Case No. : GTS20230105011-1-46	
Ambient Condition: 23 ℃, 50 %RH, Atmos100.1Kpa,	
Test Date: 2023.3.1	**Test Engineer:** Jenny zeng

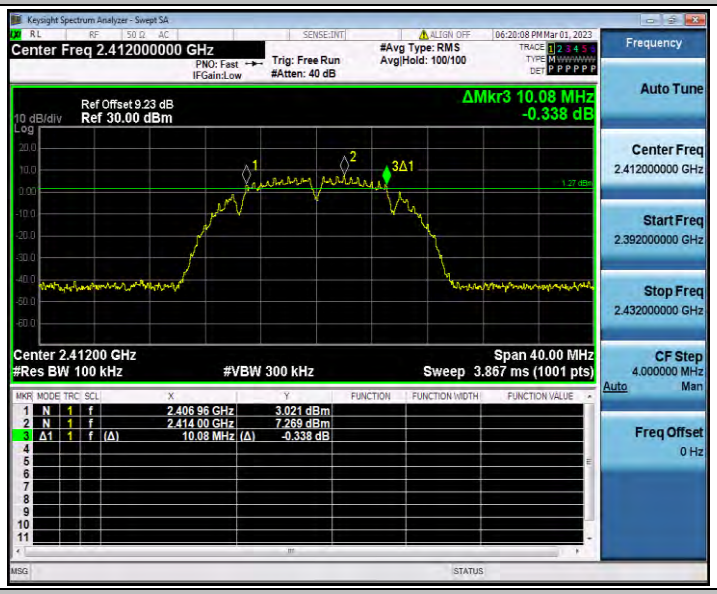
Appendix C.1: DTS Bandwidth

Test Result

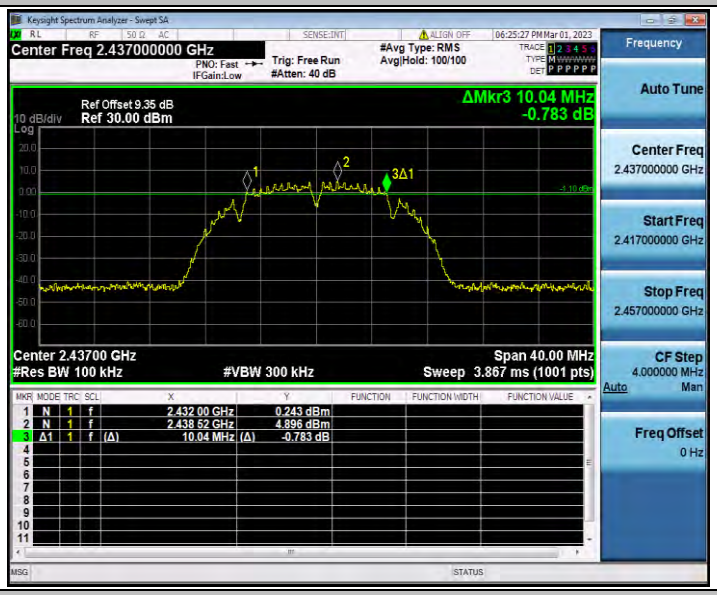
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	10.080	2406.960	2417.040	0.5	PASS
		2437	10.040	2432.000	2442.040	0.5	PASS
		2462	10.080	2456.960	2467.040	0.5	PASS
11G	Ant1	2412	13.480	2406.000	2419.480	0.5	PASS
		2437	13.840	2430.720	2444.560	0.5	PASS
		2462	13.200	2454.440	2467.640	0.5	PASS
11N20SISO	Ant1	2412	12.920	2406.600	2419.520	0.5	PASS
		2437	15.480	2429.440	2444.920	0.5	PASS
		2462	12.840	2454.440	2467.280	0.5	PASS
11N40SISO	Ant1	2422	35.040	2404.480	2439.520	0.5	PASS
		2437	33.840	2420.680	2454.520	0.5	PASS
		2452	31.920	2437.600	2469.520	0.5	PASS
11AX20SISO	Ant1	2412	12.840	2406.680	2419.520	0.5	PASS
		2437	16.160	2429.480	2445.640	0.5	PASS
		2462	18.280	2452.840	2471.120	0.5	PASS
11AX40SISO	Ant1	2422	34.880	2404.880	2439.760	0.5	PASS
		2437	35.040	2419.480	2454.520	0.5	PASS
		2452	35.040	2434.480	2469.520	0.5	PASS

Test Graphs

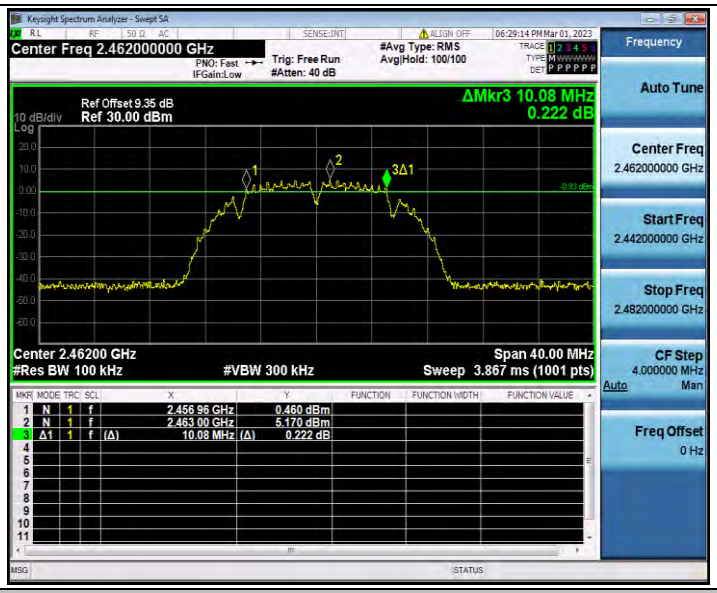
11B_Ant1_2412



11B_Ant1_2437



11B_Ant1_2462

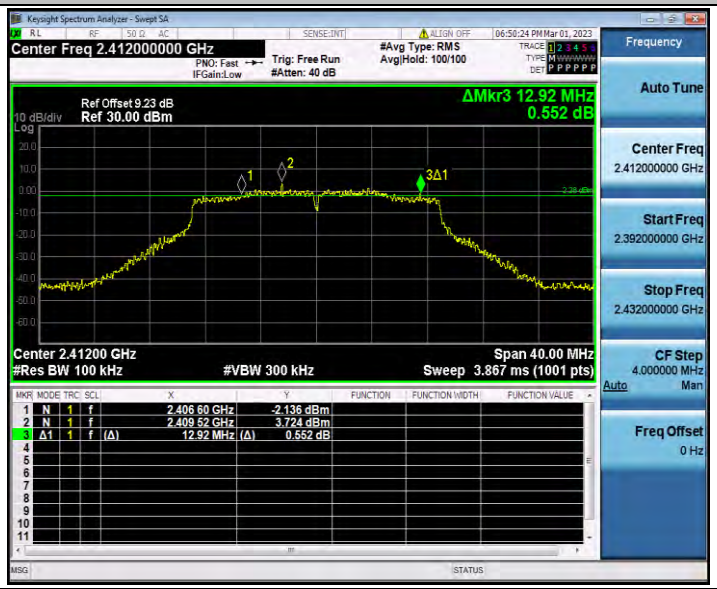


11G_Ant1_2412

11G_Ant1_2437

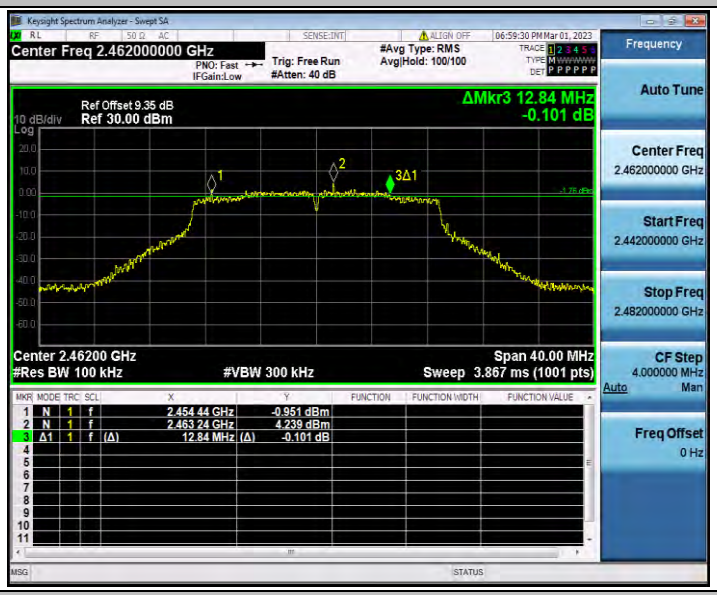
11G_Ant1_2462

11N20SISO_Ant1_2412

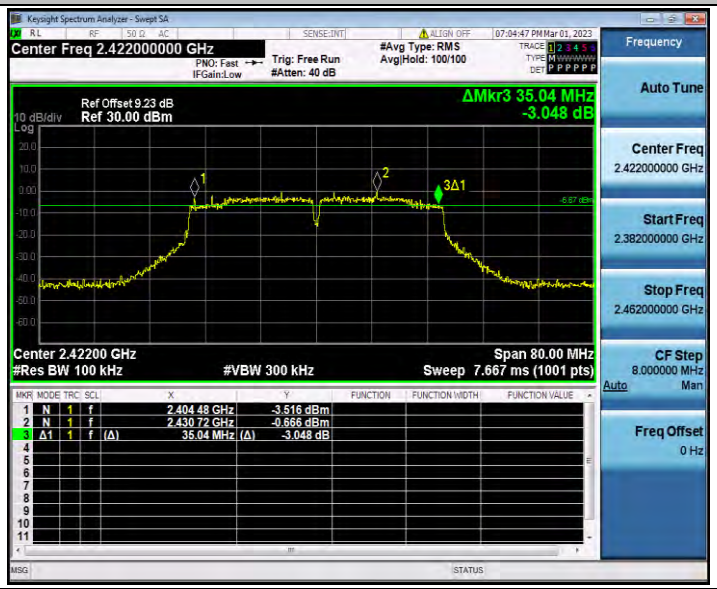


11N20SISO_Ant1_2437

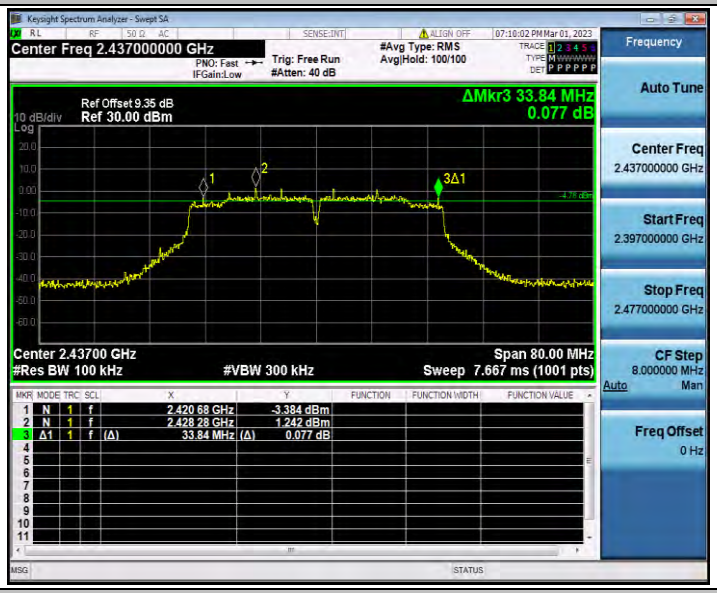
11N20SISO_Ant1_2462



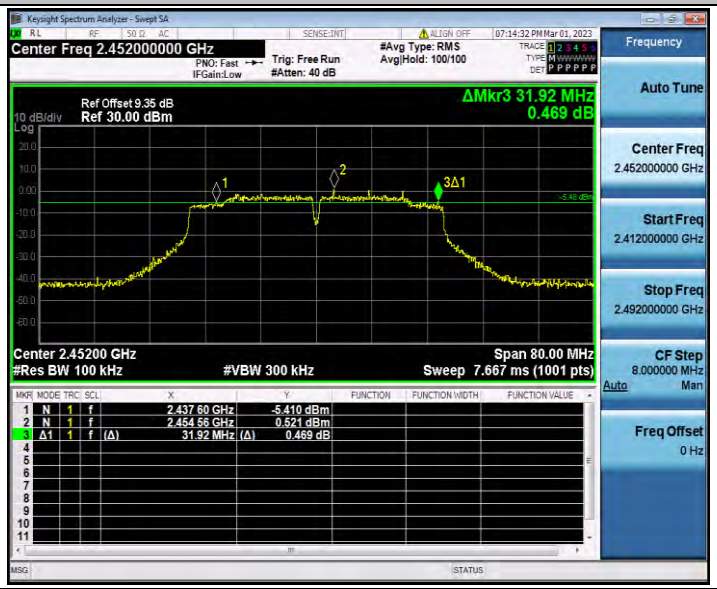
11N40SISO_Ant1_2422



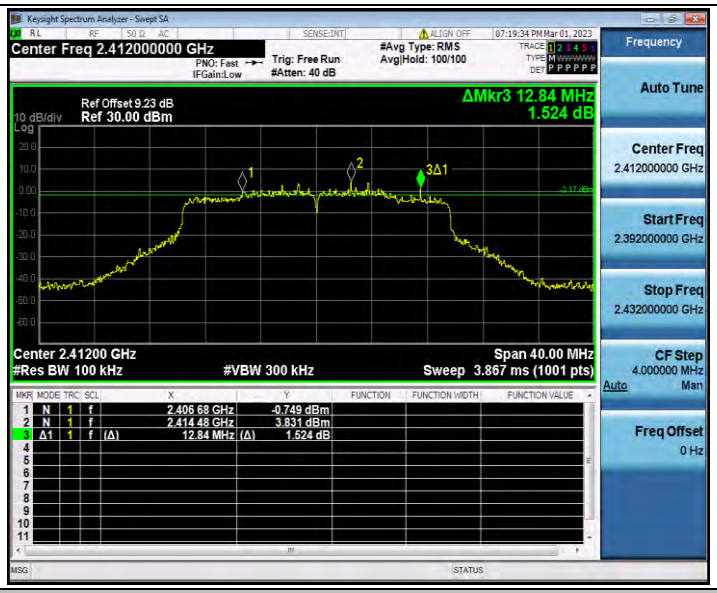
11N40SISO_Ant1_2437



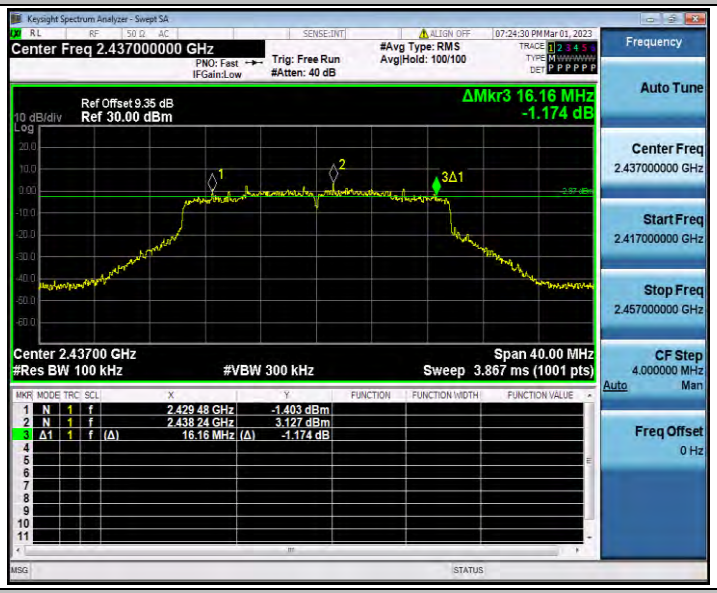
11N40SISO_Ant1_2452



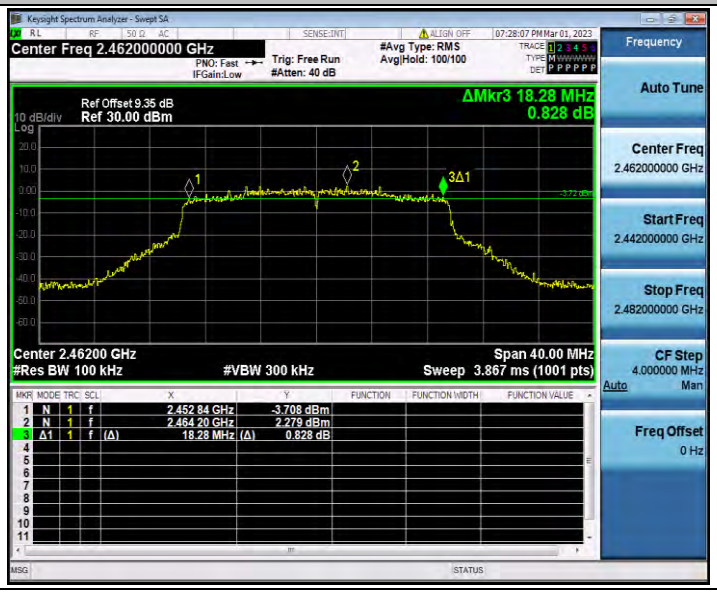
11AX20SISO_Ant1_2412



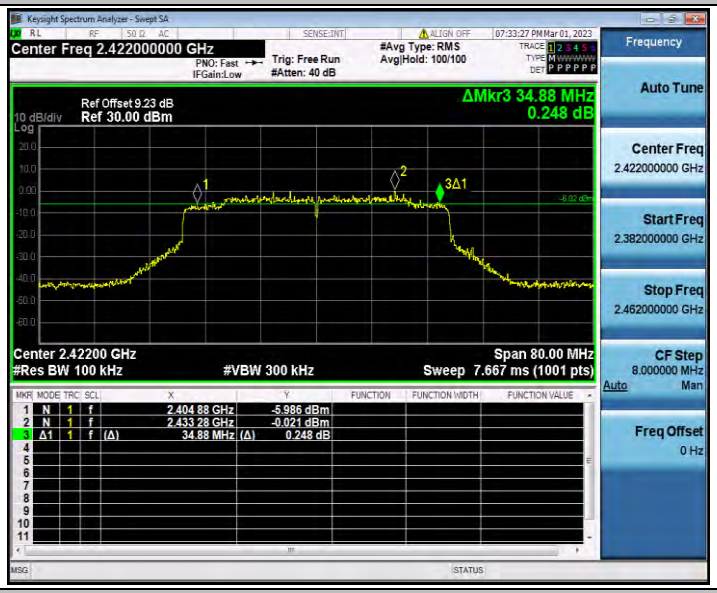
11AX20SISO_Ant1_2437



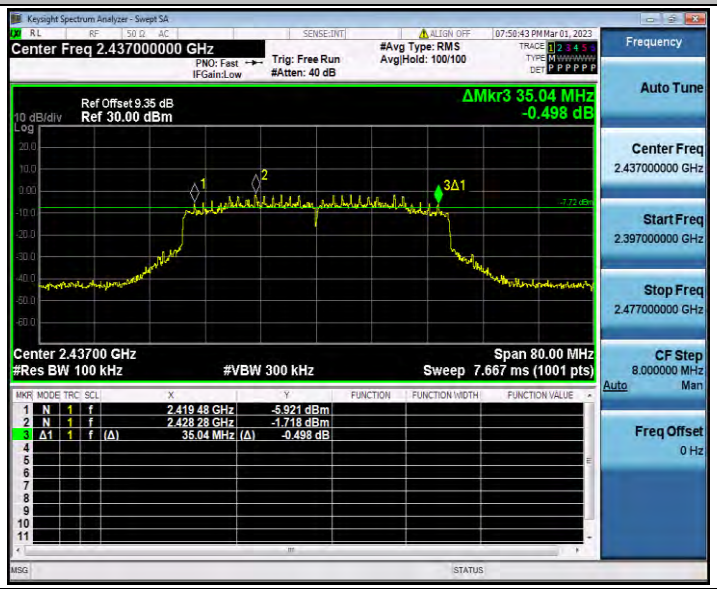
11AX20SISO_Ant1_2462



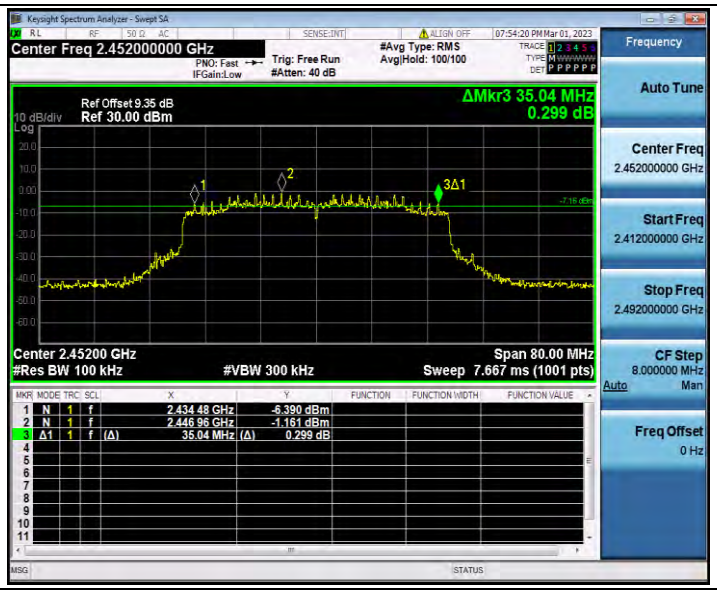
11AX40SISO_Ant1_2422



11AX40SISO_Ant1_2437



11AX40SISO_Ant1_2452


Keysight Spectrum Analyzer - Swept SA
Center Freq 2.452000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
#Avg Type: RMS
Avg|Hold: 100/100
07:54:20 PM Mar 01, 2023
Frequency
Auto Tune
Center Freq
2.452000000 GHz
Start Freq
2.412000000 GHz
Stop Freq
2.492000000 GHz
CF Step
8.000000 MHz
Auto
Man
Freq Offset
0 Hz
Ref Offset 9.35 dB
10 dB/div
Ref 30.00 dBm
Log
ΔMkr3 35.04 MHz
0.299 dB
Center 2.45200 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 80.00 MHz
Sweep 7.667 ms (1001 pts)
1 N 1 f 2.434 48 GHz -6.390 dBm
2 N 1 f 2.446 96 GHz -1.161 dBm
3 Δ1 1 f (Δ) 35.04 MHz (Δ) 0.299 dB

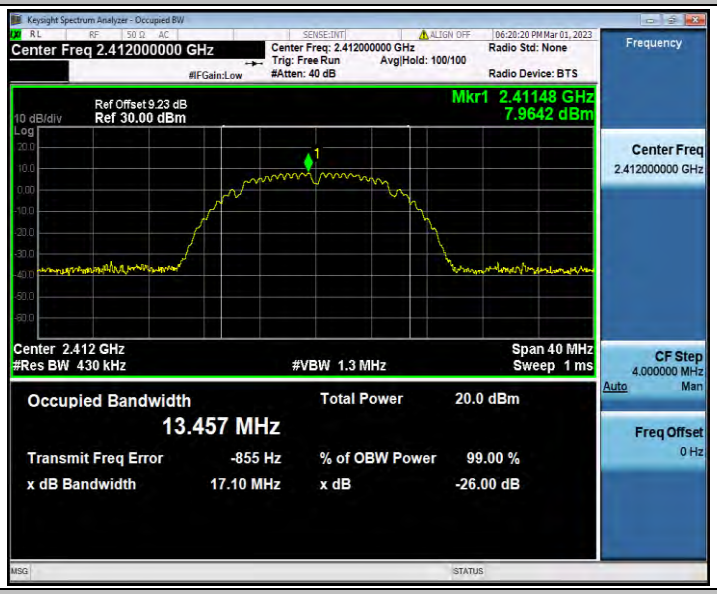
Appendix C.2: Occupied Channel Bandwidth

Test Result

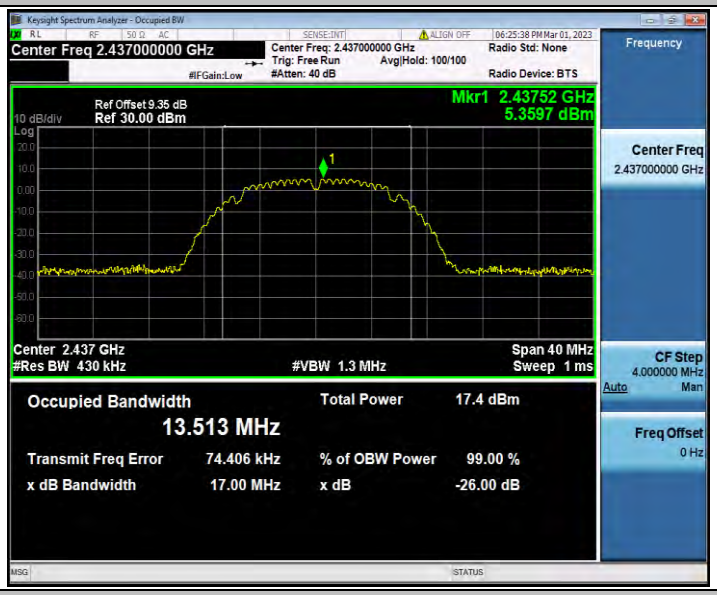
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	13.457	2405.271	2418.728	---	---
		2437	13.513	2430.318	2443.831	---	---
		2462	13.449	2455.283	2468.732	---	---
11G	Ant1	2412	16.886	2403.559	2420.445	---	---
		2437	16.887	2428.630	2445.517	---	---
		2462	16.814	2453.584	2470.398	---	---
11N20SISO	Ant1	2412	17.886	2403.053	2420.939	---	---
		2437	17.908	2428.101	2446.009	---	---
		2462	17.922	2453.059	2470.981	---	---
11N40SISO	Ant1	2422	36.128	2403.967	2440.095	---	---
		2437	36.157	2418.922	2455.079	---	---
		2452	36.037	2434.010	2470.047	---	---
11AX20SISO	Ant1	2412	18.918	2402.540	2421.458	---	---
		2437	19.026	2427.525	2446.551	---	---
		2462	18.966	2452.516	2471.482	---	---
11AX40SISO	Ant1	2422	37.490	2403.277	2440.767	---	---
		2437	37.641	2418.178	2455.819	---	---
		2452	37.590	2433.294	2470.884	---	---

Test Graphs

11B_Ant1_2412



11B_Ant1_2437



11B_Ant1_2462

11G_Ant1_2412

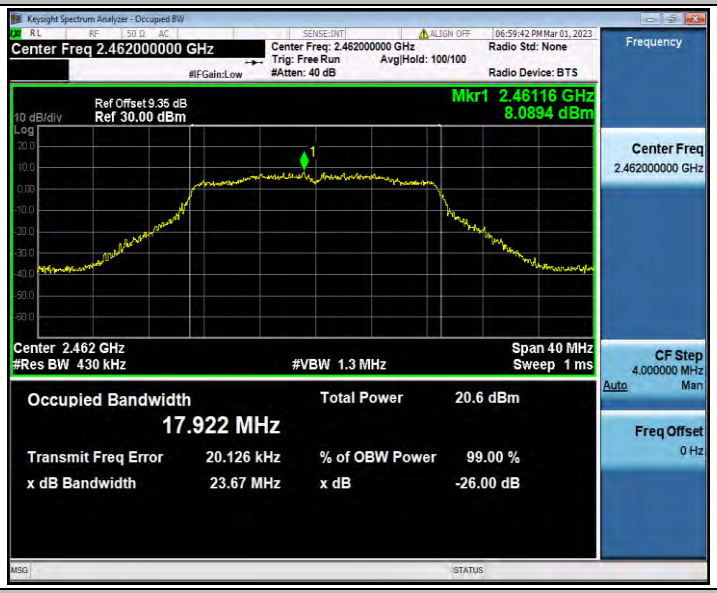
11G_Ant1_2437

11G_Ant1_2462

11N20SISO_Ant1_2412

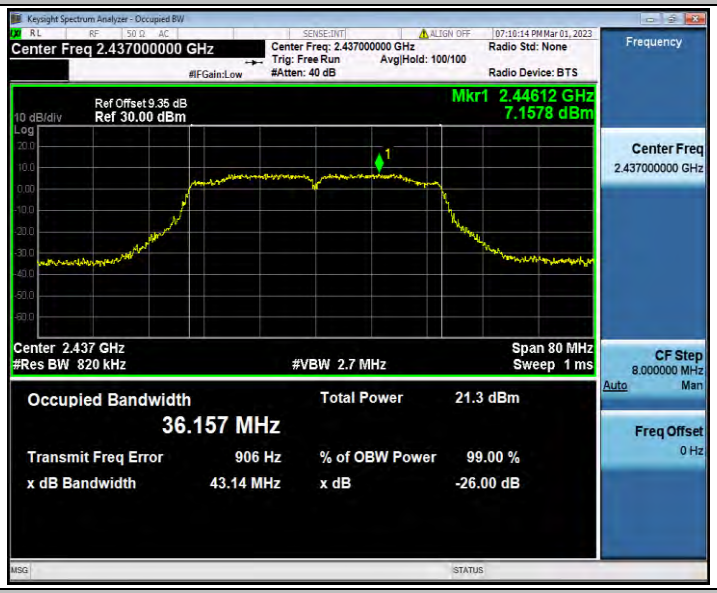
11N20SISO_Ant1_2437

11N20SISO_Ant1_2462



11N40SISO_Ant1_2422

11N40SISO_Ant1_2437



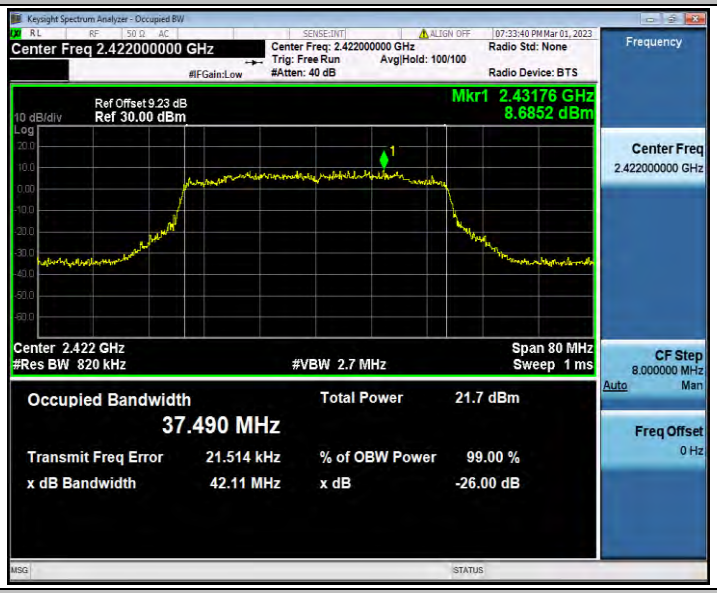
11N40SISO_Ant1_2452

11AX20SISO_Ant1_2412

11AX20SISO_Ant1_2437

11AX20SISO_Ant1_2462

11AX40SISO_Ant1_2422



11AX40SISO_Ant1_2437

11AX40SISO_Ant1_2452

Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω AC
SENSE:INT
ALIGN OFF
07:54:31 PM Mar 01, 2023
Center Freq 2.452000000 GHz
Center Freq: 2.452000000 GHz
Trig: Free Run
Avg|Hold: 100/100
#Atten: 40 dB
#IFGain:Low
Radio Std: None
Radio Device: BTS
Frequency
Ref Offset 9.35 dB
10 dB/div
Ref 30.00 dBm
Log
Mkr1 2.44672 GHz
7.6127 dBm
Center Freq
2.452000000 GHz
Center 2.452 GHz
#Res BW 820 kHz
#VBW 2.7 MHz
Span 80 MHz
Sweep 1 ms
CF Step
8.000000 MHz
Auto
Man
Occupied Bandwidth
37.590 MHz
Total Power 19.1 dBm
Transmit Freq Error 89.209 kHz
% of OBW Power 99.00 %
x dB Bandwidth 41.31 MHz
x dB -26.00 dB
Freq Offset
0 Hz
MSG
STATUS

Appendix C.3: Maximum conducted output power

Test Result Peak

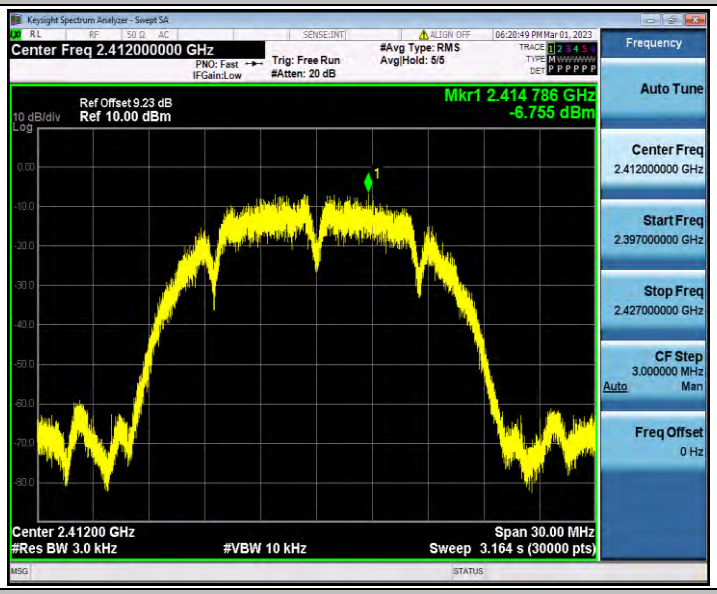
TestMode	Antenna	Frequency[MHz]	Peak Powert[dBm]	Conducted Limit[dBm]	Verdict
11B	Ant1	2412	19.99	≤30.00	PASS
		2437	17.40	≤30.00	PASS
		2462	17.75	≤30.00	PASS
11G	Ant1	2412	21.07	≤30.00	PASS
		2437	21.37	≤30.00	PASS
		2462	21.73	≤30.00	PASS
11N20SISO	Ant1	2412	21.09	≤30.00	PASS
		2437	21.33	≤30.00	PASS
		2462	21.65	≤30.00	PASS
11N40SISO	Ant1	2422	21.42	≤30.00	PASS
		2437	21.59	≤30.00	PASS
		2452	21.82	≤30.00	PASS
11AX20SISO	Ant1	2412	21.46	≤30.00	PASS
		2437	21.59	≤30.00	PASS
		2462	21.98	≤30.00	PASS
11AX40SISO	Ant1	2422	21.75	≤30.00	PASS
		2437	19.11	≤30.00	PASS
		2452	19.15	≤30.00	PASS

Appendix C.4: Maximum power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-6.76	≤8.00	PASS
		2437	-8.72	≤8.00	PASS
		2462	-8.06	≤8.00	PASS
11G	Ant1	2412	-9.95	≤8.00	PASS
		2437	-10.09	≤8.00	PASS
		2462	-9.4	≤8.00	PASS
11N20SISO	Ant1	2412	-11.27	≤8.00	PASS
		2437	-11.03	≤8.00	PASS
		2462	-10.48	≤8.00	PASS
11N40SISO	Ant1	2422	-14	≤8.00	PASS
		2437	-13.1	≤8.00	PASS
		2452	-13.42	≤8.00	PASS
11AX20SISO	Ant1	2412	-11.32	≤8.00	PASS
		2437	-11.36	≤8.00	PASS
		2462	-10.61	≤8.00	PASS
11AX40SISO	Ant1	2422	-14.01	≤8.00	PASS
		2437	-17.73	≤8.00	PASS
		2452	-16.91	≤8.00	PASS

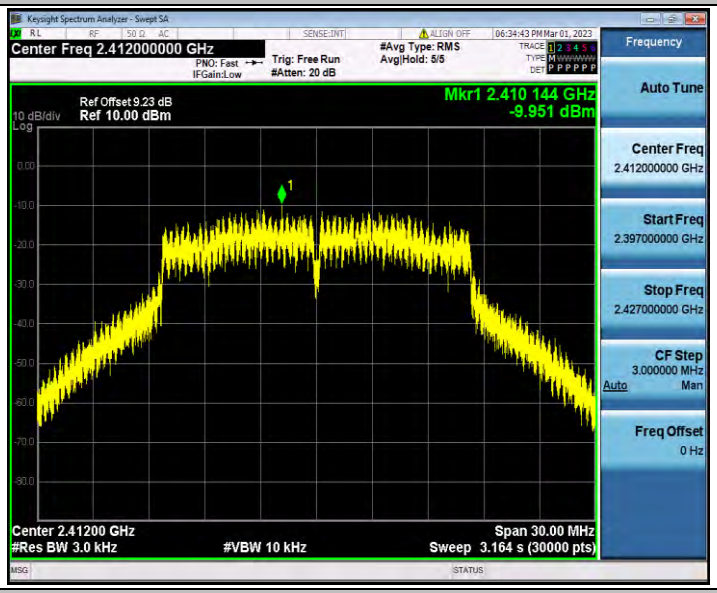
Test Graphs

11B_Ant1_2412


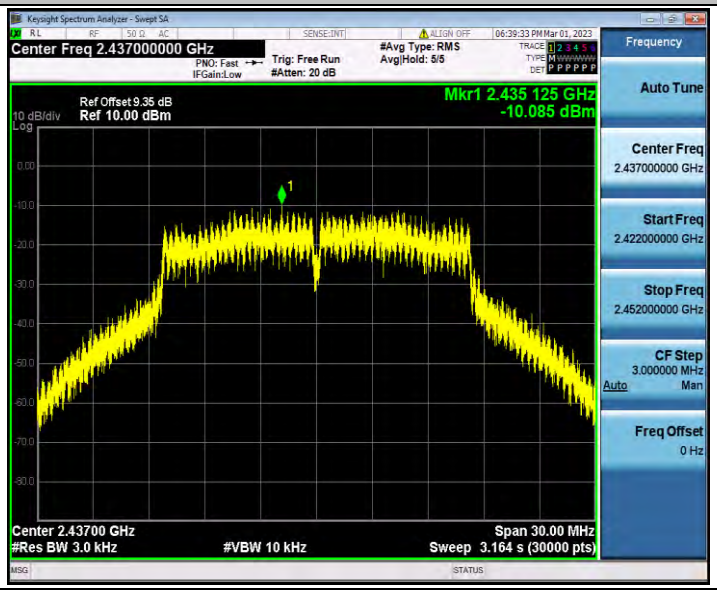
11B_Ant1_2437

11B_Ant1_2462

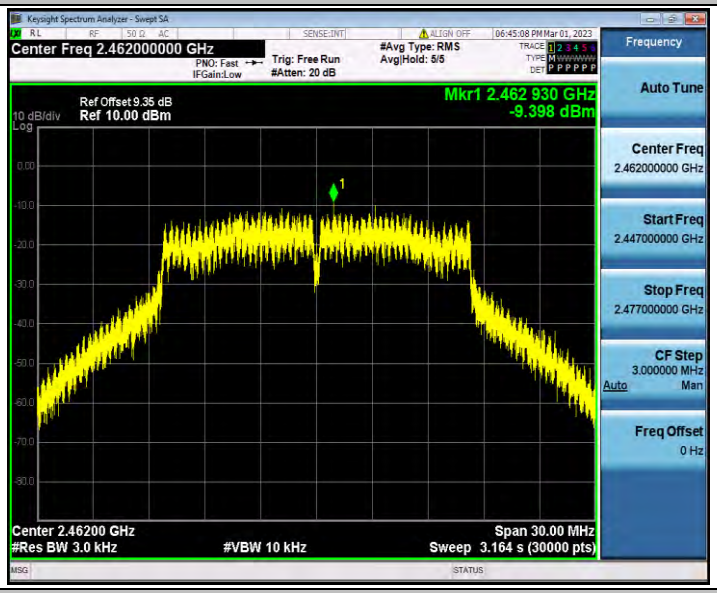
11G_Ant1_2412



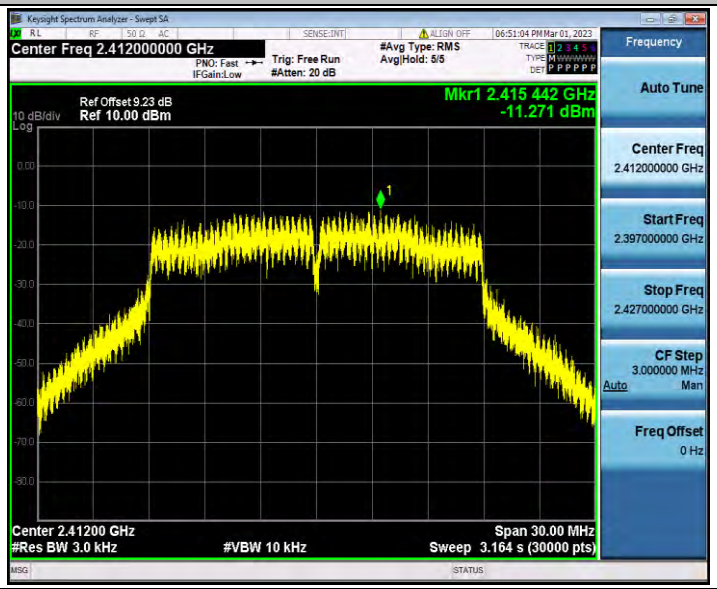
11G_Ant1_2437



11G_Ant1_2462



11N20SISO_Ant1_2412



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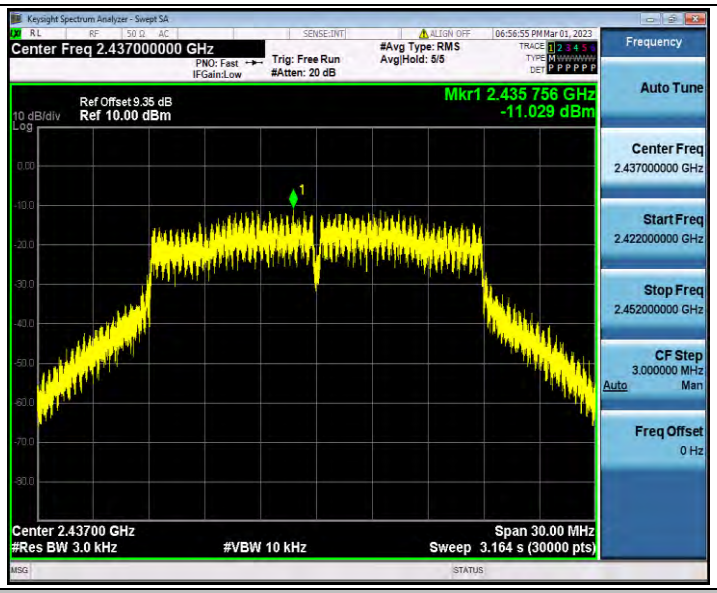

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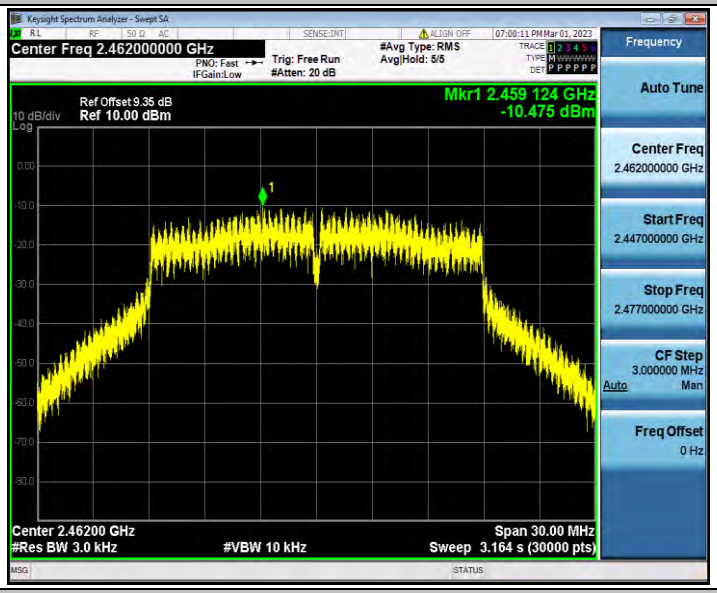
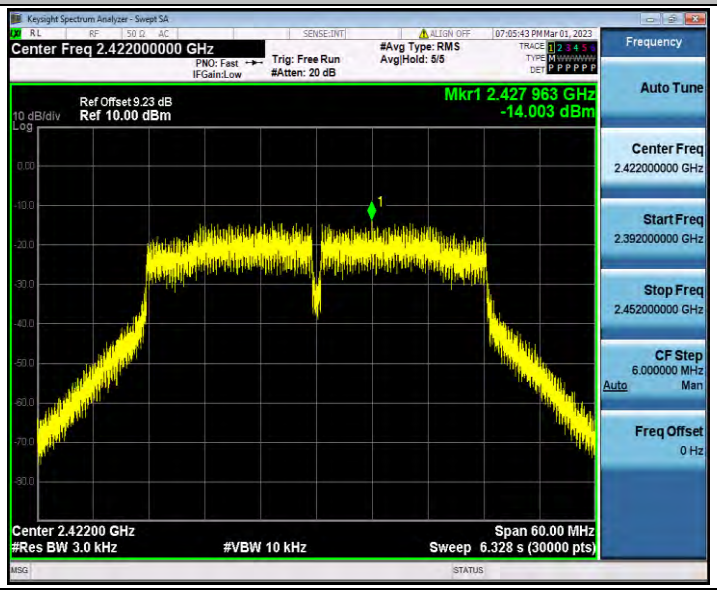
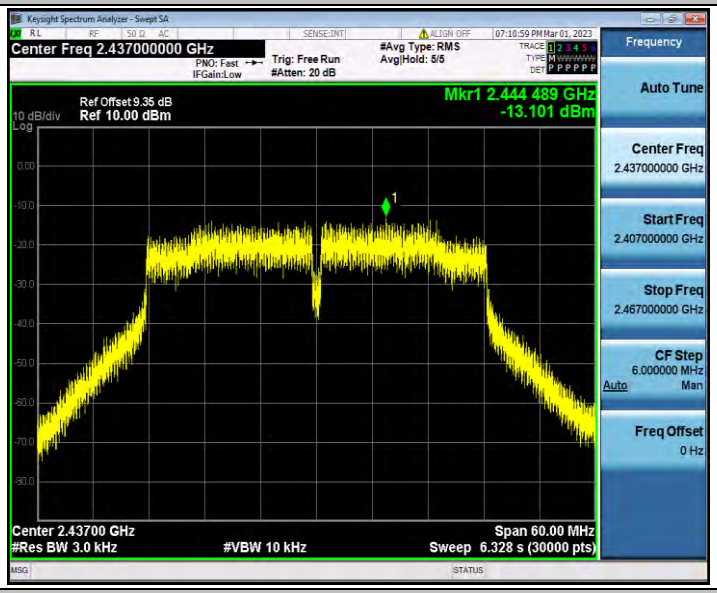


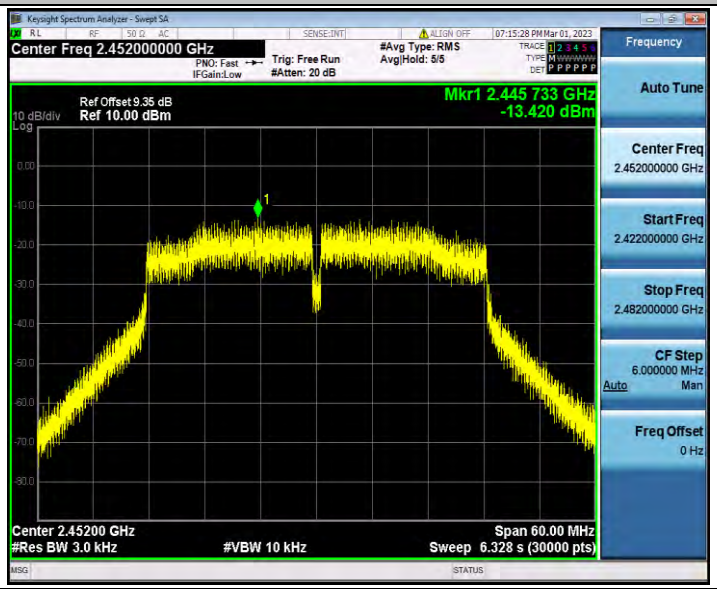
11N40SISO_Ant1_2422



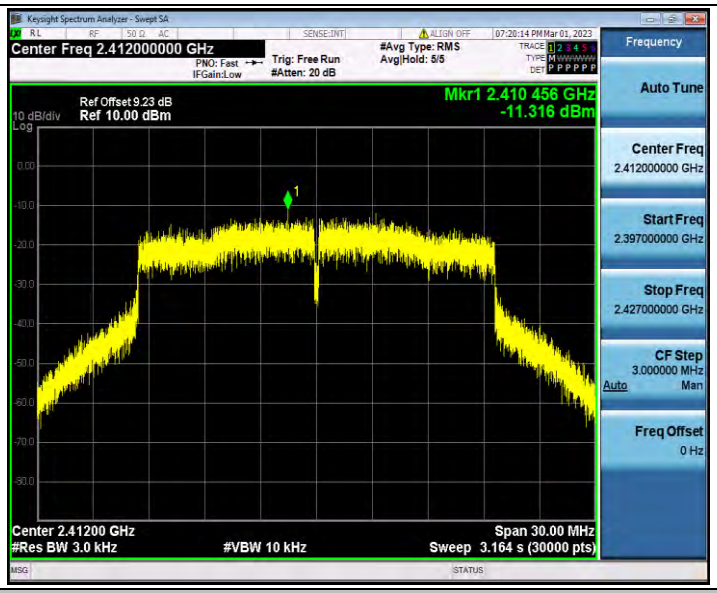
11N40SISO_Ant1_2437



11N40SISO_Ant1_2452

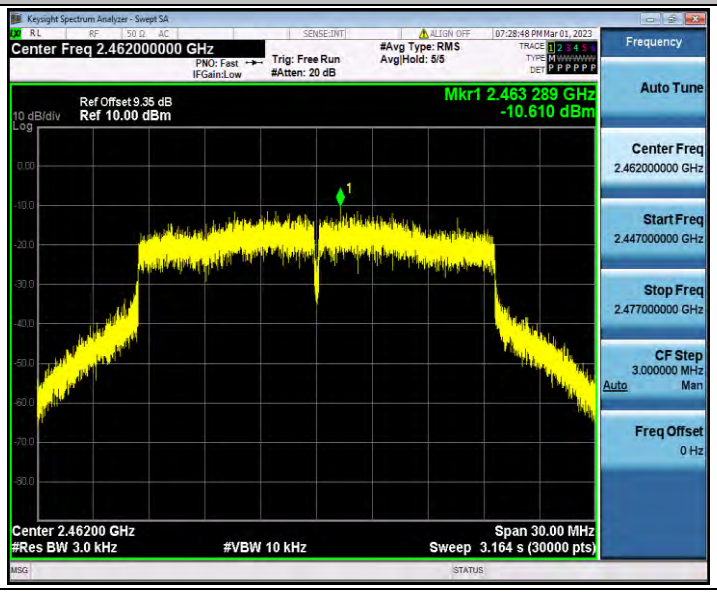


11AX20SISO_Ant1_2412

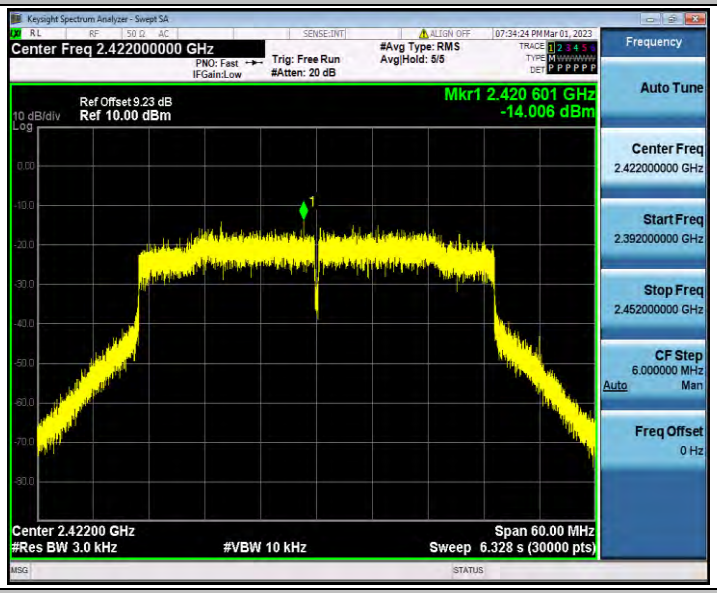


11AX20SISO_Ant1_2437

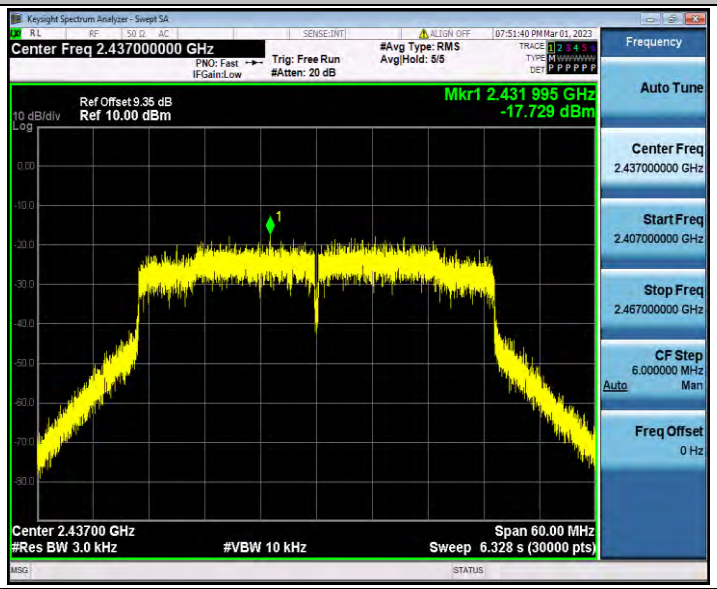
11AX20SISO_Ant1_2462



11AX40SISO_Ant1_2422



11AX40SISO_Ant1_2437



11AX40SISO_Ant1_2452

Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN OFF
07:55:17 PM Mar 01, 2023
Center Freq 2.452000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
#Avg Type: RMS
Avg|Hold: 5/5
TRACE 1 2 3 4 5 6
TYPE M
DET P P P P P
Frequency
Auto Tune
Center Freq
2.452000000 GHz
Start Freq
2.422000000 GHz
Stop Freq
2.482000000 GHz
CF Step
6.000000 MHz
Auto
Man
Freq Offset
0 Hz
Ref Offset 9.35 dB
10 dB/div
Ref 10.00 dBm
Log
Mkr1 2.446 963 GHz
-16.912 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
1
Center 2.45200 GHz
#Res BW 3.0 kHz
#VBW 10 kHz
Span 60.00 MHz
Sweep 6.328 s (30000 pts)
MSG
STATUS