

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

General Description of EUT	
EUT Name:	Busy Bar
Model:	BB.1
Sample ID:	HC-C-202505-0207-01-01-2#
Test Standard:	FCC Part 15.247&RSS 247 Issue 4
Environmental Conditions	
Ambient Temperature:	25℃
Ambient Humidity:	45%RH
Test Power Supply:	DC 3.6V
Test Engineer:	Rick. chen
Note: For a more detailed features description, please refer to the report TBR-C-202505-0207-222	

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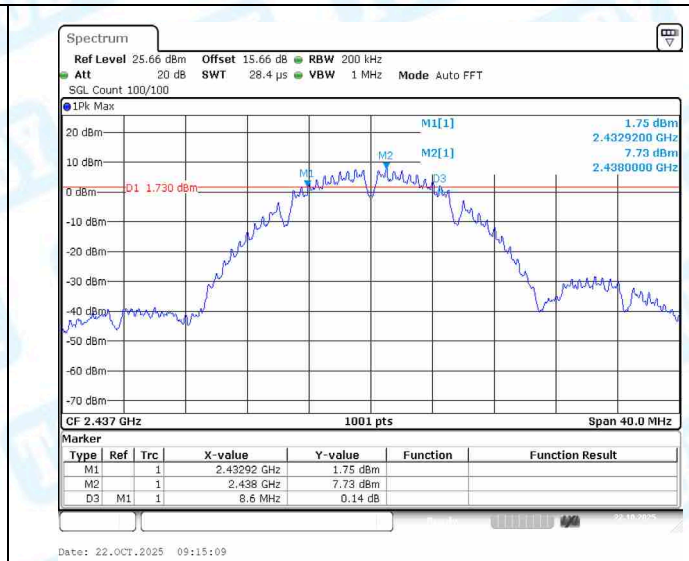
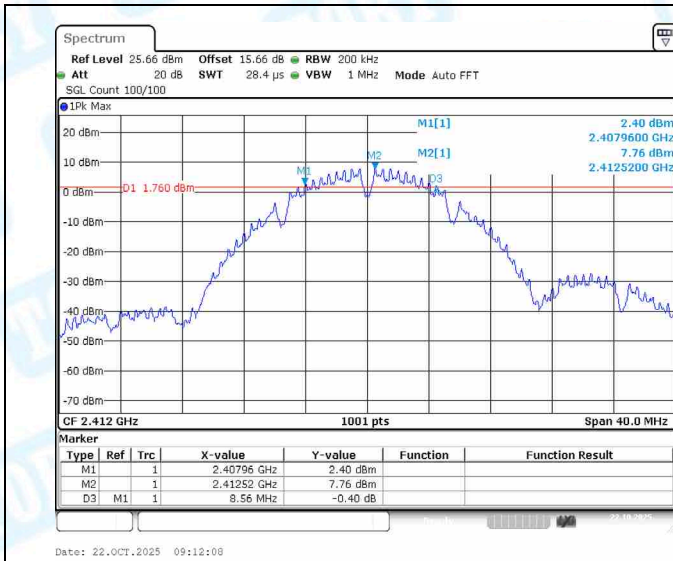
1: DTS Bandwidth

1.1 Test Result

TestMode	Ant.	Frequency [MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	8.56	2407.96	2416.52	0.5	PASS
11B	Ant1	2437	8.60	2432.92	2441.52	0.5	PASS
11B	Ant1	2462	9.04	2457.48	2466.52	0.5	PASS
11G	Ant1	2412	16.32	2403.88	2420.20	0.5	PASS
11G	Ant1	2437	16.32	2428.88	2445.20	0.5	PASS
11G	Ant1	2462	17.92	2452.28	2470.20	0.5	PASS
11N20SISO	Ant1	2412	17.64	2403.20	2420.84	0.5	PASS
11N20SISO	Ant1	2437	17.60	2428.20	2445.80	0.5	PASS
11N20SISO	Ant1	2462	17.56	2453.24	2470.80	0.5	PASS

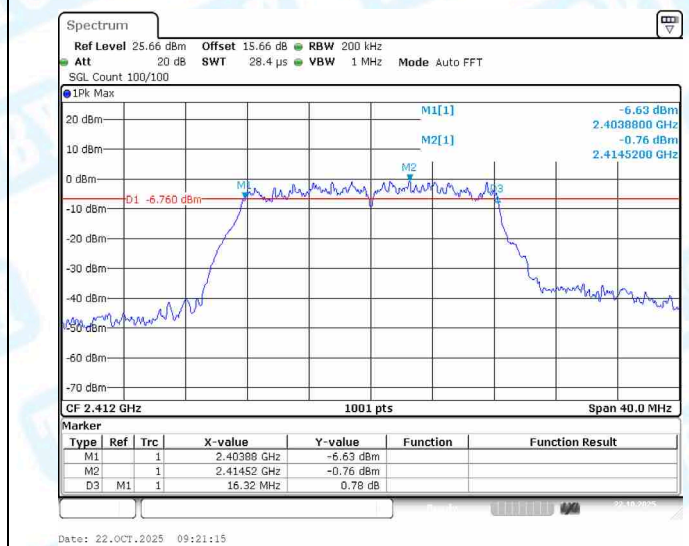
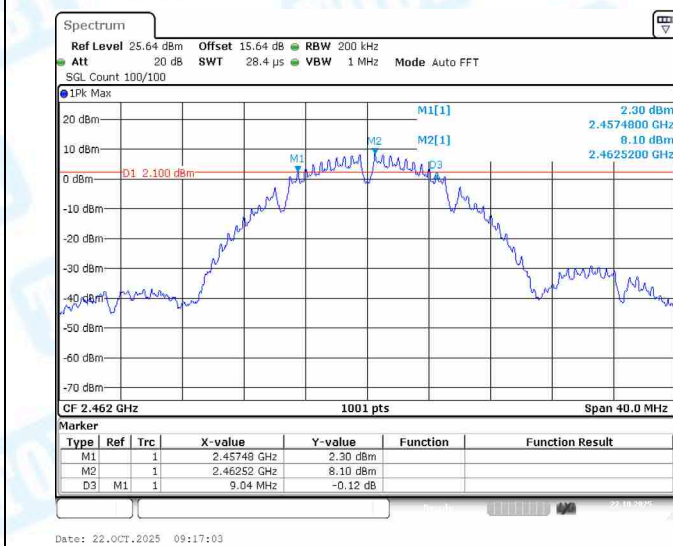
Note: RF Conducted test Offset= cable loss+ Attenuator(10dB).

1.2 Test Graphs



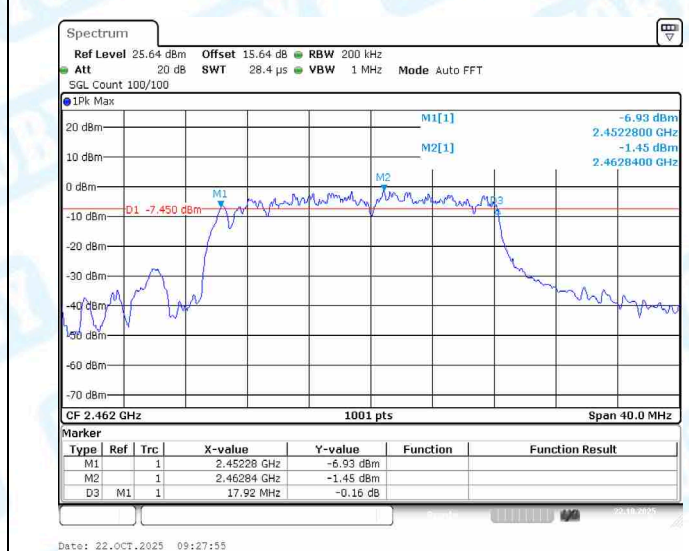
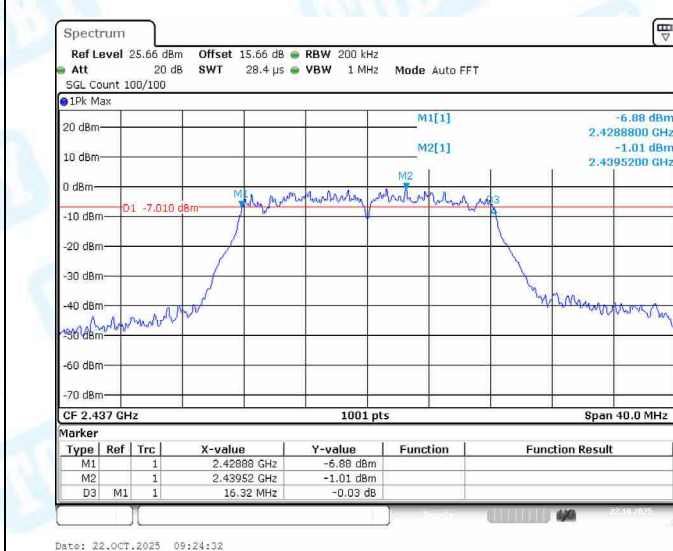
11B-Ant1-2412-PASS

11B-Ant1-2437-PASS



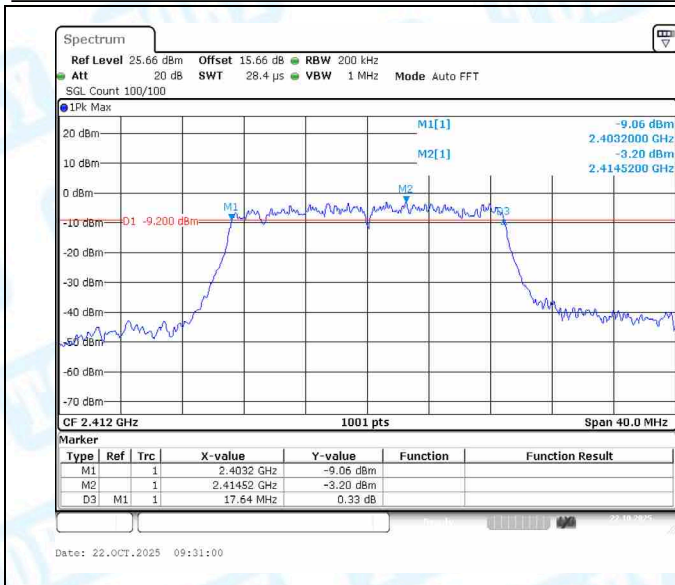
11B-Ant1-2462-PASS

11G-Ant1-2412-PASS

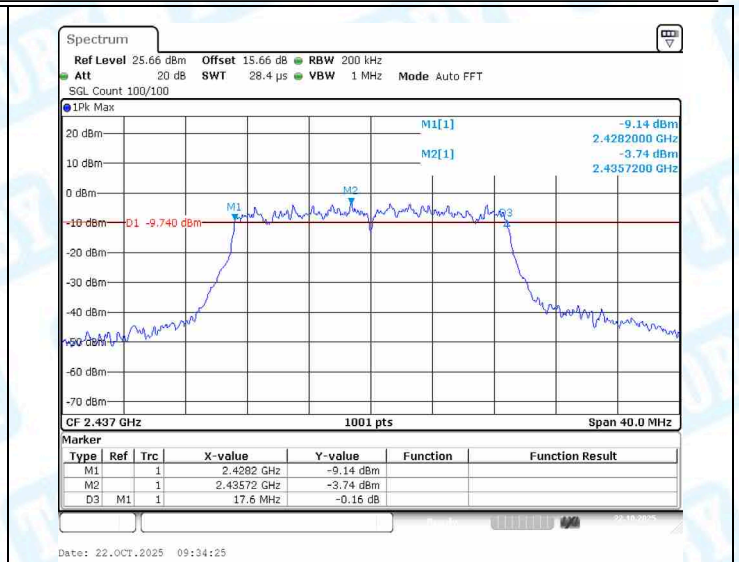


11G-Ant1-2437-PASS

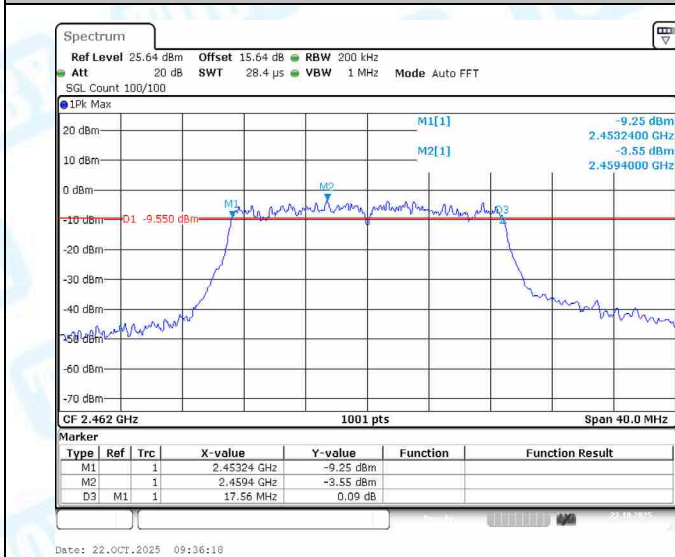
11G-Ant1-2462-PASS



11N20SISO-Ant1-2412-PASS



11N20SISO-Ant1-2437-PASS



11N20SISO-Ant1-2462-PASS

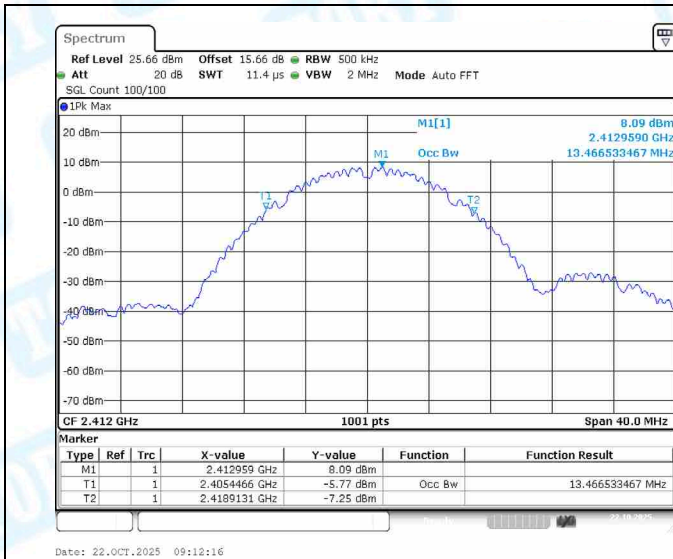
2: Occupied Channel Bandwidth

2.1 Test Result

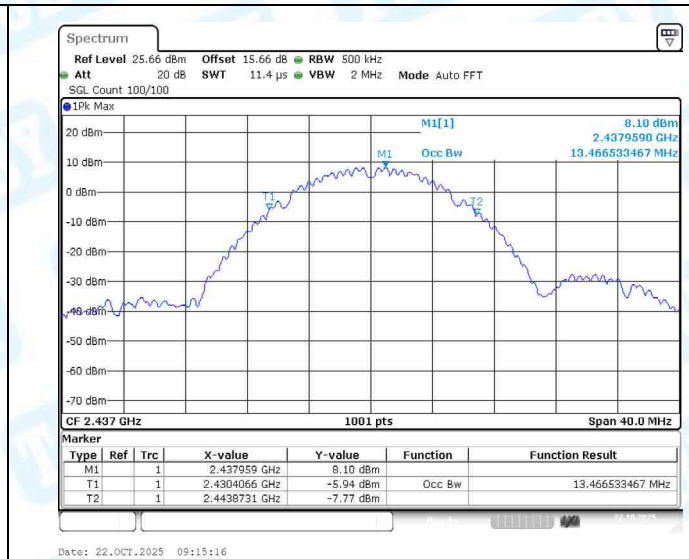
TestMode	Ant.	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	13.467	2405.4466	2418.9131	---	---
11B	Ant1	2437	13.467	2430.4066	2443.8731	---	---
11B	Ant1	2462	13.506	2455.3267	2468.8332	---	---
11G	Ant1	2412	16.903	2403.5285	2420.4316	---	---
11G	Ant1	2437	16.743	2428.6883	2445.4316	---	---
11G	Ant1	2462	16.783	2453.7283	2470.5115	---	---
11N20SISO	Ant1	2412	17.862	2403.0889	2420.9510	---	---
11N20SISO	Ant1	2437	18.062	2428.0090	2446.0709	---	---
11N20SISO	Ant1	2462	17.742	2453.0490	2470.7912	---	---

Note: RF Conducted test Offset= cable loss+ Attenuator(10dB).

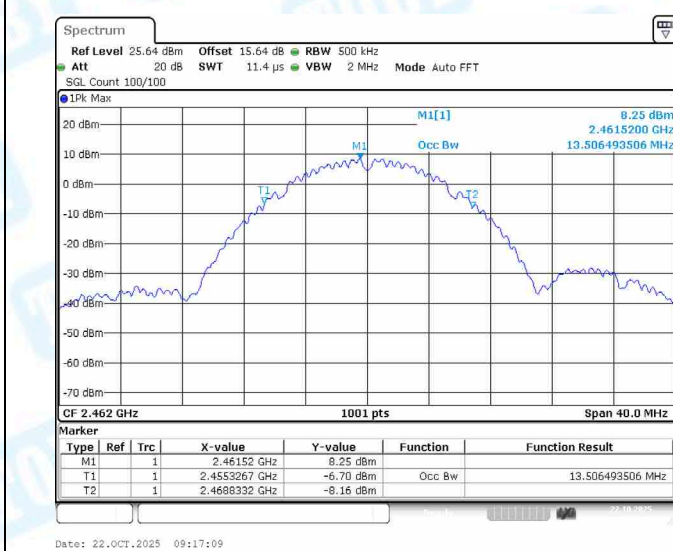
2.2 Test Graphs



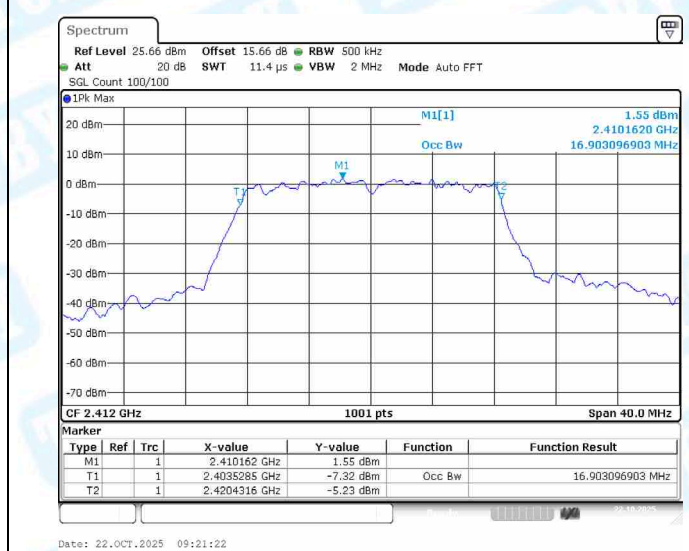
11B-Ant1-2412



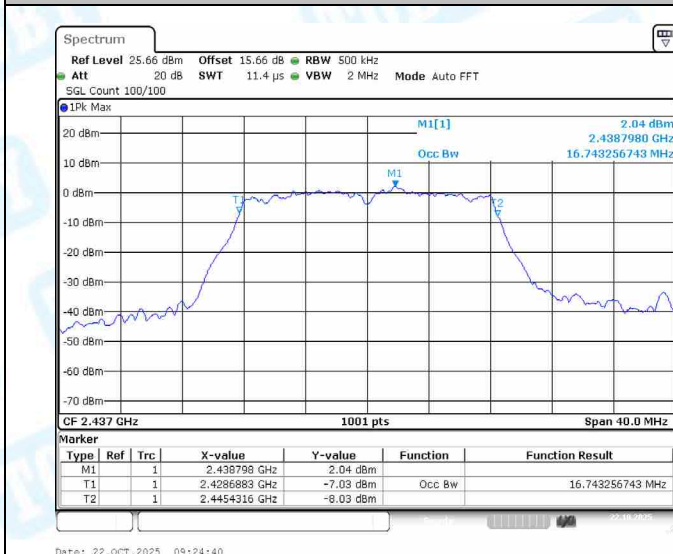
11B-Ant1-2437



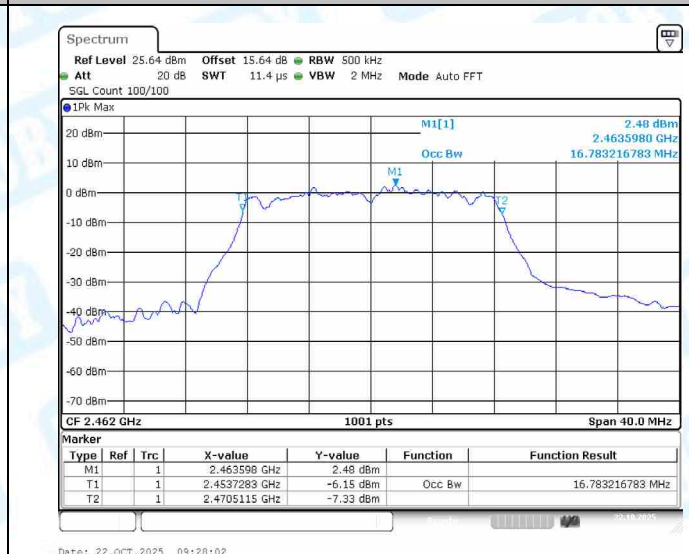
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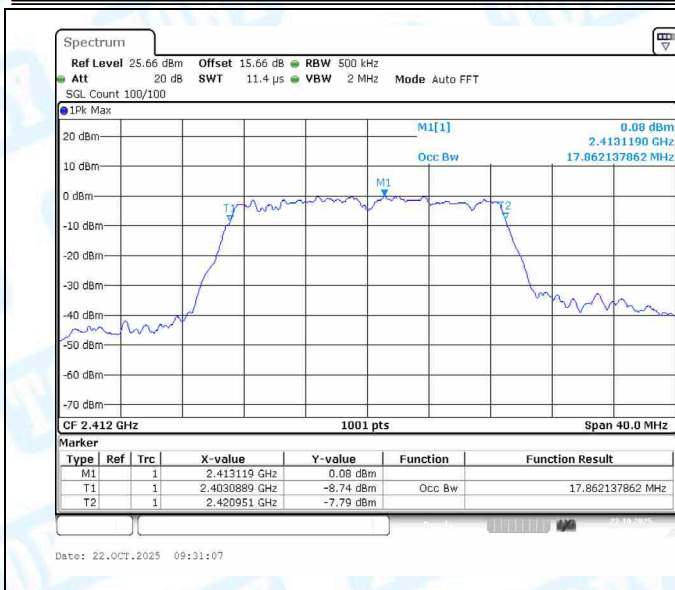
11G-Ant1-2412



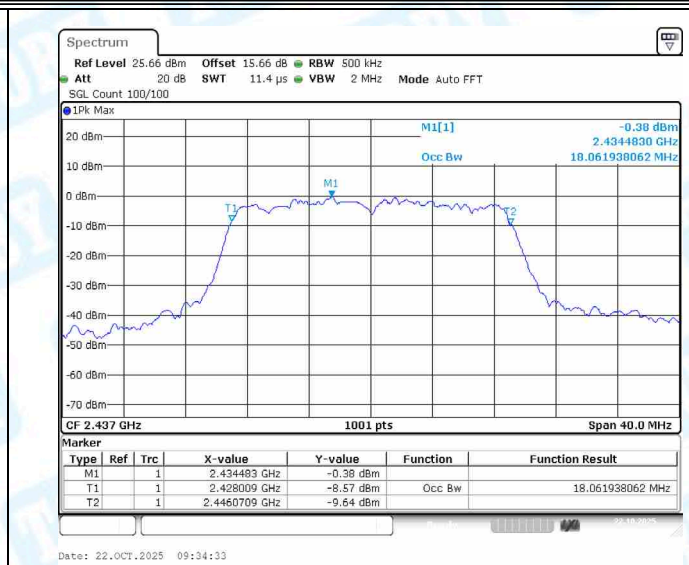
11G-Ant1-2437



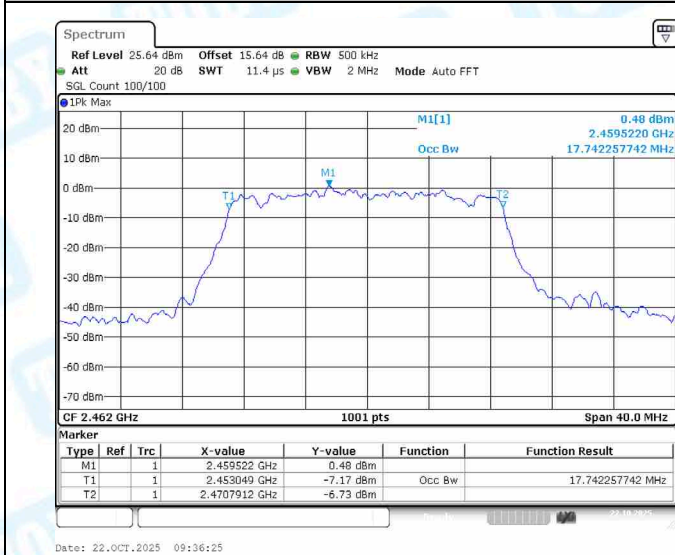
11G-Ant1-2462



11N20SISO-Ant1-2412



11N20SISO-Ant1-2437



11N20SISO-Ant1-2462

3: Maximum conducted output power

3.1 Test Result Average

Test Mode	Ant.	Frequency [MHz]	Raw Power [dBm]	DC Factor	Result [dBm]	Limit [dBm]	Gain [dBi]	EIRP [dBm]	EIRP Limit [dBm]	Verdict
11B	Ant1	2412	14.90	1.12	16.02	≤30.00	1.50	17.52	≤36.00	PASS
11B	Ant1	2437	15.15	1.12	16.27	≤30.00	1.50	17.77	≤36.00	PASS
11B	Ant1	2462	15.38	1.11	16.49	≤30.00	1.50	17.99	≤36.00	PASS
11G	Ant1	2412	7.78	2.47	10.25	≤30.00	1.50	11.75	≤36.00	PASS
11G	Ant1	2437	7.56	2.32	9.88	≤30.00	1.50	11.38	≤36.00	PASS
11G	Ant1	2462	5.90	2.17	8.07	≤30.00	1.50	9.57	≤36.00	PASS
11N20SISO	Ant1	2412	6.13	2.32	8.45	≤30.00	1.50	9.95	≤36.00	PASS
11N20SISO	Ant1	2437	5.66	2.47	8.13	≤30.00	1.50	9.63	≤36.00	PASS
11N20SISO	Ant1	2462	3.73	2.17	5.90	≤30.00	1.50	7.40	≤36.00	PASS

Note: RF Conducted test Offset= cable loss+ Attenuator(10dB).

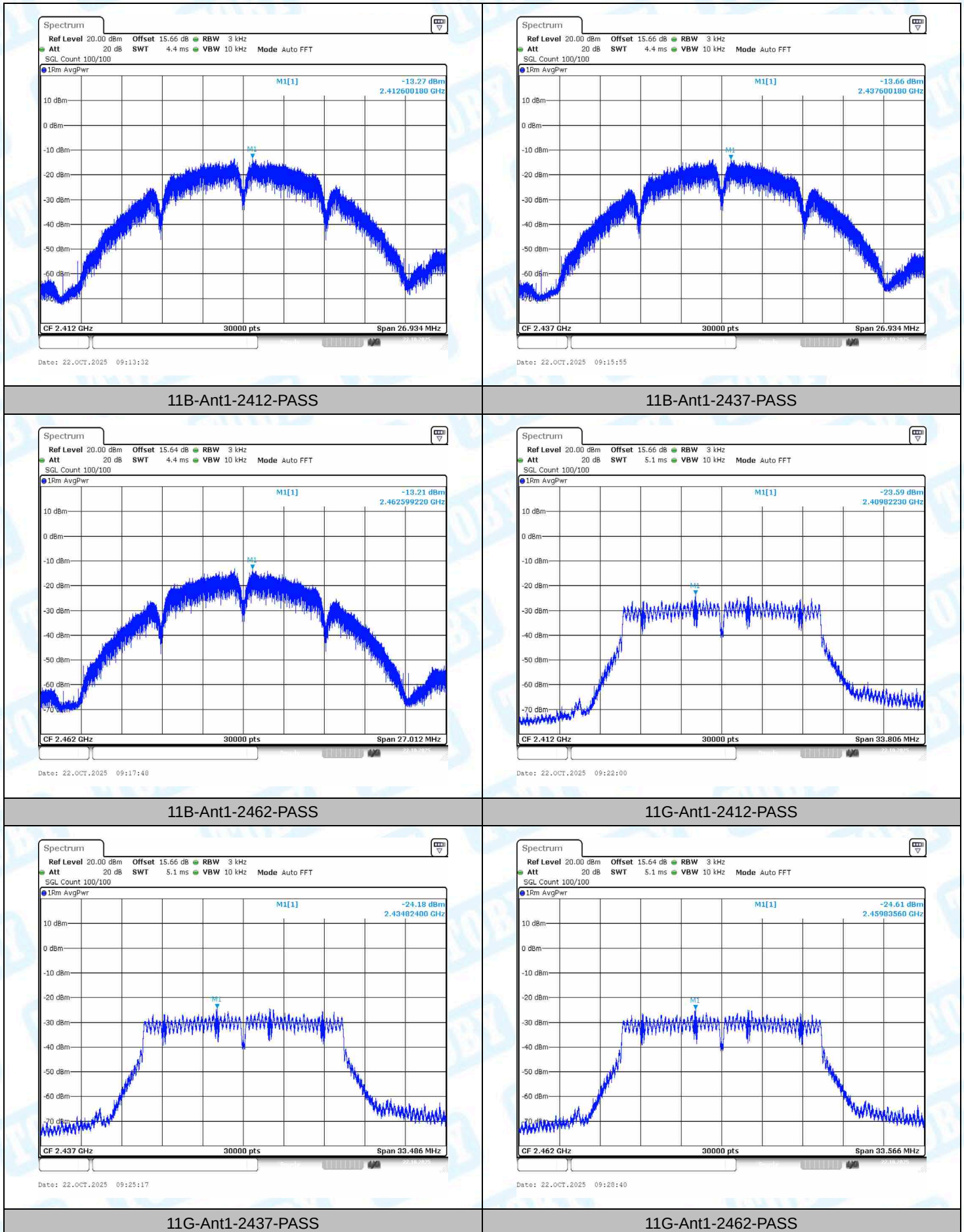
4: Maximum power spectral density

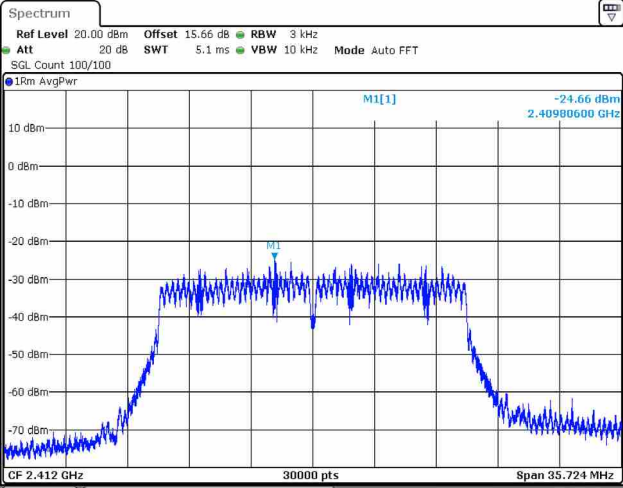
4.1 Test Result

TestMode	Ant.	Frequency [MHz]	RawData [dBm/3kHz]	DC Factor	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
11B	Ant1	2412	-13.27	1.12	-12.15	≤8.00	PASS
11B	Ant1	2437	-13.66	1.12	-12.54	≤8.00	PASS
11B	Ant1	2462	-13.21	1.11	-12.10	≤8.00	PASS
11G	Ant1	2412	-23.59	2.47	-21.12	≤8.00	PASS
11G	Ant1	2437	-24.18	2.32	-21.86	≤8.00	PASS
11G	Ant1	2462	-24.61	2.17	-22.44	≤8.00	PASS
11N20SISO	Ant1	2412	-24.66	2.32	-22.34	≤8.00	PASS
11N20SISO	Ant1	2437	-24.9	2.47	-22.43	≤8.00	PASS
11N20SISO	Ant1	2462	-25.64	2.17	-23.47	≤8.00	PASS

Note: RF Conducted test Offset= cable loss+ Attenuator(10dB).

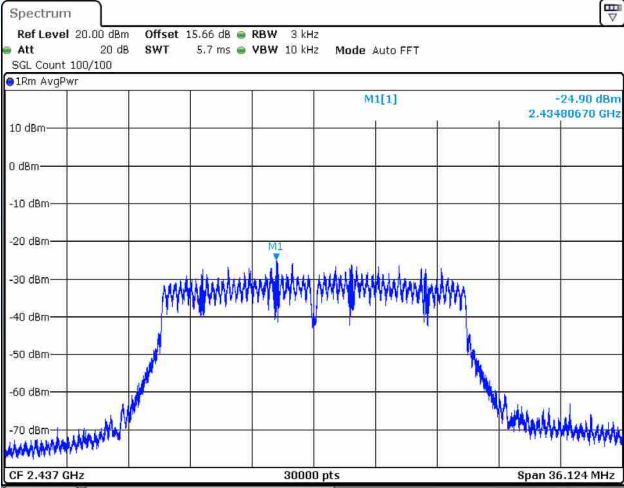
4.2 Test Graphs





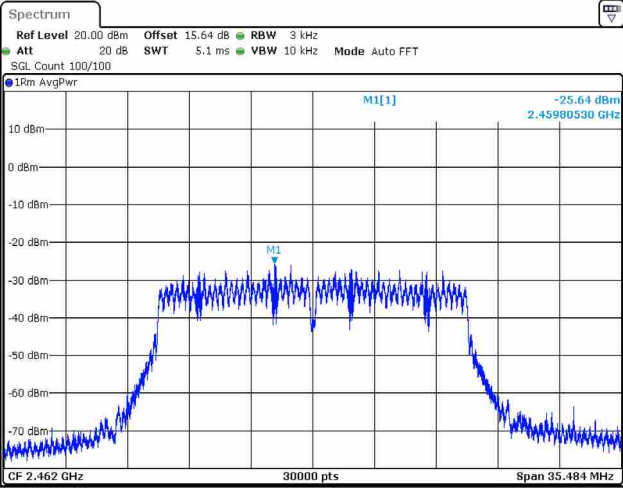
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11N20SISO-Ant1-2412-PASS



Date: 22.OCT.2025 09:35:12

11N20SISO-Ant1-2437-PASS



Date: 22.OCT.2025 09:37:02

11N20SISO-Ant1-2462-PASS

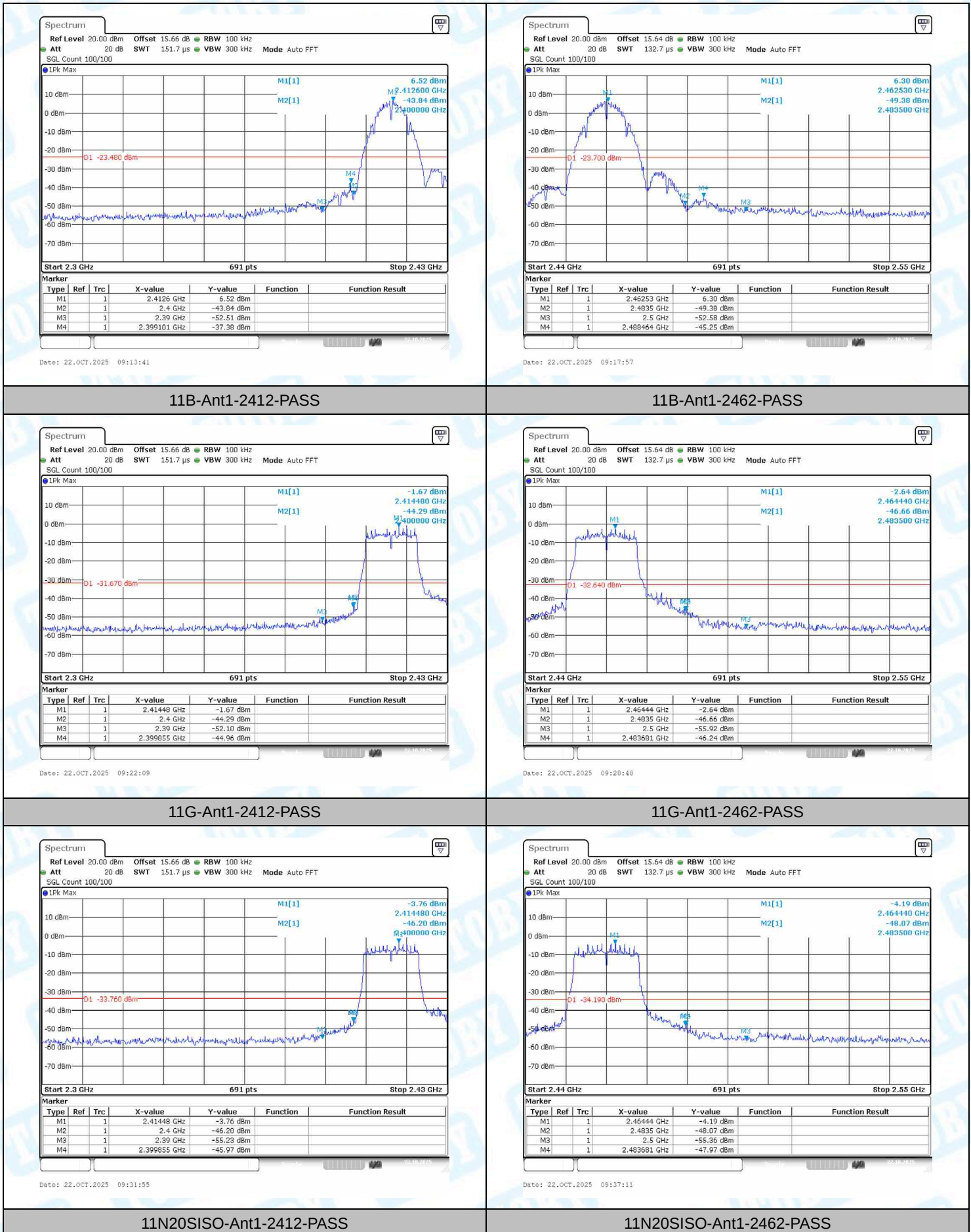
5: Band edge measurements

5.1 Test Result

TestMode	Ant.	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	6.52	-37.38	≤-23.48	PASS
11B	Ant1	High	2462	6.30	-45.25	≤-23.7	PASS
11G	Ant1	Low	2412	-1.67	-44.96	≤-31.67	PASS
11G	Ant1	High	2462	-2.64	-46.24	≤-32.64	PASS
11N20SISO	Ant1	Low	2412	-3.76	-45.97	≤-33.76	PASS
11N20SISO	Ant1	High	2462	-4.19	-47.97	≤-34.19	PASS

Note: RF Conducted test Offset= cable loss+ Attenuator(10dB).

5.2 Test Graphs



6: Conducted Spurious Emission

6.1 Test Result

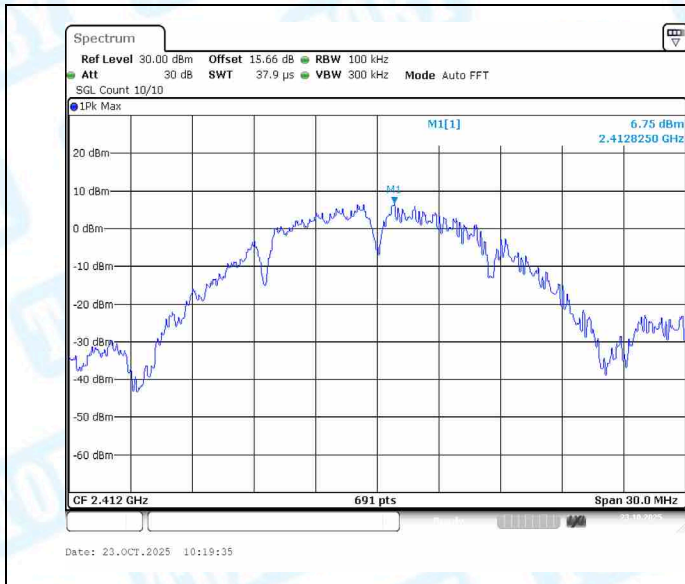
TestMode	Ant.	Frequency [MHz]	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	0~Reference	6.75	6.75	---	PASS
11B	Ant1	2412	30~1000	6.75	-53.92	≤-23.25	PASS
11B	Ant1	2412	1000~26500	6.75	-37.66	≤-23.25	PASS
11B	Ant1	2437	0~Reference	6.98	6.98	---	PASS
11B	Ant1	2437	30~1000	6.98	-53.82	≤-23.02	PASS
11B	Ant1	2437	1000~26500	6.98	-37.25	≤-23.02	PASS
11B	Ant1	2462	0~Reference	4.54	4.54	---	PASS
11B	Ant1	2462	30~1000	4.54	-53.59	≤-25.46	PASS
11B	Ant1	2462	1000~26500	4.54	-37.58	≤-25.46	PASS
11G	Ant1	2412	0~Reference	-4.16	-4.16	---	PASS
11G	Ant1	2412	30~1000	-4.16	-54.33	≤-34.16	PASS
11G	Ant1	2412	1000~26500	-4.16	-37.1	≤-34.16	PASS
11G	Ant1	2437	0~Reference	-0.66	-0.66	---	PASS
11G	Ant1	2437	30~1000	-0.66	-52.78	≤-30.66	PASS
11G	Ant1	2437	1000~26500	-0.66	-36.81	≤-30.66	PASS
11G	Ant1	2462	0~Reference	-3.43	-3.43	---	PASS
11G	Ant1	2462	30~1000	-3.43	-54.22	≤-33.43	PASS
11G	Ant1	2462	1000~26500	-3.43	-37.27	≤-33.43	PASS
11N20SISO	Ant1	2412	0~Reference	-4.02	-4.02	---	PASS
11N20SISO	Ant1	2412	30~1000	-4.02	-54.48	≤-34.02	PASS
11N20SISO	Ant1	2412	1000~26500	-4.02	-37.4	≤-34.02	PASS
11N20SISO	Ant1	2437	0~Reference	-0.03	-0.03	---	PASS
11N20SISO	Ant1	2437	30~1000	-0.03	-52.85	≤-30.03	PASS
11N20SISO	Ant1	2437	1000~26500	-0.03	-37.01	≤-30.03	PASS
11N20SISO	Ant1	2462	0~Reference	-4.36	-4.36	---	PASS
11N20SISO	Ant1	2462	30~1000	-4.36	-54.4	≤-34.36	PASS
11N20SISO	Ant1	2462	1000~26500	-4.36	-36.83	≤-34.36	PASS

Note: RF Conducted test Offset= cable loss+ Attenuator(10dB).

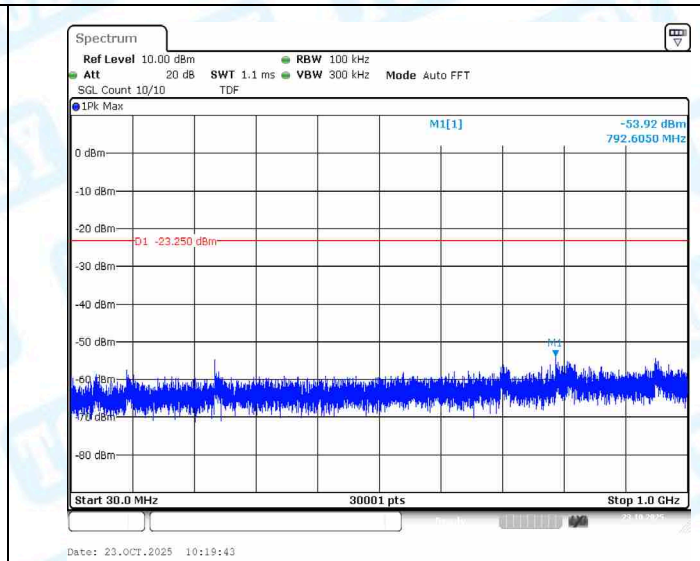
Remark: Regarding the spurious emissions from 30MHz to 26.5GHz, the cable loss and attenuator factor have been set in the 'TDF' of the Spectrum Analyzer during the test.

For conducted spurious emission test, 'TDF' is the maximum value in the range of test.

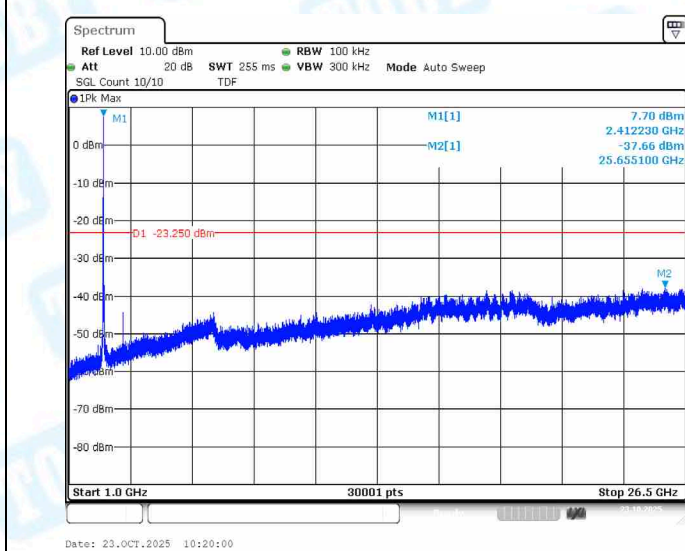
6.2 Test Graphs



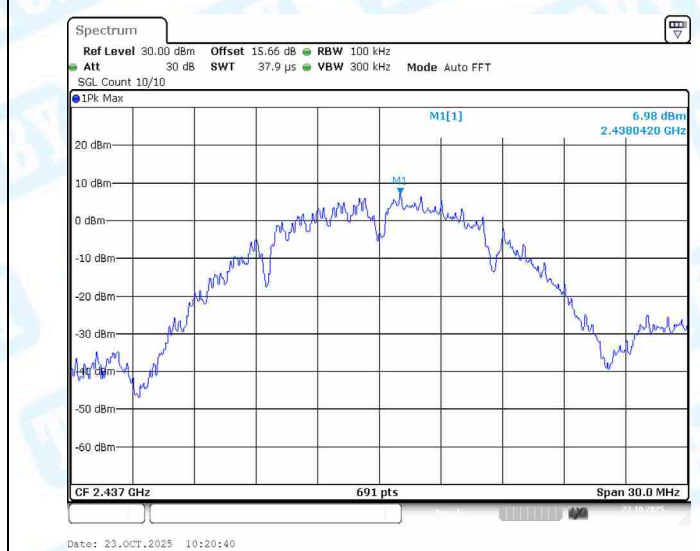
11B-Ant1-2412-0~Reference-PASS



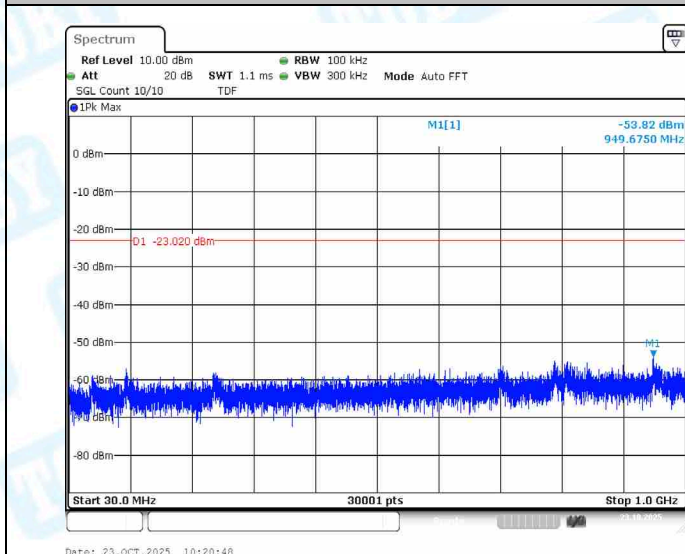
11B-Ant1-2412-30~1000-PASS



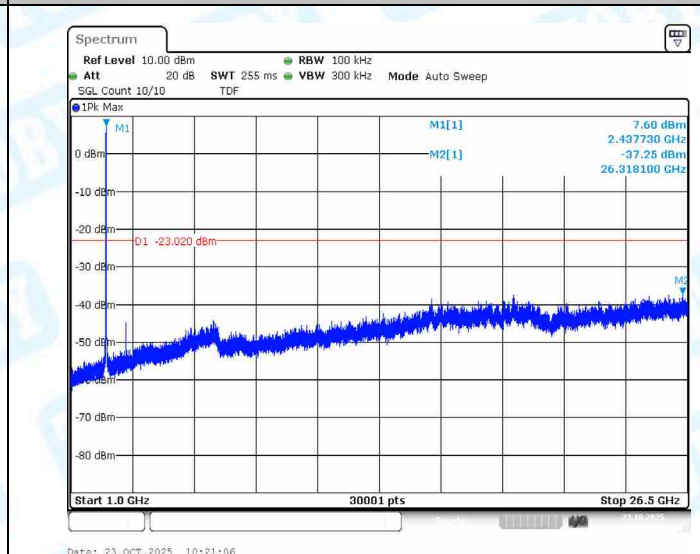
11B-Ant1-2412-1000~26500-PASS



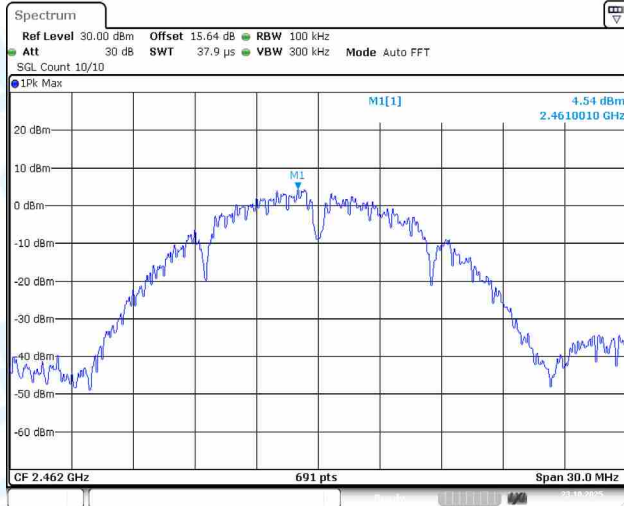
11B-Ant1-2437-0~Reference-PASS



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

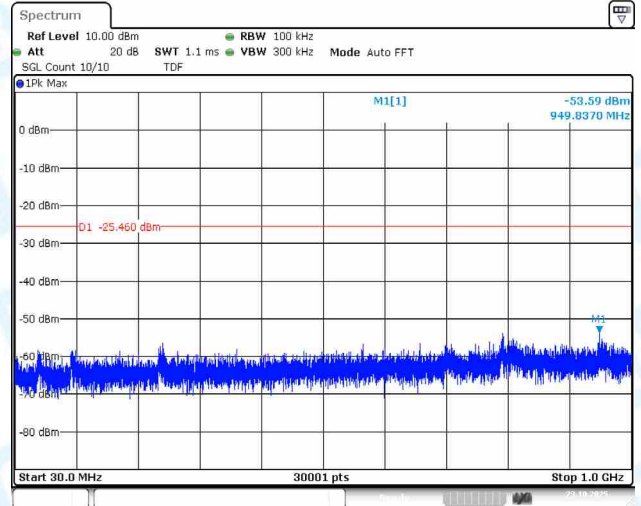


11B-Ant1-2437-1000~26500-PASS



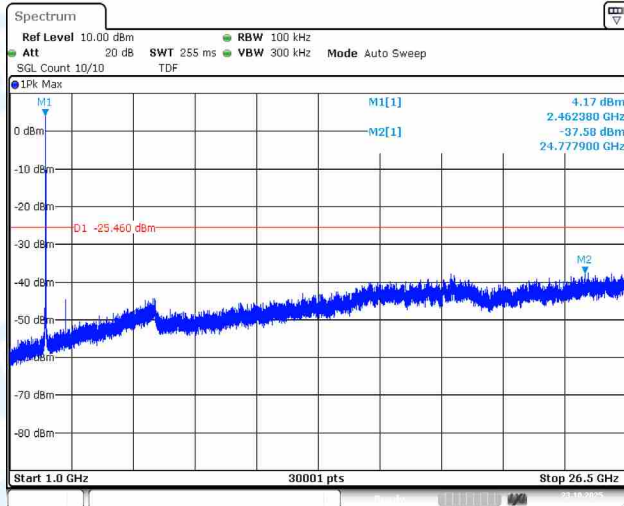
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11B-Ant1-2462-0~Reference-PASS



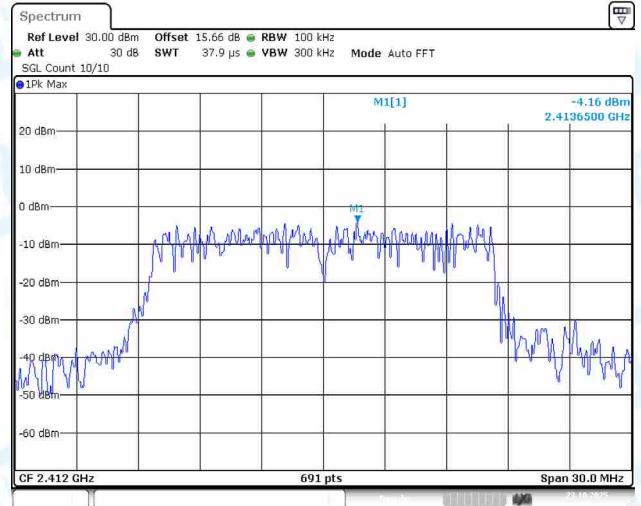
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11B-Ant1-2462-30~1000-PASS



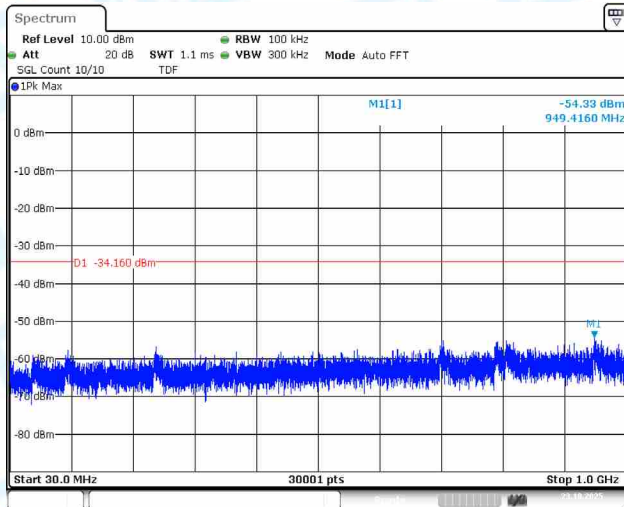
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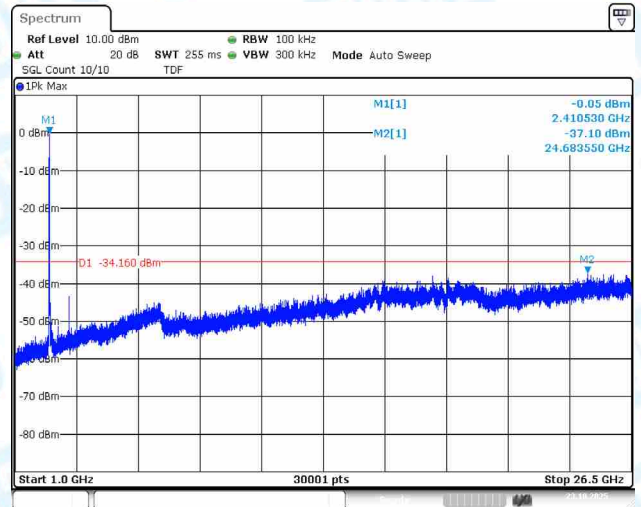
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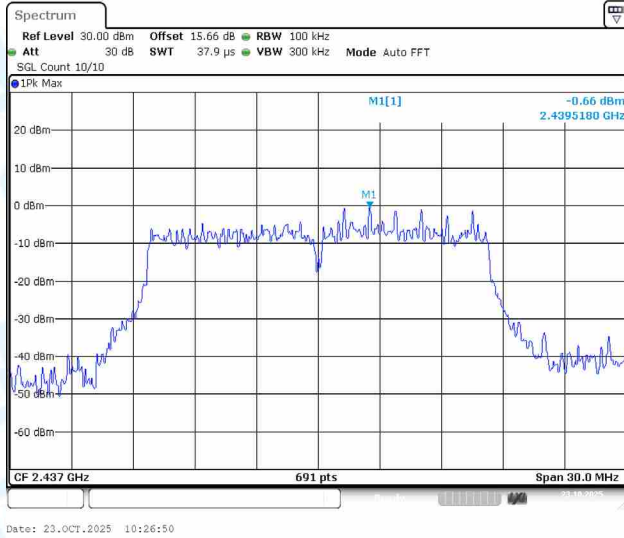
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11G-Ant1-2412-30~1000-PASS

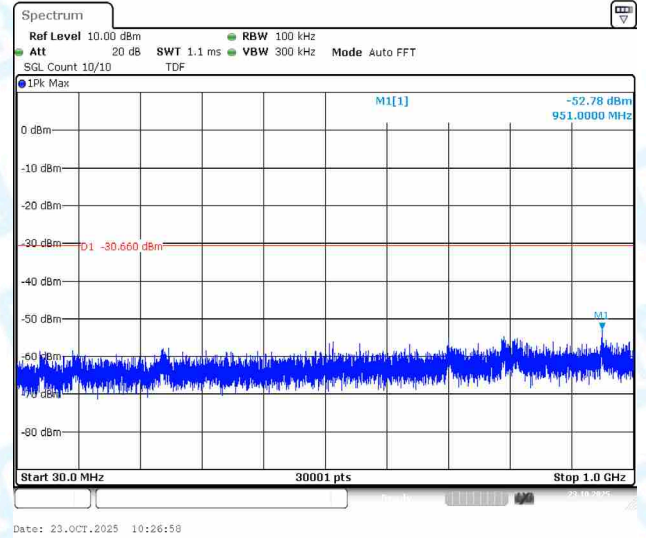


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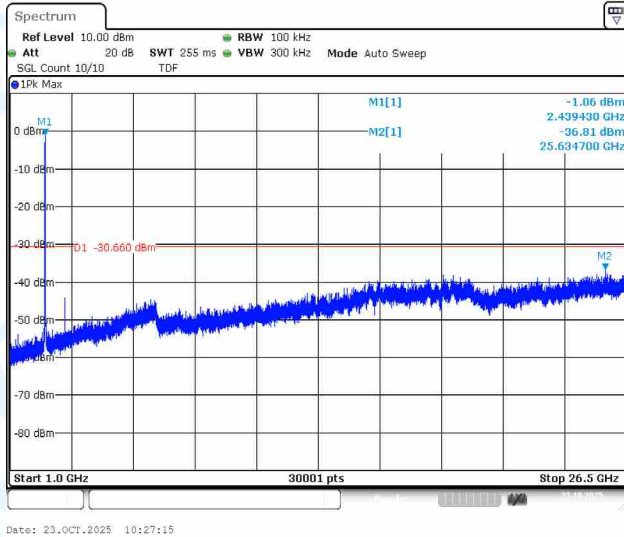
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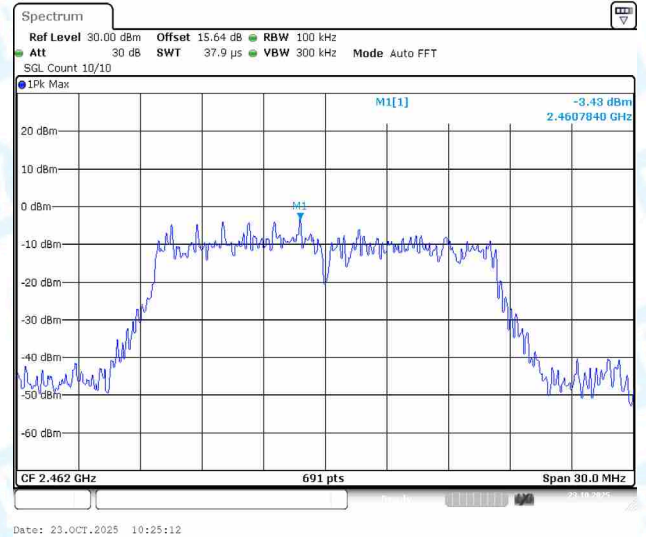
11G-Ant1-2437-0~Reference-PASS



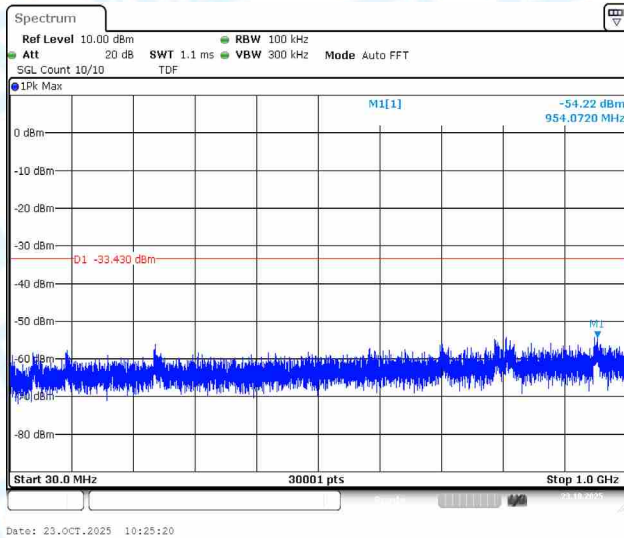
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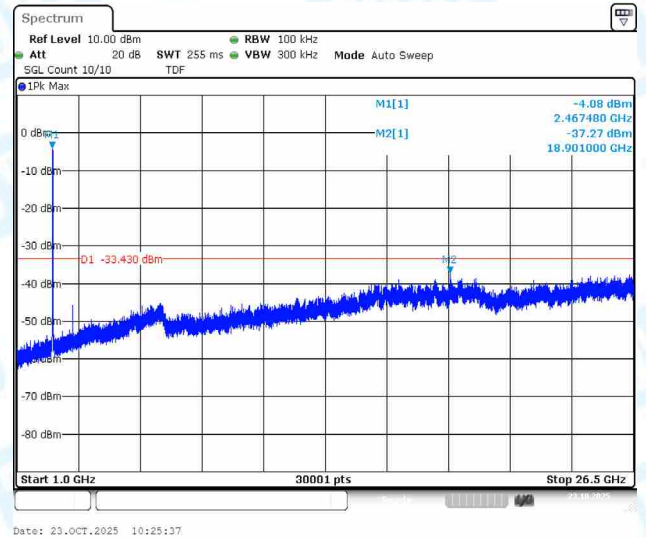
11G-Ant1-2437-1000~26500-PASS



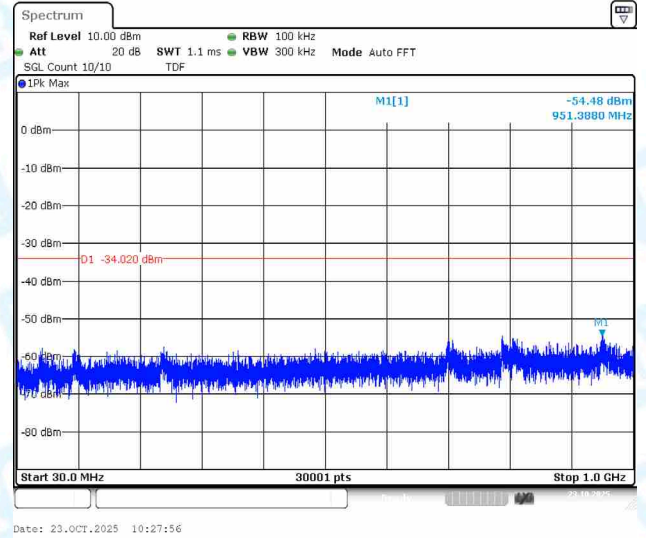
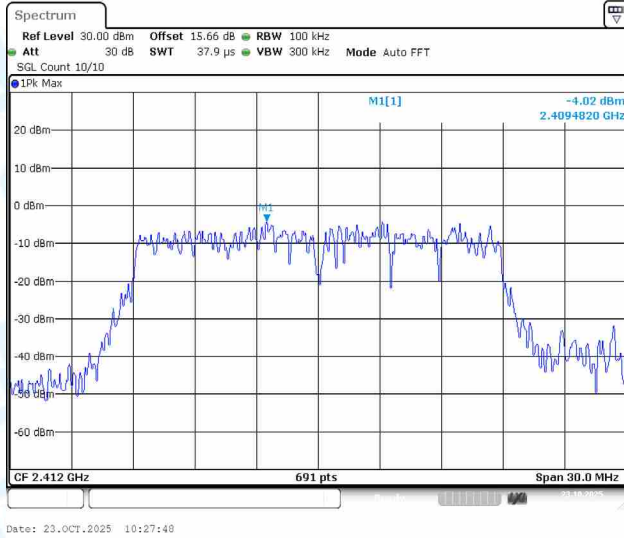
11G-Ant1-2462-0~Reference-PASS



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

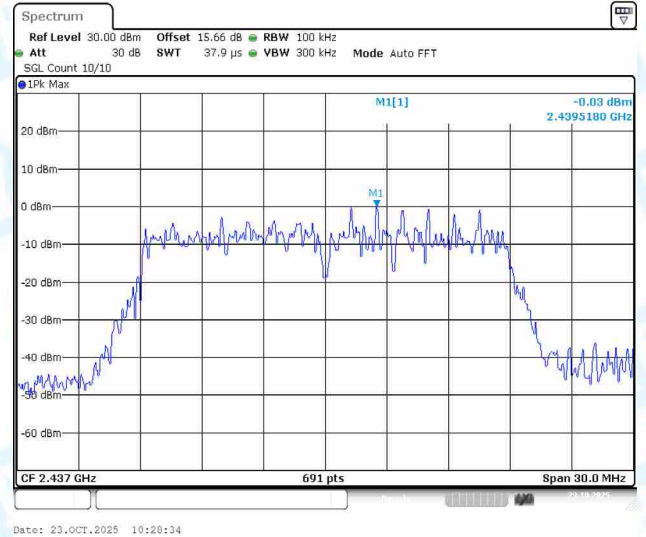
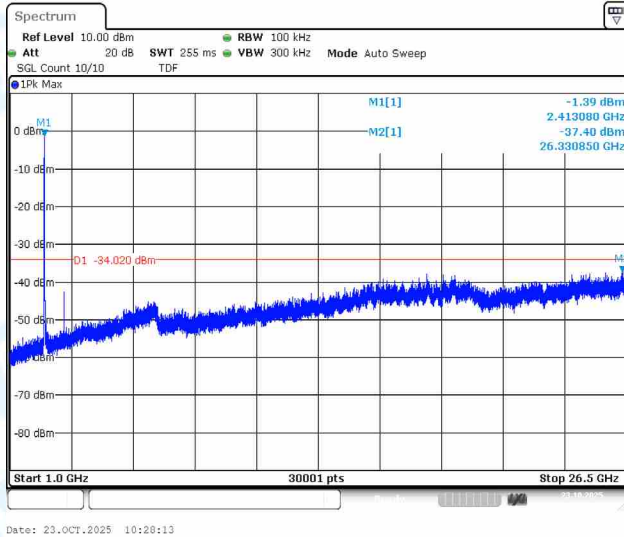


11G-Ant1-2462-1000~26500-PASS



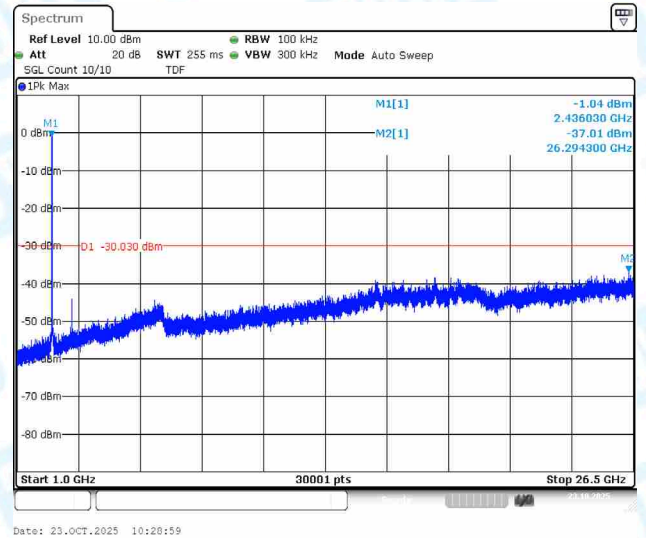
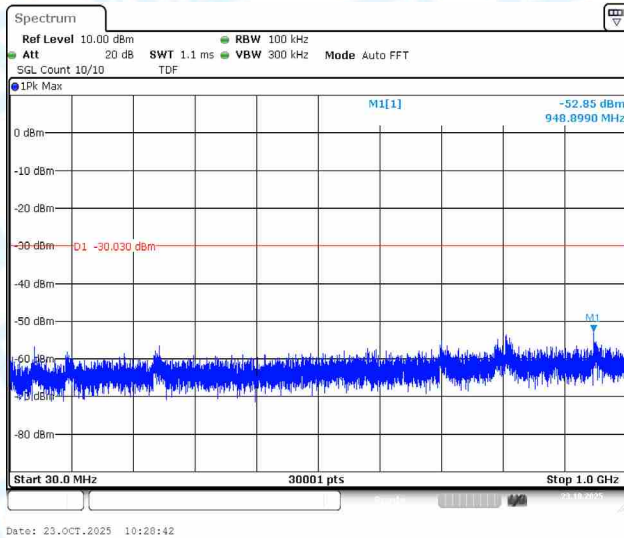
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11N20SISO-Ant1-2412-30~1000-PASS



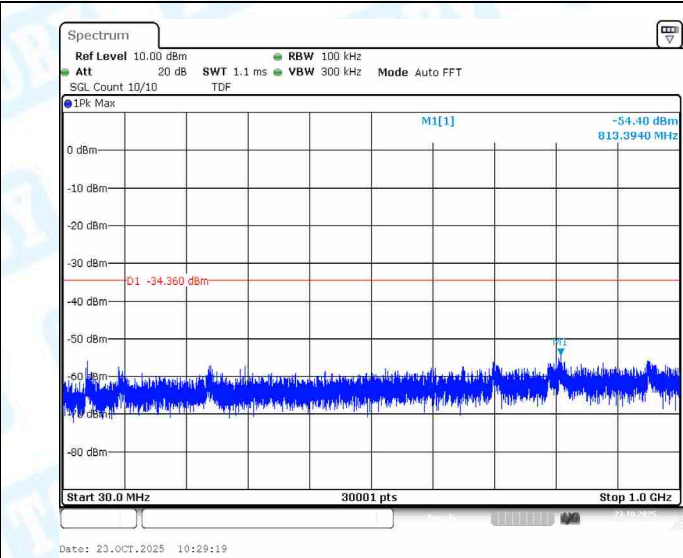
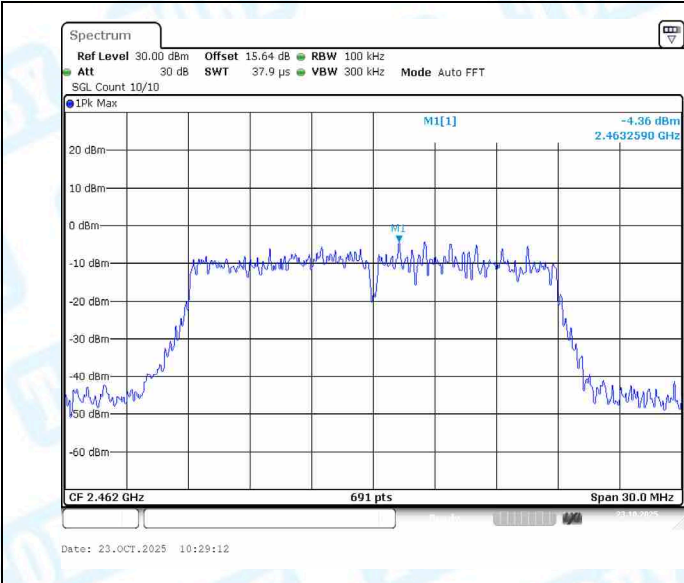
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11N20SISO-Ant1-2437-0~Reference-PASS

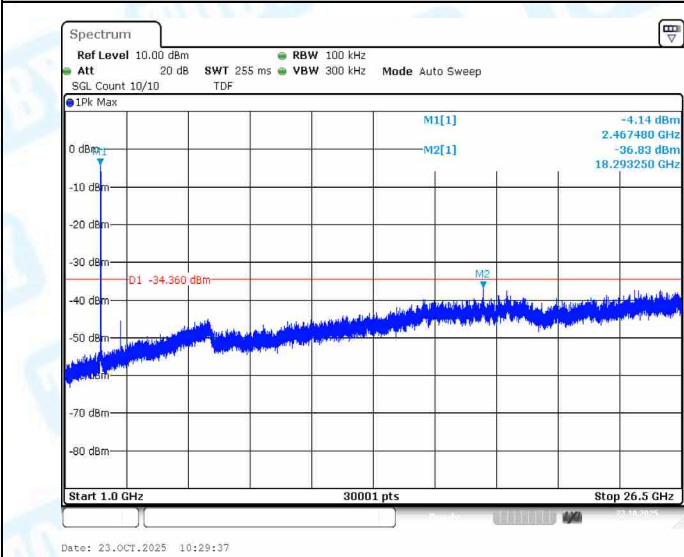


11N20SISO-Ant1-2437-30~1000-PASS

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



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



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	1.02	1.32	77.27	1.12	0.98
11B	Ant1	2437	1.02	1.32	77.27	1.12	0.98
11B	Ant1	2462	1.03	1.33	77.44	1.11	0.97
11G	Ant1	2412	0.17	0.30	56.67	2.47	5.88
11G	Ant1	2437	0.17	0.29	58.62	2.32	5.88
11G	Ant1	2462	0.17	0.28	60.71	2.17	5.88
11N20SISO	Ant1	2412	0.17	0.29	58.62	2.32	5.88
11N20SISO	Ant1	2437	0.17	0.30	56.67	2.47	5.88
11N20SISO	Ant1	2462	0.17	0.28	60.71	2.17	5.88

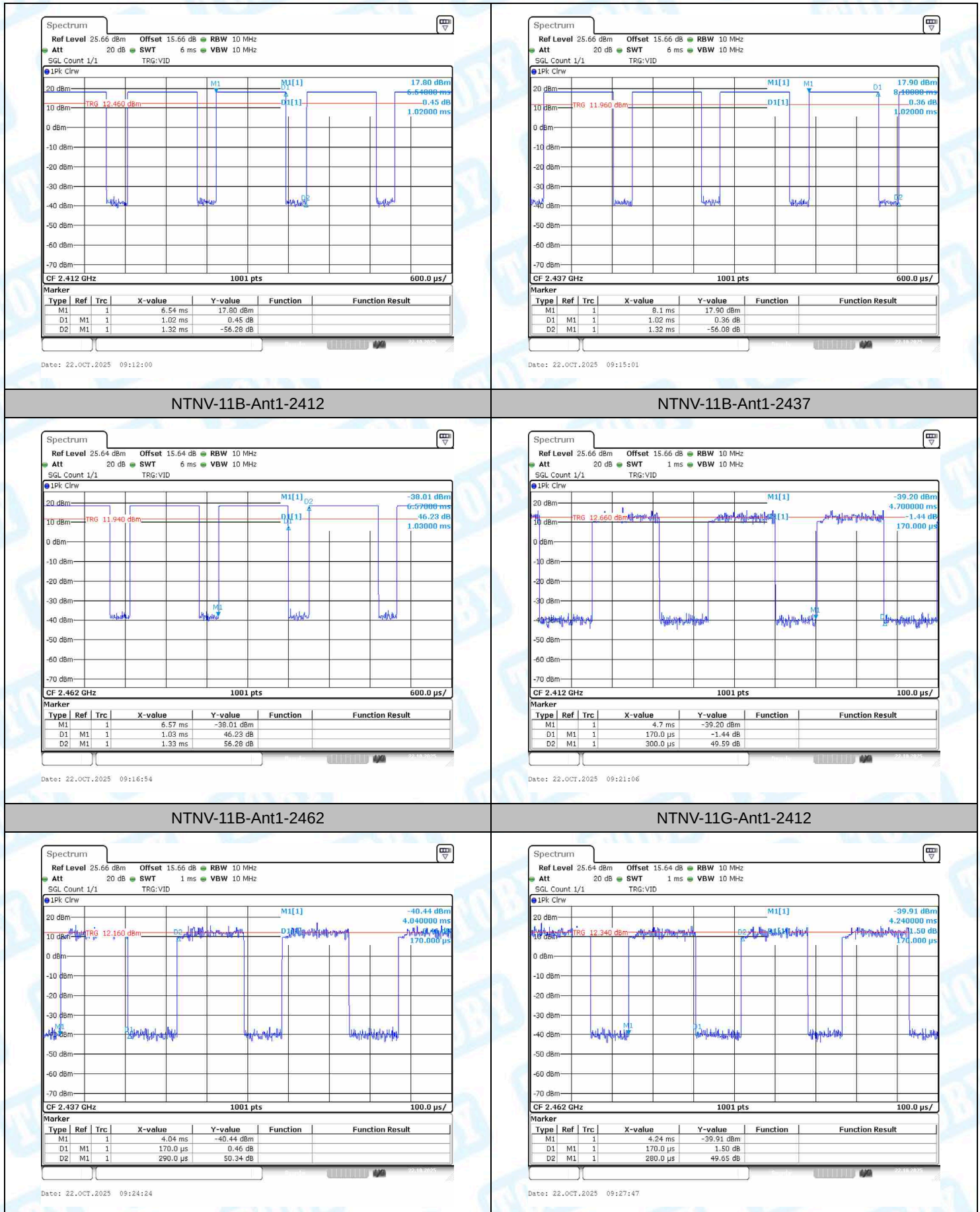
Note: 1, Duty Cycle= Transmission Duration/ Transmission Period

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

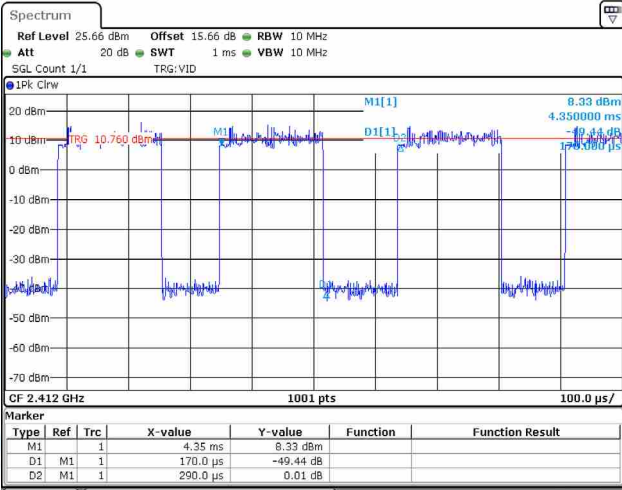
3, $1/T = 1/\text{Transmission Duration}$

4, RF Conducted test Offset= cable loss+ Attenuator(10dB).

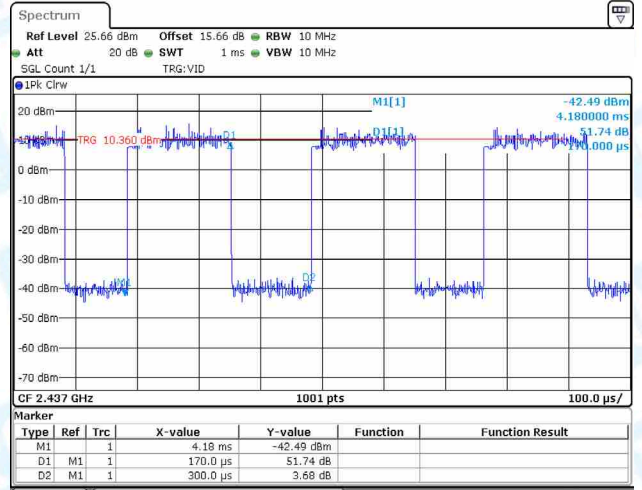
7.2 Test Graphs



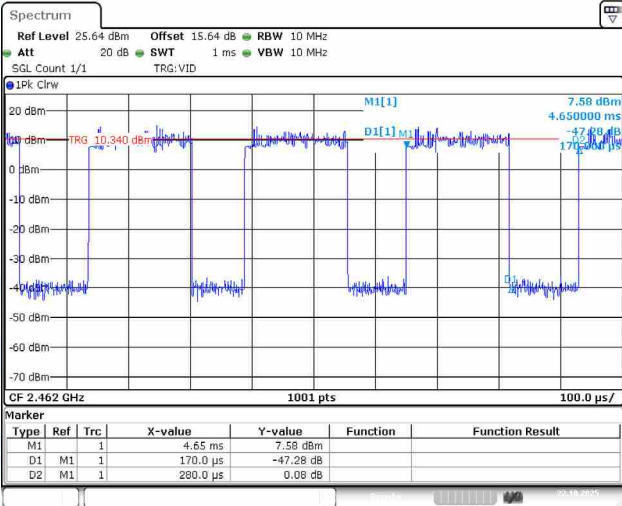
NTNV-11G-Ant1-2437



NTNV-11G-Ant1-2462



NTNV-11N20SISO-Ant1-2412



NTNV-11N20SISO-Ant1-2437

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