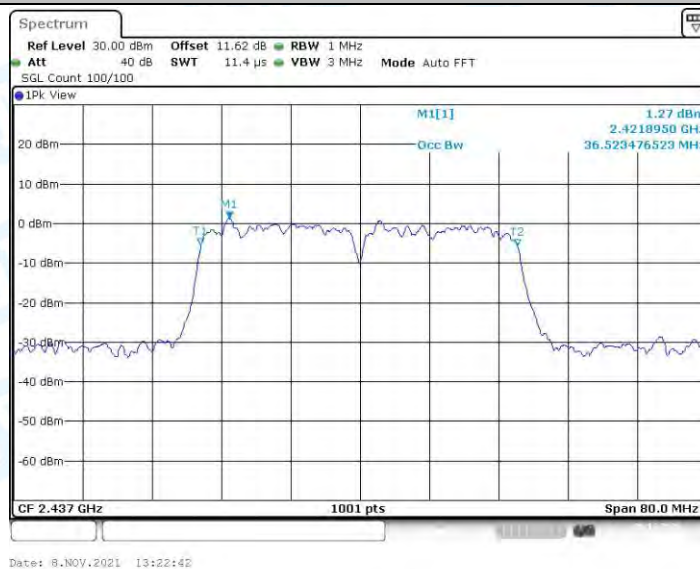
11N20SISO_Ant1_2462



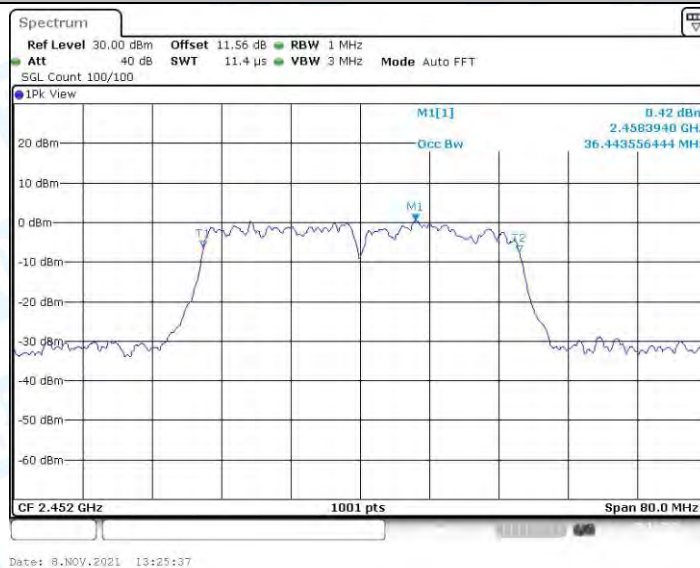
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



3. Maximum conducted output power

3.1. Test Result

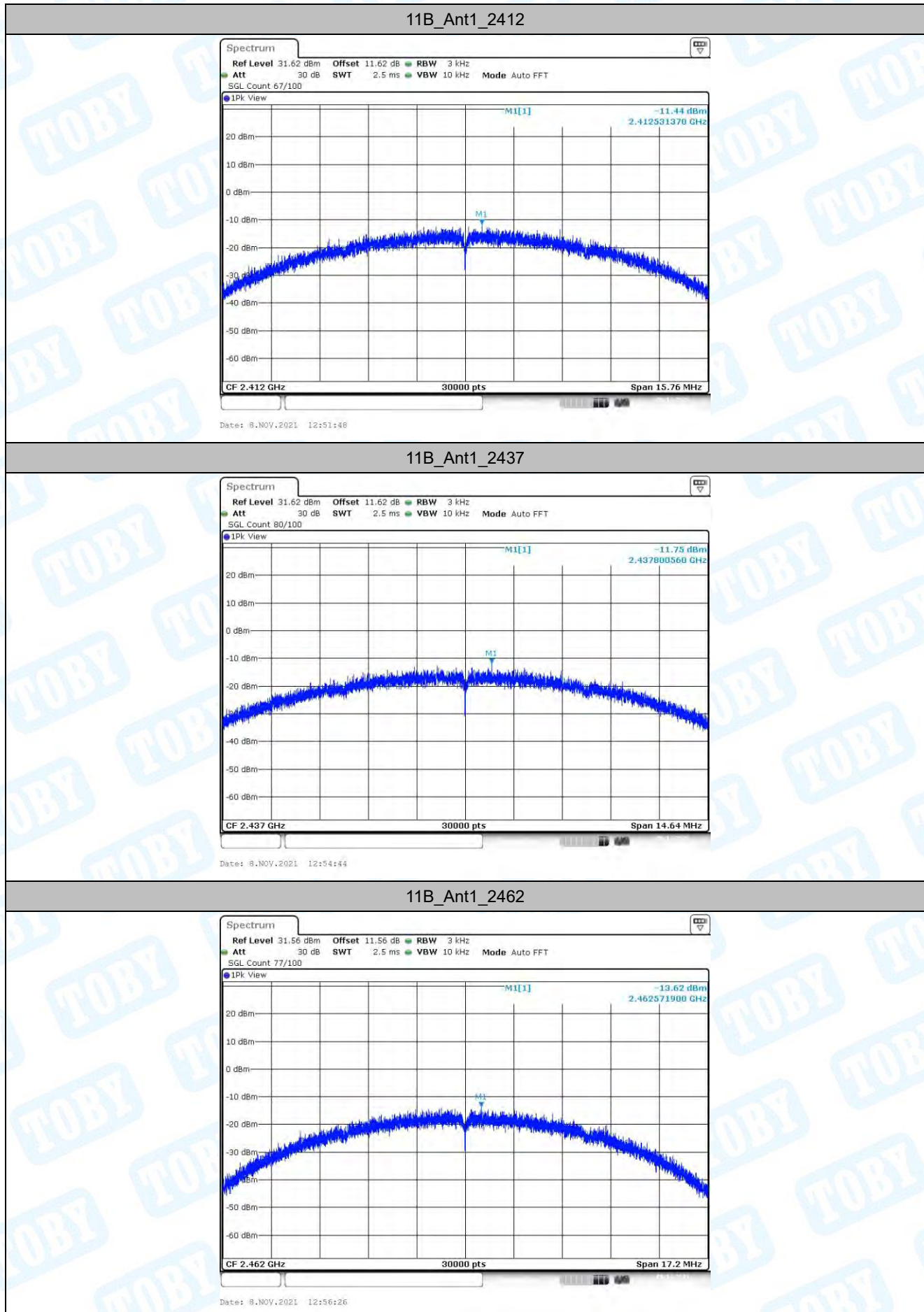
TestMode	Antenna	Channel	Power [dBm]	Limit [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	16.85	≤30	18.85	≤36	PASS
		2437	16.13	≤30	18.13	≤36	PASS
		2462	15.16	≤30	17.16	≤36	PASS
11G	Ant1	2412	15.27	≤30	17.27	≤36	PASS
		2437	14.72	≤30	16.72	≤36	PASS
		2462	13.49	≤30	15.49	≤36	PASS
11N20SISO	Ant1	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

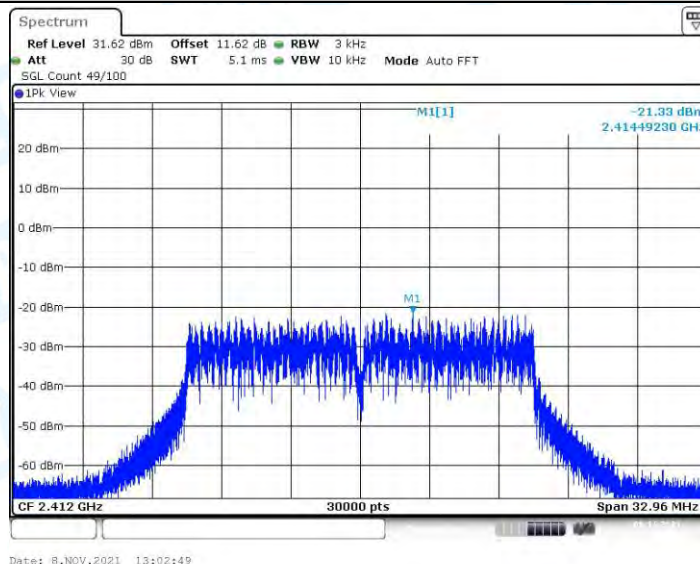
4.1. Test Result

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

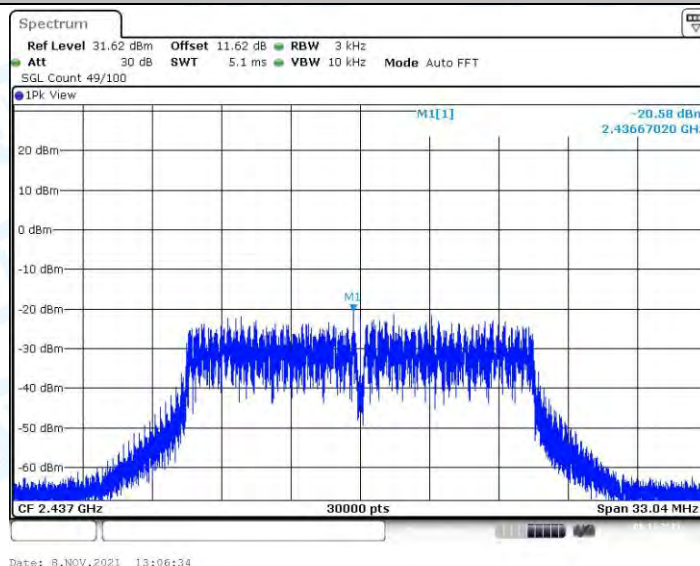
4.2. Test Graphs



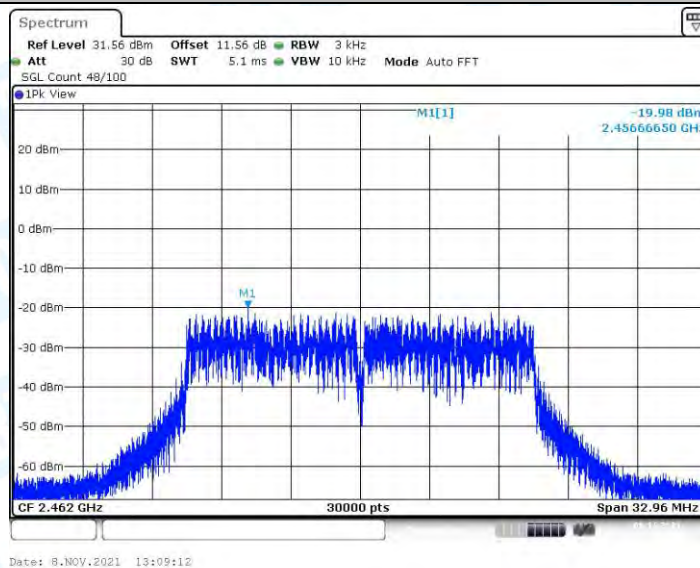
11G_Ant1_2412



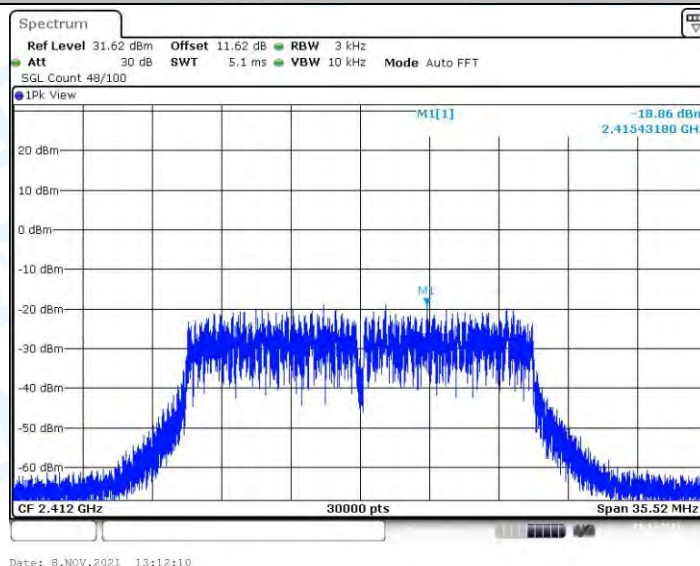
11G_Ant1_2437



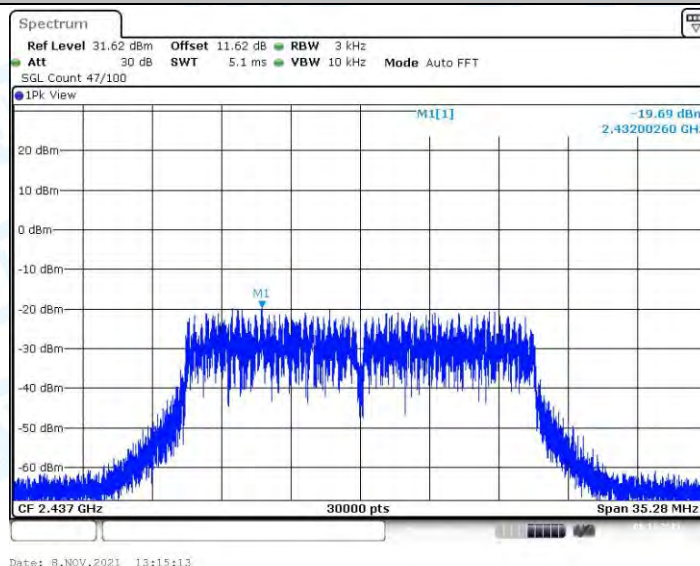
11G_Ant1_2462



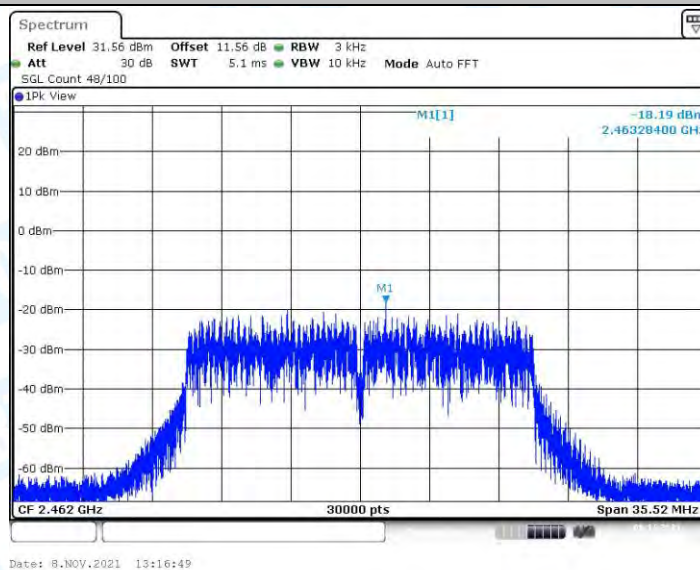
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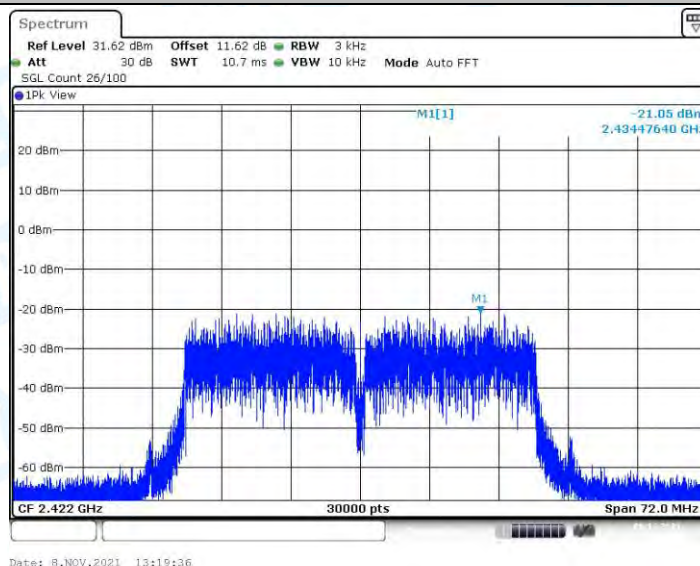
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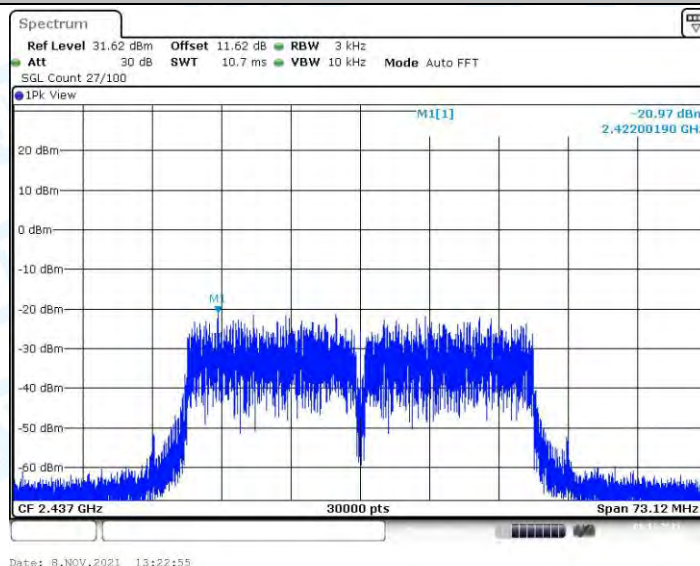
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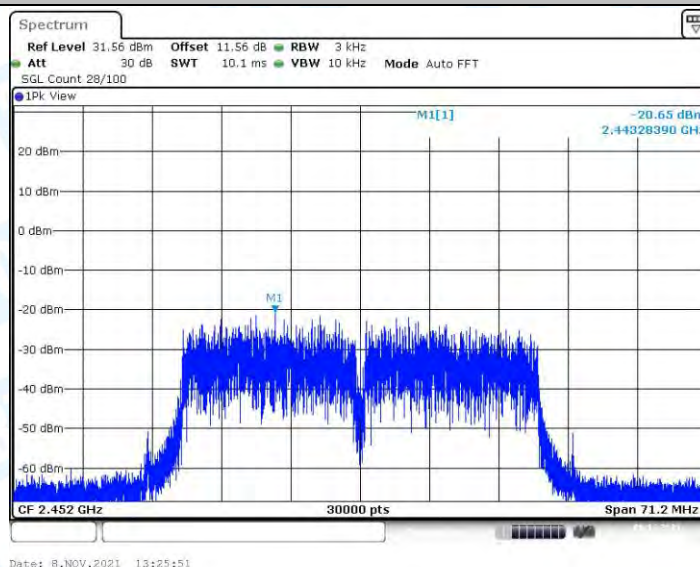
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



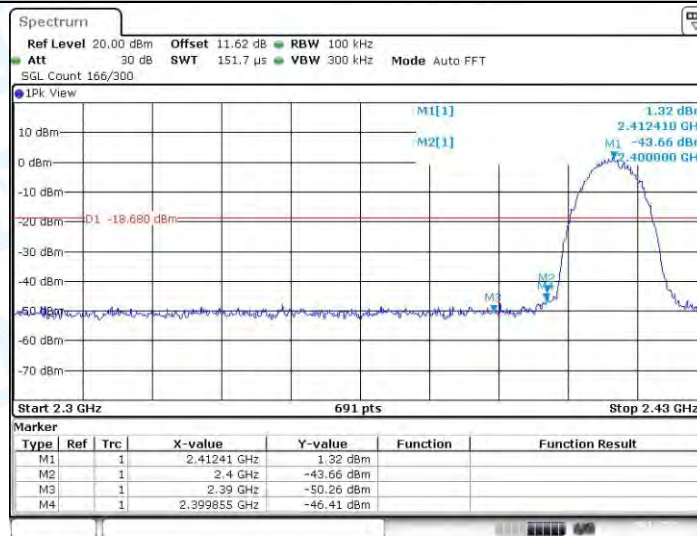
5. Band edge measurements

5.1. Test Result

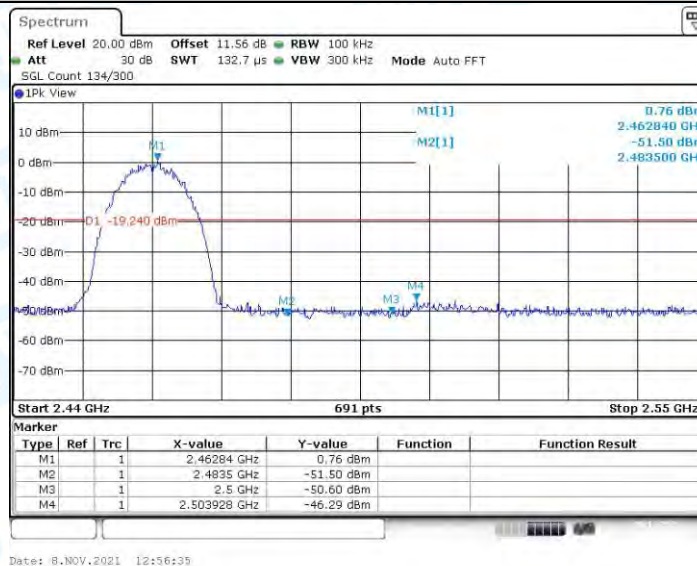
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	1.32	-46.41	≤-18.68	PASS
		High	2462	0.76	-46.29	≤-19.24	PASS
11G	Ant1	Low	2412	-6.18	-44.64	≤-26.18	PASS
		High	2462	-5.04	-46.66	≤-25.04	PASS
11N20SISO	Ant1	Low	2412	-3.62	-42.33	≤-23.62	PASS
		High	2462	-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

11B_Ant1_Low_2412



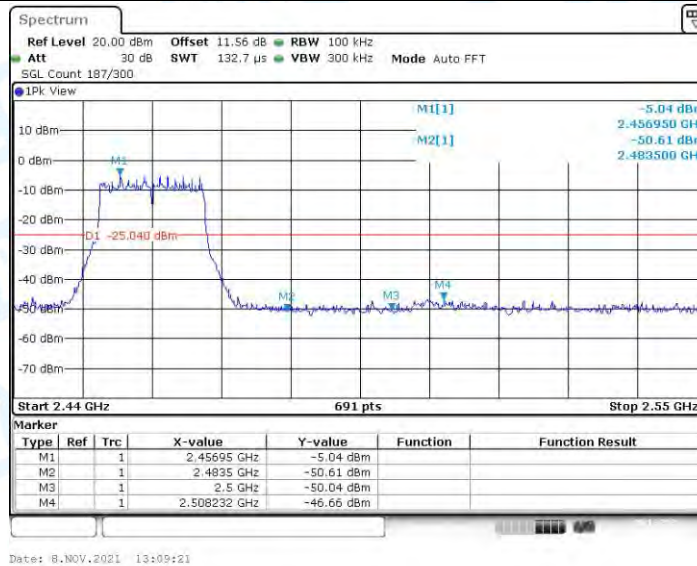
11B_Ant1_High_2462



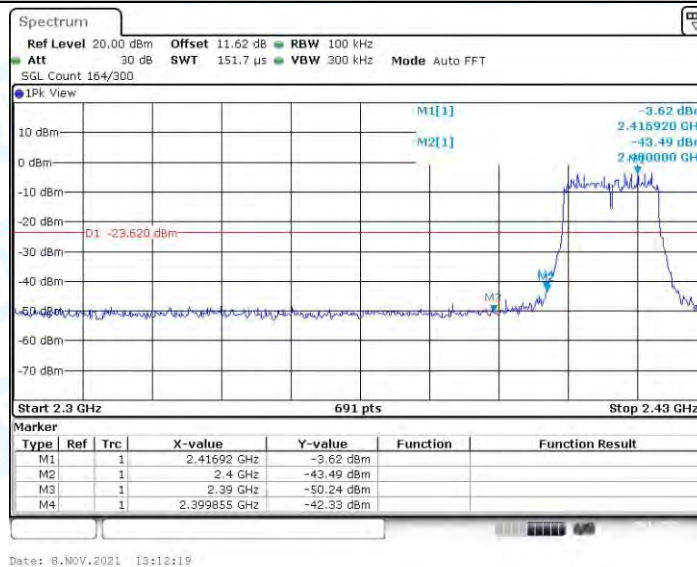
11G_Ant1_Low_2412



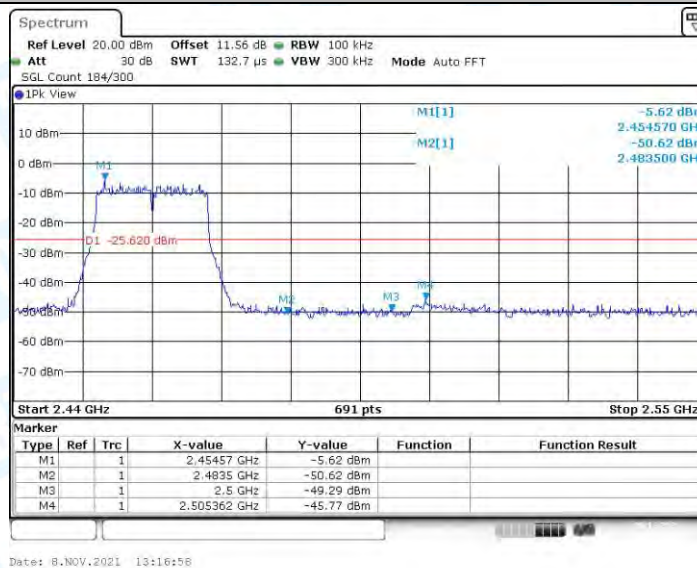
11G_Ant1_High_2462



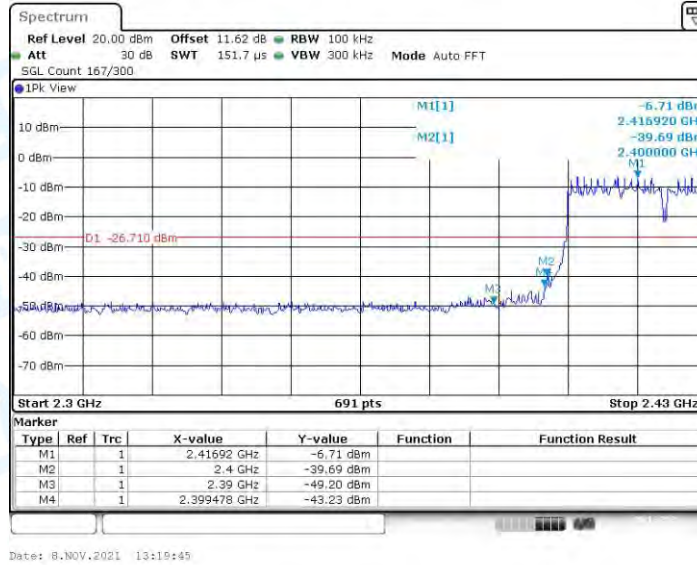
11N20SISO_Ant1_Low_2412



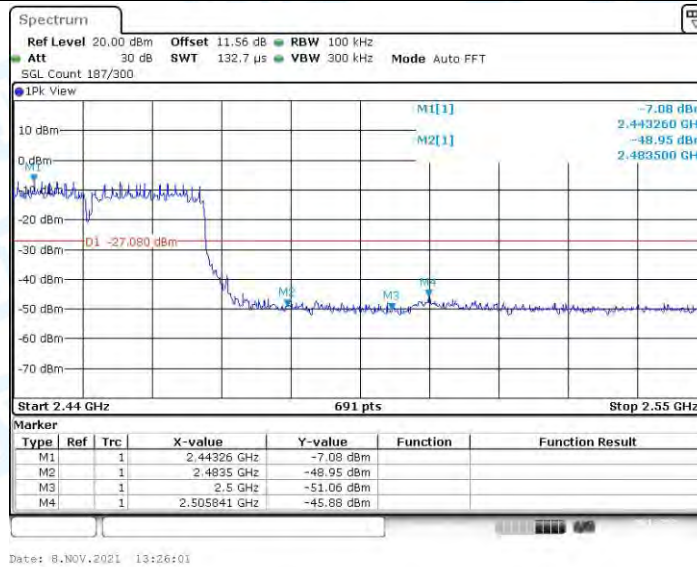
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452

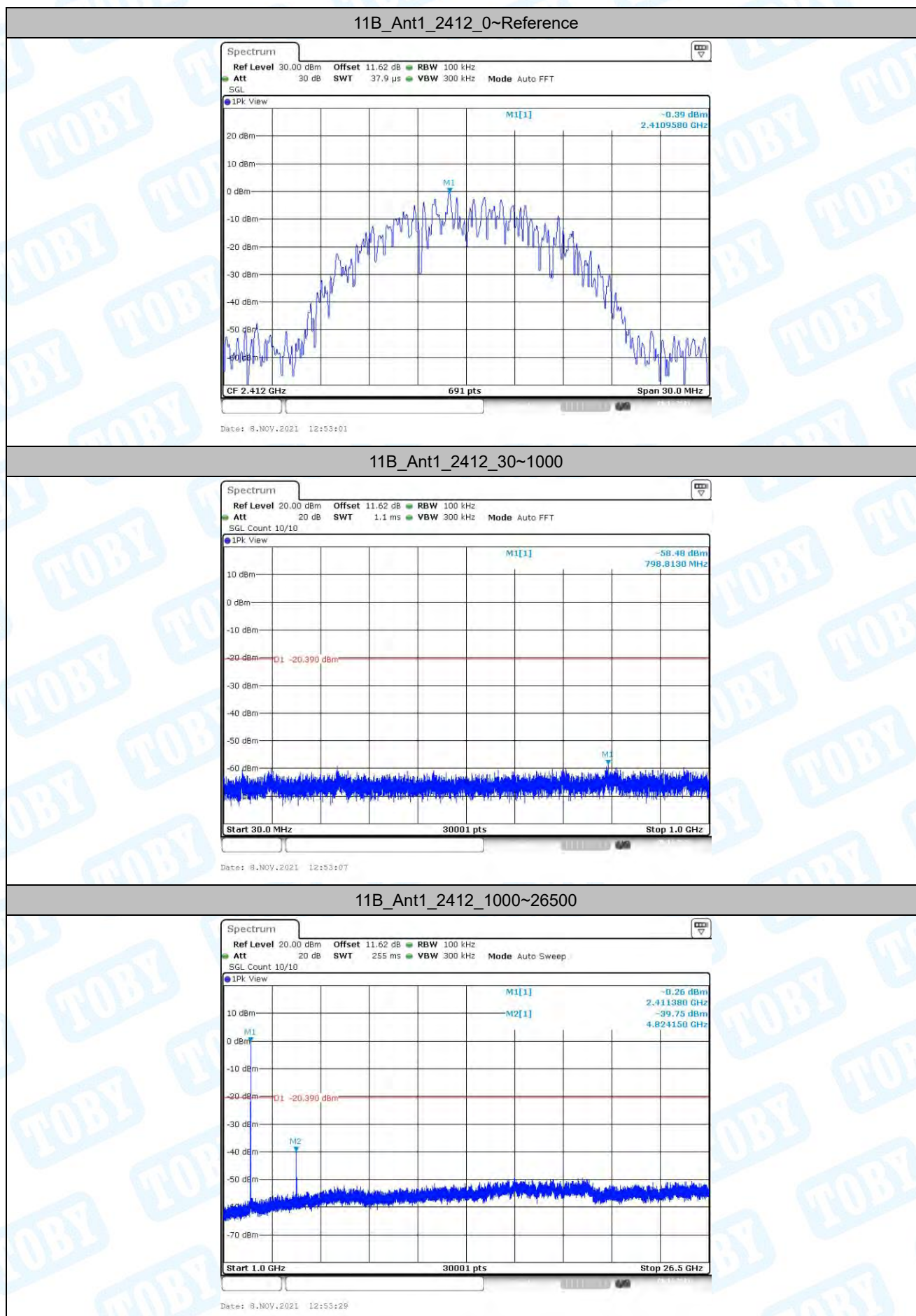


6. Conducted Spurious Emission

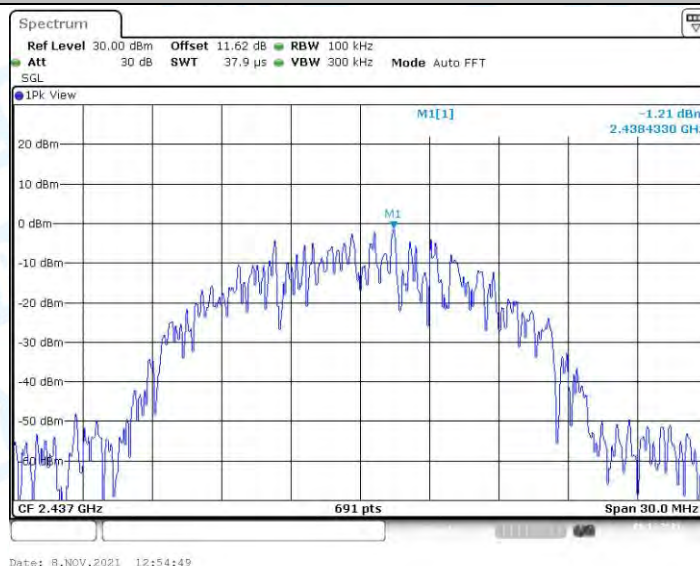
6.1. Test Result

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

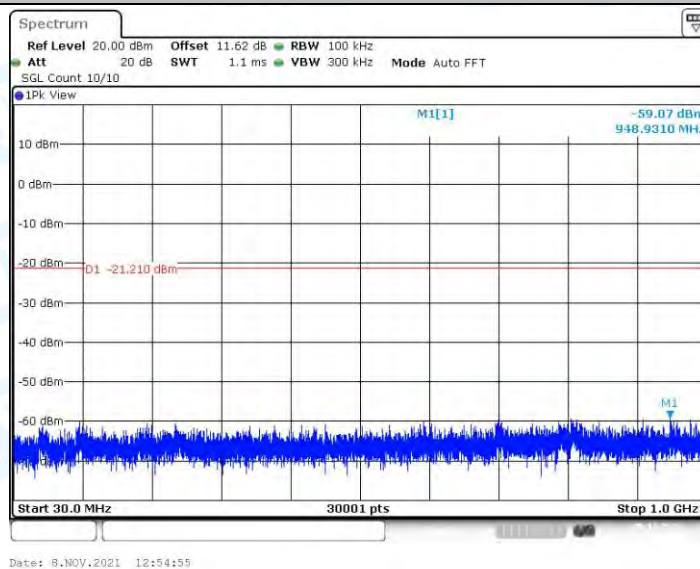
6.2. Test Graphs



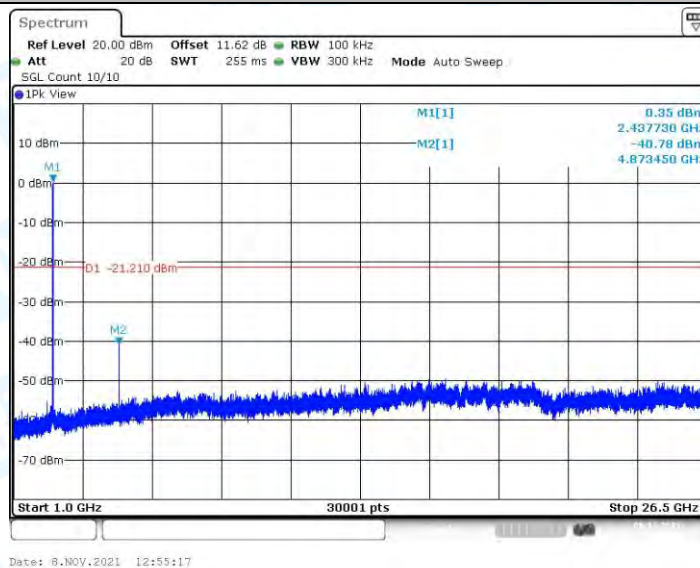
11B_Ant1_2437_0~Reference



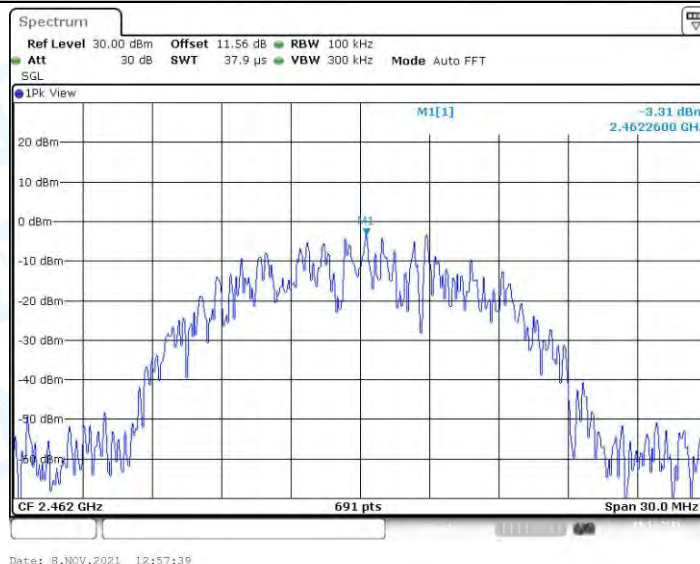
11B_Ant1_2437_30~1000



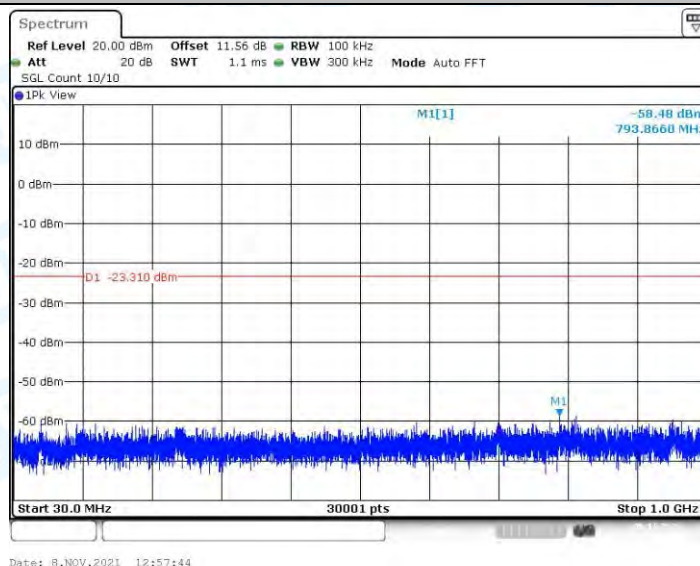
11B_Ant1_2437_1000~26500



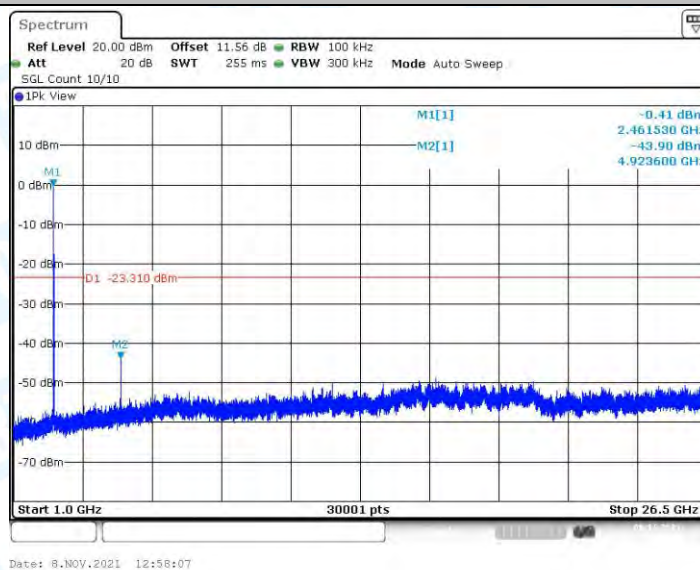
11B_Ant1_2462_0~Reference



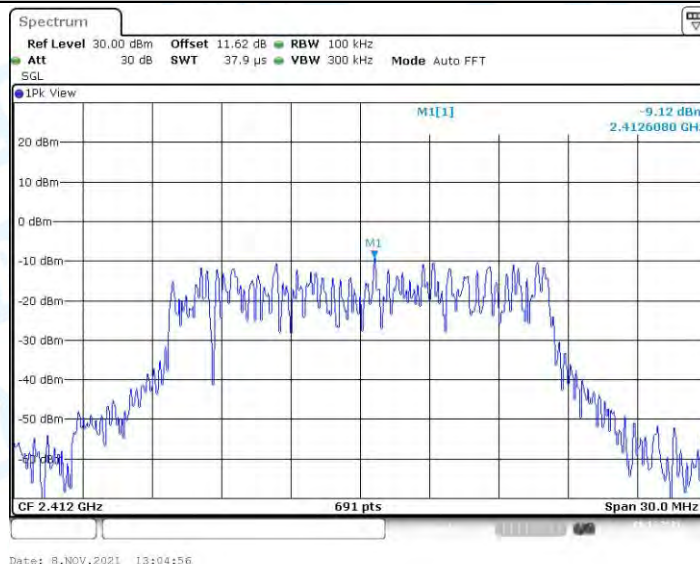
11B_Ant1_2462_30~1000



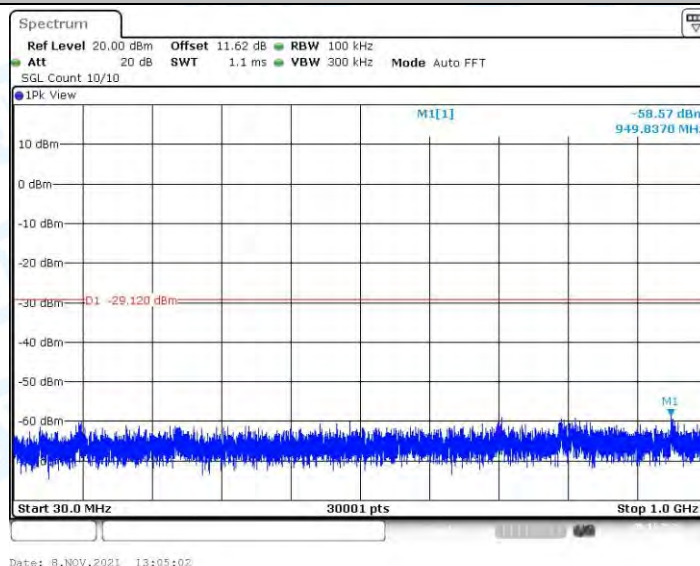
11B_Ant1_2462_1000~26500



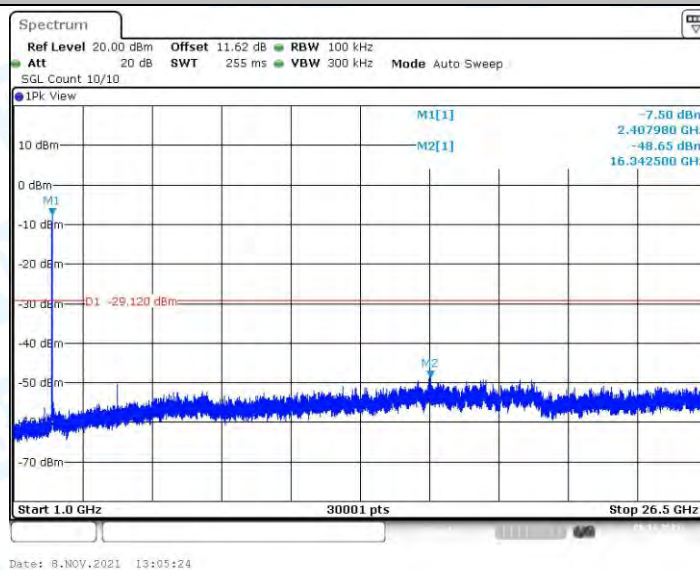
11G_Ant1_2412_0~Reference



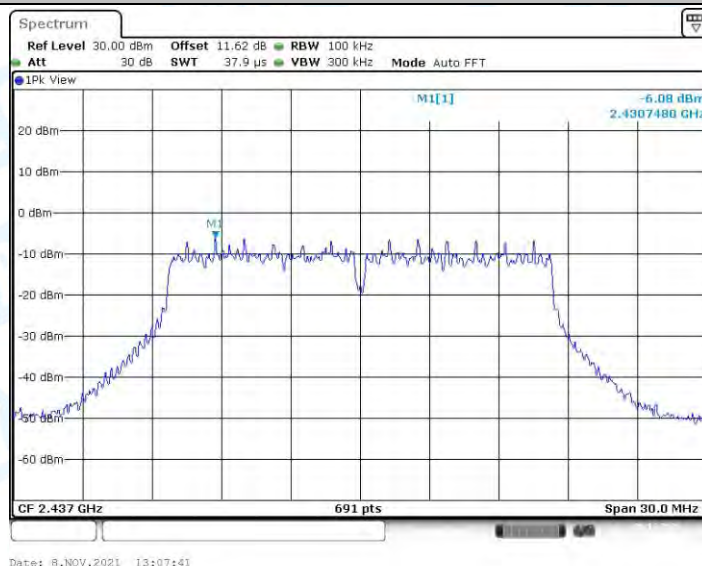
11G_Ant1_2412_30~1000



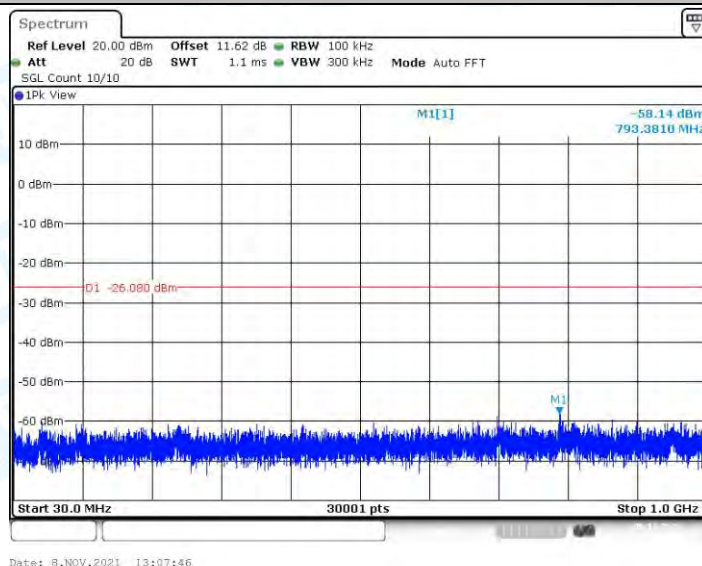
11G_Ant1_2412_1000~26500



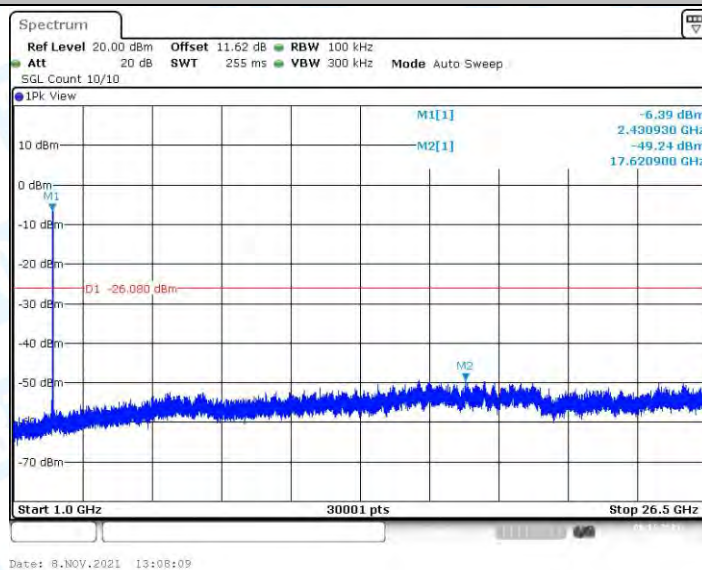
11G Ant1 2437 0~Reference



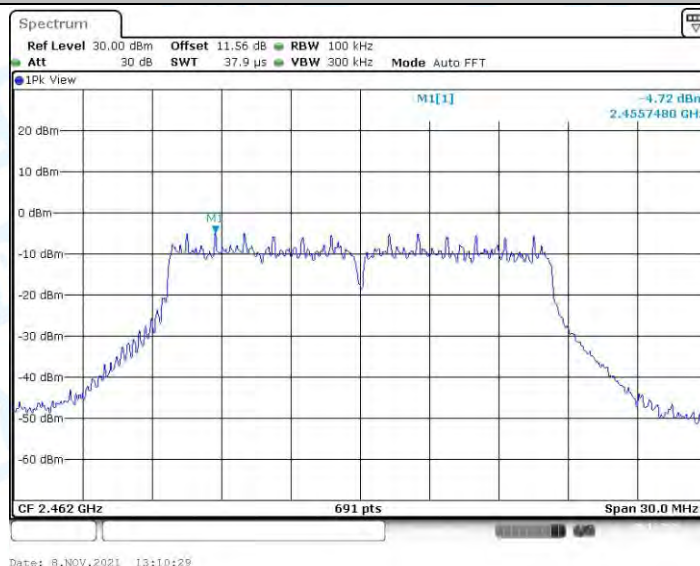
11G Ant1 2437 30~1000



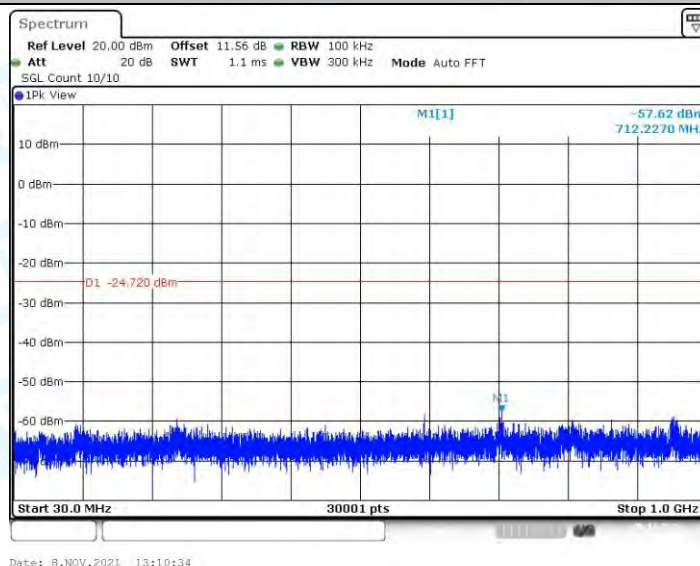
11G Ant1 2437 1000~26500



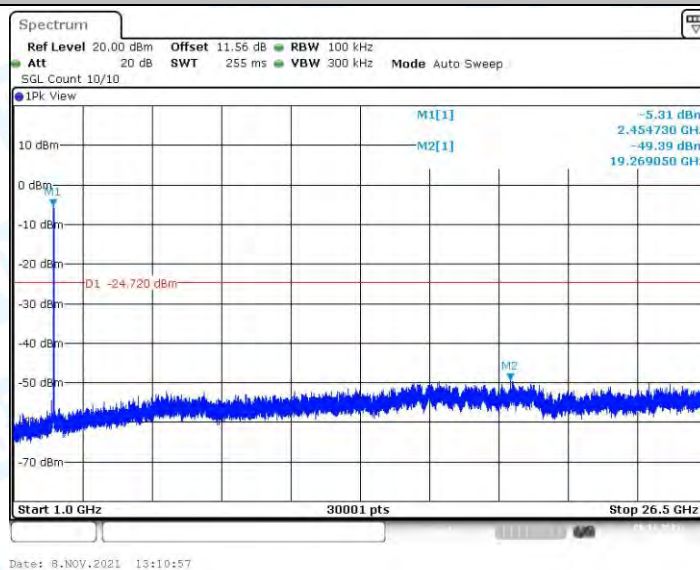
11G_Ant1_2462_0~Reference



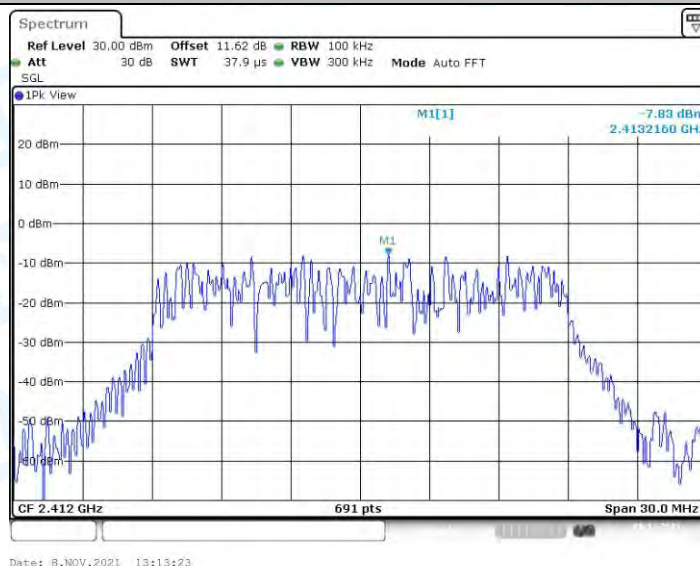
11G_Ant1_2462_30~1000



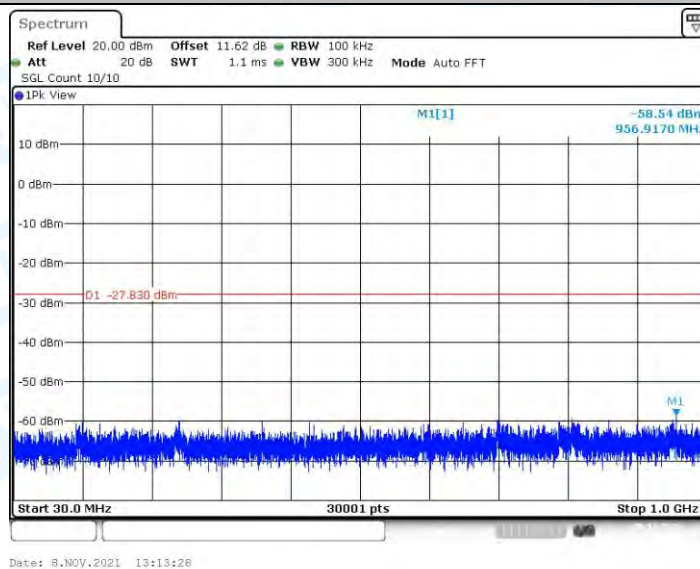
11G_Ant1_2462_1000~26500



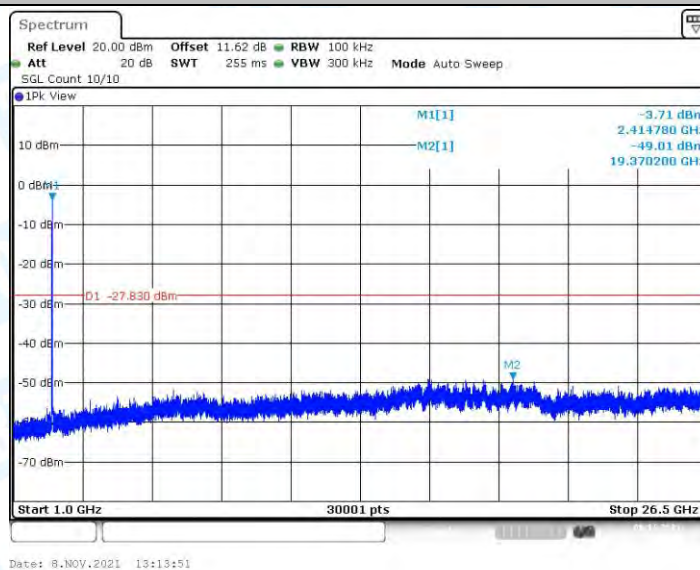
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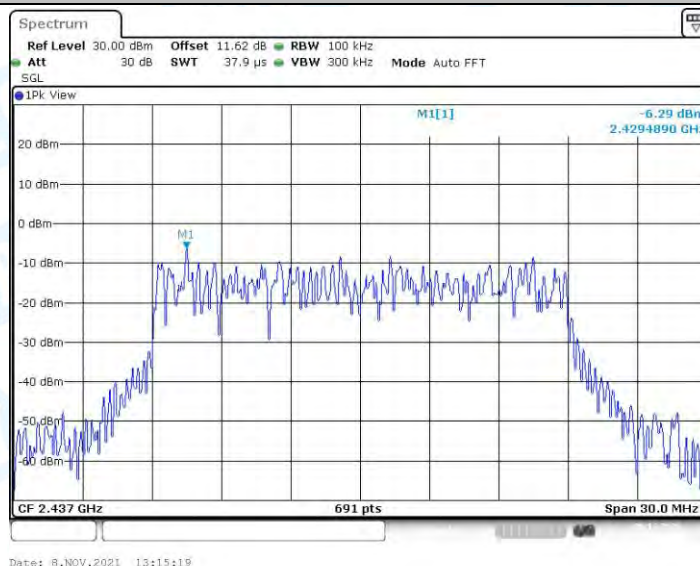
11N20SISO_Ant1_2412_30~1000



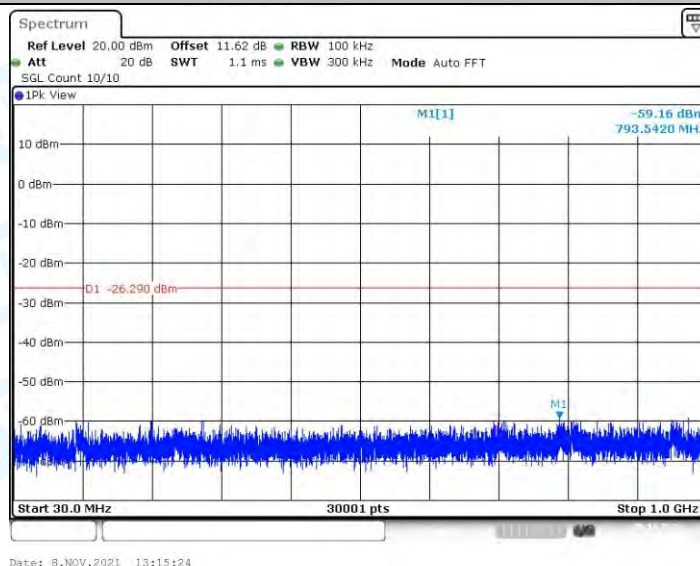
11N20SISO_Ant1_2412_1000~26500



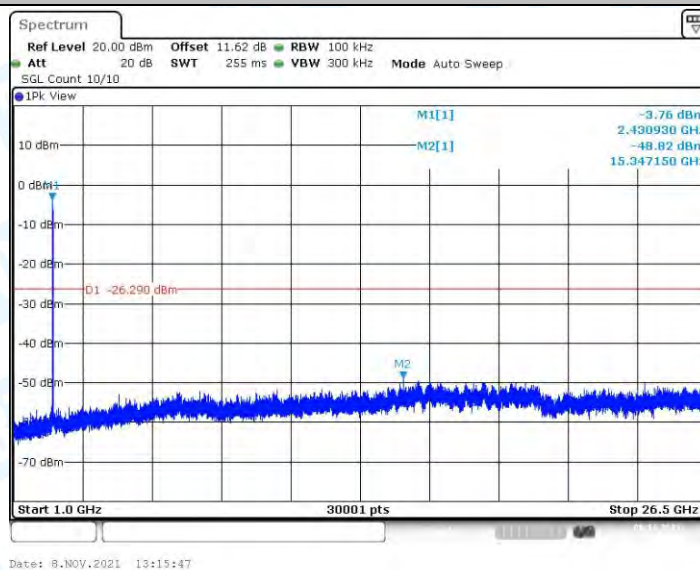
11N20SISO_Ant1_2437_0~Reference



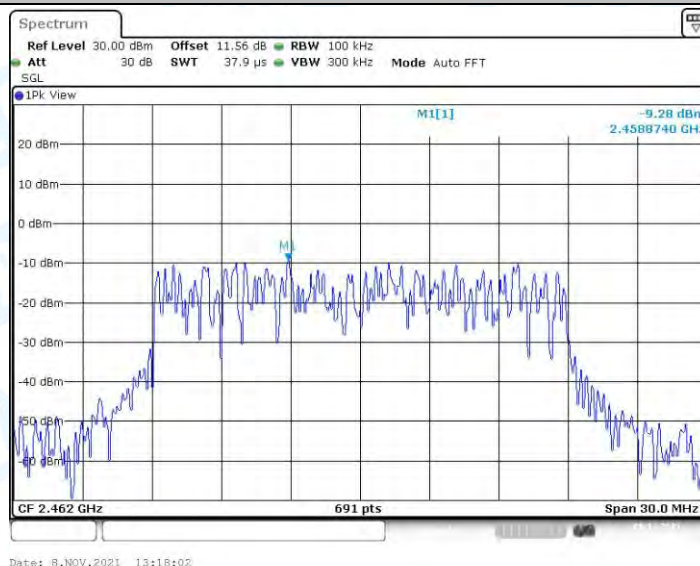
11N20SISO_Ant1_2437_30~1000



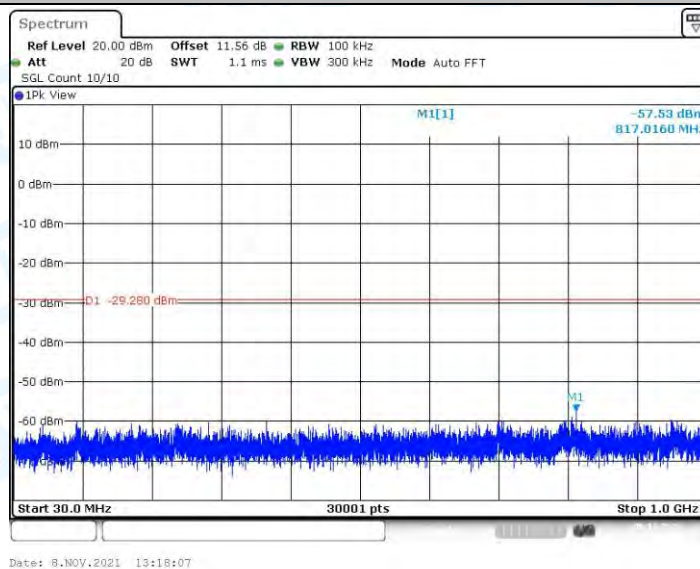
11N20SISO_Ant1_2437_1000~26500



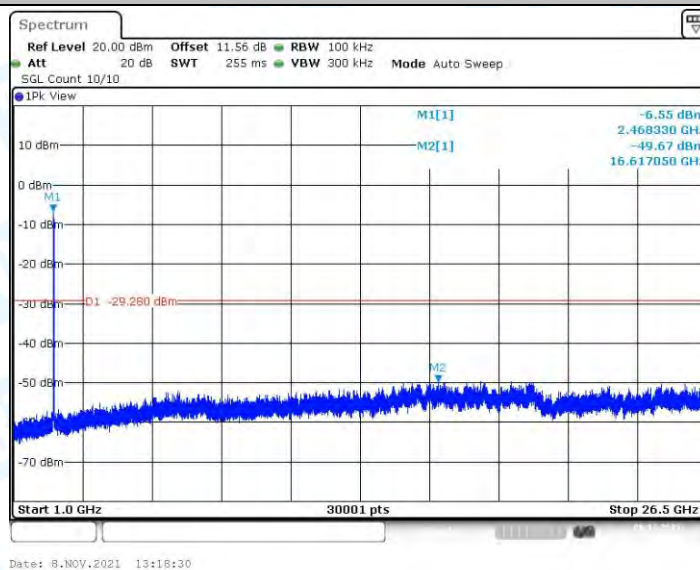
11N20SISO_Ant1_2462_0~Reference



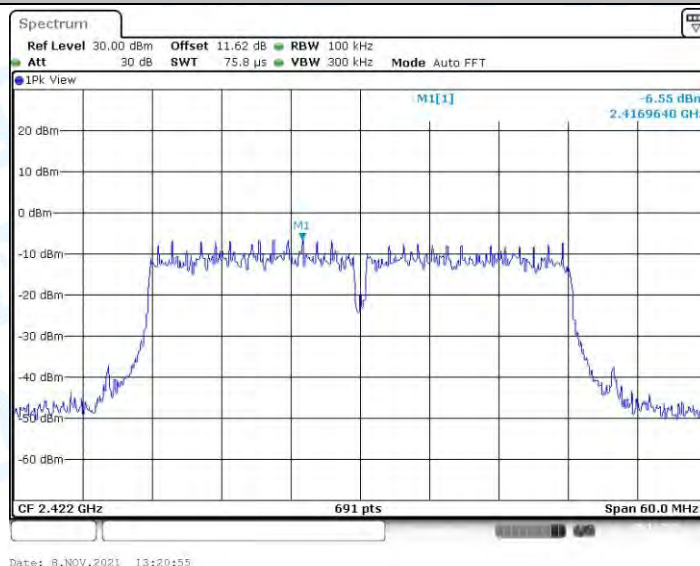
11N20SISO_Ant1_2462_30~1000



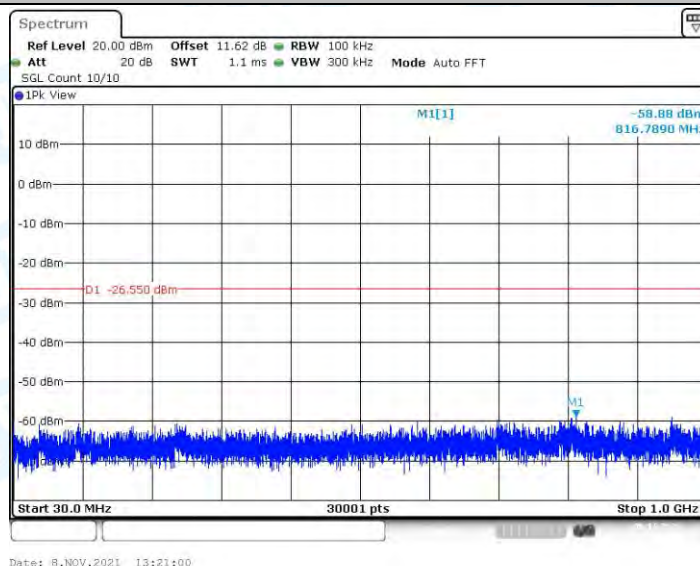
11N20SISO_Ant1_2462_1000~26500



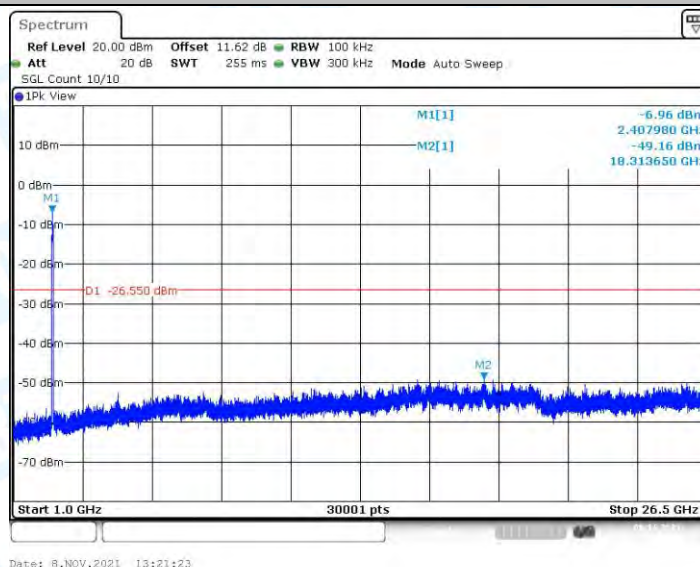
11N40SISO_Ant1_2422_0~Reference



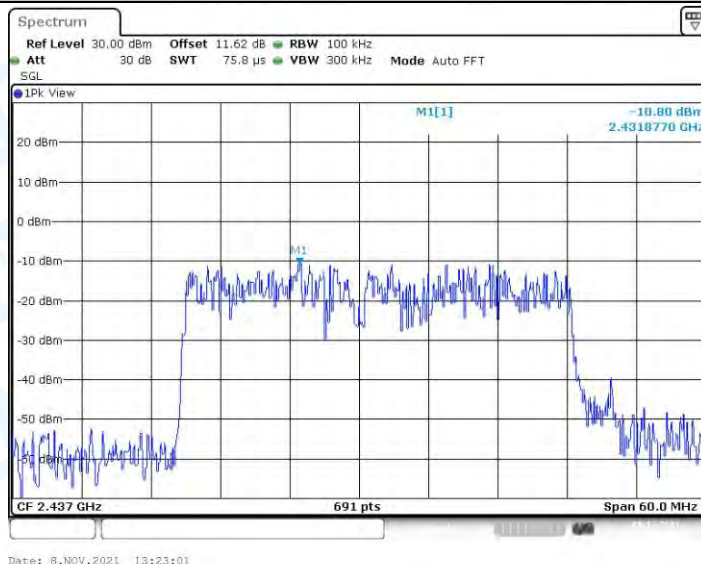
11N40SISO_Ant1_2422_30~1000



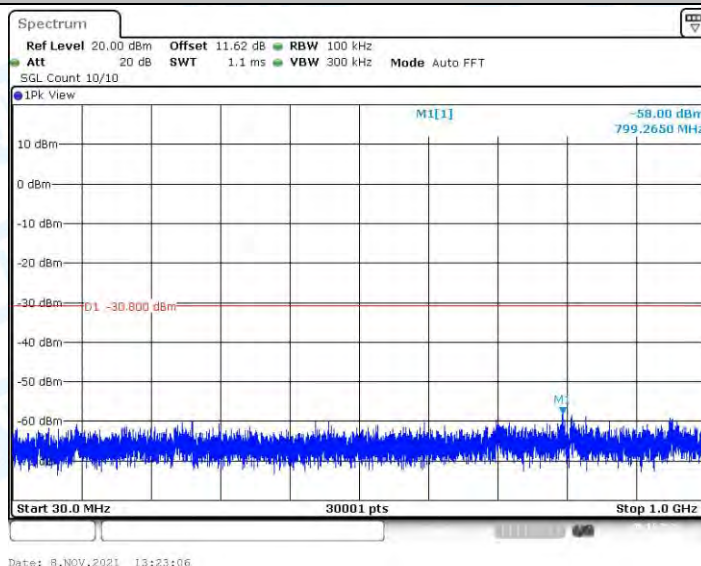
11N40SISO_Ant1_2422_1000~26500



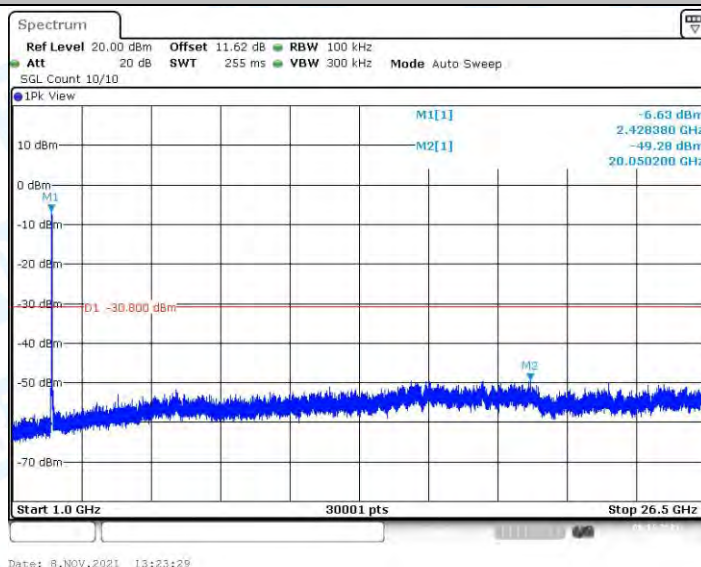
11N40SISO Ant1 2437 0~Reference



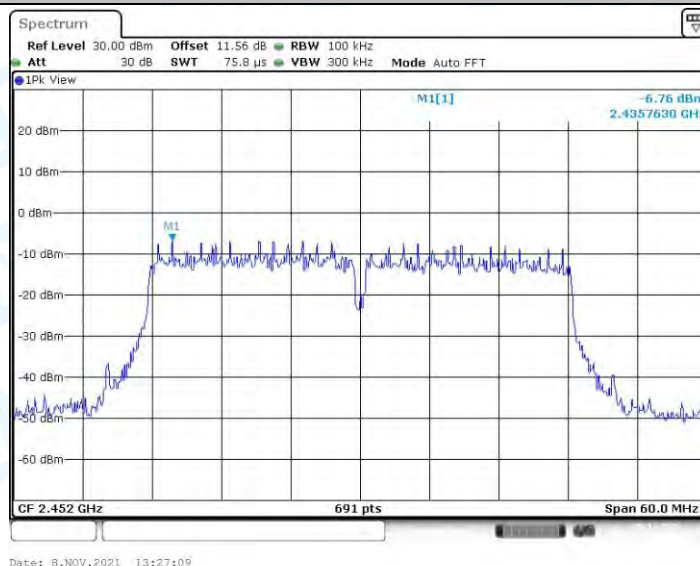
11N40SISO Ant1 2437 30~1000



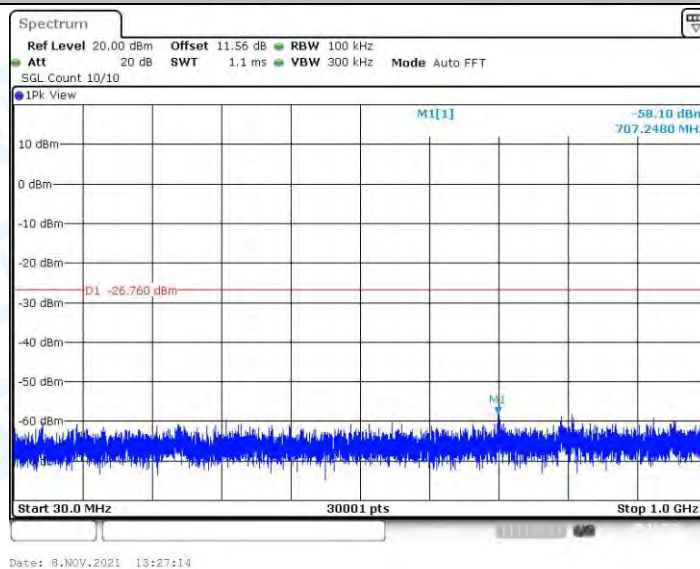
11N40SISO Ant1 2437 1000~26500



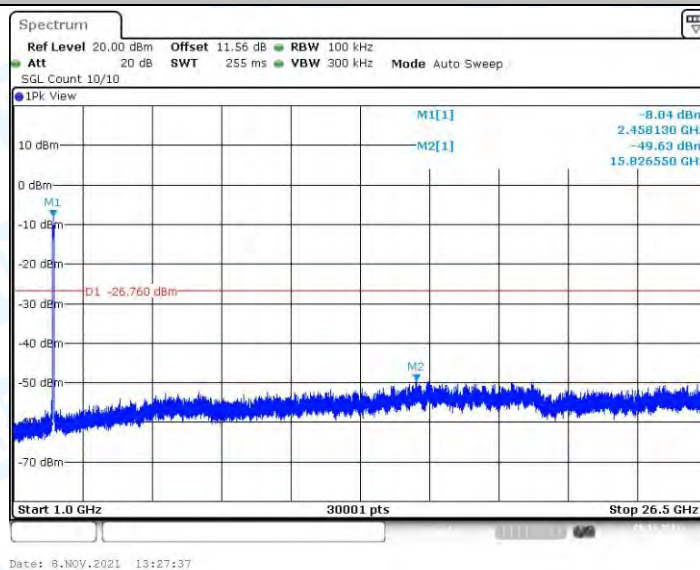
11N40SISO_Ant1_2452_0~Reference



11N40SISO_Ant1_2452_30~1000



11N40SISO_Ant1_2452_1000~26500

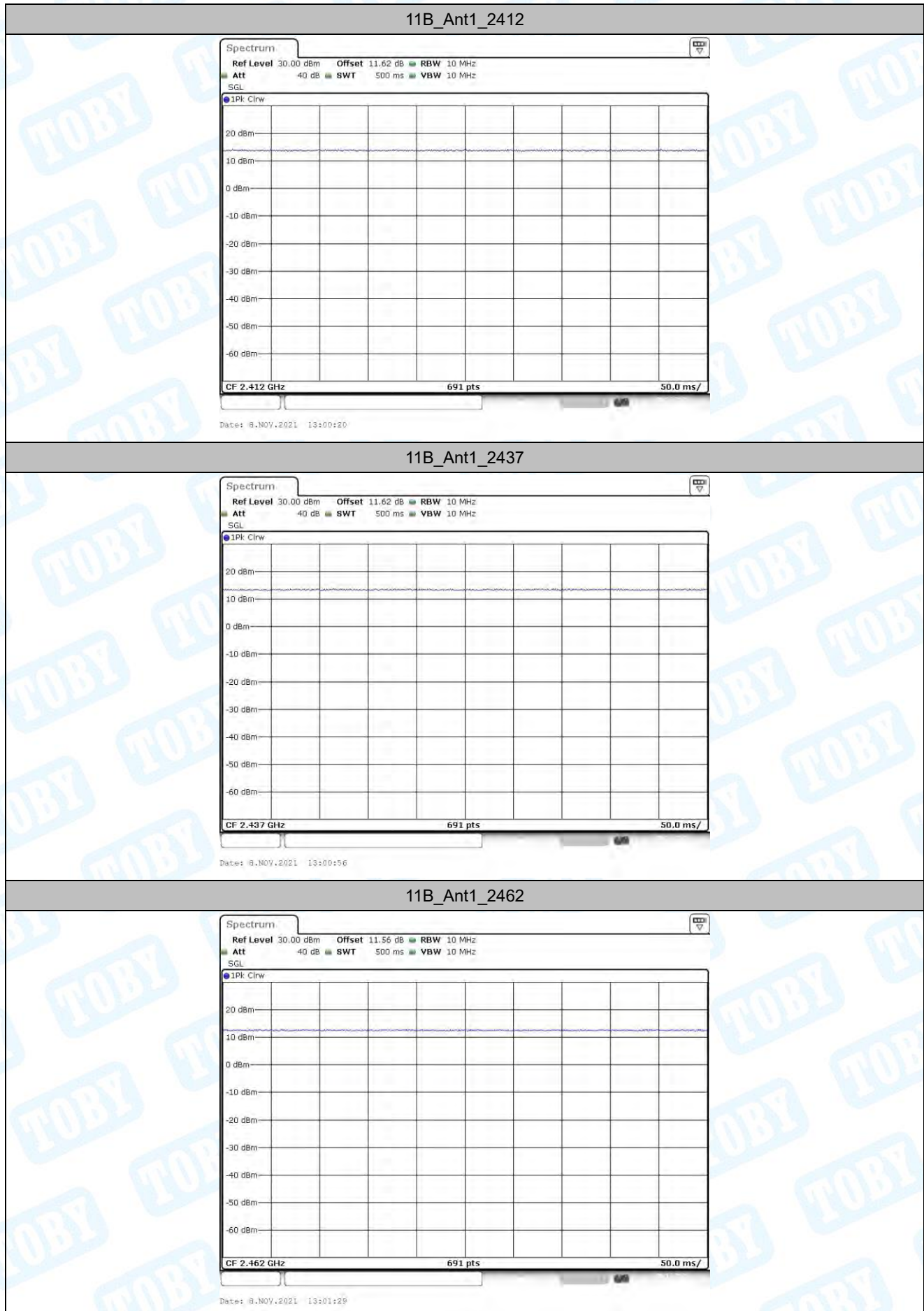


7. Duty Cycle

7.1. Test Result

TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Limit	Verdict
11B	Ant1	2412	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



11G_Ant1_2437



11G_Ant1_2462



11N20SISO_Ant1_2412



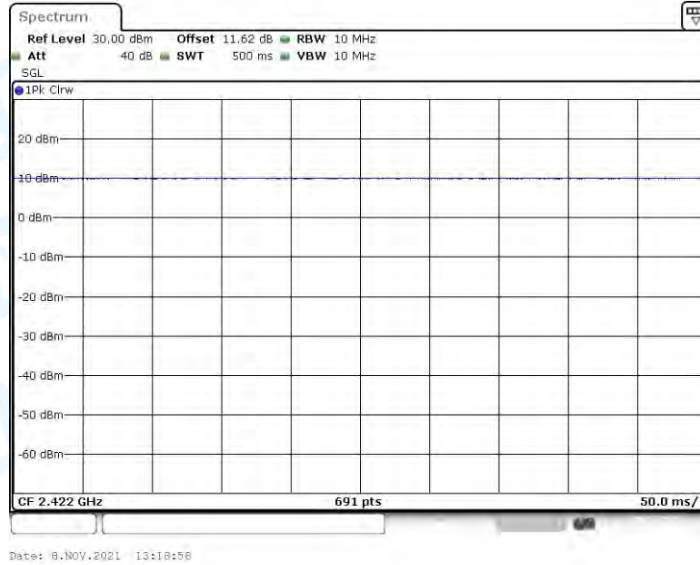
11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



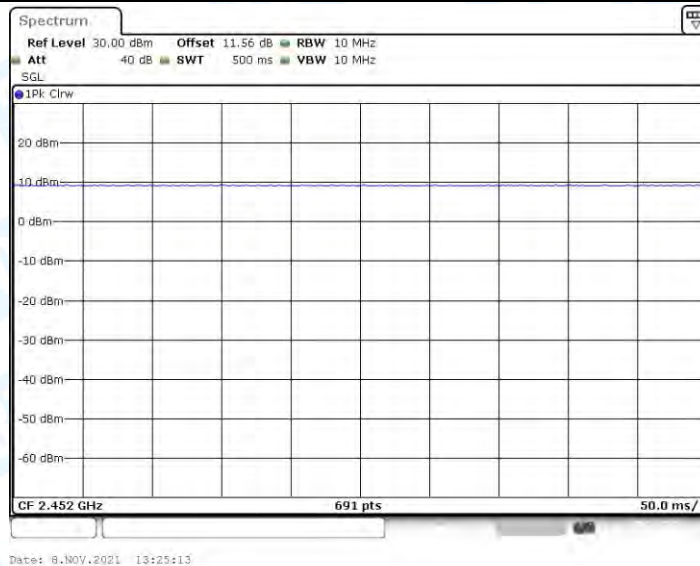
11N40SISO_Ant1_2422



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	-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

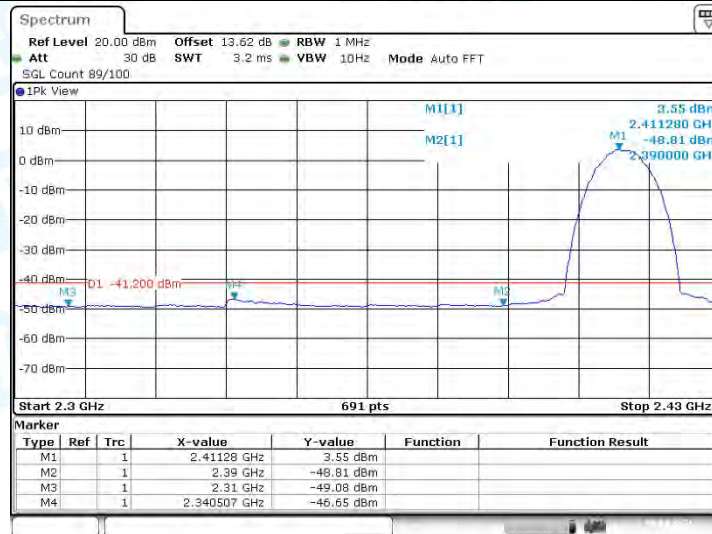
		High	2452	Peak	2390.000	-42.03	≤ -21.20	PASS
				AV	2483.500	-48.22	≤ -41.20	PASS
				AV	2483.522	-48.22	≤ -41.20	PASS
				AV	2500.000	-49.02	≤ -41.20	PASS
				Peak	2483.500	-42.07	≤ -21.20	PASS
				Peak	2488.145	-39.21	≤ -21.20	PASS
				Peak	2500.000	-44.61	≤ -21.20	PASS

Note:

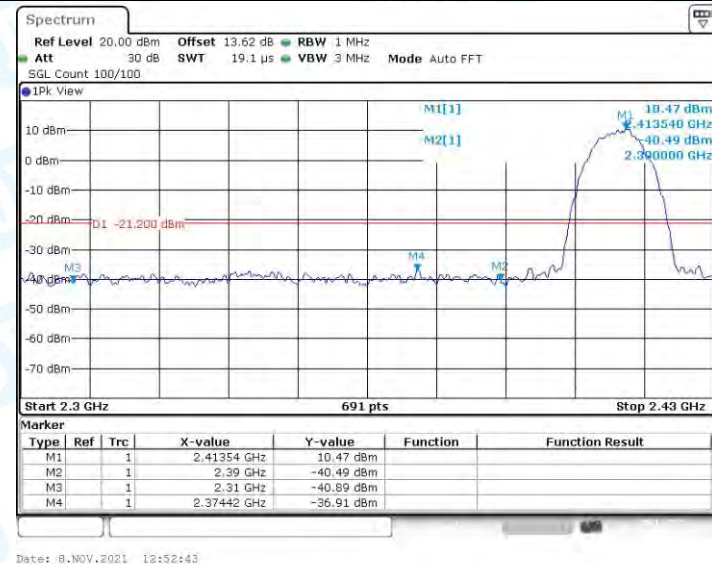
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a) or RSS-Gen 8.10. The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

8.2. Test Graphs

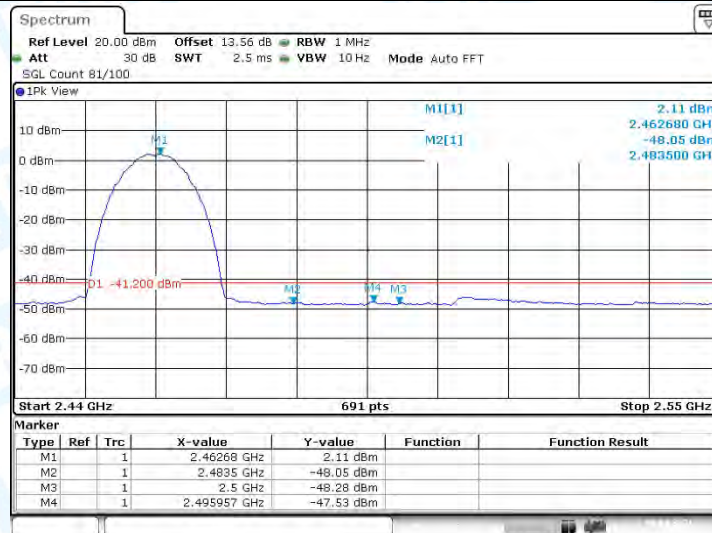
11B_Ant1_Low_2412_AV



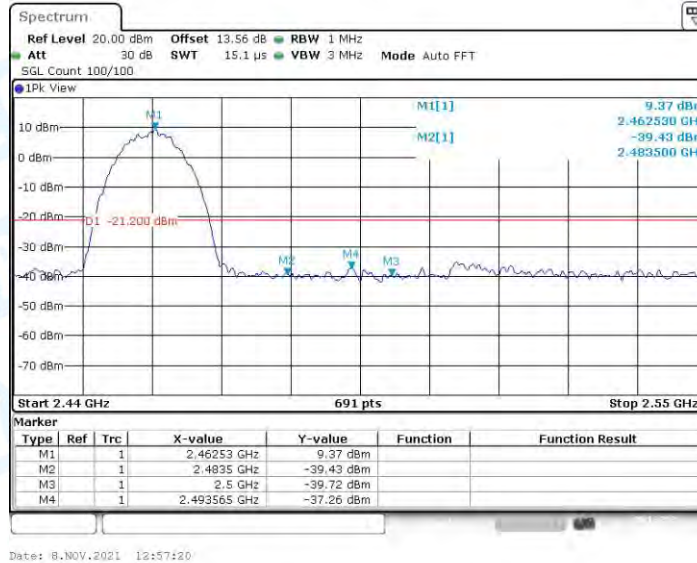
11B_Ant1_Low_2412_Peak



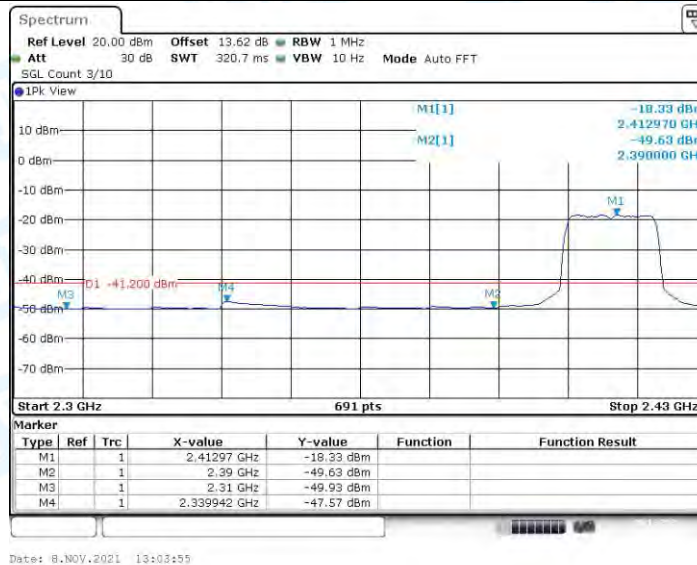
11B_Ant1_High_2462_AV



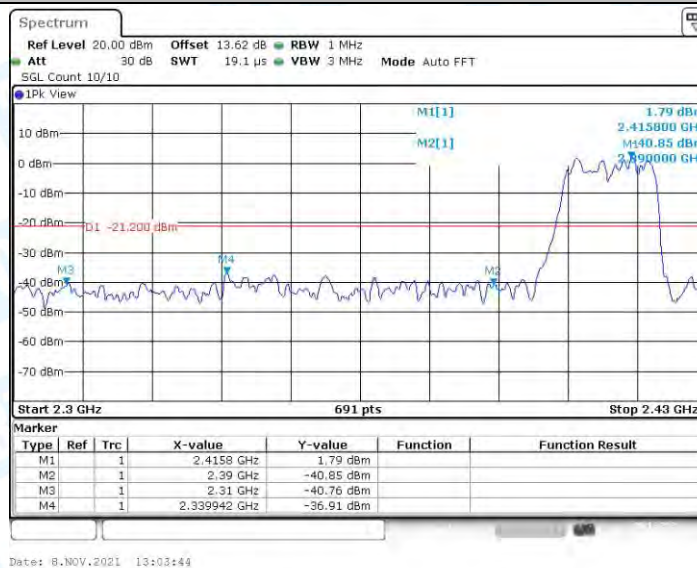
11B_Ant1_High_2462_Peak



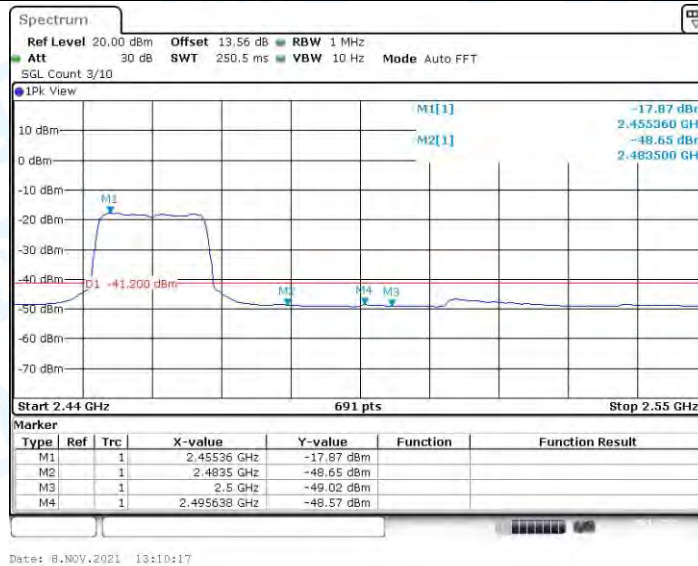
11G_Ant1_Low_2412_AV



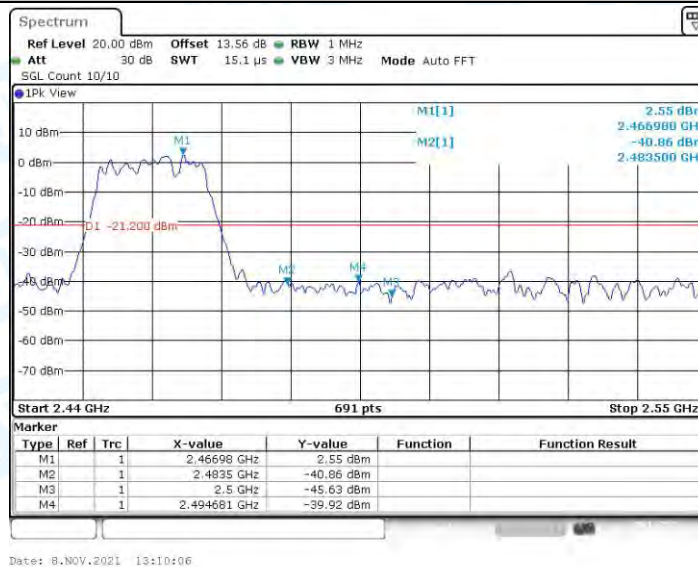
11G_Ant1_Low_2412_Peak



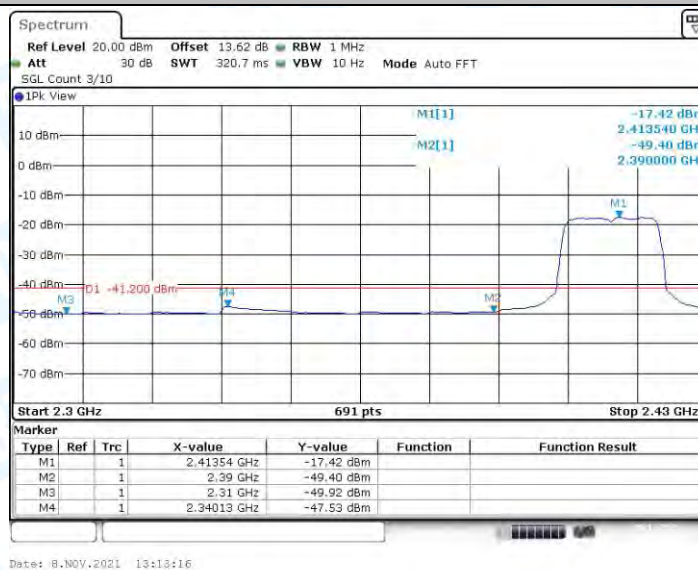
11G_Ant1_High_2462_AV



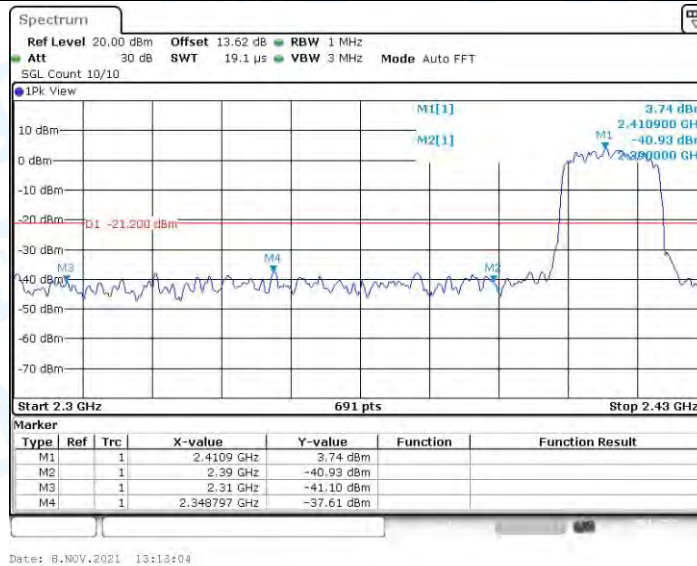
11G_Ant1_High_2462_Peak



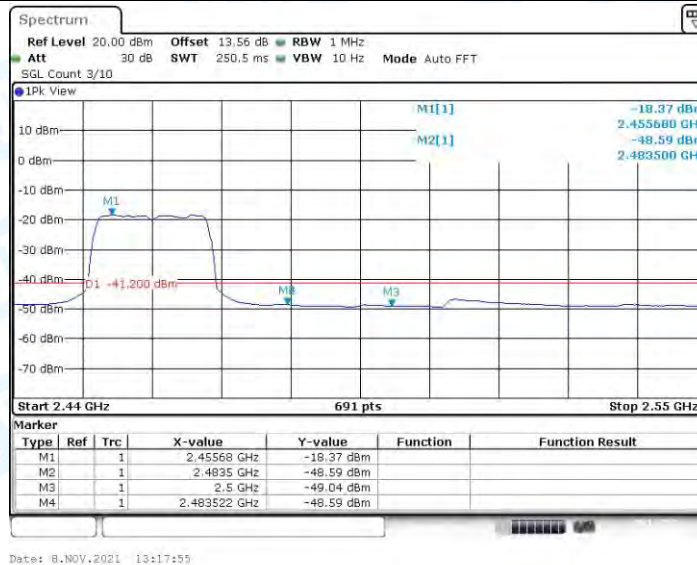
11N20SISO_Ant1_Low_2412_AV



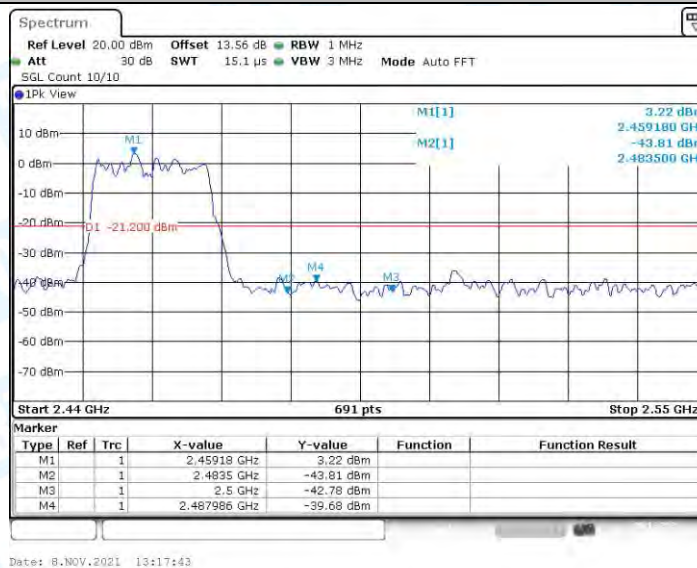
11N20SISO_Ant1_Low_2412_Peak



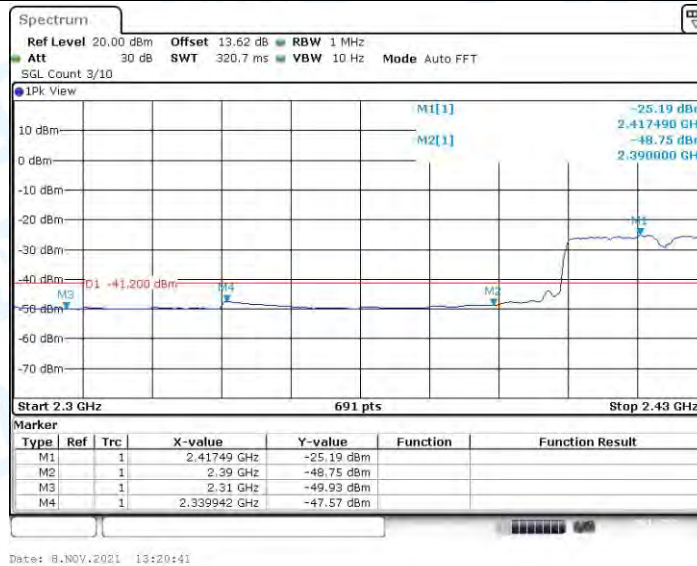
11N20SISO_Ant1_High_2462_AV



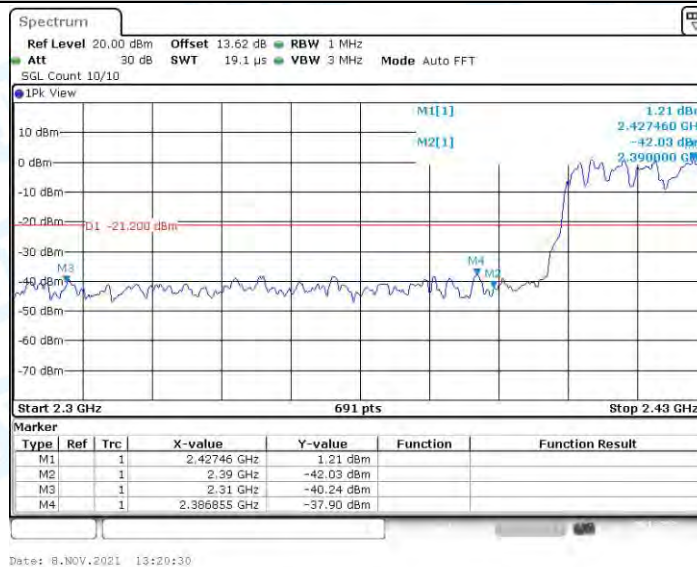
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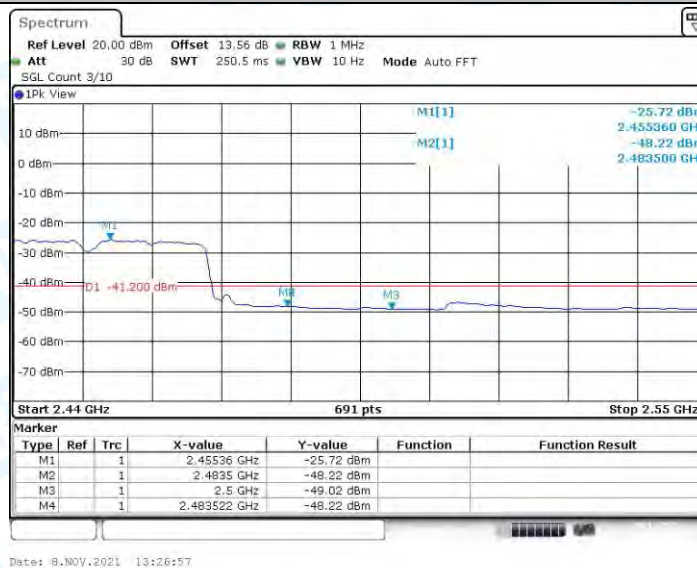
11N40SISO_Ant1_Low_2422_AV

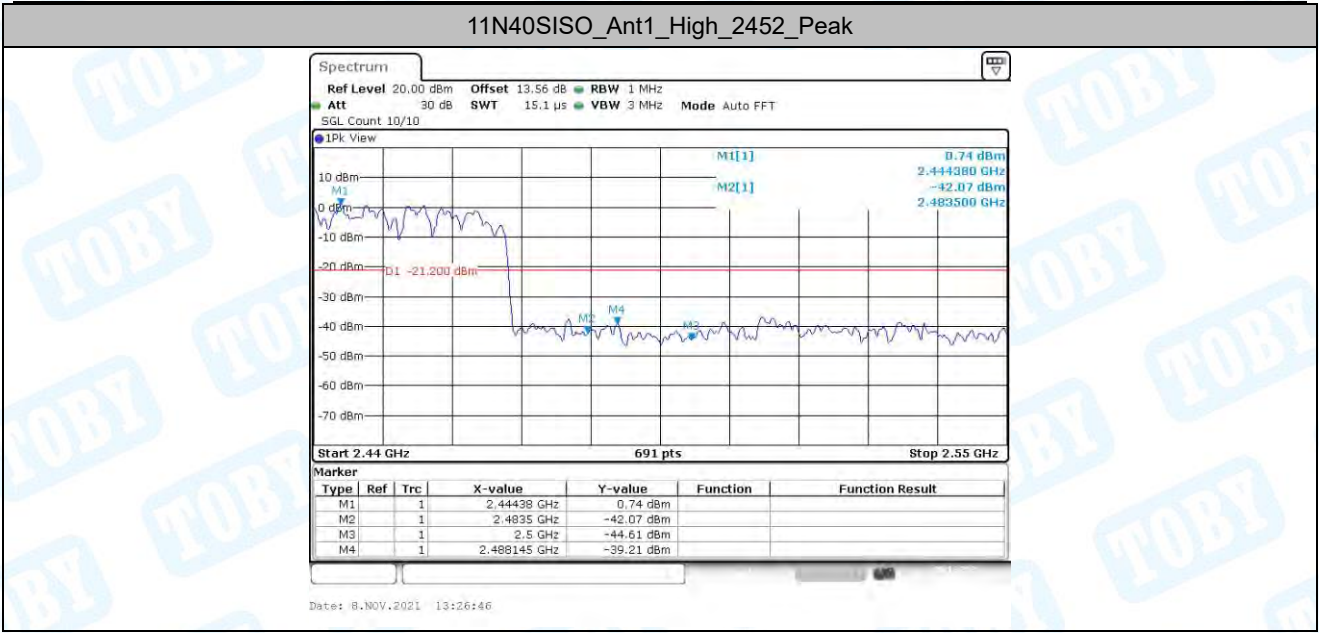


11N40SISO_Ant1_Low_2422_Peak



11N40SISO_Ant1_High_2452_AV





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