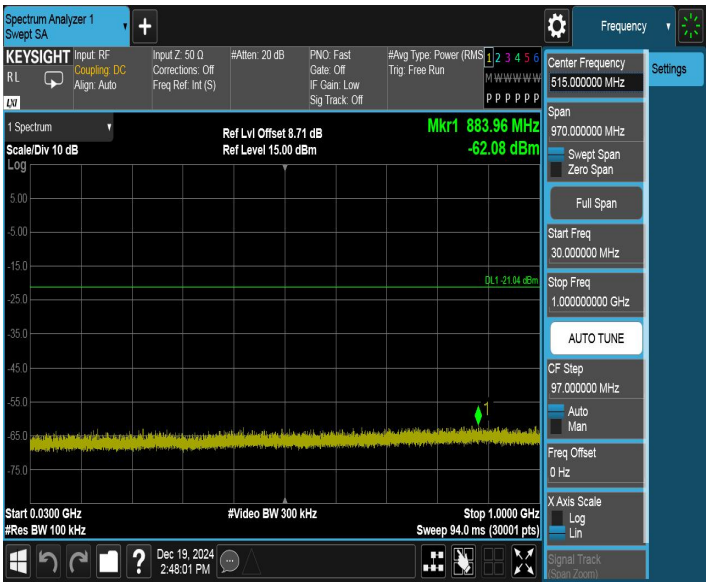
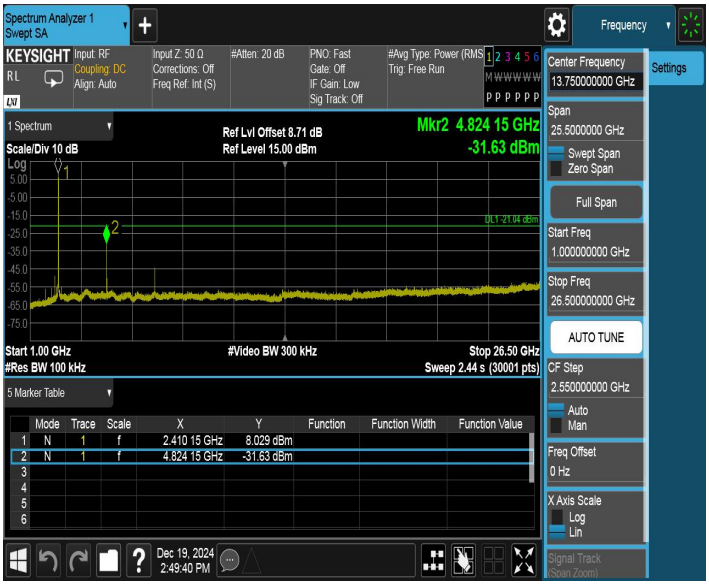
Test Graphs of Out-of-Band Emissions

11B_Ant1_2412_0~Reference

11B_Ant1_2412_30~1000

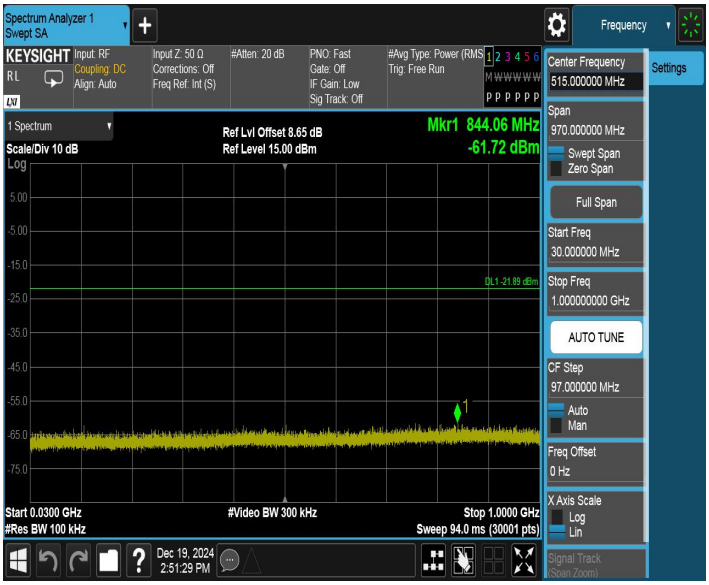


11B_Ant1_2412_1000~26500



11B_Ant1_2437_0~Reference

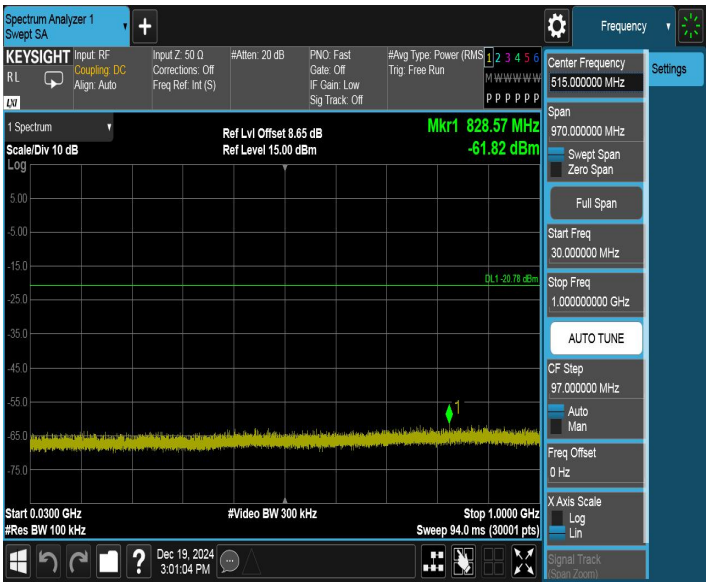
11B_Ant1_2437_30~1000



11B_Ant1_2437_1000~26500

11B_Ant1_2462_0~Reference

11B_Ant1_2462_30~1000



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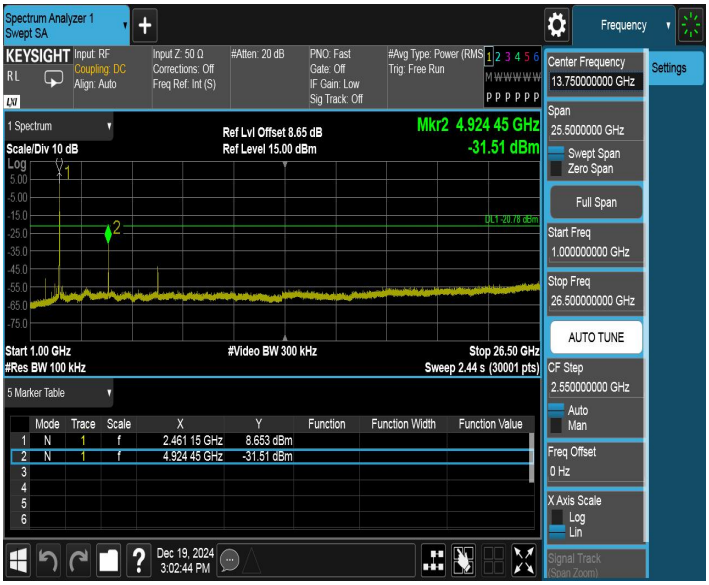

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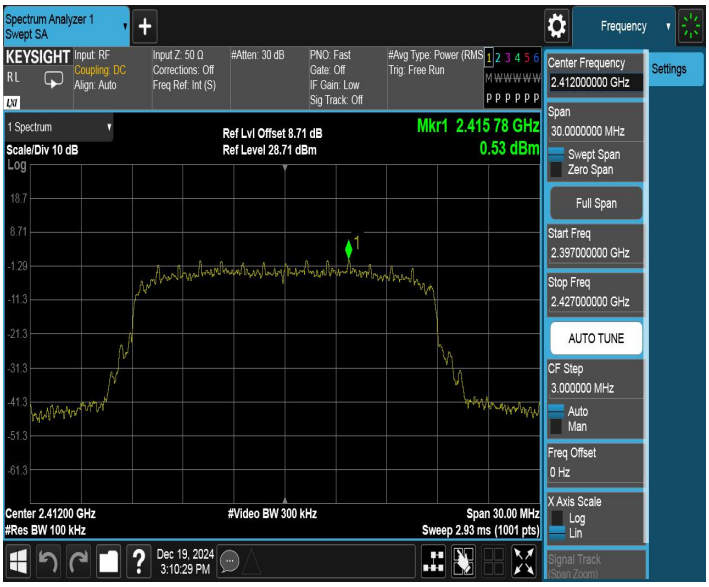
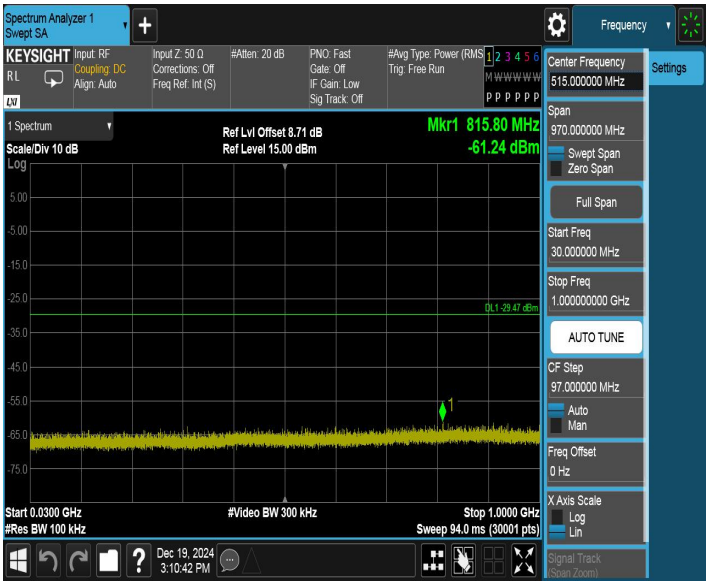
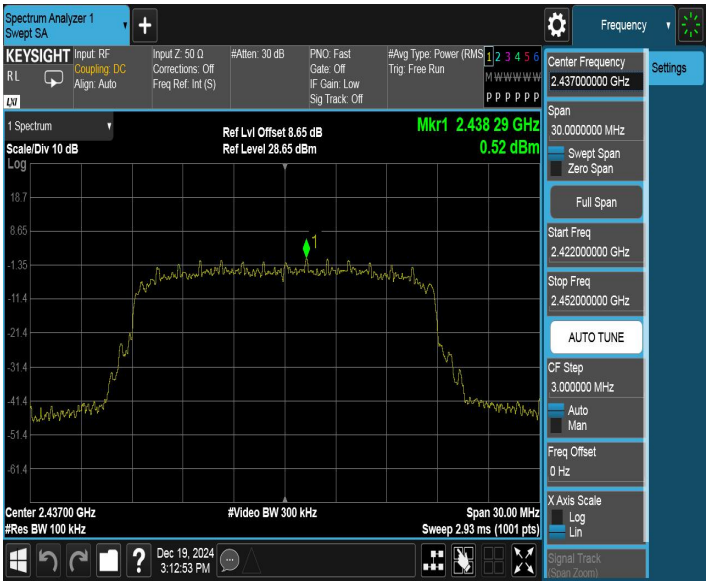


11G_Ant1_2412_30~1000



11G_Ant1_2412_1000~26500

11G_Ant1_2437_0~Reference



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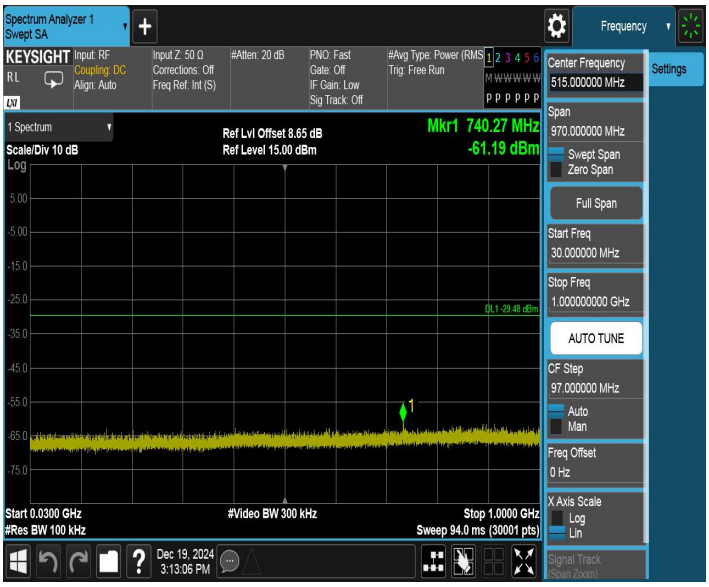

11G_Ant1_2437_1000~26500

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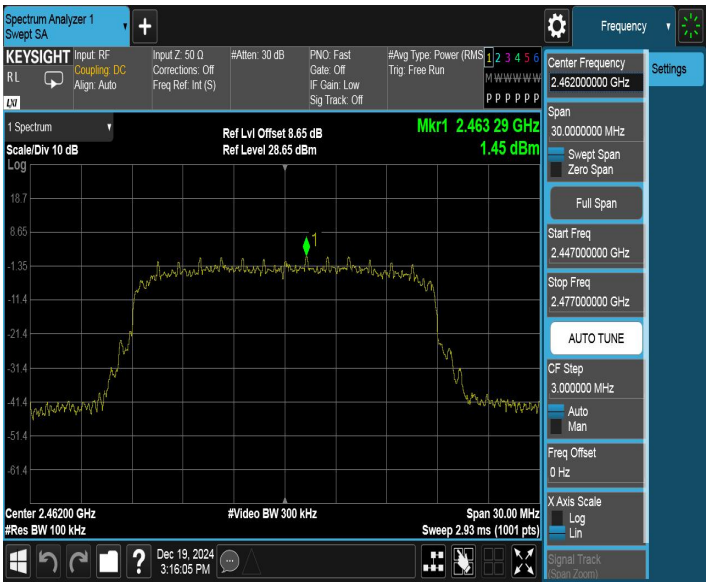

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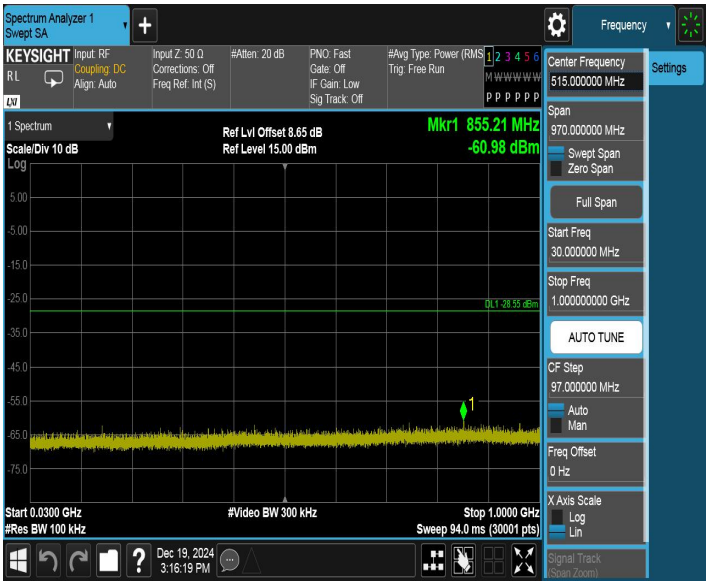
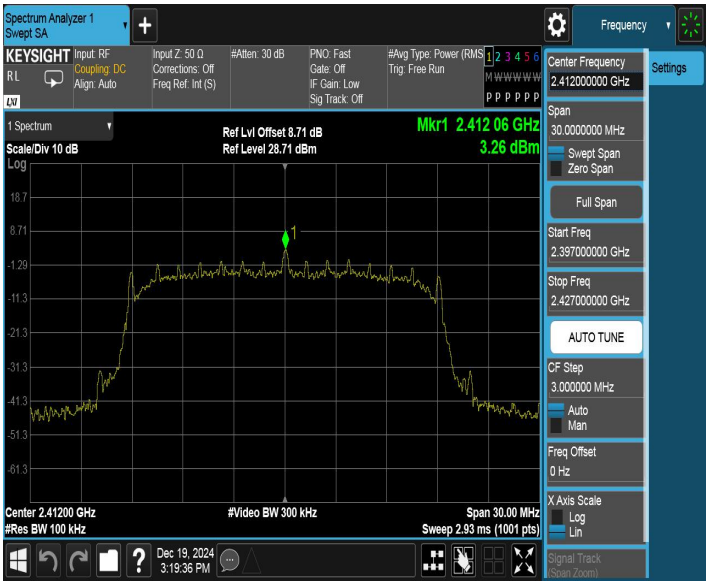
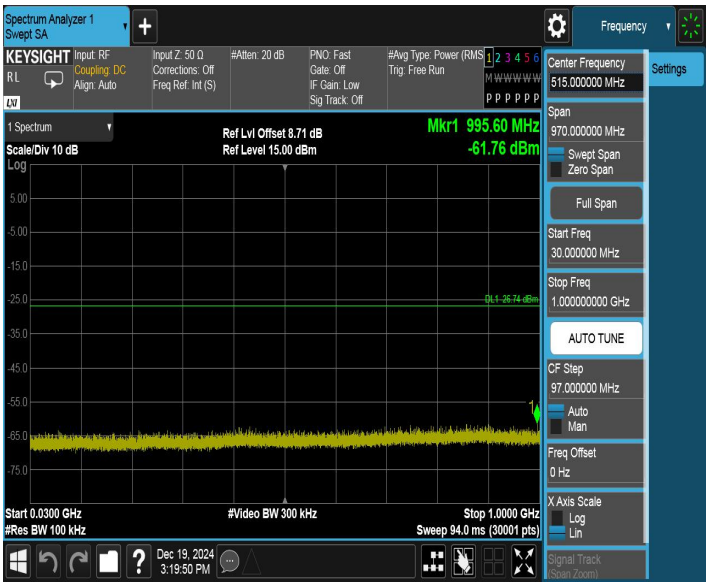


11G_Ant1_2462_1000~26500

11N20SISO_Ant1_2412_0~Reference

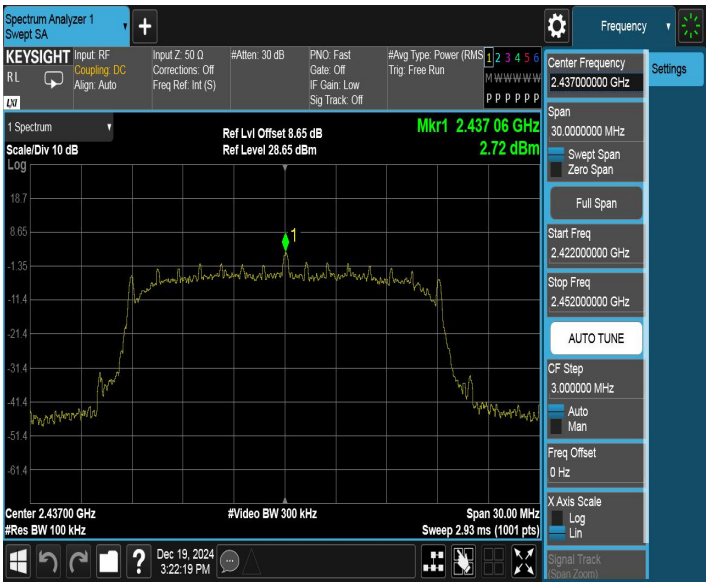


11N20SISO_Ant1_2412_30~1000



11N20SISO_Ant1_2412_1000~26500

11N20SISO_Ant1_2437_0~Reference



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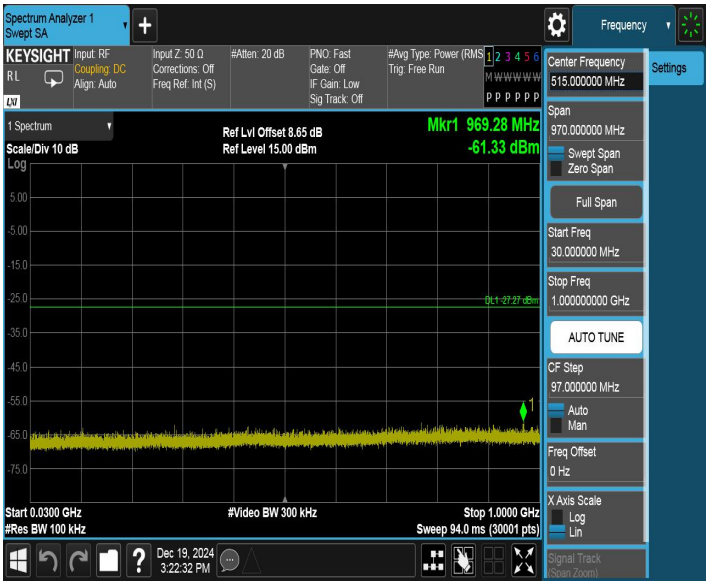

11N20SISO_Ant1_2437_1000~26500

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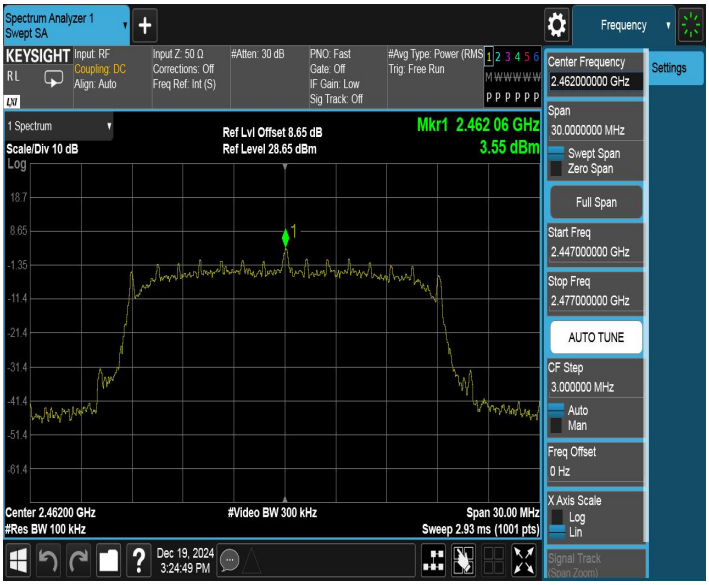

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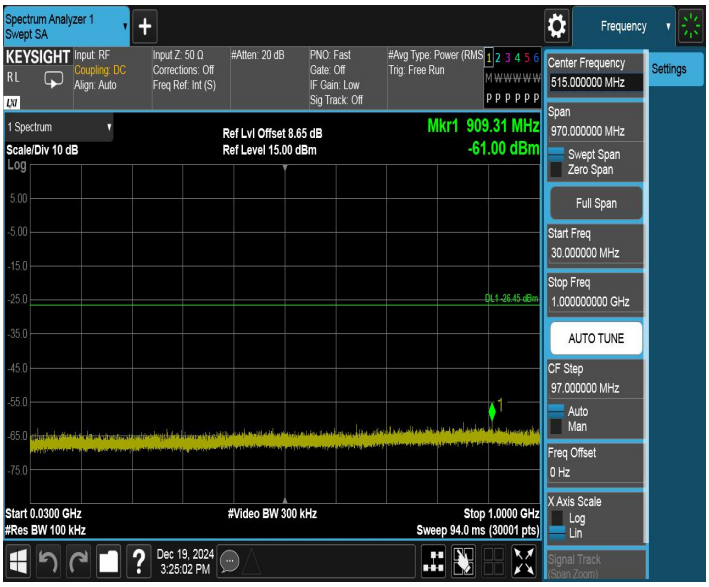

11N20SISO_Ant1_2462_1000~26500

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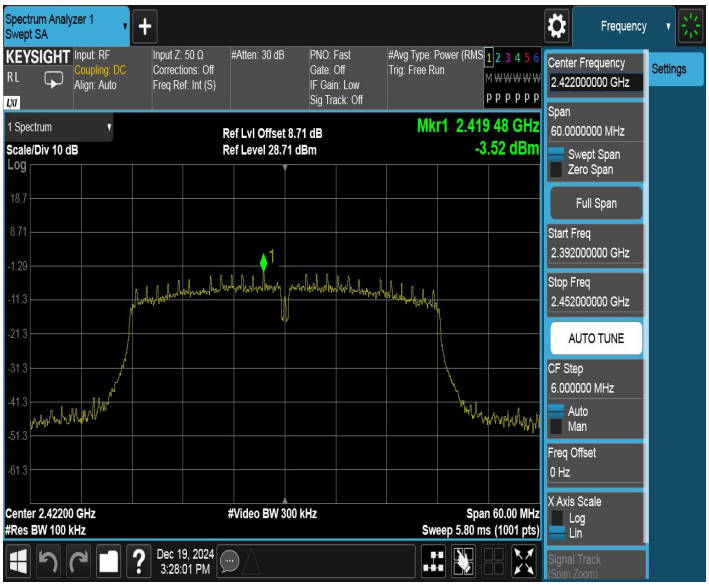

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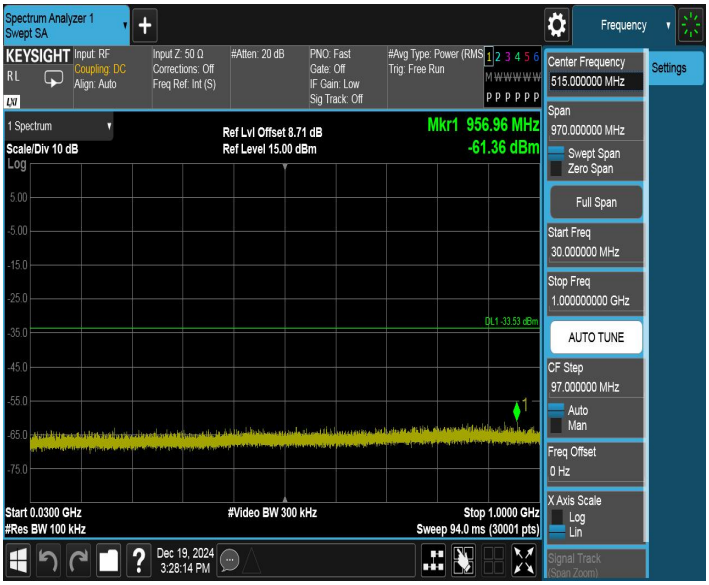
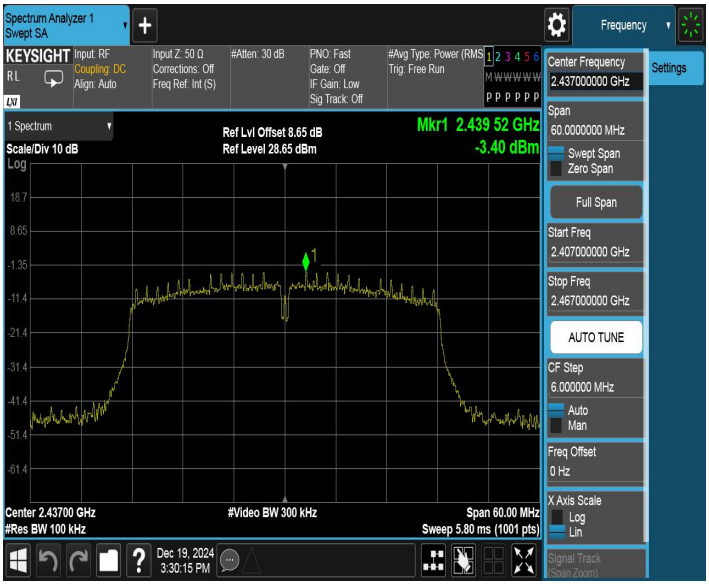
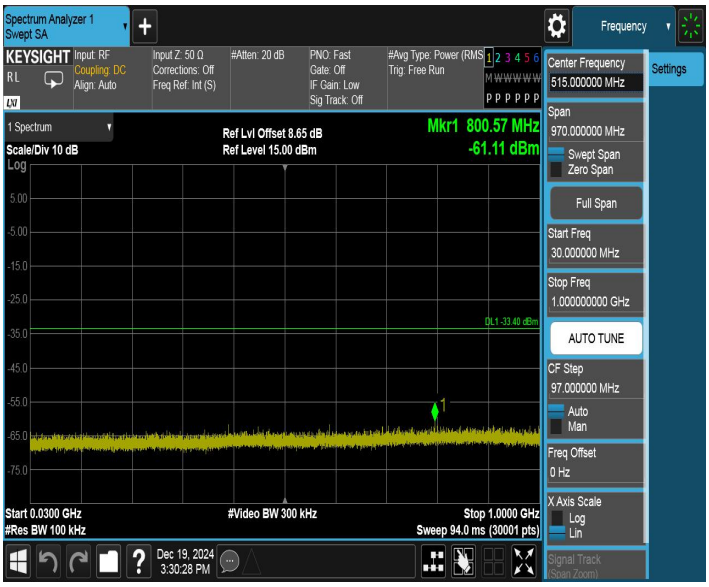


11N40SISO_Ant1_2422_1000~26500

11N40SISO_Ant1_2437_0~Reference



11N40SISO_Ant1_2437_30~1000



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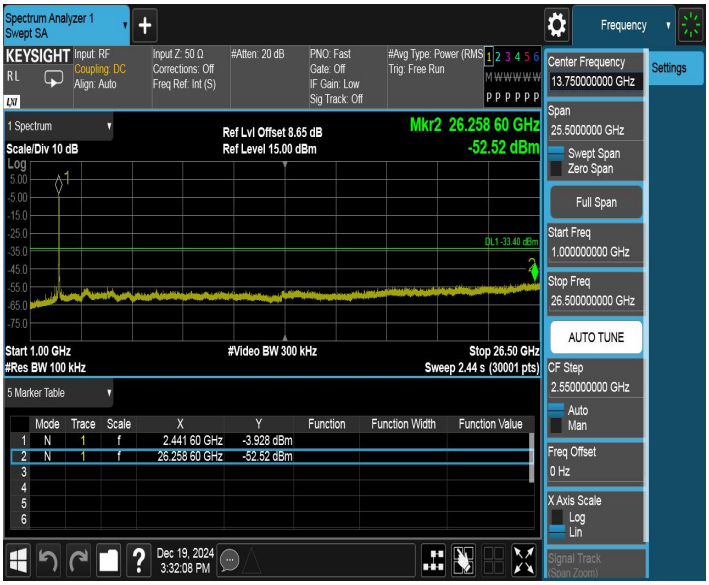
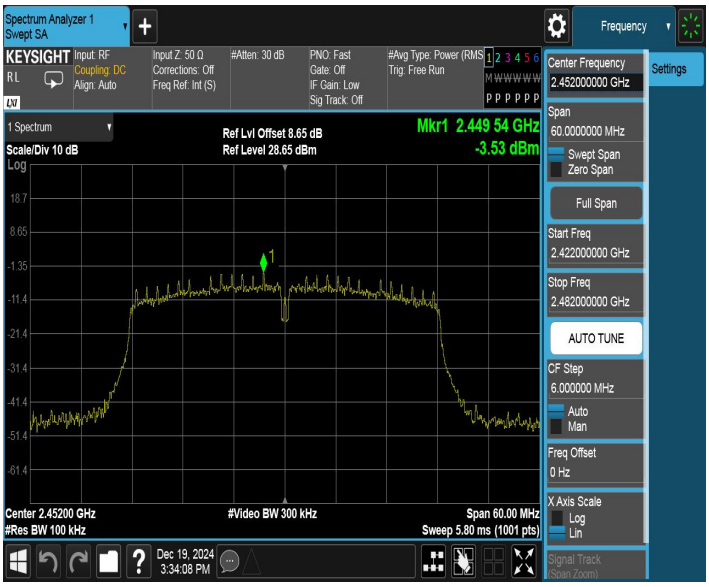
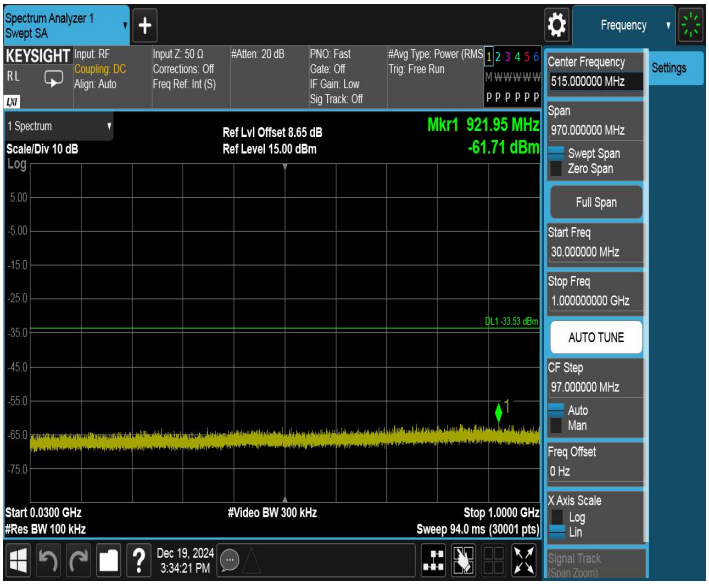


11N40SISO_Ant1_2452_0~Reference



11N40SISO_Ant1_2452_30~1000



11N40SISO_Ant1_2452_1000~26500

7.6. Radiated Spurious Emission Measurement

7.6.1. Test Limit

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [uV/m]	Measured Distance [Meters]
0.009 – 0.490	2400/F (kHz)	300
0.490 – 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

7.6.2. Test Procedure Used

ANSI C63.10-2013 – Section 6.6.4.3

7.6.3. Test Setting

Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = as specified in Table 1
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold

7. Trace was allowed to stabilize

Table 1 - RBW as a function of frequency

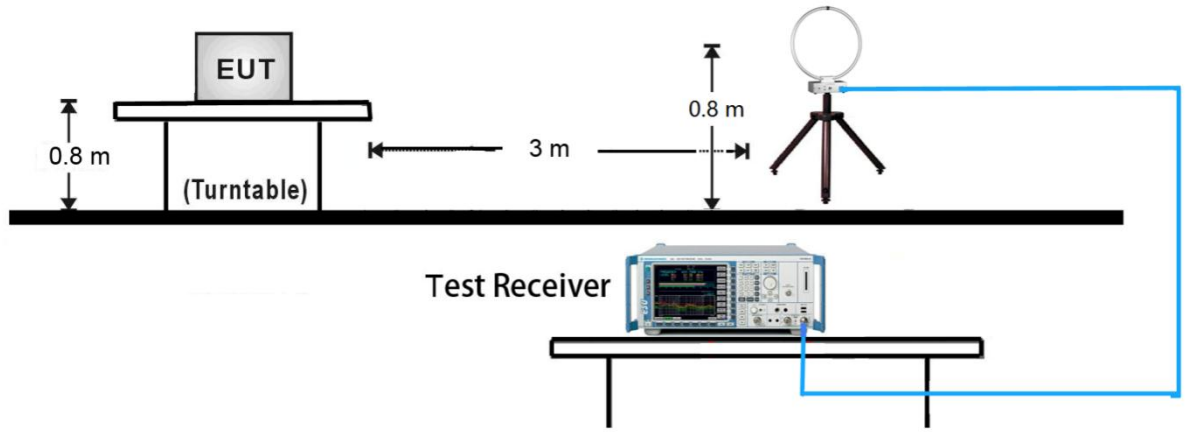
Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz
> 1000 MHz	1 MHz

Average Field Strength Measurements

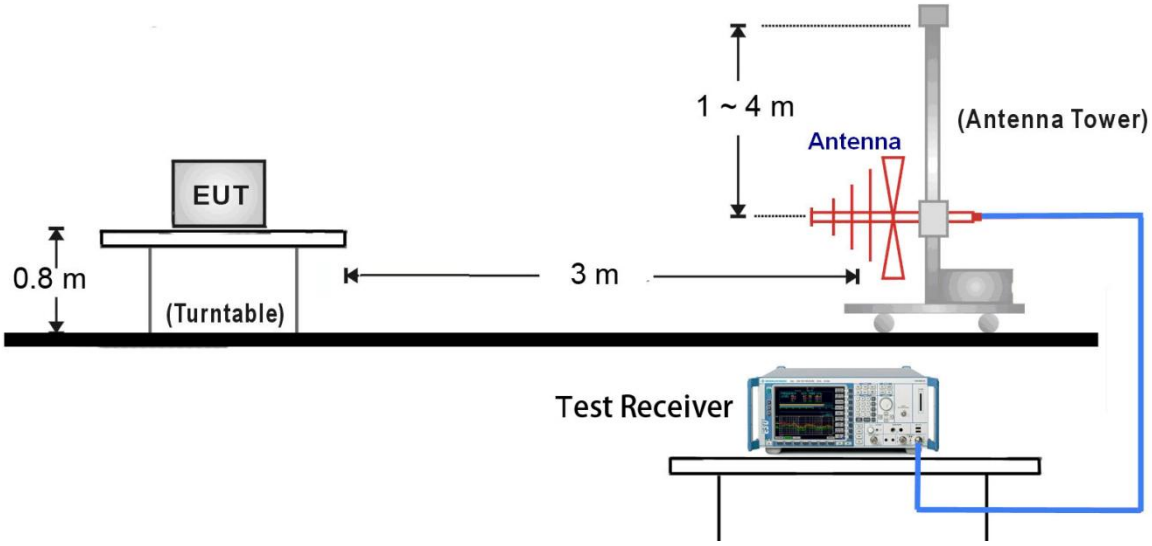
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = Power Average (RMS)
5. Number of sweep point = 2001 (Number of sweep points must be ≥ 2 x span / RBW)
6. Sweep time = auto
7. Trace (RMS) averaging was performed over at least 100 traces.

7.6.4. Test Setup

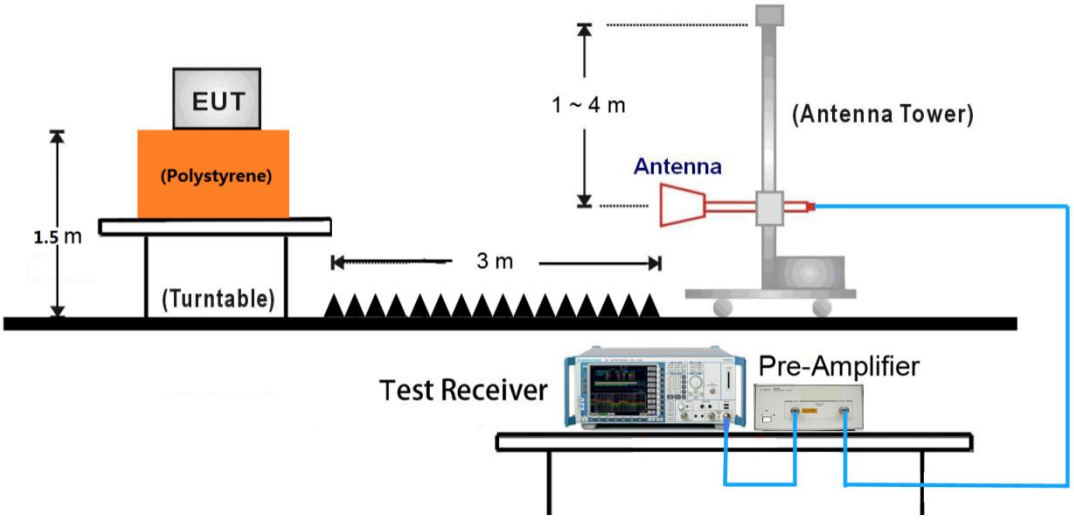
9kHz ~ 30MHz Test Setup:



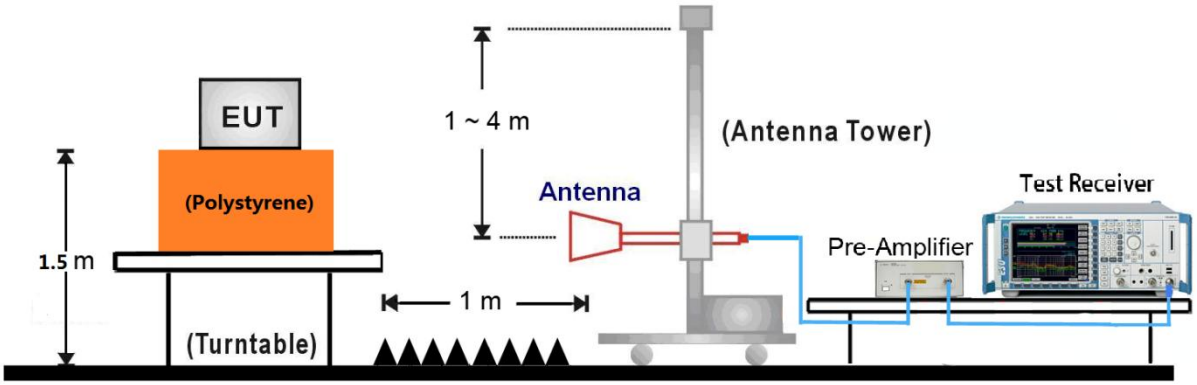
30MHz ~ 1GHz Test Setup:



1GHz ~ 18GHz Test Setup:



18GHz ~25GHz Test Setup:



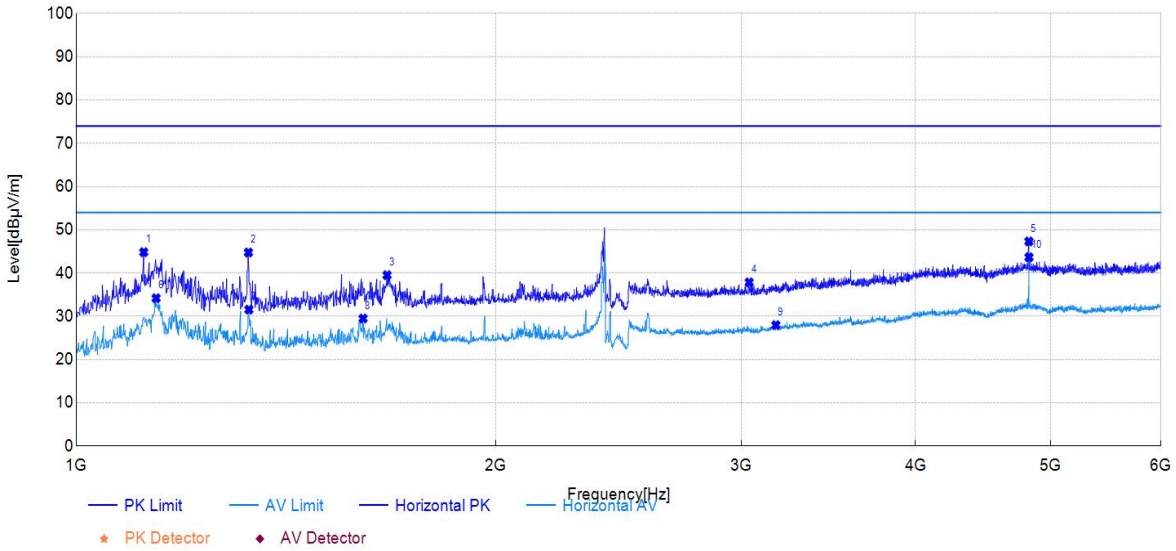
7.6.5. Test Result

The worst case of Radiated Emission above 1GHz:

1GHz – 6GHz Test Data

EUT:	matter controller	Polarity:	Horizontal
Model:	LITE MT	S/N:	/
Mode:	Transmit by 802.11b at Channel 2412MHz	Voltage:	DC 24V
Environment:	Temp: 18.5℃; Humi:49%	Engineer:	Chuang Li

Test Graph



Frequency (MHz)	Level (dBμV/m)	Factor (dB)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
1118.00	44.83	-23.77	74.00	29.17	PK	Horizontal
1329.00	44.76	-22.69	74.00	29.24	PK	Horizontal
1671.00	39.51	-20.55	74.00	34.49	PK	Horizontal
3039.00	37.85	-14.37	74.00	36.15	PK	Horizontal
4824.00	47.31	-6.72	74.00	26.69	PK	Horizontal
1141.00	34.18	-23.68	54.00	19.82	AV	Horizontal
1330.00	31.55	-22.68	54.00	22.45	AV	Horizontal
1606.00	29.49	-21.04	54.00	24.51	AV	Horizontal
3176.00	27.96	-13.72	54.00	26.04	AV	Horizontal
4825.00	43.64	-6.71	54.00	10.36	AV	Horizontal

Note 1: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more