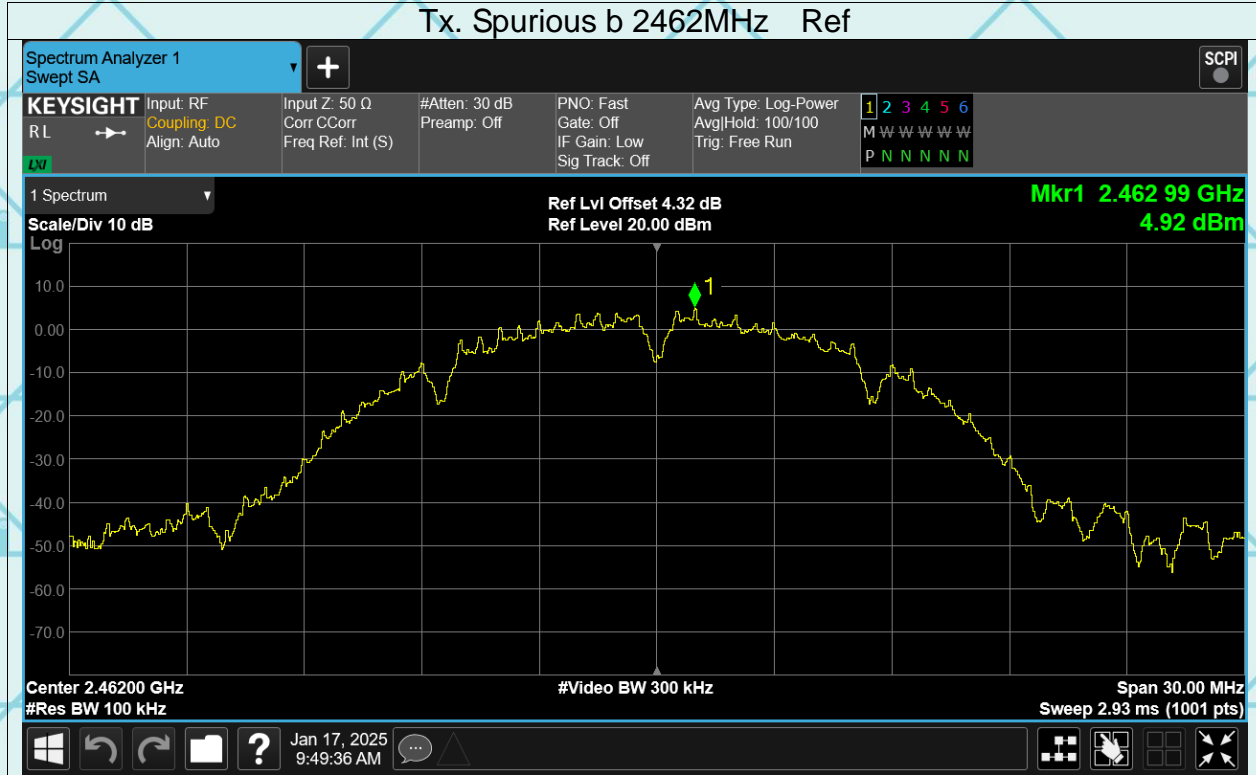
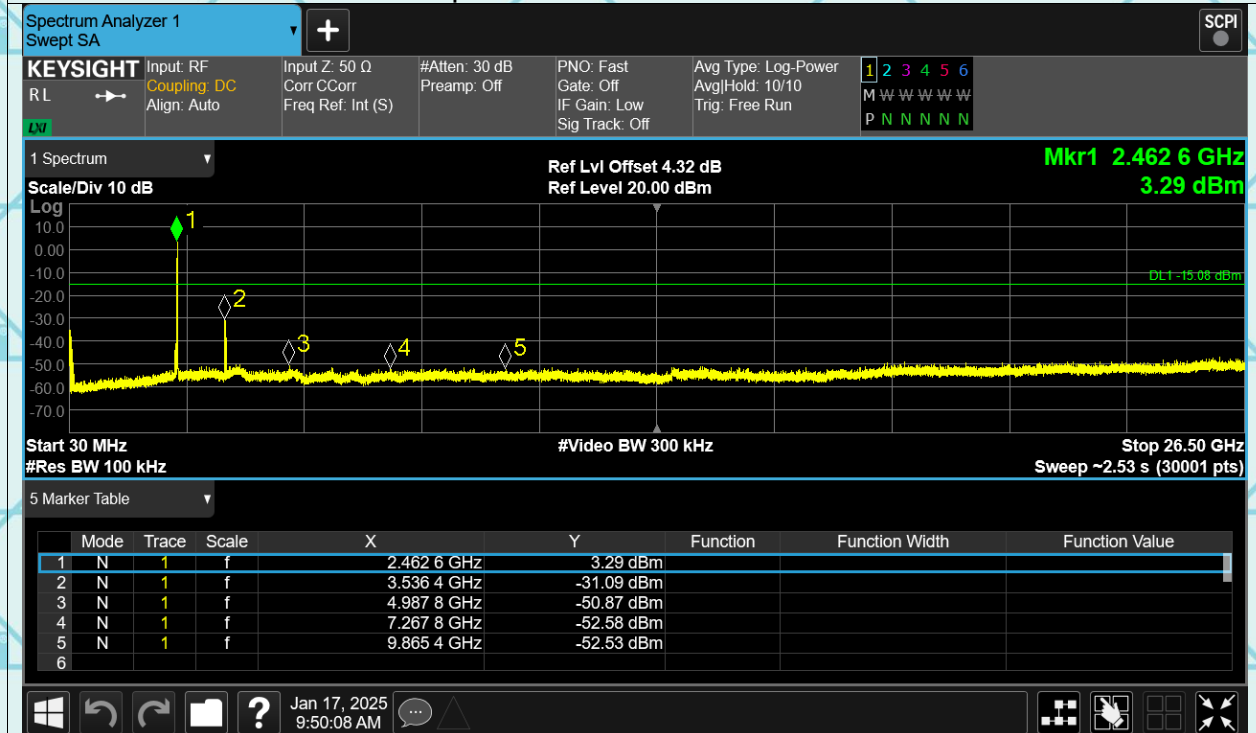


Report No.: WSCT-ANAB-R&E250100001A-Wi-Fi1

Tx. Spurious b 2462MHz Ref

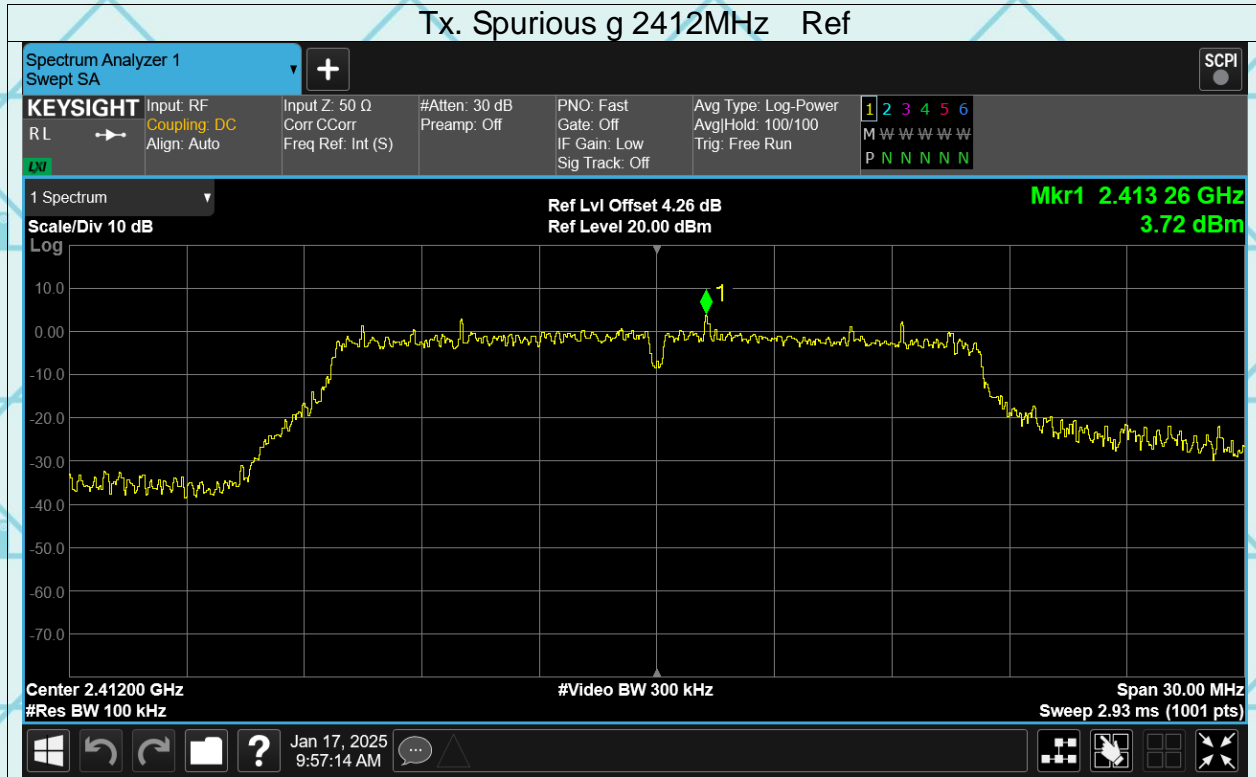


Tx. Spurious b 2462MHz Emission

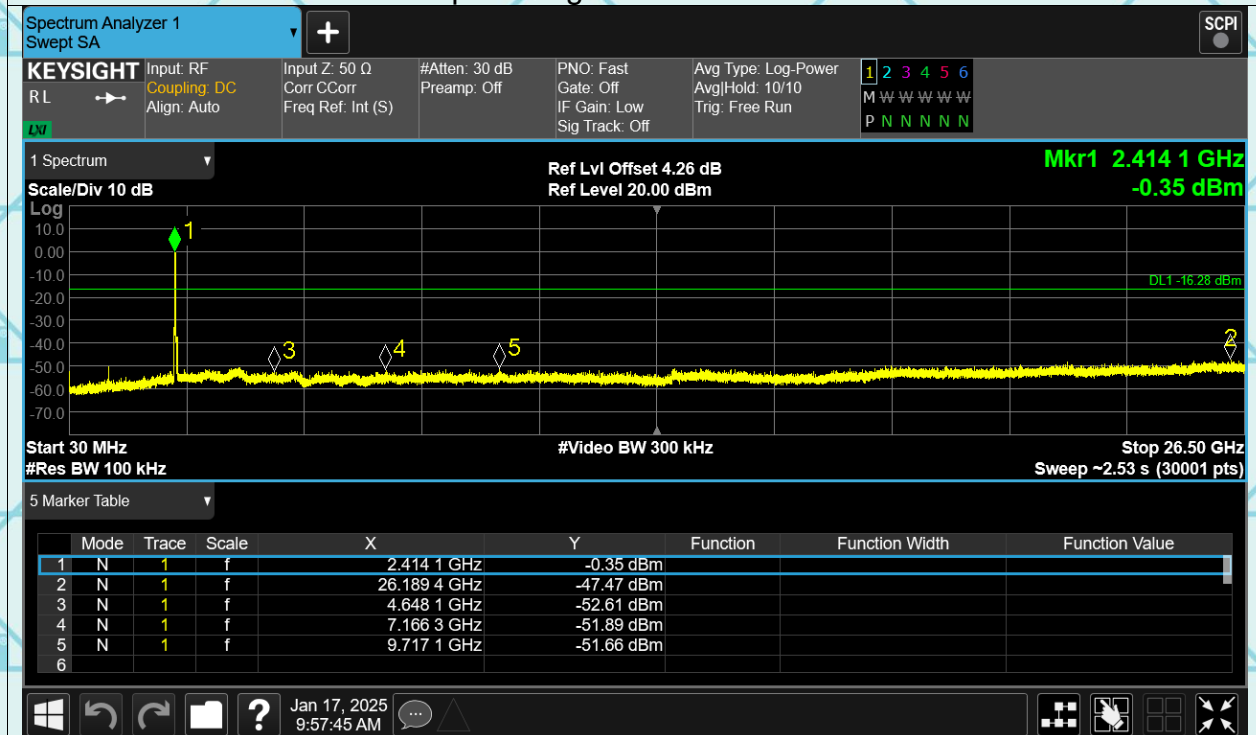


Report No.: WSCT-ANAB-R&E250100001A-Wi-Fi1

Tx. Spurious g 2412MHz Ref

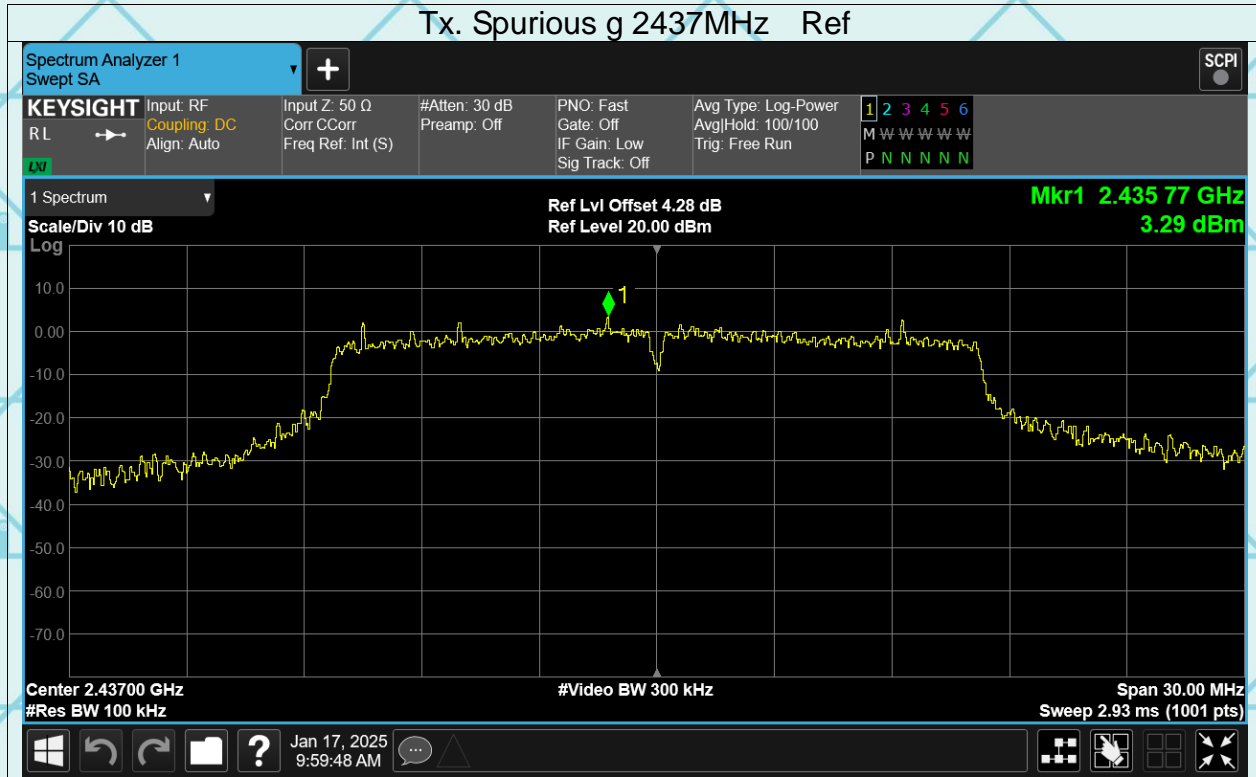


Tx. Spurious g 2412MHz Emission

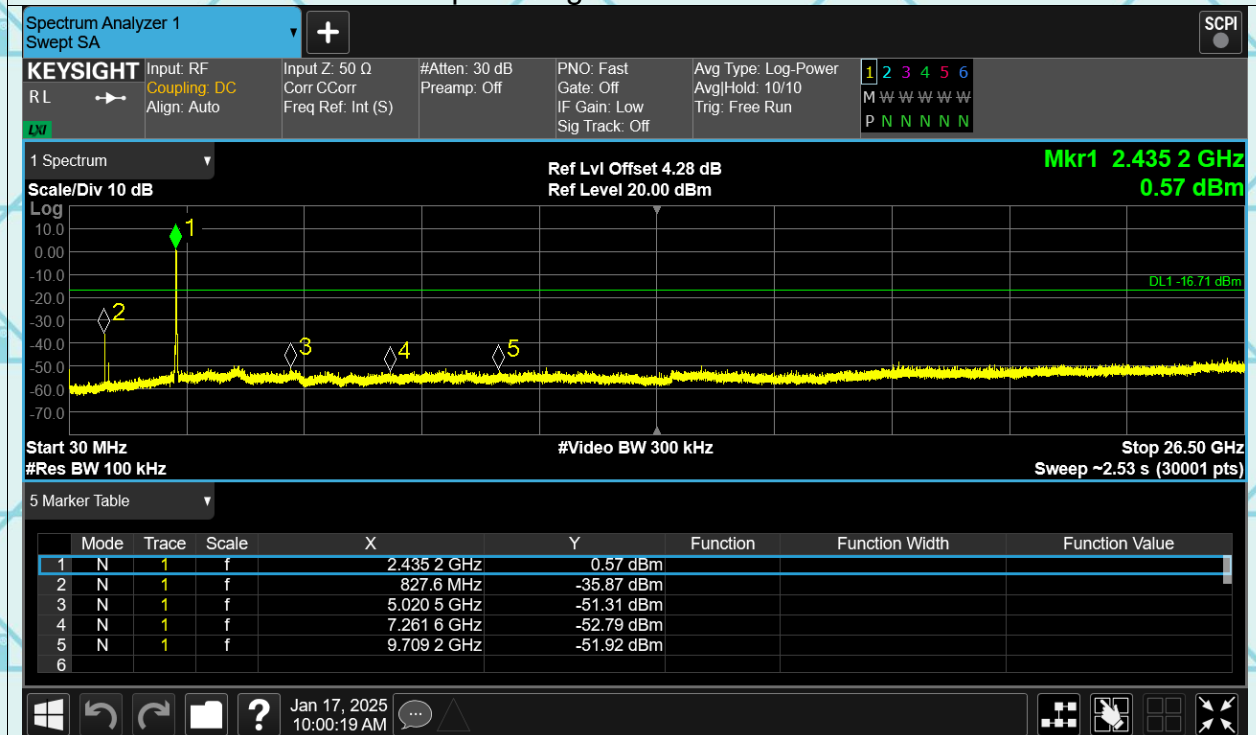


Report No.: WSCT-ANAB-R&E250100001A-Wi-Fi1

Tx. Spurious g 2437MHz Ref

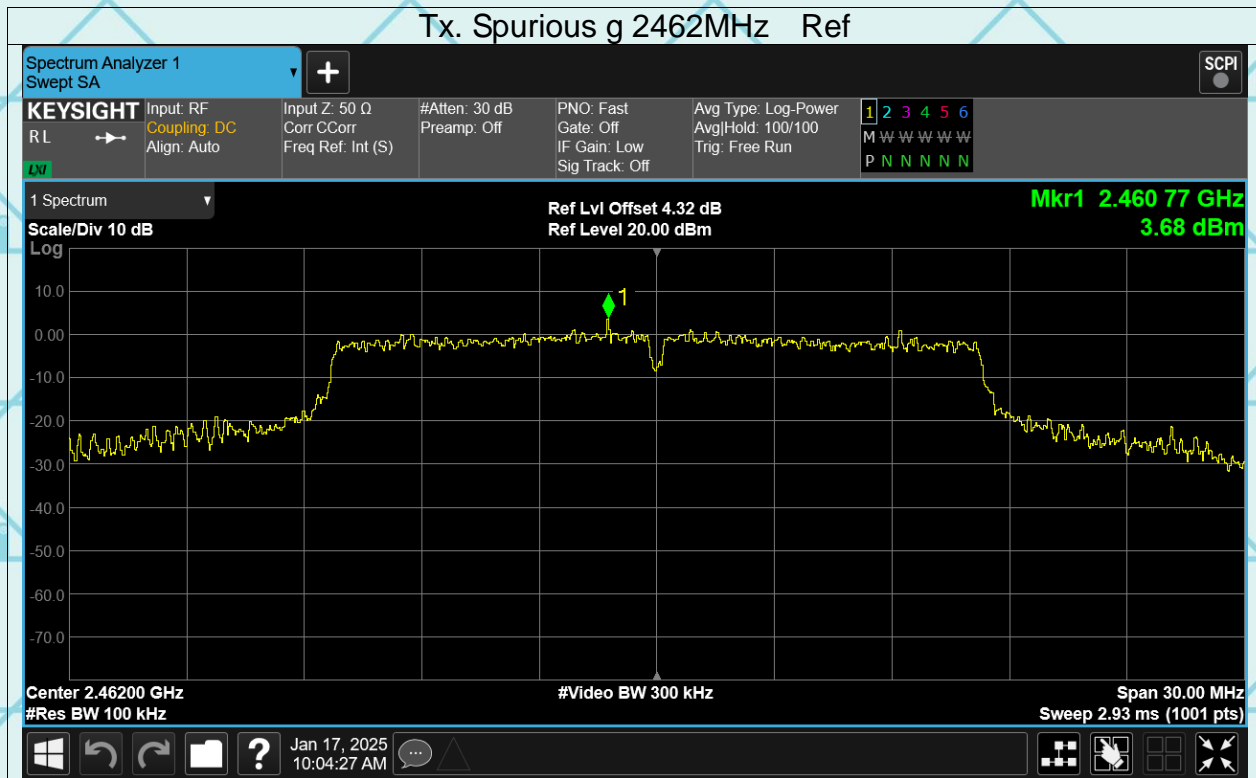


Tx. Spurious g 2437MHz Emission

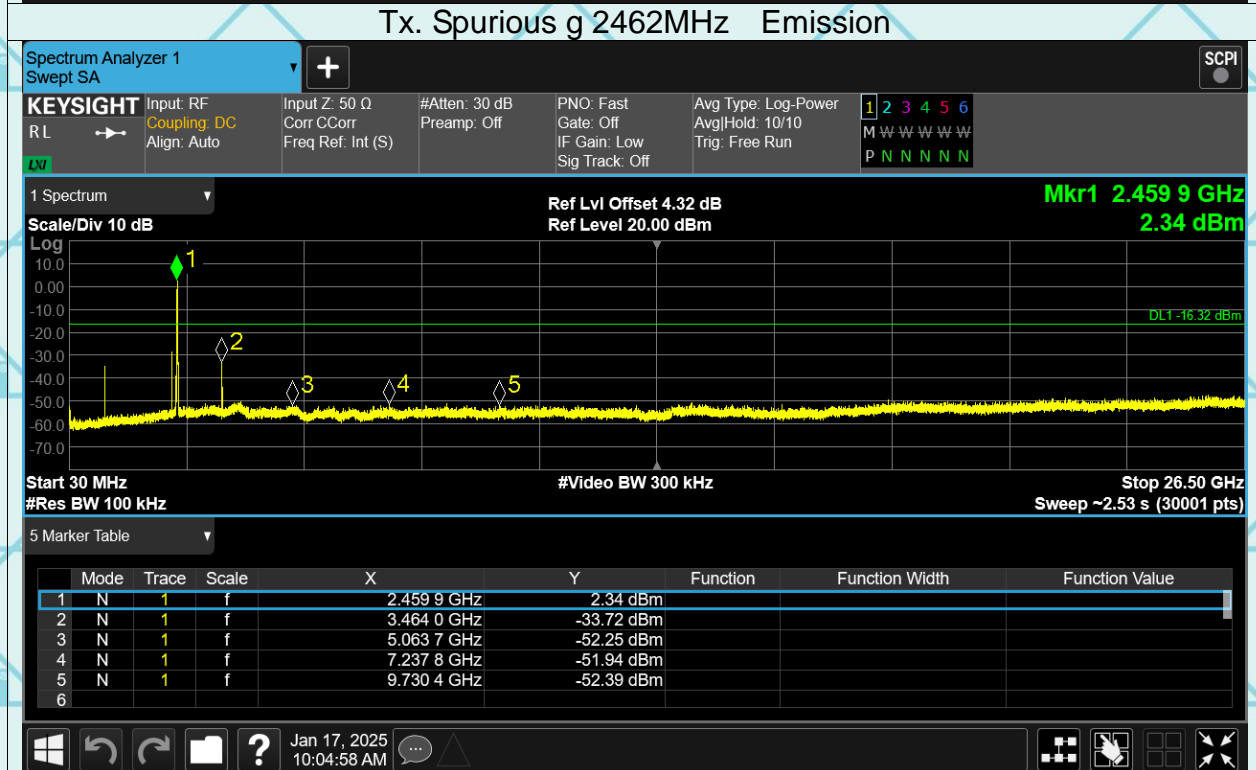


Report No.: WSCT-ANAB-R&E250100001A-Wi-Fi1

Tx. Spurious g 2462MHz Ref

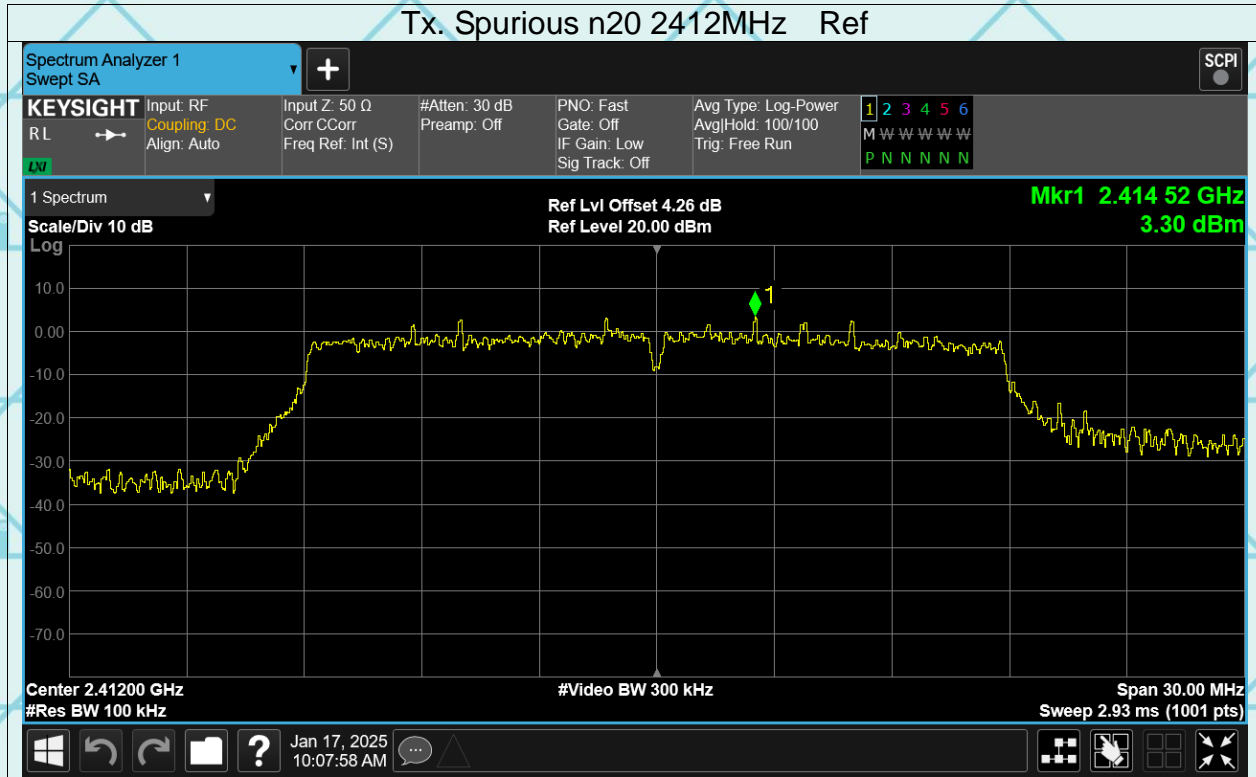


Tx. Spurious g 2462MHz Emission

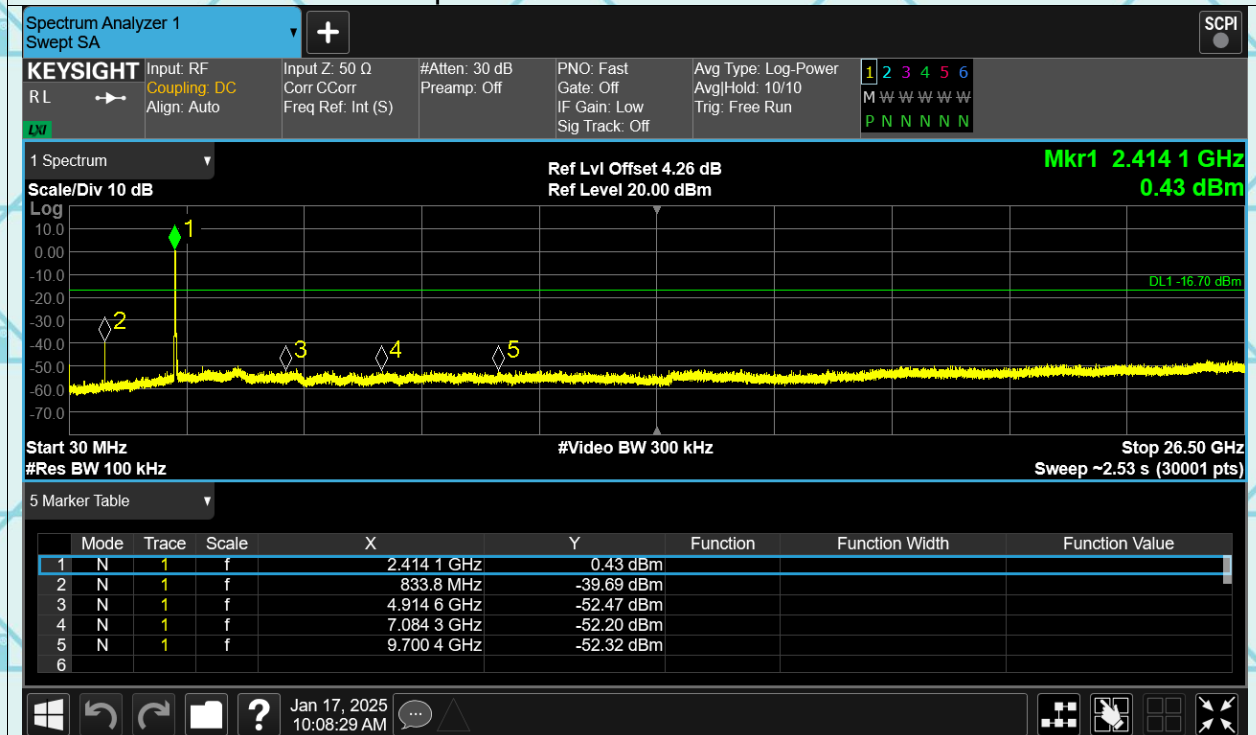


Report No.: WSCT-ANAB-R&E250100001A-Wi-Fi1

Tx. Spurious n20 2412MHz Ref

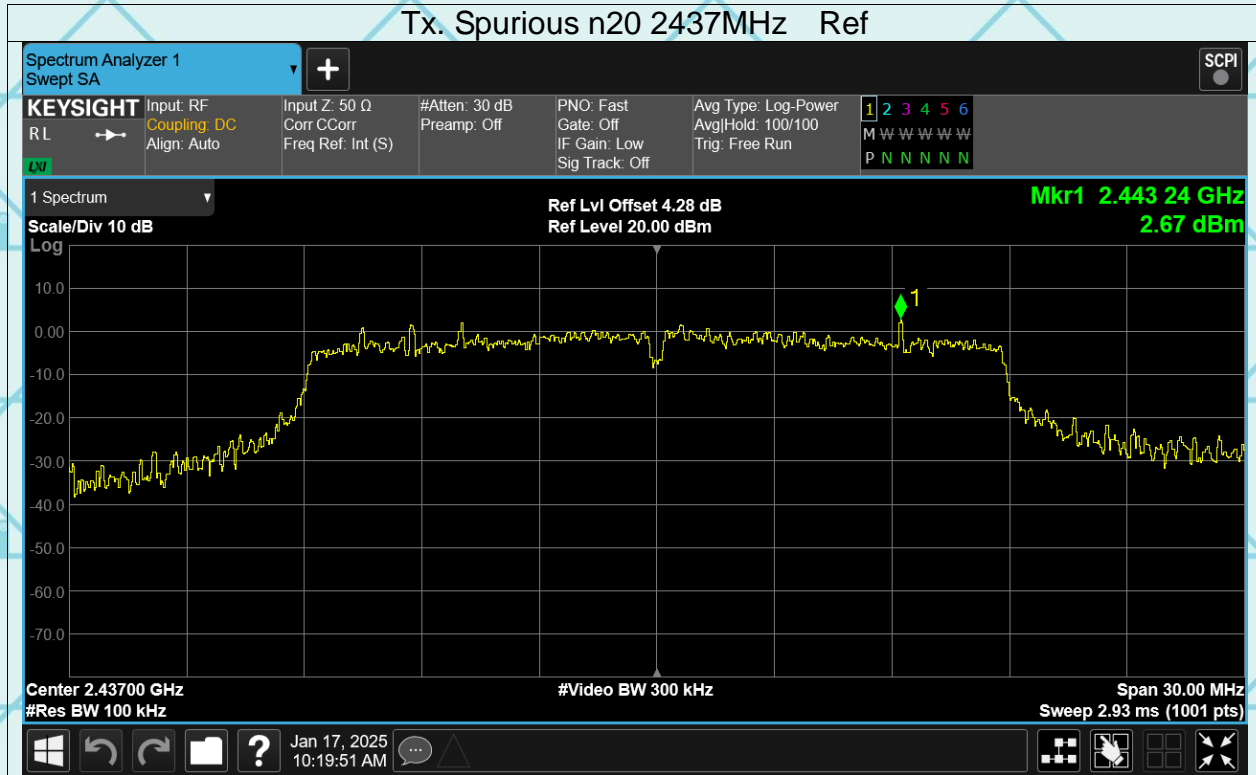


Tx. Spurious n20 2412MHz Emission

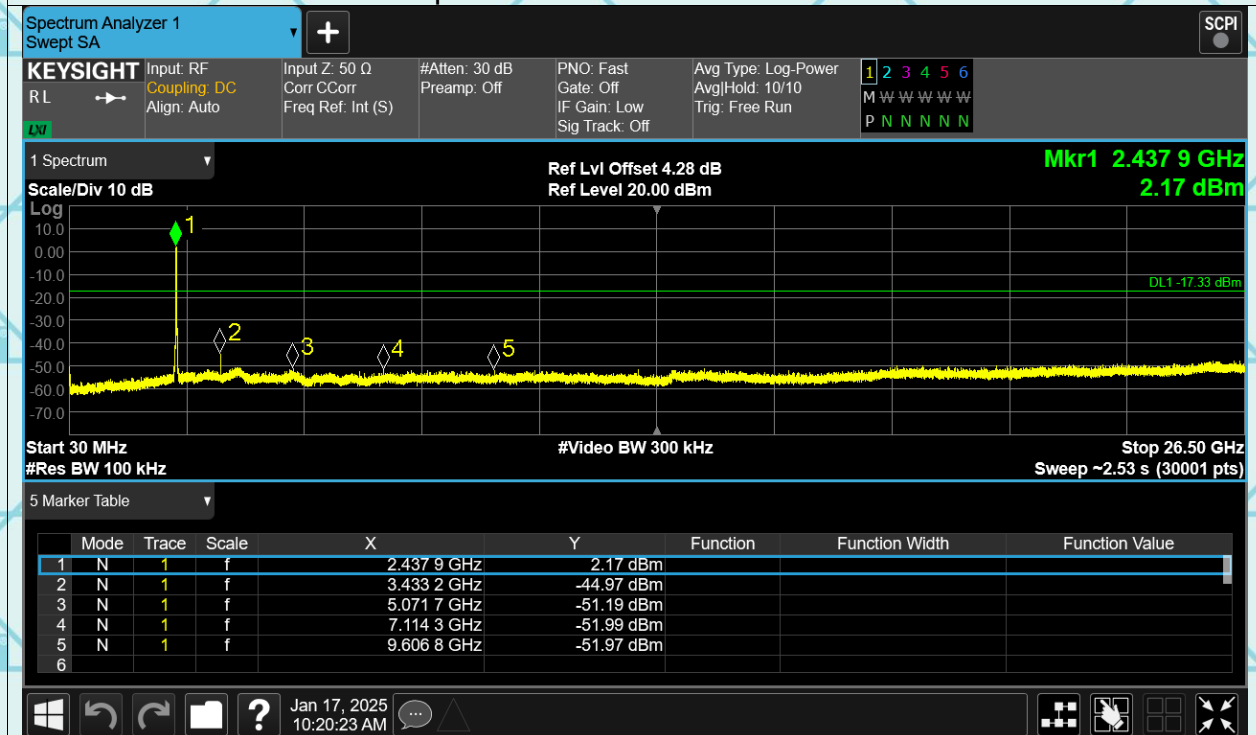


Report No.: WSCT-ANAB-R&E250100001A-Wi-Fi1

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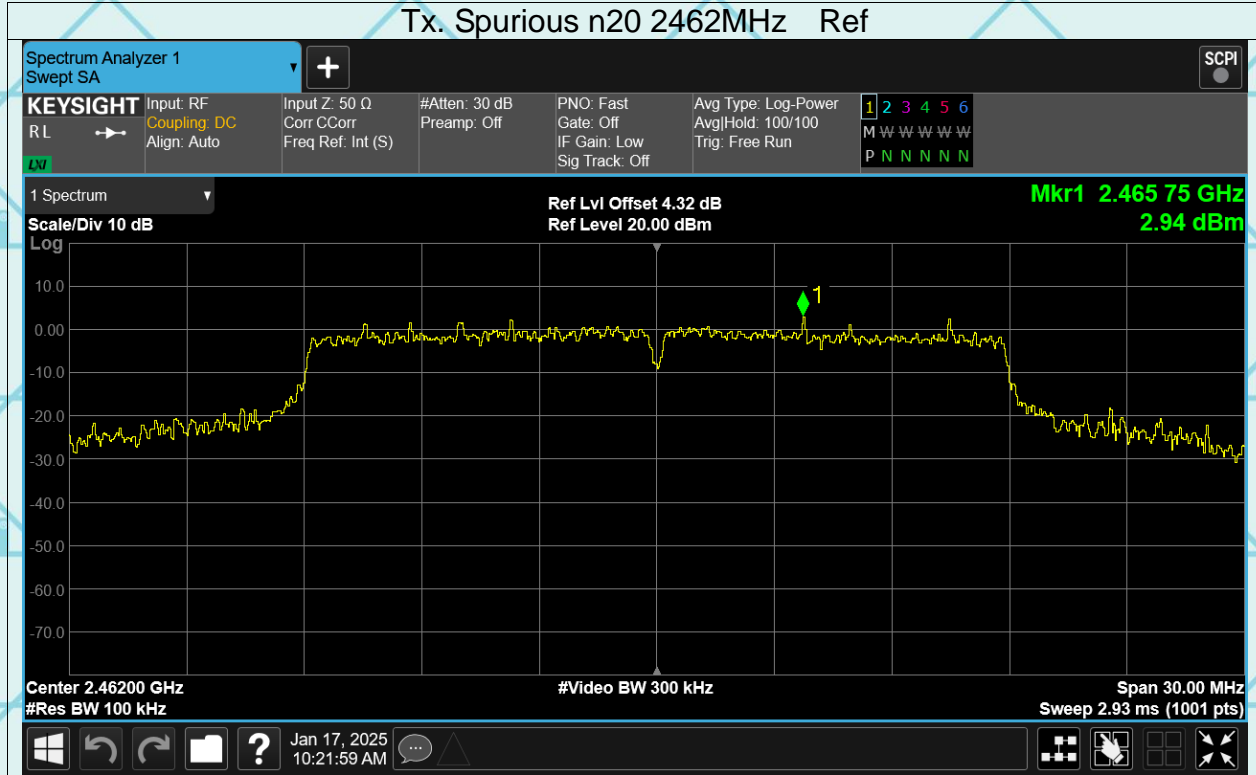


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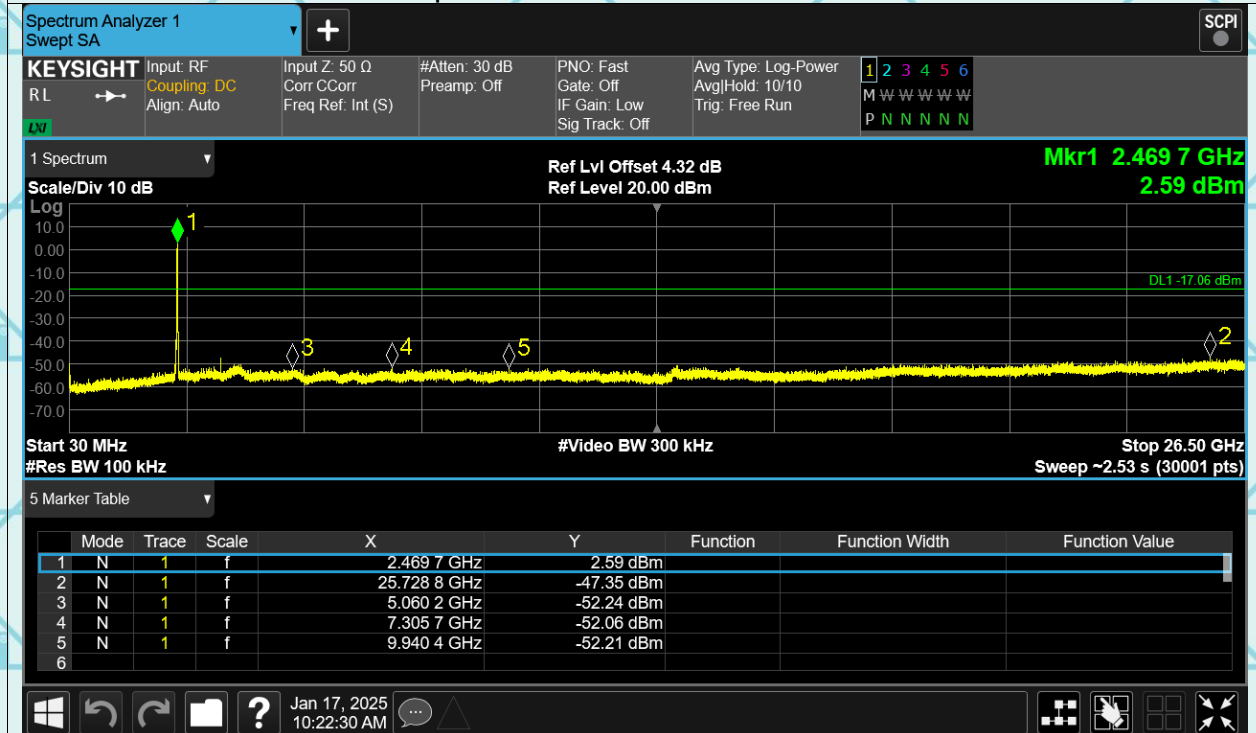


Report No.: WSCT-ANAB-R&E250100001A-Wi-Fi1

Tx. Spurious n20 2462MHz Ref

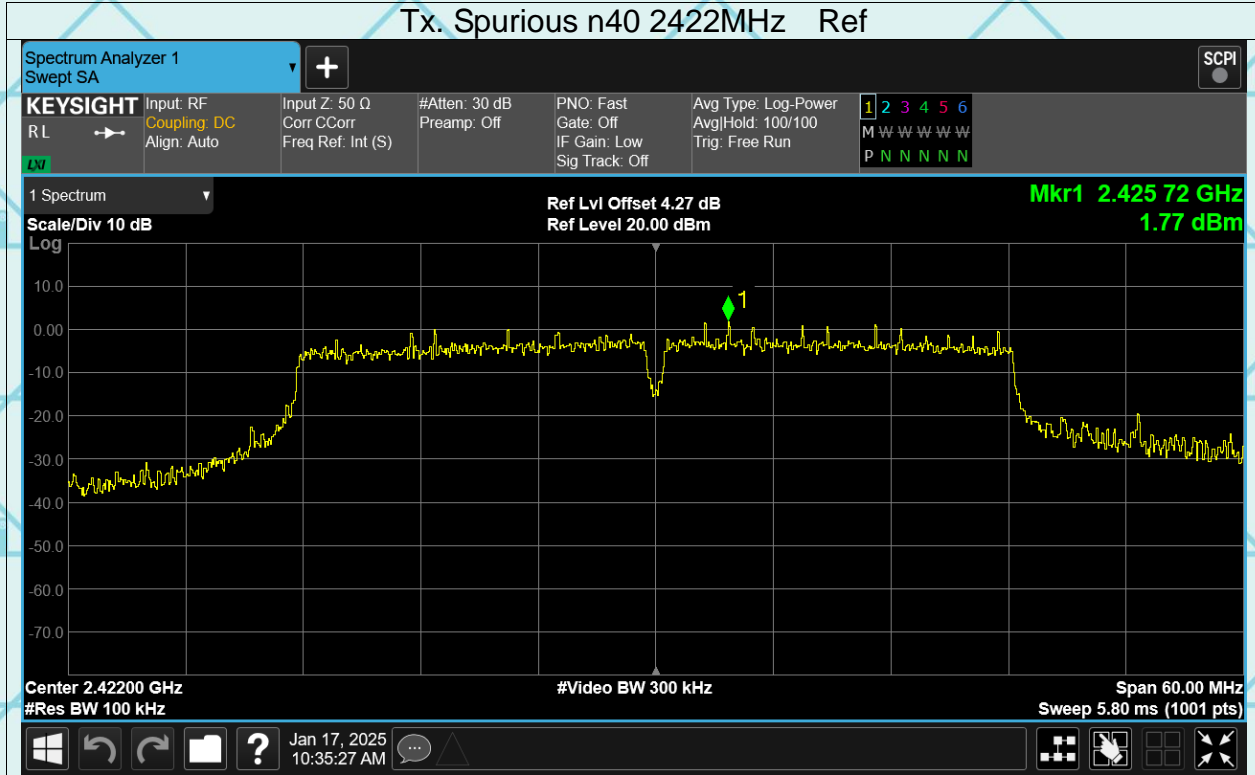


Tx. Spurious n20 2462MHz Emission

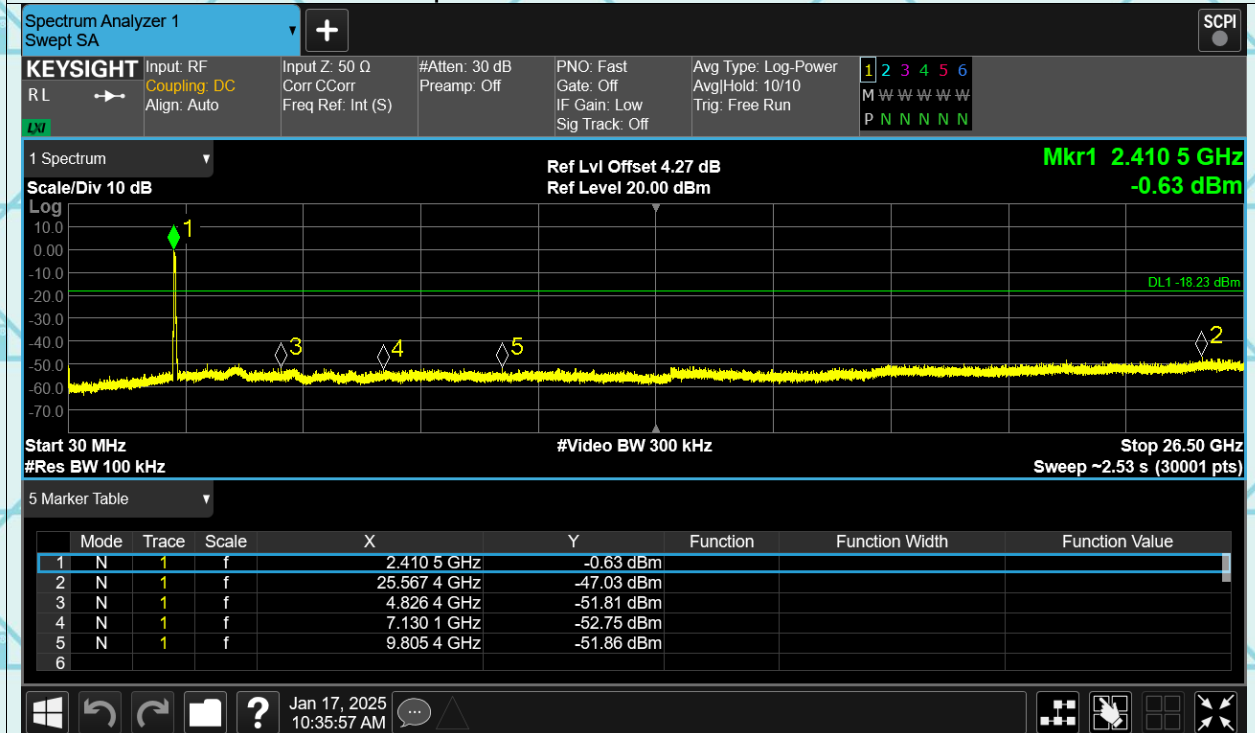


Report No.: WSCT-ANAB-R&E250100001A-Wi-Fi1

Tx. Spurious n40 2422MHz Ref

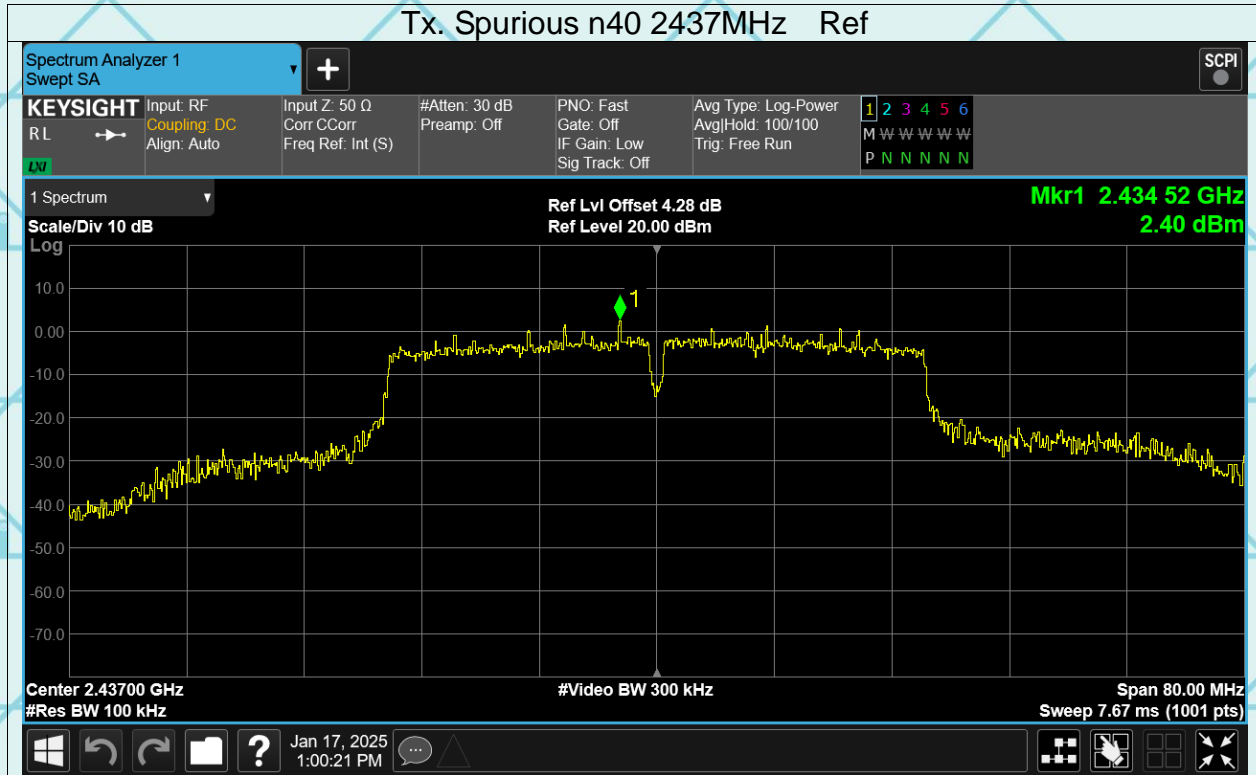


Tx. Spurious n40 2422MHz Emission

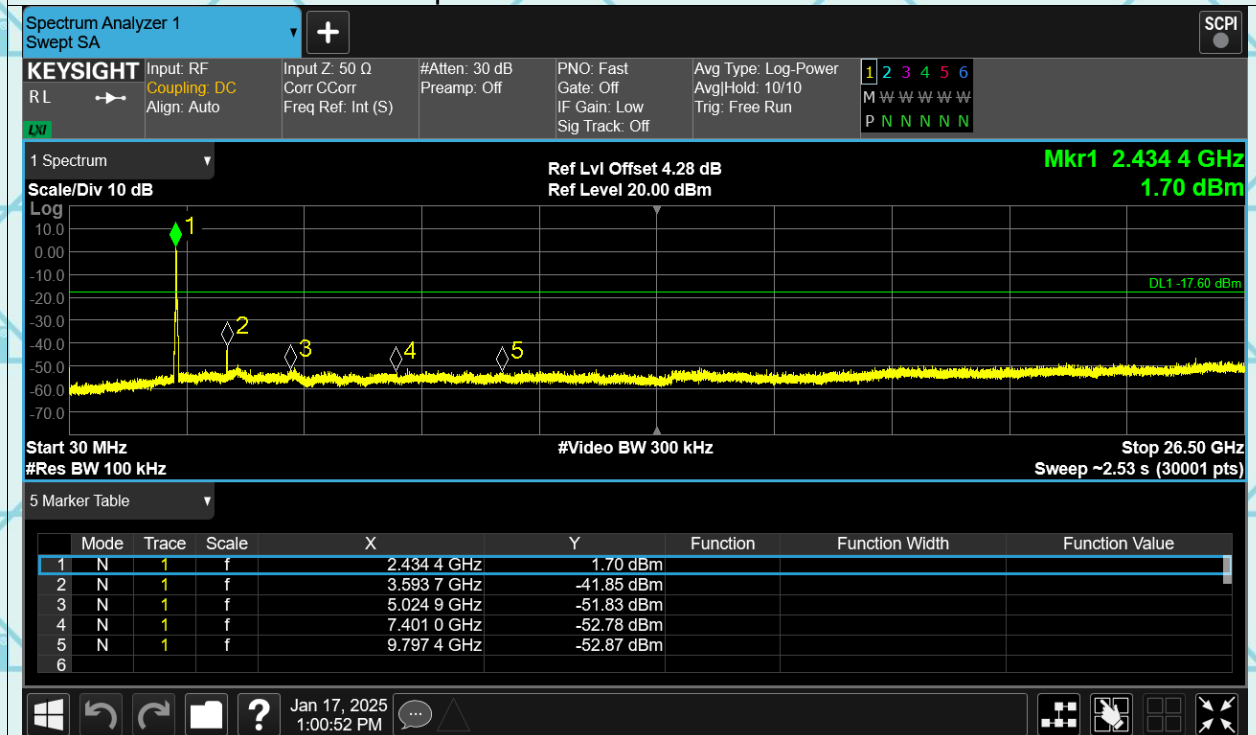


Report No.: WSCT-ANAB-R&E250100001A-Wi-Fi1

Tx. Spurious n40 2437MHz Ref

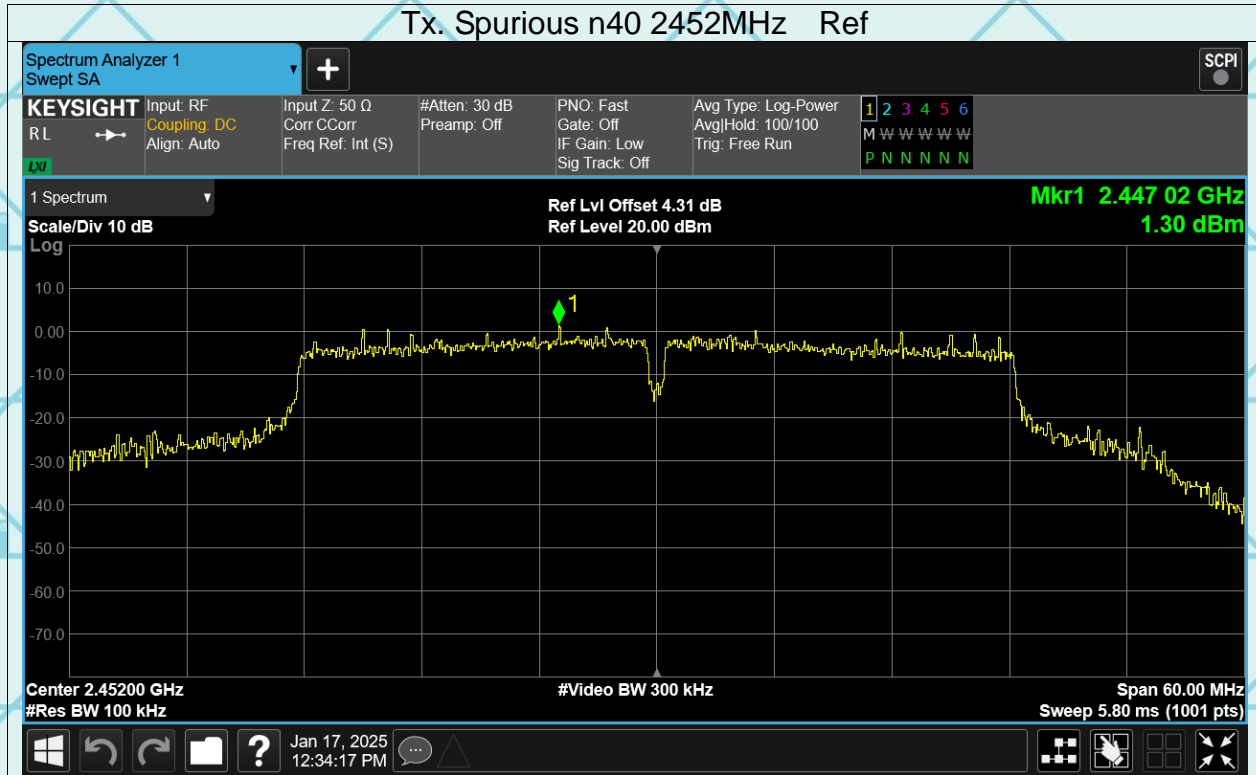


Tx. Spurious n40 2437MHz Emission

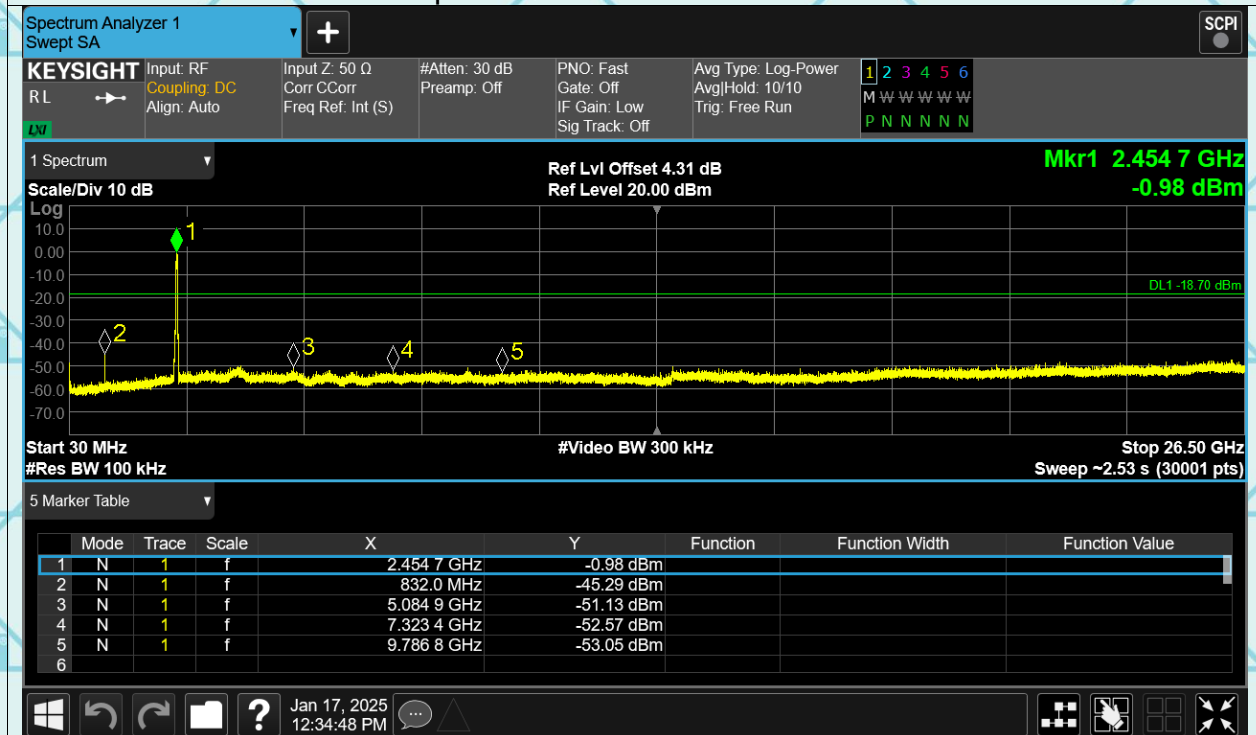


Report No.: WSCT-ANAB-R&E250100001A-Wi-Fi1

Tx. Spurious n40 2452MHz Ref

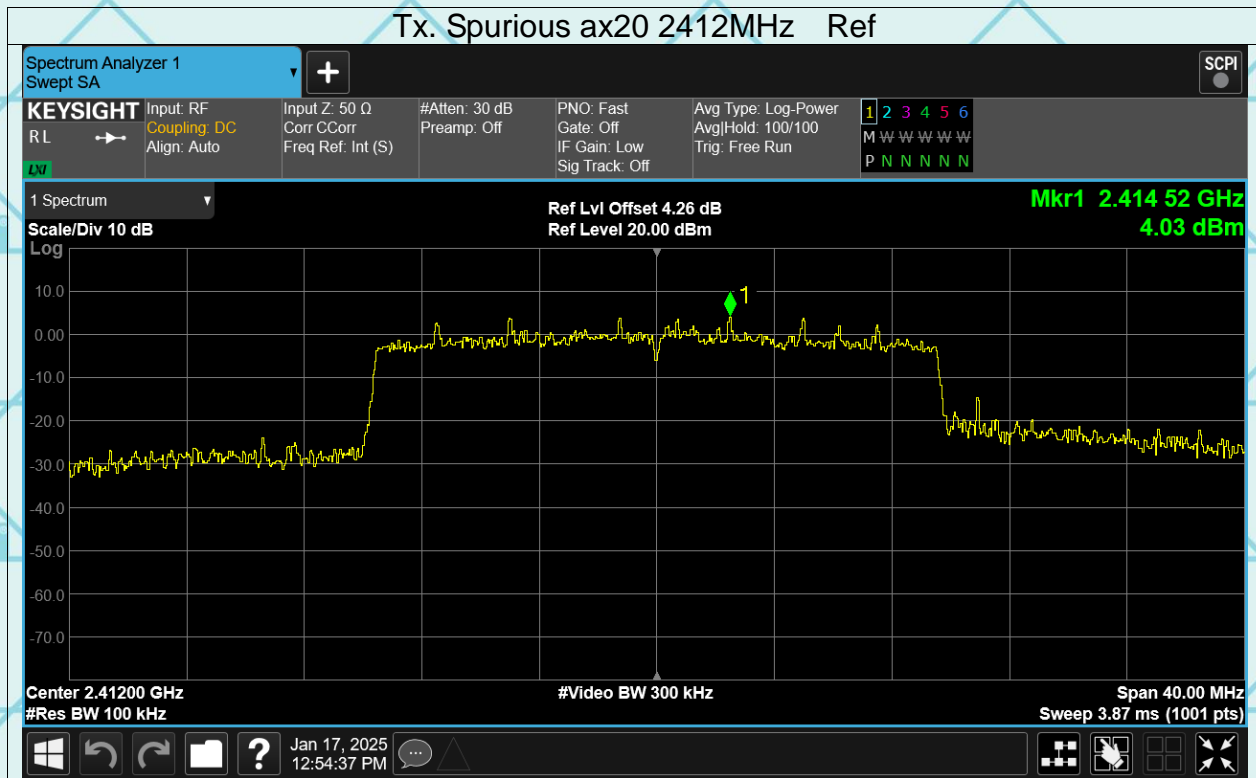


Tx. Spurious n40 2452MHz Emission

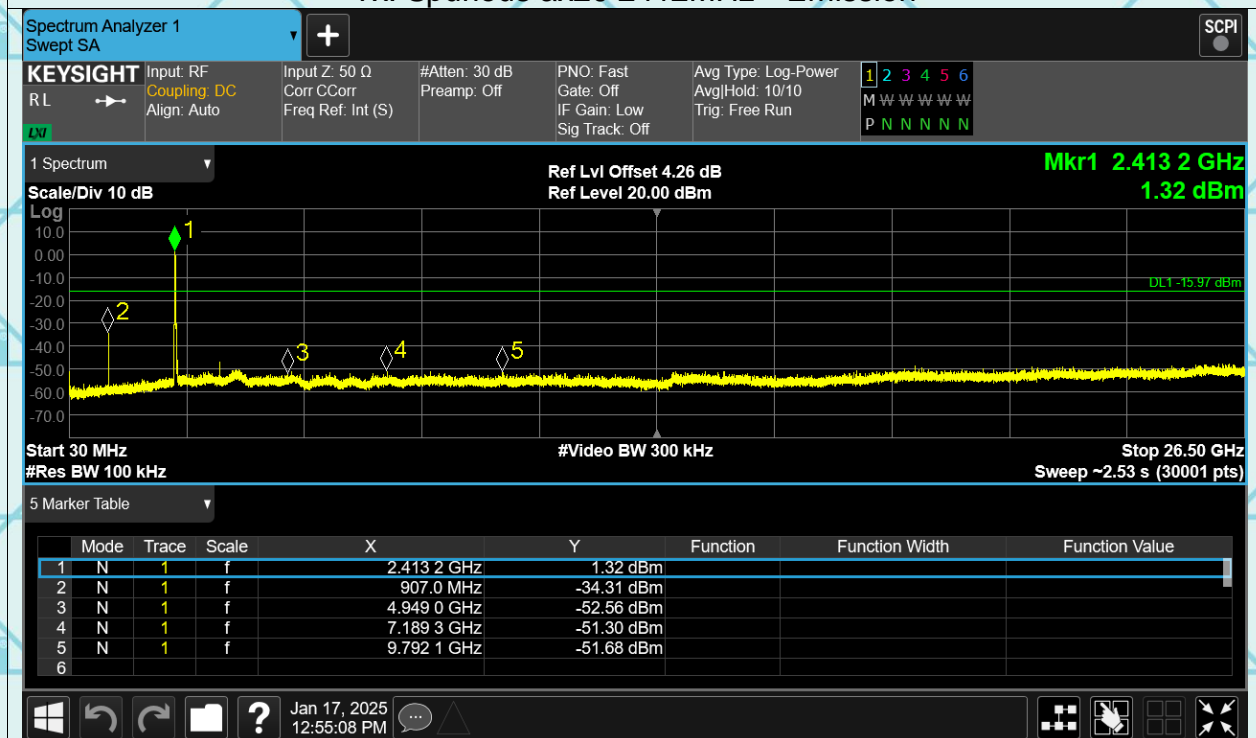


Report No.: WSCT-ANAB-R&E250100001A-Wi-Fi1

Tx. Spurious ax20 2412MHz Ref

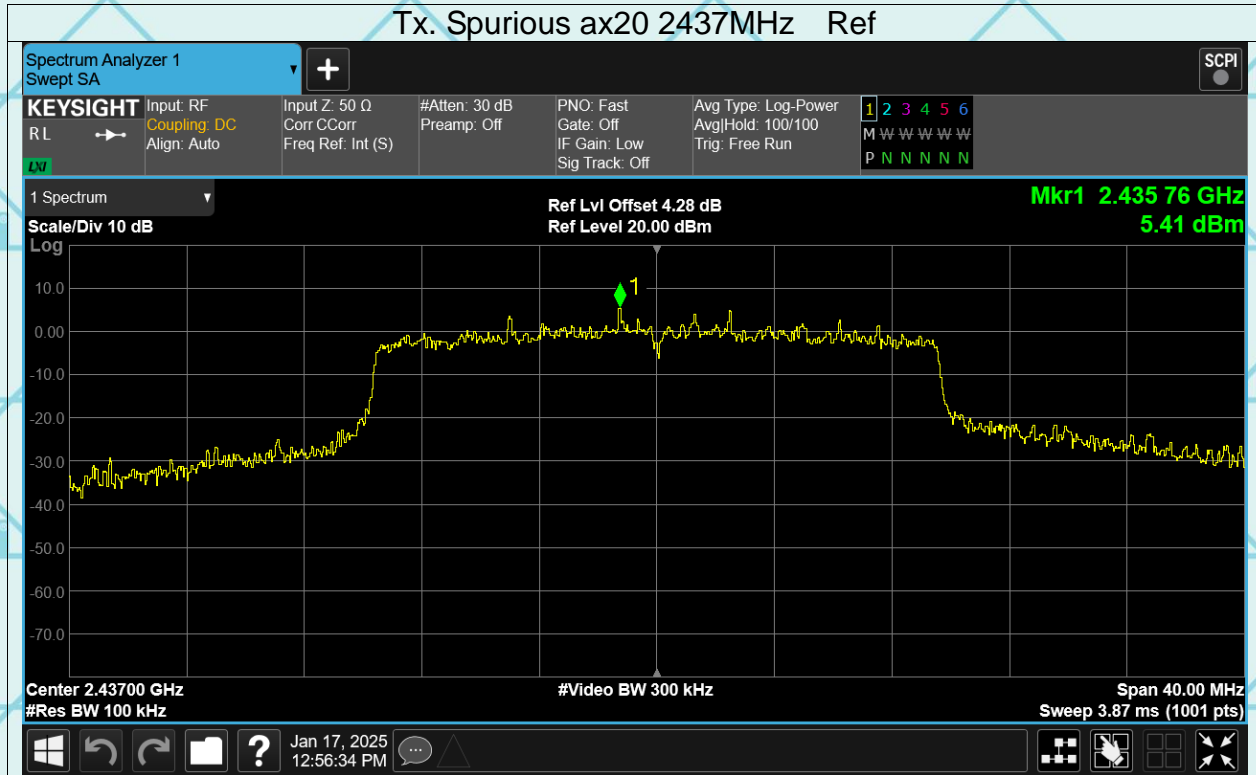


Tx. Spurious ax20 2412MHz Emission

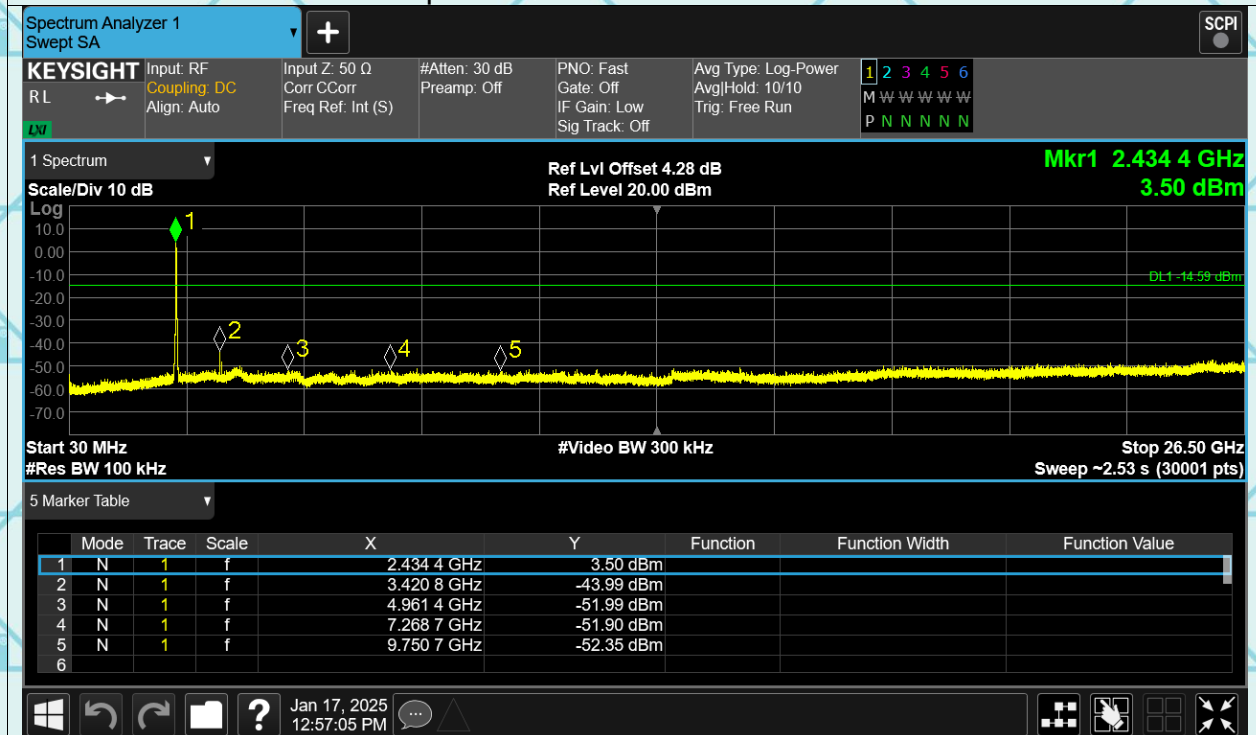


Report No.: WSCT-ANAB-R&E250100001A-Wi-Fi1

Tx. Spurious ax20 2437MHz Ref

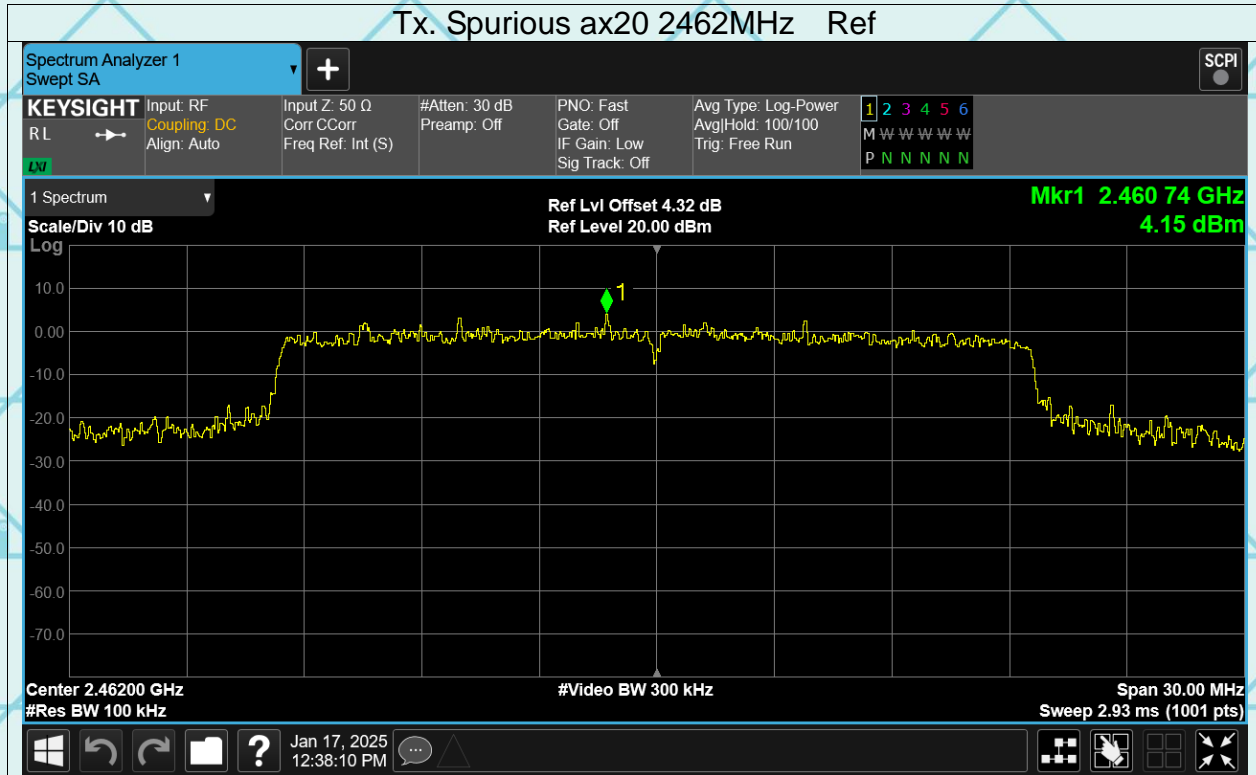


Tx. Spurious ax20 2437MHz Emission

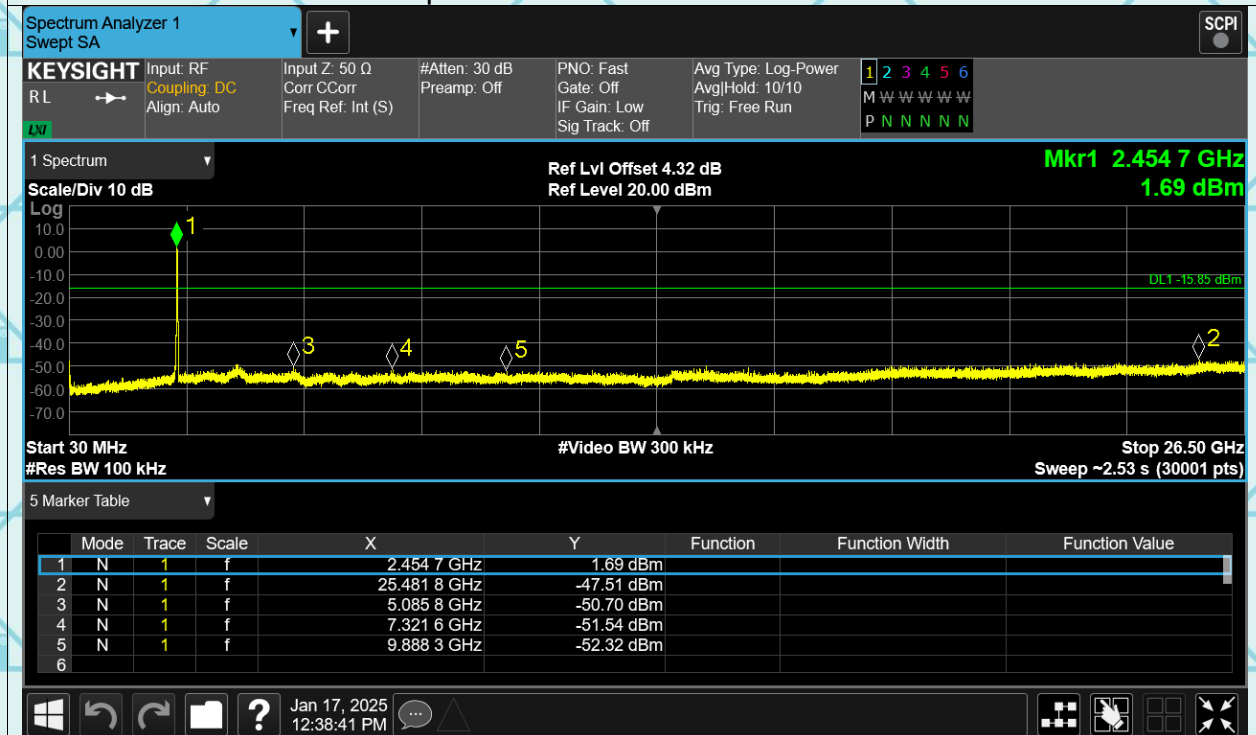


Report No.: WSCT-ANAB-R&E250100001A-Wi-Fi1

Tx. Spurious ax20 2462MHz Ref

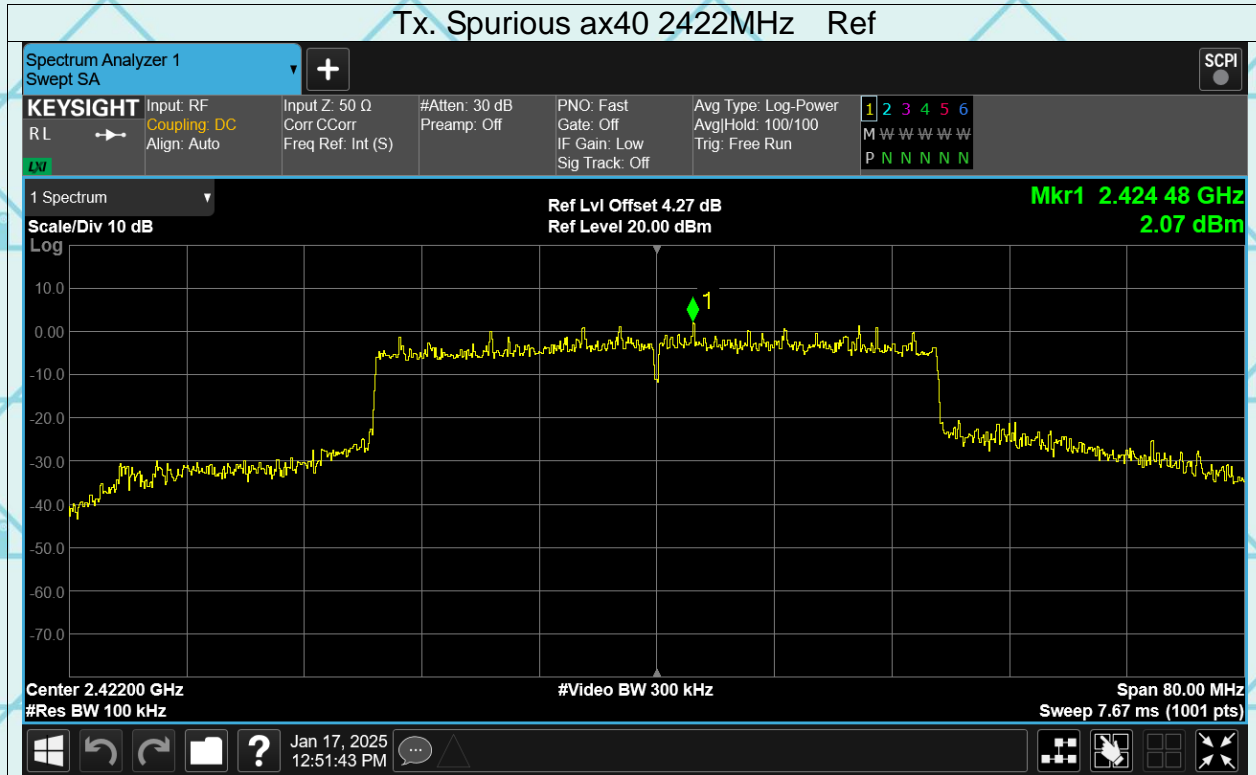


Tx. Spurious ax20 2462MHz Emission

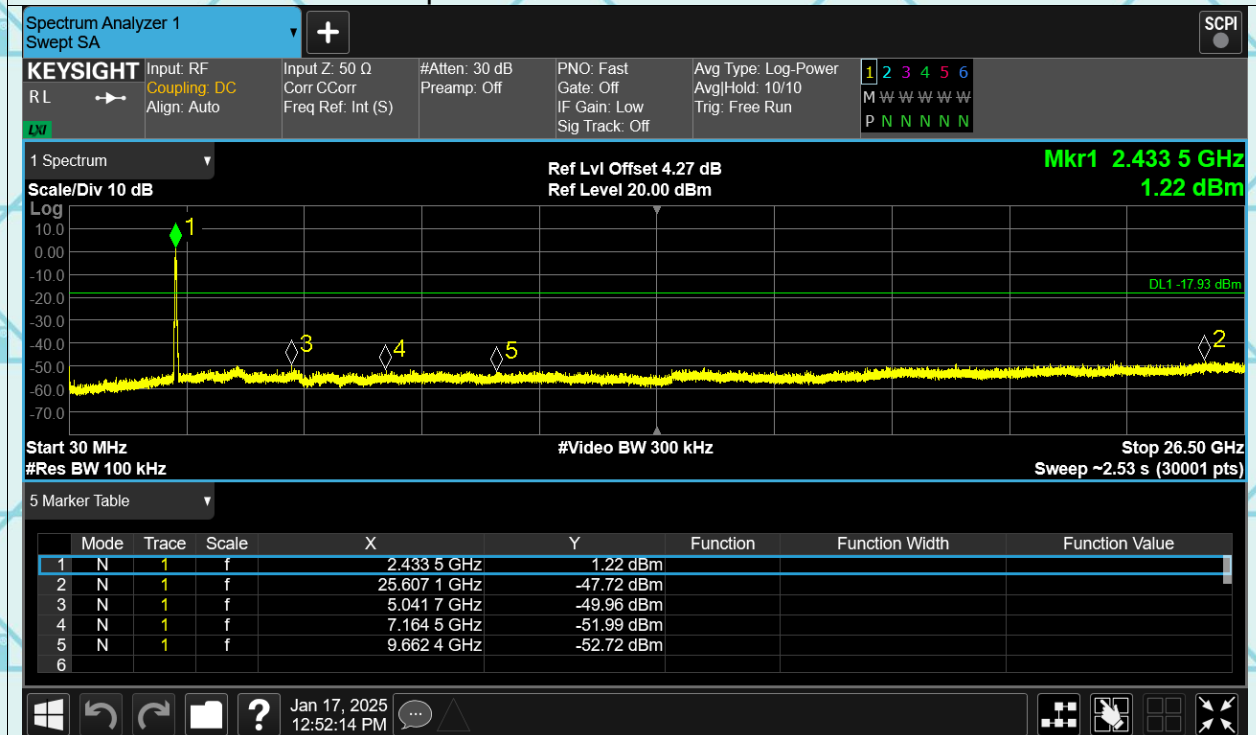


Report No.: WSCT-ANAB-R&E250100001A-Wi-Fi1

Tx. Spurious ax40 2422MHz Ref

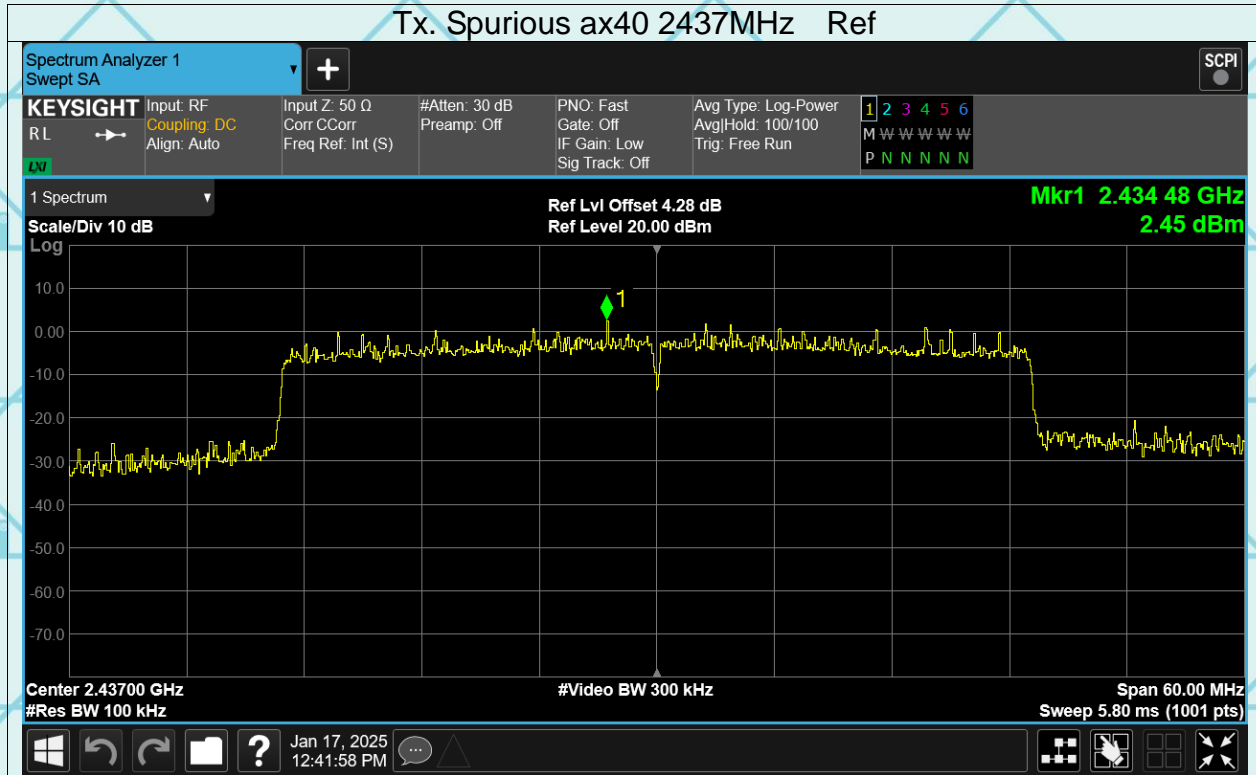


Tx. Spurious ax40 2422MHz Emission

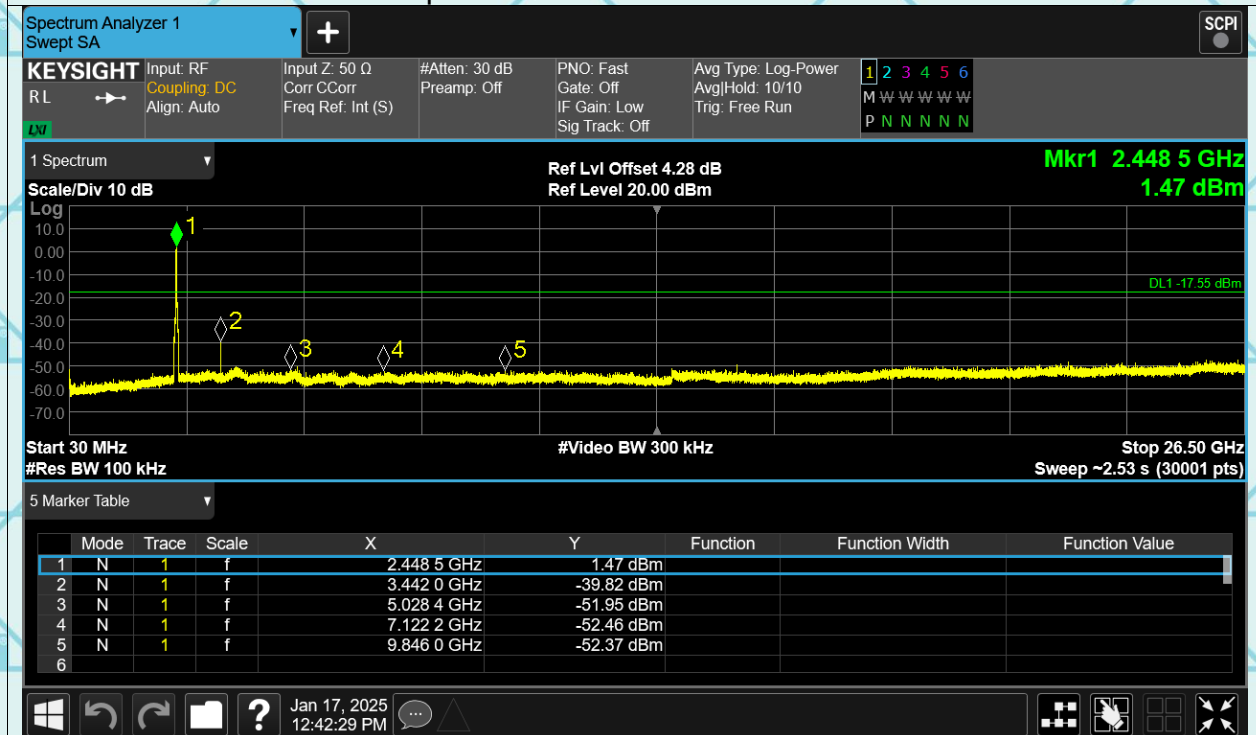


Report No.: WSCT-ANAB-R&E250100001A-Wi-Fi1

Tx. Spurious ax40 2437MHz Ref

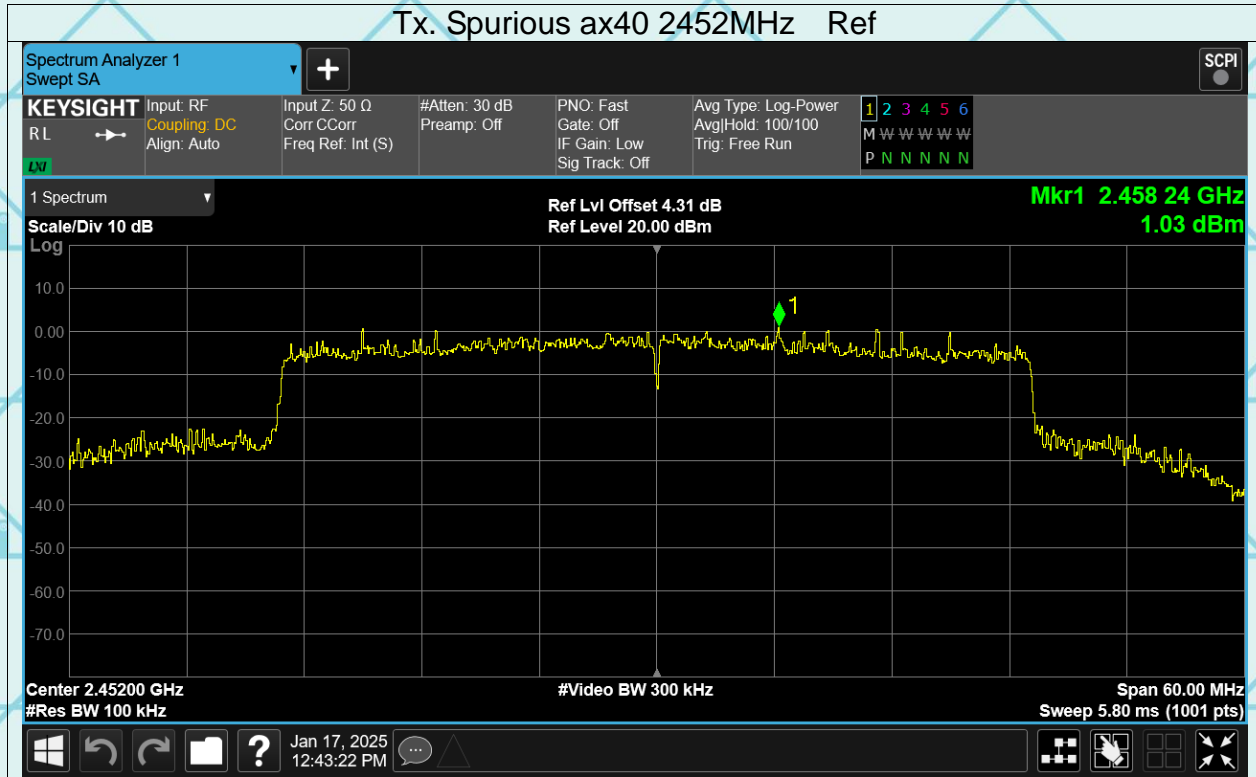


Tx. Spurious ax40 2437MHz Emission

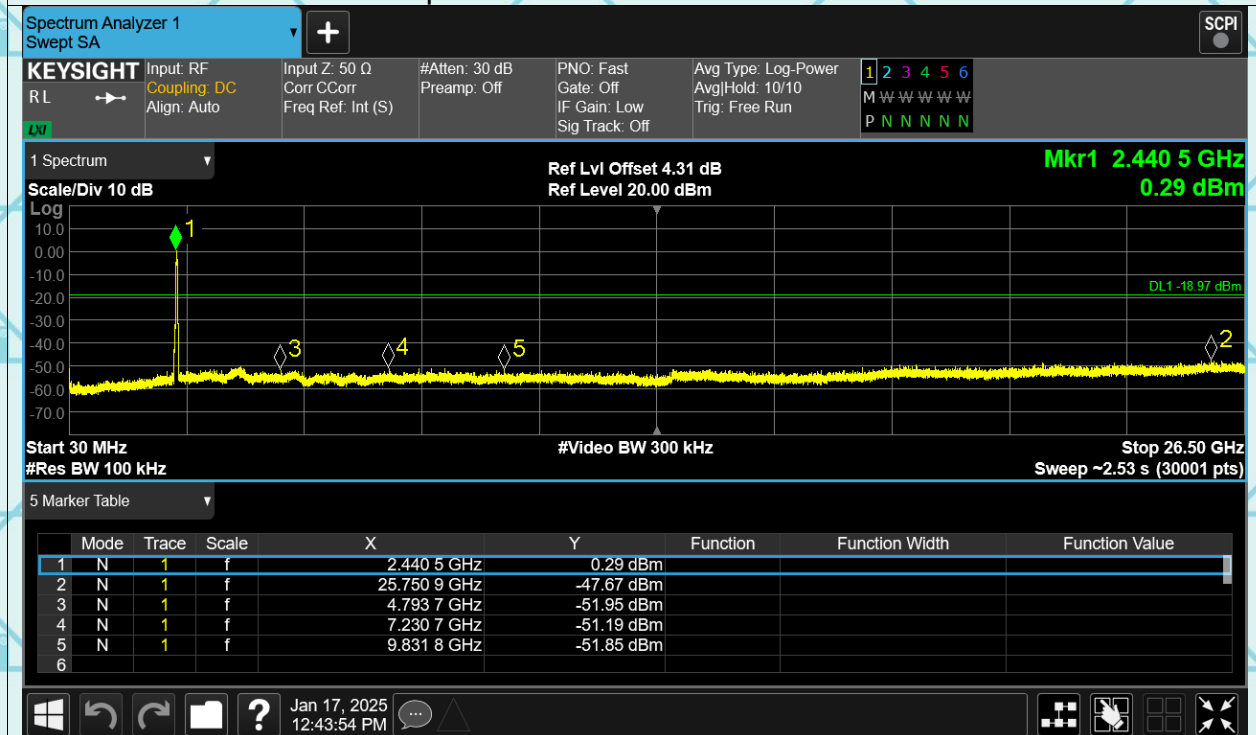


Report No.: WSCT-ANAB-R&E250100001A-Wi-Fi1

Tx. Spurious ax40 2452MHz Ref

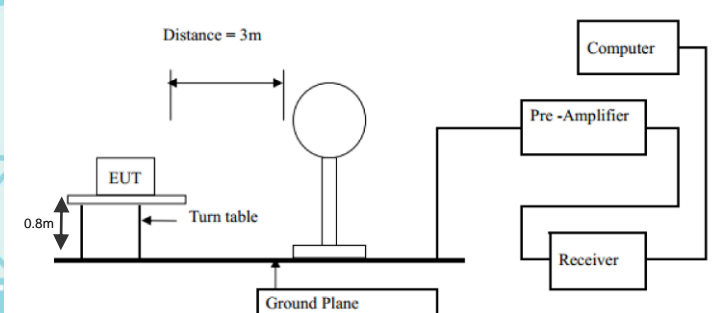


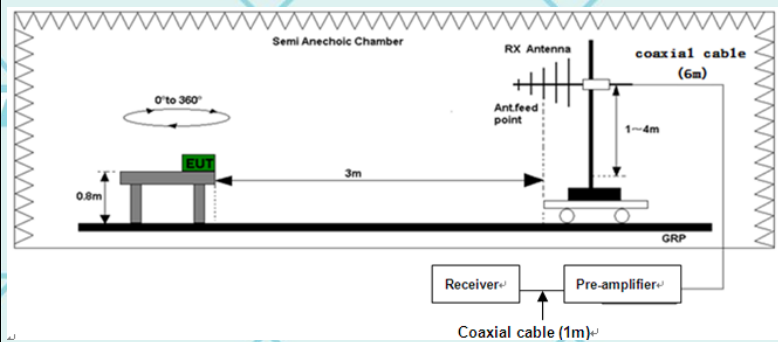
Tx. Spurious ax40 2452MHz Emission



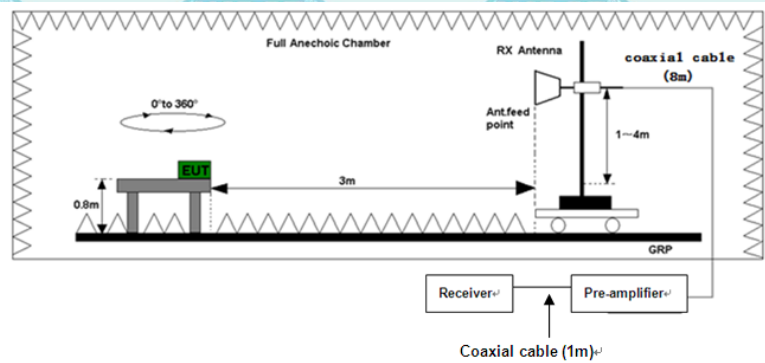
6.7. Radiated Spurious Emission Measurement

6.7.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.209				
Test Method:	ANSI C63.10: 2014				
Frequency Range:	9 kHz to 25 GHz				
Measurement Distance:	3 m				
Antenna Polarization:	Horizontal & Vertical				
Operation mode:	Transmitting mode with modulation				
Receiver Setup:	Frequency	Detector	RBW	VBW	Remark
	9kHz- 150kHz	Quasi-peak	200Hz	1kHz	Quasi-peak Value
	150kHz- 30MHz	Quasi-peak	9kHz	30kHz	Quasi-peak Value
	30MHz-1GHz	Quasi-peak	100KHz	300KHz	Quasi-peak Value
	Above 1GHz	Peak	1MHz	3MHz	Peak Value
		Peak	1MHz	10Hz	Average Value
Limit:	Frequency		Field Strength (microvolts/meter)		Measurement 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
	Frequency		Field Strength (microvolts/meter)	Measurement Distance (meters)	Detector
	Above 1GHz		500	3	Average
		5000	3	Peak	
Test setup:	For radiated emissions below 30MHz				
					
	30MHz to 1GHz				



Above 1GHz



Test Procedure:

- For the radiated emission test below 1GHz:
The EUT was placed on a turntable with 0.8 meter above ground. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high PASS filter are used for the test in order to get better signal level.
- For the radiated emission test above 1GHz:
Place the measurement antenna on a turntable with 1.5 meter above ground, which is away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.

Report No.: WSCT-ANAB-R&E250100001A-Wi-Fi1

	<p>3. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level</p> <p>4. For measurement below 1GHz, If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.</p> <p>5. Use the following spectrum analyzer settings:</p> <p>(1) Span shall wide enough to fully capture the emission being measured;</p> <p>(2) Set RBW=100 kHz for $f < 1$ GHz; VBW \geq RBW; Sweep = auto; Detector function = peak; Trace = max hold;</p> <p>(3) Set RBW = 1 MHz, VBW= 3MHz for $f \geq 1$ GHz for peak measurement.</p> <p>For average measurement: VBW = 10 Hz, when duty cycle is no less than 98 percent. VBW $\geq 1/T$, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.</p>
Test results:	PASS

Note 1: The symbol of "--" in the table which means not application.

Note 2: For the test data above 1 GHz, According the ANSI C63.10-2013, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

Note 3: The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.

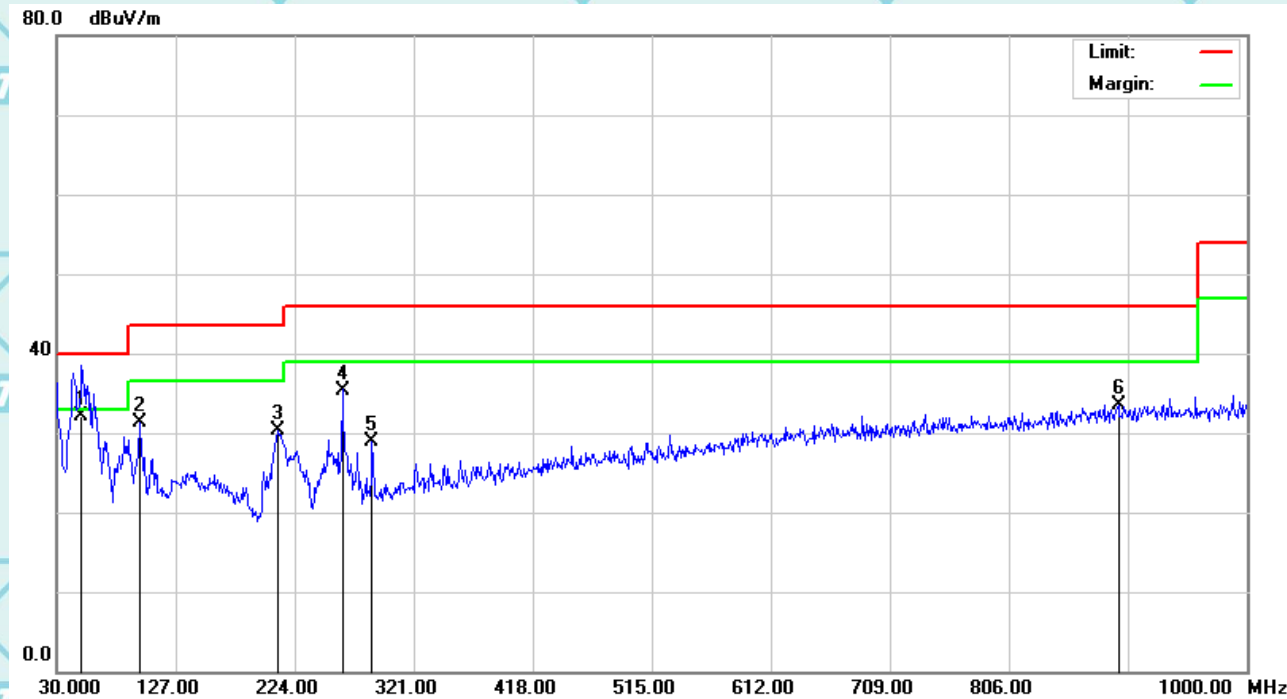
Note 4: The EUT is working in the Normal link mode below 1 GHz. All modes have been tested and normal link mode is worst.

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6.7.2. Test Data(worst)

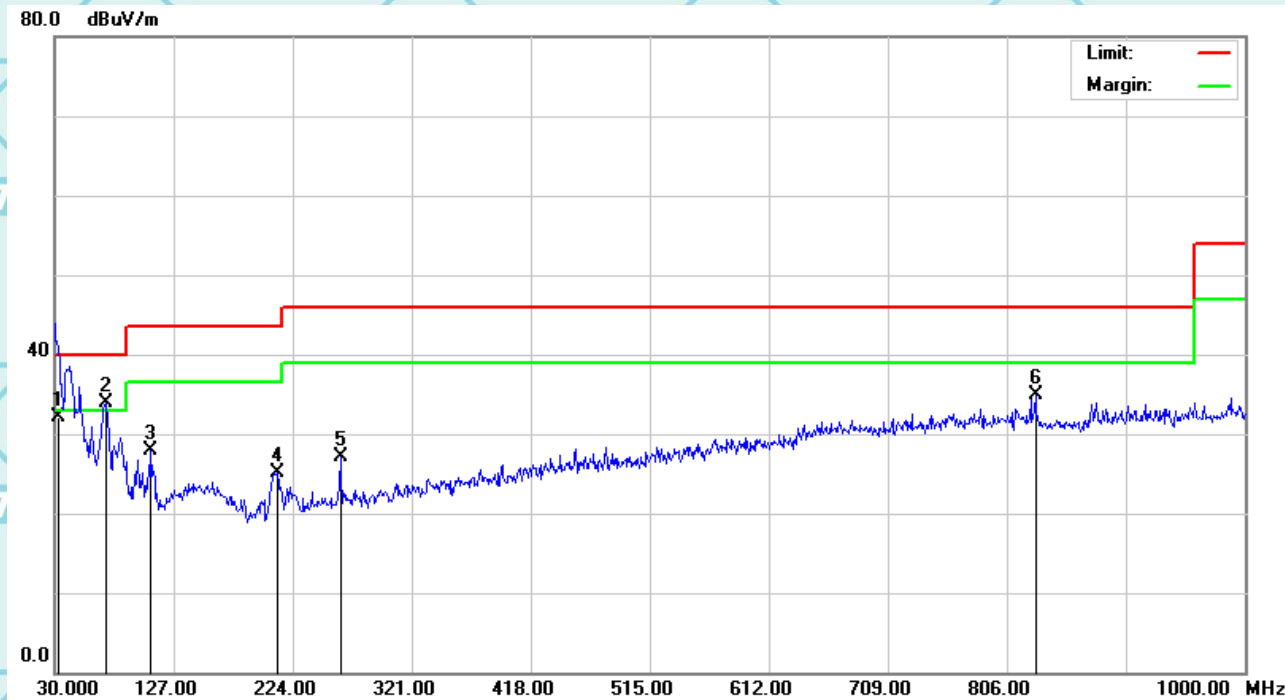
Please refer to following diagram for individual
Below 1GHz

Horizontal:



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1	*	50.3700	34.26	-2.14	32.12	40.00	-7.88	QP
2		97.9000	37.04	-5.68	31.36	43.50	-12.14	QP
3		210.4200	35.99	-5.63	30.36	43.50	-13.14	QP
4		262.8000	39.07	-3.67	35.40	46.00	-10.60	QP
5		287.0500	31.89	-2.91	28.98	46.00	-17.02	QP
6		895.2400	26.01	7.49	33.50	46.00	-12.50	QP

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Vertical:



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		32.9100	34.63	-2.51	32.12	40.00	-7.88	QP
2	*	71.7100	38.93	-5.09	33.84	40.00	-6.16	QP
3		108.5700	32.68	-4.74	27.94	43.50	-15.56	QP
4		211.3900	30.73	-5.55	25.18	43.50	-18.32	QP
5		262.8000	30.79	-3.67	27.12	46.00	-18.88	QP
6		829.2800	28.49	6.46	34.95	46.00	-11.05	QP

Note1:

Freq. = Emission frequency in MHz

Reading level (dBuV) = Receiver reading

Corr. Factor (dB) = Antenna factor + Cable loss - Amplifier factor.

Measurement (dBuV) = Reading level (dBuV) + Corr. Factor (dB)

Limit (dBuV) = Limit stated in standard

Margin (dB) = Measurement (dBuV) - Limits (dBuV)

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Above 1GHz

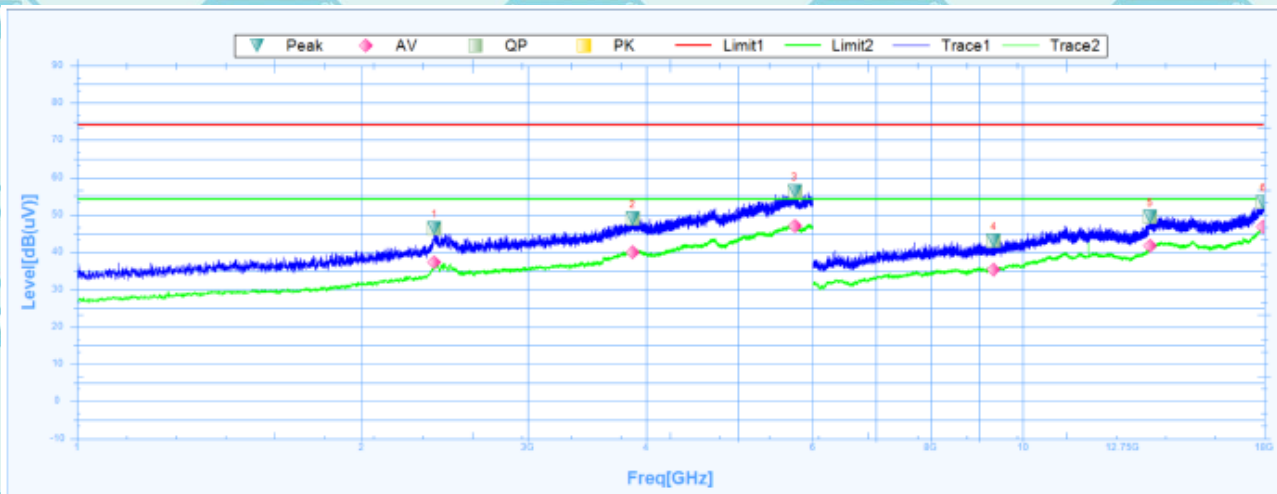
Note 1: The marked spikes near 2400 MHz with circle should be ignored because they are Fundamental signal.

Note 2: The spurious above 18G is noise only, do not show on the report.

Note 3: Report and only recorded the worst-case scenario 802.11b.

1 GHz to 18 GHz, ANT H 802.11b Low Channel

Horizontal:

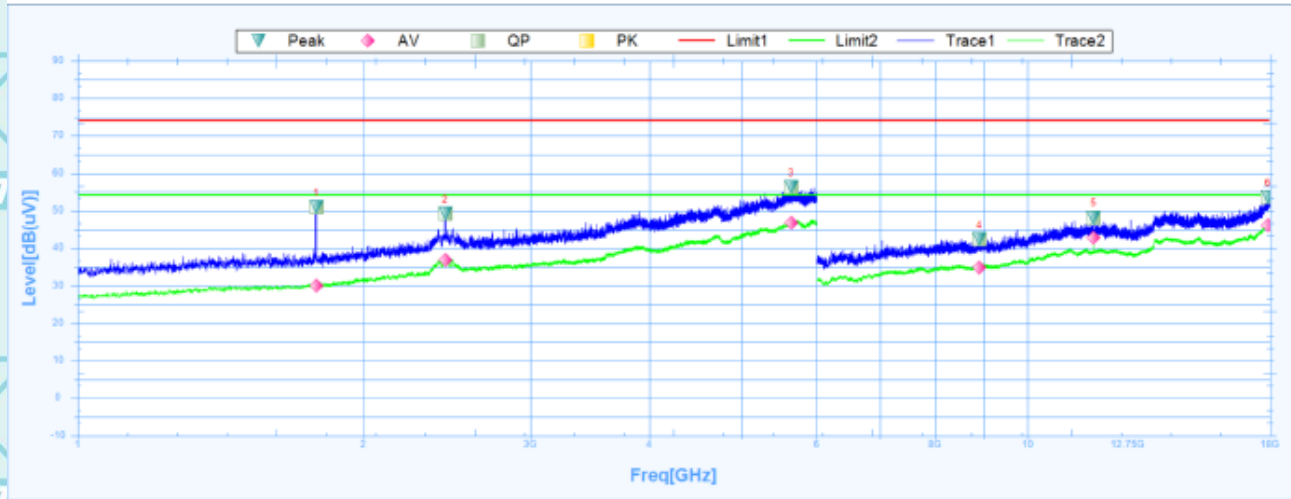


Suspected Data List

NO.	Freq. [MHz]	Reading [dB(uV)]	Factor [dB]	Level [dB(uV)]	Limit [dB]	Margin [dB]	Deg [°]	Polarity	Trace	Verdict
1	2388.7500	46.24	27.22	19.02	74	-27.76	-0.1	Horizontal	PK	Pass
1	2388.7500	37.28	27.22	10.06	54	-16.72	-0.1	Horizontal	AV	Pass
2	3872.5000	48.95	29.39	19.56	74	-25.05	341.8	Horizontal	PK	Pass
2	3872.5000	40.02	29.39	10.63	54	-13.98	341.8	Horizontal	AV	Pass
3	5742.5000	56.28	32.39	23.89	74	-17.72	178	Horizontal	PK	Pass
3	5742.5000	47.07	32.39	14.68	54	-6.93	178	Horizontal	AV	Pass
4	9322.5000	43.01	10.49	32.52	74	-30.99	49.4	Horizontal	PK	Pass
4	9322.5000	35.38	10.49	24.89	54	-18.62	49.4	Horizontal	AV	Pass
5	13642.5000	49.36	18.09	31.27	74	-24.64	130.7	Horizontal	PK	Pass
5	13642.5000	41.78	18.09	23.69	54	-12.22	130.7	Horizontal	AV	Pass
6	17968.5000	53.48	23.71	29.77	74	-20.52	183.4	Horizontal	PK	Pass
6	17968.5000	46.88	23.71	23.17	54	-7.12	183.4	Horizontal	AV	Pass

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Vertical :



Susputed Data List

NO.	Freq. [MHz]	Reading [dB(uV)]	Factor [dB]	Level [dB(uV)]	Limit [dB]	Margin [dB]	Deg [°]	Polarity	Trace	Verdict
1	1783.7500	50.99	24.99	26	74	-23.01	355	Vertical	PK	Pass
1	1783.7500	29.95	24.99	4.96	54	-24.05	355	Vertical	AV	Pass
2	2438.7500	49.23	27.39	21.84	74	-24.77	151.6	Vertical	PK	Pass
2	2438.7500	36.86	27.39	9.47	54	-17.14	151.6	Vertical	AV	Pass
3	5641.2500	56.37	32.23	24.14	74	-17.63	358.9	Vertical	PK	Pass
3	5641.2500	46.85	32.23	14.62	54	-7.15	358.9	Vertical	AV	Pass
4	8905.5000	42.41	9.77	32.64	74	-31.59	347.1	Vertical	PK	Pass
4	8905.5000	34.92	9.77	25.15	54	-19.08	347.1	Vertical	AV	Pass
5	11743.5000	48.21	16.11	32.1	74	-25.79	5.4	Vertical	PK	Pass
5	11743.5000	42.89	16.11	26.78	54	-11.11	5.4	Vertical	AV	Pass
6	17904.0000	53.62	23.29	30.33	74	-20.38	317.3	Vertical	PK	Pass
6	17904.0000	46.09	23.29	22.8	54	-7.91	317.3	Vertical	AV	Pass

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1 GHz to 18 GHz, ANT H 802.11b Middle Channel

Horizontal:

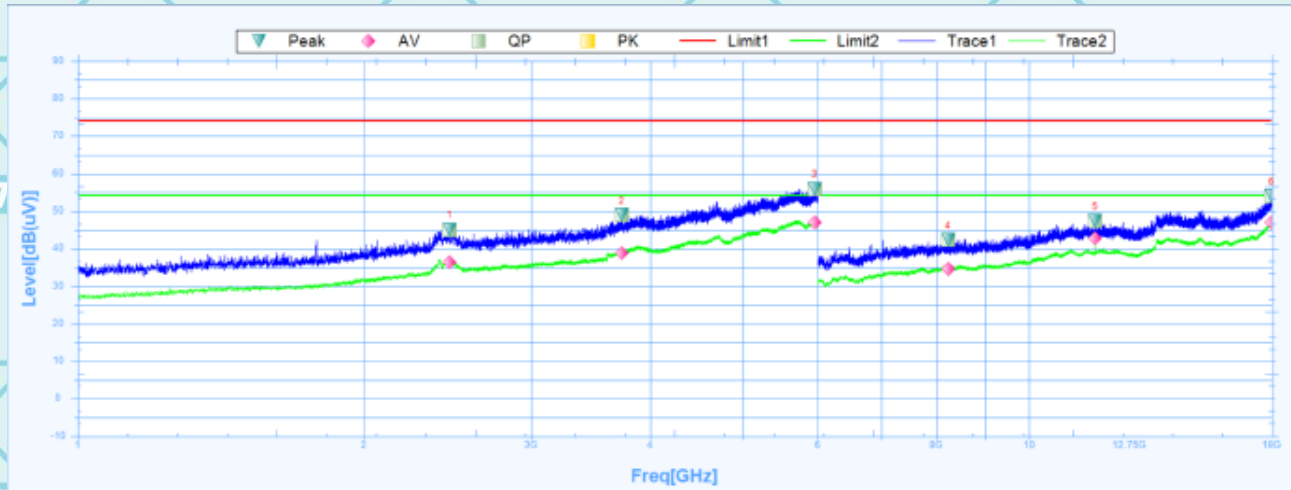


Susputed Data List

NO.	Freq. [MHz]	Reading [dB(uV)]	Factor [dB]	Level [dB(uV)]	Limit [dB]	Margin [dB]	Deg [°]	Polarity	Trace	Verdict
1	1618.1250	39.14	24.91	14.23	74	-34.86	353	Horizontal	PK	Pass
1	1618.1250	29.76	24.91	4.85	54	-24.24	353	Horizontal	AV	Pass
2	2445.6250	48.28	27.42	20.86	74	-25.72	4.1	Horizontal	PK	Pass
2	2445.6250	36.27	27.42	8.85	54	-17.73	4.1	Horizontal	AV	Pass
3	5201.2500	61.89	31.76	30.13	74	-12.11	88.2	Horizontal	PK	Pass
3	5201.2500	44.04	31.76	12.28	54	-9.96	88.2	Horizontal	AV	Pass
4	8326.5000	42.56	8.98	33.58	74	-31.44	354.4	Horizontal	PK	Pass
4	8326.5000	35.11	8.98	26.13	54	-18.89	354.4	Horizontal	AV	Pass
5	11076.0000	47.22	15.86	31.36	74	-26.78	31.6	Horizontal	PK	Pass
5	11076.0000	39.5	15.86	23.64	54	-14.5	31.6	Horizontal	AV	Pass
6	17958.0000	53.31	23.63	29.68	74	-20.69	79.4	Horizontal	PK	Pass
6	17958.0000	46.64	23.63	23.01	54	-7.36	79.4	Horizontal	AV	Pass

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Vertical :



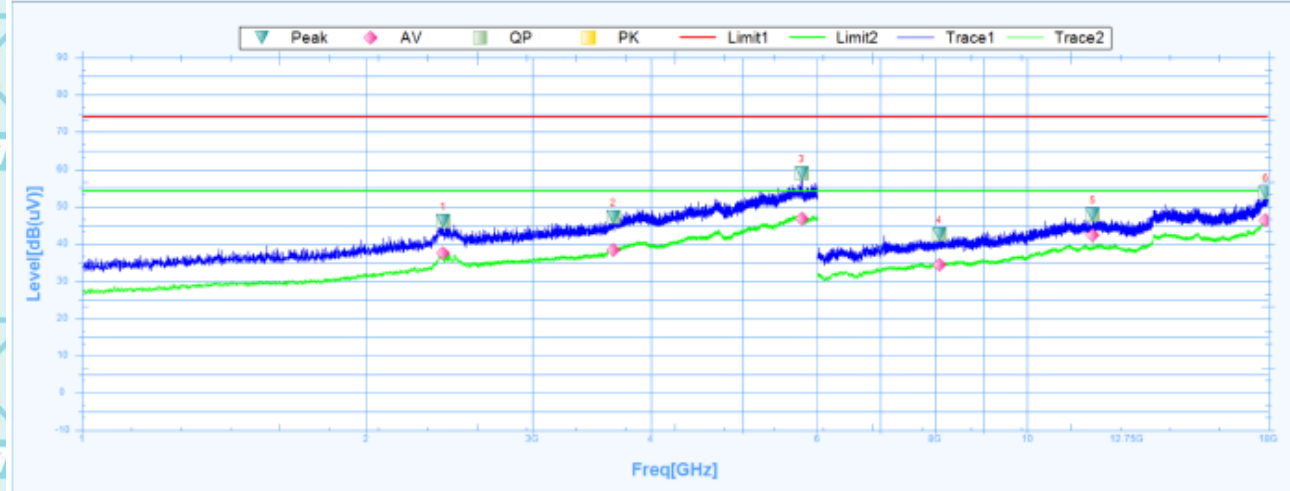
Susputed Data List

NO.	Freq. [MHz]	Reading [dB(uV)]	Factor [dB]	Level [dB(uV)]	Limit [dB]	Margin [dB]	Deg [°]	Polarity	Trace	Verdict
1	2461.8750	45.12	27.47	17.65	74	-28.88	141.9	Vertical	PK	Pass
1	2461.8750	36.32	27.47	8.85	54	-17.68	141.9	Vertical	AV	Pass
2	3734.3750	49.08	29.06	20.02	74	-24.92	211.3	Vertical	PK	Pass
2	3734.3750	38.78	29.06	9.72	54	-15.22	211.3	Vertical	AV	Pass
3	5956.2500	55.95	32.73	23.22	74	-18.05	54.6	Vertical	PK	Pass
3	5956.2500	46.98	32.73	14.25	54	-7.02	54.6	Vertical	AV	Pass
4	8224.5000	42.27	8.81	33.46	74	-31.73	215.7	Vertical	PK	Pass
4	8224.5000	34.59	8.81	25.78	54	-19.41	215.7	Vertical	AV	Pass
5	11743.5000	47.42	16.11	31.31	74	-26.58	59	Vertical	PK	Pass
5	11743.5000	42.9	16.11	26.79	54	-11.1	59	Vertical	AV	Pass
6	17995.5000	54.06	23.9	30.16	74	-19.94	329.2	Vertical	PK	Pass
6	17995.5000	47.11	23.9	23.21	54	-6.89	329.2	Vertical	AV	Pass

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1 GHz to 18 GHz, ANT H 802.11b High Channel

Horizontal:



Susputed Data List

NO.	Freq. [MHz]	Reading [dB(uV)]	Factor [dB]	Level [dB(uV)]	Limit [dB]	Margin [dB]	Deg [°]	Polarity	Trace	Verdict
1	2411.8750	46.12	27.3	18.82	74	-27.88	0	Horizontal	PK	Pass
1	2411.8750	37.44	27.3	10.14	54	-16.56	0	Horizontal	AV	Pass
2	3652.5000	47.17	28.87	18.3	74	-26.83	0	Horizontal	PK	Pass
2	3652.5000	38.3	28.87	9.43	54	-15.7	0	Horizontal	AV	Pass
3	5777.5000	58.9	32.44	26.46	74	-15.1	189.8	Horizontal	PK	Pass
3	5777.5000	46.8	32.44	14.36	54	-7.2	189.8	Horizontal	AV	Pass
4	8076.0000	42.58	8.42	34.16	74	-31.42	319.7	Horizontal	PK	Pass
4	8076.0000	34.44	8.42	26.02	54	-19.56	319.7	Horizontal	AV	Pass
5	11743.5000	47.78	16.11	31.67	74	-26.22	226.5	Horizontal	PK	Pass
5	11743.5000	42.46	16.11	26.35	54	-11.54	226.5	Horizontal	AV	Pass
6	17892.0000	53.88	23.21	30.67	74	-20.12	144	Horizontal	PK	Pass
6	17892.0000	46.33	23.21	23.12	54	-7.67	144	Horizontal	AV	Pass

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Vertical :



Susputed Data List

NO.	Freq. [MHz]	Reading [dB(uV)]	Factor [dB]	Level [dB(uV)]	Limit [dB]	Margin [dB]	Deg [°]	Polarity	Trace	Verdict
1	2447.5000	46.23	27.42	18.81	74	-27.77	185	Vertical	PK	Pass
1	2447.5000	36.67	27.42	9.25	54	-17.33	185	Vertical	AV	Pass
2	3754.3750	47.82	29.11	18.71	74	-26.18	185	Vertical	PK	Pass
2	3754.3750	39.34	29.11	10.23	54	-14.66	185	Vertical	AV	Pass
3	5929.3750	56.2	32.69	23.51	74	-17.8	216	Vertical	PK	Pass
3	5929.3750	47	32.69	14.31	54	-7	216	Vertical	AV	Pass
4	10134.0000	44.13	12.77	31.36	74	-29.87	286.2	Vertical	PK	Pass
4	10134.0000	36.93	12.77	24.16	54	-17.07	286.2	Vertical	AV	Pass
5	13611.0000	48.85	18	30.85	74	-25.15	23.3	Vertical	PK	Pass
5	13611.0000	41.79	18	23.79	54	-12.21	23.3	Vertical	AV	Pass
6	17970.0000	54.69	23.72	30.97	74	-19.31	280.2	Vertical	PK	Pass
6	17970.0000	46.63	23.72	22.91	54	-7.37	280.2	Vertical	AV	Pass

Note:

1. All emissions not reported were more than 20dB below the specified limit or in the noise floor.
2. Emission Level= Reading Level+ Probe Factor +Cable Loss.
3. Data of measurement within this frequency range shown "--" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

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6.7.3. Restricted Bands Requirements

Test result for 802.11b Mode (the worst case)

Frequency	Reading	Correct Factor	Emission Level	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel							
2390	62.55	-8.76	53.79	74	20.21	H	PK
2390	56.18	-8.76	47.42	54	6.58	H	AV
2390	63.41	-8.73	54.68	74	19.32	V	PK
2390	56.80	-8.73	48.07	54	5.93	V	AV
High Channel							
2483.5	60.54	-8.76	51.78	74	22.22	H	PK
2483.5	53.10	-8.76	44.34	54	9.66	H	AV
2483.5	60.91	-8.73	52.18	74	21.82	V	PK
2483.5	54.77	-8.73	46.04	54	7.96	V	AV

Note: Freq. = Emission frequency in MHz

Reading level (dBuV) = Receiver reading

Corr. Factor (dB) = Attenuation factor + Cable loss

Level (dBuV) = Reading level (dBuV) + Corr. Factor (dB)

Limit (dBuV) = Limit stated in standard

Margin (dB) = Level (dBuV) – Limits (dBuV)

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7. Test Setup Photographs

Please refer to Annex "Set Up Photos-15C" for test setup photos

*******END OF REPORT*******