

Appendix B of WIFI Results

DTS Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	10.000	2407.000	2417.000	0.5	PASS
11B	Ant1	2437	9.040	2432.960	2442.000	0.5	PASS
11B	Ant1	2462	10.040	2456.960	2467.000	0.5	PASS
11G	Ant1	2412	16.320	2403.840	2420.160	0.5	PASS
11G	Ant1	2437	16.320	2428.840	2445.160	0.5	PASS
11G	Ant1	2462	16.320	2453.840	2470.160	0.5	PASS
11N20SISO	Ant1	2412	17.200	2403.560	2420.760	0.5	PASS
11N20SISO	Ant1	2437	17.520	2428.240	2445.760	0.5	PASS
11N20SISO	Ant1	2462	17.520	2453.240	2470.760	0.5	PASS
11N40SISO	Ant1	2422	35.040	2404.480	2439.520	0.5	PASS
11N40SISO	Ant1	2437	33.040	2421.560	2454.600	0.5	PASS
11N40SISO	Ant1	2452	34.000	2435.120	2469.120	0.5	PASS

Test Graphs



FCC ID: 2A64B-DSX39
IC: 28593-DSX39



11G-Ant1-2412-PASS



11G-Ant1-2437-PASS



11G-Ant1-2462-PASS

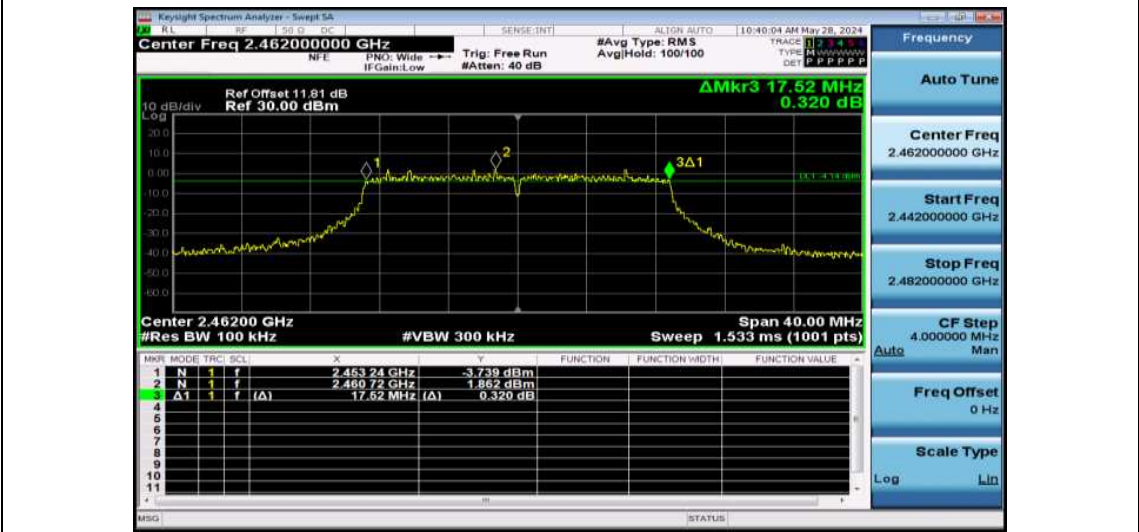
FCC ID: 2A64B-DSX39
IC: 28593-DSX39



11N20SISO-Ant1-2412-PASS

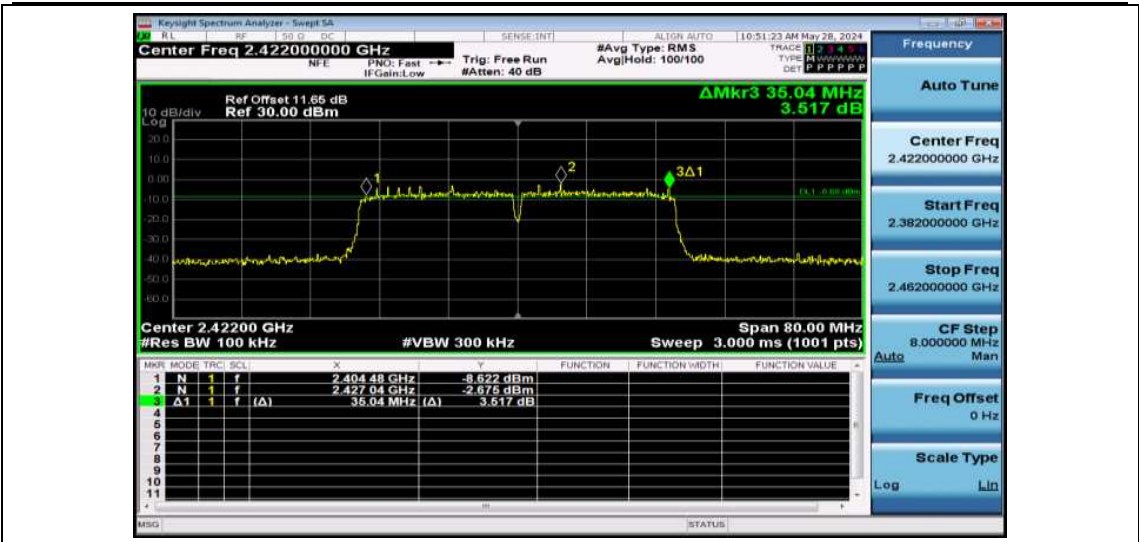


11N20SISO-Ant1-2437-PASS

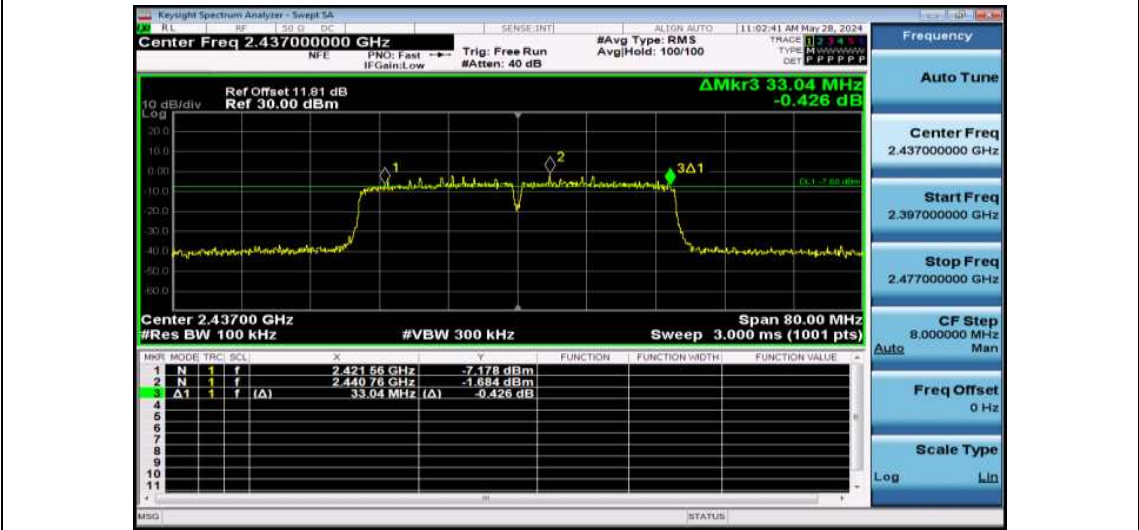


11N20SISO-Ant1-2462-PASS

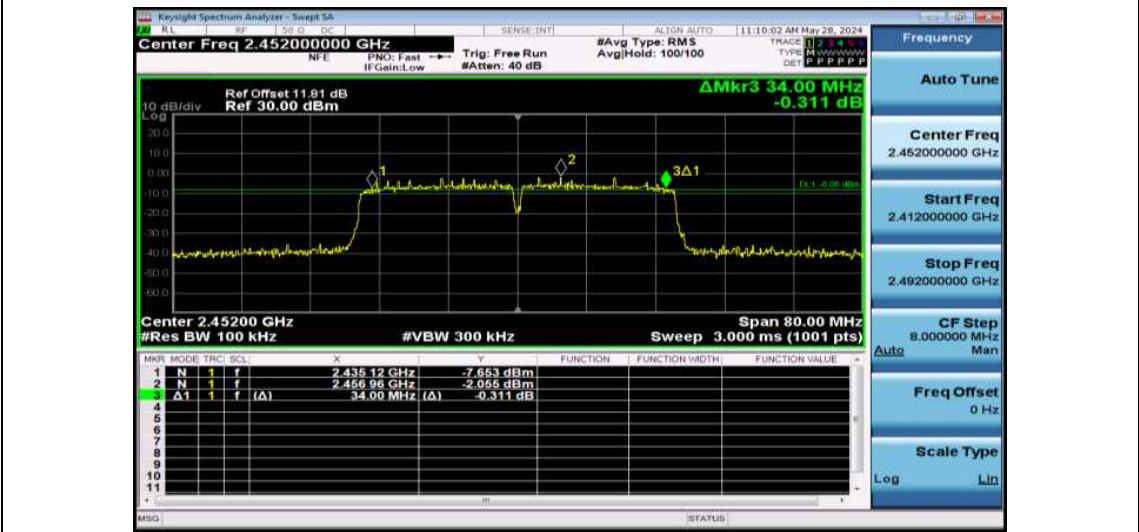
FCC ID: 2A64B-DSX39
IC: 28593-DSX39



11N40SISO-Ant1-2422-PASS



11N40SISO-Ant1-2437-PASS



11N40SISO-Ant1-2452-PASS

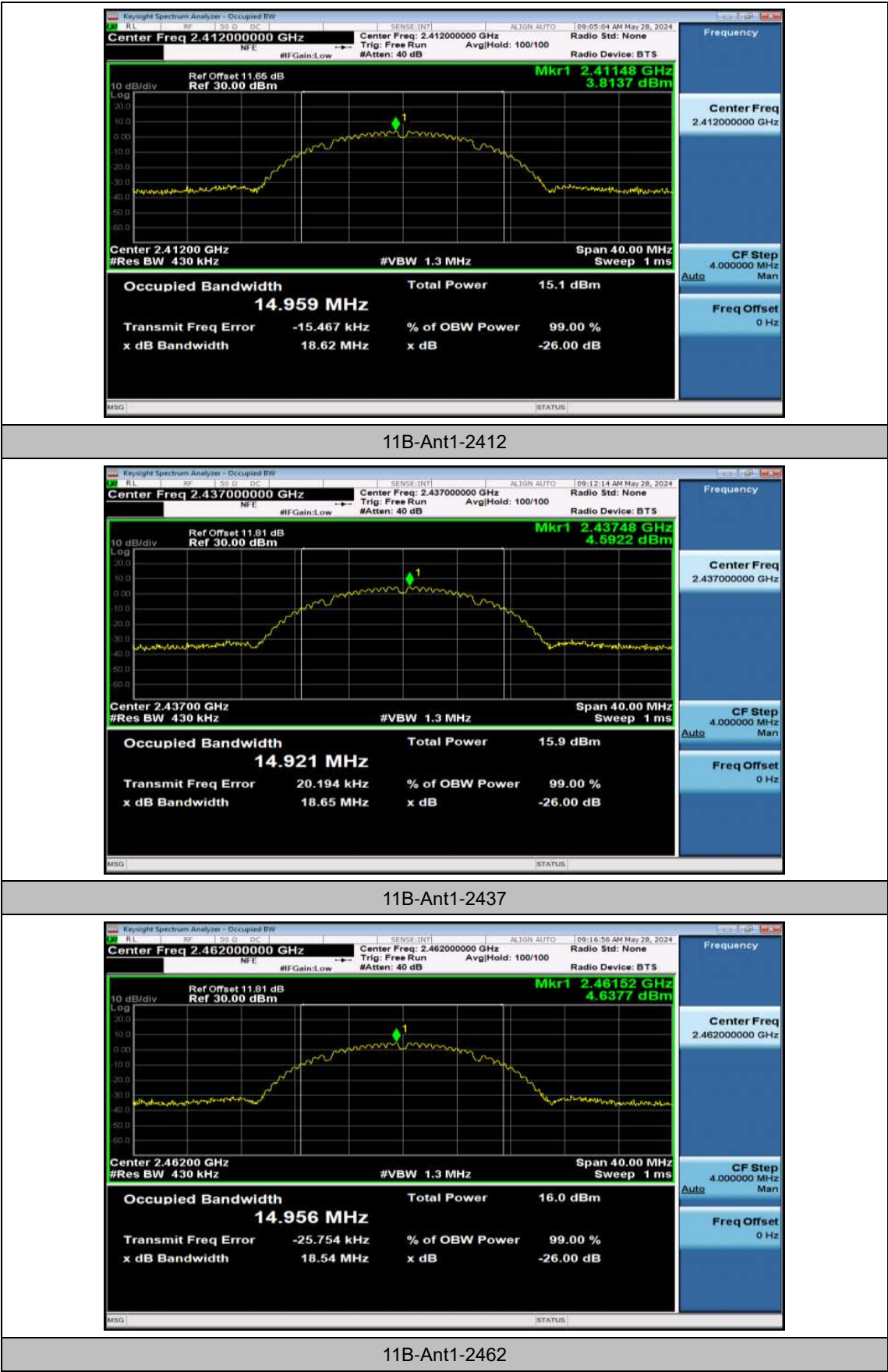
FCC ID: 2A64B-DSX39
IC: 28593-DSX39

Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	14.959	2404.5050	2419.4640	---	---
11B	Ant1	2437	14.921	2429.5597	2444.4807	---	---
11B	Ant1	2462	14.956	2454.4963	2469.4523	---	---
11G	Ant1	2412	17.061	2403.4427	2420.5037	---	---
11G	Ant1	2437	17.046	2428.5592	2445.6052	---	---
11G	Ant1	2462	17.130	2453.4104	2470.5404	---	---
11N20SISO	Ant1	2412	18.023	2403.0117	2421.0347	---	---
11N20SISO	Ant1	2437	18.108	2427.9544	2446.0624	---	---
11N20SISO	Ant1	2462	18.060	2452.9803	2471.0403	---	---
11N40SISO	Ant1	2422	35.903	2404.0809	2439.9839	---	---
11N40SISO	Ant1	2437	35.874	2419.1087	2454.9827	---	---
11N40SISO	Ant1	2452	35.888	2434.0795	2469.9675	---	---

Test Graphs



FCC ID:2A64B-DSX39

IC:28593-DSX39



11G-Ant1-2412



11G-Ant1-2437



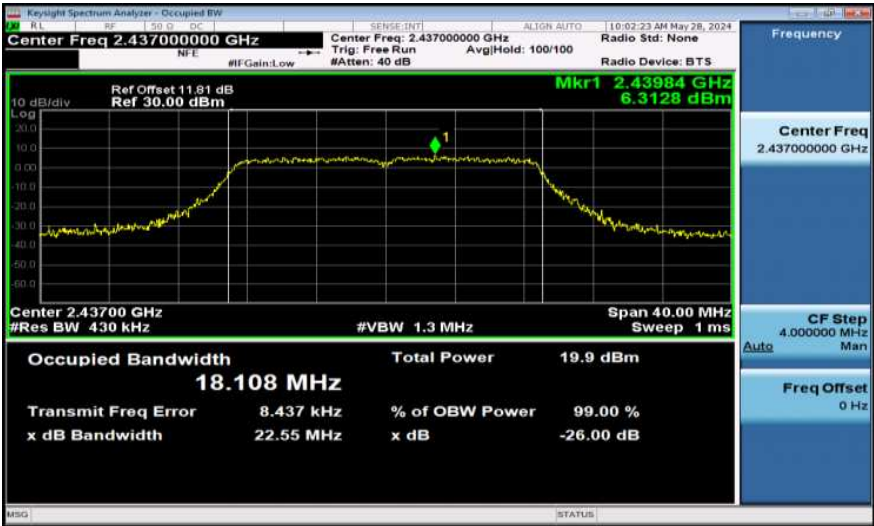
11G-Ant1-2462

FCC ID:2A64B-DSX39

IC:28593-DSX39



11N20SISO-Ant1-2412

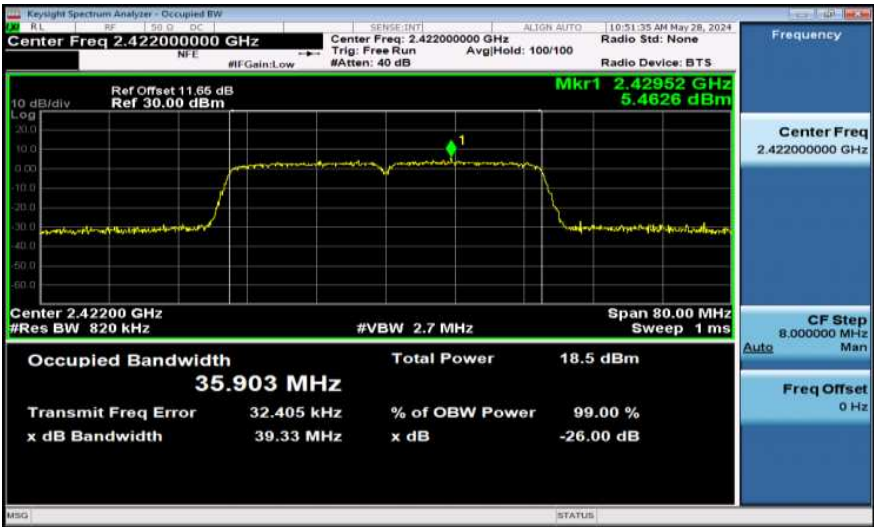


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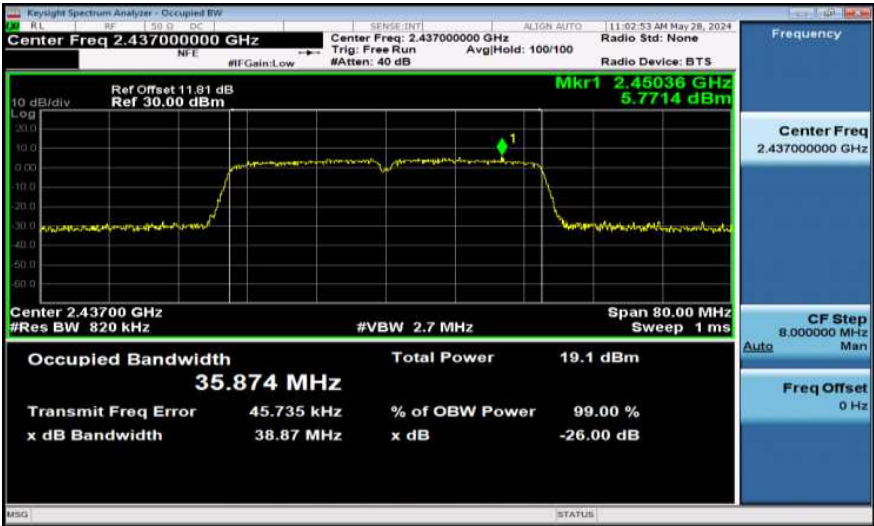


11N20SISO-Ant1-2462

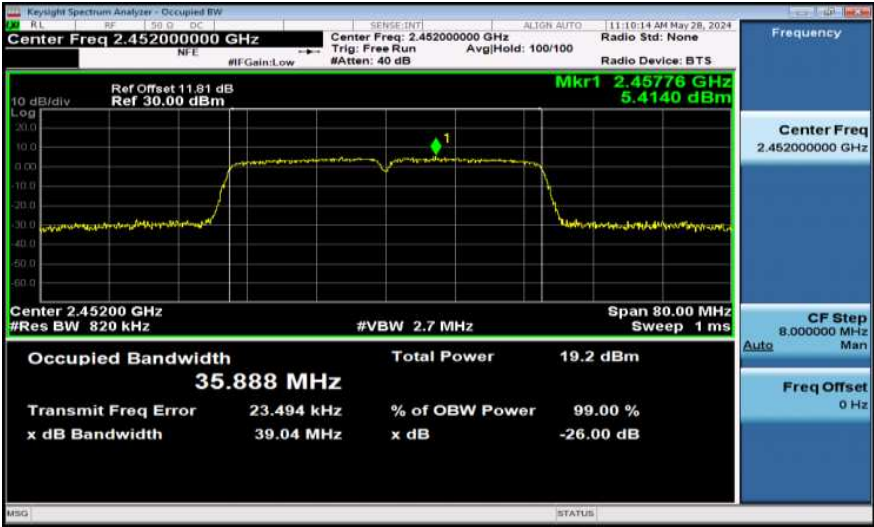
FCC ID: 2A64B-DSX39
IC: 28593-DSX39



11N40SISO-Ant1-2422



11N40SISO-Ant1-2437



11N40SISO-Ant1-2452

Maximum conducted output power

Test Result Average

Test Mode	Antenna	Frequency [MHz]	Average power [dBm]	Duty Cycle [%]	DC Factor [dBm]	Result [dBm]	Limit [dBm]	Gain [dBi]	EIRP [dBm]	EIRP Limit [dBm]	Verdict
11B	Ant1	2412	12.20	99.52	0.02	12.22	≤30.00	4.19	16.41	≤36.00	PASS
11B	Ant1	2437	12.90	98.57	0.06	12.96	≤30.00	4.19	17.15	≤36.00	PASS
11B	Ant1	2462	13.04	98.57	0.06	13.10	≤30.00	4.19	17.29	≤36.00	PASS
11G	Ant1	2412	12.94	92.38	0.34	13.28	≤30.00	4.19	17.47	≤36.00	PASS
11G	Ant1	2437	13.76	92.38	0.34	14.10	≤30.00	4.19	18.29	≤36.00	PASS
11G	Ant1	2462	14.02	92.41	0.34	14.36	≤30.00	4.19	18.55	≤36.00	PASS
11N20 SISO	Ant1	2412	12.91	93.20	0.31	13.22	≤30.00	4.19	17.41	≤36.00	PASS
11N20 SISO	Ant1	2437	13.61	92.31	0.35	13.96	≤30.00	4.19	18.15	≤36.00	PASS
11N20 SISO	Ant1	2462	13.73	93.66	0.28	14.01	≤30.00	4.19	18.20	≤36.00	PASS
11N40 SISO	Ant1	2422	11.24	85.45	0.68	11.92	≤30.00	4.19	16.11	≤36.00	PASS
11N40 SISO	Ant1	2437	11.74	85.59	0.68	12.42	≤30.00	4.19	16.61	≤36.00	PASS
11N40 SISO	Ant1	2452	11.89	86.24	0.64	12.53	≤30.00	4.19	16.72	≤36.00	PASS

IC: 28593-DSX39

Keysight Spectrum Analyzer - Channel Power

Center Freq 2.411984500 GHz

Center Freq: 2.411984500 GHz
Trig: Free Run
Avg/Hold: 100/100
Radio Std: None
Radio Device: BTS

Ref Offset 11.65 dB
Ref 30.00 dBm

10 dB/div

Center 2.41198 GHz
#Res BW 430 kHz
#VBW 3 MHz
Span 40.00 MHz
Sweep 1 ms

Channel Power

Power Spectral Density

12.19 dBm / 14.96 MHz

-59.55 dBm /Hz

Frequency

Center Freq
2.411984500 GHz

CF Step
4.000000 MHz
Man

Auto

Freq Offset
0 Hz

Keysight Spectrum Analyzer - Channel Power

Center Freq 2.4370200 GHz

Center Freq: 2.43702000 GHz

Trig: Free Run

Avg/Hold: 100/100

Radio Std: None

Radio Device: BT5

Ref Offset 11.81 dB

Ref 30.00 dBm

Center 2.43702 GHz

#Res BW 430 kHz

#VBW 3 MHz

Span 40.00 MHz

Sweep 1 ms

Channel Power

Power Spectral Density

12.90 dBm / 14.92 MHz

-58.84 dBm / Hz

Frequency

2.43702000 GHz

CF Step

4.000000 MHz

Auto

Man

Freq Offset

0 Hz

Keylight Spectrum Analyzer - Channel Power

RL RF 50 0 DC SENSE:INT ALIGN AUTO 09:17:16 AM May 28, 2024

Center Freq 2.461974300 GHz Center Freq: 2.461974300 GHz Radio Std: None
Trig: Free Run Avg/Hold: 100/100
#IF Gain: Low #Atten: 40 dB Radio Device: BTS

Ref Offset 11.81 dB
Ref 30.00 dBm

10 dB/div
Log

Center 2.46197 GHz Span 40.00 MHz
#Res BW 430 kHz #VBW 3 MHz Sweep 1 ms

Channel Power Power Spectral Density

13.04 dBm / 14.96 MHz -58.71 dBm /Hz

MSG STATUS

Frequency

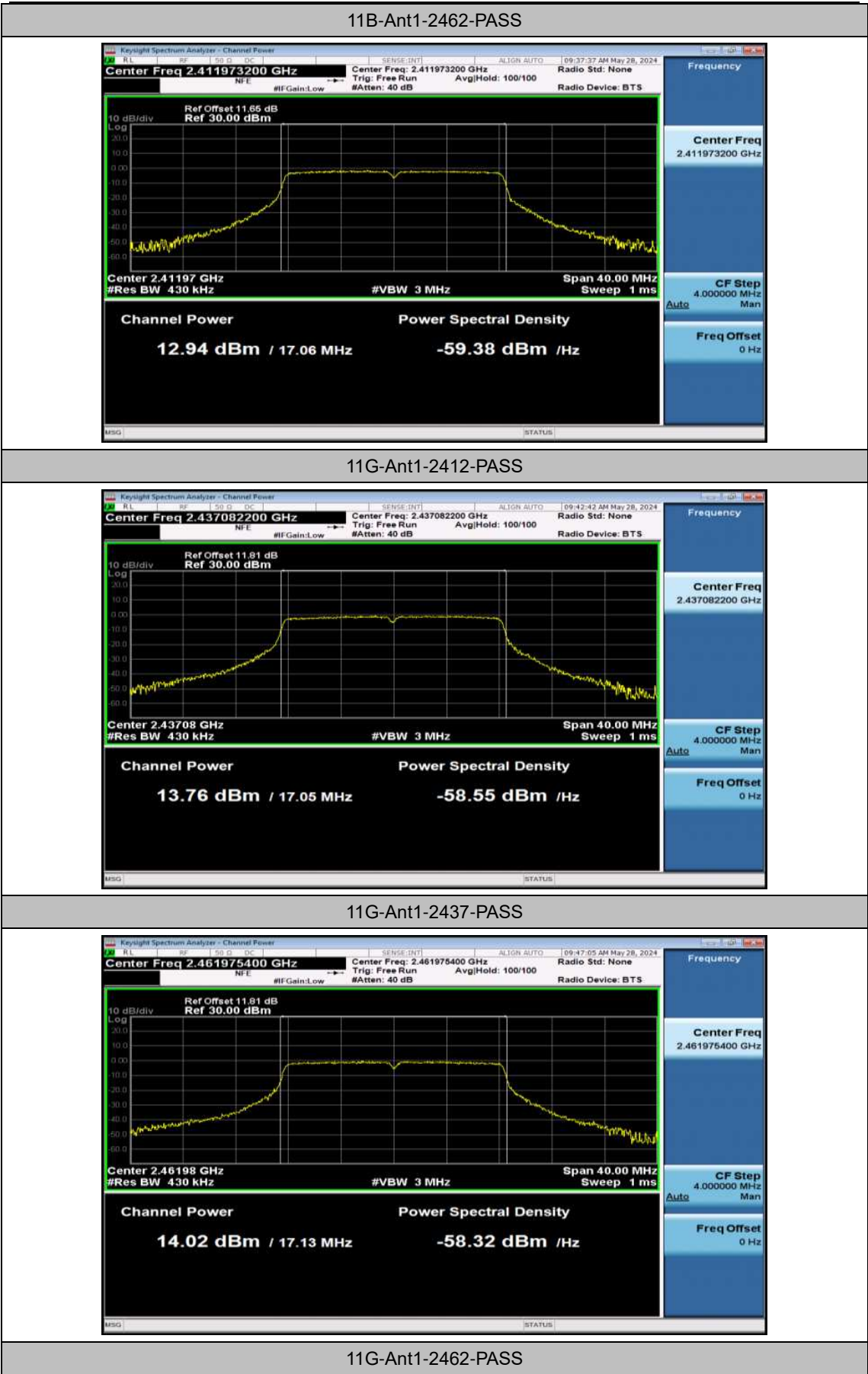
Center Freq
2.461974300 GHz

CF Step
4.000000 MHz
Man
Auto

Freq Offset
0 Hz

FCC ID:2A64B-DSX39

IC:28593-DSX39



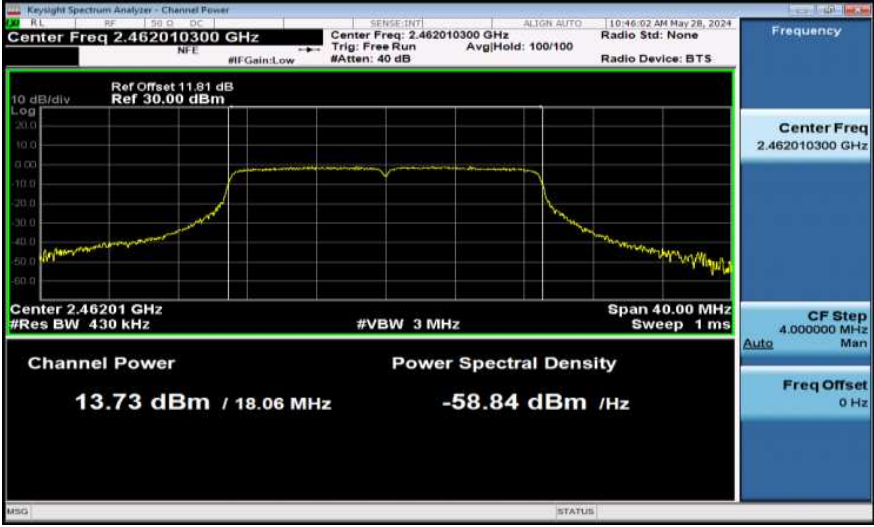
FCC ID: 2A64B-DSX39
IC: 28593-DSX39



11N20SISO-Ant1-2412-PASS

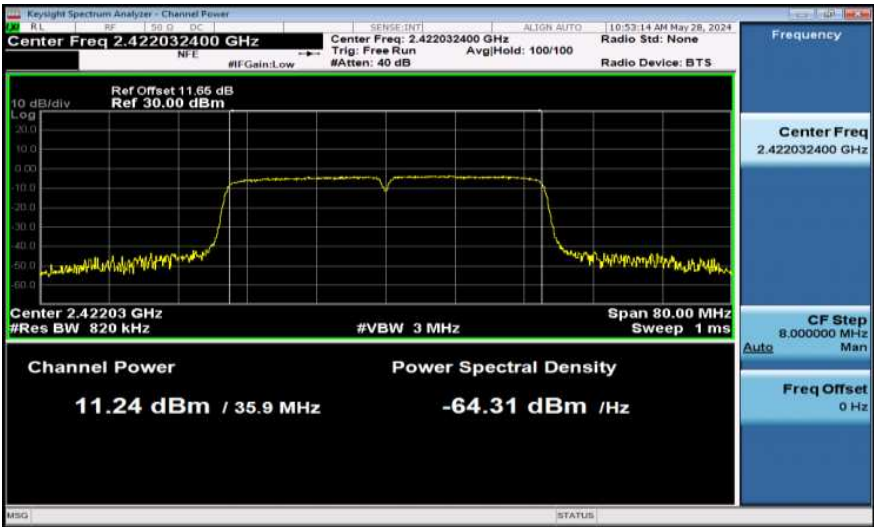


11N20SISO-Ant1-2437-PASS

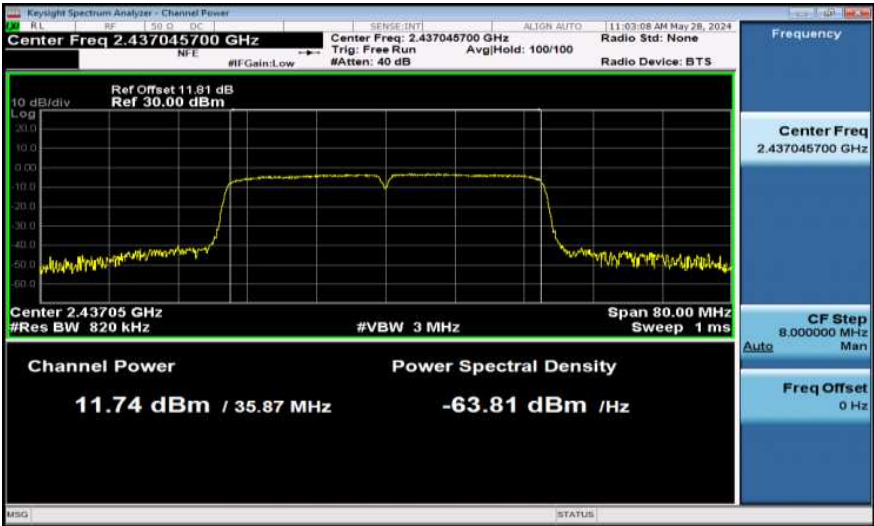


11N20SISO-Ant1-2462-PASS

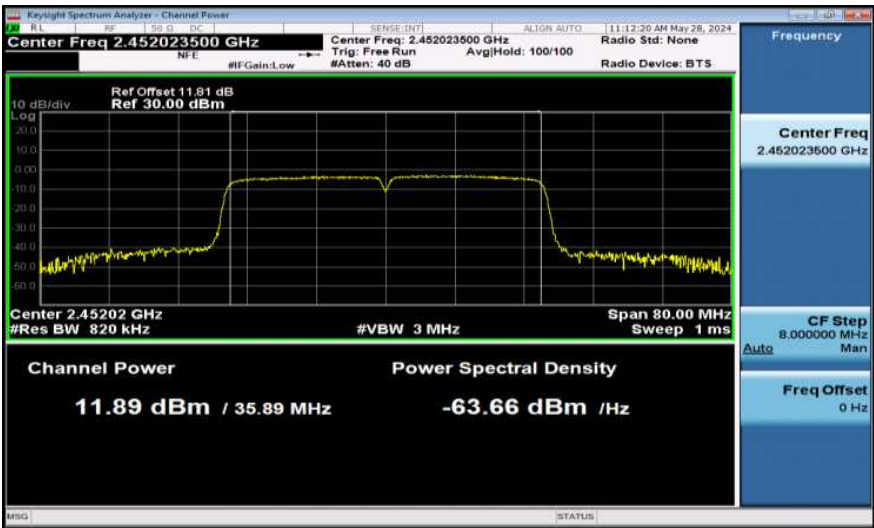
FCC ID: 2A64B-DSX39
IC: 28593-DSX39



11N40SISO-Ant1-2422-PASS



11N40SISO-Ant1-2437-PASS



11N40SISO-Ant1-2452-PASS

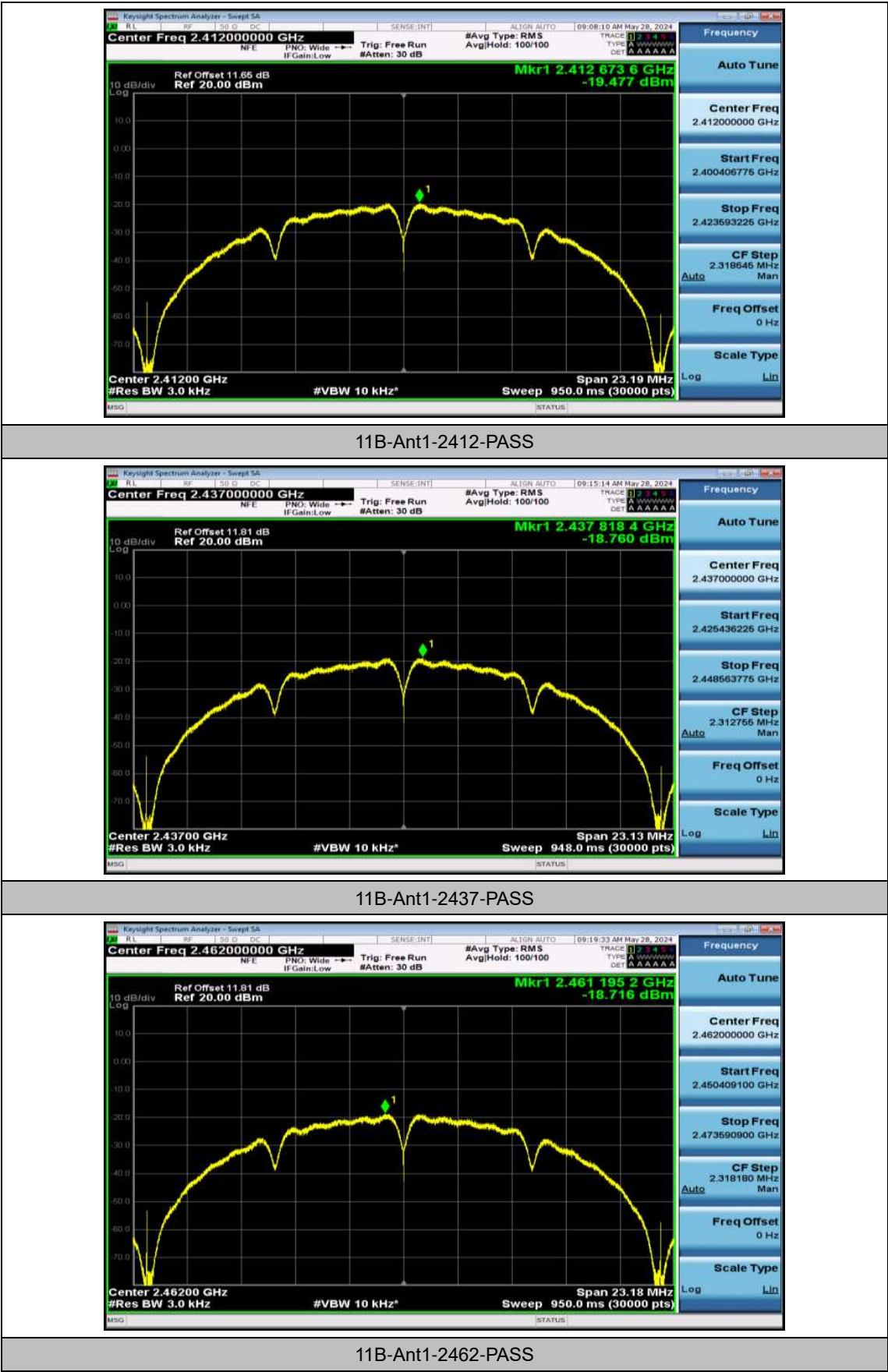
FCC ID: 2A64B-DSX39
IC: 28593-DSX39

Maximum power spectral density

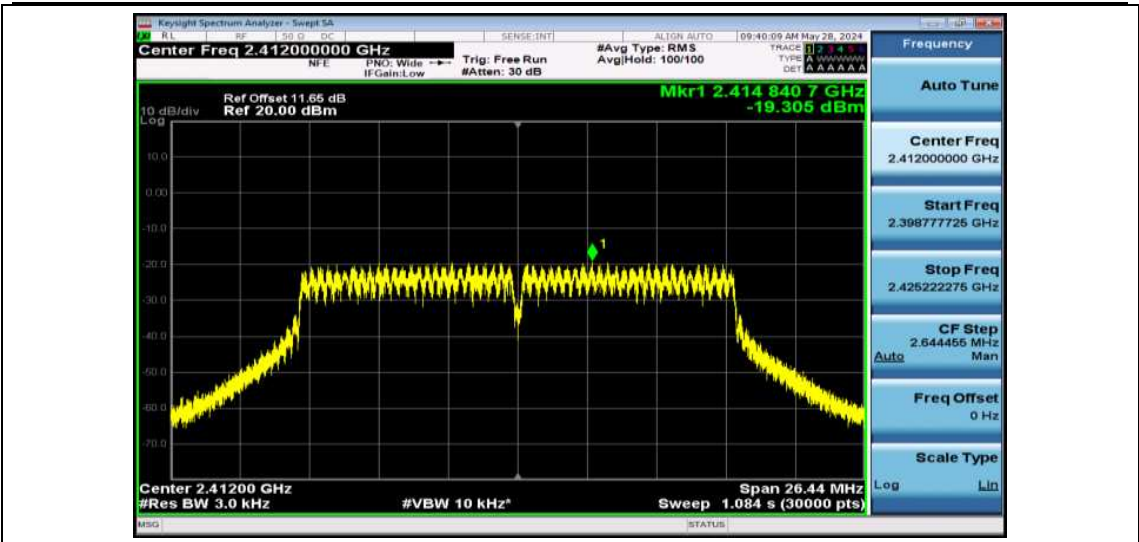
Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-19.46	≤8.00	PASS
11B	Ant1	2437	-18.70	≤8.00	PASS
11B	Ant1	2462	-18.66	≤8.00	PASS
11G	Ant1	2412	-18.97	≤8.00	PASS
11G	Ant1	2437	-17.05	≤8.00	PASS
11G	Ant1	2462	-17.57	≤8.00	PASS
11N20SISO	Ant1	2412	-18.31	≤8.00	PASS
11N20SISO	Ant1	2437	-16.89	≤8.00	PASS
11N20SISO	Ant1	2462	-17.15	≤8.00	PASS
11N40SISO	Ant1	2422	-21.65	≤8.00	PASS
11N40SISO	Ant1	2437	-21.02	≤8.00	PASS
11N40SISO	Ant1	2452	-21.63	≤8.00	PASS

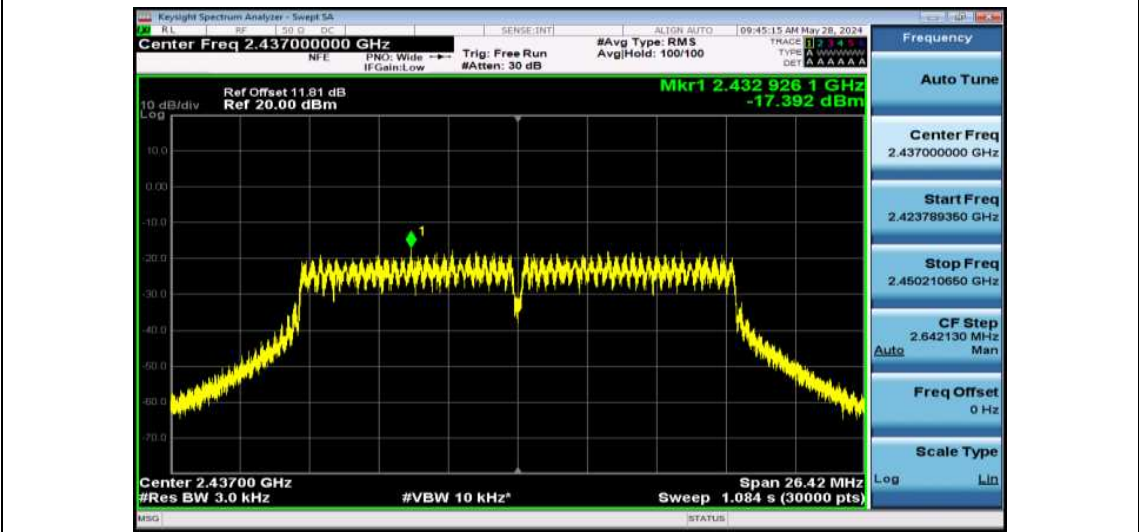
Test Graphs



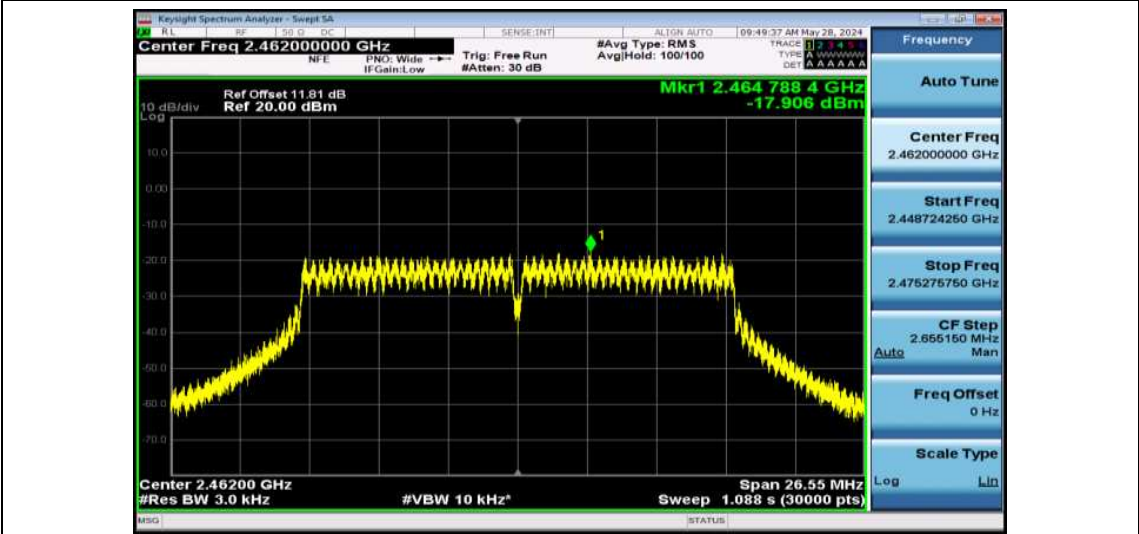
FCC ID: 2A64B-DSX39
IC: 28593-DSX39



11G-Ant1-2412-PASS

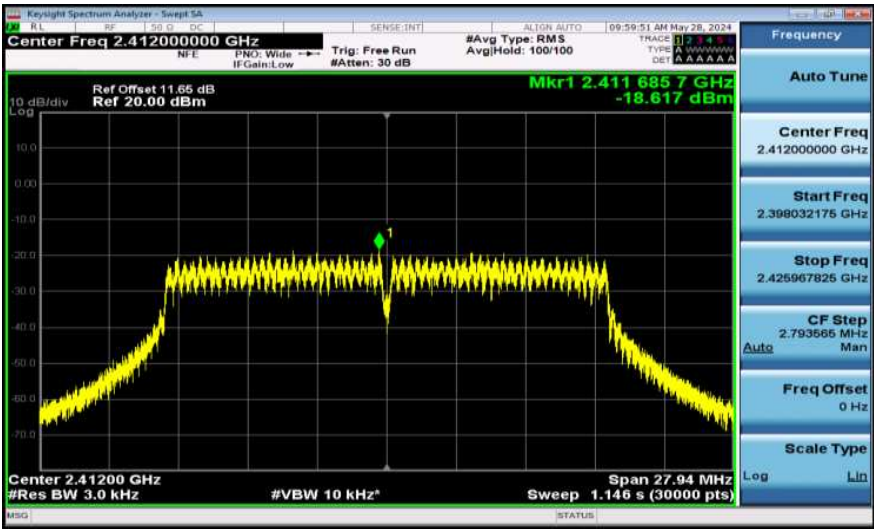


11G-Ant1-2437-PASS

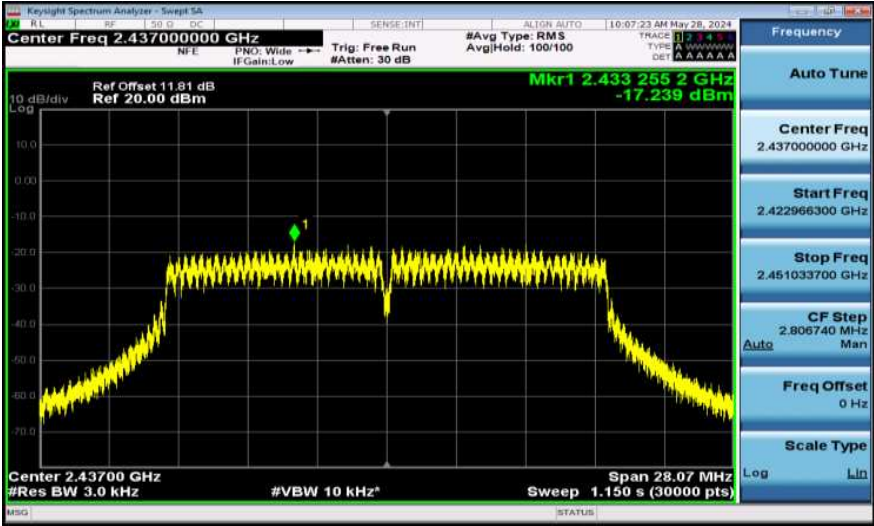


11G-Ant1-2462-PASS

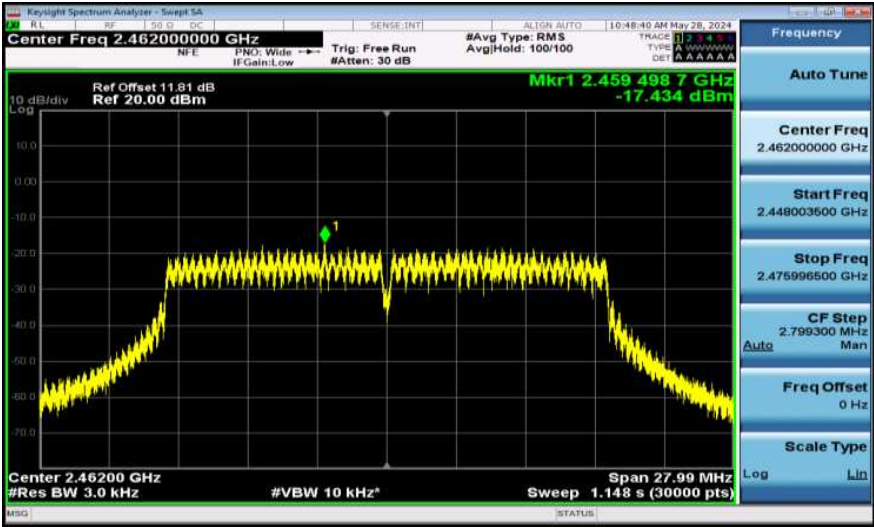
FCC ID: 2A64B-DSX39
IC: 28593-DSX39



11N20SISO-Ant1-2412-PASS

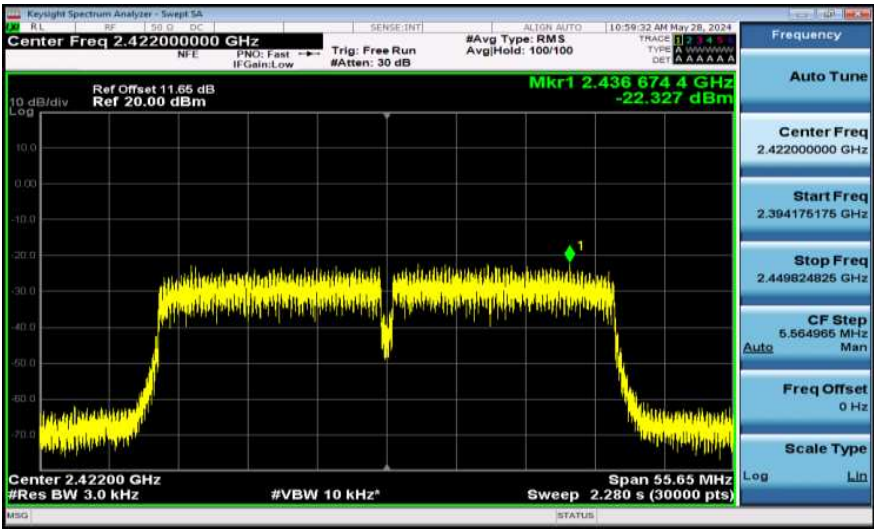


11N20SISO-Ant1-2437-PASS

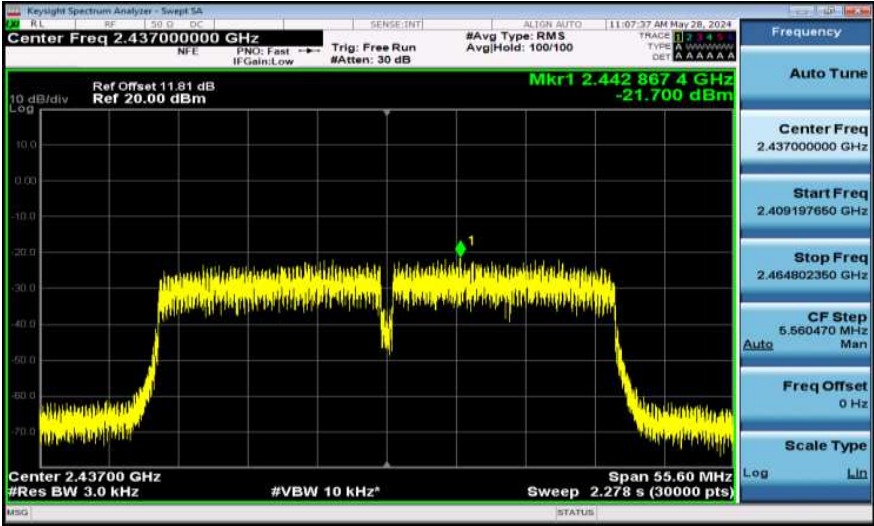


11N20SISO-Ant1-2462-PASS

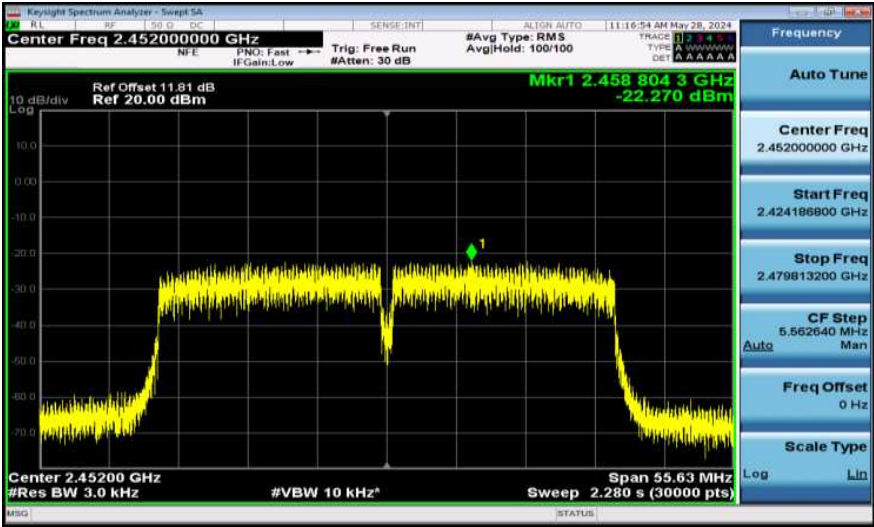
FCC ID: 2A64B-DSX39
IC: 28593-DSX39



11N40SISO-Ant1-2422-PASS



11N40SISO-Ant1-2437-PASS



11N40SISO-Ant1-2452-PASS

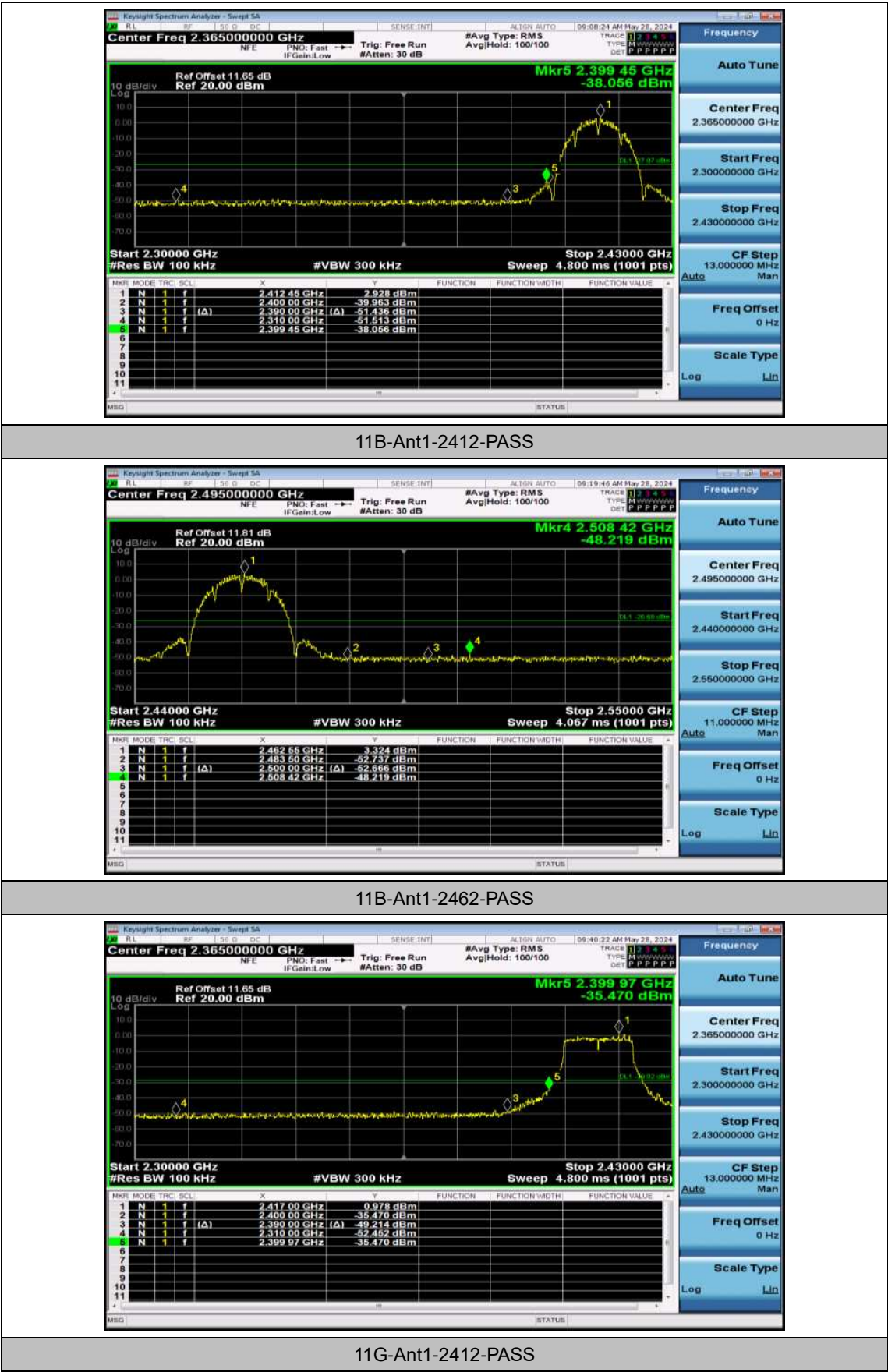
FCC ID: 2A64B-DSX39
IC: 28593-DSX39

Band edge measurements

Test Result

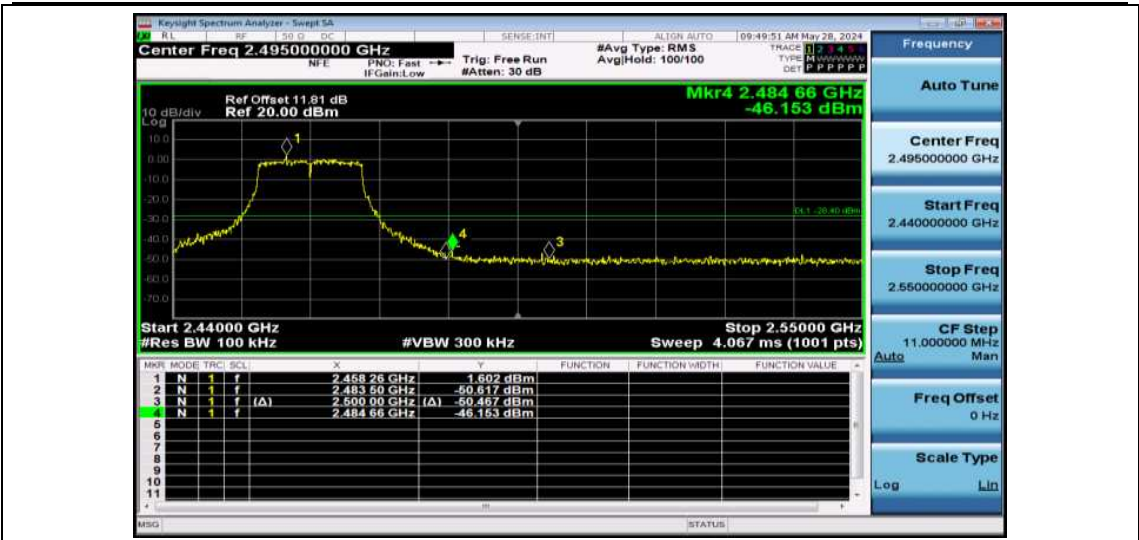
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	2.93	-38.06	≤-27.07	PASS
11B	Ant1	High	2462	3.32	-48.22	≤-26.68	PASS
11G	Ant1	Low	2412	0.98	-35.47	≤-29.02	PASS
11G	Ant1	High	2462	1.60	-46.15	≤-28.4	PASS
11N20SISO	Ant1	Low	2412	0.85	-33.72	≤-29.15	PASS
11N20SISO	Ant1	High	2462	2.78	-46.36	≤-27.22	PASS
11N40SISO	Ant1	Low	2422	-2.81	-40.34	≤-32.81	PASS
11N40SISO	Ant1	High	2452	-1.47	-39.62	≤-31.47	PASS

Test Graphs

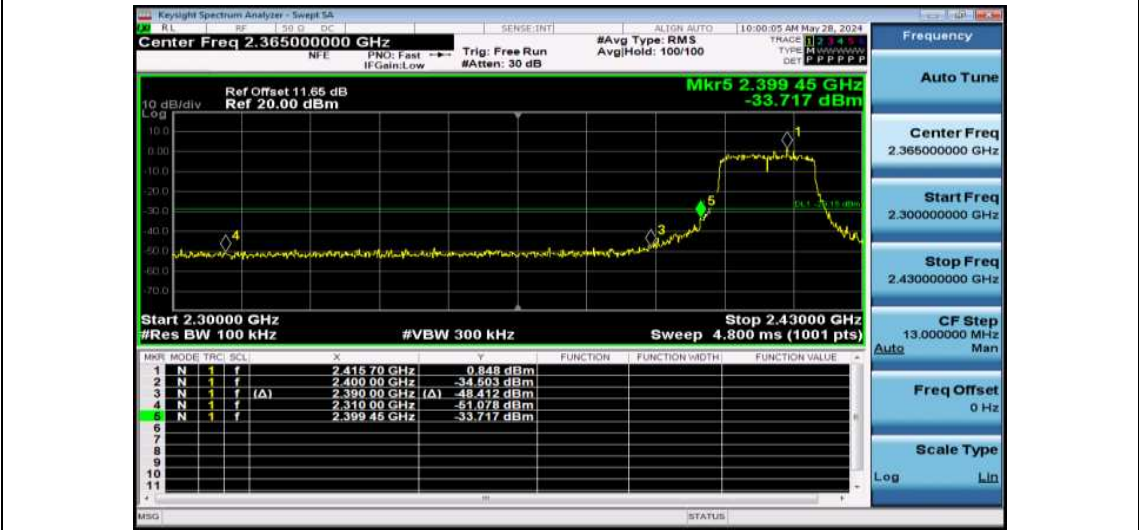


FCC ID:2A64B-DSX39

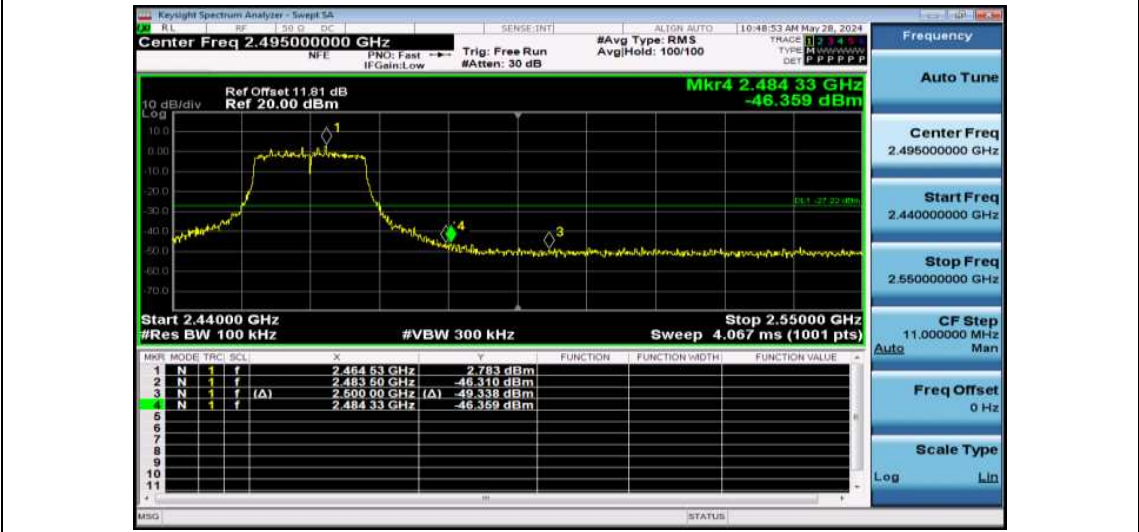
IC:28593-DSX39



11G-Ant1-2462-PASS



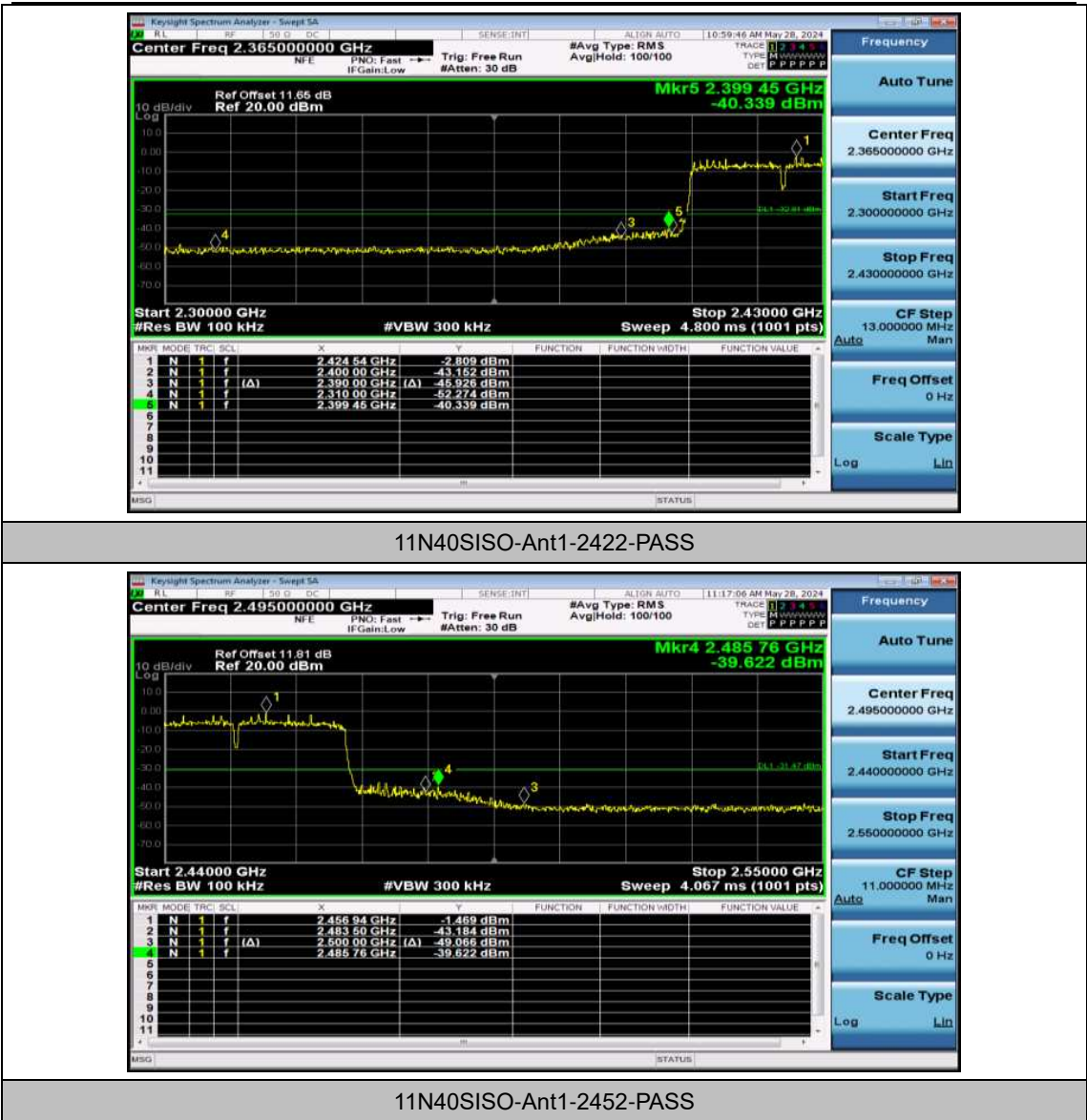
11N20SISO-Ant1-2412-PASS



11N20SISO-Ant1-2462-PASS

FCC ID:2A64B-DSX39

IC:28593-DSX39



FCC ID: 2A64B-DSX39

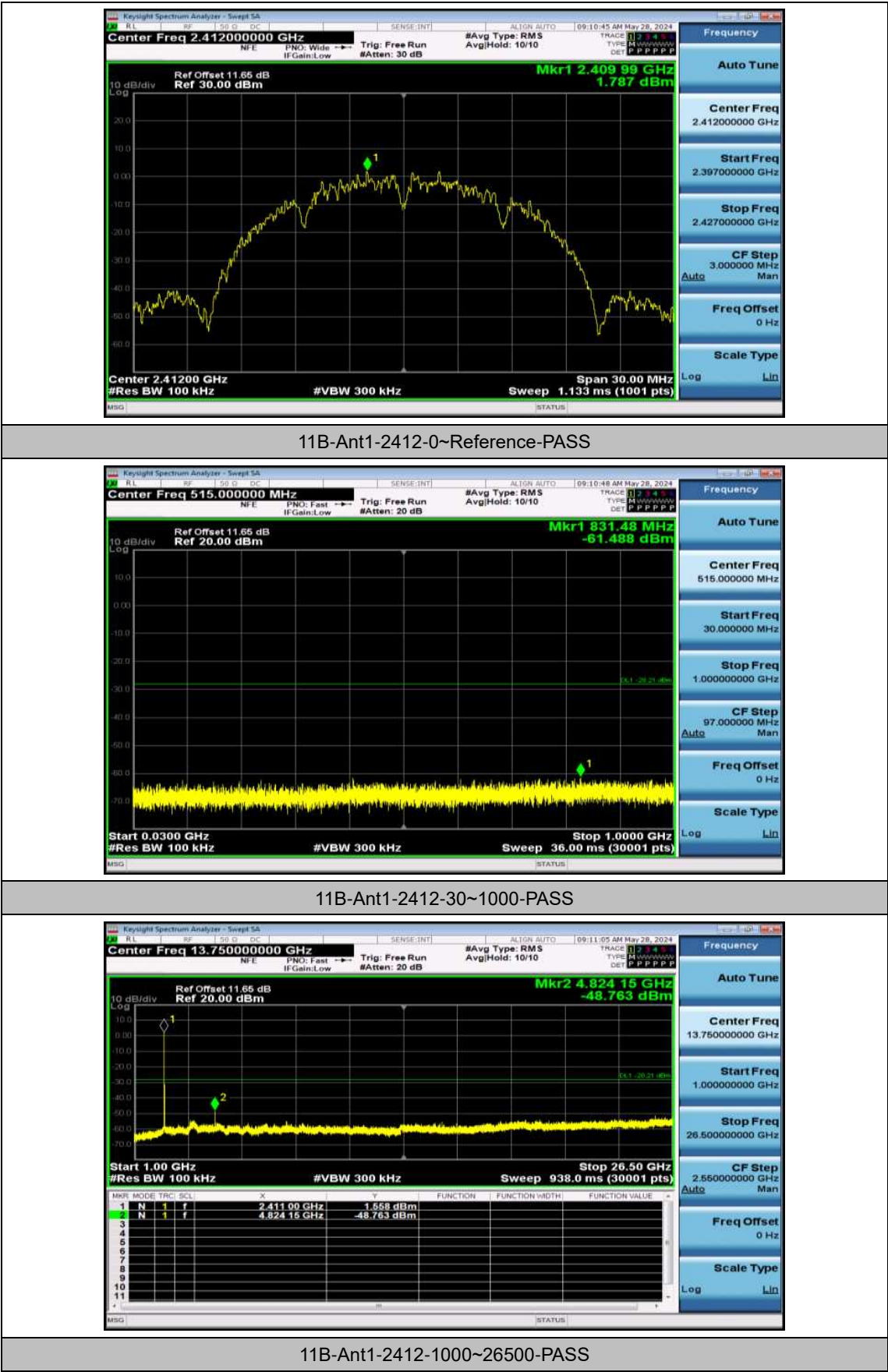
IC: 28593-DSX39

Conducted Spurious Emission

Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	0~Reference	1.79	1.79	---	PASS
11B	Ant1	2412	30~1000	1.79	-61.49	≤-28.21	PASS
11B	Ant1	2412	1000~26500	1.79	-48.76	≤-28.21	PASS
11B	Ant1	2437	0~Reference	4.26	4.26	---	PASS
11B	Ant1	2437	30~1000	4.26	-60.48	≤-25.74	PASS
11B	Ant1	2437	1000~26500	4.26	-48.73	≤-25.74	PASS
11B	Ant1	2462	0~Reference	3.50	3.50	---	PASS
11B	Ant1	2462	30~1000	3.50	-60.93	≤-26.5	PASS
11B	Ant1	2462	1000~26500	3.50	-51.36	≤-26.5	PASS
11G	Ant1	2412	0~Reference	1.74	1.74	---	PASS
11G	Ant1	2412	30~1000	1.74	-60.54	≤-28.26	PASS
11G	Ant1	2412	1000~26500	1.74	-50.03	≤-28.26	PASS
11G	Ant1	2437	0~Reference	-0.74	-0.74	---	PASS
11G	Ant1	2437	30~1000	-0.74	-60.55	≤-30.74	PASS
11G	Ant1	2437	1000~26500	-0.74	-51.94	≤-30.74	PASS
11G	Ant1	2462	0~Reference	-0.58	-0.58	---	PASS
11G	Ant1	2462	30~1000	-0.58	-60.36	≤-30.58	PASS
11G	Ant1	2462	1000~26500	-0.58	-52.89	≤-30.58	PASS
11N20SISO	Ant1	2412	0~Reference	-1.69	-1.69	---	PASS
11N20SISO	Ant1	2412	30~1000	-1.69	-61.21	≤-31.69	PASS
11N20SISO	Ant1	2412	1000~26500	-1.69	-50.87	≤-31.69	PASS
11N20SISO	Ant1	2437	0~Reference	-1.41	-1.41	---	PASS
11N20SISO	Ant1	2437	30~1000	-1.41	-60.82	≤-31.41	PASS
11N20SISO	Ant1	2437	1000~26500	-1.41	-51.94	≤-31.41	PASS
11N20SISO	Ant1	2462	0~Reference	-0.42	-0.42	---	PASS
11N20SISO	Ant1	2462	30~1000	-0.42	-61.04	≤-30.42	PASS
11N20SISO	Ant1	2462	1000~26500	-0.42	-51.62	≤-30.42	PASS
11N40SISO	Ant1	2422	0~Reference	-4.05	-4.05	---	PASS
11N40SISO	Ant1	2422	30~1000	-4.05	-60.51	≤-34.05	PASS
11N40SISO	Ant1	2422	1000~26500	-4.05	-52.29	≤-34.05	PASS
11N40SISO	Ant1	2437	0~Reference	-2.49	-2.49	---	PASS
11N40SISO	Ant1	2437	30~1000	-2.49	-61.16	≤-32.49	PASS
11N40SISO	Ant1	2437	1000~26500	-2.49	-51.82	≤-32.49	PASS
11N40SISO	Ant1	2452	0~Reference	-4.85	-4.85	---	PASS
11N40SISO	Ant1	2452	30~1000	-4.85	-60.35	≤-34.85	PASS
11N40SISO	Ant1	2452	1000~26500	-4.85	-51.89	≤-34.85	PASS

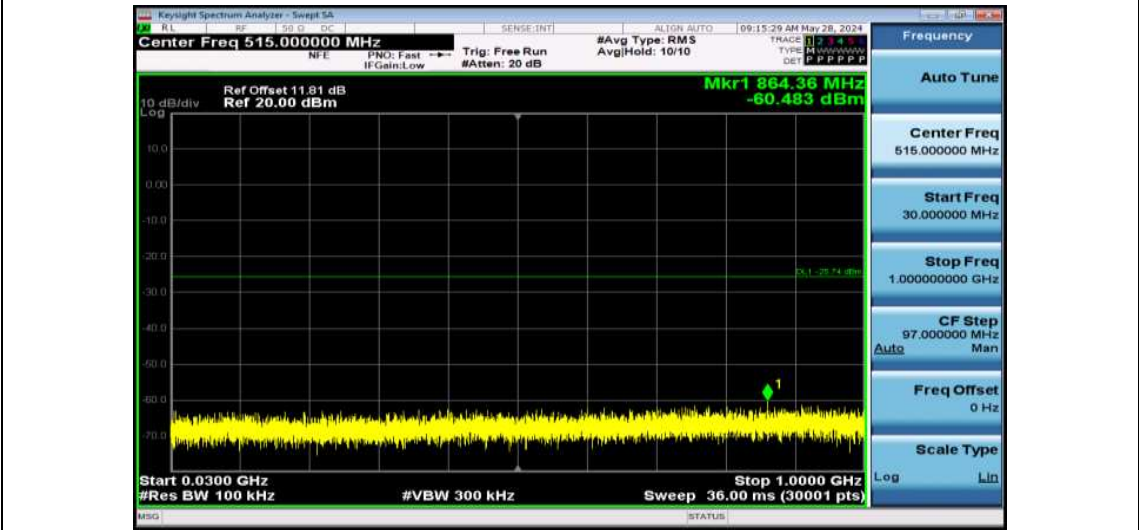
Test Graphs



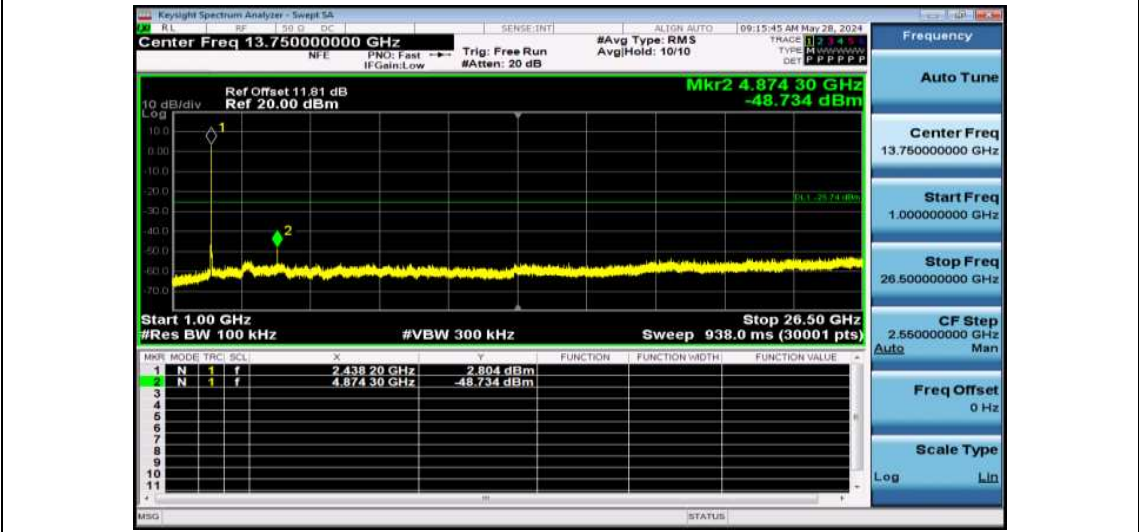
FCC ID: 2A64B-DSX39
IC: 28593-DSX39



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



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

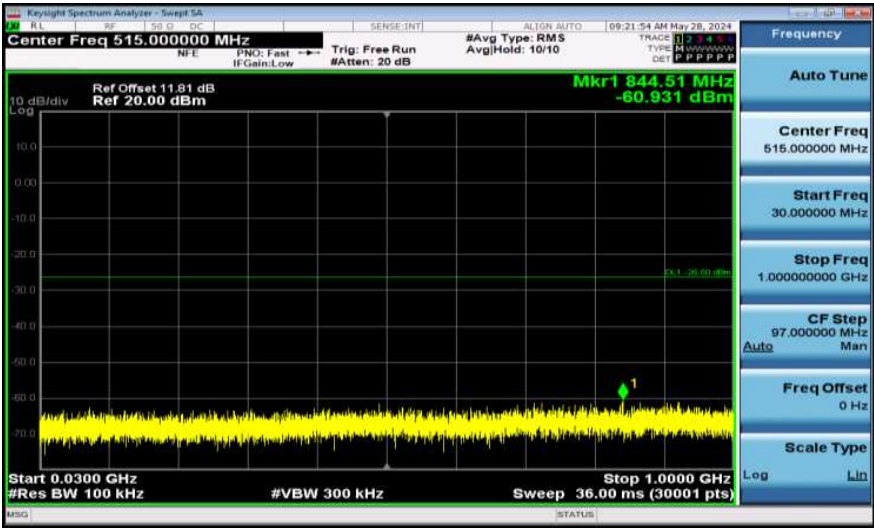


11B-Ant1-2437-1000~26500-PASS

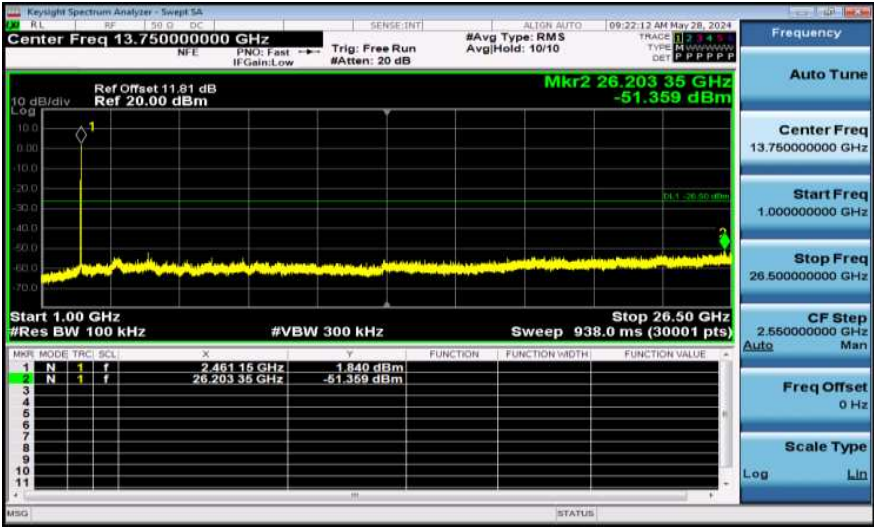
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IC: 28593-DSX39



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



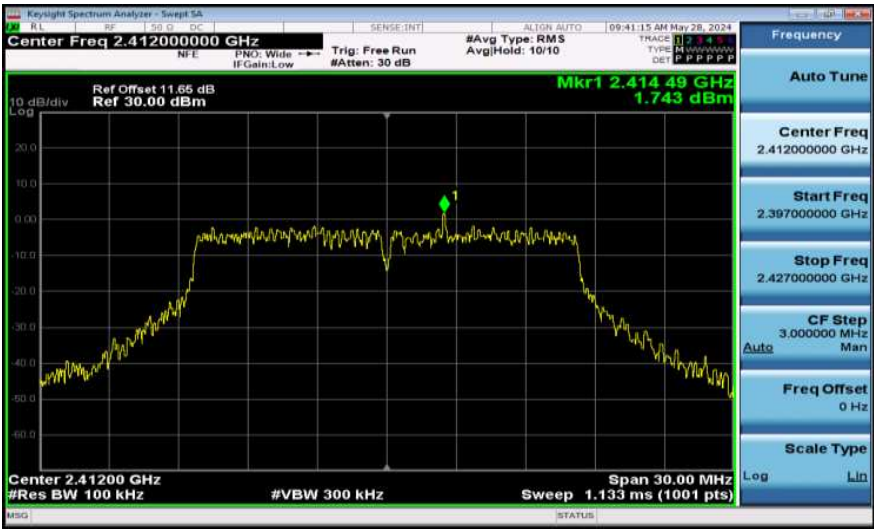
11B-Ant1-2462-30~1000-PASS



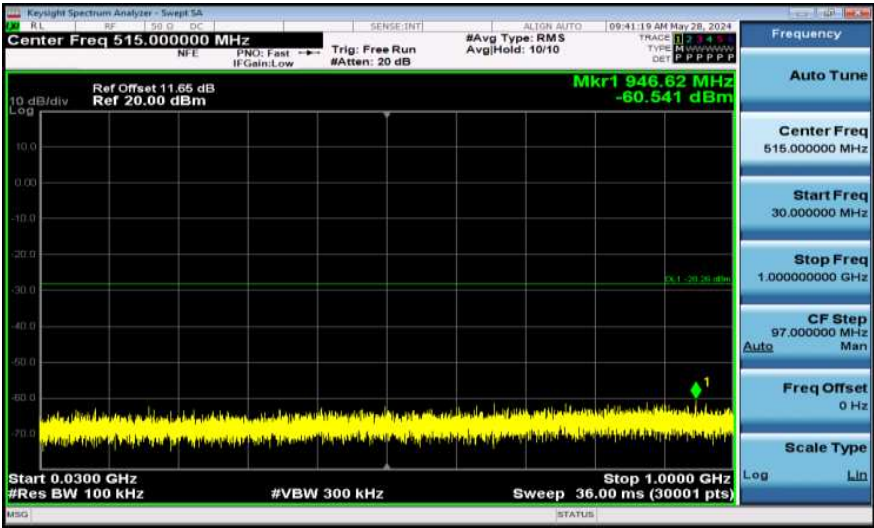
11B-Ant1-2462-1000~26500-PASS

FCC ID:2A64B-DSX39

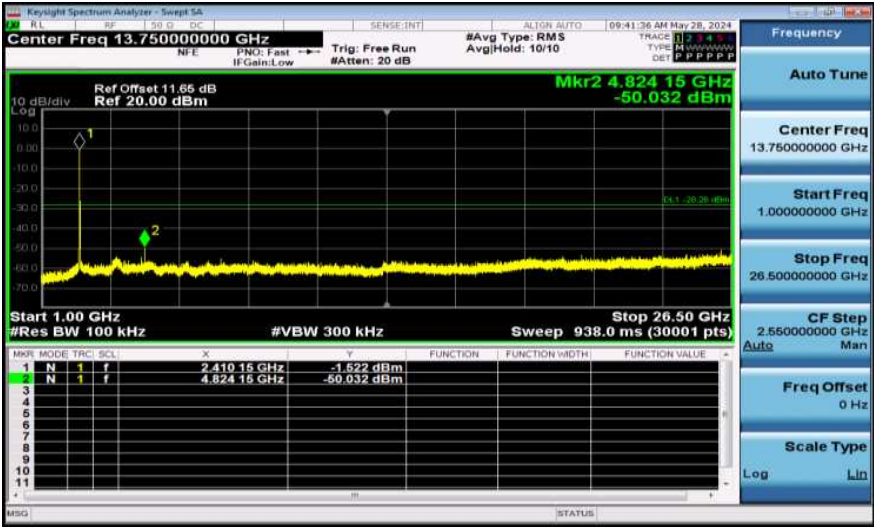
IC:28593-DSX39



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



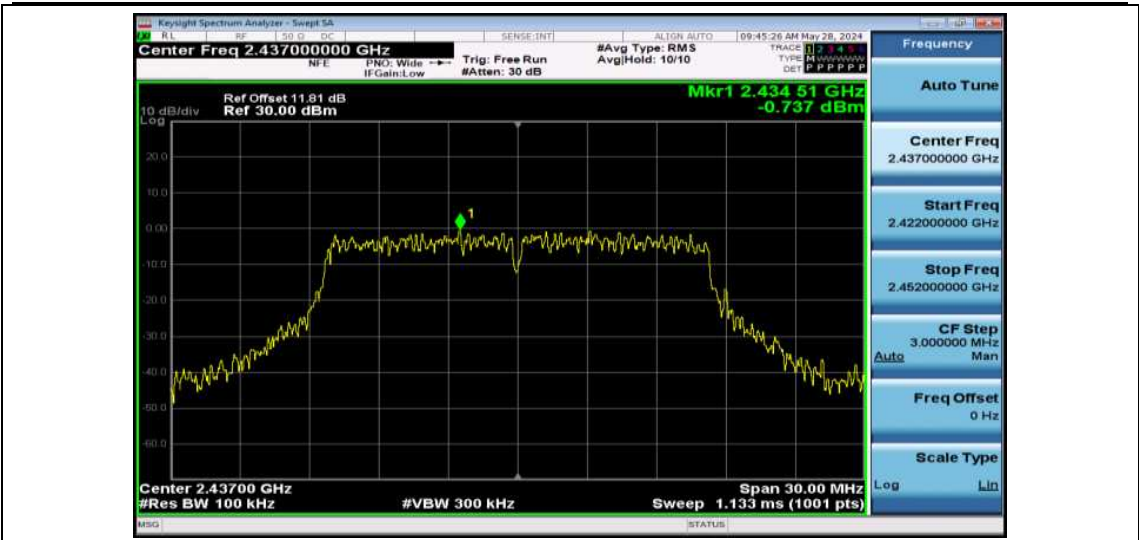
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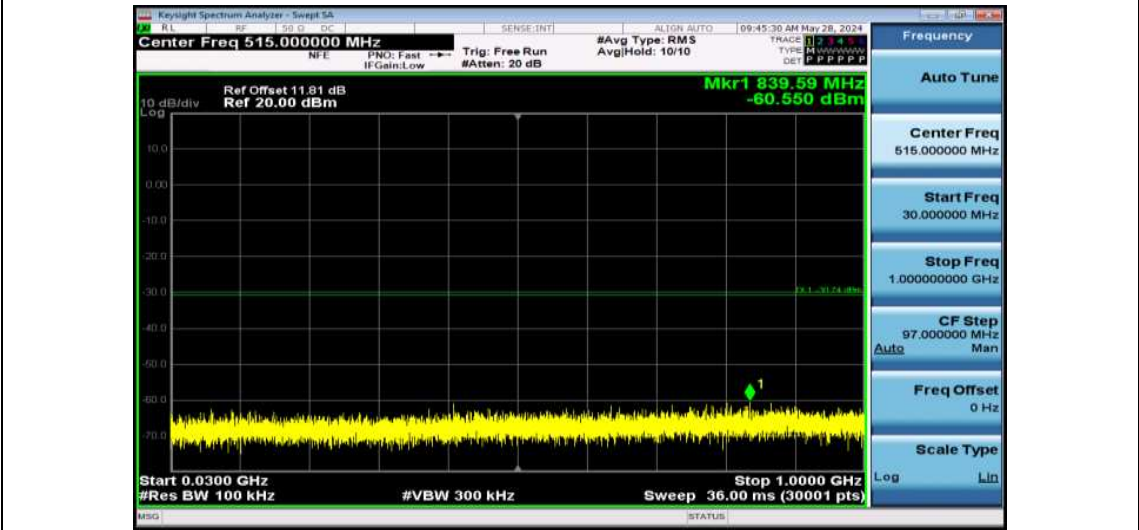
11G-Ant1-2412-1000~26500-PASS

FCC ID:2A64B-DSX39

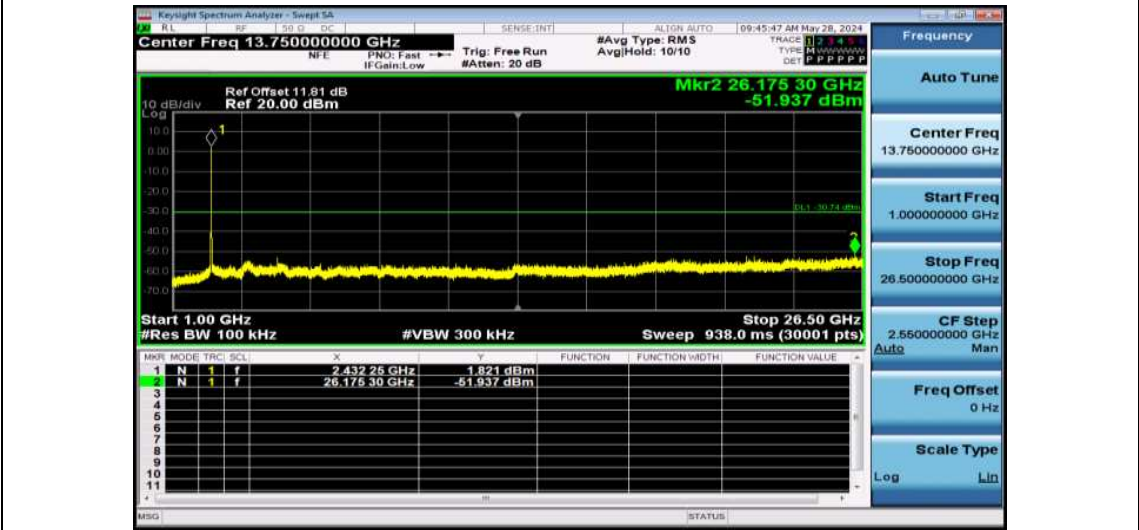
IC:28593-DSX39



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



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



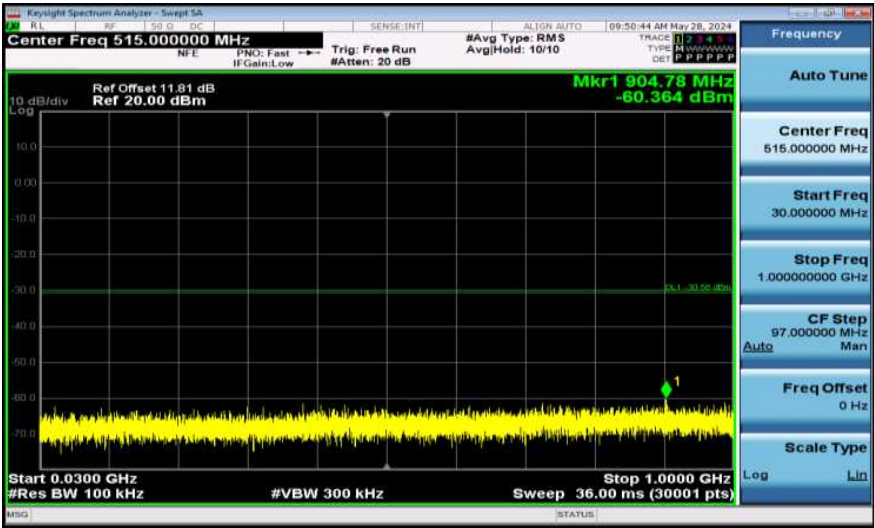
11G-Ant1-2437-1000~26500-PASS

FCC ID:2A64B-DSX39

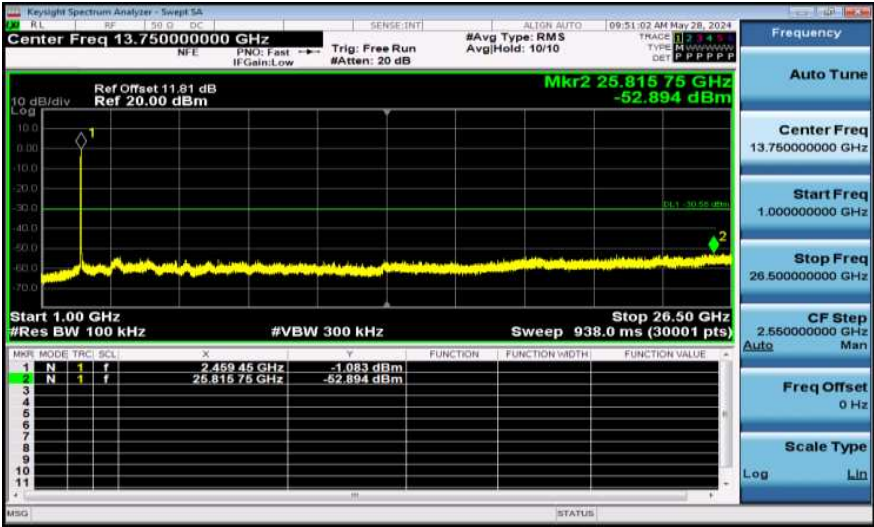
IC:28593-DSX39



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



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



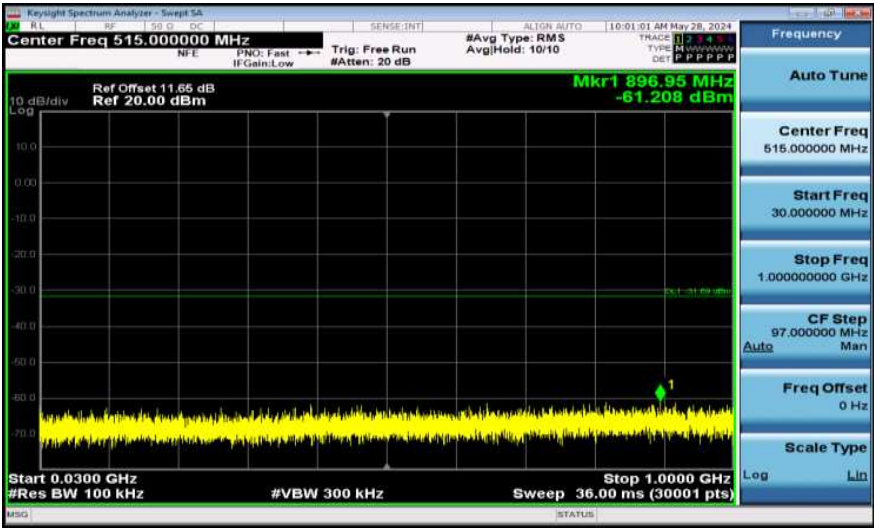
11G-Ant1-2462-1000~26500-PASS

FCC ID:2A64B-DSX39

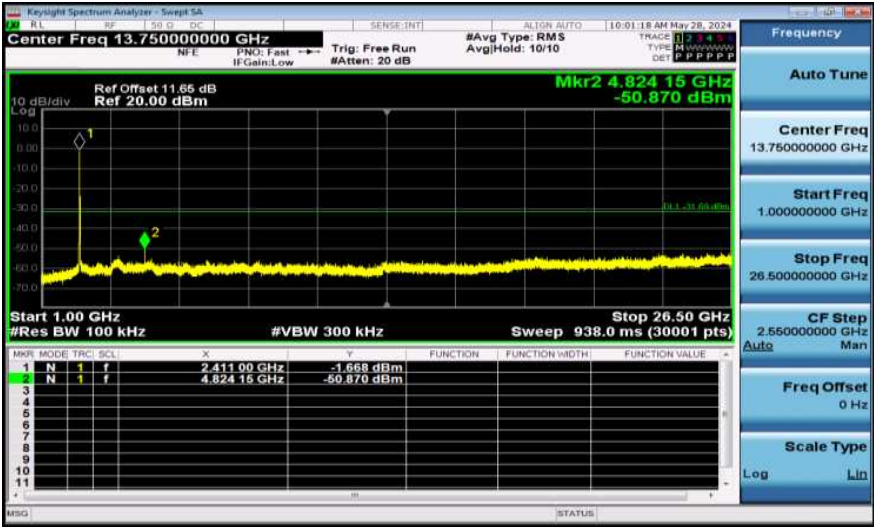
IC:28593-DSX39



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



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



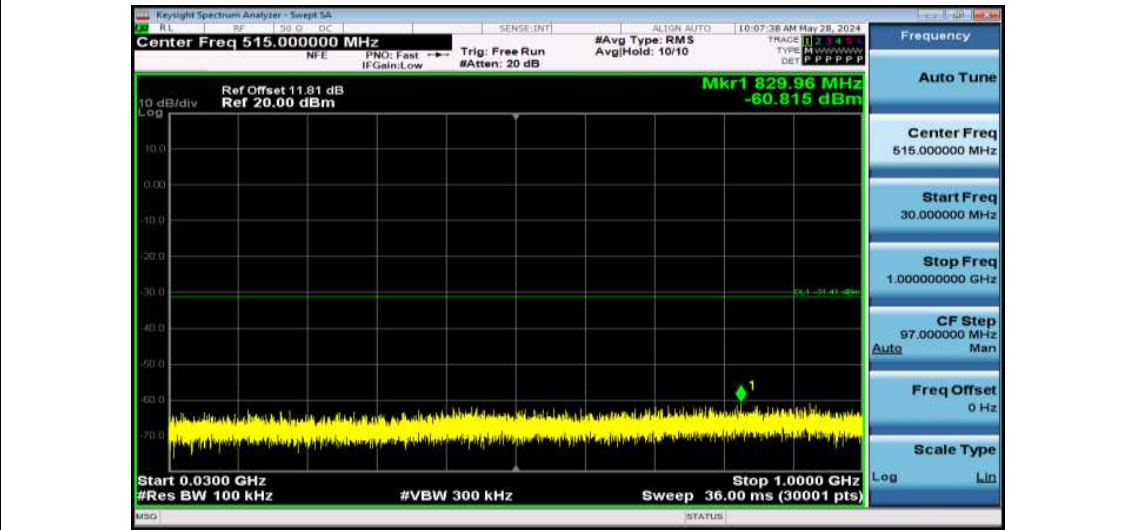
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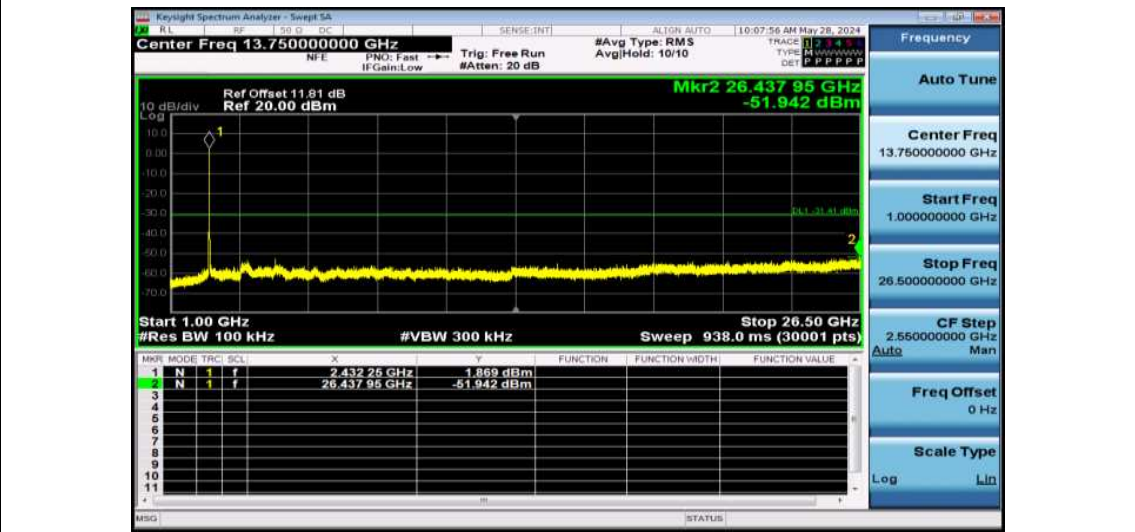
IC:28593-DSX39



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



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



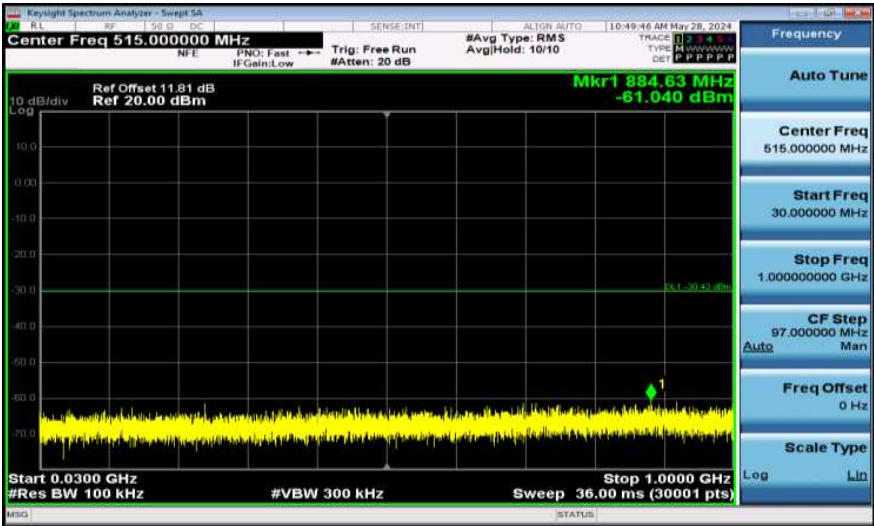
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FCC ID:2A64B-DSX39

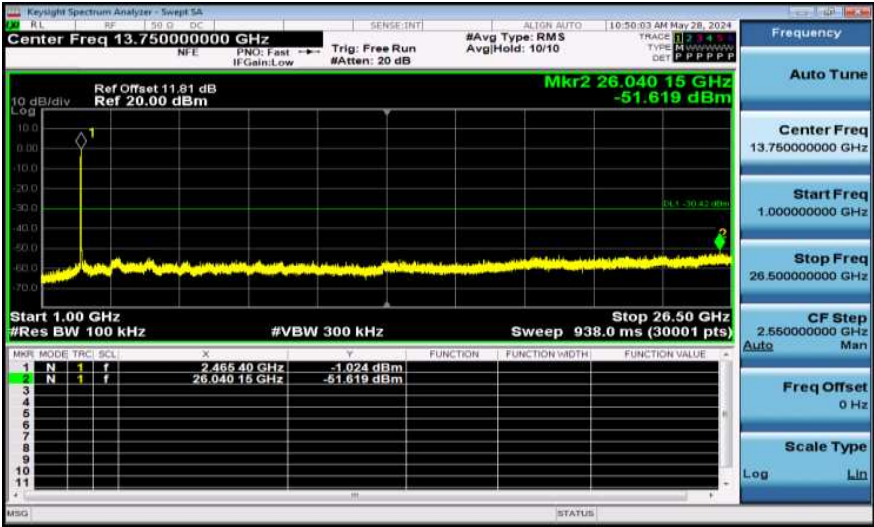
IC:28593-DSX39



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



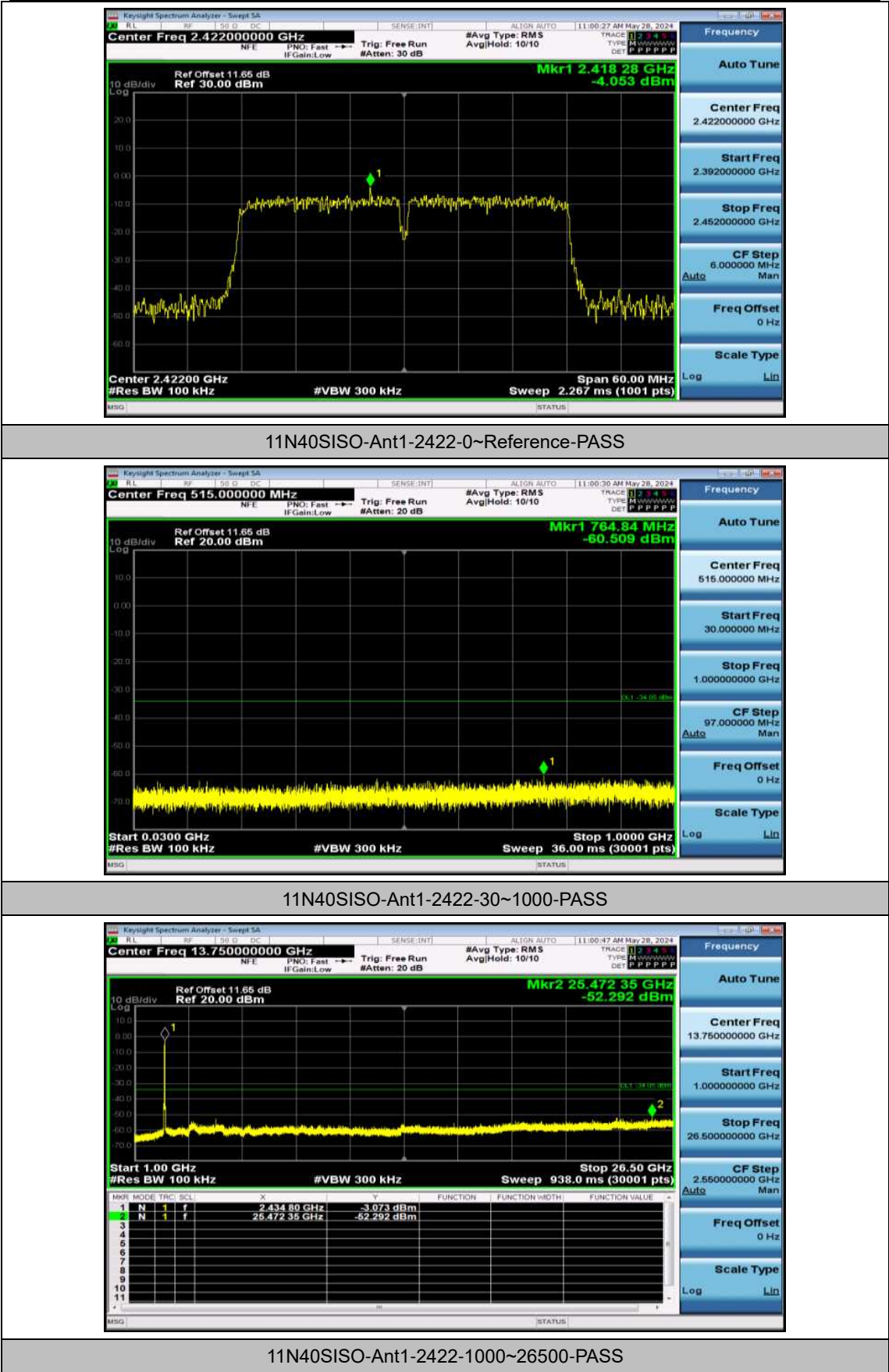
11N20SISO-Ant1-2462-30~1000-PASS



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

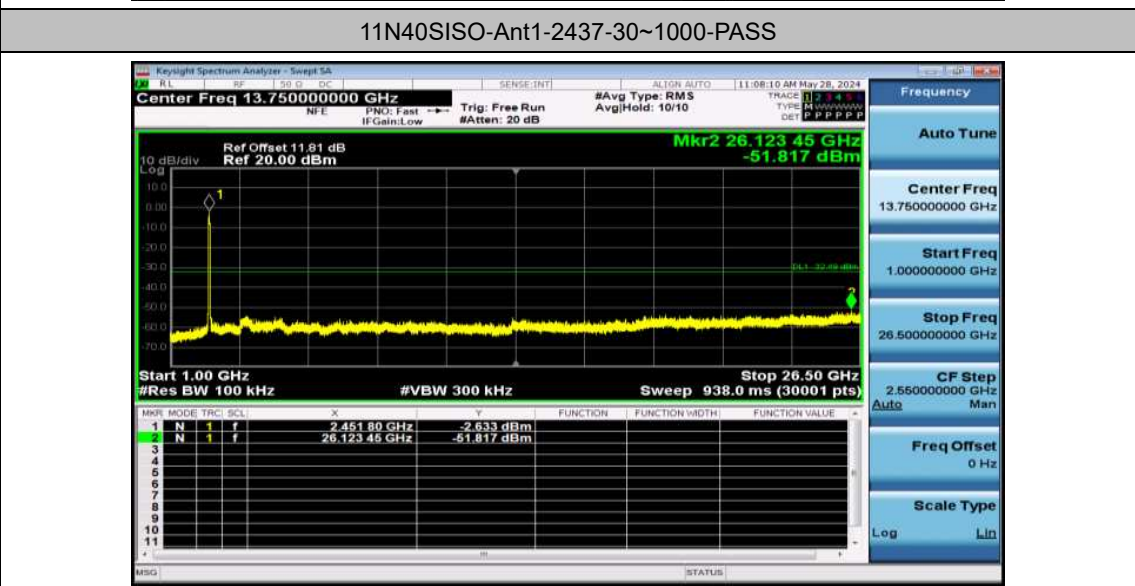
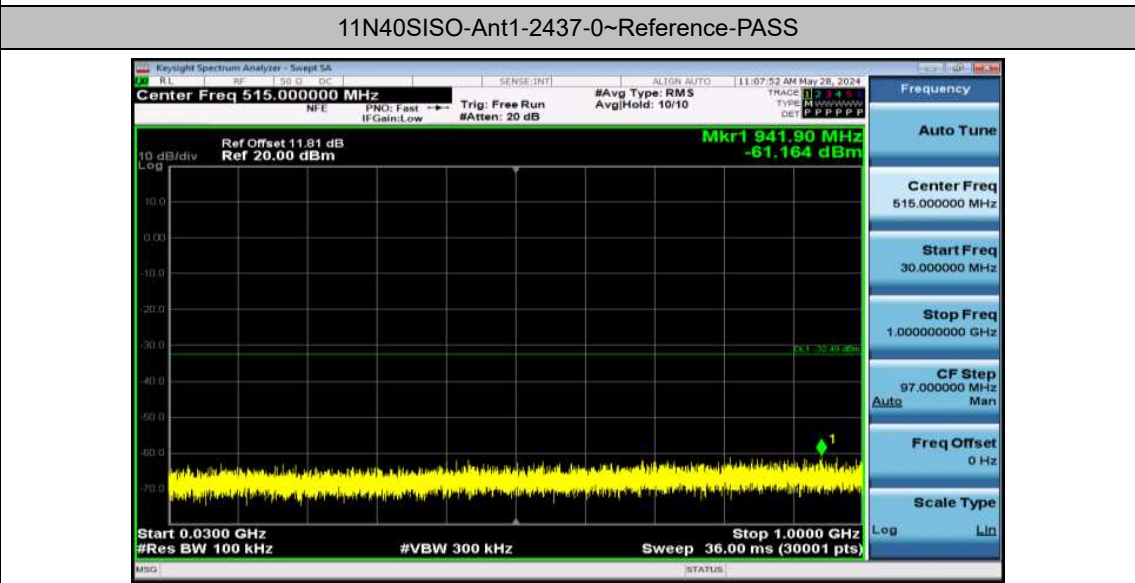
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IC:28593-DSX39

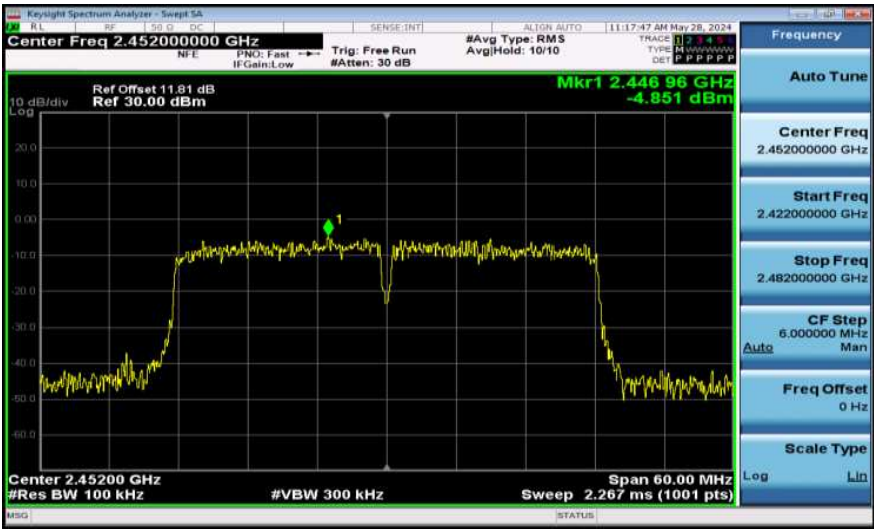


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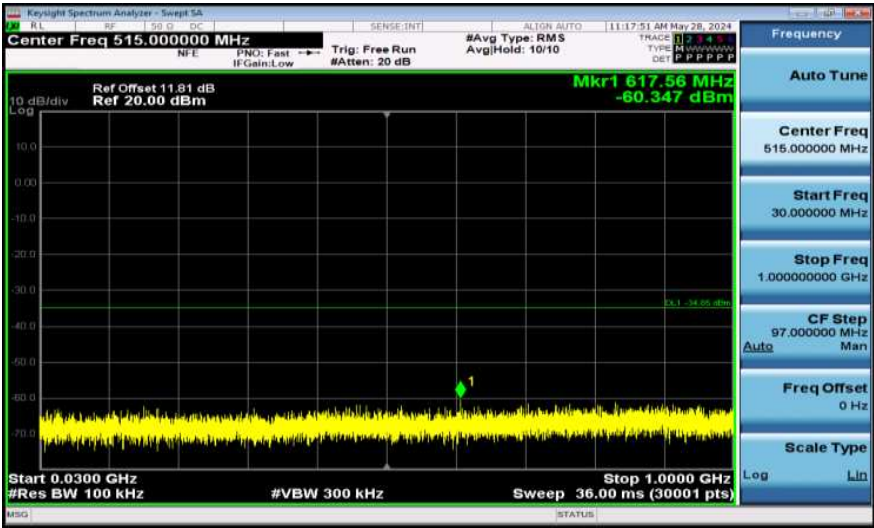
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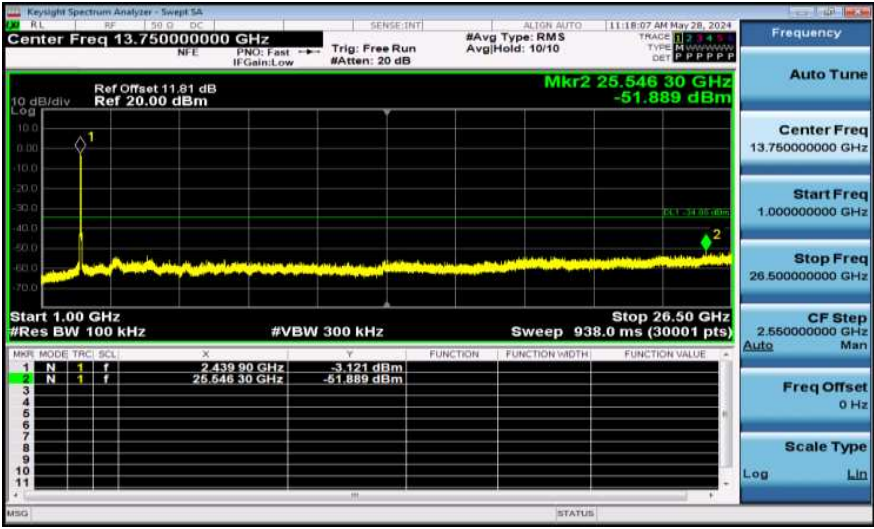
FCC ID: 2A64B-DSX39
IC: 28593-DSX39



11N40SISO-Ant1-2452-0~Reference-PASS



11N40SISO-Ant1-2452-30~1000-PASS



11N40SISO-Ant1-2452-1000~26500-PASS

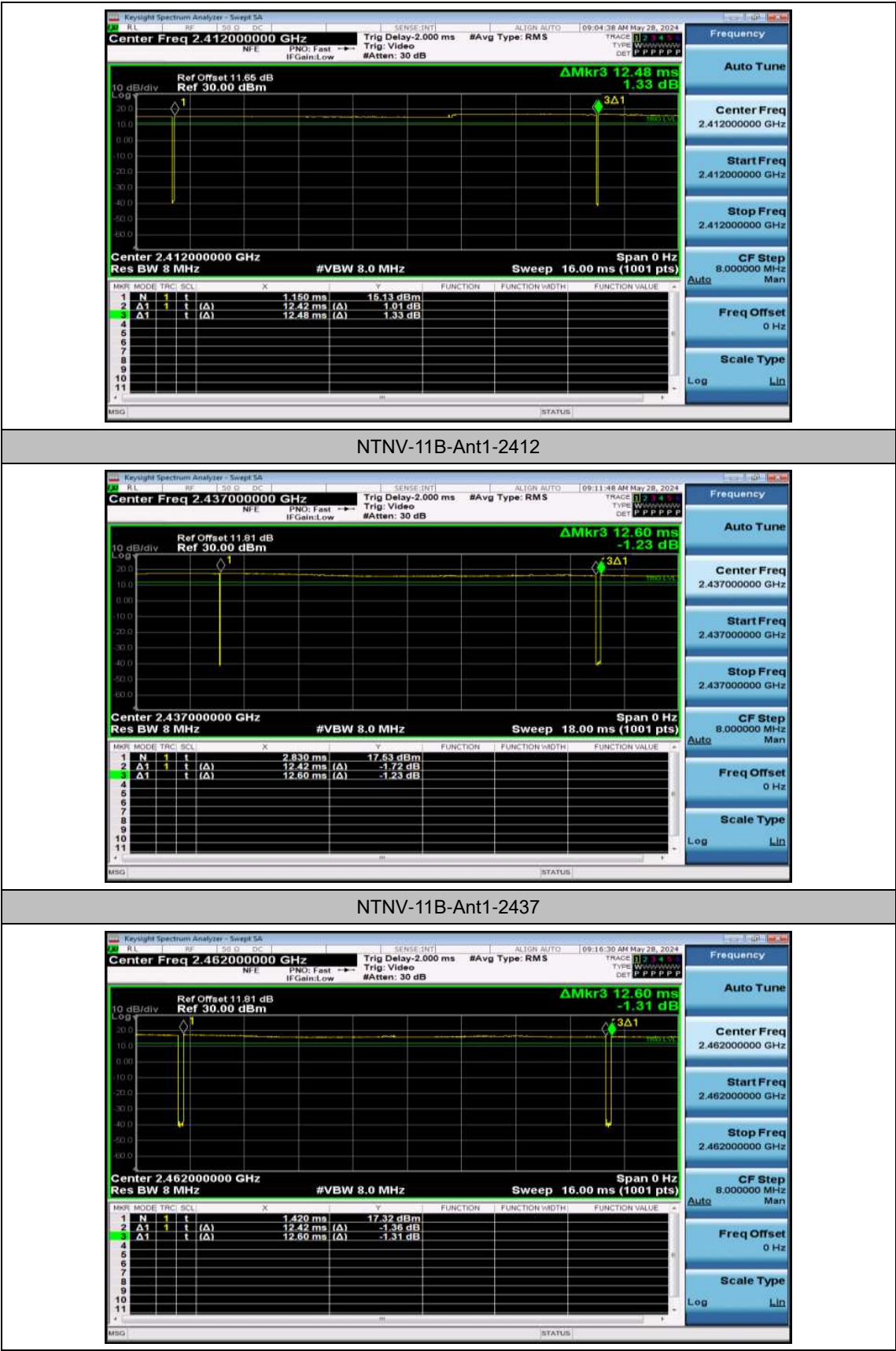
FCC ID: 2A64B-DSX39
IC: 28593-DSX39

Duty Cycle

Test Result

TestMode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Factor
11B	Ant1	2412	12.42	12.48	99.52	0.02
11B	Ant1	2437	12.42	12.60	98.57	0.06
11B	Ant1	2462	12.42	12.60	98.57	0.06
11G	Ant1	2412	2.06	2.23	92.38	0.34
11G	Ant1	2437	2.06	2.23	92.38	0.34
11G	Ant1	2462	2.07	2.24	92.41	0.34
11N20SISO	Ant1	2412	1.92	2.06	93.20	0.31
11N20SISO	Ant1	2437	1.92	2.08	92.31	0.35
11N20SISO	Ant1	2462	1.92	2.05	93.66	0.28
11N40SISO	Ant1	2422	0.94	1.10	85.45	0.68
11N40SISO	Ant1	2437	0.95	1.11	85.59	0.68
11N40SISO	Ant1	2452	0.94	1.09	86.24	0.64

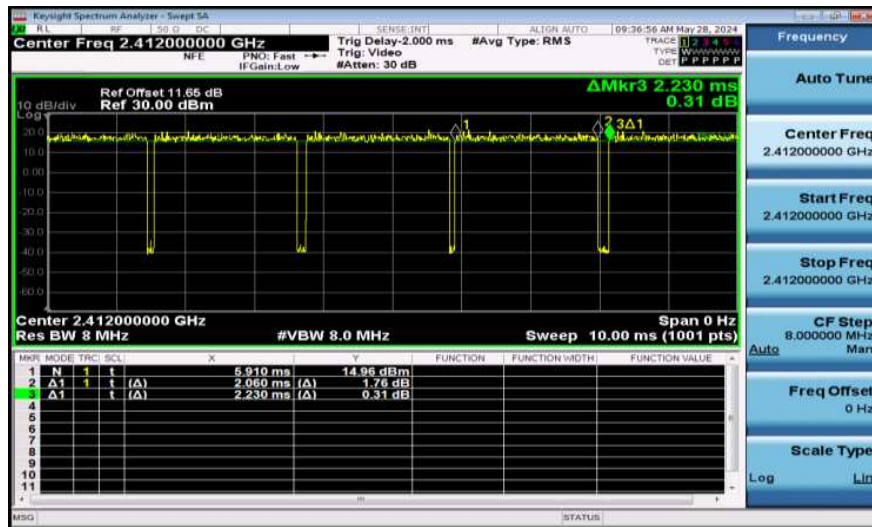
Test Graphs



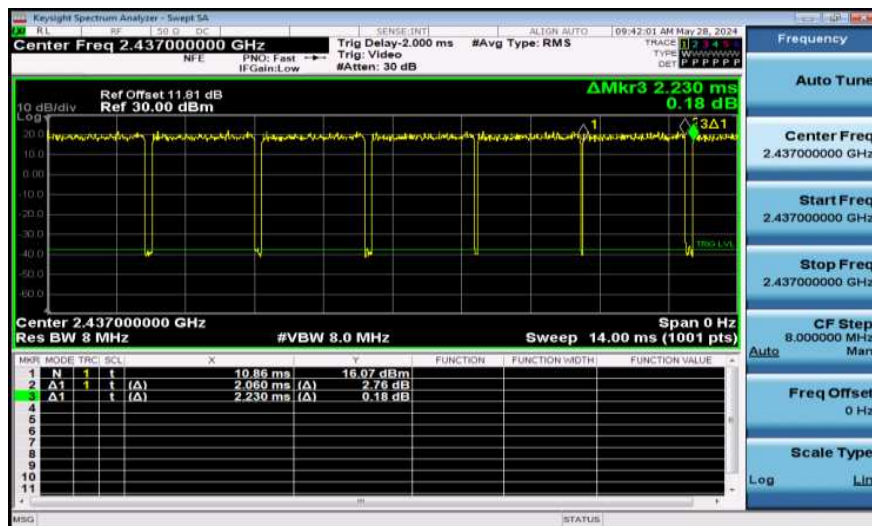
2A64B-DSX39

28593-DSX39

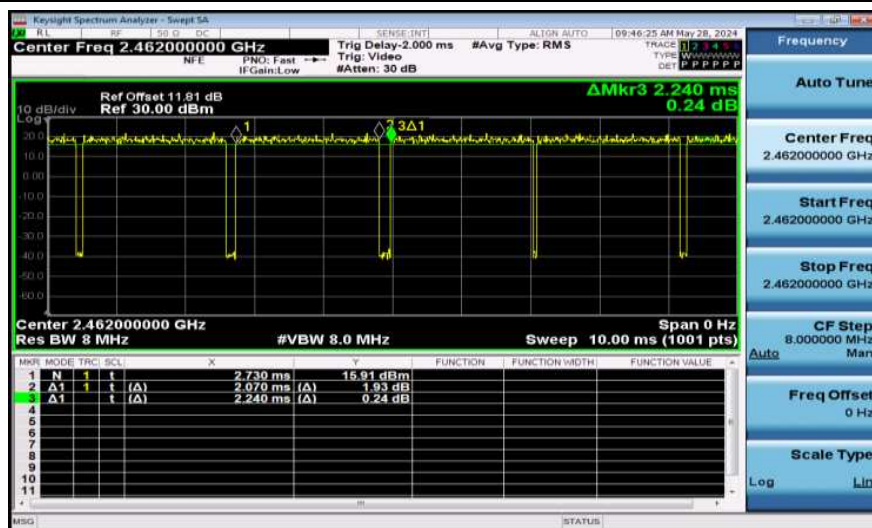
NTNV-11B-Ant1-2462



NTNV-11G-Ant1-2412



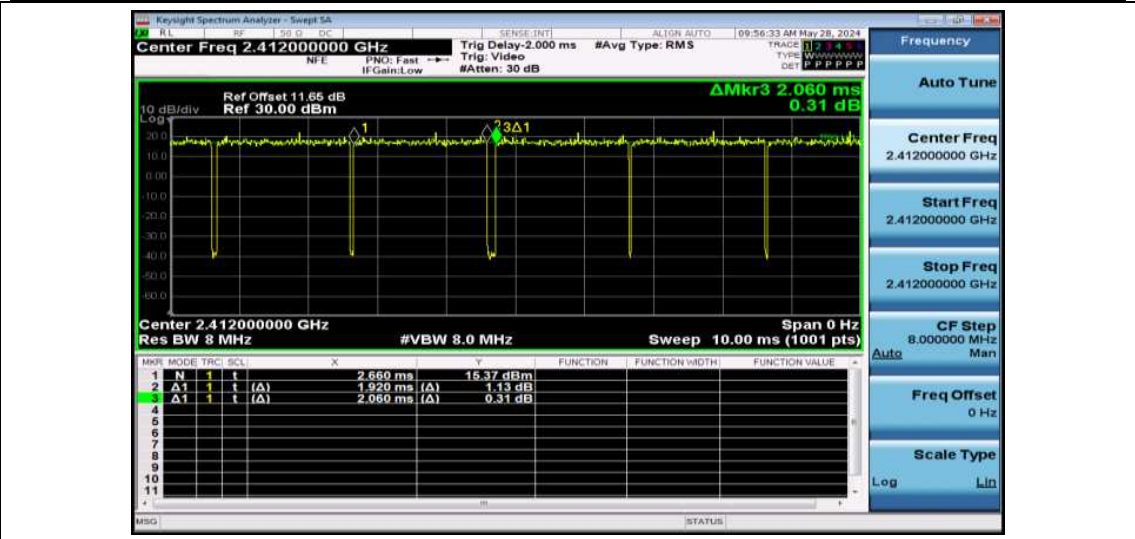
NTNV-11G-Ant1-2437



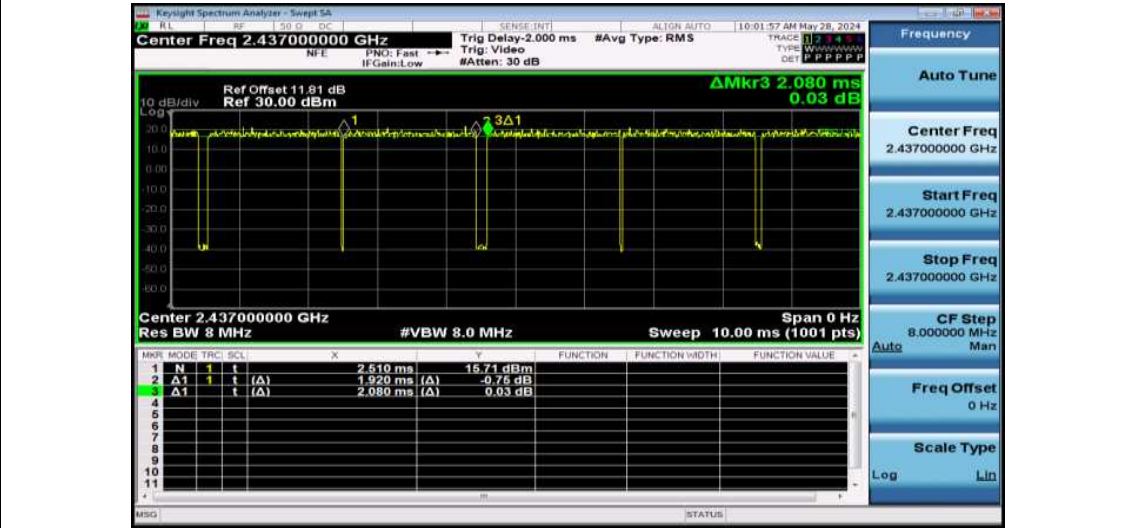
NTNV-11G-Ant1-2462

FCC ID:2A64B-DSX39

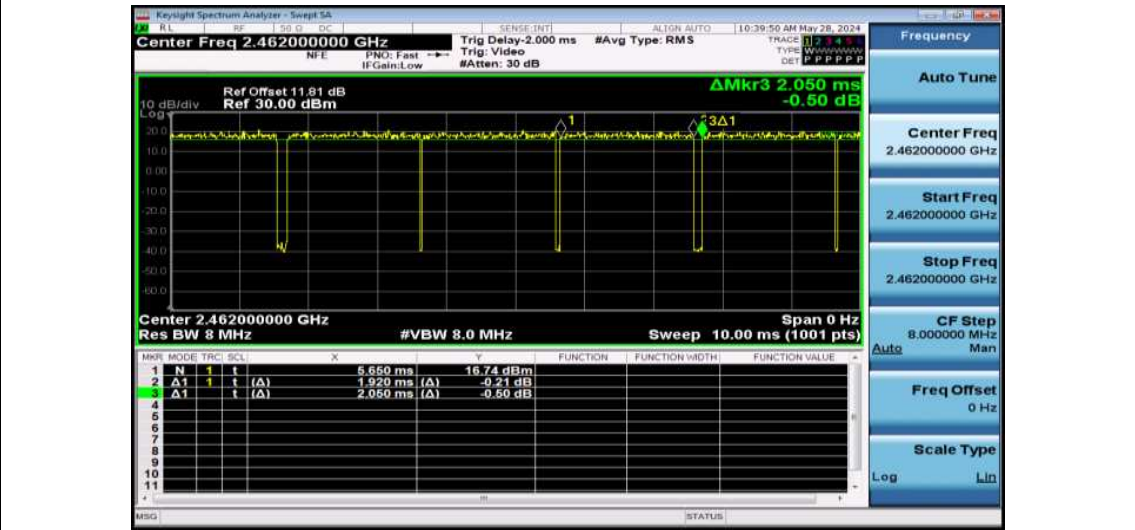
IC:28593-DSX39



NTNV-11N20SISO-Ant1-2412



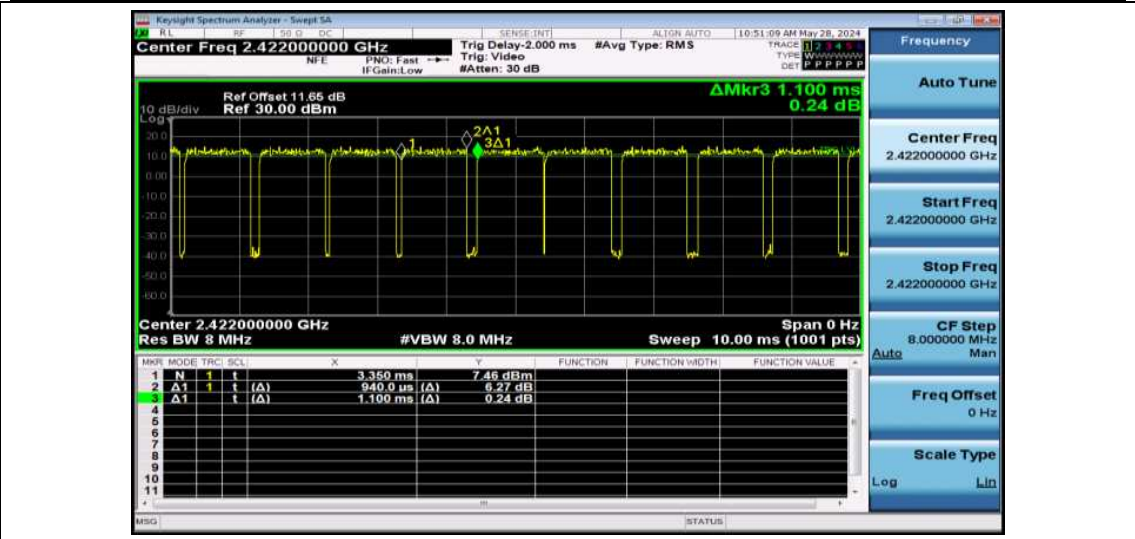
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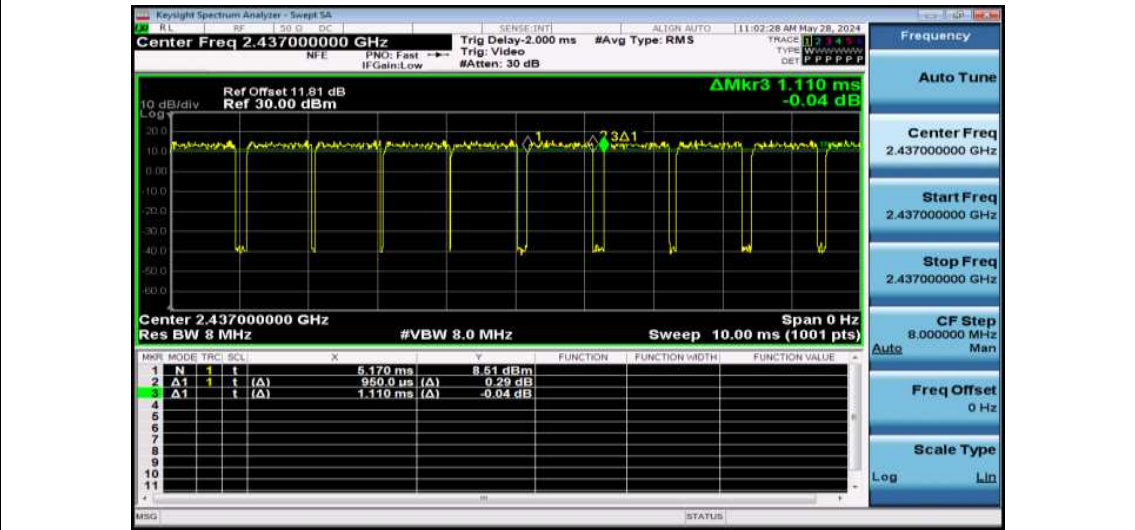
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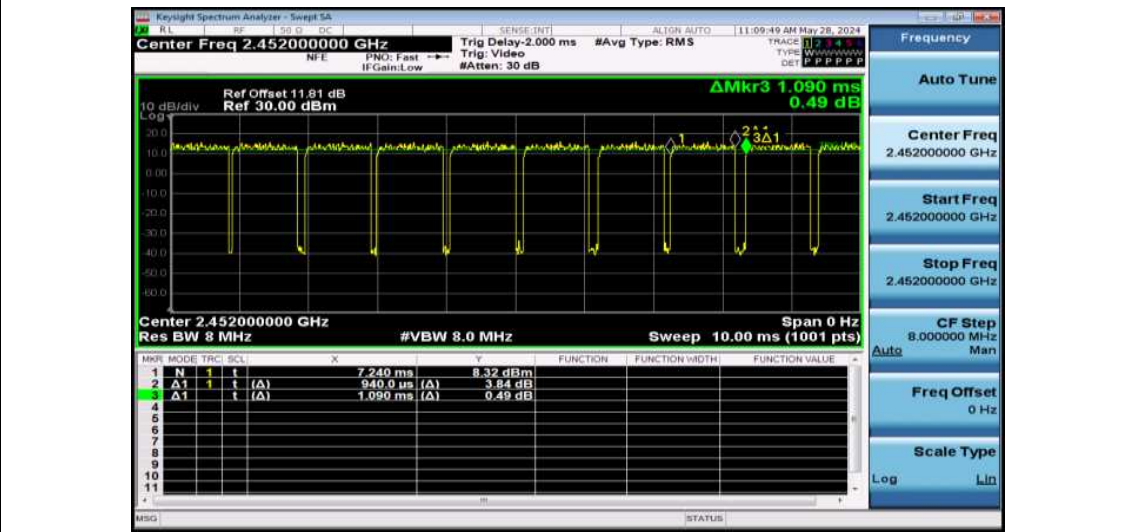
IC:28593-DSX39



NTNV-11N40SISO-Ant1-2422



NTNV-11N40SISO-Ant1-2437



NTNV-11N40SISO-Ant1-2452