

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

General Description of EUT	
EUT Name:	ePaper Frame
Model:	F7
Sample ID:	HC-C-202507-0081-05-01-2#
Test Standard:	FCC Part 15.247
Environmental Conditions	
Ambient Temperature:	25°C
Ambient Humidity:	45%RH
Test Power Supply:	DC 3.7V
Test Engineer:	Lily. zhang
Note: For a more detailed features description, please refer to the report TBR-C-202507-0081-18	

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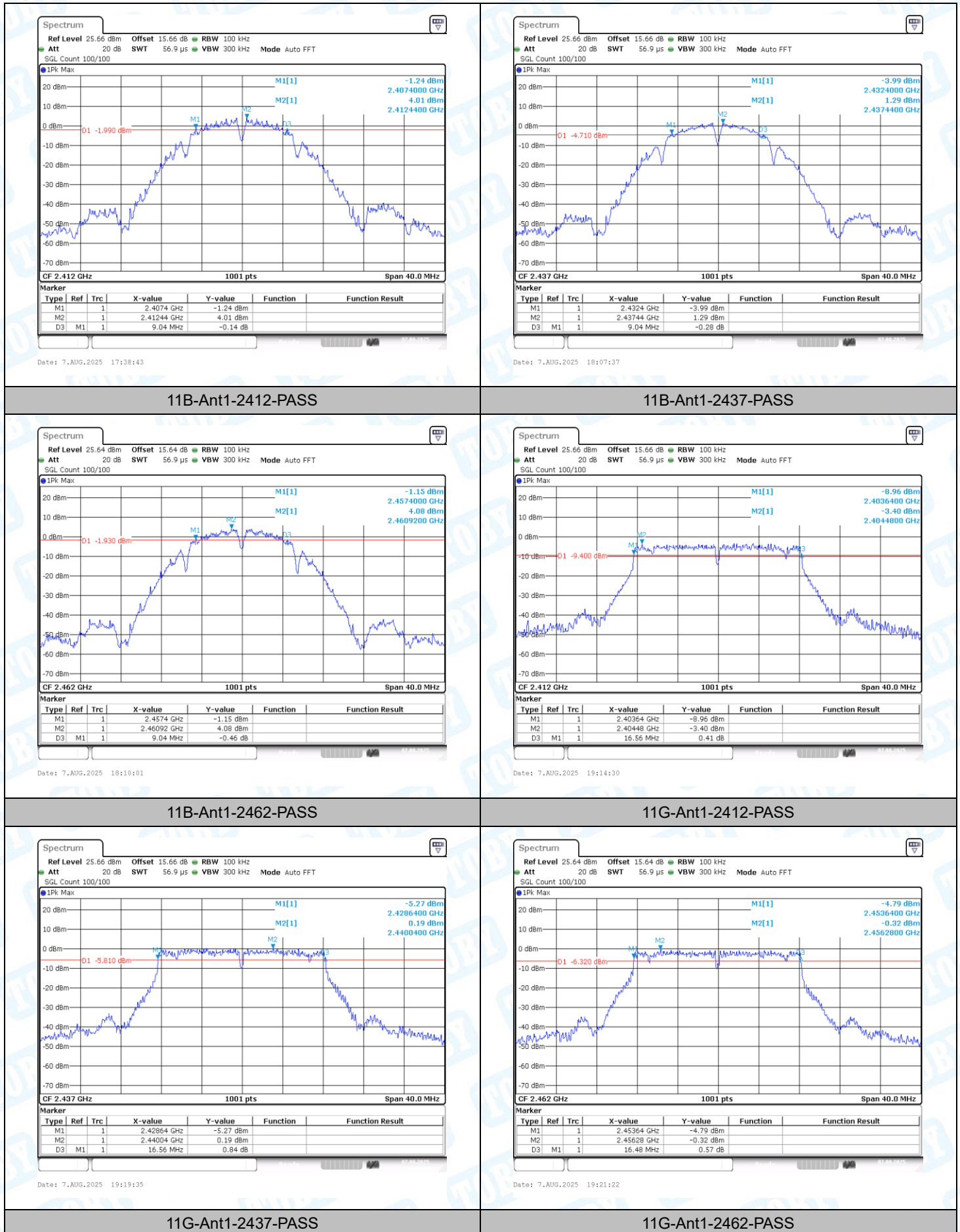
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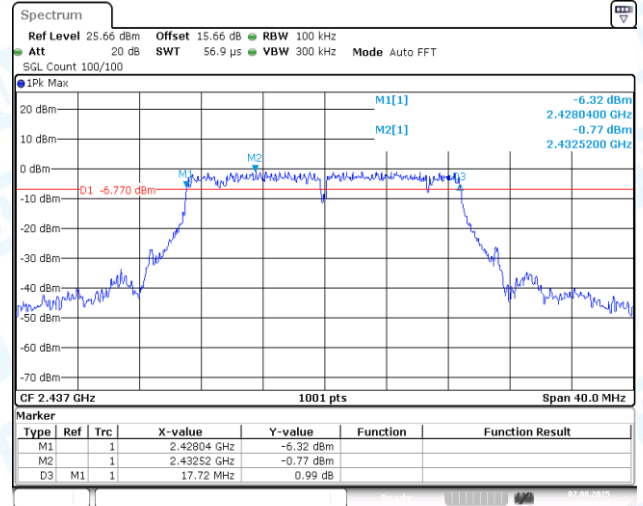
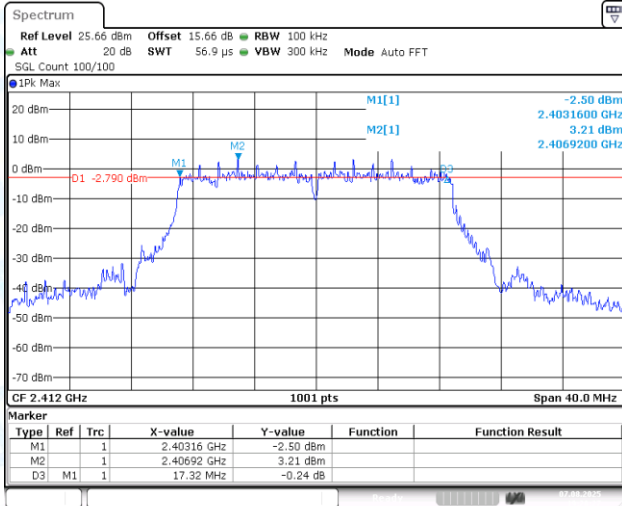
1: DTS Bandwidth

1.1 Test Result

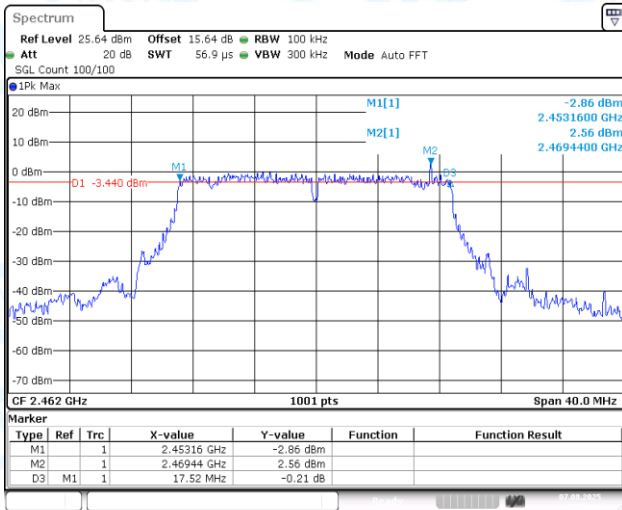
TestMode	Ant.	Frequency [MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.04	2407.40	2416.44	0.5	PASS
11B	Ant1	2437	9.04	2432.40	2441.44	0.5	PASS
11B	Ant1	2462	9.04	2457.40	2466.44	0.5	PASS
11G	Ant1	2412	16.56	2403.64	2420.20	0.5	PASS
11G	Ant1	2437	16.56	2428.64	2445.20	0.5	PASS
11G	Ant1	2462	16.48	2453.64	2470.12	0.5	PASS
11N20SISO	Ant1	2412	17.32	2403.16	2420.48	0.5	PASS
11N20SISO	Ant1	2437	17.72	2428.04	2445.76	0.5	PASS
11N20SISO	Ant1	2462	17.52	2453.16	2470.68	0.5	PASS

1.2 Test Graphs





11N20SISO-Ant1-2412-PASS



11N20SISO-Ant1-2462-PASS

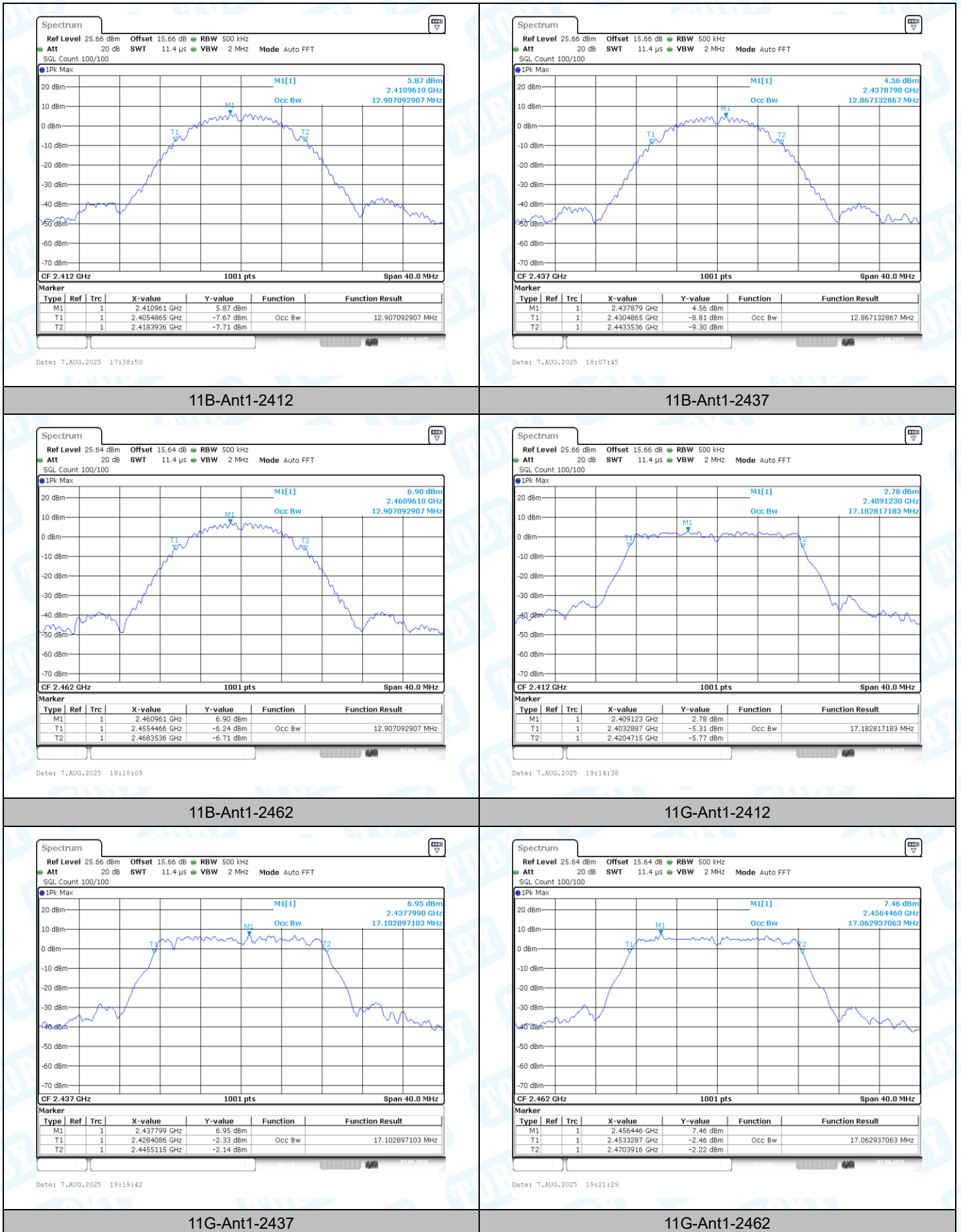
11N20SISO-Ant1-2437-PASS

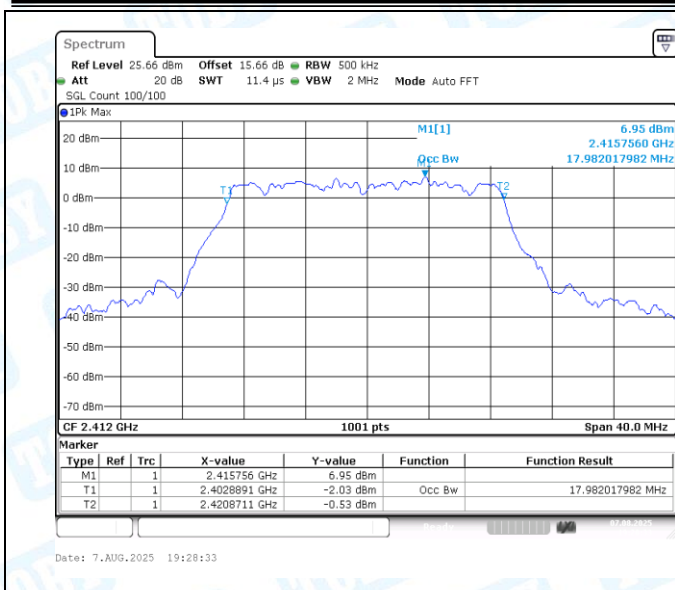
2: Occupied Channel Bandwidth

2.1 Test Result

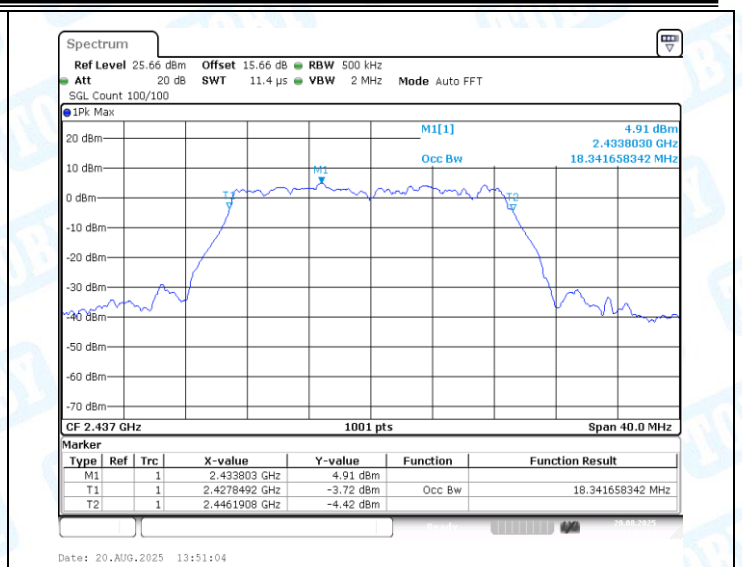
TestMode	Ant.	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	12.907	2405.4865	2418.3936	---	---
11B	Ant1	2437	12.867	2430.4865	2443.3536	---	---
11B	Ant1	2462	12.907	2455.4466	2468.3536	---	---
11G	Ant1	2412	17.183	2403.2887	2420.4715	---	---
11G	Ant1	2437	17.103	2428.4086	2445.5115	---	---
11G	Ant1	2462	17.063	2453.3287	2470.3916	---	---
11N20SISO	Ant1	2412	17.982	2402.8891	2420.8711	---	---
11N20SISO	Ant1	2437	18.342	2427.8492	2446.1908	---	---
11N20SISO	Ant1	2462	17.942	2452.9690	2470.9111	---	---

2.2 Test Graphs

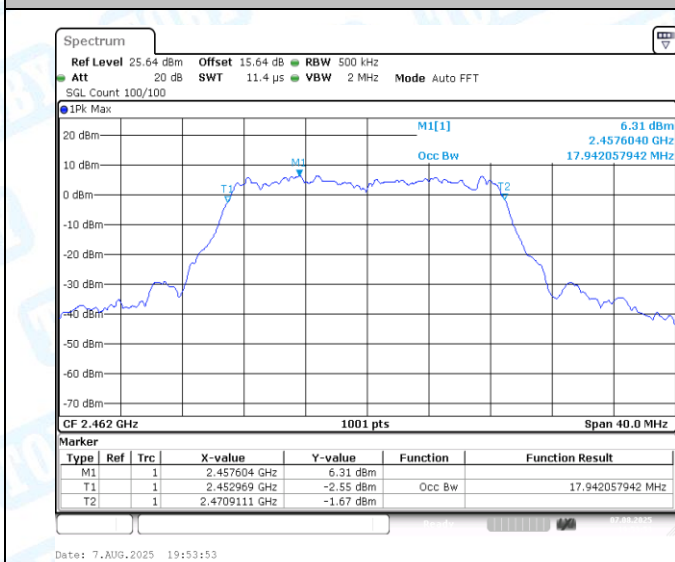




11N20SISO-Ant1-2412



11N20SISO-Ant1-2437



11N20SISO-Ant1-2462

3: Maximum conducted output power

3.1 Test Result Average

Test Mode	Ant.	Frequency [MHz]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	14.86	≤30.00	PASS
11B	Ant1	2437	15.25	≤30.00	PASS
11B	Ant1	2462	14.87	≤30.00	PASS
11G	Ant1	2412	15.07	≤30.00	PASS
11G	Ant1	2437	15.50	≤30.00	PASS
11G	Ant1	2462	14.51	≤30.00	PASS
11N20SISO	Ant1	2412	14.83	≤30.00	PASS
11N20SISO	Ant1	2437	14.86	≤30.00	PASS
11N20SISO	Ant1	2462	14.59	≤30.00	PASS

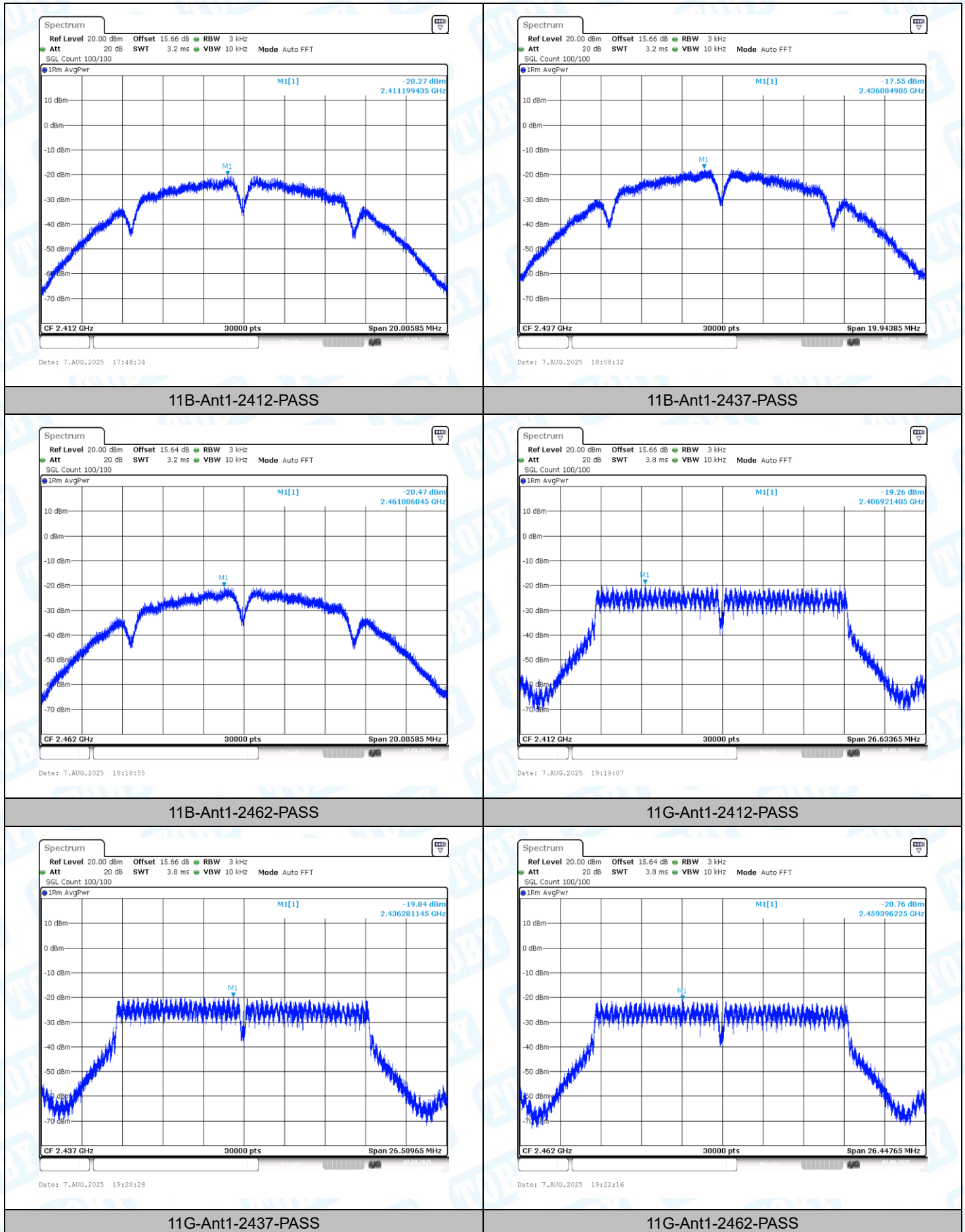
Note: The Duty Cycle Factor is compensated in the graph.

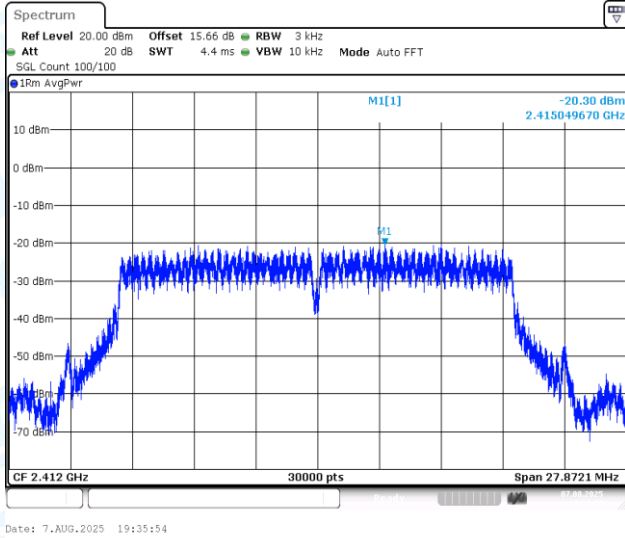
4: Maximum power spectral density

4.1 Test Result

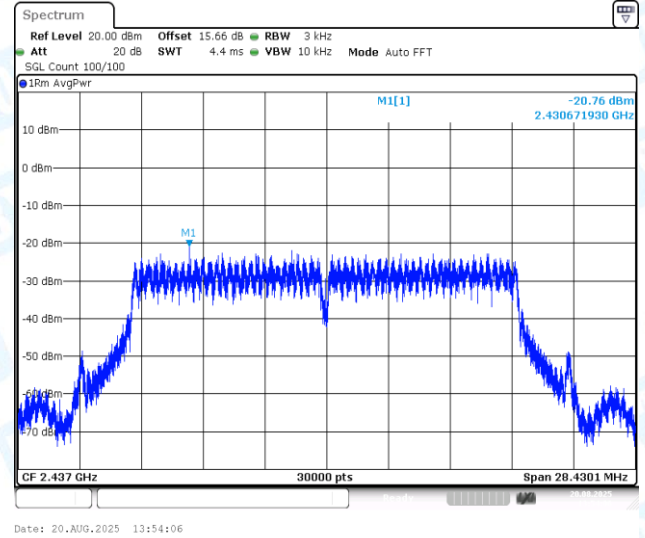
TestMode	Ant.	Frequency[MHz]	RawData [dBm/3kHz]	DC Factor	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-20.27	3.72	-16.55	≤8.00	PASS
11B	Ant1	2437	-17.55	3.02	-14.53	≤8.00	PASS
11B	Ant1	2462	-20.47	3.04	-17.43	≤8.00	PASS
11G	Ant1	2412	-19.26	3.12	-16.14	≤8.00	PASS
11G	Ant1	2437	-19.84	3.09	-16.75	≤8.00	PASS
11G	Ant1	2462	-20.76	3.07	-17.69	≤8.00	PASS
11N20SISO	Ant1	2412	-20.3	3.07	-17.23	≤8.00	PASS
11N20SISO	Ant1	2437	-20.76	3.01	-17.75	≤8.00	PASS
11N20SISO	Ant1	2462	-19.76	3.00	-16.76	≤8.00	PASS

4.2 Test Graphs

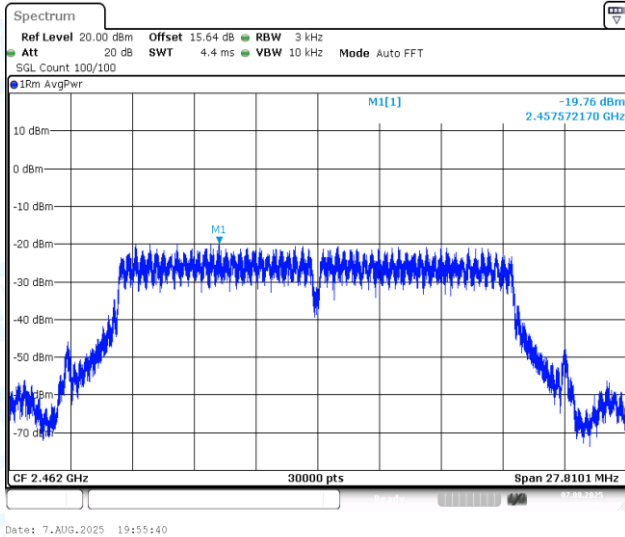




11N20SISO-Ant1-2412-PASS



11N20SISO-Ant1-2437-PASS



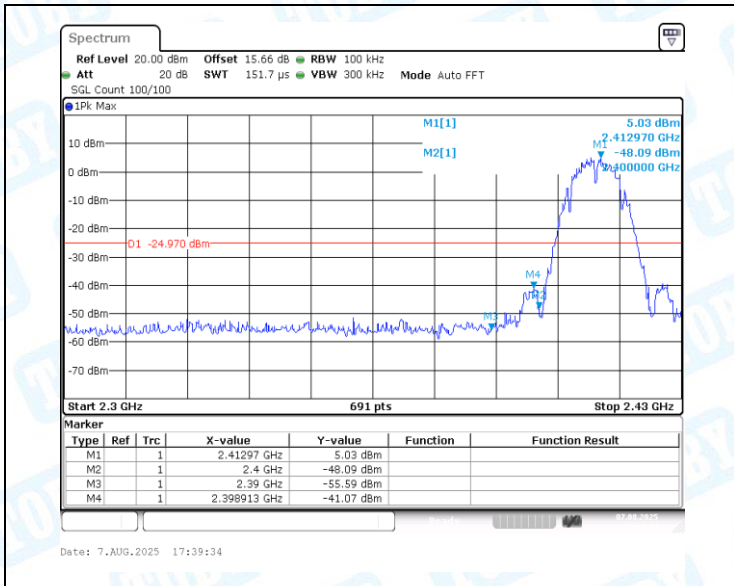
11N20SISO-Ant1-2462-PASS

5: Band edge measurements

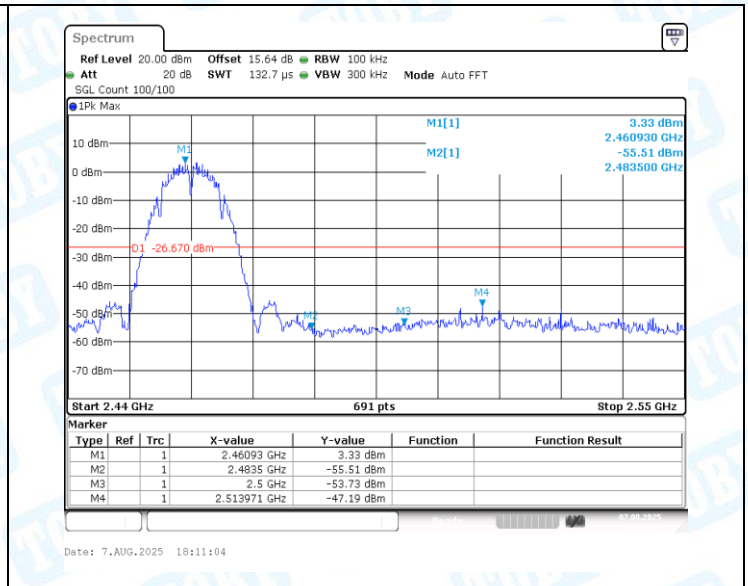
5.1 Test Result

TestMode	Ant.	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	5.03	-41.07	≤-24.97	PASS
11B	Ant1	High	2462	3.33	-47.19	≤-26.67	PASS
11G	Ant1	Low	2412	0.84	-33.66	≤-29.16	PASS
11G	Ant1	High	2462	-0.23	-48.83	≤-30.23	PASS
11N20SISO	Ant1	Low	2412	-0.93	-35.58	≤-30.93	PASS
11N20SISO	Ant1	High	2462	0.06	-48.39	≤-29.94	PASS

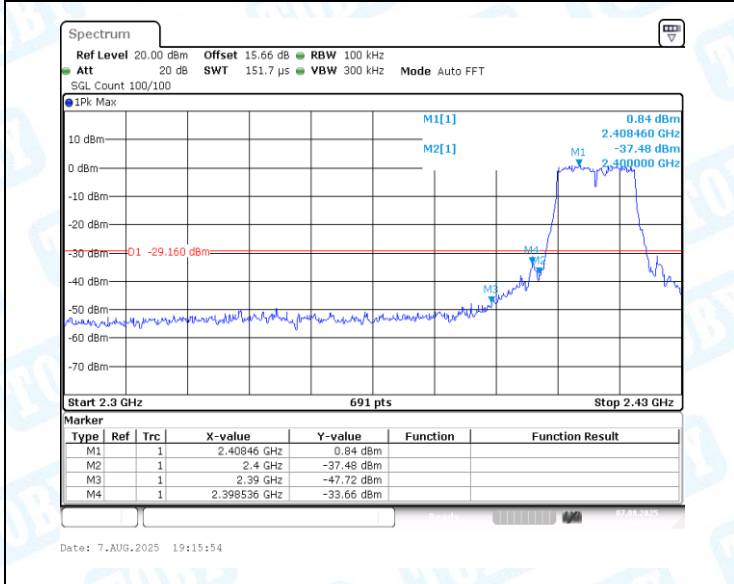
5.2 Test Graphs



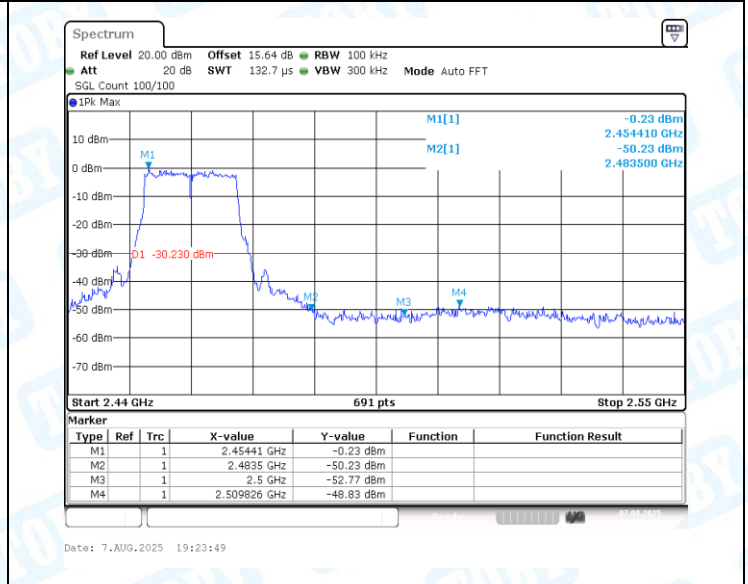
11B-Ant1-2412-PASS



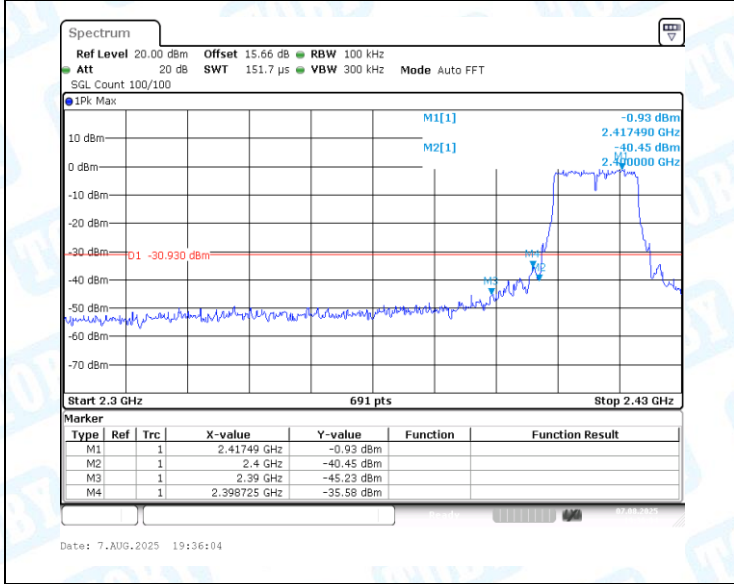
11B-Ant1-2462-PASS



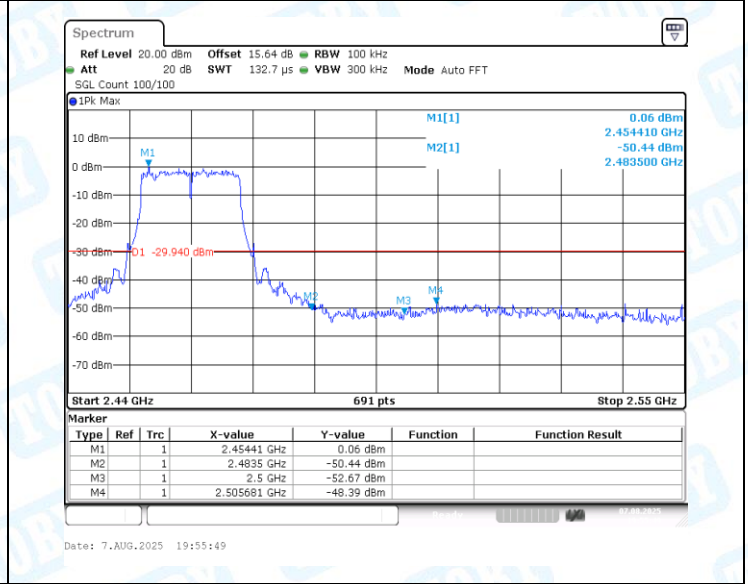
11G-Ant1-2412-PASS



11G-Ant1-2462-PASS



11N20SISO-Ant1-2412-PASS



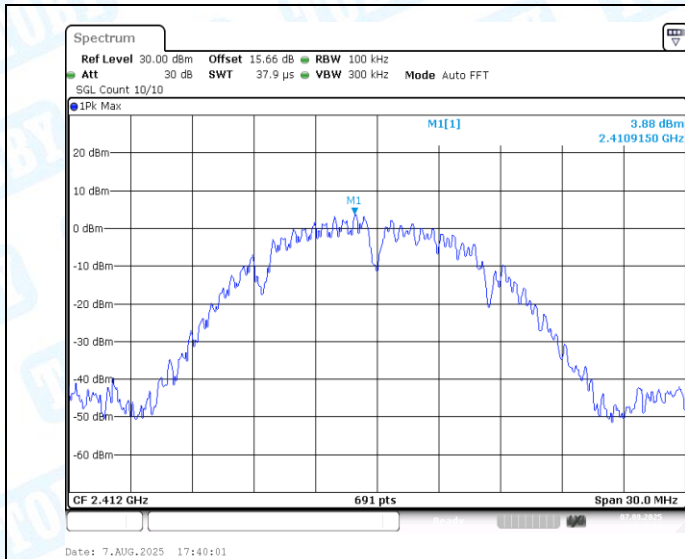
11N20SISO-Ant1-2462-PASS

6: Conducted Spurious Emission

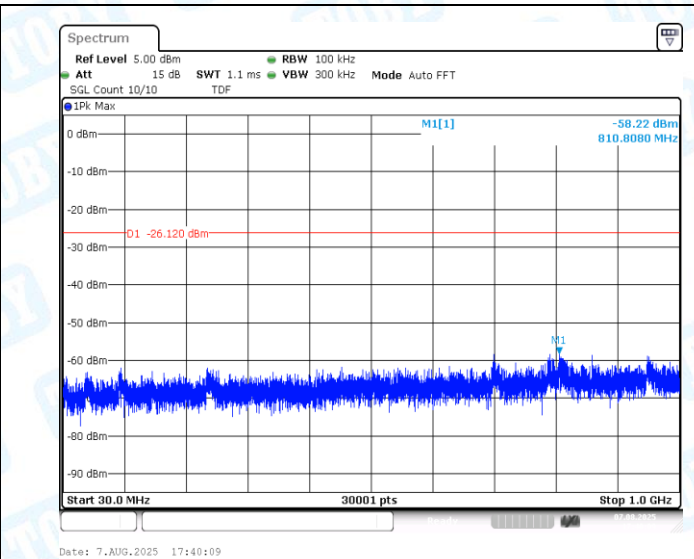
6.1 Test Result

TestMode	Ant.	Frequency [MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	0~Reference	3.88	3.88	---	PASS
11B	Ant1	2412	30~1000	3.88	-58.22	≤-26.12	PASS
11B	Ant1	2412	1000~26500	3.88	-36.16	≤-26.12	PASS
11B	Ant1	2437	0~Reference	3.62	3.62	---	PASS
11B	Ant1	2437	30~1000	3.62	-58.98	≤-26.38	PASS
11B	Ant1	2437	1000~26500	3.62	-38.27	≤-26.38	PASS
11B	Ant1	2462	0~Reference	0.62	0.62	---	PASS
11B	Ant1	2462	30~1000	0.62	-58.23	≤-29.38	PASS
11B	Ant1	2462	1000~26500	0.62	-40.33	≤-29.38	PASS
11G	Ant1	2412	0~Reference	0.61	0.61	---	PASS
11G	Ant1	2412	30~1000	0.61	-56.47	≤-29.39	PASS
11G	Ant1	2412	1000~26500	0.61	-43.84	≤-29.39	PASS
11G	Ant1	2437	0~Reference	0.34	0.34	---	PASS
11G	Ant1	2437	30~1000	0.34	-58.46	≤-29.66	PASS
11G	Ant1	2437	1000~26500	0.34	-46.58	≤-29.66	PASS
11G	Ant1	2462	0~Reference	-0.80	-0.80	---	PASS
11G	Ant1	2462	30~1000	-0.80	-56.77	≤-30.8	PASS
11G	Ant1	2462	1000~26500	-0.80	-44.76	≤-30.8	PASS
11N20SISO	Ant1	2412	0~Reference	-1.25	-1.25	---	PASS
11N20SISO	Ant1	2412	30~1000	-1.25	-58.83	≤-31.25	PASS
11N20SISO	Ant1	2412	1000~26500	-1.25	-43.52	≤-31.25	PASS
11N20SISO	Ant1	2437	0~Reference	-1.36	-1.36	---	PASS
11N20SISO	Ant1	2437	30~1000	-1.36	-57.54	≤-31.36	PASS
11N20SISO	Ant1	2437	1000~26500	-1.36	-46.29	≤-31.36	PASS
11N20SISO	Ant1	2462	0~Reference	-0.43	-0.43	---	PASS
11N20SISO	Ant1	2462	30~1000	-0.43	-56.65	≤-30.43	PASS
11N20SISO	Ant1	2462	1000~26500	-0.43	-47.07	≤-30.43	PASS

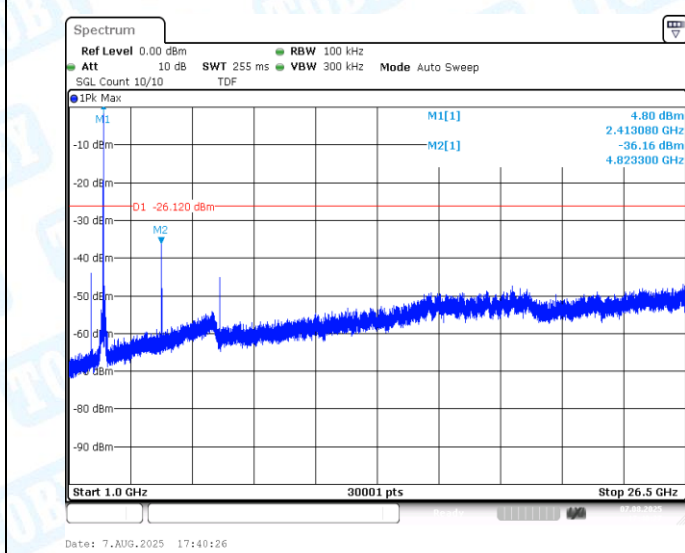
6.2 Test Graphs



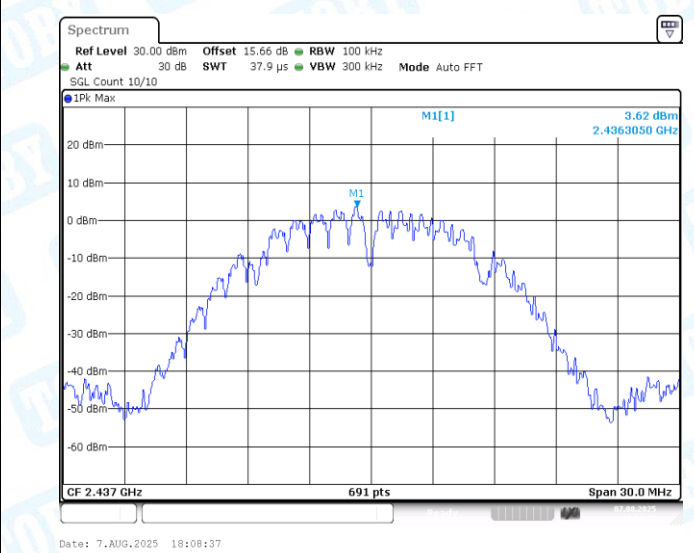
11B-Ant1-2412-0~Reference-PASS



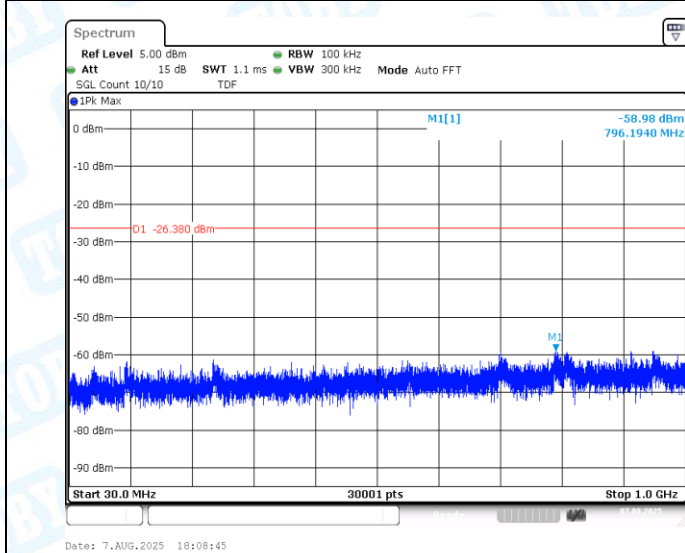
11B-Ant1-2412-30~1000-PASS



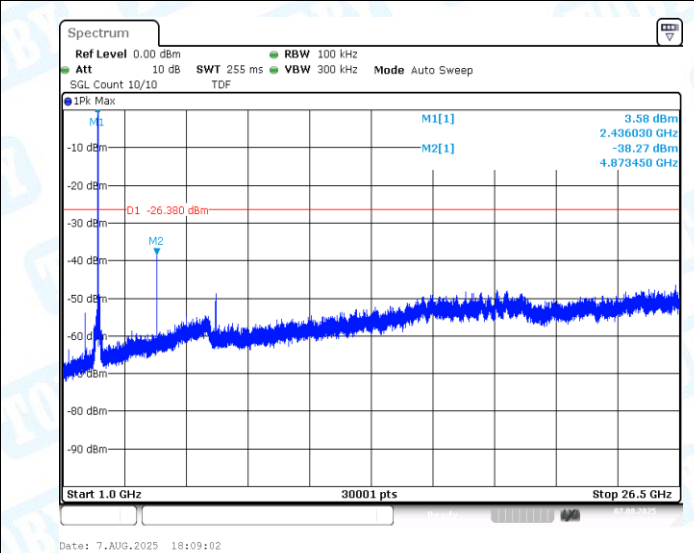
11B-Ant1-2412-1000~26500-PASS



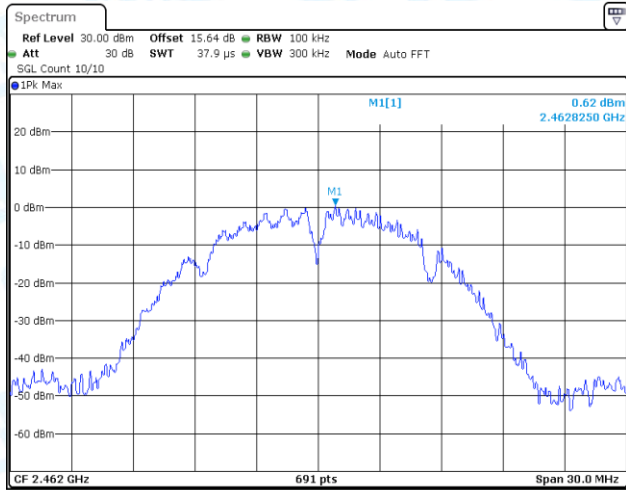
11B-Ant1-2437-0~Reference-PASS



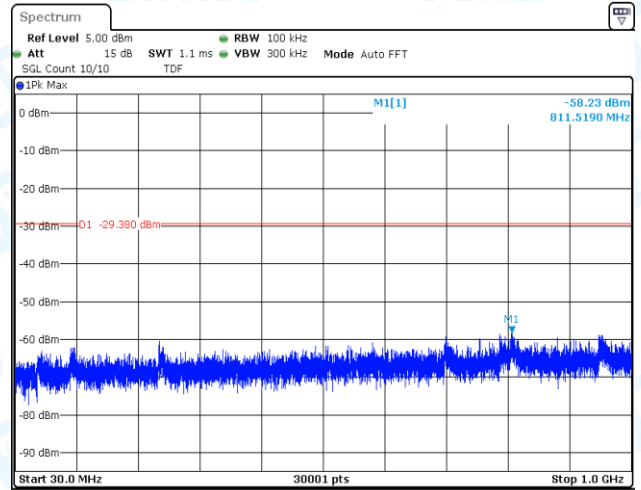
11B-Ant1-2437-30~1000-PASS



11B-Ant1-2437-1000~26500-PASS



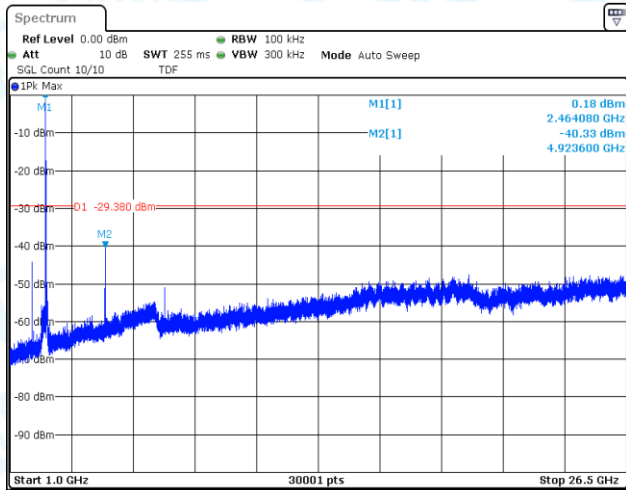
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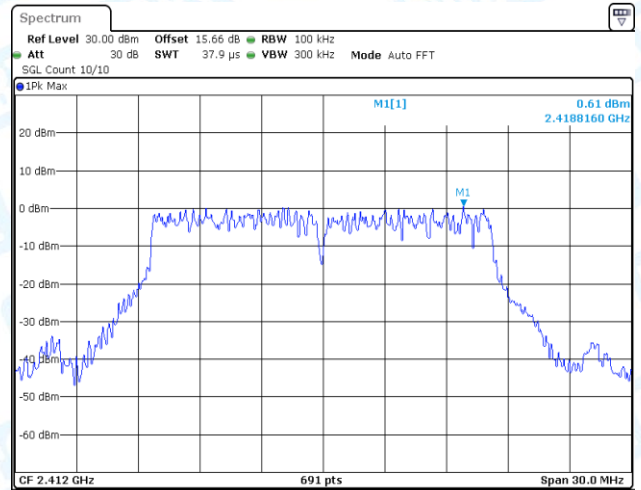
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11B-Ant1-2462-0~Reference-PASS

11B-Ant1-2462-30~1000-PASS



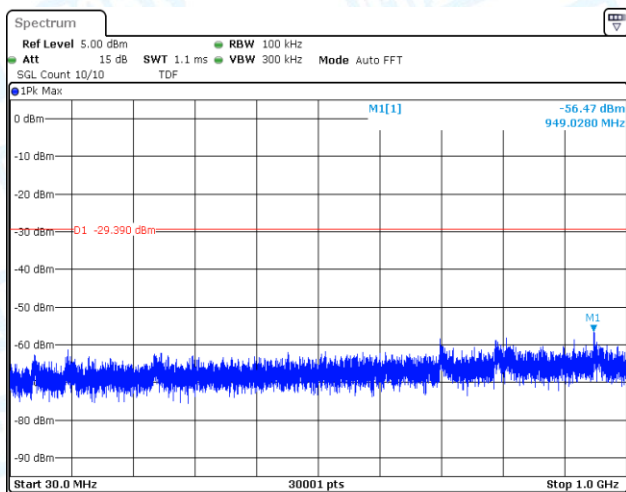
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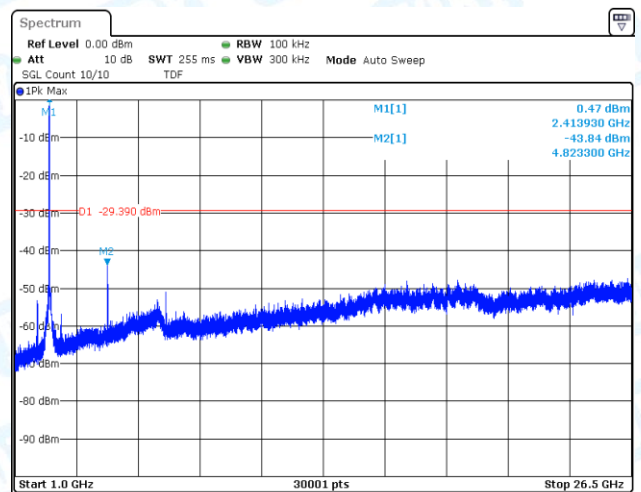
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11B-Ant1-2462-1000~26500-PASS

11G-Ant1-2412-0~Reference-PASS



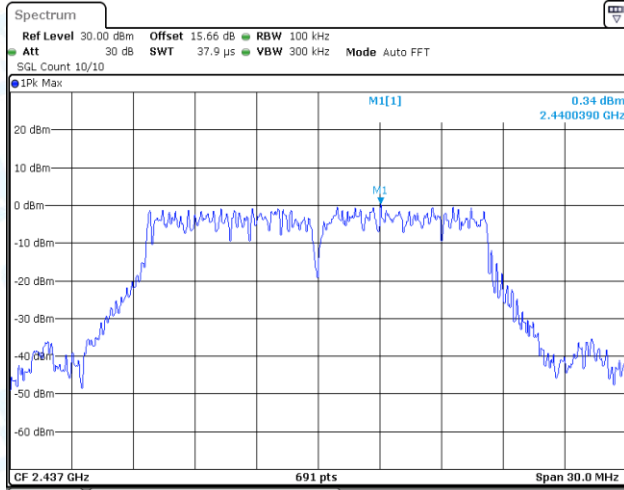
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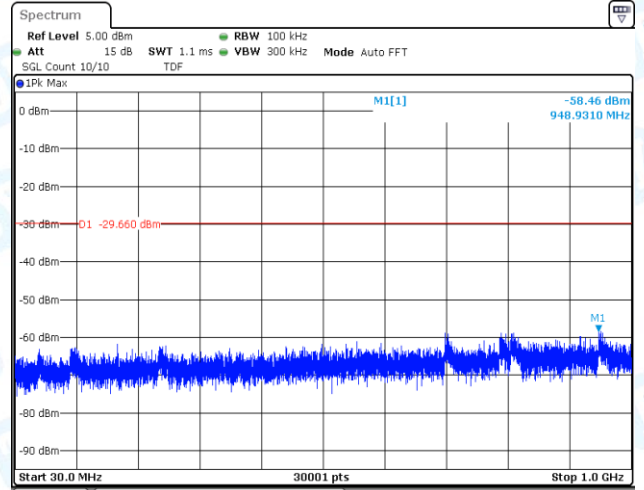
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11G-Ant1-2412-30~1000-PASS

11G-Ant1-2412-1000~26500-PASS



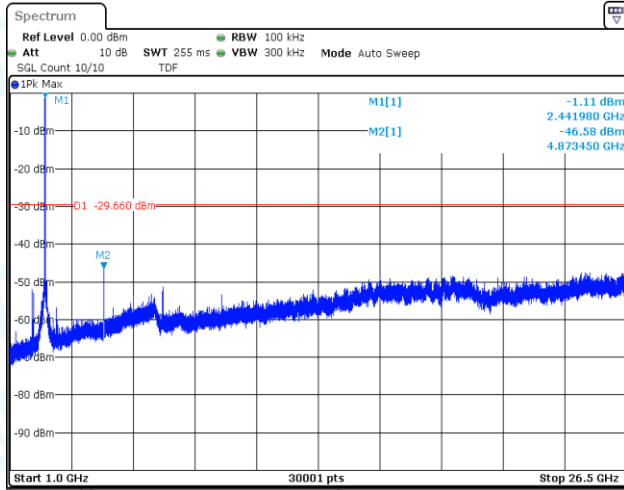
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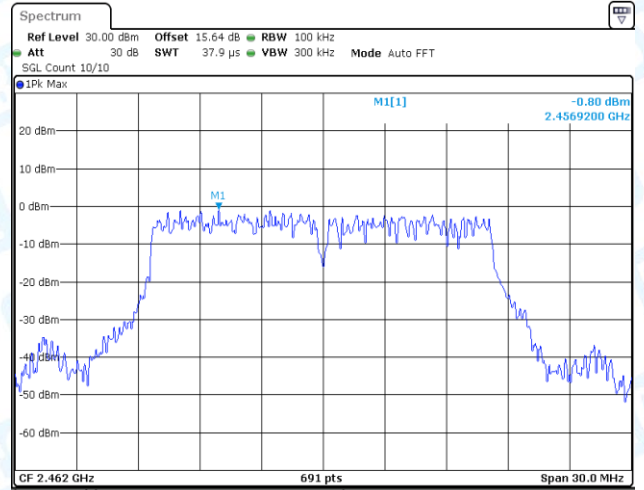
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11G-Ant1-2437-0~Reference-PASS

11G-Ant1-2437-30~1000-PASS



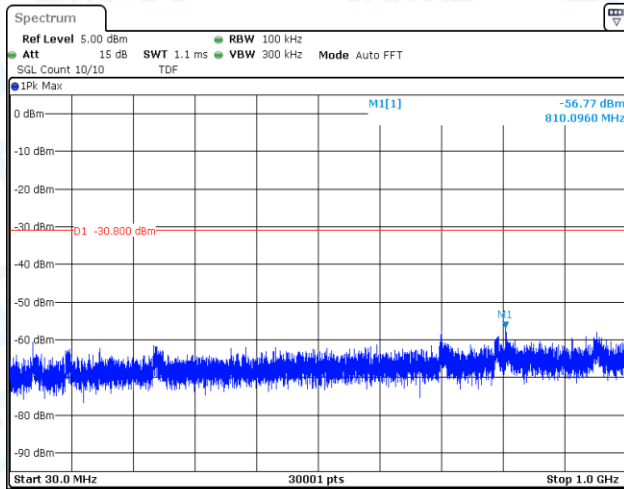
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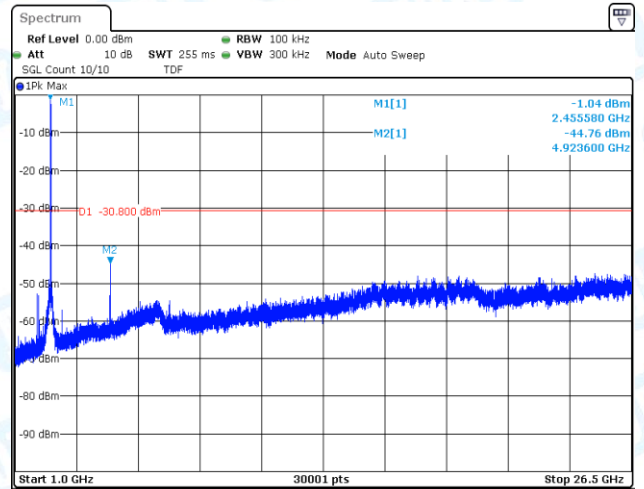
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11G-Ant1-2437-1000~26500-PASS

11G-Ant1-2462-0~Reference-PASS



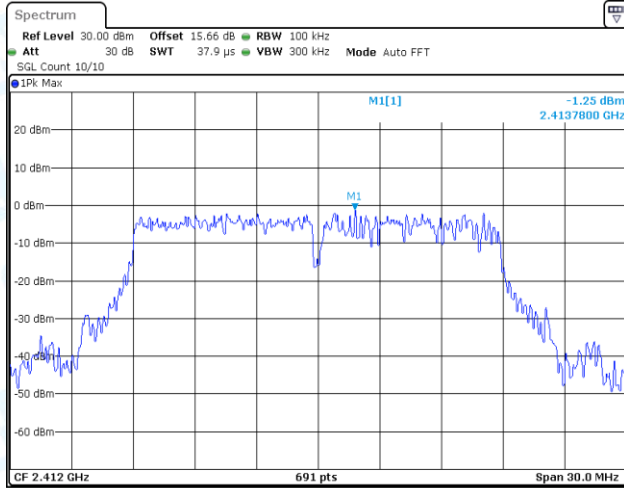
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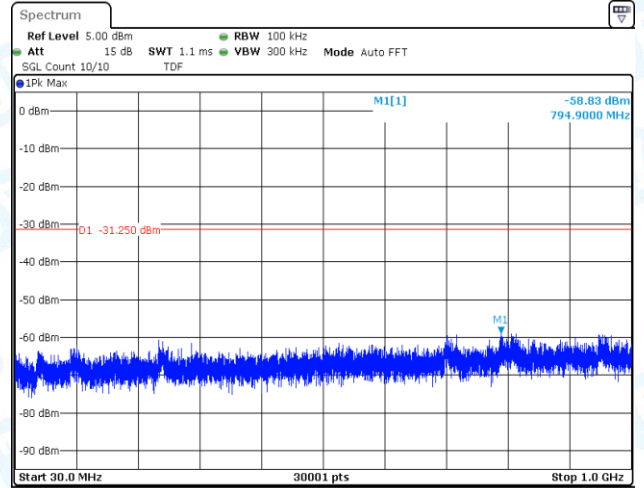
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11G-Ant1-2462-30~1000-PASS

11G-Ant1-2462-1000~26500-PASS



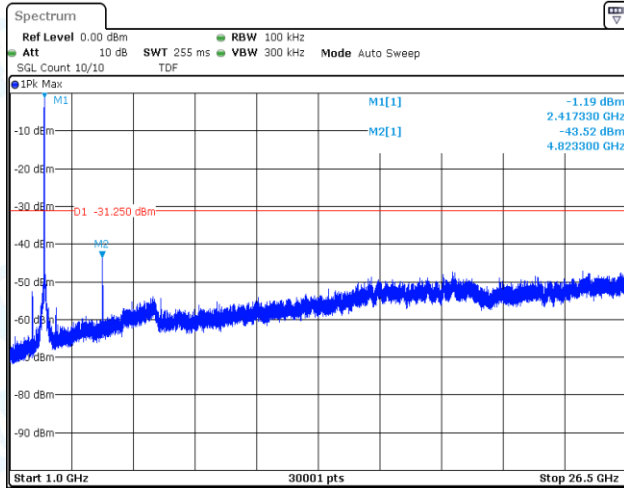
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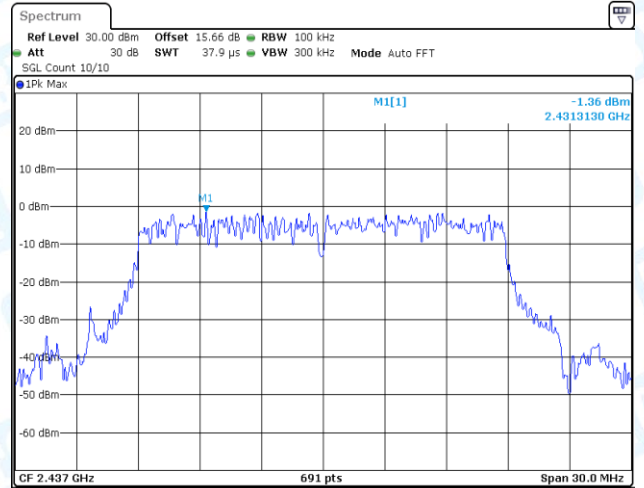
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11N20SISO-Ant1-2412-0~Reference-PASS

11N20SISO-Ant1-2412-30~1000-PASS



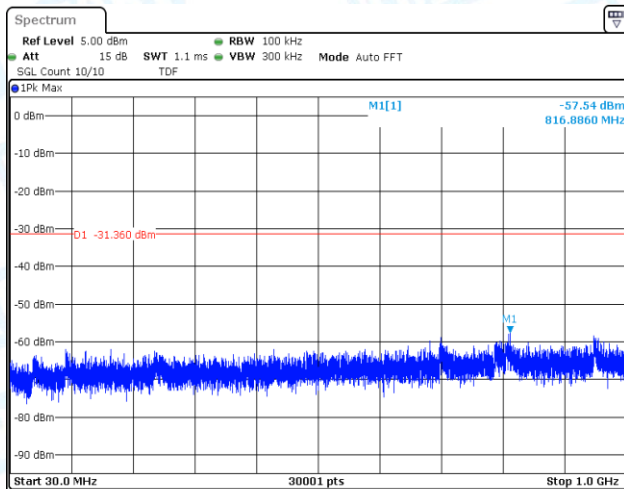
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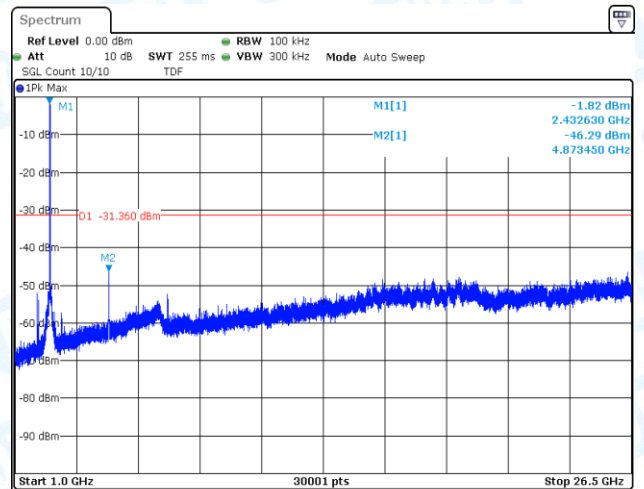
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11N20SISO-Ant1-2412-1000~26500-PASS

11N20SISO-Ant1-2437-0~Reference-PASS



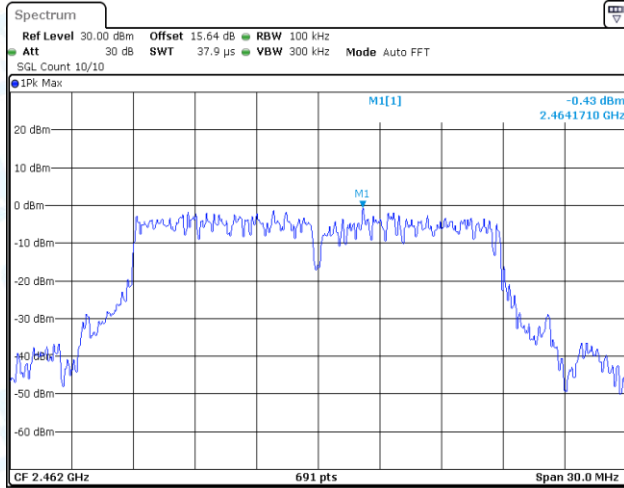
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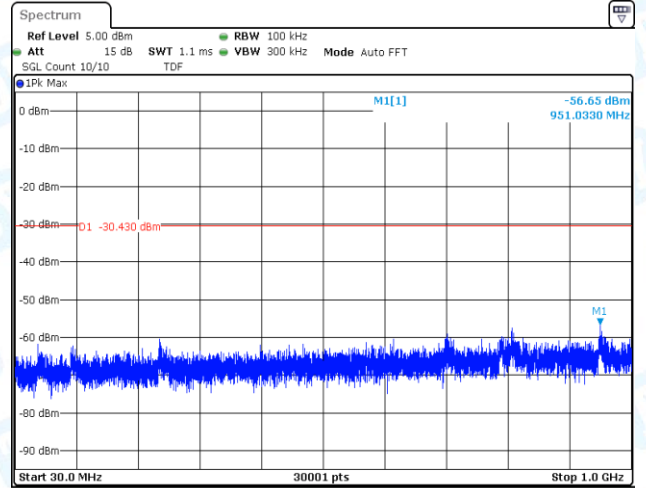
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11N20SISO-Ant1-2437-30~1000-PASS

11N20SISO-Ant1-2437-1000~26500-PASS

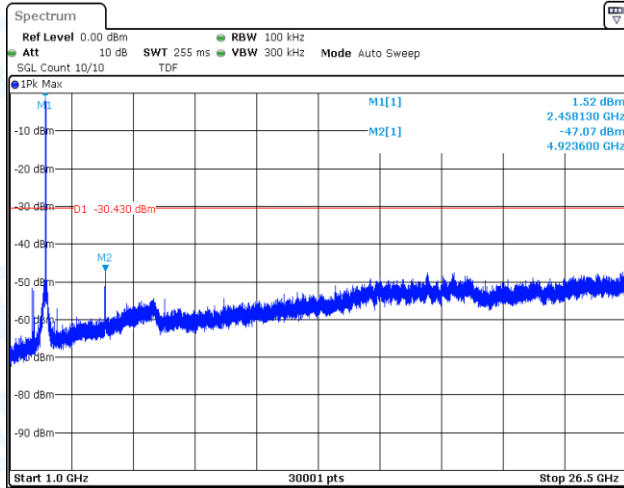


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Date: 7.AUG.2025 19:58:55

11N20SISO-Ant1-2462-0~Reference-PASS



Date: 7.AUG.2025 19:59:12

11N20SISO-Ant1-2462-30~1000-PASS

11N20SISO-Ant1-2462-1000~26500-PASS

7: Duty Cycle

7.1 Test Result

TestMode	Antenna	Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	DC Factor	1/T [kHz]
11B	Ant1	2412	8.40	19.80	42.42	3.72	0.12
11G	Ant1	2412	2.00	4.10	48.78	3.12	0.50
11N20SISO	Ant1	2412	1.85	3.75	49.33	3.07	0.54

Note: 1, Duty Cycle= Transmission Duration/ Transmission Period

2, DC Factor= $10 \cdot \log_{10}(1/\text{Duty Cycle})$

3, $1/T = 1/\text{Transmission Duration}$

7.2 Test Graphs



8: Emissions in Restricted Bands

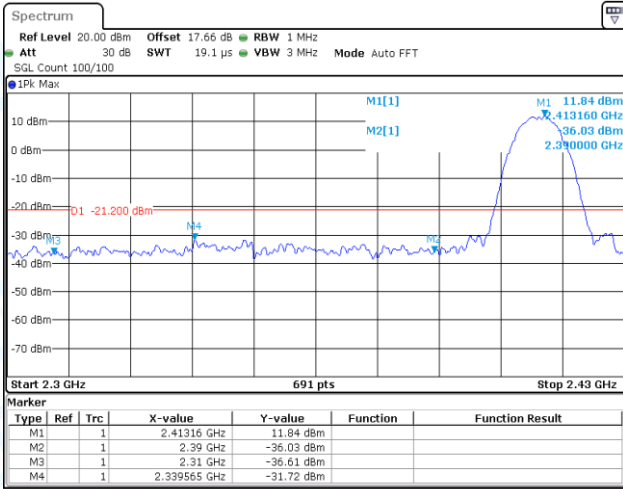
8.1 Test Result

TestMode	Ant.	ChName	Freq. [MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
11B	Ant1	Low	2412	Peak	2390.000	-36.03	≤-21.20	59.17	≤74	PASS
11B	Ant1	Low	2412	Peak	2310.000	-36.61	≤-21.20	58.59	≤74	PASS
11B	Ant1	Low	2412	Peak	2339.565	-31.72	≤-21.20	63.48	≤74	PASS
11B	Ant1	Low	2412	AV	2390.000	-55.9	≤-41.20	39.30	≤54	PASS
11B	Ant1	Low	2412	AV	2310.000	-58.1	≤-41.20	37.10	≤54	PASS
11B	Ant1	Low	2412	AV	2387.232	-54.56	≤-41.20	40.64	≤54	PASS
11B	Ant1	High	2462	Peak	2483.500	-34.81	≤-21.20	60.39	≤74	PASS
11B	Ant1	High	2462	Peak	2500.000	-35.8	≤-21.20	59.40	≤74	PASS
11B	Ant1	High	2462	Peak	2492.130	-34.1	≤-21.20	61.10	≤74	PASS
11B	Ant1	High	2462	AV	2483.500	-56.78	≤-41.20	38.42	≤54	PASS
11B	Ant1	High	2462	AV	2500.000	-55.24	≤-41.20	39.96	≤54	PASS
11B	Ant1	High	2462	AV	2499.942	-55.24	≤-41.20	39.96	≤54	PASS
11G	Ant1	Low	2412	Peak	2390.000	-31.24	≤-21.20	63.96	≤74	PASS
11G	Ant1	Low	2412	Peak	2310.000	-35.23	≤-21.20	59.97	≤74	PASS
11G	Ant1	Low	2412	Peak	2340.884	-30.8	≤-21.20	64.40	≤74	PASS
11G	Ant1	Low	2412	AV	2390.000	-48.15	≤-41.20	47.05	≤54	PASS
11G	Ant1	Low	2412	AV	2310.000	-55.44	≤-41.20	39.76	≤54	PASS
11G	Ant1	Low	2412	AV	2388.739	-48.03	≤-41.20	47.17	≤54	PASS
11G	Ant1	High	2462	Peak	2483.500	-34.56	≤-21.20	60.64	≤74	PASS
11G	Ant1	High	2462	Peak	2500.000	-36.09	≤-21.20	59.11	≤74	PASS
11G	Ant1	High	2462	Peak	2484.319	-33.03	≤-21.20	62.17	≤74	PASS
11G	Ant1	High	2462	AV	2483.500	-49.02	≤-41.20	46.18	≤54	PASS
11G	Ant1	High	2462	AV	2500.000	-52.83	≤-41.20	42.37	≤54	PASS
11G	Ant1	High	2462	AV	2483.522	-49.02	≤-41.20	46.18	≤54	PASS
11N20SISO	Ant1	Low	2412	Peak	2390.000	-34.42	≤-21.20	60.78	≤74	PASS
11N20SISO	Ant1	Low	2412	Peak	2310.000	-36.35	≤-21.20	58.85	≤74	PASS
11N20SISO	Ant1	Low	2412	Peak	2349.174	-32.64	≤-21.20	62.56	≤74	PASS
11N20SISO	Ant1	Low	2412	AV	2390.000	-47.45	≤-41.20	47.75	≤54	PASS
11N20SISO	Ant1	Low	2412	AV	2310.000	-54.28	≤-41.20	40.92	≤54	PASS
11N20SISO	Ant1	Low	2412	AV	2387.420	-46.79	≤-41.20	48.41	≤54	PASS
11N20SISO	Ant1	High	2462	Peak	2483.500	-33.04	≤-21.20	62.16	≤74	PASS
11N20SISO	Ant1	High	2462	Peak	2500.000	-33.49	≤-21.20	61.71	≤74	PASS
11N20SISO	Ant1	High	2462	Peak	2483.522	-33.04	≤-21.20	62.16	≤74	PASS
11N20SISO	Ant1	High	2462	AV	2483.500	-49.52	≤-41.20	45.68	≤54	PASS
11N20SISO	Ant1	High	2462	AV	2500.000	-50.88	≤-41.20	44.32	≤54	PASS
11N20SISO	Ant1	High	2462	AV	2484.957	-49.02	≤-41.20	46.18	≤54	PASS

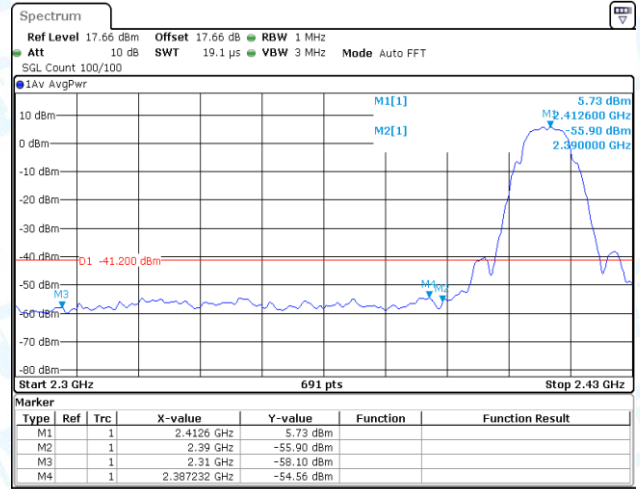
Note:

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), The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.
3. The Duty Cycle Factor is compensated in the graph.

8.2 Test Graphs



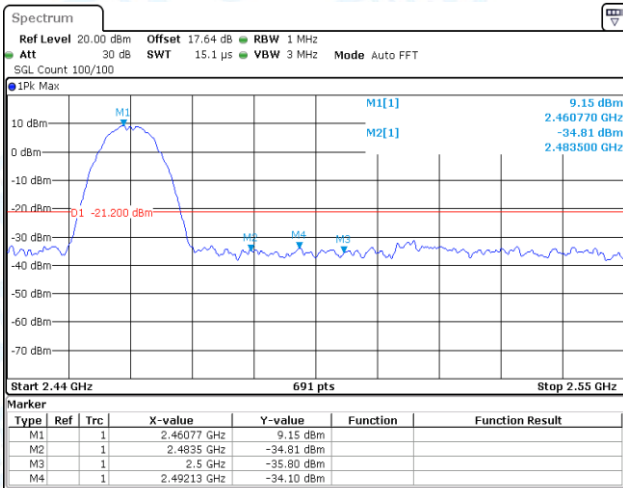
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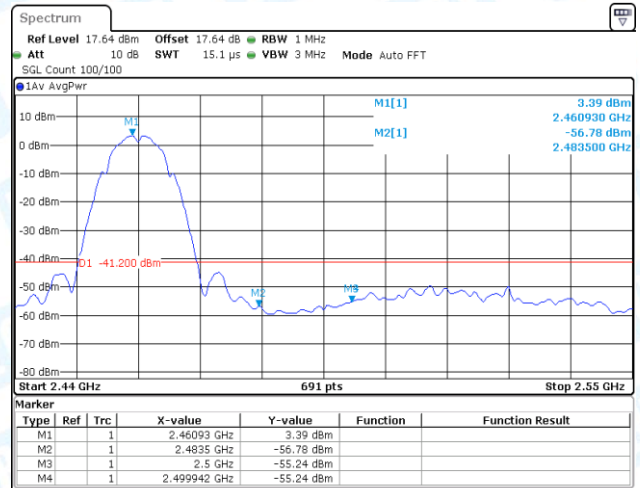
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11B-Ant1-2412-PASS

11B-Ant1-2412-PASS



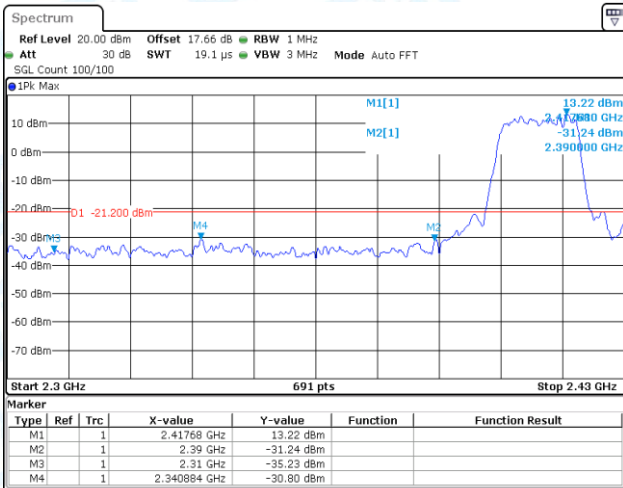
Date: 7.AUG.2025 18:11:20



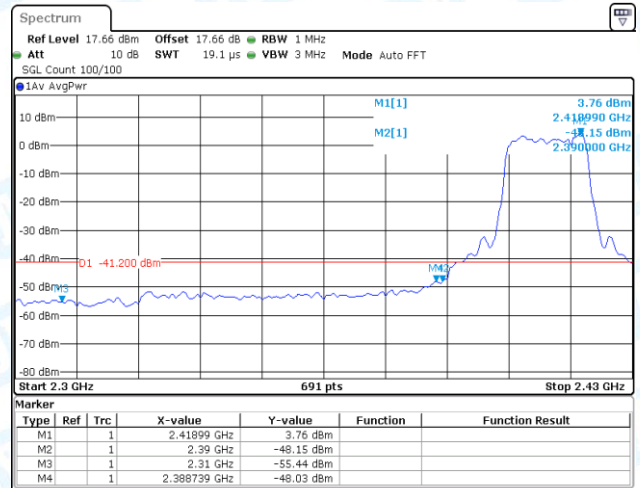
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11B-Ant1-2462-PASS

11B-Ant1-2462-PASS

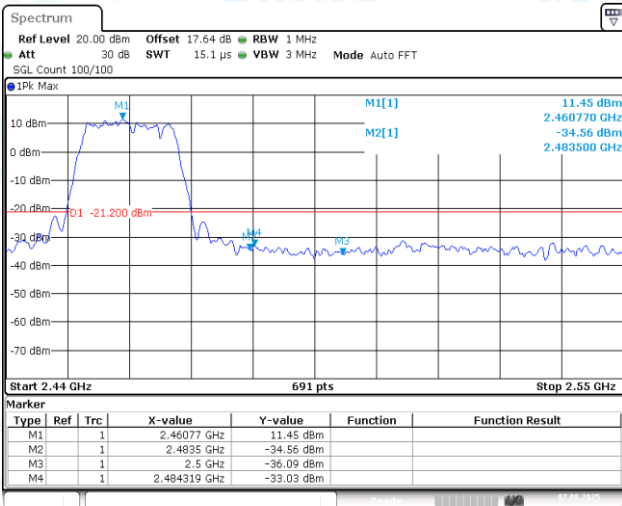


Date: 7.AUG.2025 19:16:05



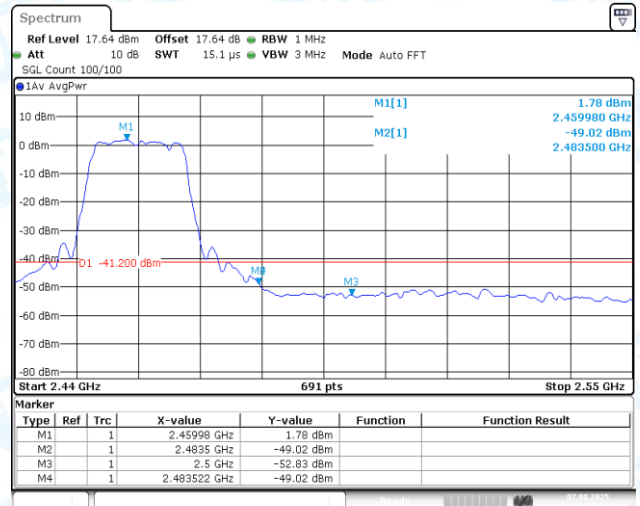
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11G-Ant1-2412-PASS



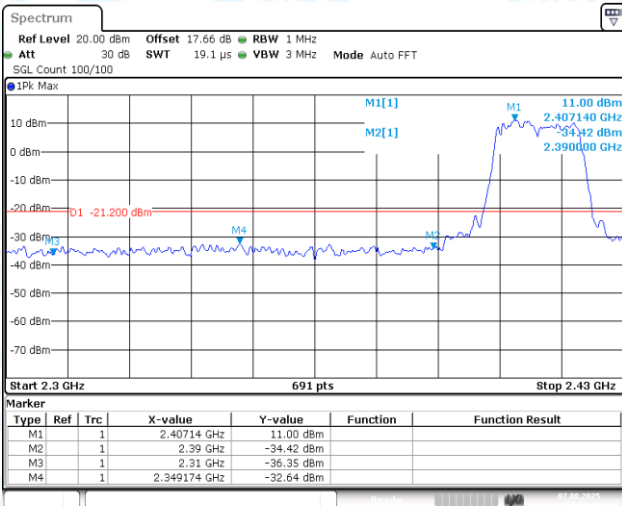
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11G-Ant1-2412-PASS



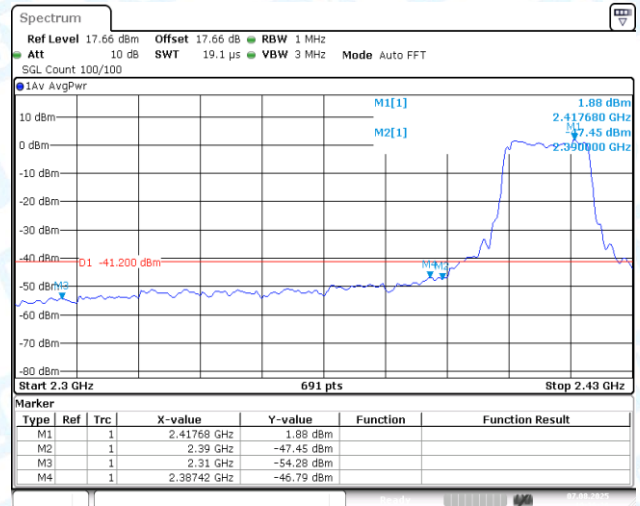
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11G-Ant1-2462-PASS



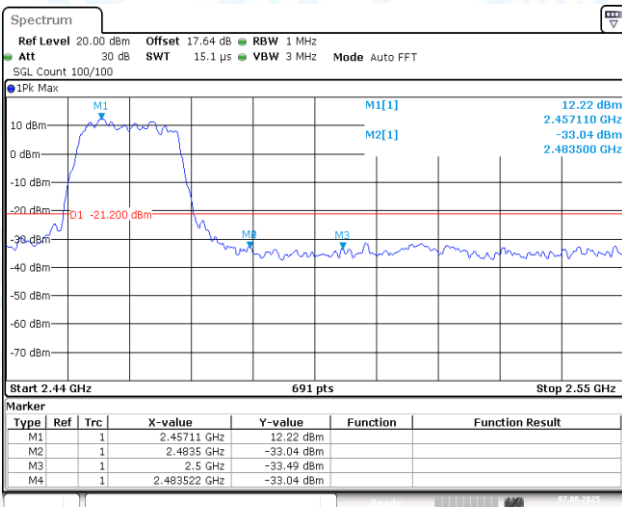
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11G-Ant1-2462-PASS



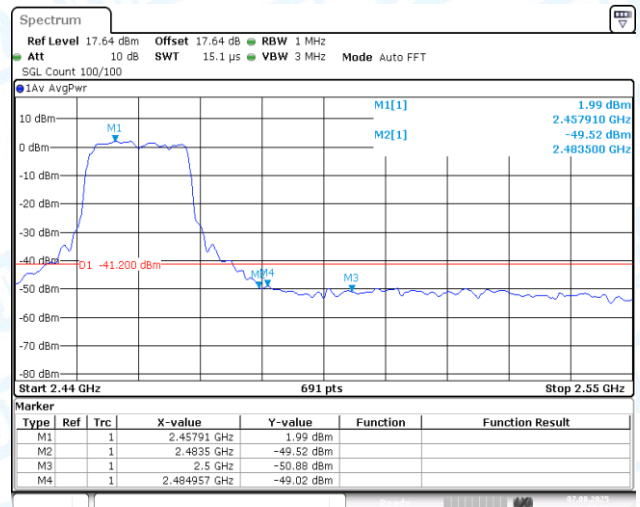
Date: 7.AUG.2025 19:36:26

11N20SISO-Ant1-2412-PASS



Date: 7.AUG.2025 19:57:14

11N20SISO-Ant1-2412-PASS



Date: 7.AUG.2025 19:57:29

11N20SISO-Ant1-2462-PASS

11N20SISO-Ant1-2462-PASS

-----END OF THE REPORT-----