

Case No. : <u>GTS20250404005-1-01</u>	
Ambient Condition: <u>23</u> °C, <u>52</u> %RH,	
Test Date: <u>2025.4.10</u>	Test Engineer: <u>Evan ouyang</u>

Appendix A.1: DTS Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	8.040	2408.000	2416.040	0.5	PASS
		2437	8.080	2432.960	2441.040	0.5	PASS
		2462	8.040	2457.960	2466.000	0.5	PASS
11G	Ant1	2412	16.040	2404.120	2420.160	0.5	PASS
		2437	15.080	2429.440	2444.520	0.5	PASS
		2462	16.040	2454.120	2470.160	0.5	PASS
11N20SISO	Ant1	2412	17.280	2403.480	2420.760	0.5	PASS
		2437	15.360	2429.440	2444.800	0.5	PASS
		2462	17.320	2453.480	2470.800	0.5	PASS
11N40SISO	Ant1	2422	35.040	2404.480	2439.520	0.5	PASS
		2437	35.040	2419.480	2454.520	0.5	PASS
		2452	33.760	2434.480	2468.240	0.5	PASS

Test Graphs



11B_Ant1_2437

KeySight Spectrum Analyzer - Sweep SA

RF 150.0 AC SENSE:INT

02:19:25 AM Apr 11, 2025

Center Freq 2.437000000 GHz

PN0: Fast IFGain:Low Trig: Free Run #Atten: 40 dB

#Avg Type: RMS Avg/Hold: 100/100

TRACE 1 2 3 4 5

TYPE M W W W W W W W W

DET P P P P P P P

Ref Offset 9.05 dB

Ref 30.00 dBm

ΔMkr3 8.08 MHz

1.142 dB

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.432 96 GHz	-11.251 dBm			
2	N	1	f	2.435 00 GHz	-5.693 dBm			
Δ1	1	1	(Δ)	8.08 MHz (Δ)	1.142 dB			

MSG

STATUS

Frequency

Auto Tune

Center Freq 2.437000000 GHz

Start Freq 2.417000000 GHz

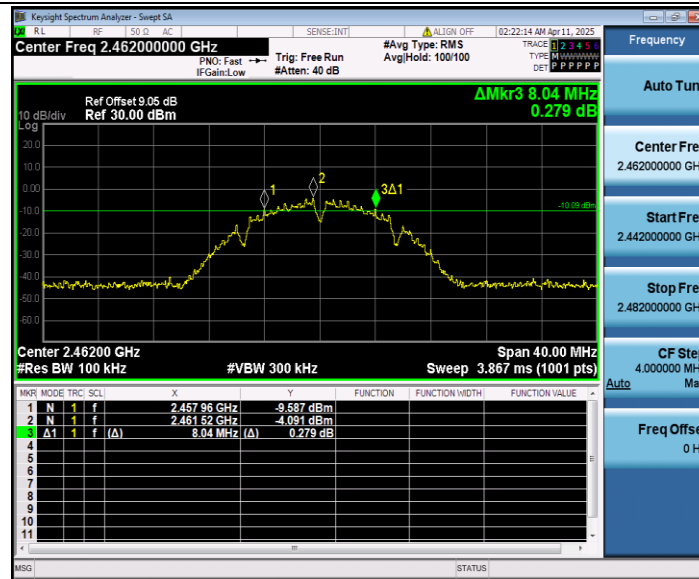
Stop Freq 2.457000000 GHz

CF Step 4.000000 MHz

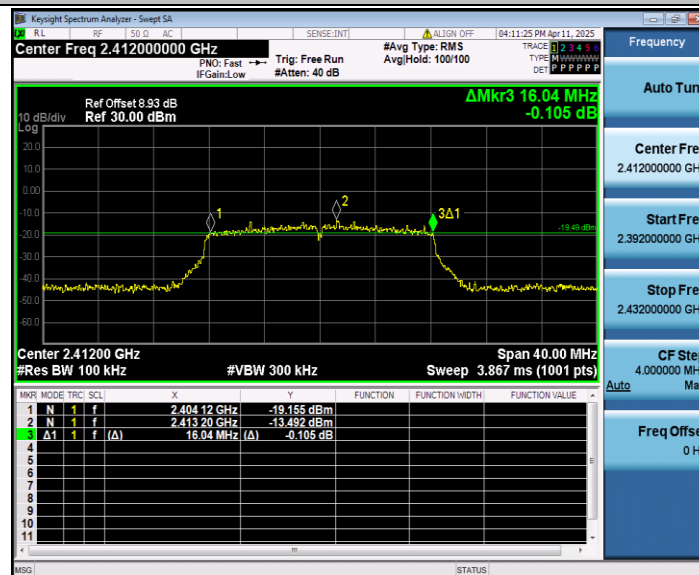
Auto Man

Freq Offset 0 Hz

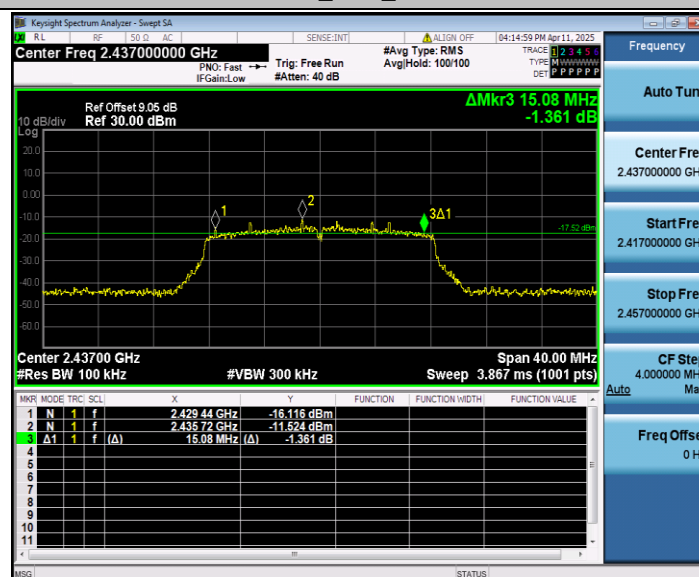
11B_Ant1_2462



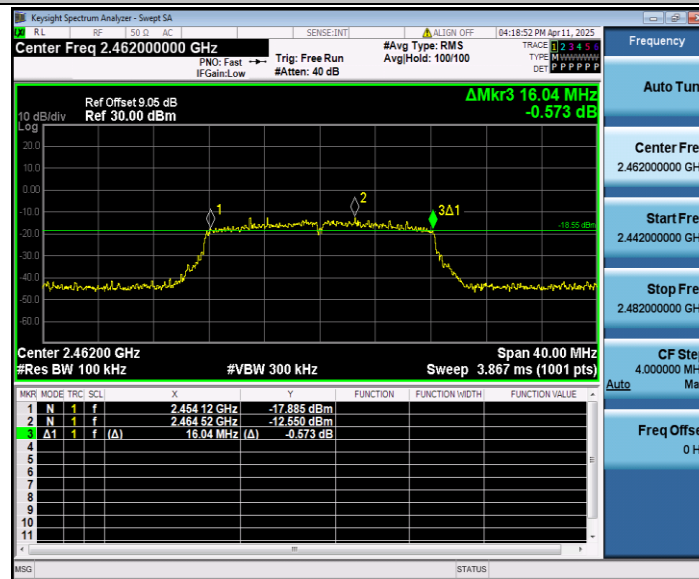
11G_Ant1_2412



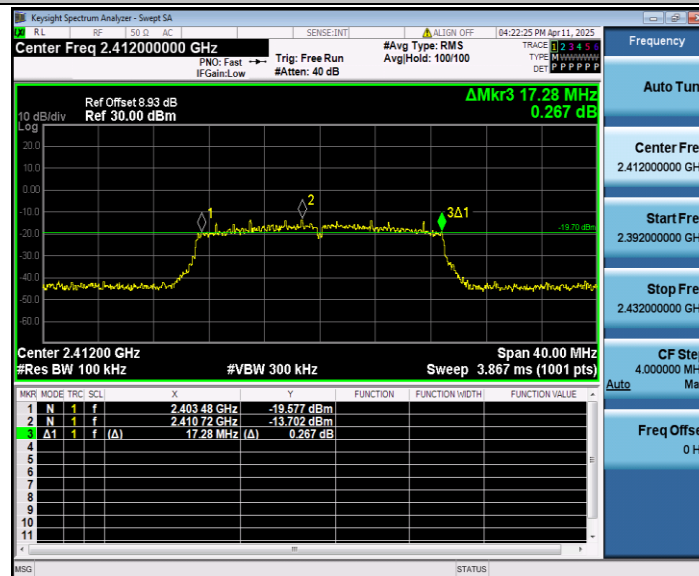
11G_Ant1_2437



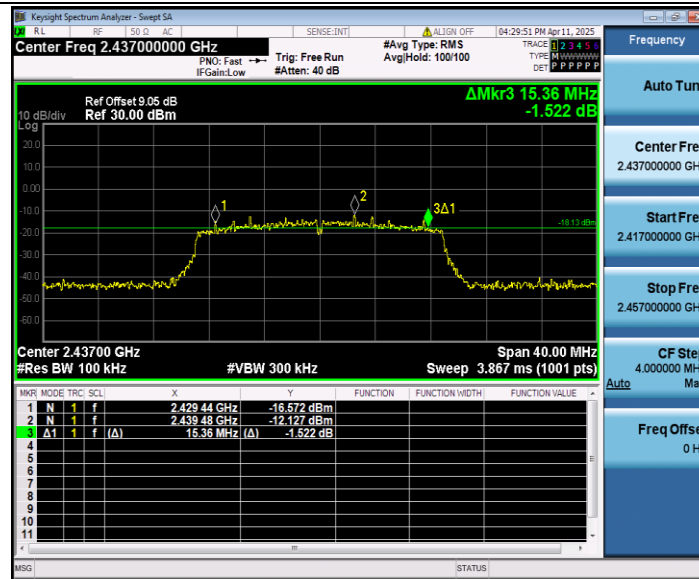
11G_Ant1_2462



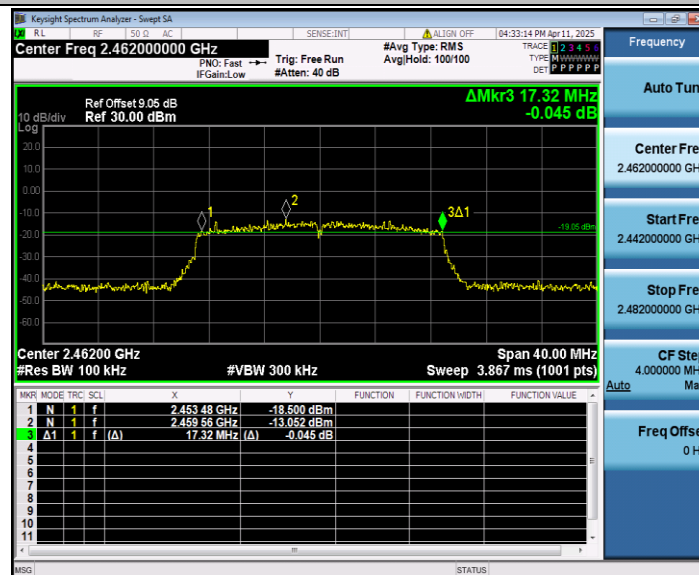
11N20SISO_Ant1_2412



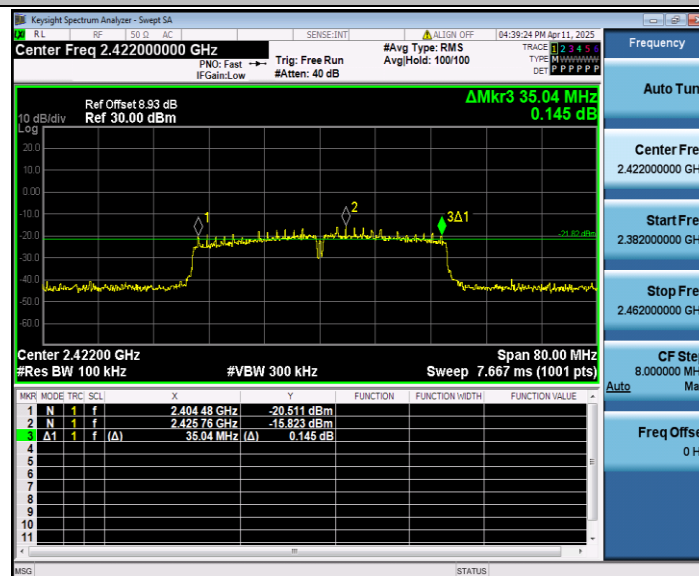
11N20SISO_Ant1_2437



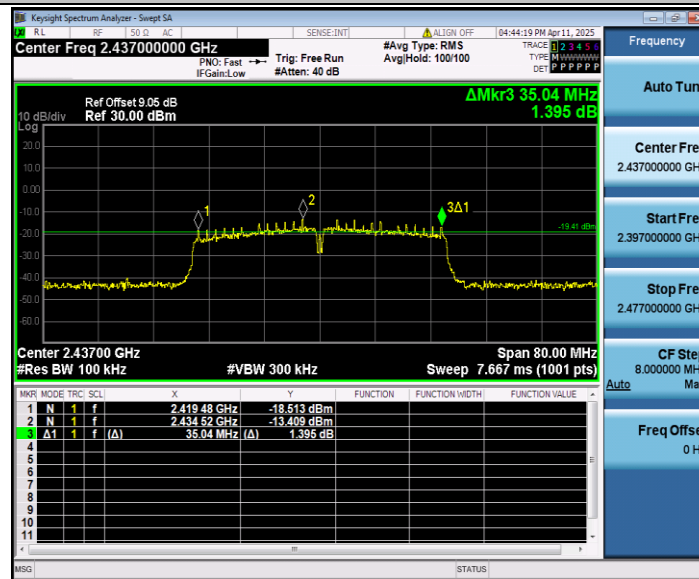
11N20SISO_Ant1_2462



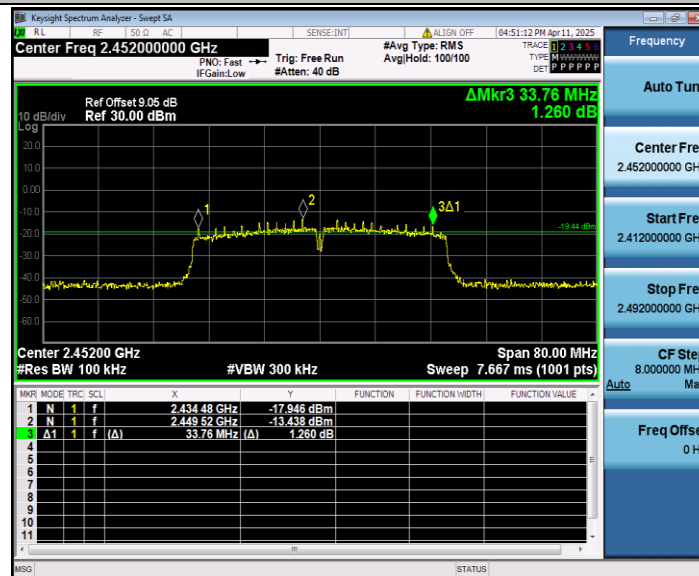
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452

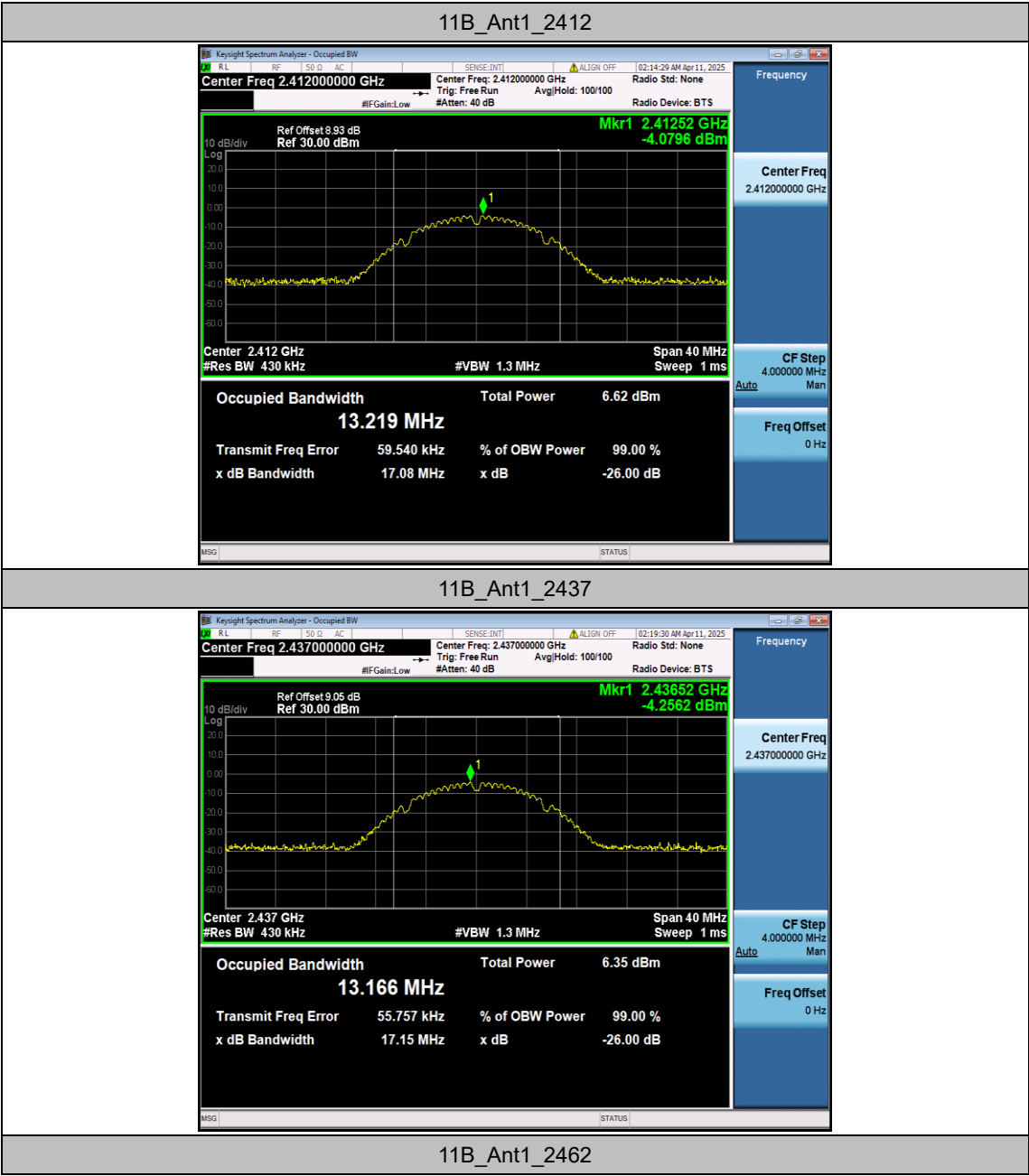


Appendix A.2: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	13.219	2405.4500	2418.6690	---	---
		2437	13.166	2430.4728	2443.6388	---	---
		2462	13.111	2455.4799	2468.5909	---	---
11G	Ant1	2412	17.081	2403.5159	2420.5969	---	---
		2437	16.961	2428.5794	2445.5404	---	---
		2462	16.915	2453.5868	2470.5018	---	---
11N20SISO	Ant1	2412	18.000	2403.0574	2421.0574	---	---
		2437	17.952	2428.0419	2445.9939	---	---
		2462	17.884	2453.0948	2470.9788	---	---
11N40SISO	Ant1	2422	36.903	2403.6979	2440.6009	---	---
		2437	36.432	2418.9372	2455.3692	---	---
		2452	36.575	2433.7755	2470.3505	---	---

Test Graphs



11B_Ant1_2437

Keysight Spectrum Analyzer - Occupied BW

Center Freq 2.437000000 GHz

Center Freq: 2.437000000 GHz

Trig: Free Run

Avg/Hold: 100/100

Radio Std: None

Radio Device: BTS

Ref Offset 9.05 dB

Ref 30.00 dBm

Mkr1 2.43652 GHz

-4.2562 dBm

10 dB/div

Log

Center 2.437 GHz

#Res BW 430 kHz

#VBW 1.3 MHz

Span 40 MHz

Sweep 1 ms

Occupied Bandwidth

13.166 MHz

Total Power

6.35 dBm

Transmit Freq Error

55.757 kHz

% of OBW Power

99.00 %

x dB Bandwidth

17.15 MHz

x dB

-26.00 dB

MSG

STATUS

Frequency

Center Freq

2.437000000 GHz

CF Step

4.000000 MHz

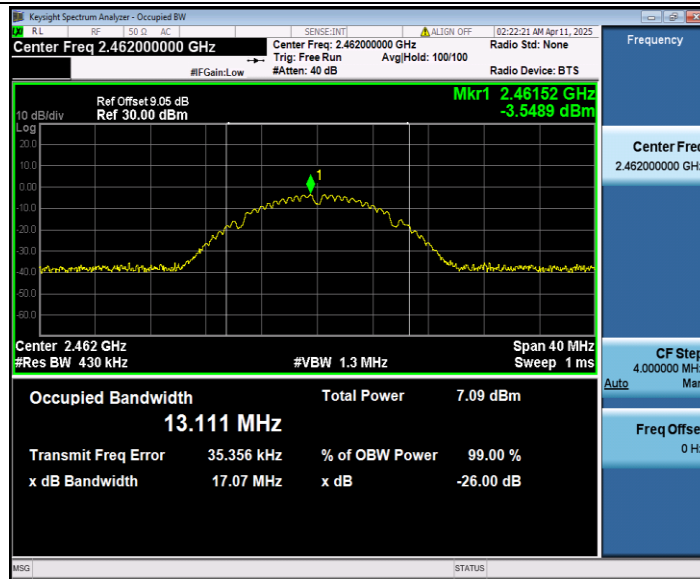
Auto

Man

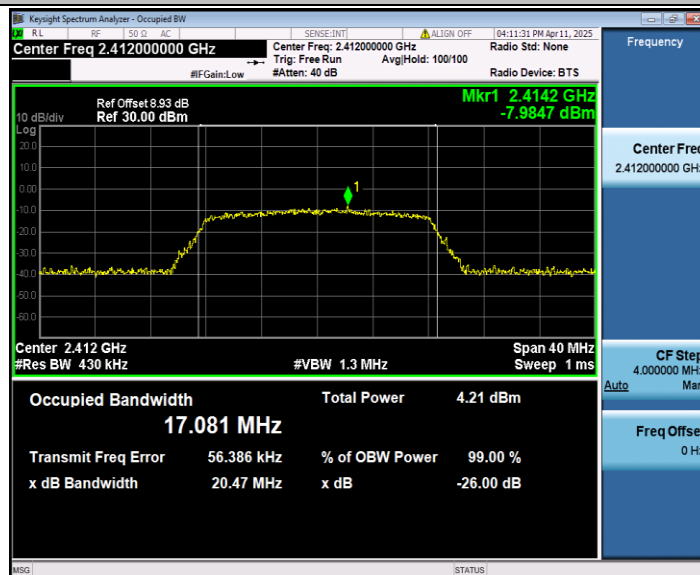
Freq Offset

0 Hz

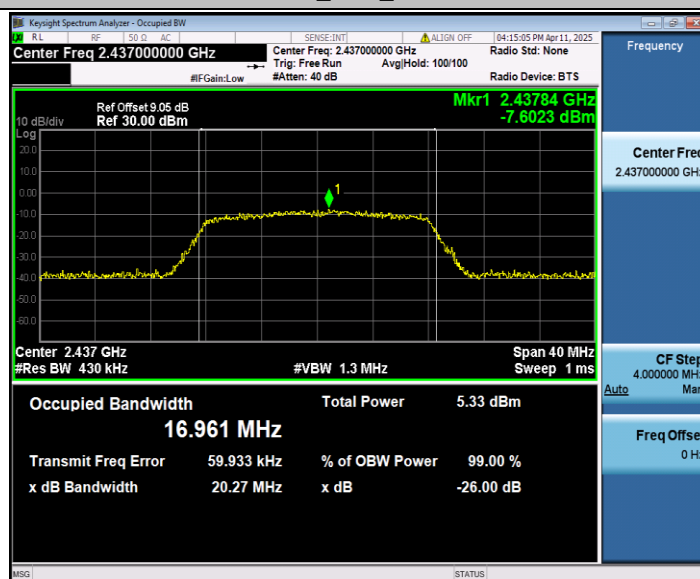
11B_Ant1_2462



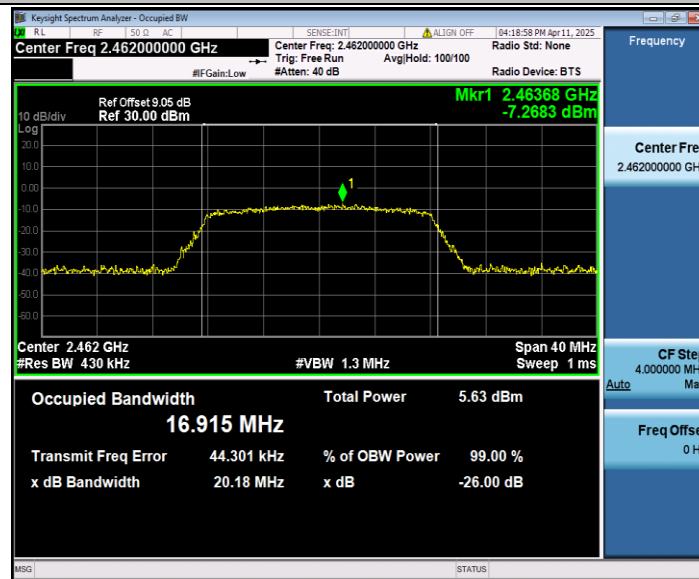
11G_Ant1_2412



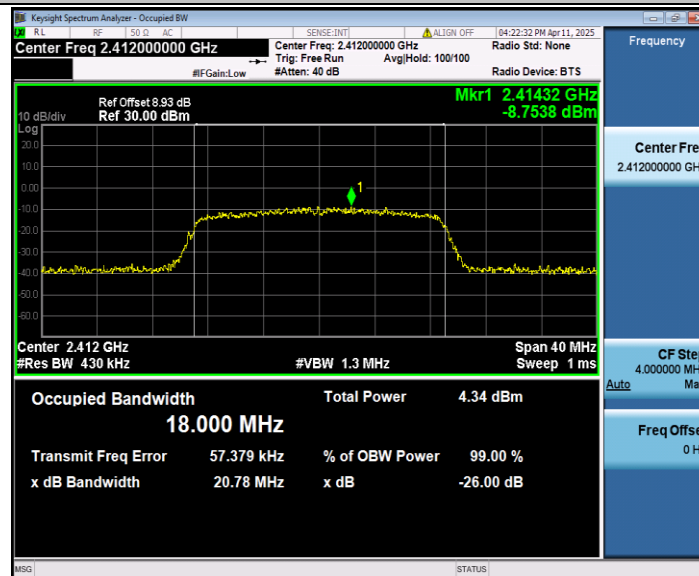
11G_Ant1_2437



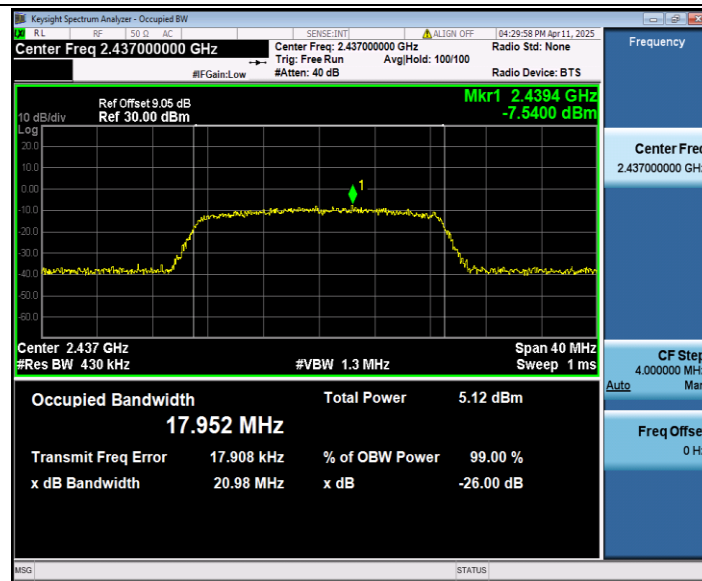
11G_Ant1_2462



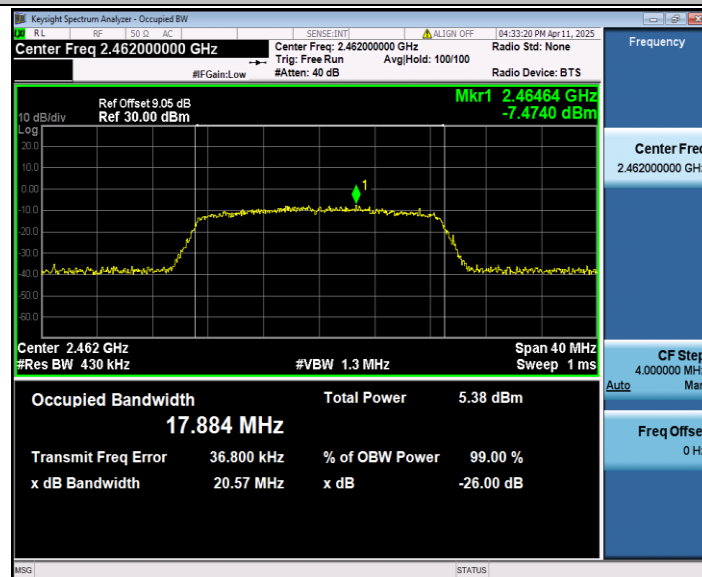
11N20SISO_Ant1_2412



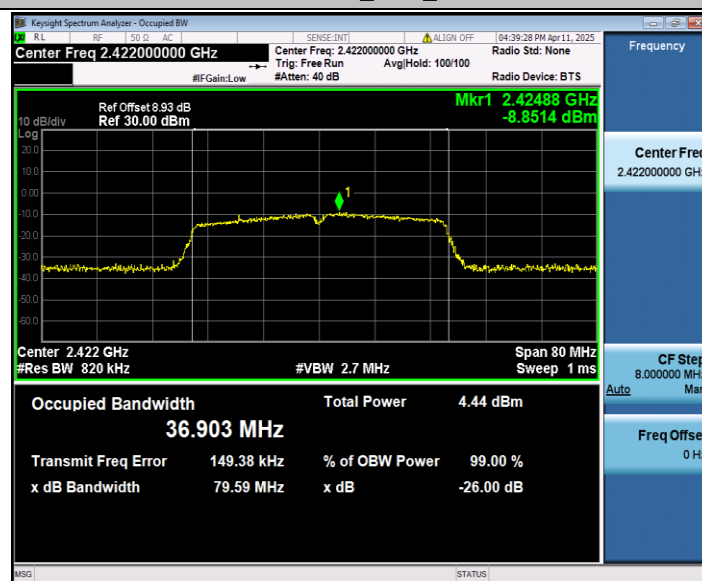
11N20SISO_Ant1_2437



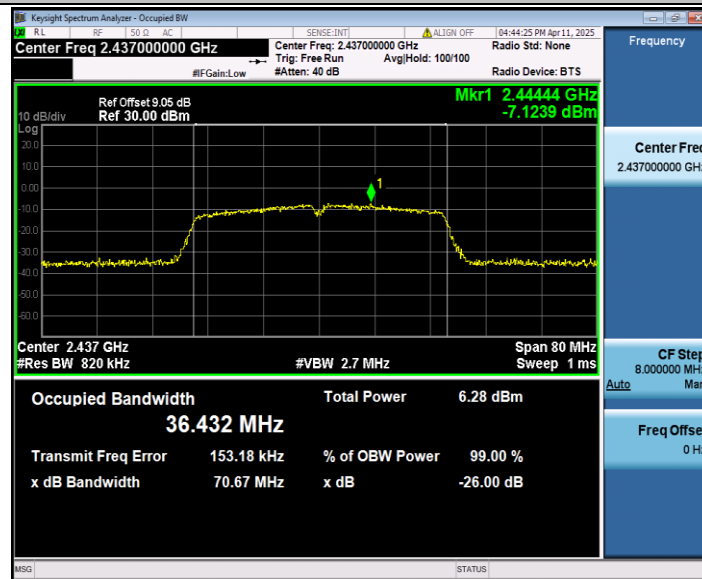
11N20SISO_Ant1_2462



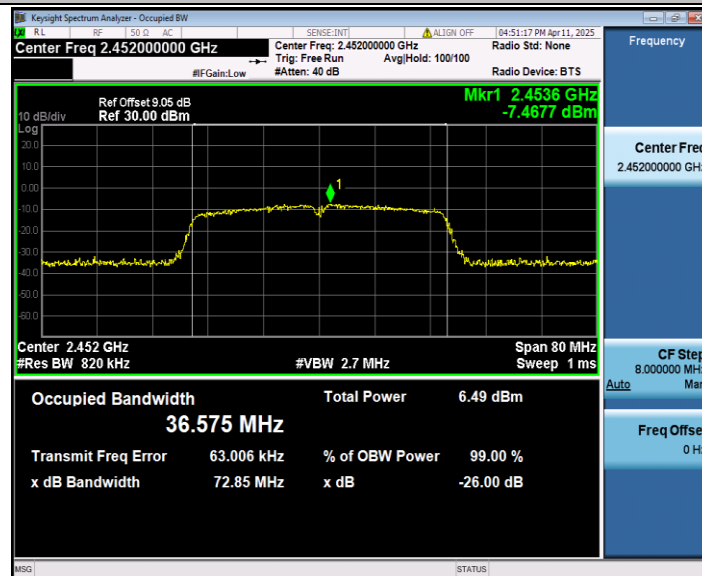
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



Appendix A.3: Maximum conducted output power

Test Mode	Antenna	Frequency [MHz]	Set Power	Peak power [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	---	6.65	≤30.00	PASS
		2437	---	6.54	≤30.00	PASS
		2462	---	7.20	≤30.00	PASS
11G	Ant1	2412	---	5.40	≤30.00	PASS
		2437	---	6.40	≤30.00	PASS
		2462	---	6.78	≤30.00	PASS
11N20SI SO	Ant1	2412	---	5.56	≤30.00	PASS
		2437	---	6.35	≤30.00	PASS
		2462	---	6.67	≤30.00	PASS
11N40SI SO	Ant1	2422	---	4.30	≤30.00	PASS
		2437	---	6.66	≤30.00	PASS
		2452	---	6.96	≤30.00	PASS

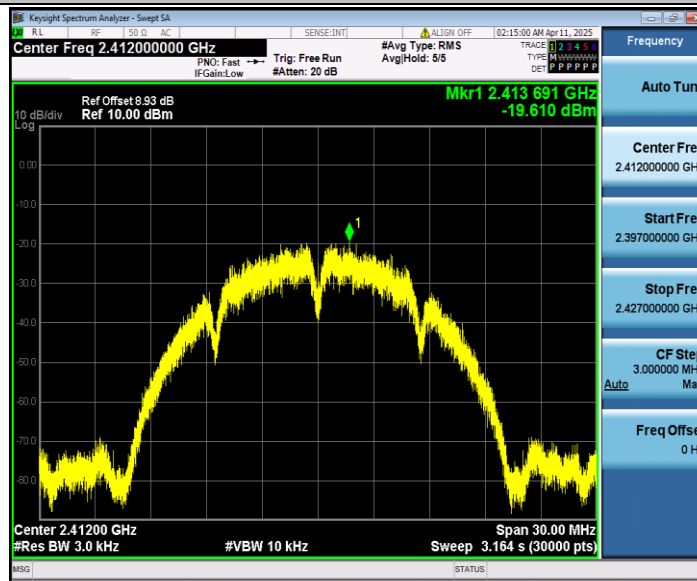
Appendix A.4: Maximum power spectral density

Test Result

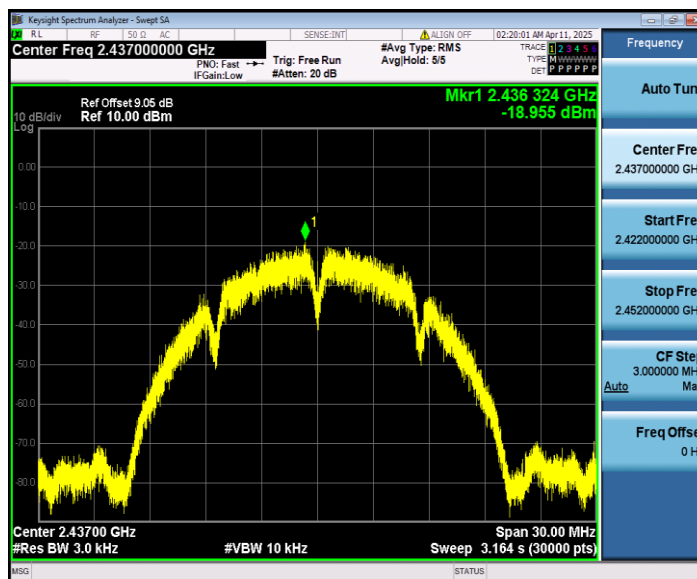
TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-19.61	≤8.00	PASS
		2437	-18.96	≤8.00	PASS
		2462	-9.027	≤8.00	PASS
11G	Ant1	2412	-24.97	≤8.00	PASS
		2437	-23.76	≤8.00	PASS
		2462	-22.69	≤8.00	PASS
11N20SISO	Ant1	2412	-24.53	≤8.00	PASS
		2437	-23.63	≤8.00	PASS
		2462	-22.32	≤8.00	PASS
11N40SISO	Ant1	2422	-24.92	≤8.00	PASS
		2437	-23.49	≤8.00	PASS
		2452	-23.23	≤8.00	PASS

Test Graphs

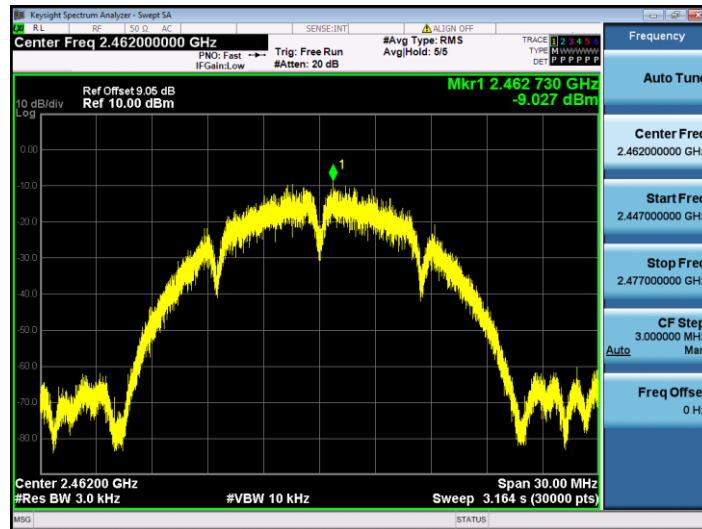
11B_Ant1_2412



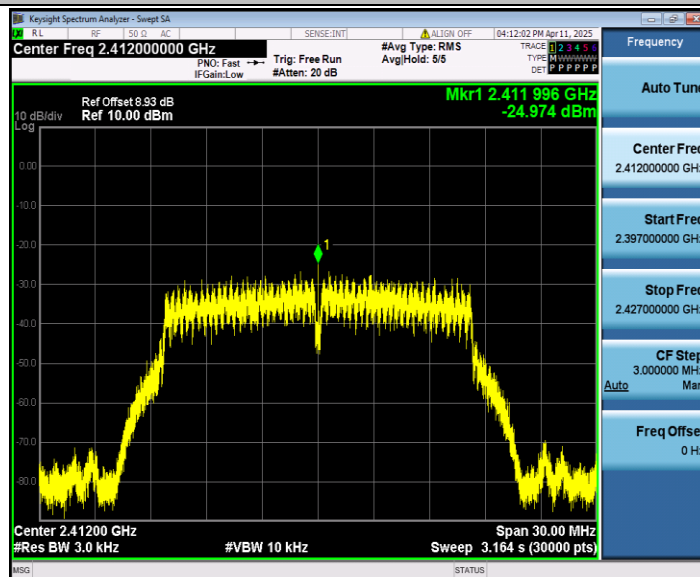
11B_Ant1_2437



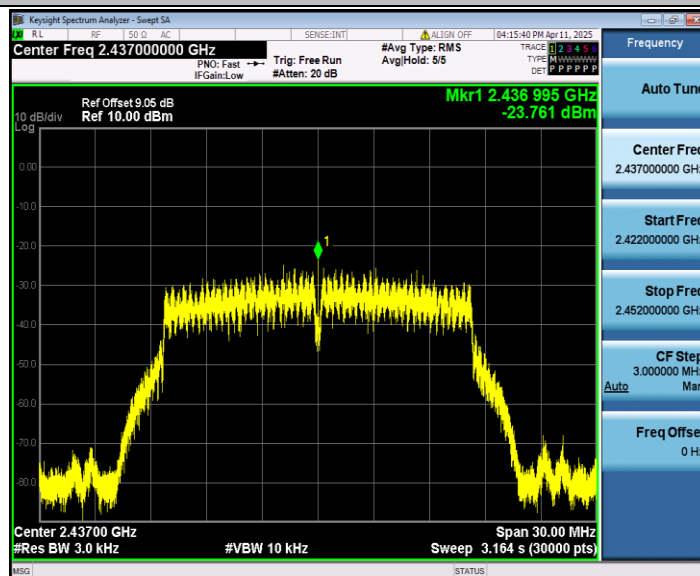
11B_Ant1_2462



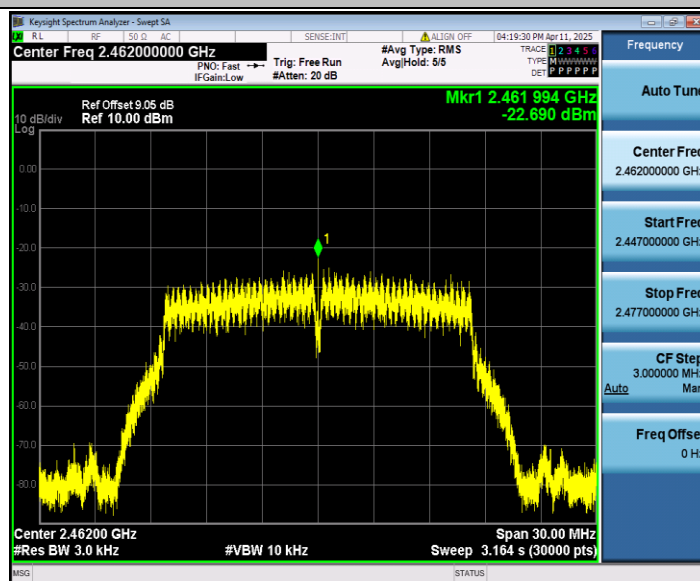
11G_Ant1_2412



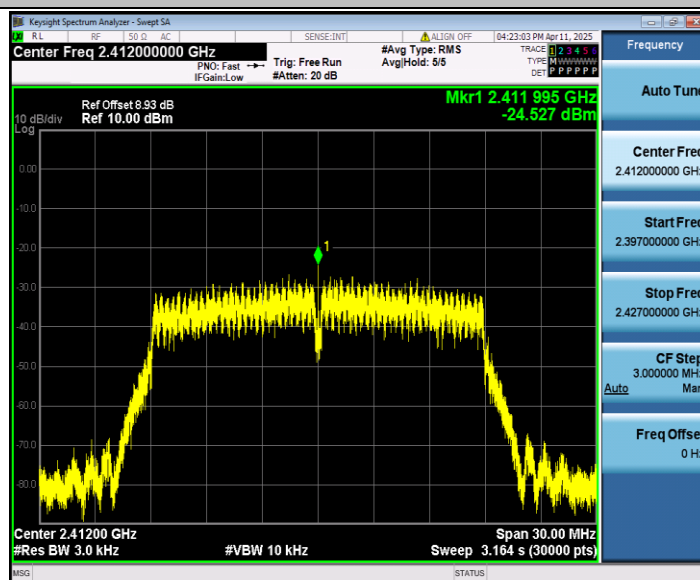
11G_Ant1_2437



11G_Ant1_2462



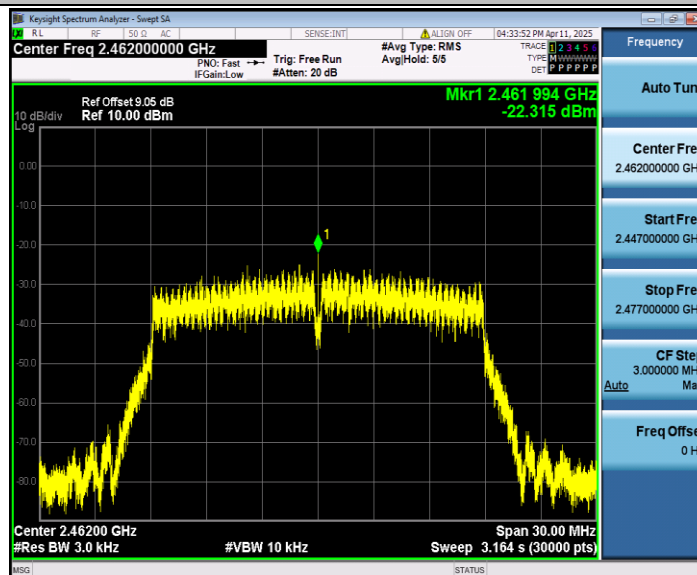
11N20SISO_Ant1_2412



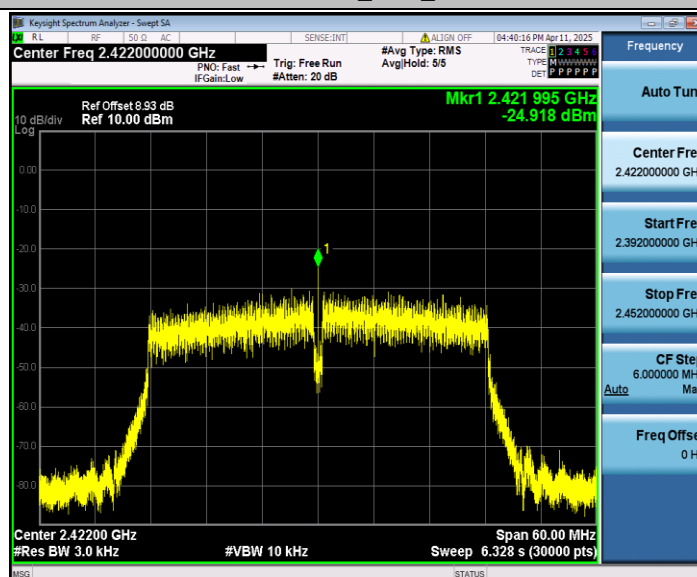
11N20SISO_Ant1_2437



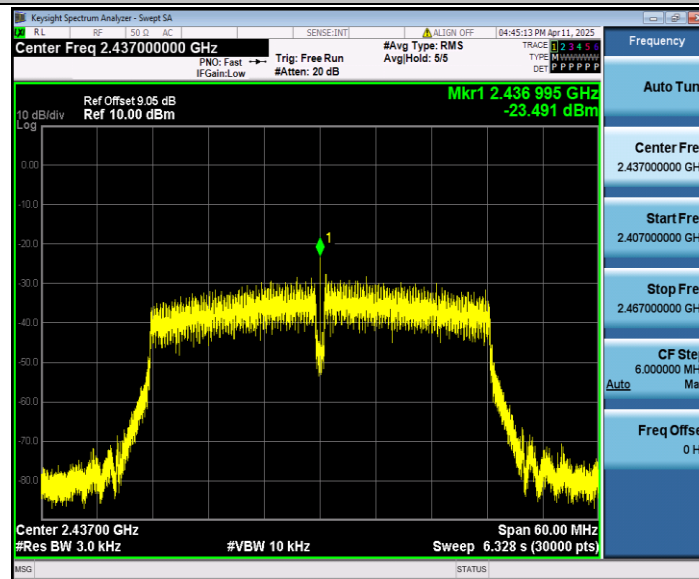
11N20SISO_Ant1_2462



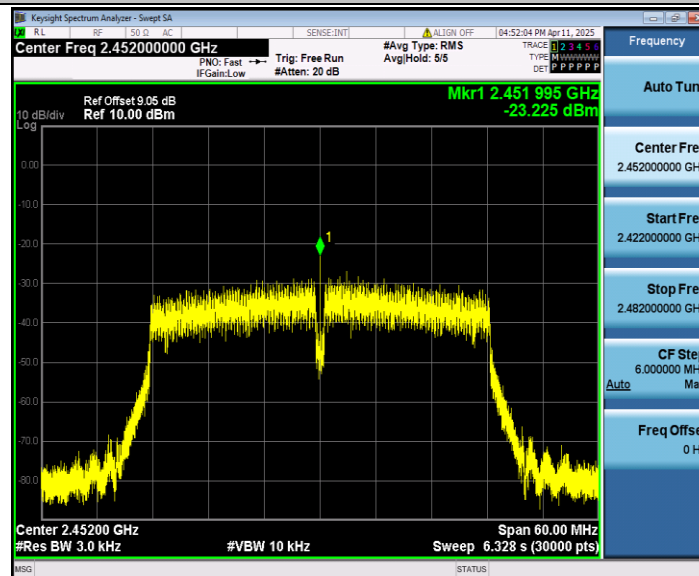
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



Appendix A.5: Band edge measurements

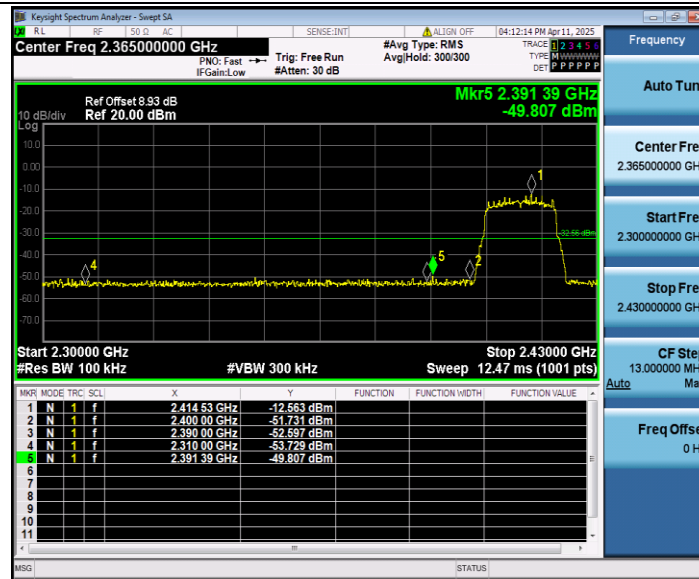
Test Result

TestMod e	Antenn a	ChNam e	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdic t
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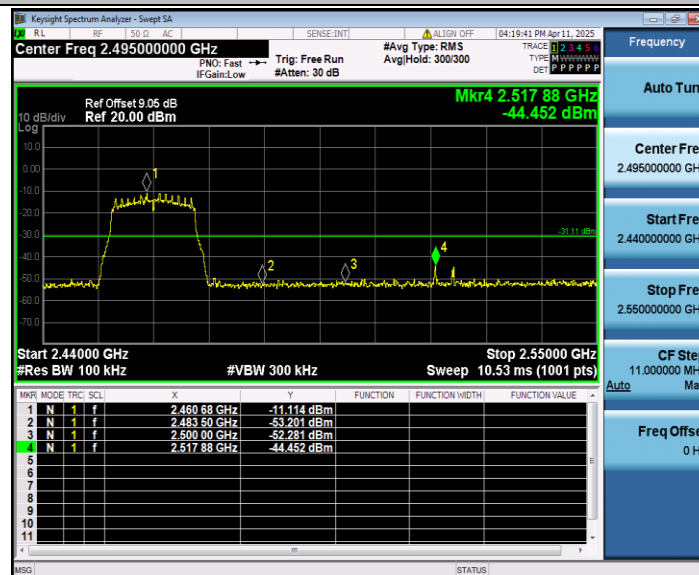
11B	Ant1	Low	2412	-4.52	-50.03	≤-24.52	PASS
		High	2462	4.85	-49.19	≤-15.15	PASS
11G	Ant1	Low	2412	-12.56	-49.81	≤-32.56	PASS
		High	2462	-11.11	-44.45	≤-31.11	PASS
11N20SISO	Ant1	Low	2412	-12.15	-50.11	≤-32.15	PASS
		High	2462	-10.41	-49.14	≤-30.41	PASS
11N40SISO	Ant1	Low	2422	-15.09	-49.96	≤-35.09	PASS
		High	2452	-13.33	-49.52	≤-33.33	PASS

Test Graphs

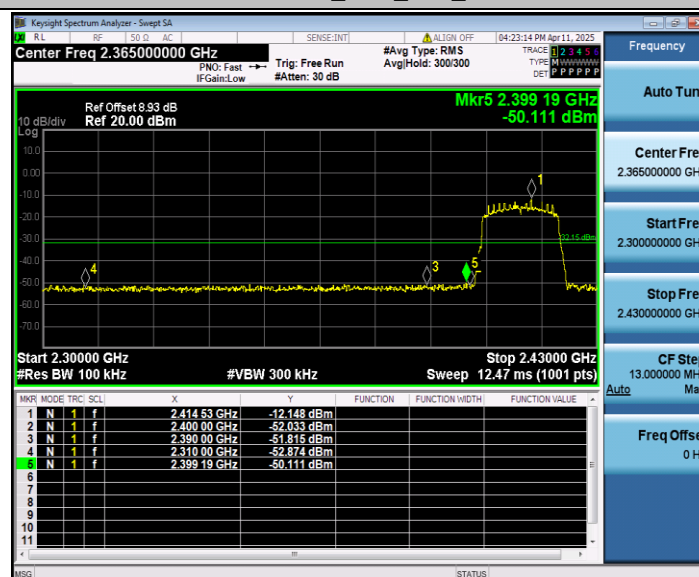




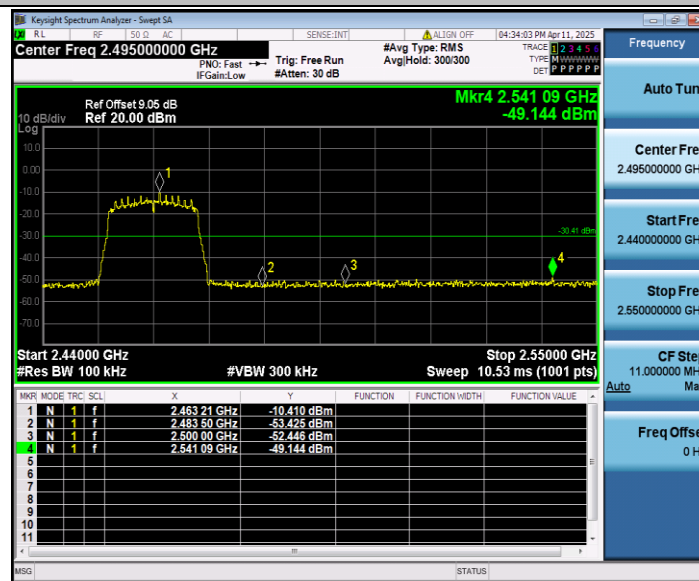
11G_Ant1_High_2462



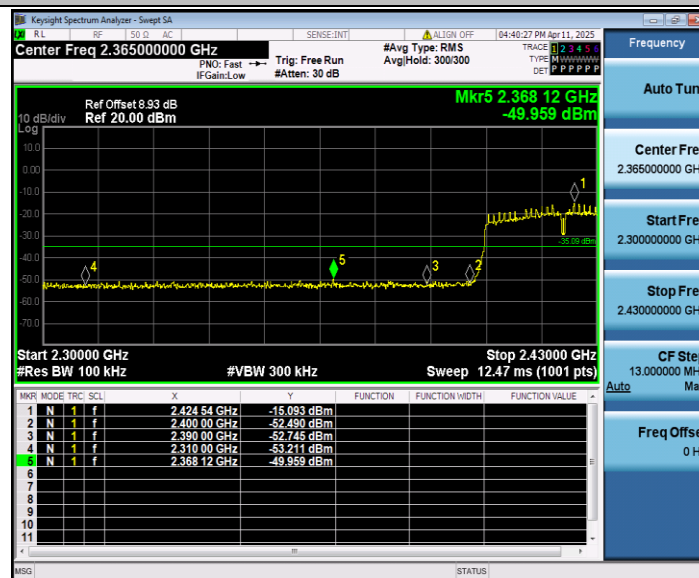
11N20SISO_Ant1_Low_2412



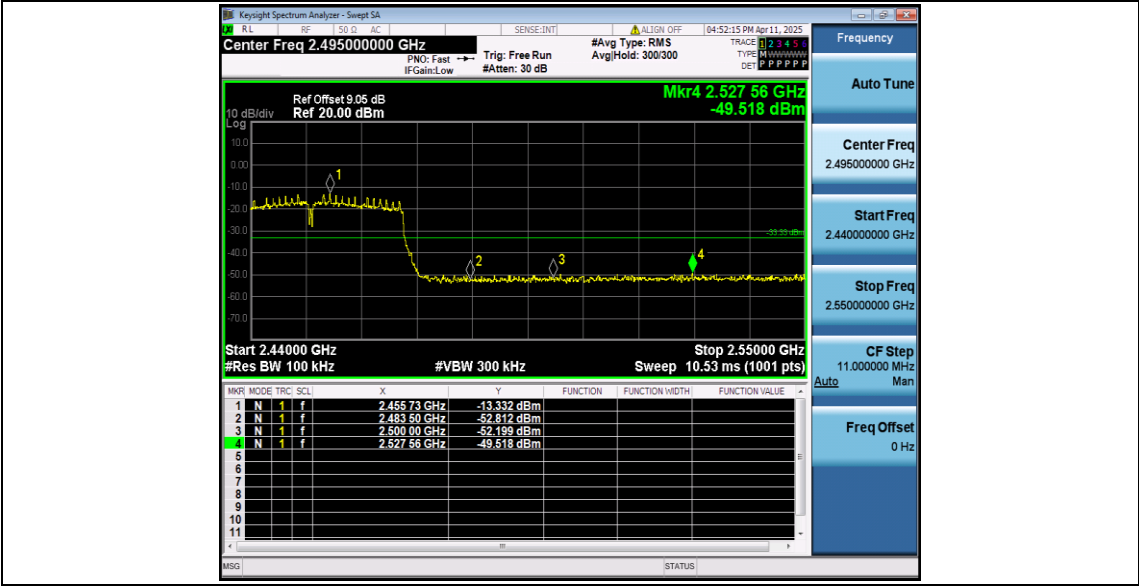
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452

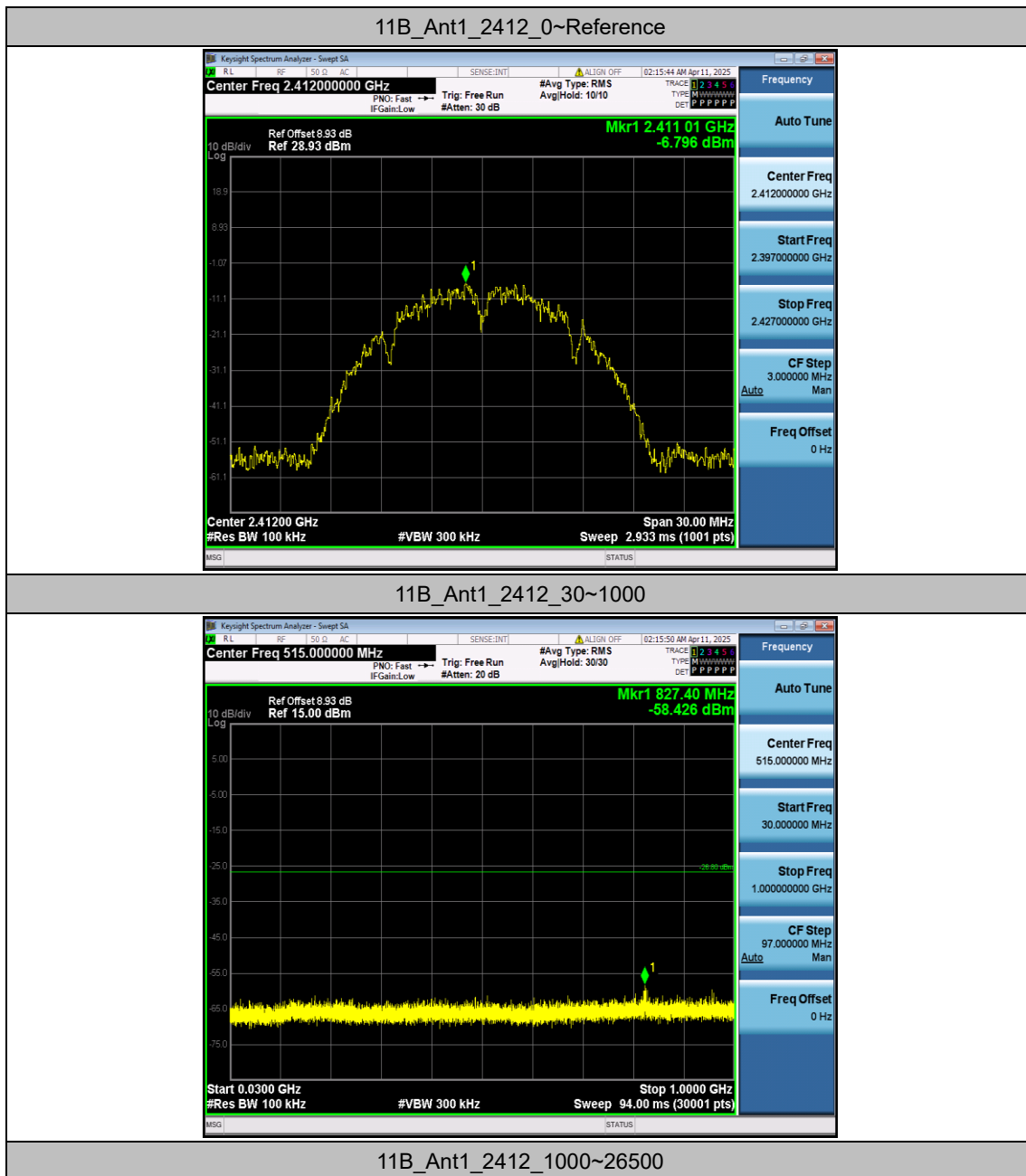


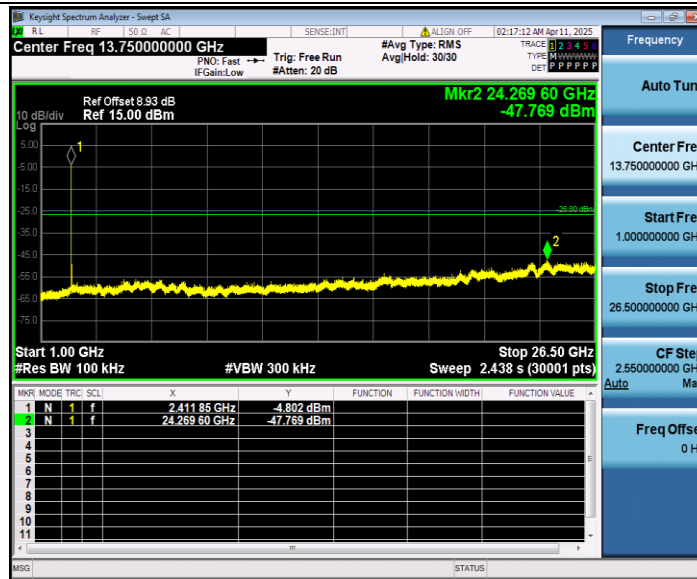
Appendix A.6: Conducted Spurious Emission

Test Result

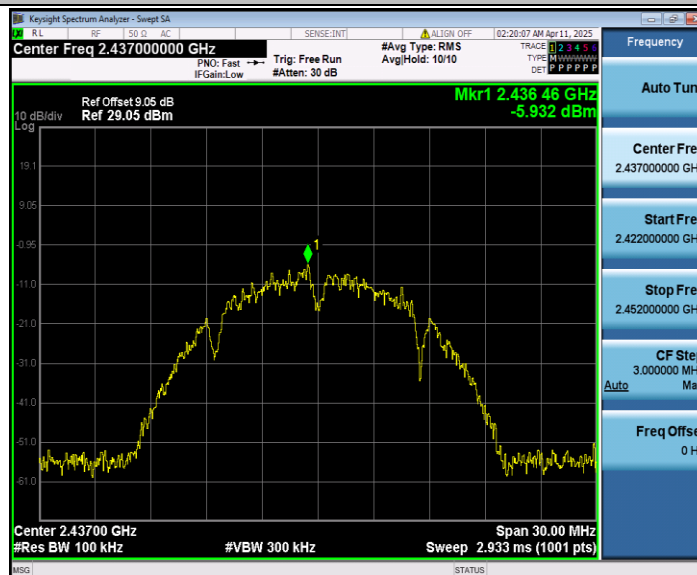
TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	-6.80	-6.80	---	PASS
			30~1000	-6.80	-58.43	≤-26.8	PASS
			1000~26500	-6.80	-47.77	≤-26.8	PASS
		2437	Reference	-5.93	-5.93	---	PASS
			30~1000	-5.93	-60.39	≤-25.93	PASS
			1000~26500	-5.93	-47.39	≤-25.93	PASS
		2462	Reference	3.96	3.96	---	PASS
			30~1000	3.96	-60.33	≤-16.04	PASS
			1000~26500	3.96	-47.97	≤-16.04	PASS
11G	Ant1	2412	Reference	-15.87	-15.87	---	PASS
			30~1000	-15.87	-60.89	≤-35.87	PASS
			1000~26500	-15.87	-48.93	≤-35.87	PASS
		2437	Reference	-14.75	-14.75	---	PASS
			30~1000	-14.75	-60.32	≤-34.75	PASS
			1000~26500	-14.75	-49.28	≤-34.75	PASS
		2462	Reference	-14.03	-14.03	---	PASS
			30~1000	-14.03	-61.07	≤-34.03	PASS
			1000~26500	-14.03	-48.87	≤-34.03	PASS
11N20SISO	Ant1	2412	Reference	-13.46	-13.46	---	PASS
			30~1000	-13.46	-60.2	≤-33.46	PASS
			1000~26500	-13.46	-48.29	≤-33.46	PASS
		2437	Reference	-12.31	-12.31	---	PASS
			30~1000	-12.31	-59.44	≤-32.31	PASS
			1000~26500	-12.31	-48.15	≤-32.31	PASS
		2462	Reference	-13.27	-13.27	---	PASS
			30~1000	-13.27	-60.24	≤-33.27	PASS
			1000~26500	-13.27	-48.01	≤-33.27	PASS
11N40SISO	Ant1	2422	Reference	-15.97	-15.97	---	PASS
			30~1000	-15.97	-59.96	≤-35.97	PASS
			1000~26500	-15.97	-48.56	≤-35.97	PASS
		2437	Reference	-14.21	-14.21	---	PASS
			30~1000	-14.21	-60.05	≤-34.21	PASS
			1000~26500	-14.21	-47.27	≤-34.21	PASS
		2452	Reference	-14.83	-14.83	---	PASS
			30~1000	-14.83	-60.85	≤-34.83	PASS
			1000~26500	-14.83	-47.48	≤-34.83	PASS

Test Graphs

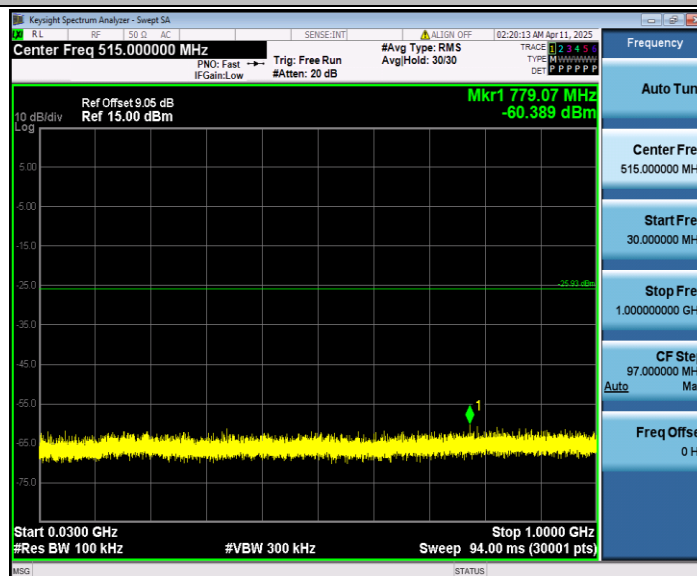


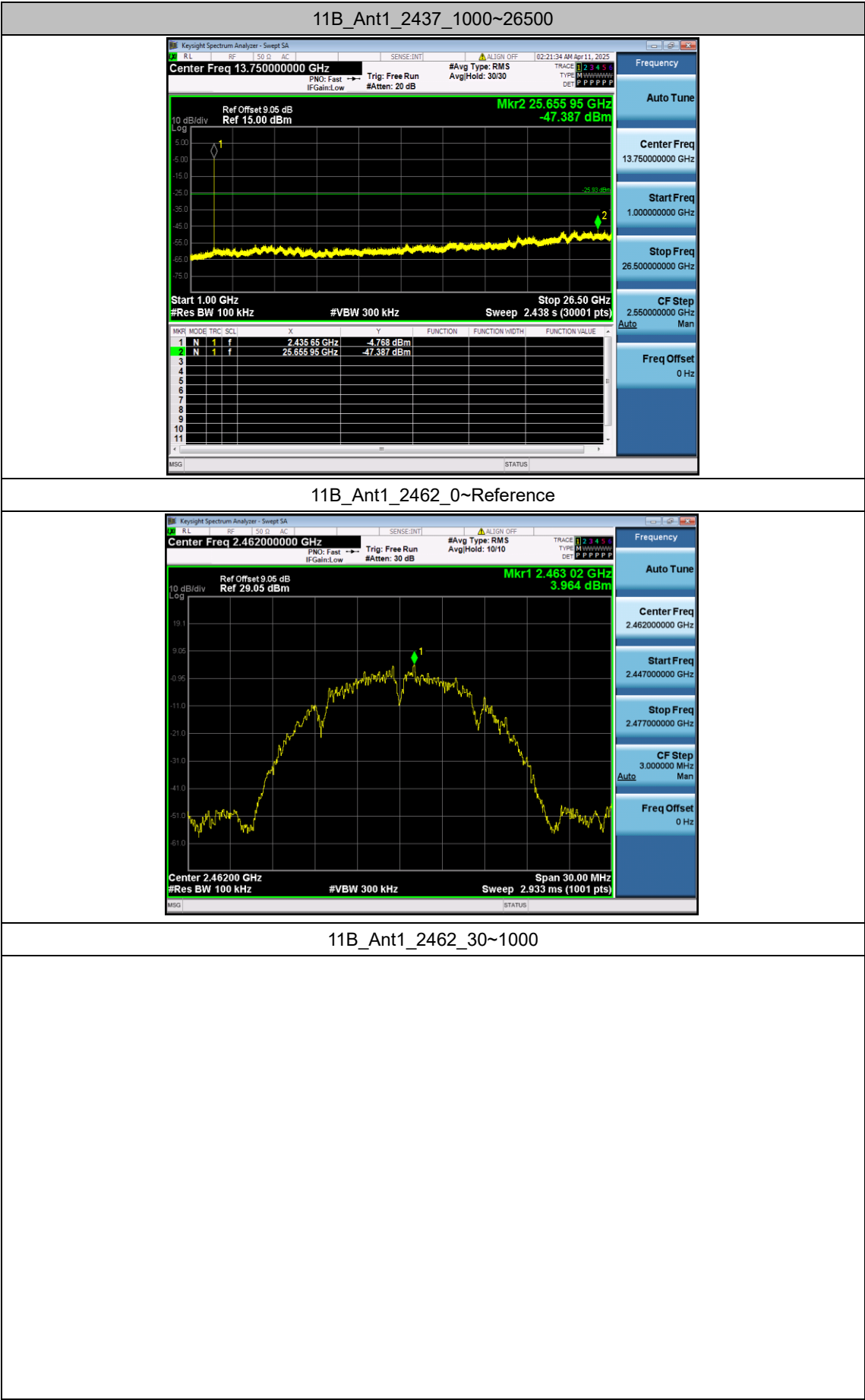


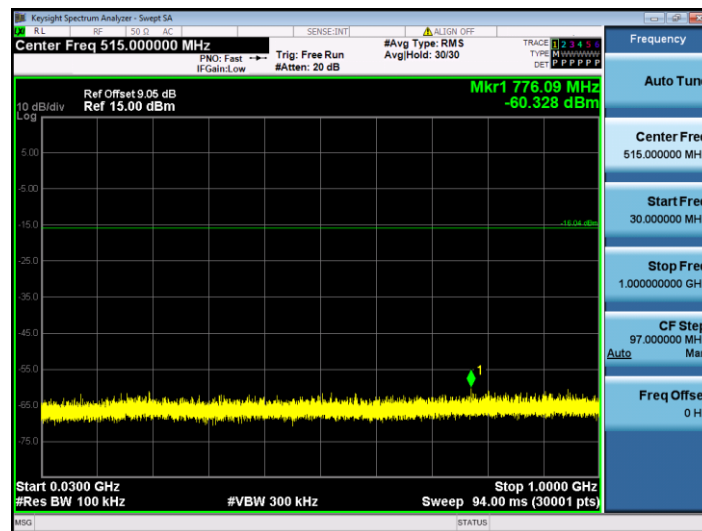
11B_Ant1_2437_0~Reference



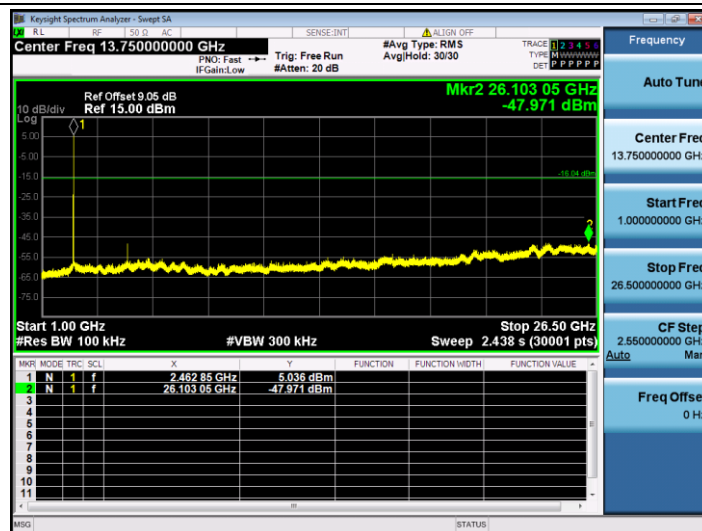
11B_Ant1_2437_30~1000



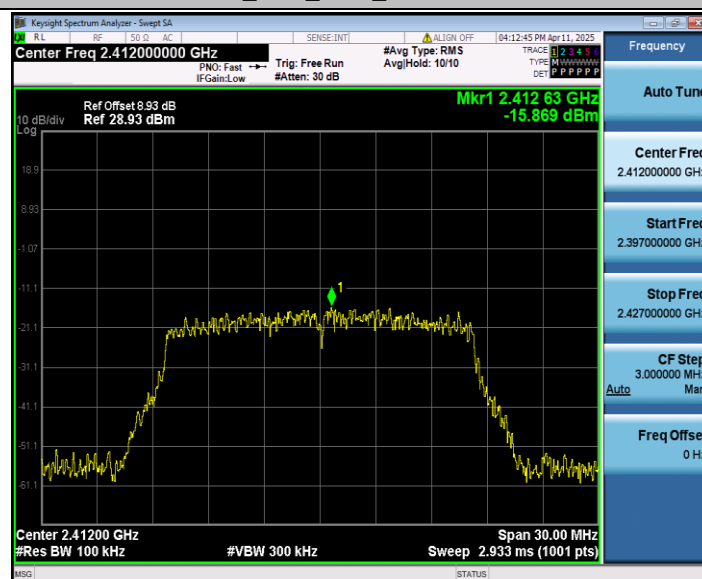




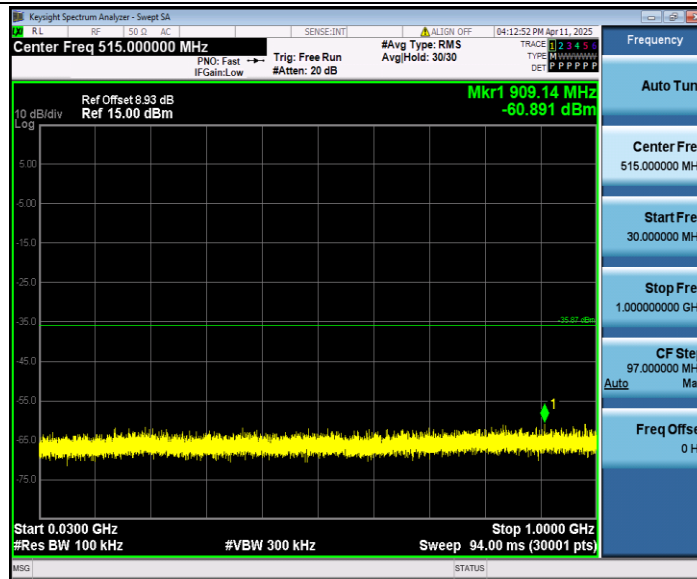
11B_Ant1_2462_1000~26500



11G_Ant1_2412_0~Reference



11G_Ant1_2412_30~1000



11G_Ant1_2412_1000~26500



11G_Ant1_2437_0~Reference

