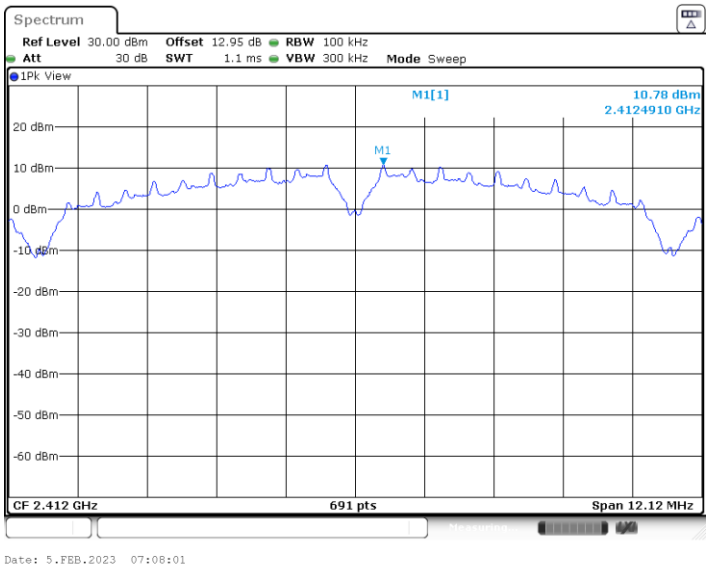
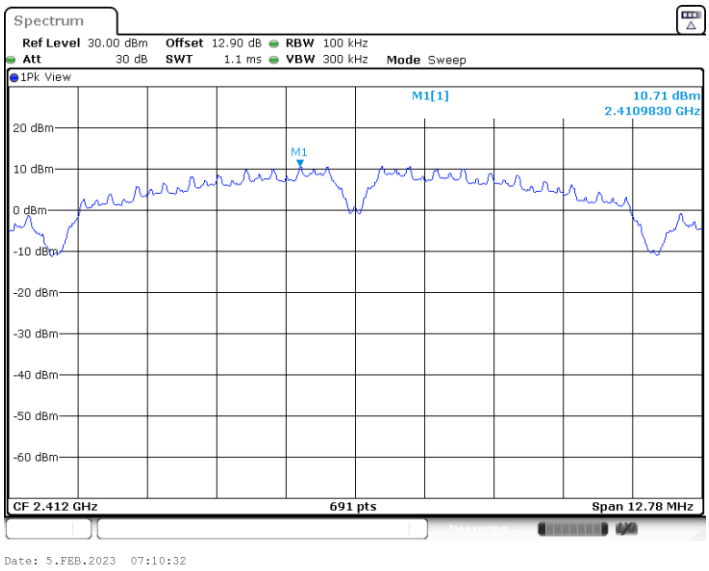
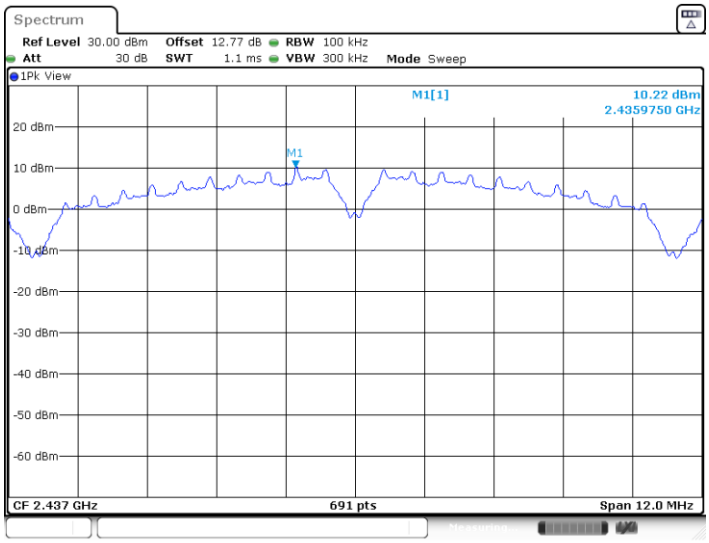
11B-CDD_Ant7_2412



11B-CDD_Ant8_2412

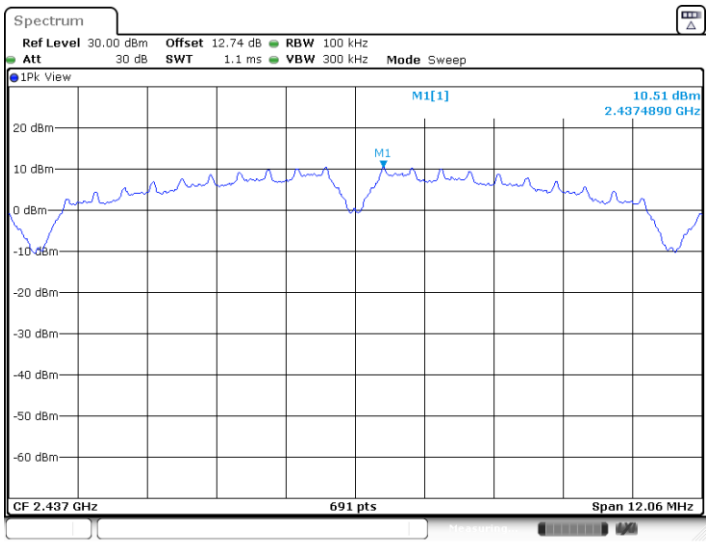


11B-CDD_Ant7_2437



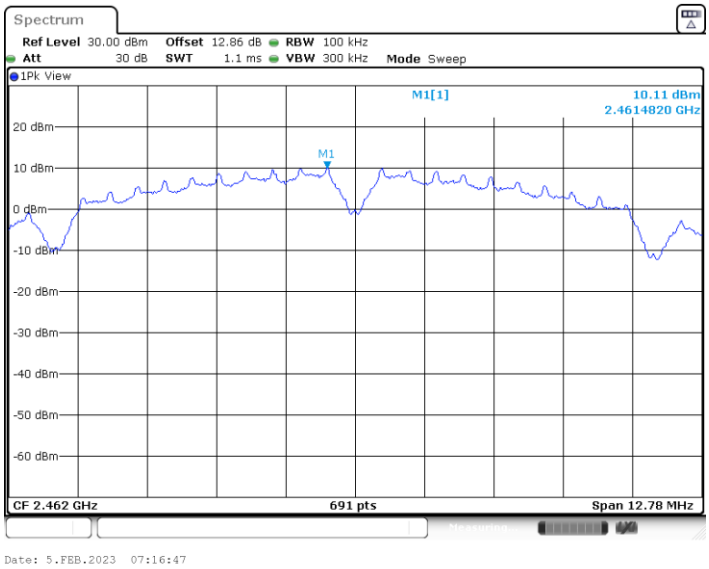
Date: 5.FEB.2023 07:12:32

11B-CDD_Ant8_2437

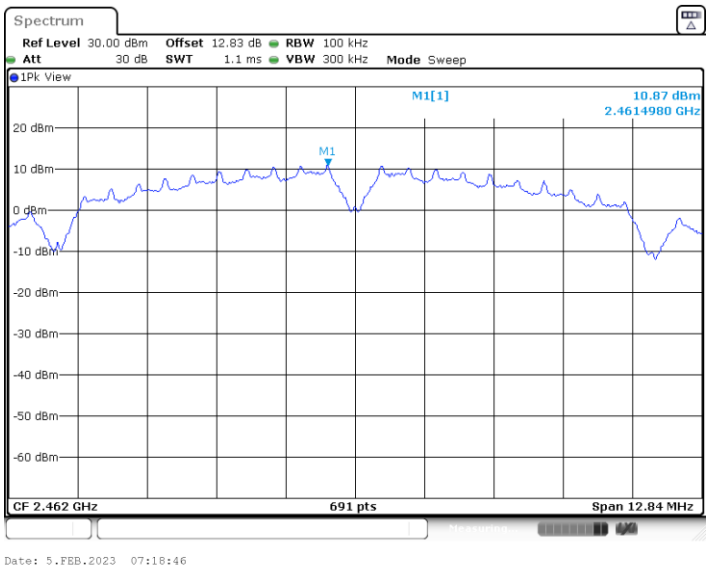


Date: 5.FEB.2023 07:14:05

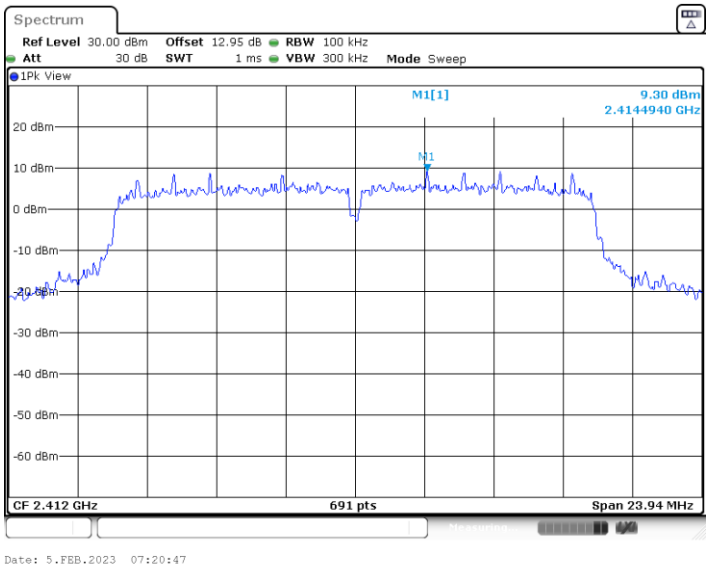
11B-CDD_Ant7_2462



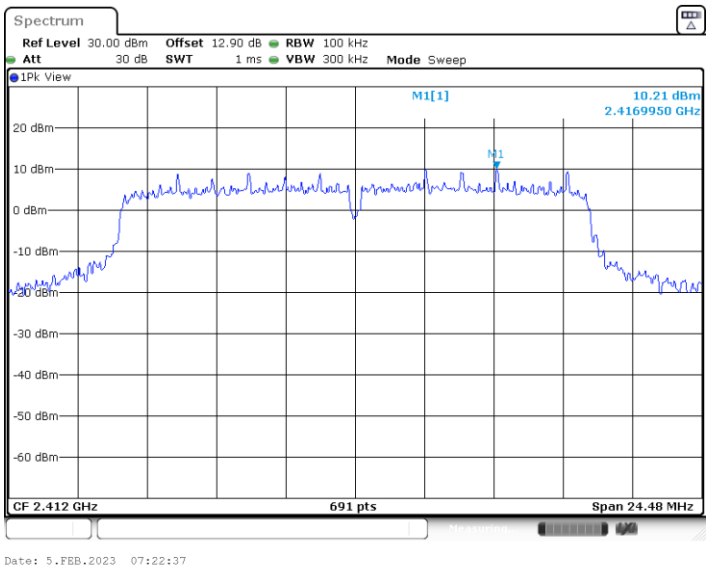
11B-CDD_Ant8_2462



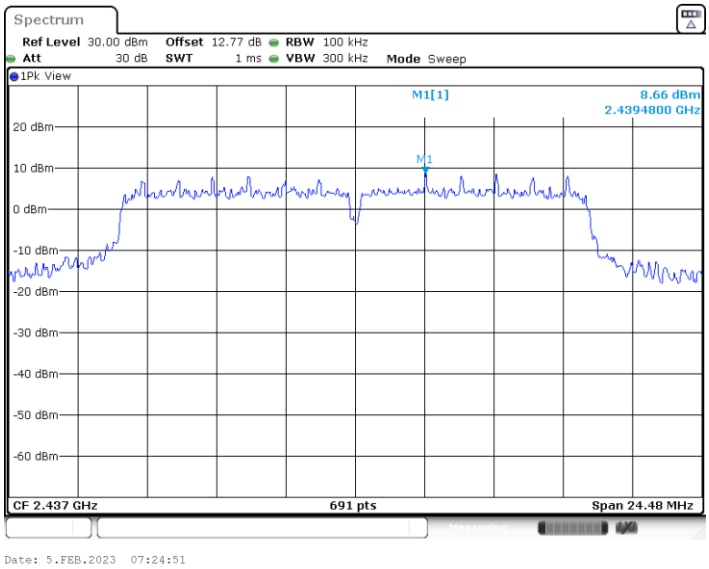
11G-CDD_Ant7_2412



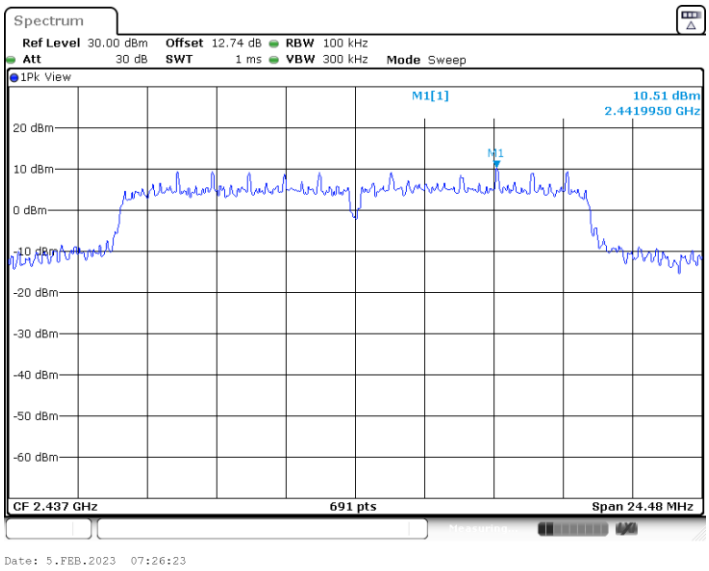
11G-CDD_Ant8_2412



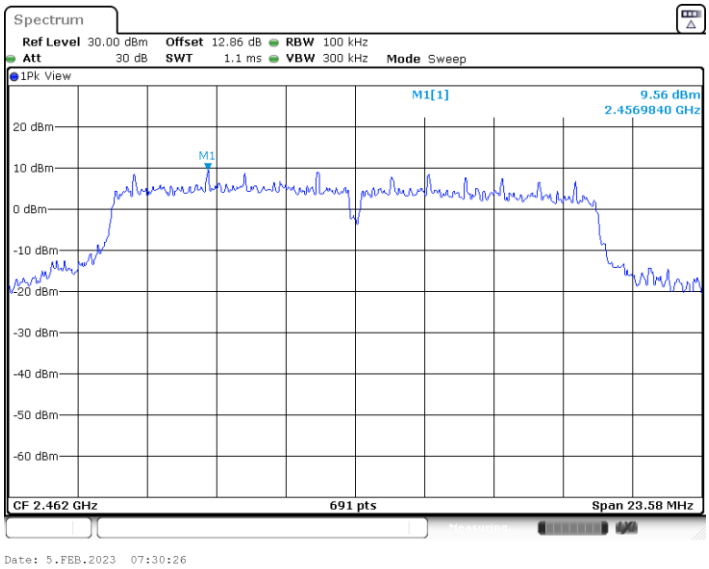
11G-CDD_Ant7_2437



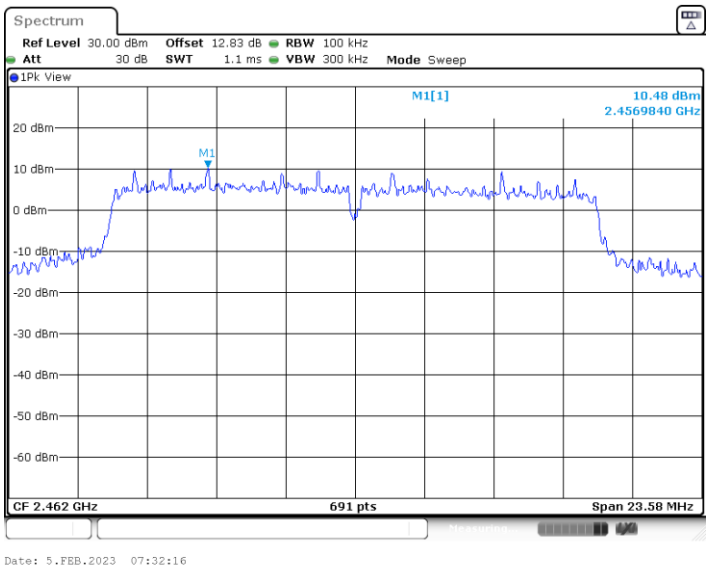
11G-CDD_Ant8_2437



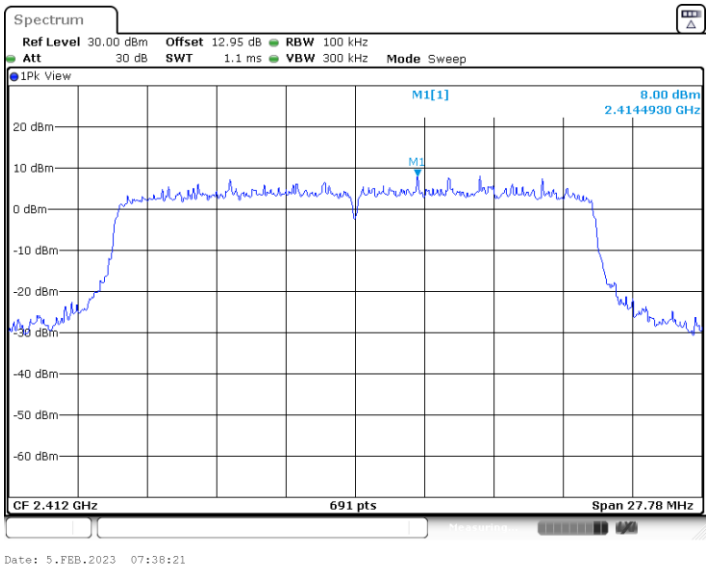
11G-CDD_Ant7_2462



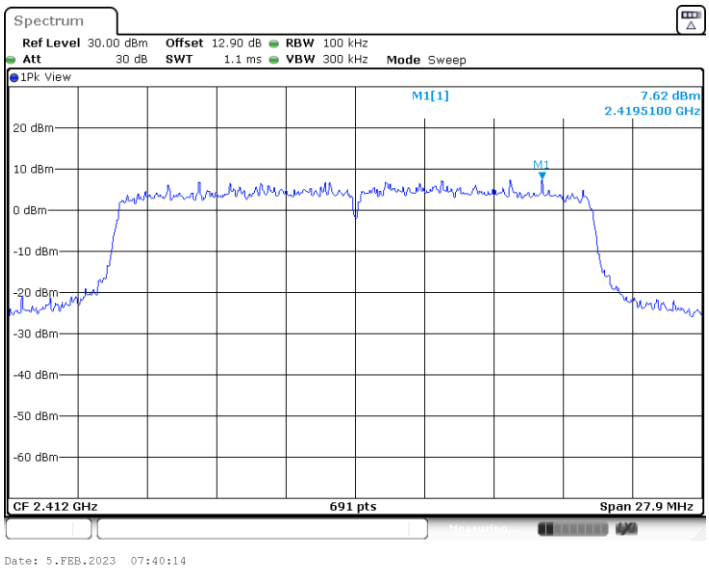
11G-CDD_Ant8_2462



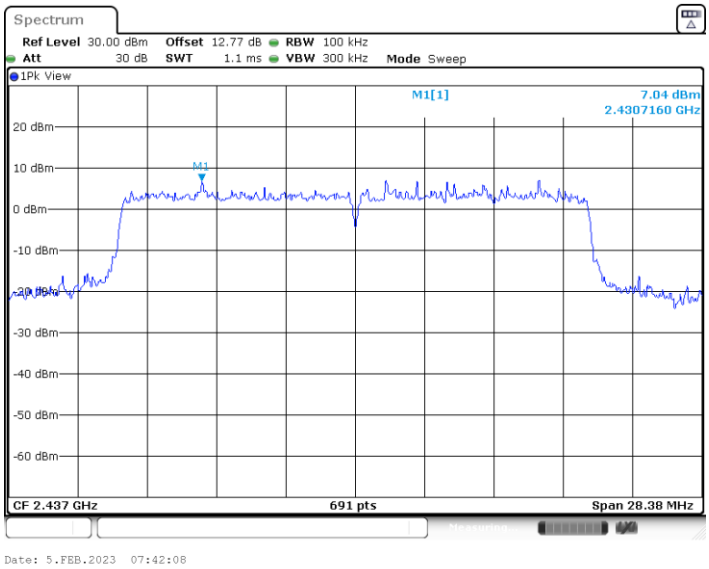
11AX20MIMO_Ant7_2412



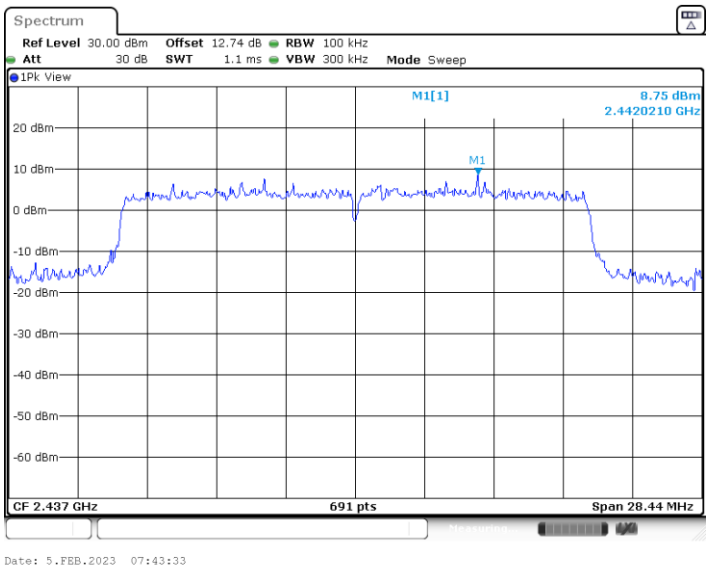
11AX20MIMO_Ant8_2412



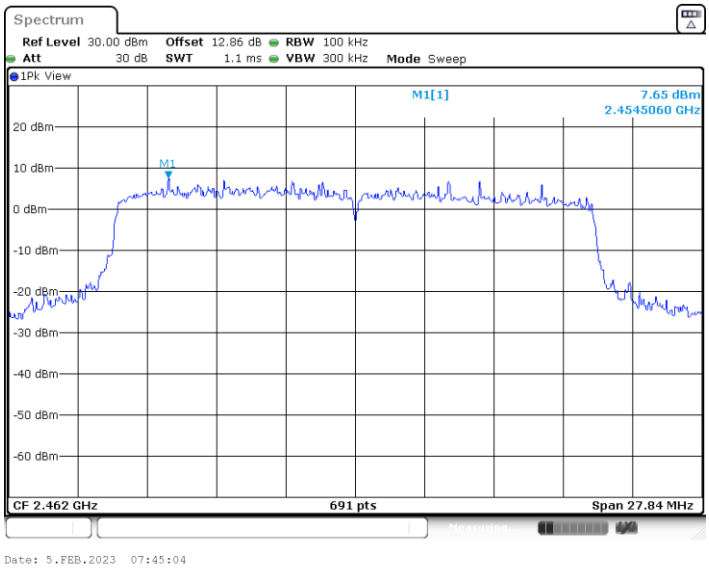
11AX20MIMO_Ant7_2437



11AX20MIMO_Ant8_2437



11AX20MIMO_Ant7_2462



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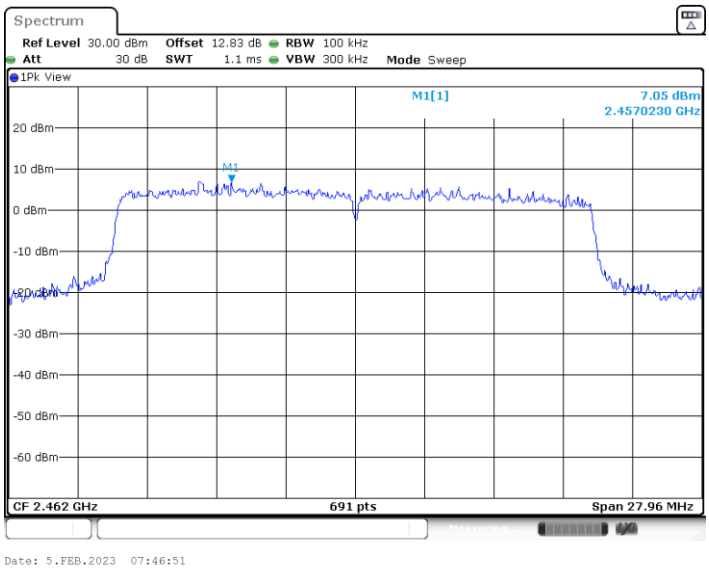
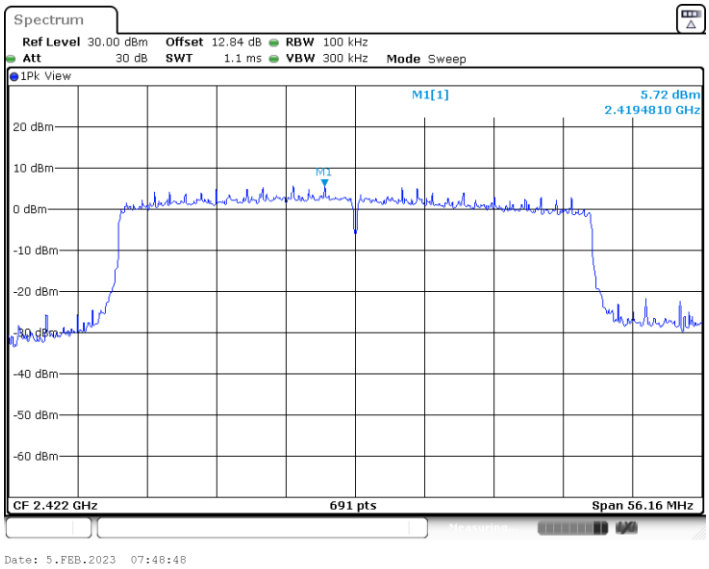


11AX40MIMO_Ant7_2422



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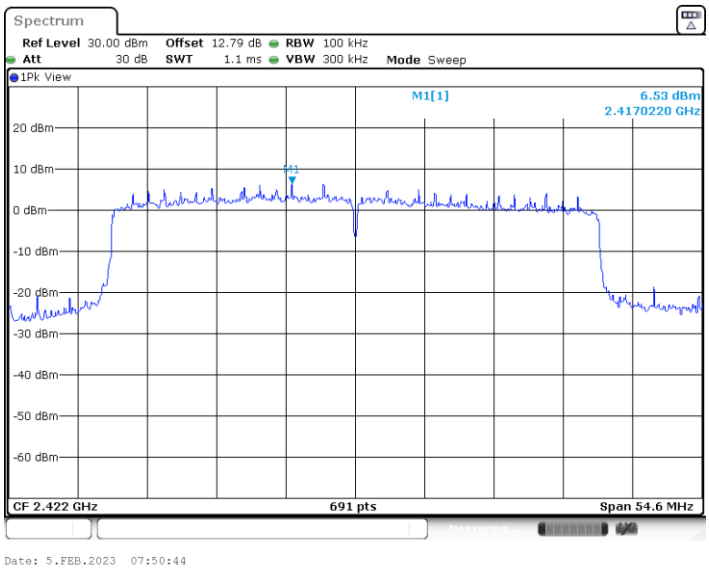

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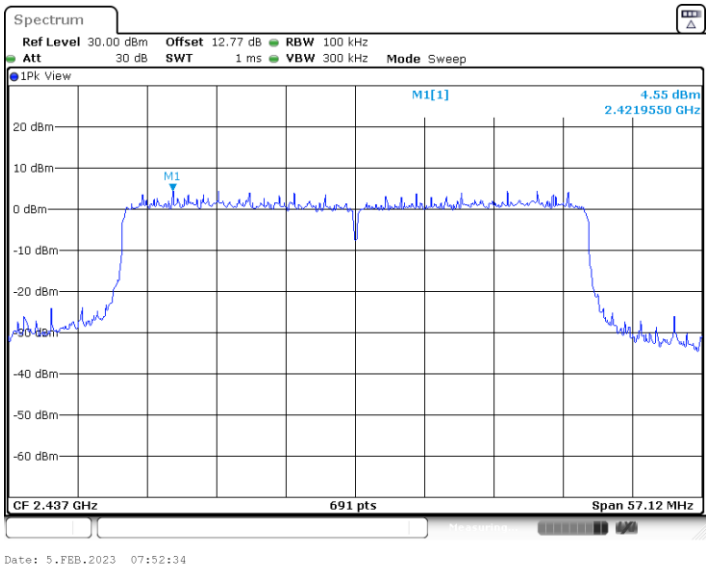
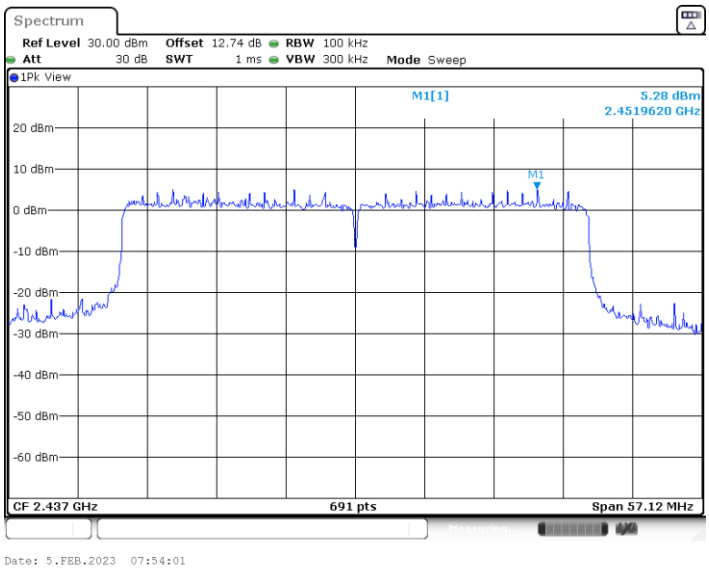
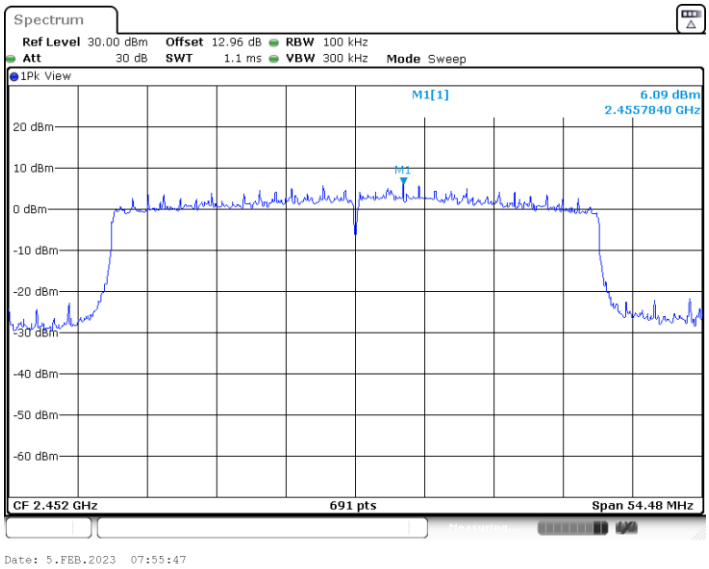


11AX40MIMO_Ant8_2437



11AX40MIMO_Ant7_2452



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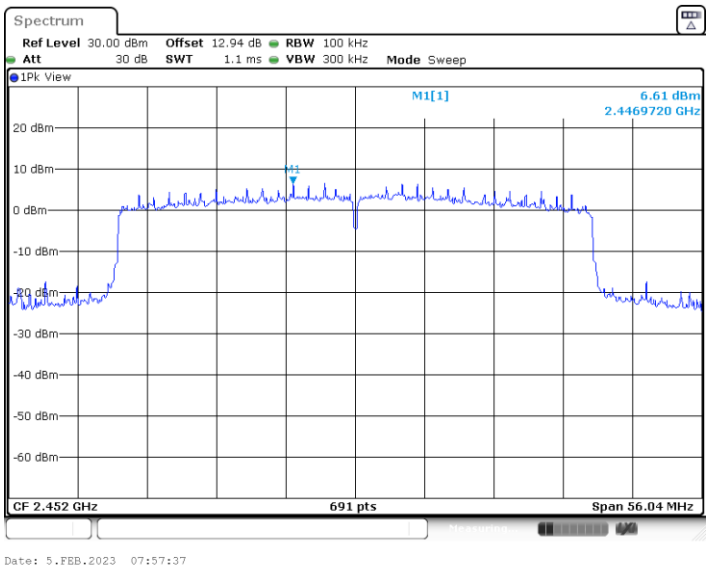
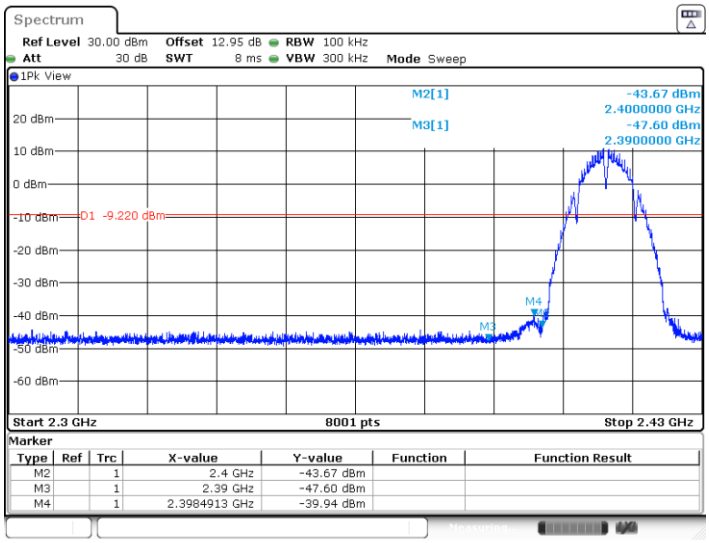


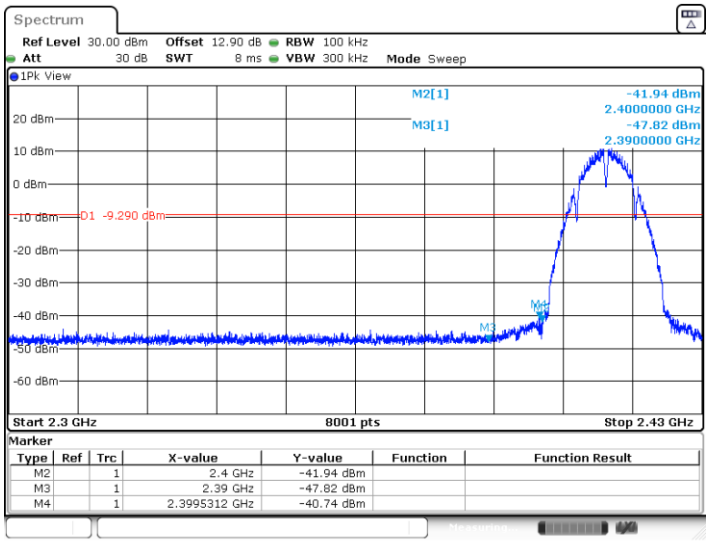
Band Edges

Test Mode	Antenna	ChName	Freq(MHz)	RefLevel[dBm/100KHz]	Result[dBm/100KHz]	Limit[dBm/100KHz]	Verdict
11B-CDD	Ant7	Low	2412	10.78	-39.94	≤-9.22	PASS
	Ant8	Low	2412	10.71	-40.74	≤-9.29	PASS
	Ant7	High	2462	10.11	-43.38	≤-9.89	PASS
	Ant8	High	2462	10.87	-43.38	≤-9.13	PASS
11G-CDD	Ant7	Low	2412	9.30	-20.14	≤-10.7	PASS
	Ant8	Low	2412	10.21	-16.9	≤-9.79	PASS
	Ant7	High	2462	9.56	-29.22	≤-10.44	PASS
	Ant8	High	2462	10.48	-26.82	≤-9.52	PASS
11AX20MIMO	Ant7	Low	2412	8.00	-23.64	≤-12	PASS
	Ant8	Low	2412	7.62	-20.96	≤-12.38	PASS
	Ant7	High	2462	7.65	-27.95	≤-12.35	PASS
	Ant8	High	2462	7.05	-25.58	≤-12.95	PASS
11AX40MIMO	Ant7	Low	2422	5.72	-26.25	≤-14.28	PASS
	Ant8	Low	2422	6.53	-21.16	≤-13.47	PASS
	Ant7	High	2452	6.09	-26.4	≤-13.91	PASS
	Ant8	High	2452	6.61	-22.8	≤-13.39	PASS

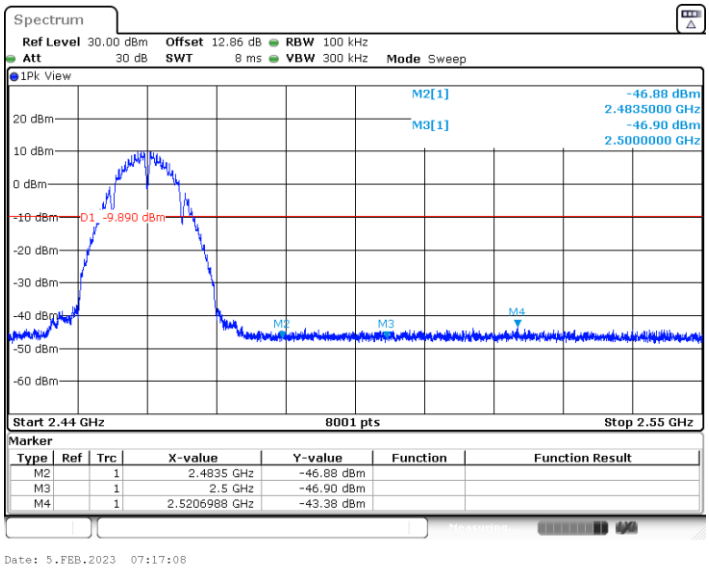
11B-CDD_Ant7_Low_2412



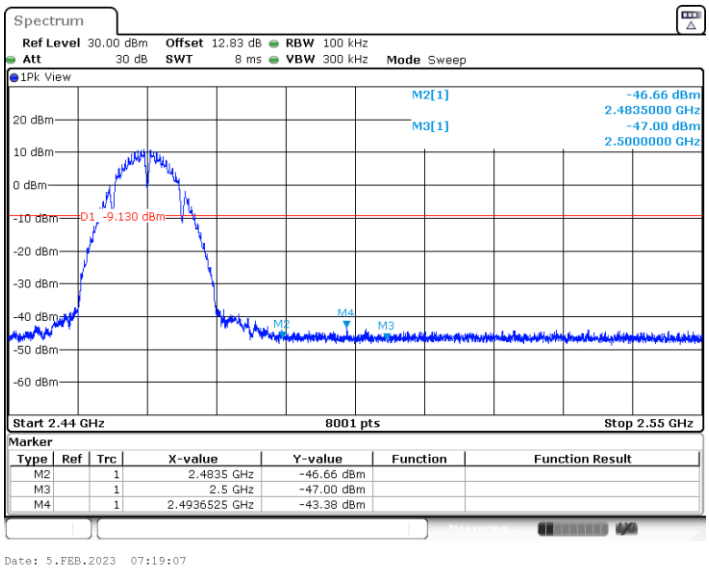
11B-CDD_Ant8_Low_2412



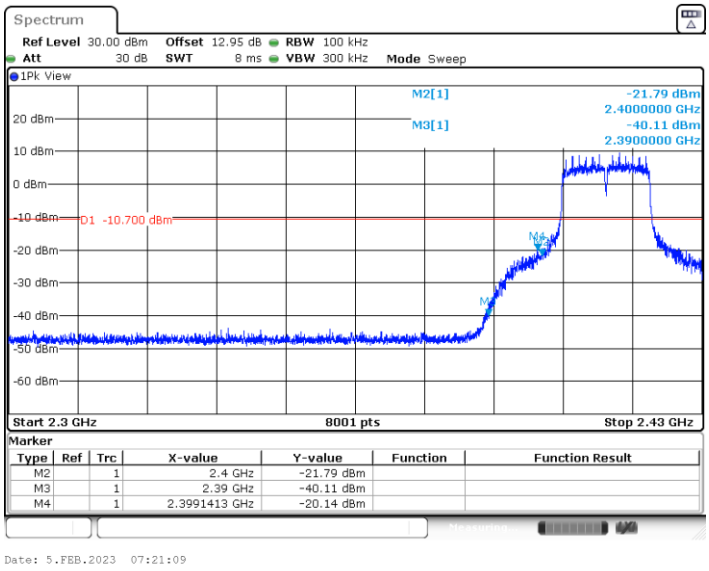
11B-CDD_Ant7_High_2462



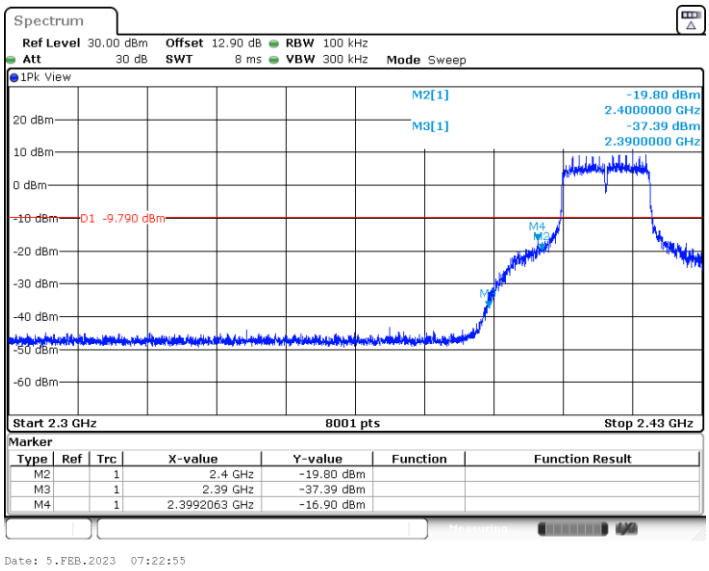
11B-CDD_Ant8_High_2462



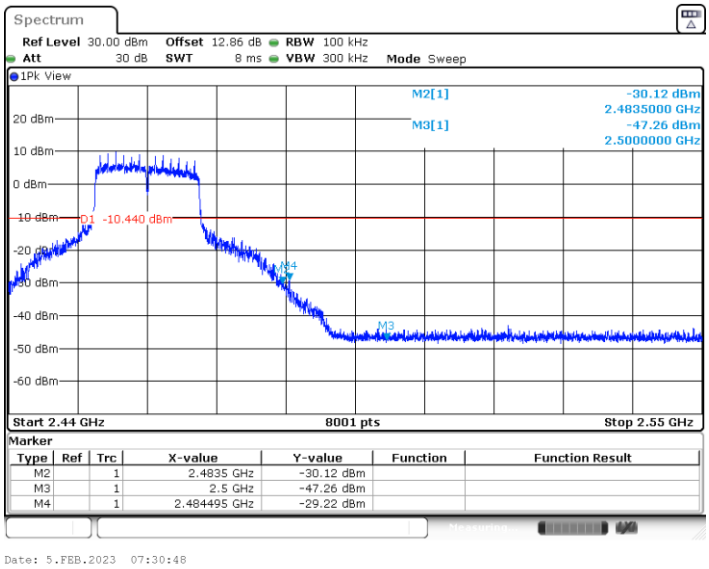
11G-CDD_Ant7_Low_2412



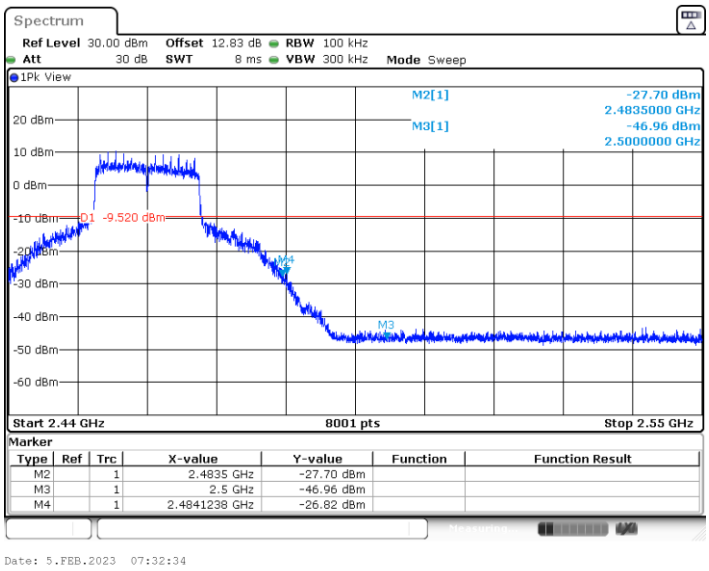
11G-CDD_Ant8_Low_2412



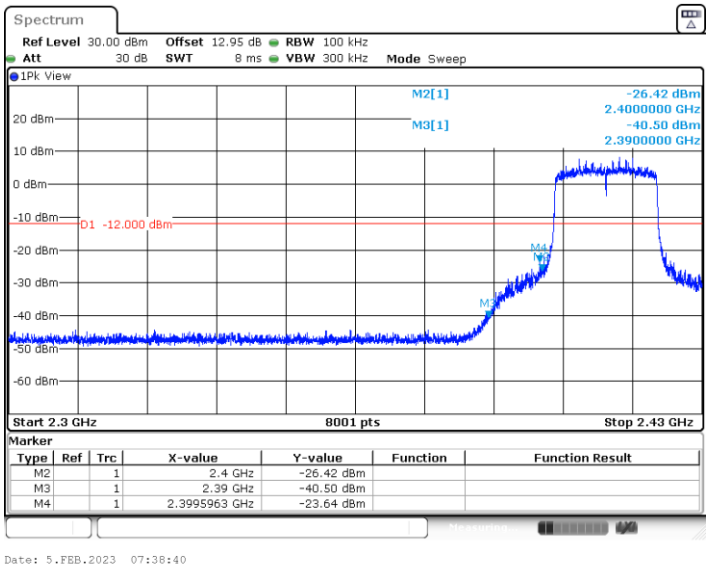
11G-CDD_Ant7_High_2462



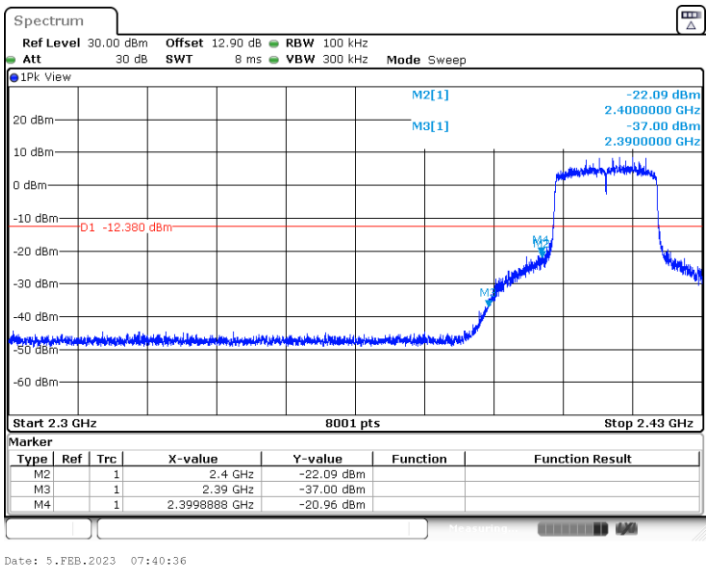
11G-CDD_Ant8_High_2462



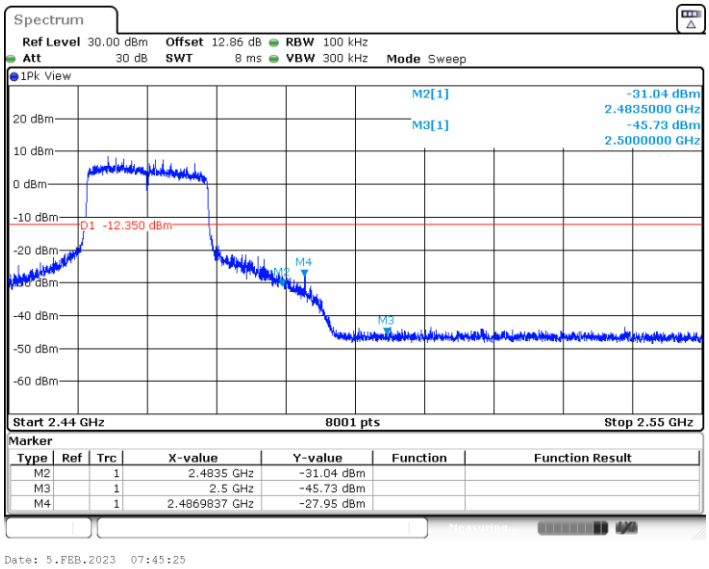
11AX20MIMO_Ant7_Low_2412



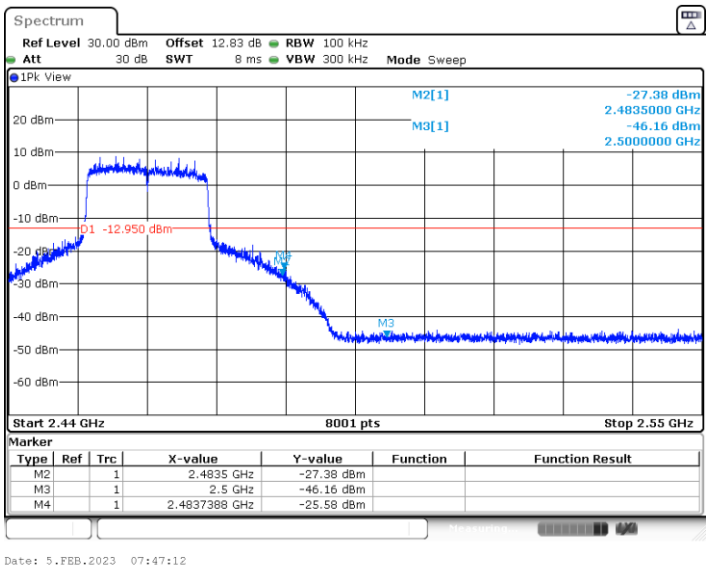
11AX20MIMO_Ant8_Low_2412



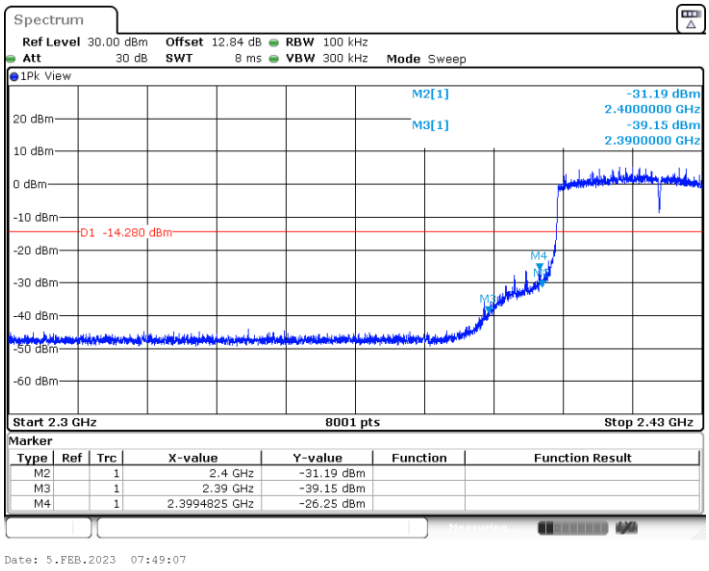
11AX20MIMO_Ant7_High_2462



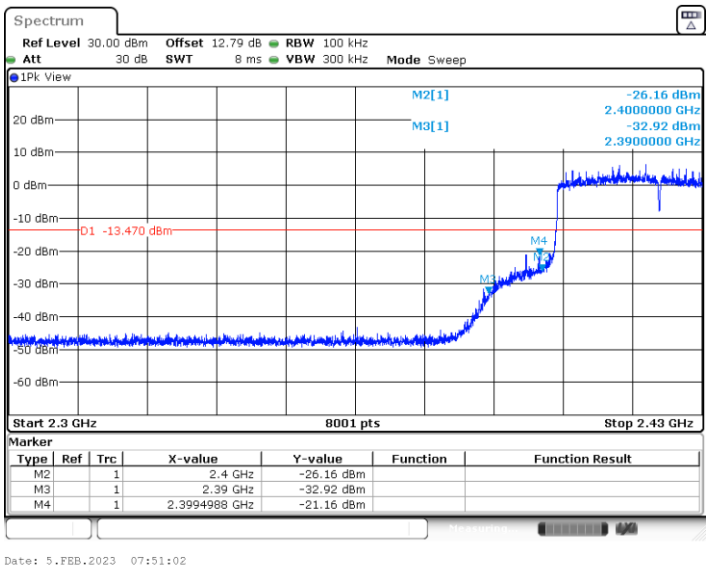
11AX20MIMO_Ant8_High_2462



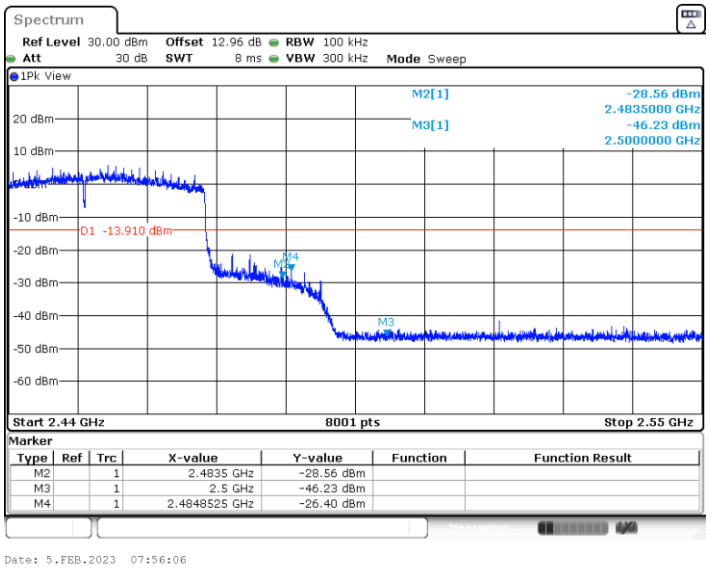
11AX40MIMO_Ant7_Low_2422



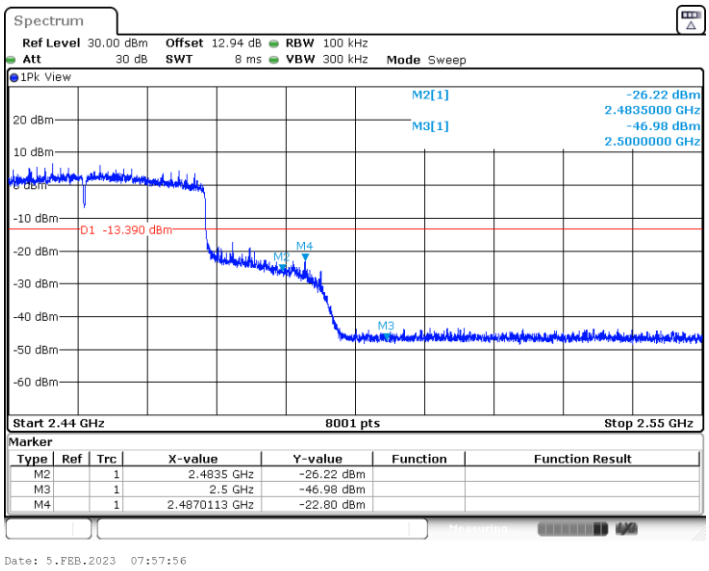
11AX40MIMO_Ant8_Low_2422



11AX40MIMO_Ant7_High_2452



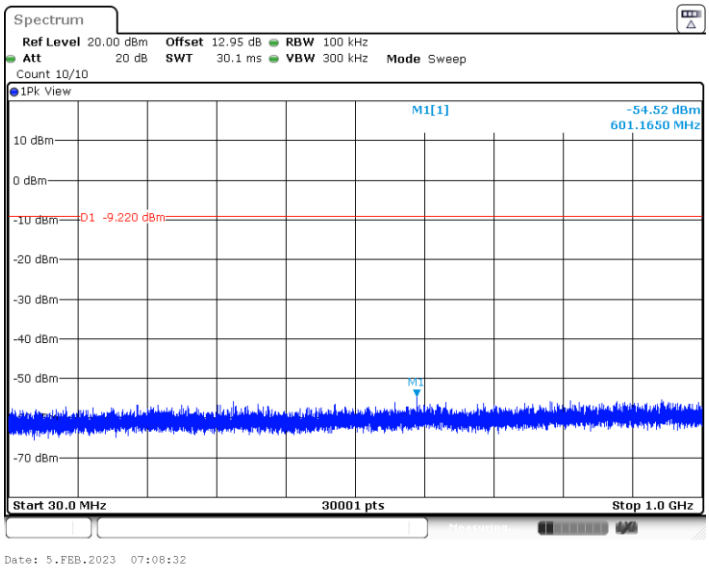
11AX40MIMO_Ant8_High_2452



Conducted Spurious Emission

Test Mode	Antenna	Freq(MHz)	FreqRange [Mhz]	RefLevel [dBm/100KHz]	Result [dBm/100KHz]	Limit [dBm/100KHz]	Verdict
11B-CDD	Ant7	2412	30~1000	10.78	-54.52	≤-9.22	PASS
			1000~26500	10.78	-46.79	≤-9.22	PASS
	Ant8	2412	30~1000	10.71	-55.2	≤-9.29	PASS
			1000~26500	10.71	-45.83	≤-9.29	PASS
	Ant7	2437	30~1000	10.22	-55.15	≤-9.78	PASS
			1000~26500	10.22	-46.26	≤-9.78	PASS
	Ant8	2437	30~1000	10.51	-54.79	≤-9.49	PASS
			1000~26500	10.51	-46.32	≤-9.49	PASS
	Ant7	2462	30~1000	10.11	-55.16	≤-9.89	PASS
			1000~26500	10.11	-45.98	≤-9.89	PASS
	Ant8	2462	30~1000	10.87	-54.44	≤-9.13	PASS
			1000~26500	10.87	-45.7	≤-9.13	PASS
11G-CDD	Ant7	2412	30~1000	9.30	-54.9	≤-10.7	PASS
			1000~26500	9.30	-46.3	≤-10.7	PASS
	Ant8	2412	30~1000	10.21	-53.89	≤-9.79	PASS
			1000~26500	10.21	-46.69	≤-9.79	PASS
	Ant7	2437	30~1000	8.66	-54.55	≤-11.34	PASS
			1000~26500	8.66	-46.67	≤-11.34	PASS
	Ant8	2437	30~1000	10.51	-55.89	≤-9.49	PASS
			1000~26500	10.51	-46.12	≤-9.49	PASS
	Ant7	2462	30~1000	9.56	-55.51	≤-10.44	PASS
			1000~26500	9.56	-45.78	≤-10.44	PASS
	Ant8	2462	30~1000	10.48	-54.98	≤-9.52	PASS
			1000~26500	10.48	-46.72	≤-9.52	PASS
11AX20MIMO	Ant7	2412	30~1000	8.00	-55.28	≤-12	PASS
			1000~26500	8.00	-44	≤-12	PASS
	Ant8	2412	30~1000	7.62	-55.01	≤-12.38	PASS
			1000~26500	7.62	-46.34	≤-12.38	PASS
	Ant7	2437	30~1000	7.04	-55.58	≤-12.96	PASS
			1000~26500	7.04	-46.6	≤-12.96	PASS
	Ant8	2437	30~1000	8.75	-55.13	≤-11.25	PASS
			1000~26500	8.75	-46.66	≤-11.25	PASS
	Ant7	2462	30~1000	7.65	-55.04	≤-12.35	PASS
			1000~26500	7.65	-46.17	≤-12.35	PASS
	Ant8	2462	30~1000	7.05	-54.11	≤-12.95	PASS
			1000~26500	7.05	-46.84	≤-12.95	PASS
11AX40MIMO	Ant7	2422	30~1000	5.72	-55.37	≤-14.28	PASS
			1000~26500	5.72	-46.75	≤-14.28	PASS
	Ant8	2422	30~1000	6.53	-54.68	≤-13.47	PASS
			1000~26500	6.53	-46.27	≤-13.47	PASS
	Ant7	2437	30~1000	4.55	-55.29	≤-15.45	PASS
			1000~26500	4.55	-46.2	≤-15.45	PASS
	Ant8	2437	30~1000	5.28	-55.35	≤-14.72	PASS
			1000~26500	5.28	-46.43	≤-14.72	PASS
	Ant7	2452	30~1000	6.09	-55.12	≤-13.91	PASS
			1000~26500	6.09	-46.52	≤-13.91	PASS
	Ant8	2452	30~1000	6.61	-55.33	≤-13.39	PASS
			1000~26500	6.61	-45.93	≤-13.39	PASS

11B-CDD_Ant7_2412_30~1000



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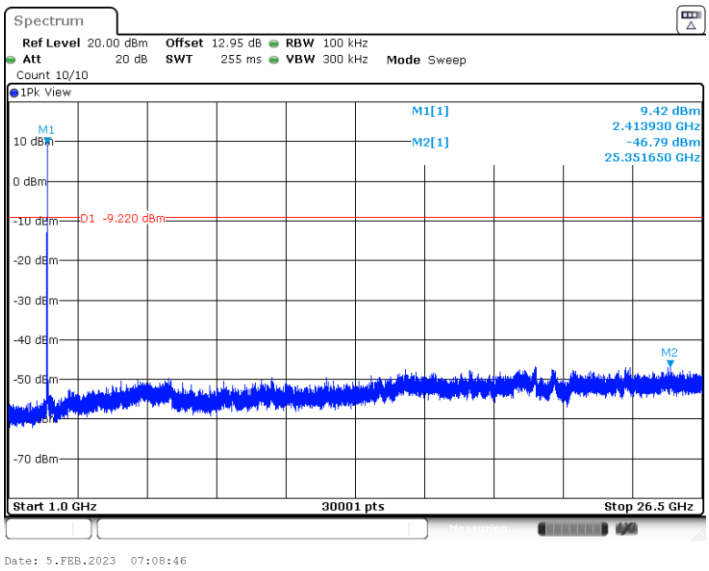

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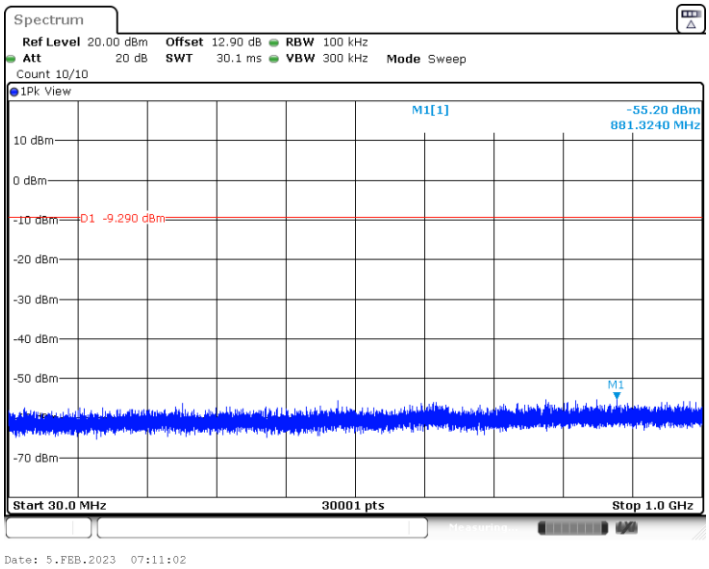

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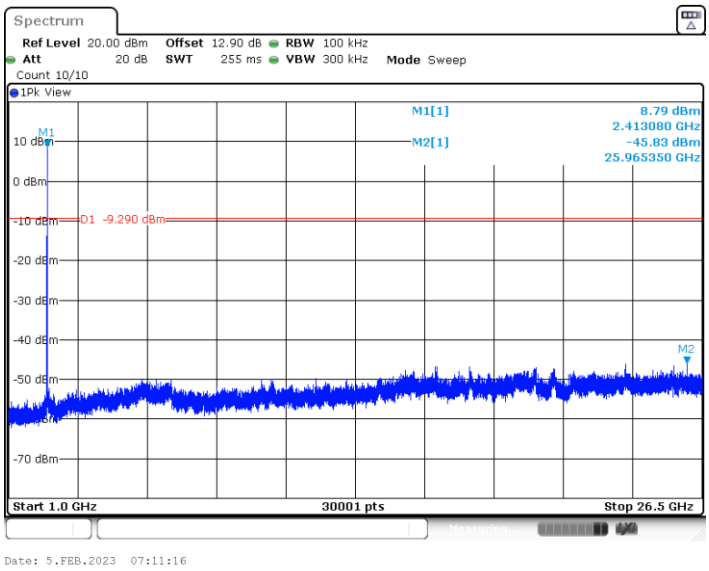

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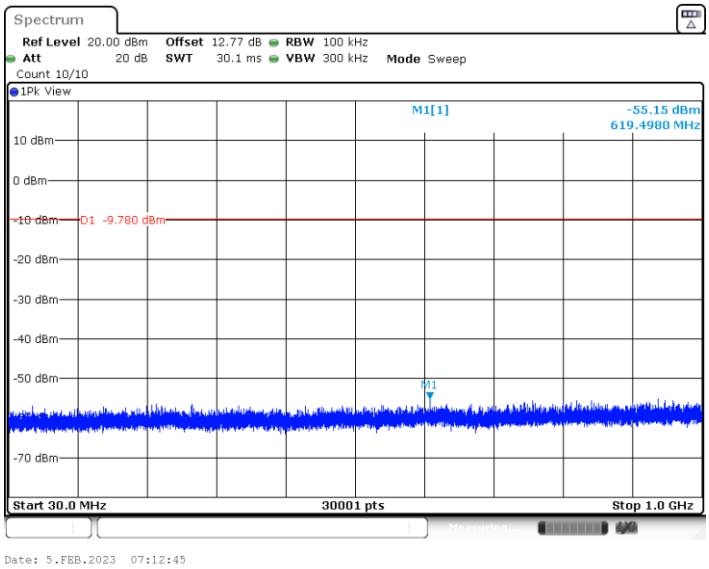

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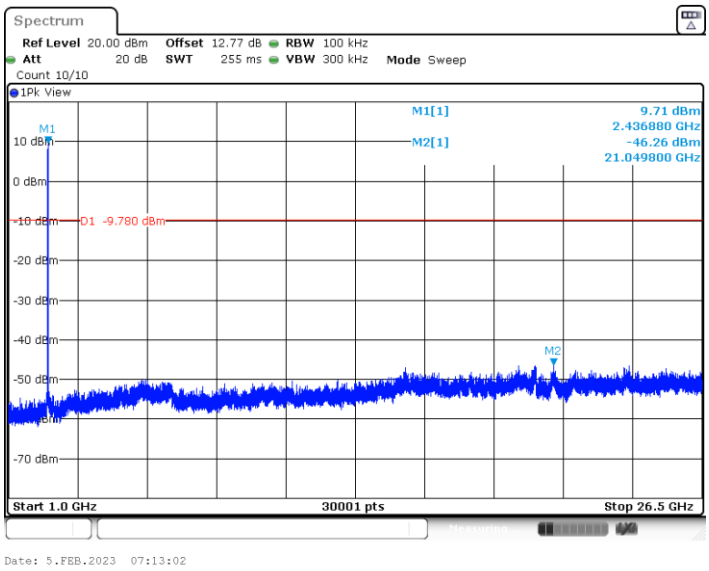

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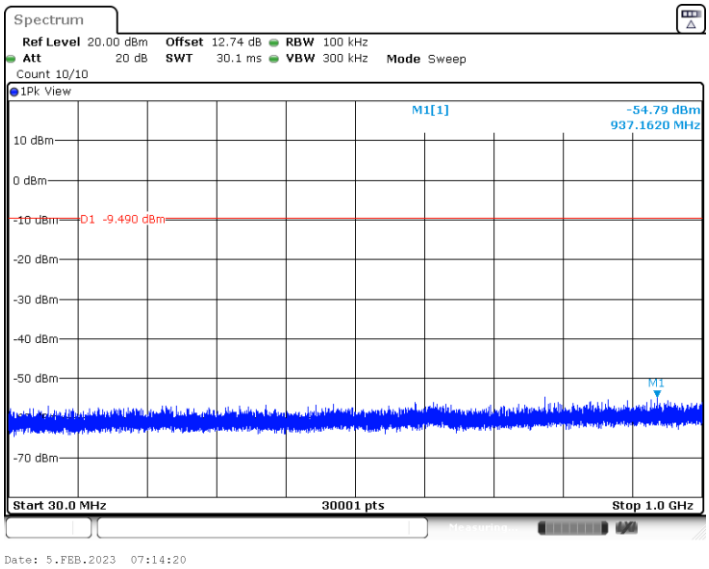

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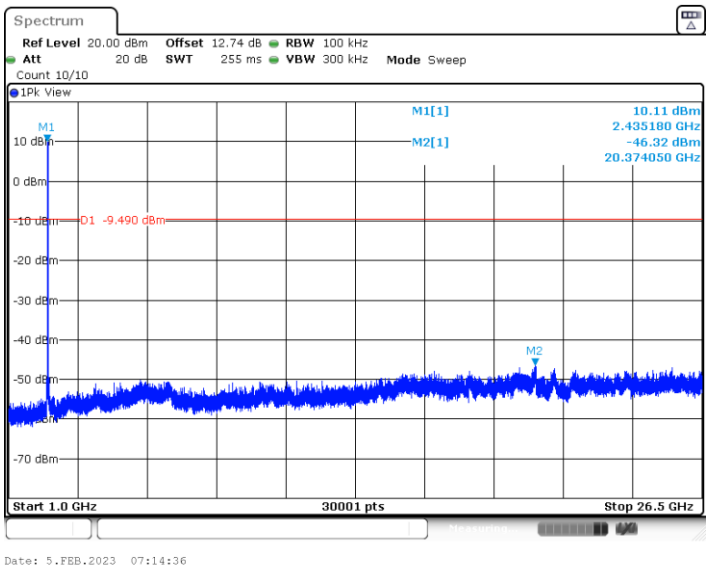

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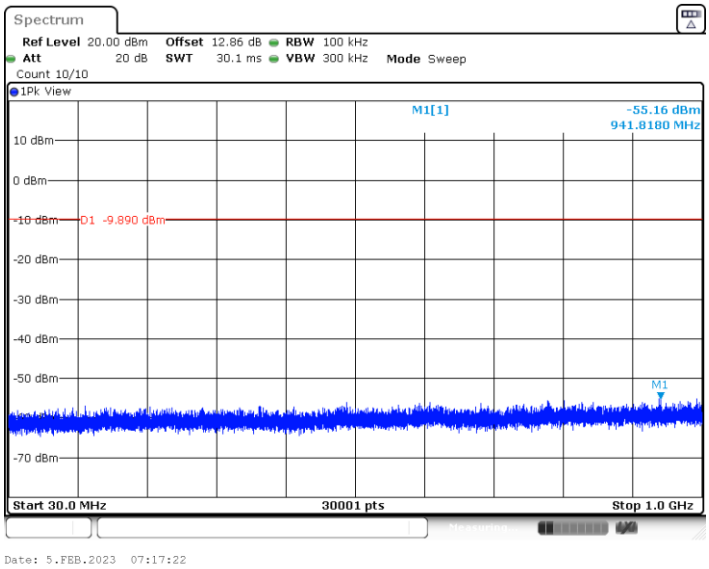

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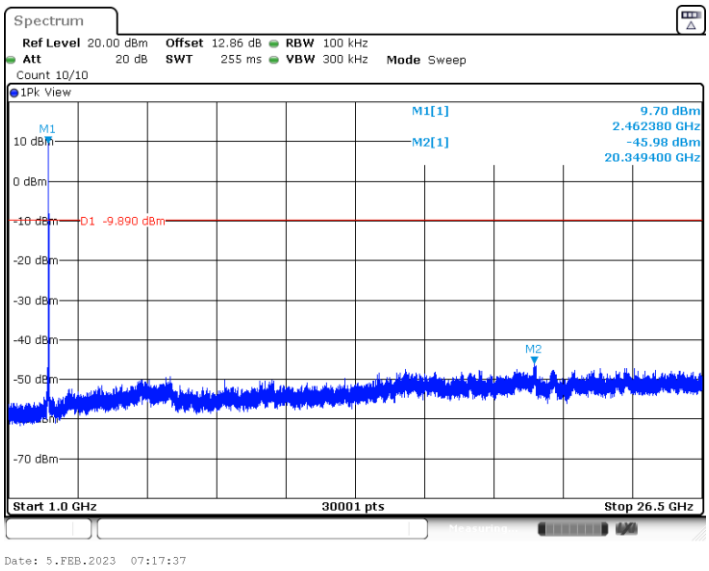

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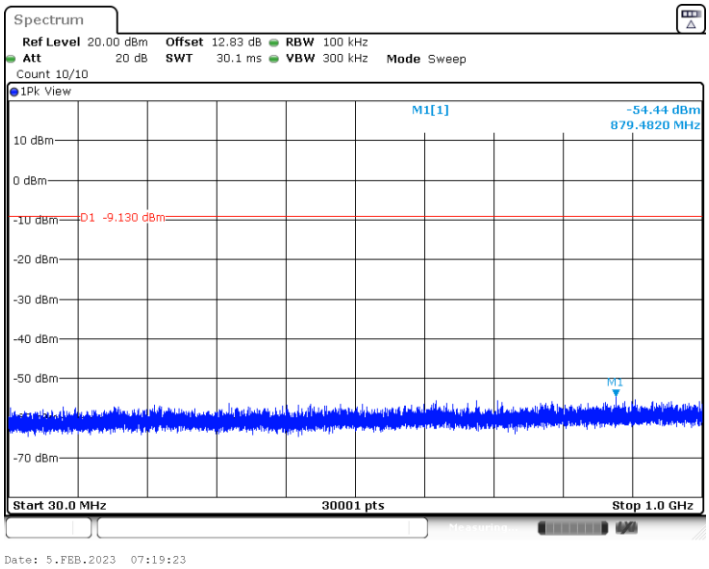

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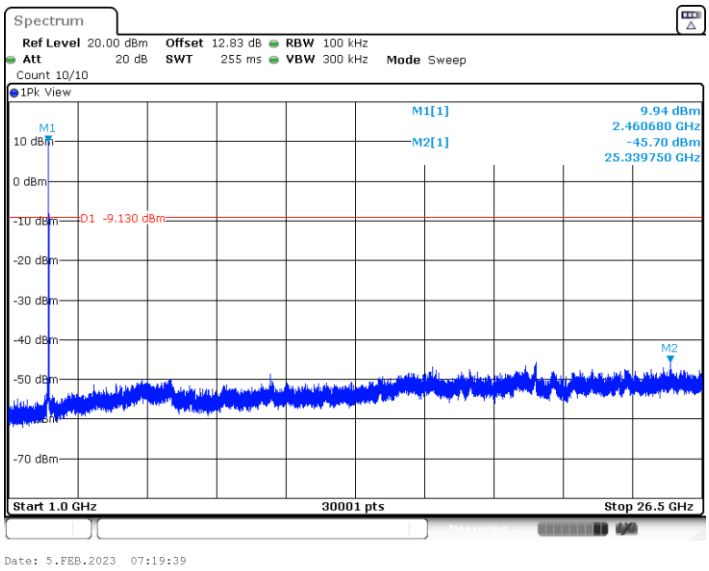

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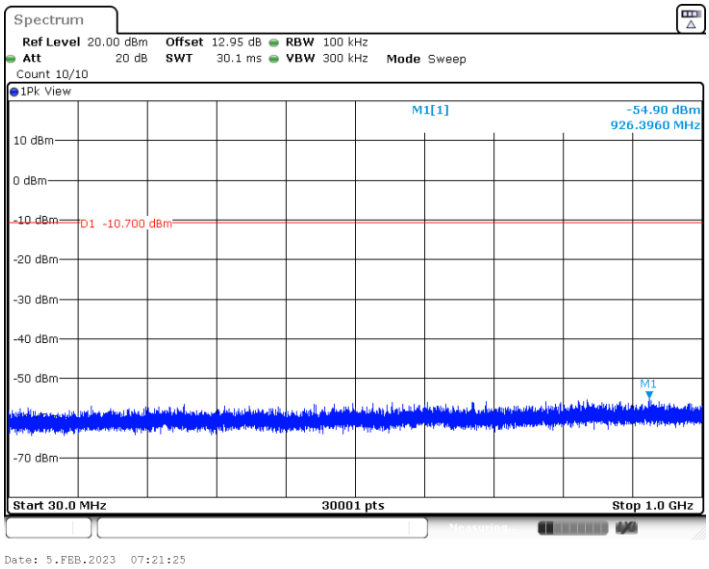

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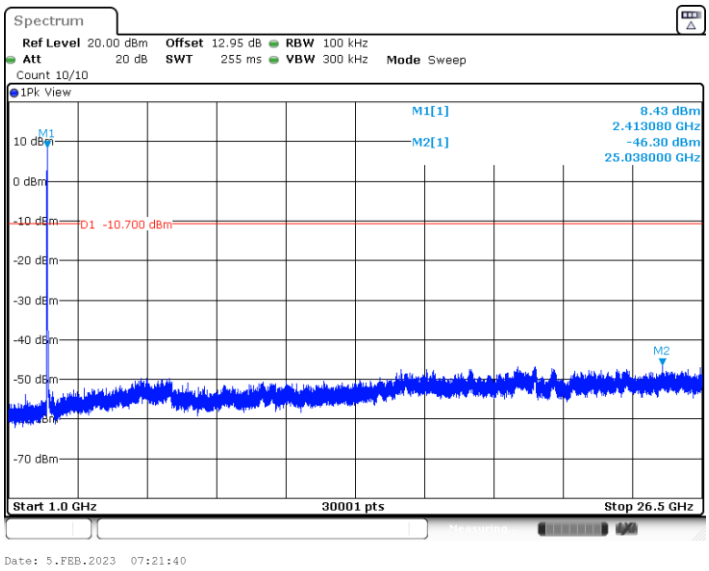

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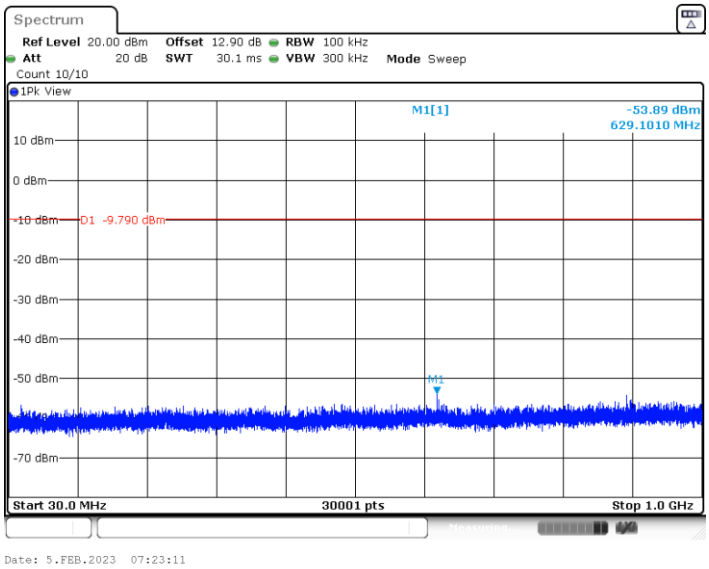

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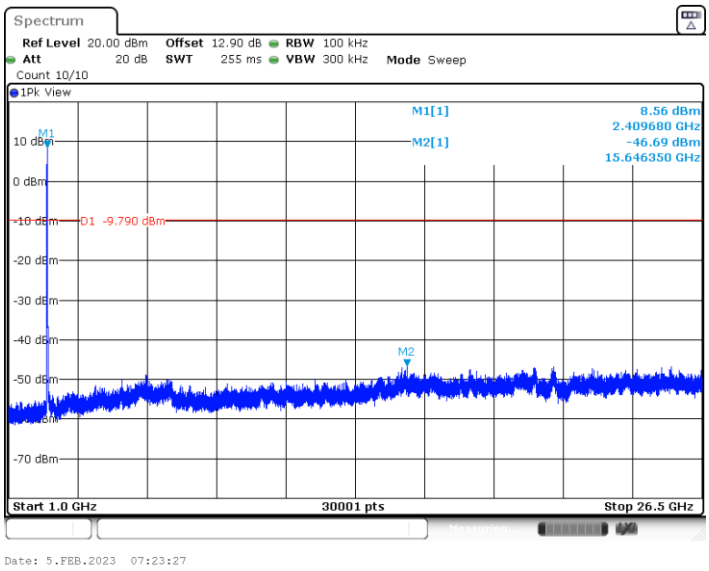

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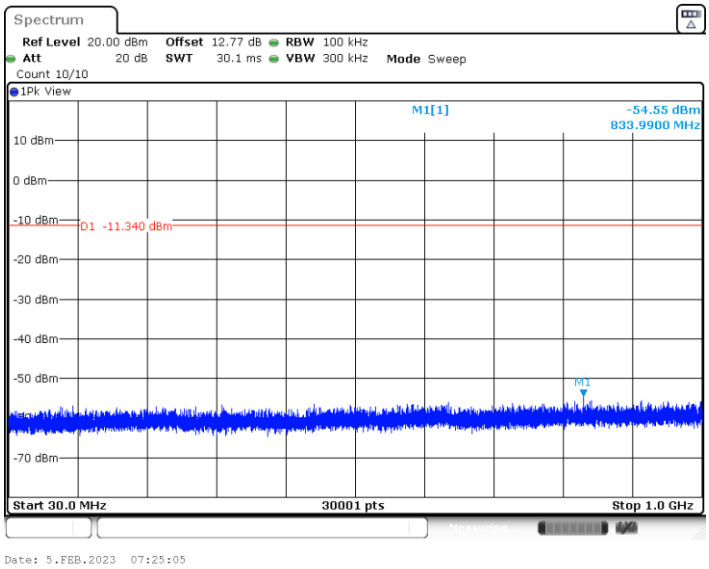
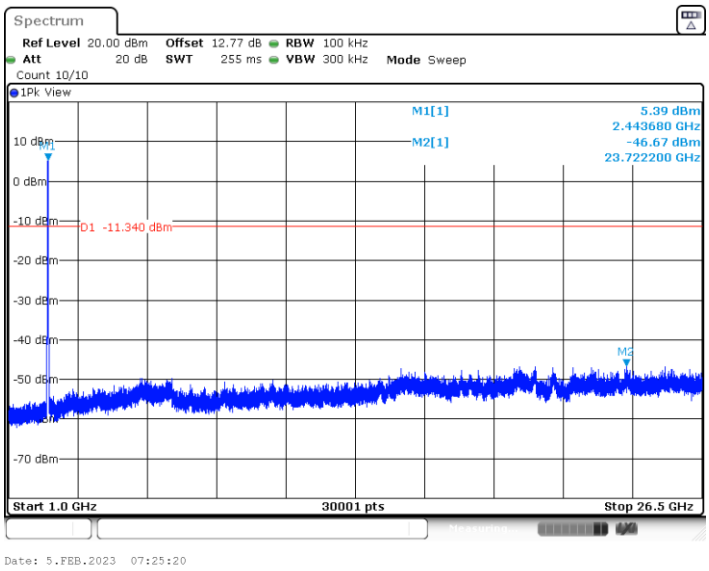
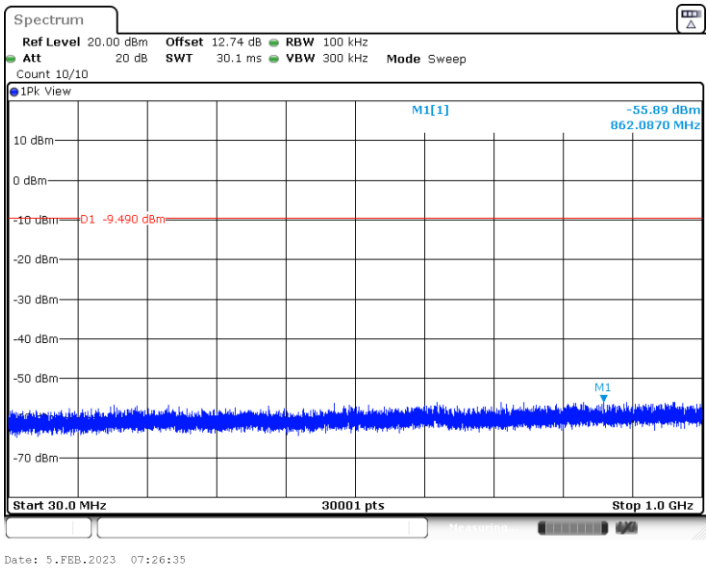


11G-CDD_Ant7_2437_1000~26500



11G-CDD_Ant8_2437_30~1000



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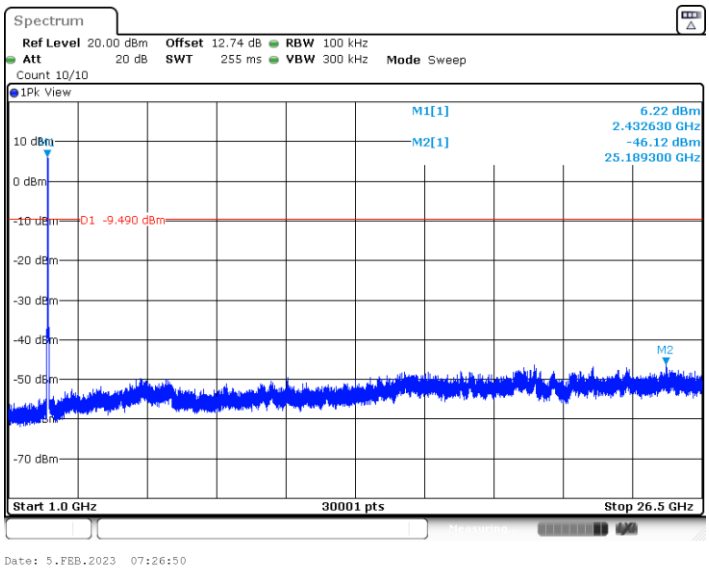

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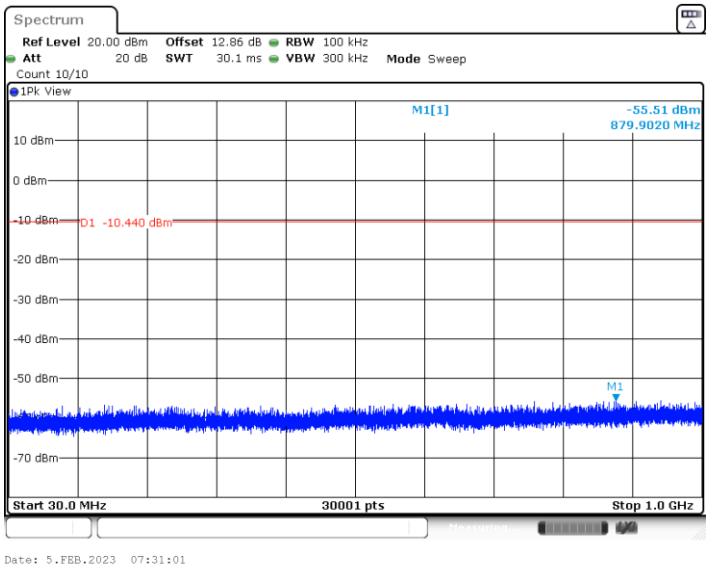
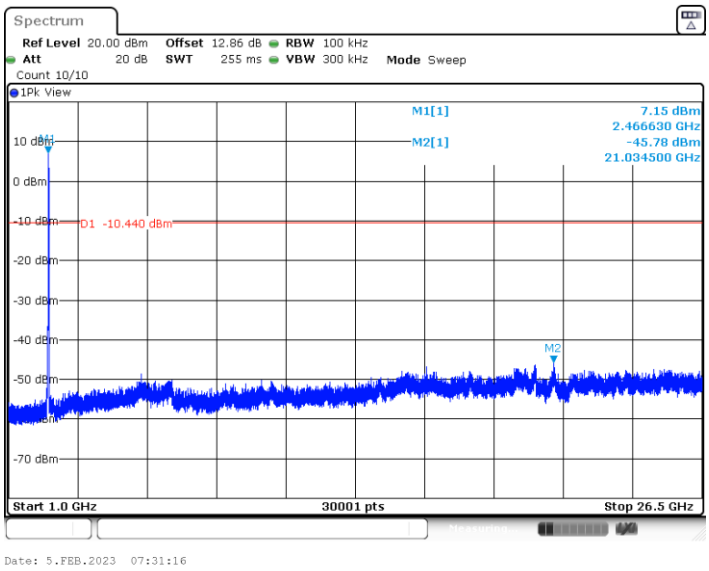


11G-CDD_Ant7_2462_1000~26500



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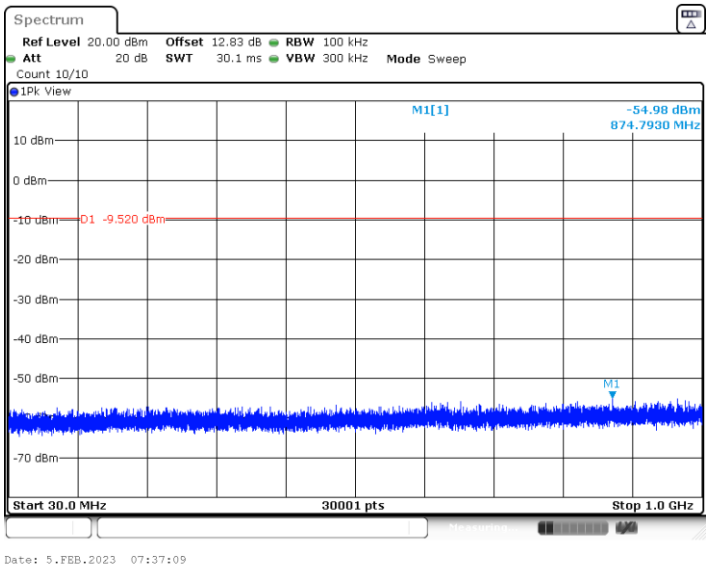

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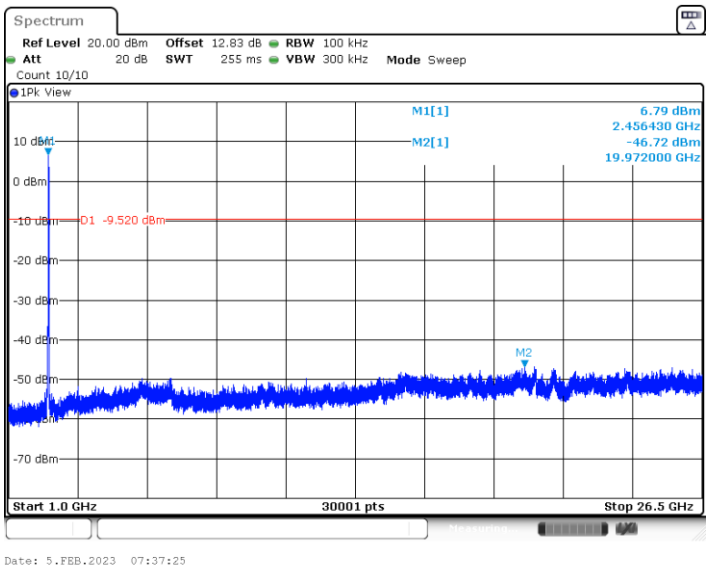

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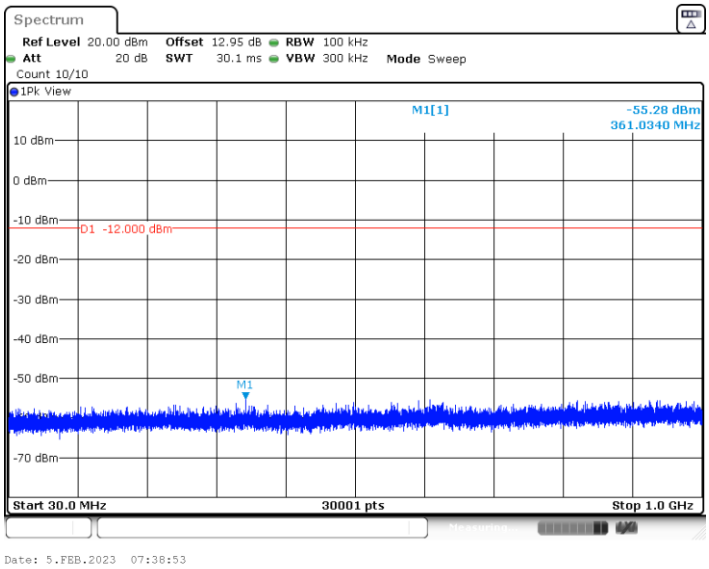
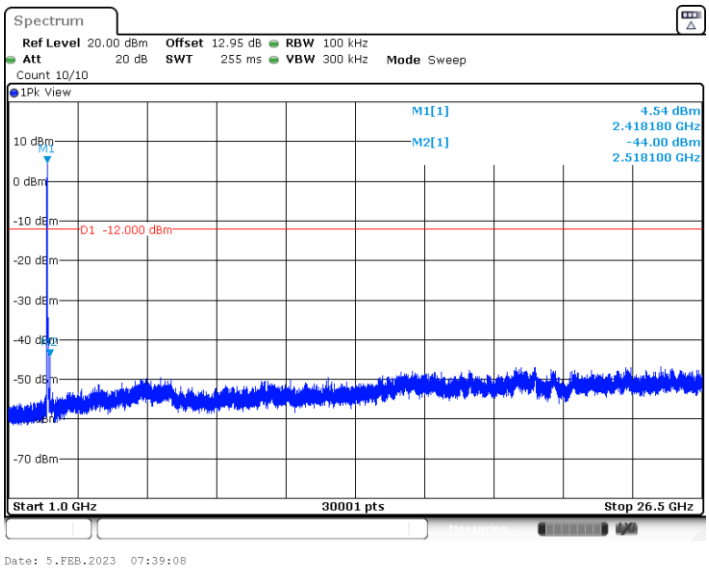


11AX20MIMO_Ant7_2412_1000~26500



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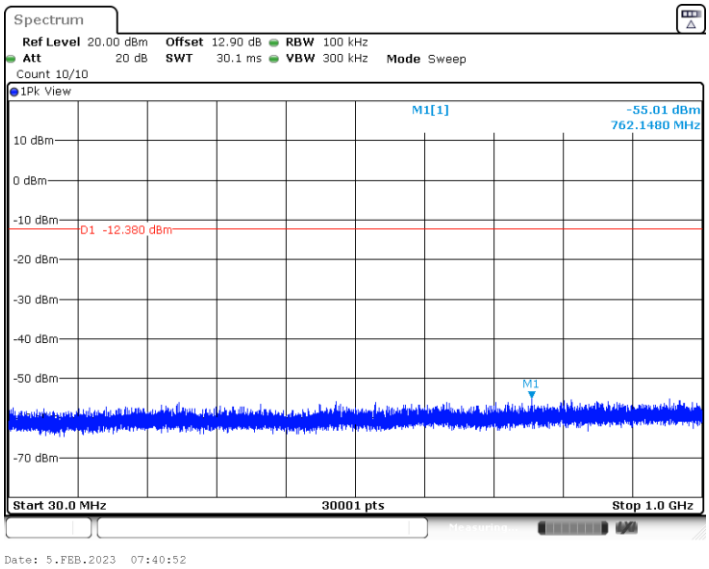

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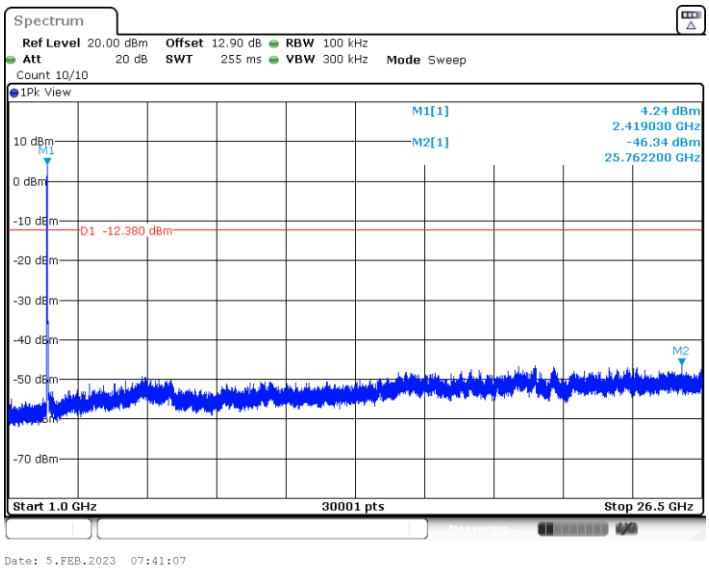

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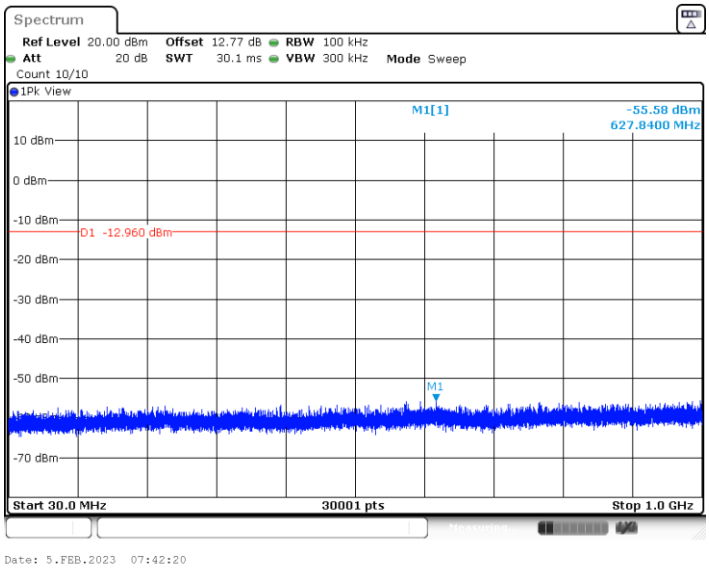

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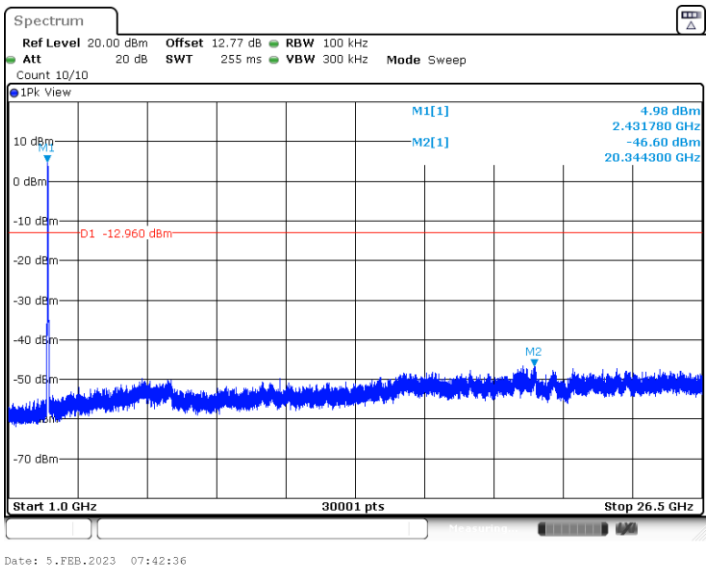

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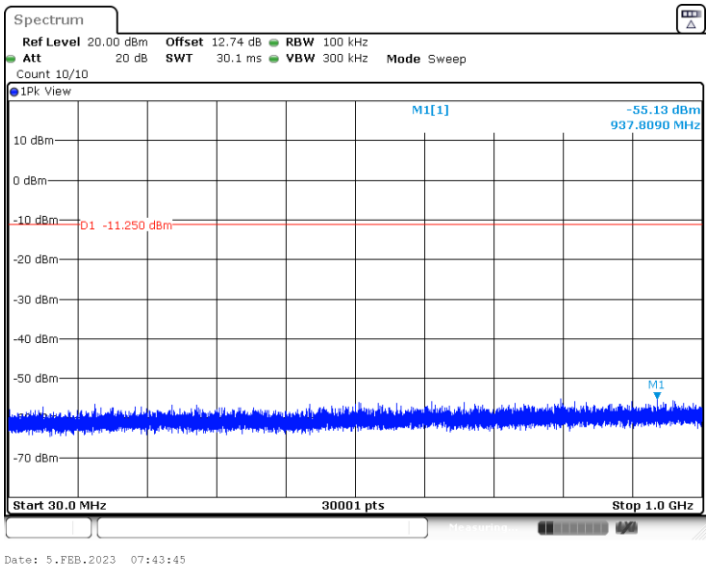

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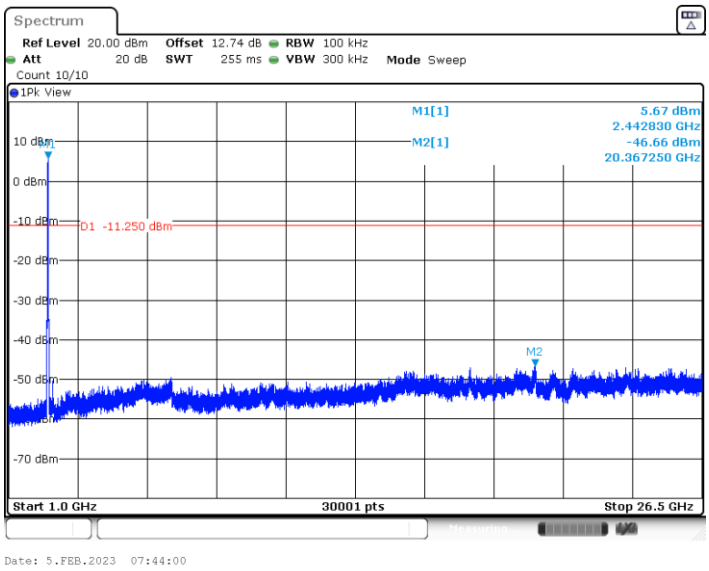

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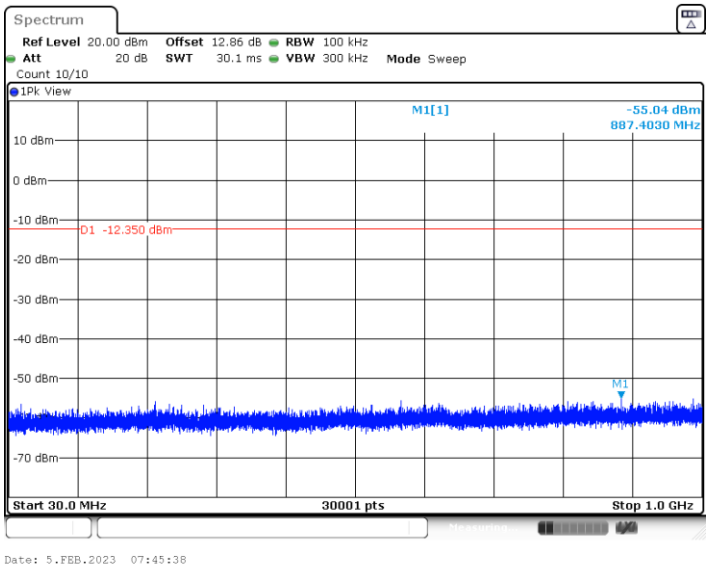

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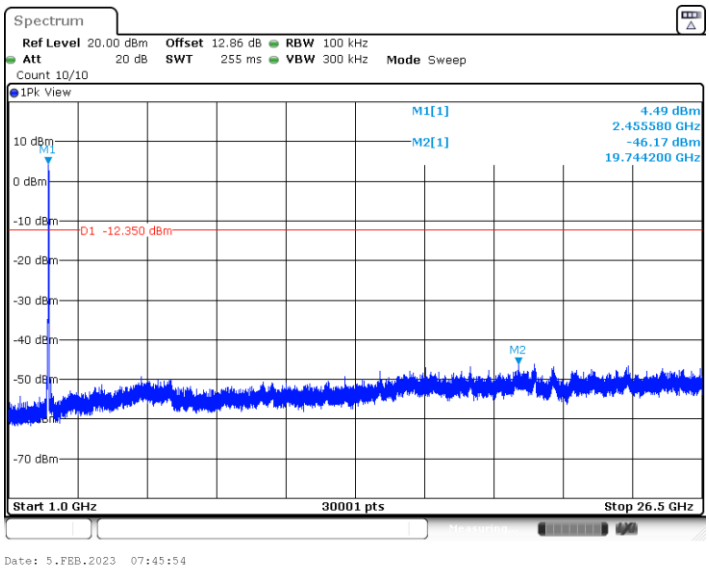

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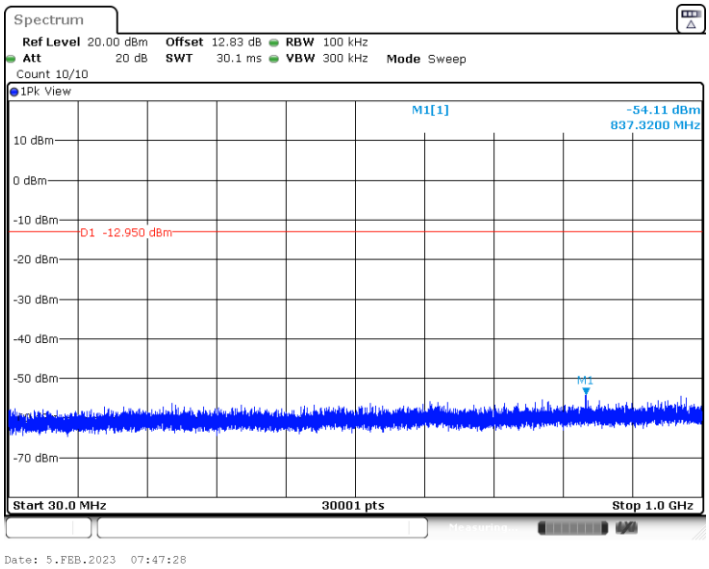

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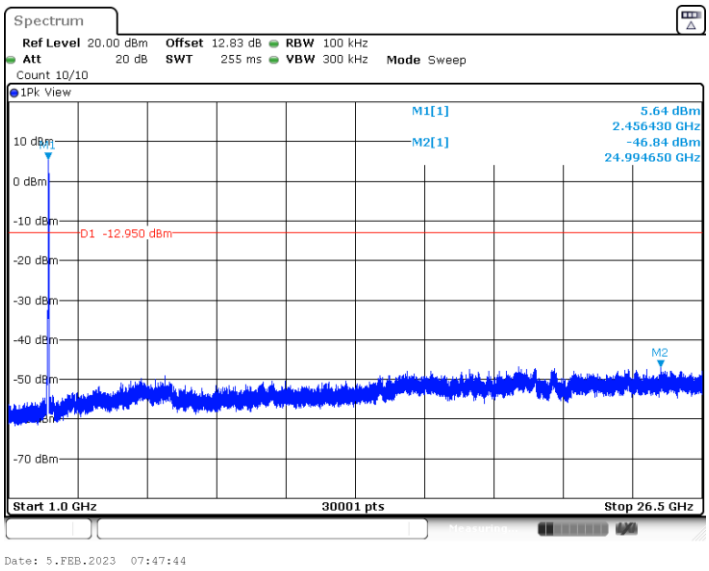
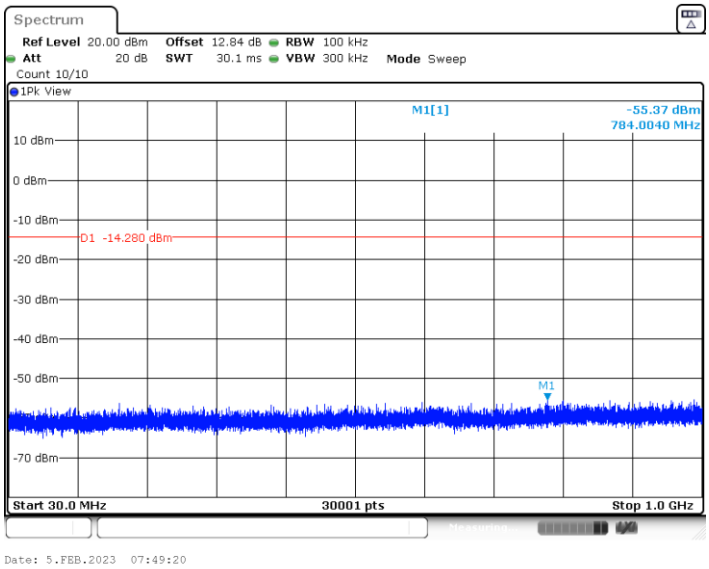
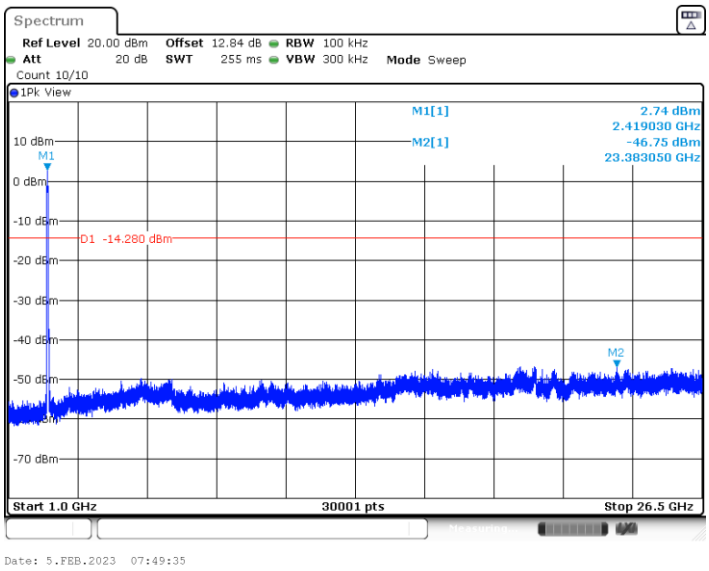


11AX40MIMO_Ant7_2422_30~1000



11AX40MIMO_Ant7_2422_1000~26500



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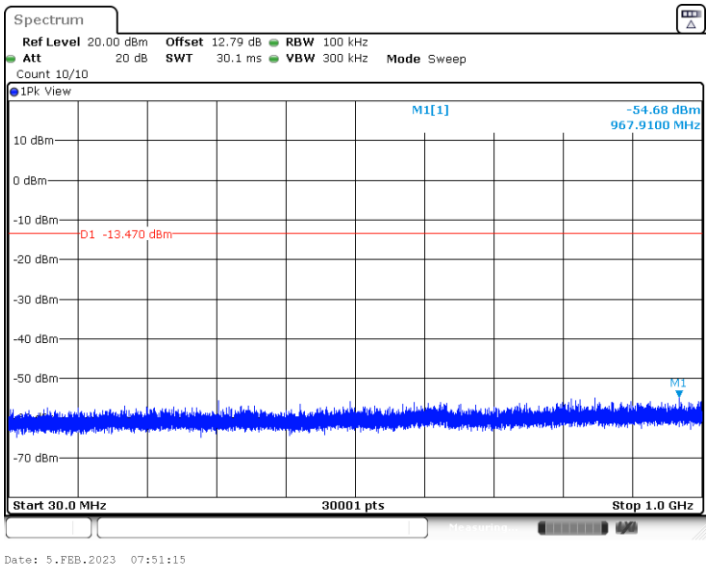

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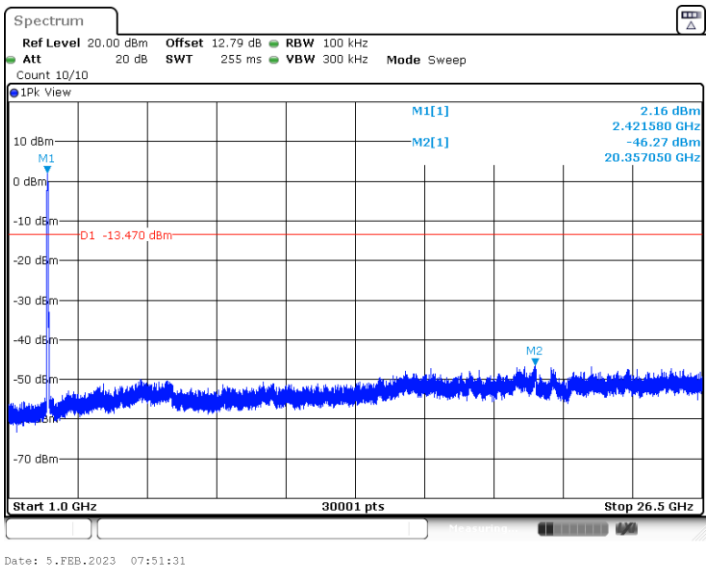

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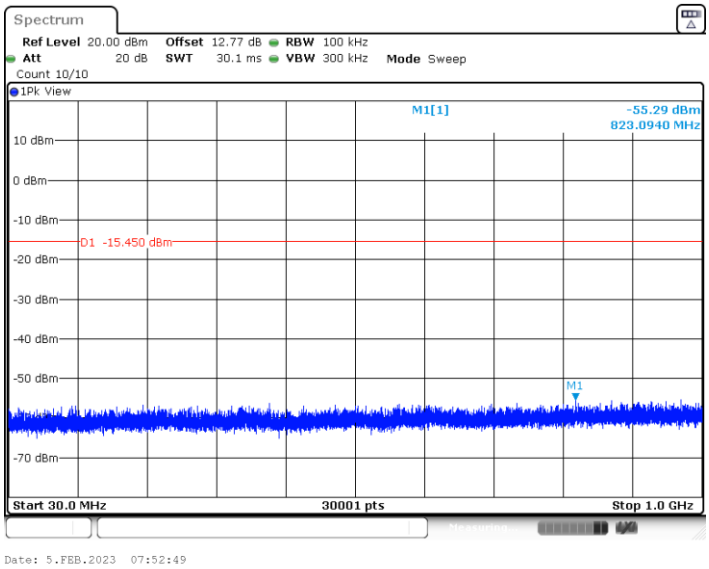

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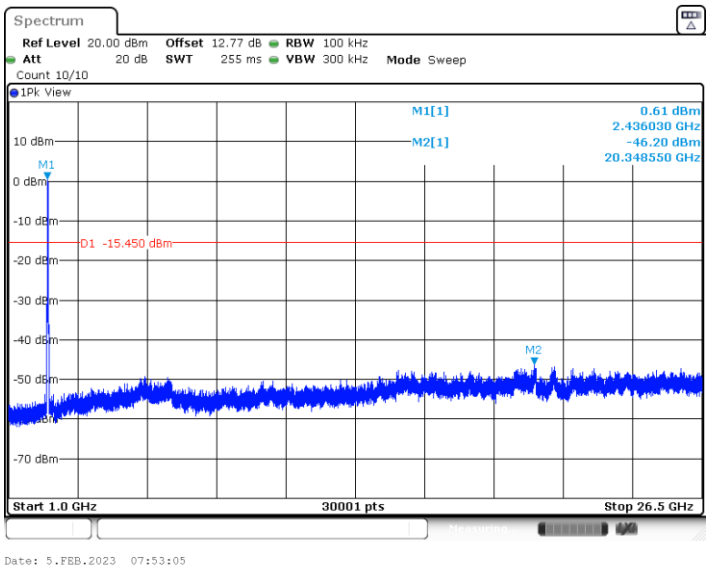
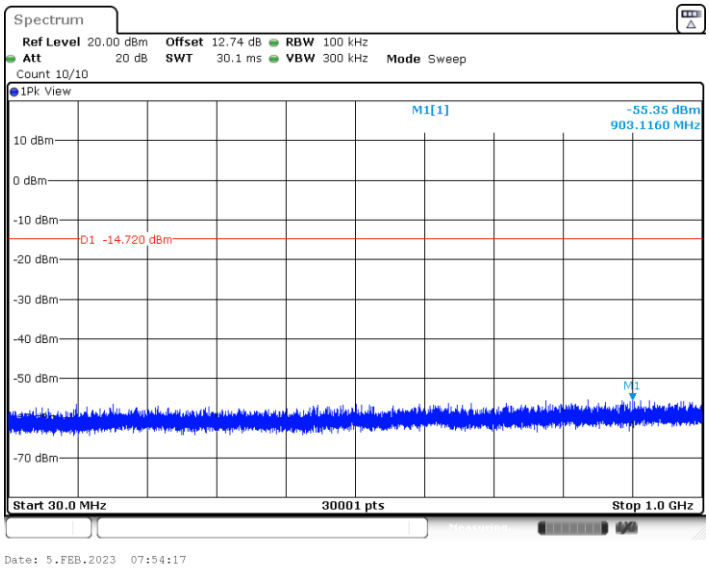
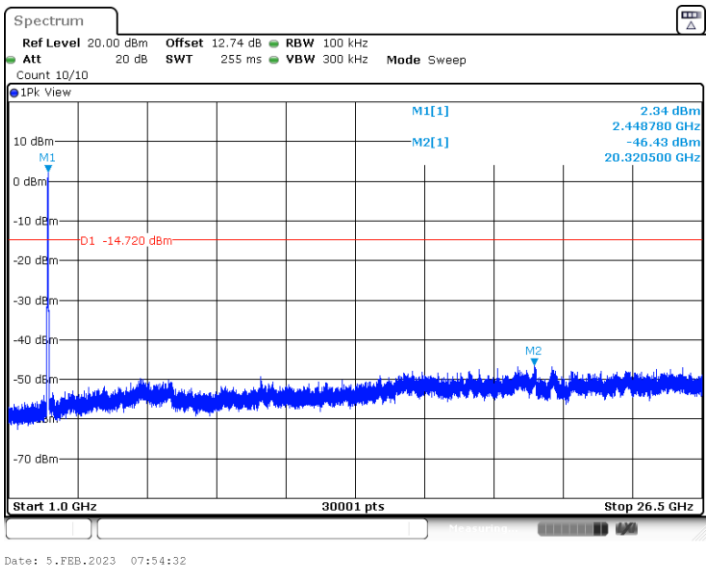


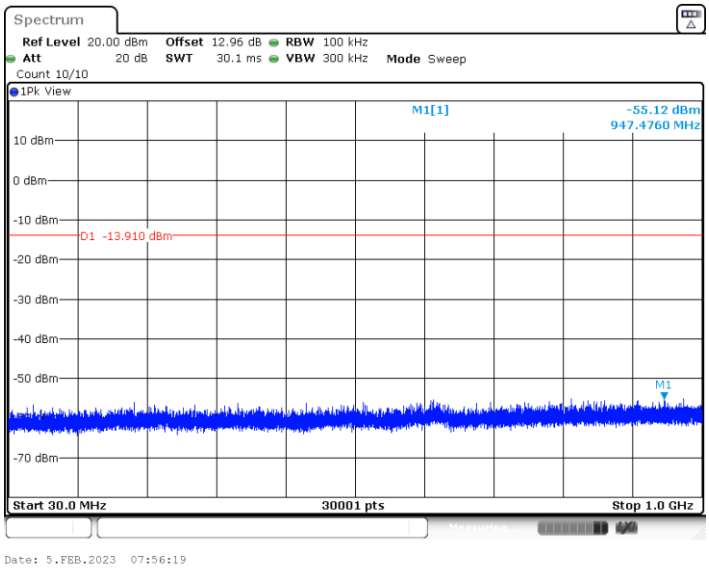
11AX40MIMO_Ant8_2437_30~1000



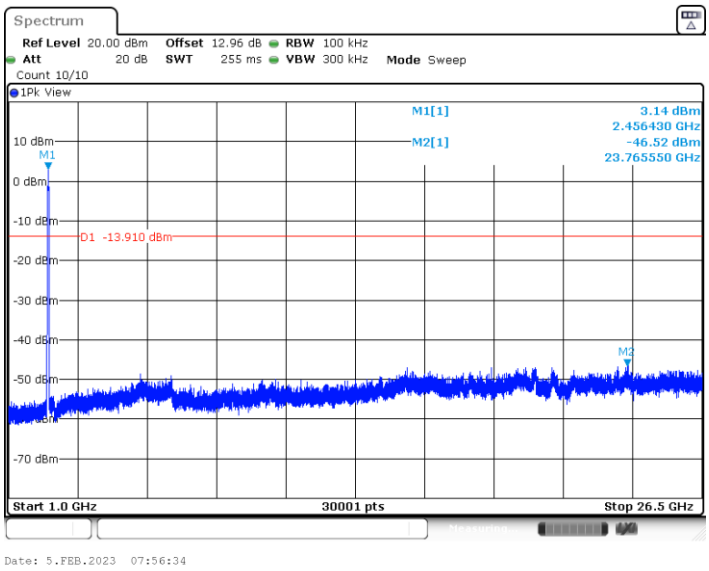
11AX40MIMO_Ant8_2437_1000~26500



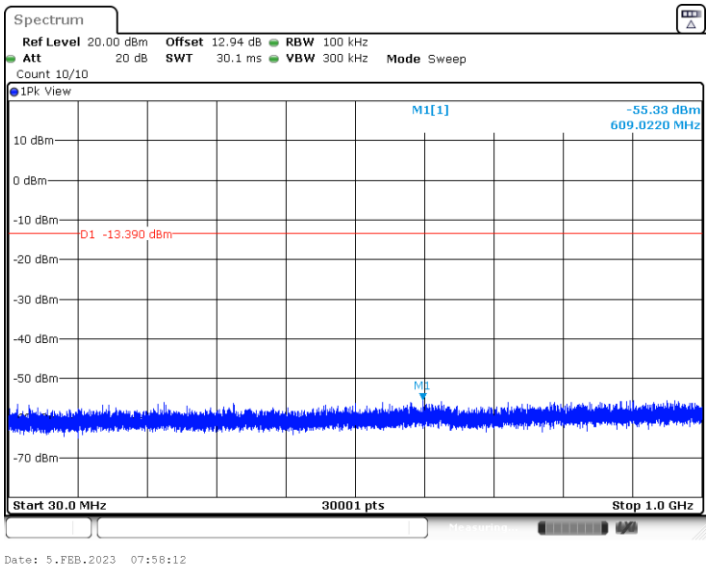
11AX40MIMO_Ant7_2452_30~1000



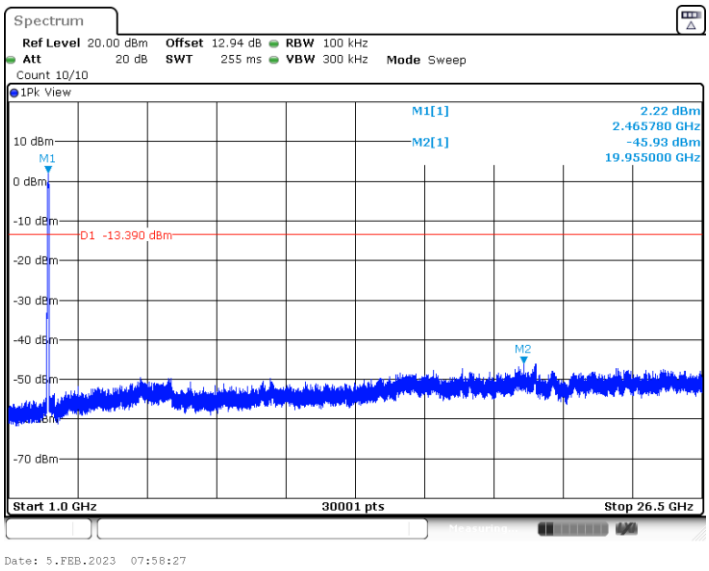
11AX40MIMO_Ant7_2452_1000~26500



11AX40MIMO_Ant8_2452_30~1000



11AX40MIMO_Ant8_2452_1000~26500



3.5 Radiated Band Edges and Spurious Emission Measurement

3.5.1 Limit of Radiated band edge and Spurious Emission Measurement

In any 100 kHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 20 dB below the highest emission level within the authorized band. If the output power of this device was measured by spectrum analyzer, the attenuation under this paragraph shall be 30 dB instead of 20 dB. In addition, radiated emissions which fall in the restricted bands must also comply with the limits as below.

Frequency (MHz)	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 – 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

3.5.2 Measuring Instruments

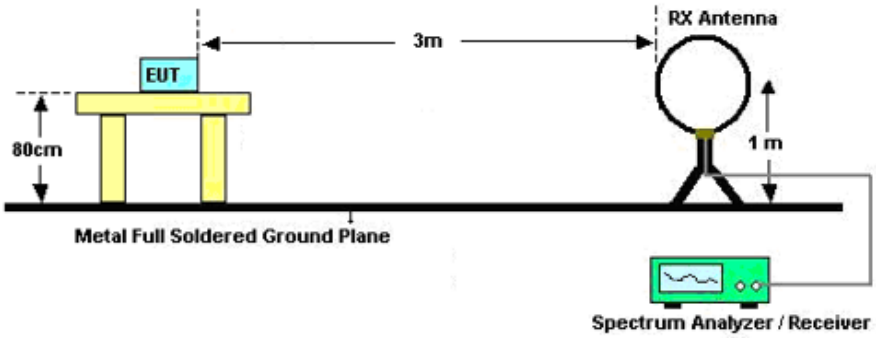
The measuring equipment is listed in the section 4 of this test report.

3.5.3 Test Procedures

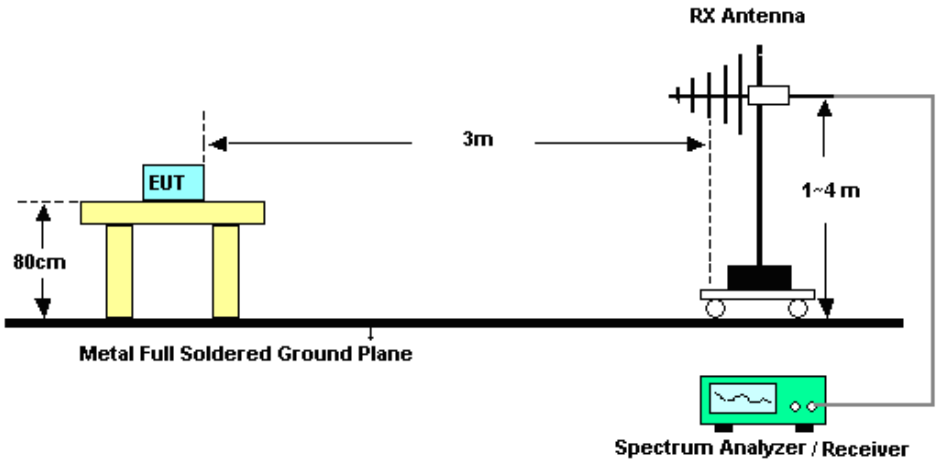
1. The testing follows ANSI C63.10-2013 clause 11.11 & 11.12
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
3. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than peak limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
8. Use the following spectrum analyzer settings:
   (1) Span shall wide enough to fully capture the emission being measured;
   (2) Set RBW=100 kHz for f < 1 GHz; VBW ≥ RBW; Sweep = auto; Detector function = peak; Trace = max hold;
   (3) Set RBW = 1 MHz, VBW= 3MHz for f ≥ 1 GHz for peak measurement.
   For average measurement:
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 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.

3.5.4 Test Setup

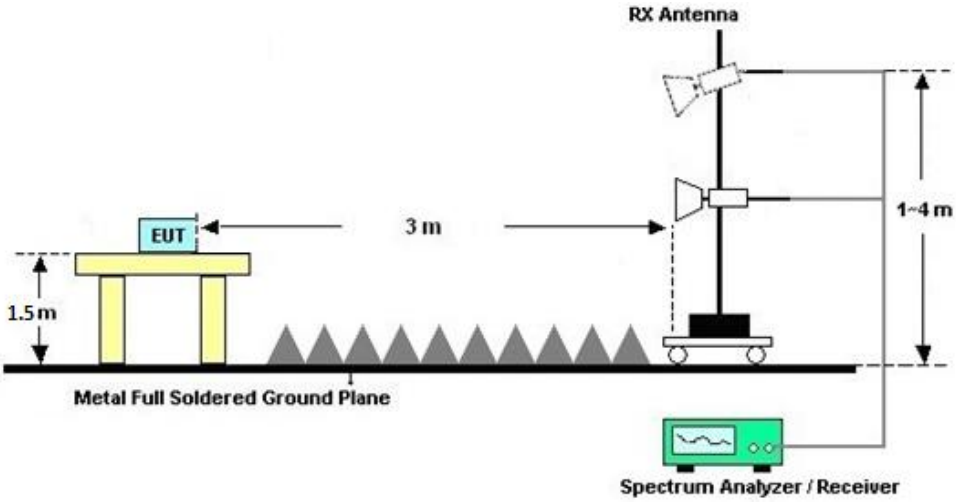
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



3.5.5 Test Results of Radiated Spurious Emissions (9kHz ~ 30MHz)

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

3.5.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix B.

3.5.7 Duty Cycle

Please refer to Appendix C.

3.5.8 Test Result of Radiated Spurious Emission (30MHz ~ 10th Harmonic or 40GHz, whichever is lower)

Please refer to Appendix B.

3.6 AC Conducted Emission Measurement

3.6.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency of Emission (MHz)	Conducted Limit (dBµV)	
	Quasi-Peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

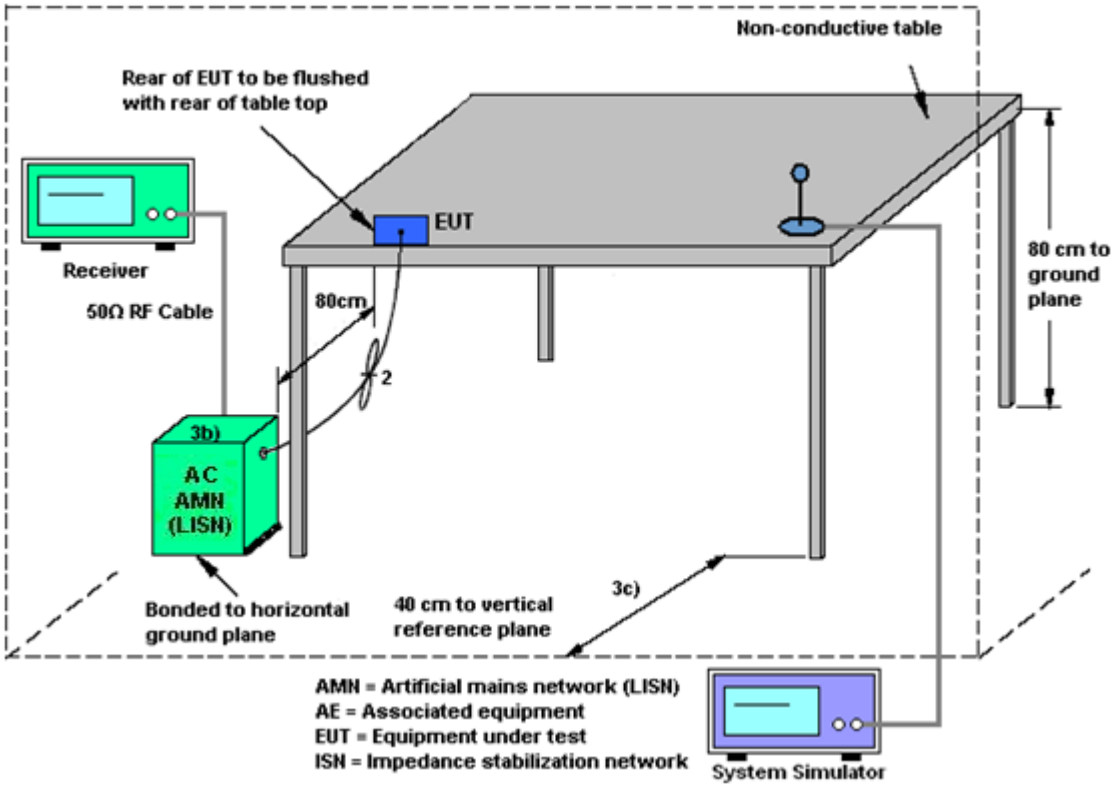
3.6.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.6.3 Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room, and it was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF bandwidth = 9kHz) with Maximum Hold Mode.

3.6.4 Test Setup



3.6.5 Test Result of AC Conducted Emission

Please refer to Appendix A.

3.7 Antenna Requirements

3.7.1 Standard Applicable

If directional gain of transmitting Antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi. The use of a permanently attached Antenna or of an Antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the rule.

3.7.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.7.3 Antenna Gain

<CDD Modes >

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

Directional gain = G_{ANT} + Array Gain, where Array Gain is as follows.

For power spectral density (PSD) measurements on all devices,

Array Gain = 10 log(N_{ANT}/N_{SS}=1) dB.

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$.

Directional gain may be calculated by using the formulas applicable to equal gain antennas with G_{ANT} set equal to the gain of the antenna having the highest gain;

The EUT supports CDD mode.

For power, the directional gain G_{ANT} is set equal to the antenna having the highest gain, i.e., F)2)f)i).

The directional gain “DG” is calculated as following table.

<CDD Modes>

	Ant. 7 (dBi)	Ant. 8 (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
2.4 GHz	-1.26	-1.79	-1.26	1.49	0.00	0.00

Power Limit Reduction = DG(Power) – 6dBi, (min = 0)

PSD Limit Reduction = DG(PSD) – 6dBi, (min = 0)

4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Oct. 12, 2022	Feb. 05, 2023~ Apr. 24, 2023	Oct. 11, 2023	Conducted (TH01-KS)
Pulse Power Senor	Anritsu	MA2411B	0917070	300MHz~40GHz	Jan. 05, 2023	Feb. 05, 2023~ Apr. 24, 2023	Jan. 04, 2024	Conducted (TH01-KS)
Power Meter	Anritsu	ML2495A	1005002	50MHz Bandwidth	Jan. 05, 2023	Feb. 05, 2023~ Apr. 24, 2023	Jan. 04, 2024	Conducted (TH01-KS)
EMI Test Receiver	Keysight	N9038A	MY57290151	3Hz~8.5GHz;Max 30dBm	Jul. 11, 2022	Mar. 02, 2023	Jul. 10, 2023	Radiation (03CH08-KS)
Spectrum Analyzer	R&S	FSV40	101932	10kHz~40GHz; Max 30dBm	Oct. 12, 2022	Mar. 02, 2023	Oct. 11, 2023	Radiation (03CH08-KS)
Loop Antenna	R&S	HFH2-Z2	100321	9kHz~30MHz	Oct. 16, 2022	Mar. 02, 2023	Oct. 15, 2023	Radiation (03CH08-KS)
Bilog Antenna	TESEQ& VGT	CBL 61110	59915	30MHz-1GHz	Aug. 26, 2022	Mar. 02, 2023	Aug. 25, 2023	Radiation (03CH08-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00240138	1GHz~18GHz	Jul. 08, 2022	Mar. 02, 2023	Jul. 07, 2023	Radiation (03CH08-KS)
high gain Amplifier	EM	EM01G18GA	060845	1Ghz-18Ghz	Jan. 05, 2023	Mar. 02, 2023	Jan. 04, 2024	Radiation (03CH08-KS)
SHF-EHF Horn	Com-power	AH-840	101070	18GHz~40GHz	Jan. 08, 2023	Mar. 02, 2023	Jan. 07, 2024	Radiation (03CH08-KS)
Amplifier	SONOMA	310N	413741	9KHz-1GHz	Jan. 05, 2023	Mar. 02, 2023	Jan. 04, 2024	Radiation (03CH08-KS)
Amplifier	EM	EM01G18GA	060834	1Ghz-18Ghz	Oct. 12, 2022	Mar. 02, 2023	Oct. 11, 2023	Radiation (03CH08-KS)
Amplifier	MITEQ	EM18G40GGA	060728	18~40GHz	Jan. 05, 2023	Mar. 02, 2023	Jan. 04, 2024	Radiation (03CH08-KS)
AC Power Source	Chroma	61601	616010002473	N/A	NCR	Mar. 02, 2023	NCR	Radiation (03CH08-KS)
Turn Table	EM	EM 1000-T	N/A	0~360 degree	NCR	Mar. 02, 2023	NCR	Radiation (03CH08-KS)
Antenna Mast	EM	EM 1000-A	N/A	1 m~4 m	NCR	Mar. 02, 2023	NCR	Radiation (03CH08-KS)
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz;	May 24, 2022	Mar. 02, 2023	May 23, 2023	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060103	9kHz~30MHz	Oct. 13, 2022	Mar. 02, 2023	Oct. 12, 2023	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060105	9kHz~30MHz	May 24, 2022	Mar. 02, 2023	May 23, 2023	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	AC 0V~300V, 45Hz~1000Hz	Oct. 12, 2022	Mar. 02, 2023	Oct. 11, 2023	Conduction (CO01-KS)

NCR: No Calibration Required

5 Uncertainty of Evaluation

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI 63.10-2013. All the measurement uncertainty value were shown with a coverage K=2 to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

Uncertainty of Conducted Measurement

Test Item	Uncertainty
Conducted Power	±0.46 dB
Conducted Emissions	±0.48 dB
Occupied Channel Bandwidth	±0.1 %

Uncertainty of Conducted Emission Measurement (150 kHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.78 dB

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.0 dB

Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.0 dB

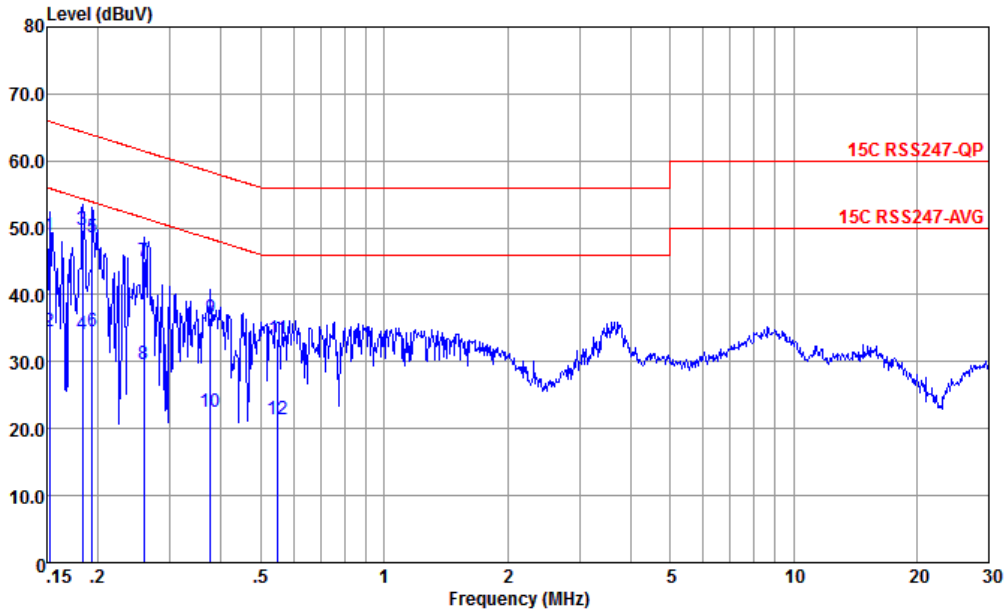
Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.0 dB

---------- THE END ----------

Appendix A. AC Conducted Emission Test Results

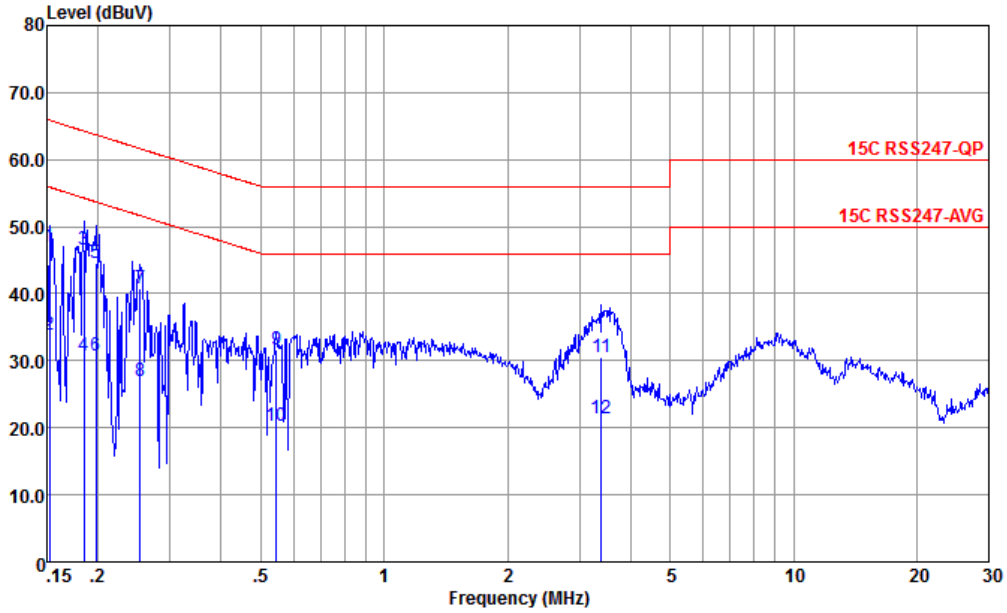
Test Engineer :	Amos Zhang	**Temperature :**	24.2~25.6℃
		Relative Humidity :	37~39%
Test Voltage :	120Vac / 60Hz	**Phase :**	Line
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Site : CO01-KS
Condition : 15C RSS247-QP LISN-060105-LINE LINE

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.152	48.70	-17.17	65.87	38.20	0.07	10.43	QP
2	0.152	34.60	-21.27	55.87	24.10	0.07	10.43	Average
3 *	0.183	49.66	-14.67	64.33	39.21	0.03	10.42	QP
4	0.183	34.06	-20.27	54.33	23.61	0.03	10.42	Average
5	0.193	48.65	-15.24	63.89	38.20	0.03	10.42	QP
6	0.193	34.65	-19.24	53.89	24.20	0.03	10.42	Average
7	0.259	45.02	-16.45	61.47	34.59	0.05	10.38	QP
8	0.259	29.72	-21.75	51.47	19.29	0.05	10.38	Average
9	0.377	36.53	-21.81	58.34	26.20	0.02	10.31	QP
10	0.377	22.53	-25.81	48.34	12.20	0.02	10.31	Average
11	0.549	33.35	-22.65	56.00	23.20	-0.05	10.20	QP
12	0.549	21.35	-24.65	46.00	11.20	-0.05	10.20	Average

Test Engineer :	Amos Zhang	**Temperature :**	24.2~25.6℃
		Relative Humidity :	37~39%
Test Voltage :	120Vac / 60Hz	**Phase :**	Neutral
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Site : CO01-KS
Condition : 15C RSS247-QP LISN-060105-NEUTRAL NEUTRAL

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1		0.152	47.06	-18.81	65.87	36.60	0.03	10.43	QP
2		0.152	33.96	-21.91	55.87	23.50	0.03	10.43	Average
3	*	0.184	46.67	-17.61	64.28	36.21	0.04	10.42	QP
4		0.184	30.77	-23.51	54.28	20.31	0.04	10.42	Average
5		0.198	44.67	-19.04	63.71	34.20	0.05	10.42	QP
6		0.198	30.67	-23.04	53.71	20.20	0.05	10.42	Average
7		0.253	40.87	-20.77	61.64	30.50	-0.01	10.38	QP
8		0.253	26.97	-24.67	51.64	16.60	-0.01	10.38	Average
9		0.546	31.61	-24.39	56.00	21.49	-0.08	10.20	QP
10		0.546	20.31	-25.69	46.00	10.19	-0.08	10.20	Average
11		3.399	30.53	-25.47	56.00	20.59	-0.12	10.06	QP
12		3.399	21.43	-24.57	46.00	11.49	-0.12	10.06	Average

Note:

1. Level(dBμV) = Read Level(dBμV) + LISN Factor(dB) + Cable Loss(dB)
2. Over Limit(dB) = Level(dBμV) – Limit Line(dBμV)

Appendix B. Radiated Spurious Emission Test Data

Test Engineer :	Carry Xu	Relative Humidity :	41 ~ 42 %
		Temperature :	22 ~ 23 ℃

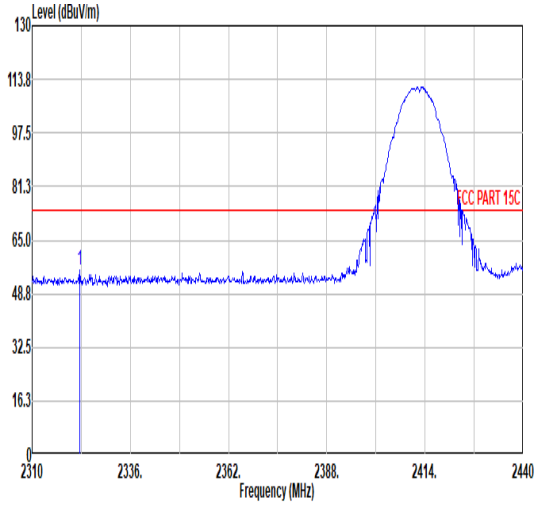
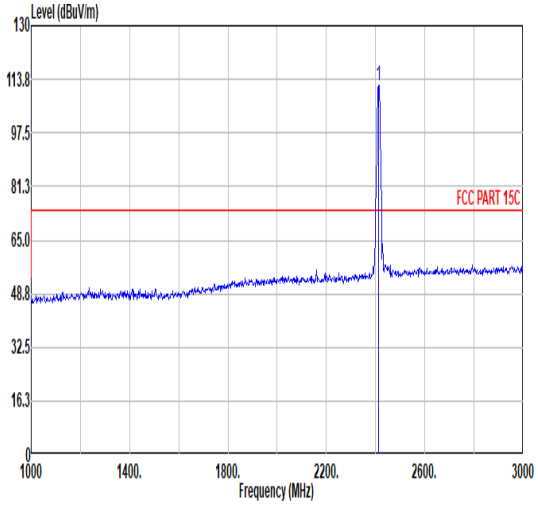
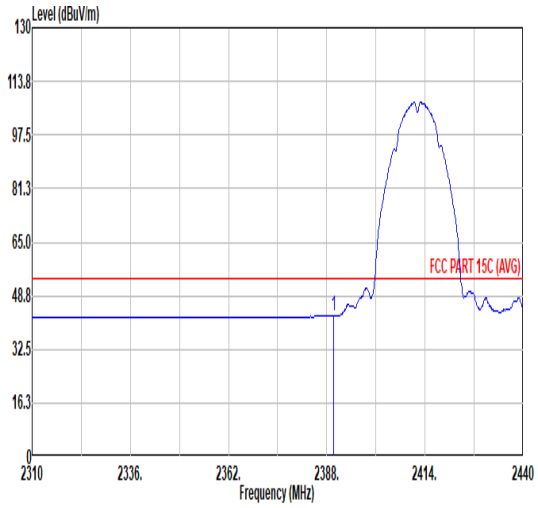
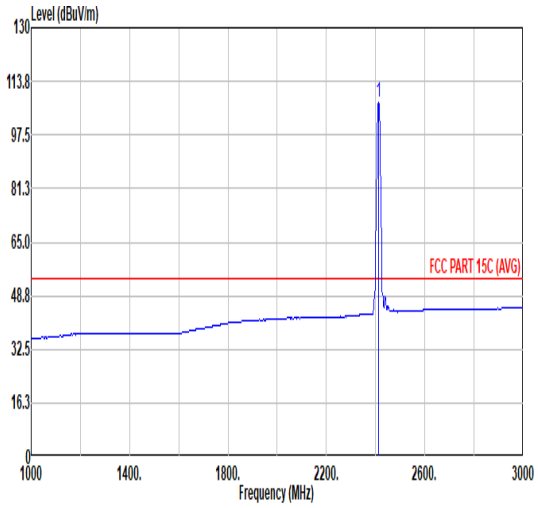
Radiated Spurious Emission Test Modes

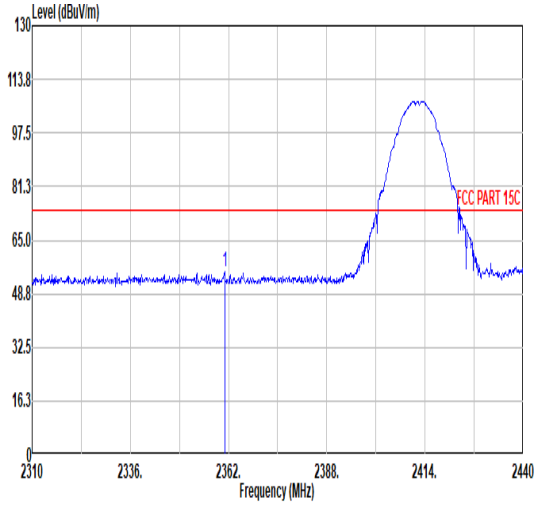
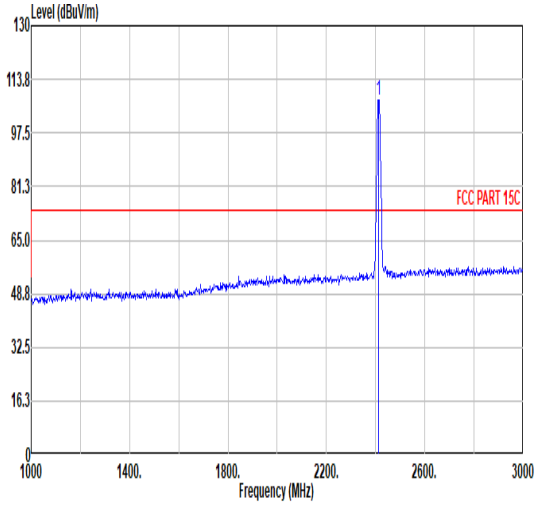
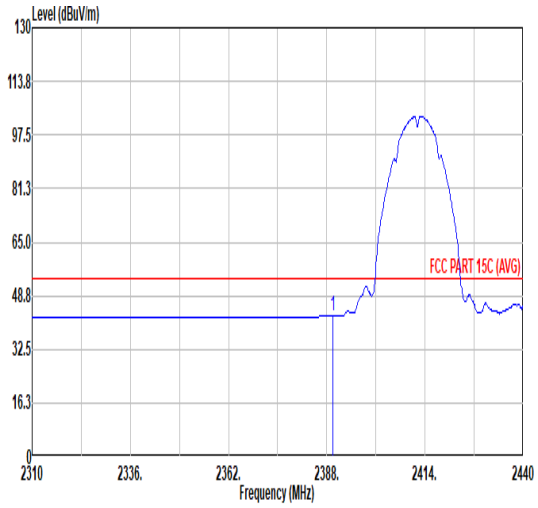
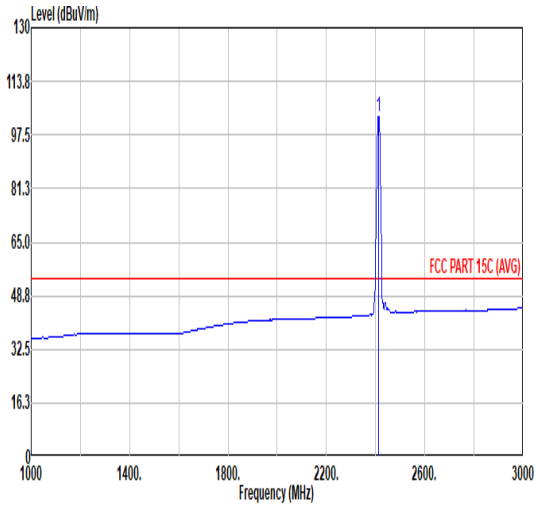
Mode	Band (MHz)	Antenna	Modulation	Channel	Frequency	Data Rate	RU	Remark
Mode 1	2400-2483.5	7+8	802.11b	01	2412	1Mbps	-	-
Mode 2	2400-2483.5	7+8	802.11b	06	2437	1Mbps	-	-
Mode 3	2400-2483.5	7+8	802.11b	11	2462	1Mbps	-	-
Mode 4	2400-2483.5	7+8	802.11g	01	2412	6Mbps	-	-
Mode 5	2400-2483.5	7+8	802.11g	06	2437	6Mbps	-	-
Mode 6	2400-2483.5	7+8	802.11g	11	2462	6Mbps	-	-
Mode 7	2400-2483.5	7+8	802.11ax HE20	01	2412	MCS0	-	-
Mode 8	2400-2483.5	7+8	802.11ax HE20	01	2412	MCS0	RU106/53	-
Mode 9	2400-2483.5	7+8	802.11ax HE20	06	2437	MCS0	-	-
Mode 10	2400-2483.5	7+8	802.11ax HE20	11	2462	MCS0	-	-
Mode 11	2400-2483.5	7+8	802.11ax HE20	11	2462	MCS0	RU106/54	-
Mode 12	2400-2483.5	7+8	802.11ax HE40	03	2422	MCS0	-	-
Mode 13	2400-2483.5	7+8	802.11ax HE40	03	2422	MCS0	RU242/61	-
Mode 14	2400-2483.5	7+8	802.11ax HE40	06	2437	MCS0	-	-
Mode 15	2400-2483.5	7+8	802.11ax HE40	09	2452	MCS0	-	-
Mode 16	2400-2483.5	7+8	802.11ax HE40	09	2452	MCS0	RU242/62	-
Mode 17	2400-2483.5	7+8	802.11ax HE40	06	2437	MCS0	-	Battery 2
Mode 18	2400-2483.5	7+8	802.11ax HE40	06	2437	MCS0	-	Battery 3
Mode 19	2400-2483.5	7+8	802.11ax HE40	06	2437	MCS0	-	Sample 2
Mode 20	2400-2483.5	7+8	802.11ax HE40	06	2437	MCS0	-	LF

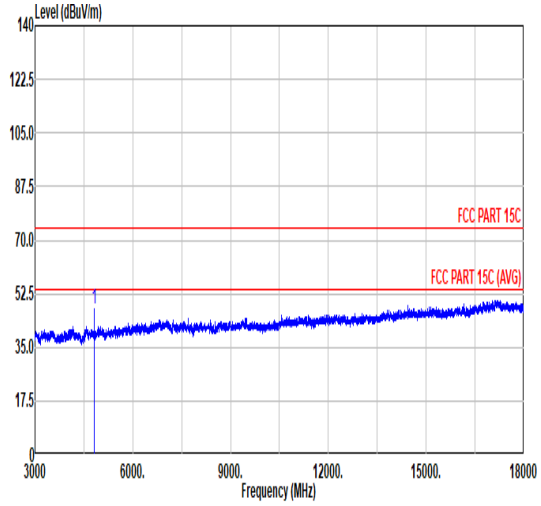
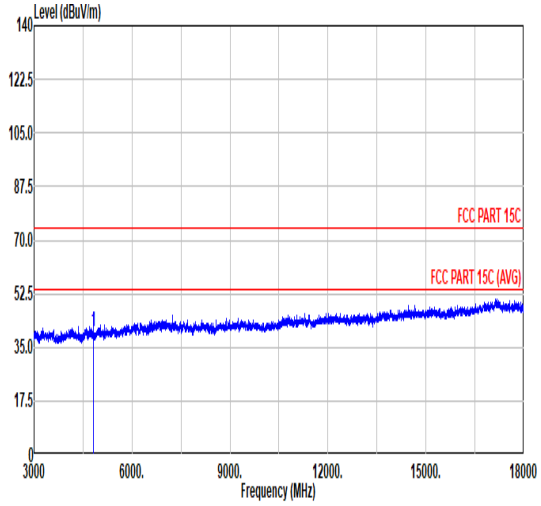
Summary of each worse mode

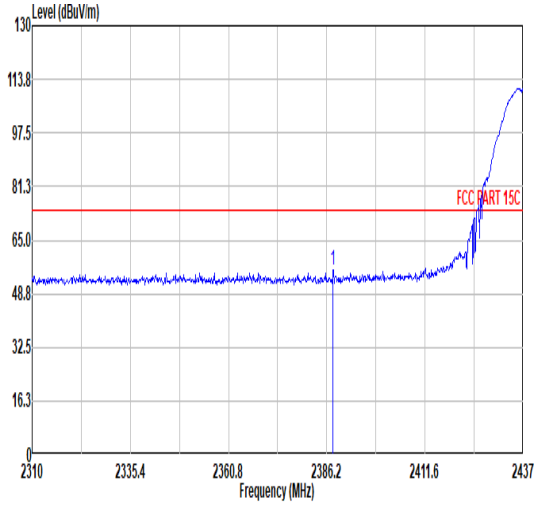
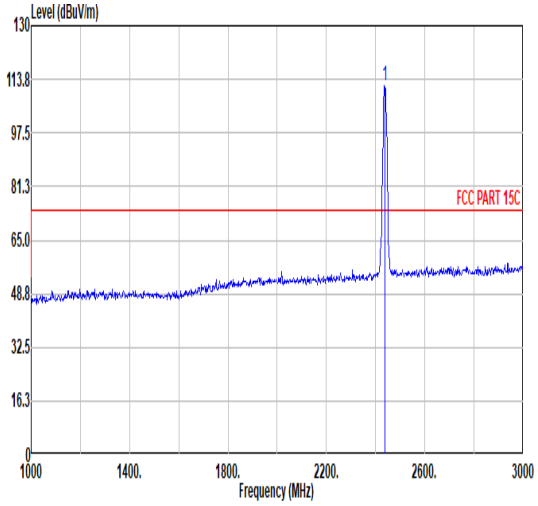
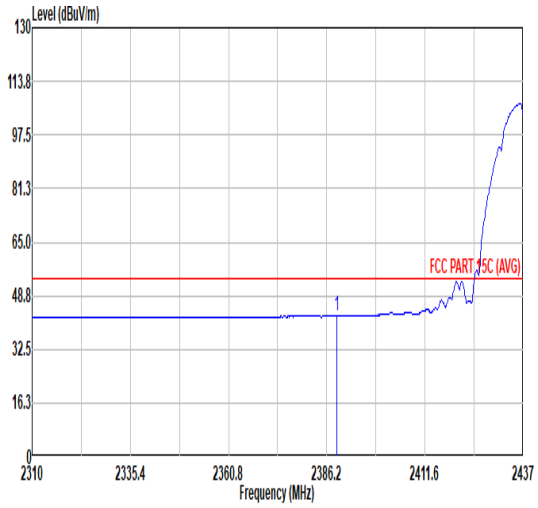
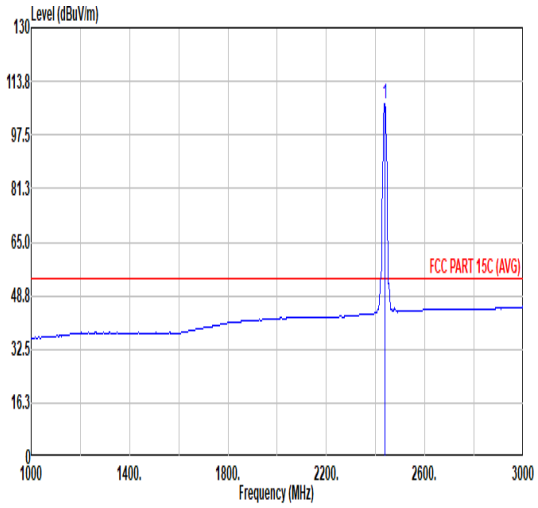
Mode	Modulation	Ch.	Freq. (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol.	Peak Avg.	Result	Remark
1	802.11b	01	2389.82	42.87	54.00	-11.13	H	AVERAGE	Pass	Band Edge
1	802.11b	01	4824.00	47.36	74.00	-26.64	H	PEAK	Pass	Harmonic
2	802.11b	06	2484.75	43.40	54.00	-10.60	H	AVERAGE	Pass	Band Edge
2	802.11b	06	4874.00	47.68	74.00	-26.32	V	Peak	Pass	Harmonic
3	802.11b	11	2487.65	44.83	54.00	-9.17	H	AVERAGE	Pass	Band Edge
3	802.11b	11	4924.00	48.73	74.00	-25.27	V	Peak	Pass	Harmonic
4	802.11g	01	2389.95	50.74	54.00	-3.26	V	AVERAGE	Pass	Band Edge
4	802.11g	01	4824.00	44.06	74.00	-29.94	H	PEAK	Pass	Harmonic
5	802.11g	06	2483.56	47.84	54.00	-6.16	H	AVERAGE	Pass	Band Edge
5	802.11g	06	7311.00	46.95	74.00	-27.05	H	PEAK	Pass	Harmonic
6	802.11g	11	2483.51	52.04	54.00	-1.96	H	AVERAGE	Pass	Band Edge
6	802.11g	11	7386.00	45.61	74.00	-28.39	H	PEAK	Pass	Harmonic
7	802.11ax HE20	01	2389.95	52.33	54.00	-1.67	H	AVERAGE	Pass	Band Edge
7	802.11ax HE20	01	4824.00	43.00	74.00	-31.00	H	PEAK	Pass	Harmonic
8	802.11ax HE20	01	2389.82	67.51	74.00	-6.49	H	PEAK	Pass	Band Edge
8	802.11ax HE20	01	-	-	-	-	-	-	-	Harmonic
9	802.11ax HE20	06	2483.56	51.44	54.00	-2.56	H	AVERAGE	Pass	Band Edge
9	802.11ax HE20	06	7311.00	47.45	74.00	-26.55	V	PEAK	Pass	Harmonic
10	802.11ax HE20	11	2483.51	52.47	54.00	-1.53	H	AVERAGE	Pass	Band Edge
10	802.11ax HE20	11	7386.00	46.75	74.00	-27.25	V	PEAK	Pass	Harmonic
11	802.11ax HE20	11	2483.62	67.92	74.00	-6.08	H	PEAK	Pass	Band Edge
11	802.11ax HE20	11	-	-	-	-	-	-	-	Harmonic

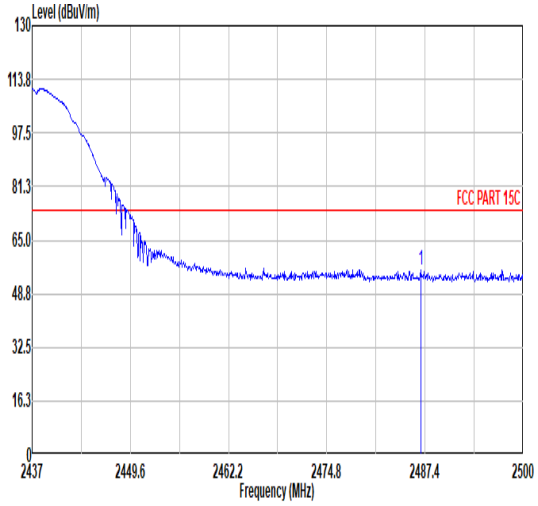
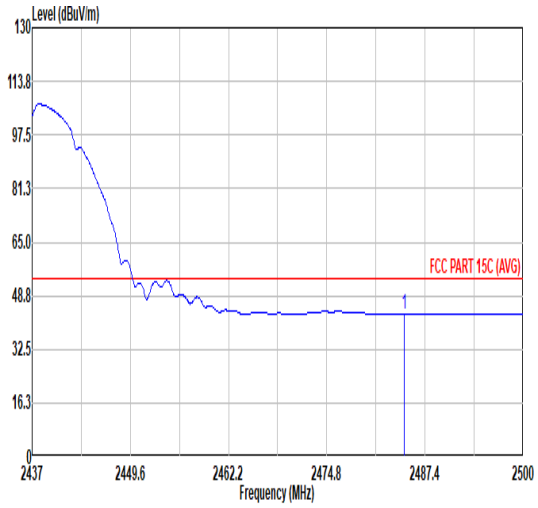
Mode	Modulation	Ch.	Freq. (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol.	Peak Avg.	Result	Remark
12	802.11ax HE40	03	2389.97	49.66	54.00	-4.34	H	AVERAGE	Pass	Band Edge
12	802.11ax HE40	03	7266.00	44.34	74.00	-29.66	V	PEAK	Pass	Harmonic
13	802.11ax HE40	03	2388.51	67.51	74.00	-6.49	H	PEAK	Pass	Band Edge
13	802.11ax HE40	03	-	-	-	-	-	-	-	Harmonic
14	802.11ax HE40	06	2487.40	52.82	54.00	-1.18	H	AVERAGE	Pass	Band Edge
14	802.11ax HE40	06	7311.00	44.90	74.00	-29.10	V	PEAK	Pass	Harmonic
15	802.11ax HE40	09	2483.54	50.39	54.00	-3.61	V	AVERAGE	Pass	Band Edge
15	802.11ax HE40	09	7356.00	43.00	74.00	-31.00	H	PEAK	Pass	Harmonic
16	802.11ax HE40	09	2487.66	72.32	74.00	-1.68	H	PEAK	Pass	Band Edge
16	802.11ax HE40	09	-	-	-	-	-	-	-	Harmonic
17	802.11ax HE40	06	2485.45	49.87	54.00	-4.13	H	AVERAGE	Pass	Band Edge
17	802.11ax HE40	06	7311.00	45.20	74.00	-28.80	H	PEAK	Pass	Harmonic
18	802.11ax HE40	06	2483.56	51.75	54.00	-2.25	V	AVERAGE	Pass	Band Edge
18	802.11ax HE40	06	7311.00	43.57	74.00	-30.43	V	PEAK	Pass	Harmonic
19	802.11ax HE40	06	2483.56	48.56	54.00	-5.44	H	AVERAGE	Pass	Band Edge
	802.11ax HE40	06	7311.00	43.52	74.00	-30.48	V	PEAK	Pass	Harmonic
20	802.11ax HE40	06	39.70	33.81	40.00	-6.19	V	Peak	Pass	LF

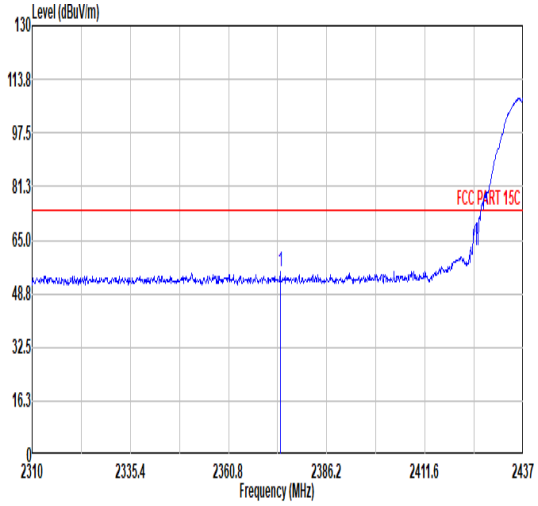
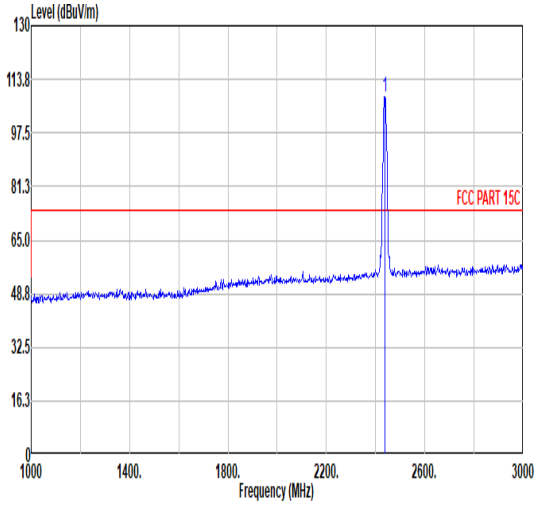
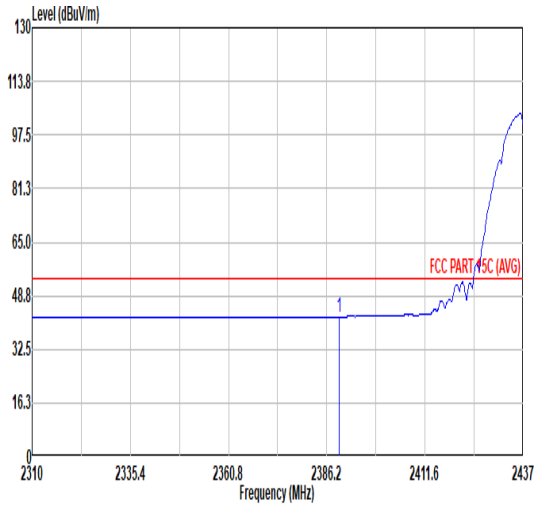
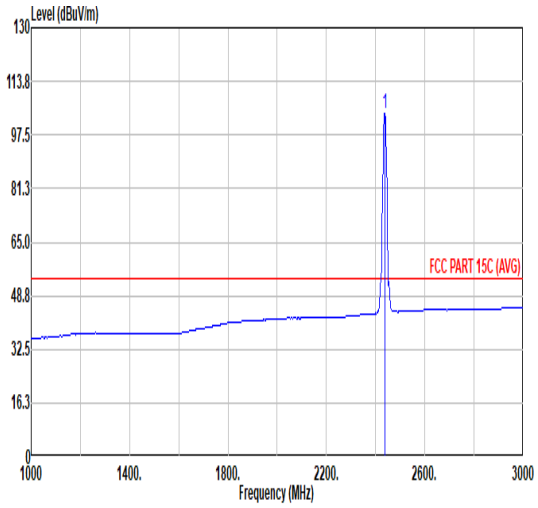
Mode	1	
	Band Edge	
	2400-2483.5_802.11b_CH01_2412MHz	
ANT	7+8	
Pol.	Horizontal	Fundamental
Peak	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2322.61 55.74 74.00 -18.26 41.84 31.83 7.01 30.94 6.00 100 130 PEAK	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2412.00 111.80 74.00 37.80 97.48 32.02 7.15 30.85 6.00 100 130 PEAK
Avg	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2389.82 42.87 54.00 -11.13 28.67 31.98 7.11 30.89 6.00 100 130 AVERAGE	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2412.00 107.21 54.00 53.21 92.89 32.02 7.15 30.85 6.00 100 130 AVERAGE

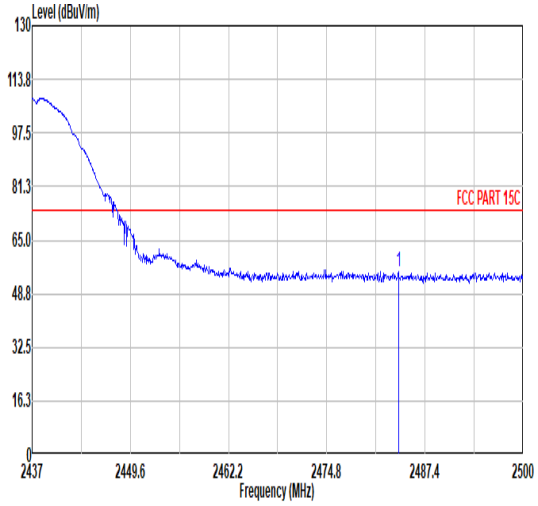
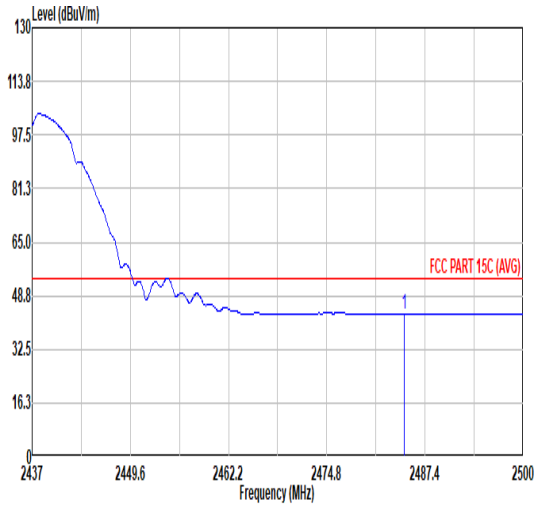
Mode	1	
	Band Edge	
	2400-2483.5_802.11b_CH01_2412MHz	
ANT	7+8	
Pol.	Vertical	Fundamental
Peak	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2360.96 55.62 74.00 -18.38 41.55 31.91 7.07 30.91 6.00 100 20 PEAK	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2412.00 107.67 74.00 33.67 93.35 32.02 7.15 30.85 6.00 100 20 PEAK
Avg	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2389.56 42.69 54.00 -11.31 28.49 31.98 7.11 30.89 6.00 100 20 AVERAGE	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2412.00 103.23 54.00 49.23 88.91 32.02 7.15 30.85 6.00 100 20 AVERAGE

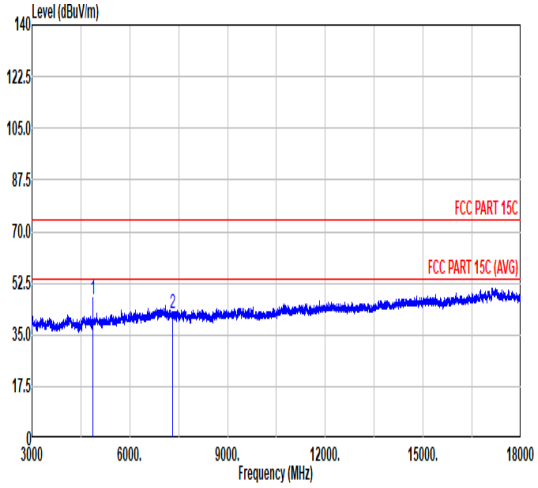
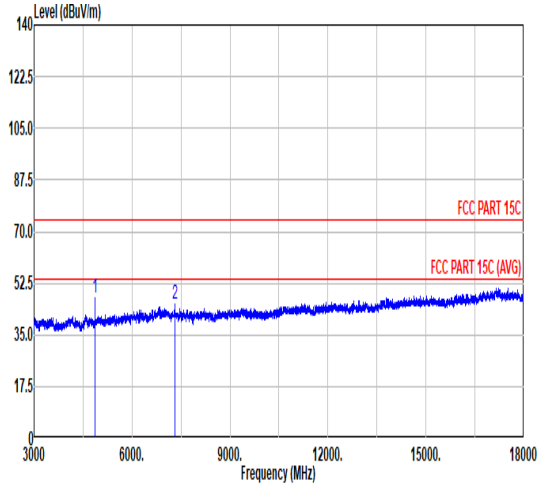
Mode	1	
	Harmonic	
	2400-2483.5_802.11b_CH01_2412MHz	
ANT	7+8	
Pol.	Horizontal	Vertical
Peak Avg	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 4824.00 47.36 74.00 -26.64 66.21 34.10 12.48 65.43 0.00 100 0 PEAK	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 4824.00 40.16 74.00 -33.84 59.01 34.10 12.48 65.43 0.00 300 0 PEAK

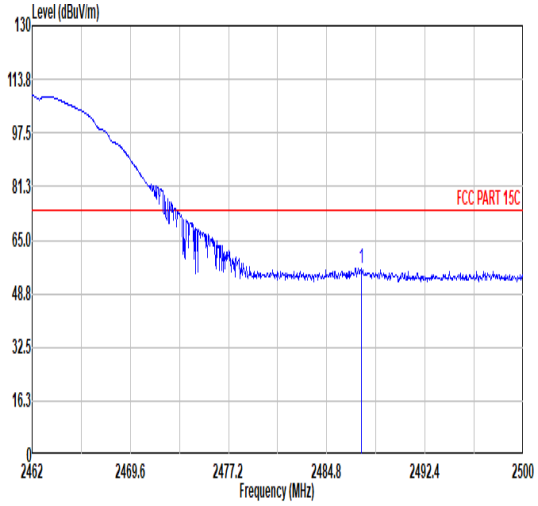
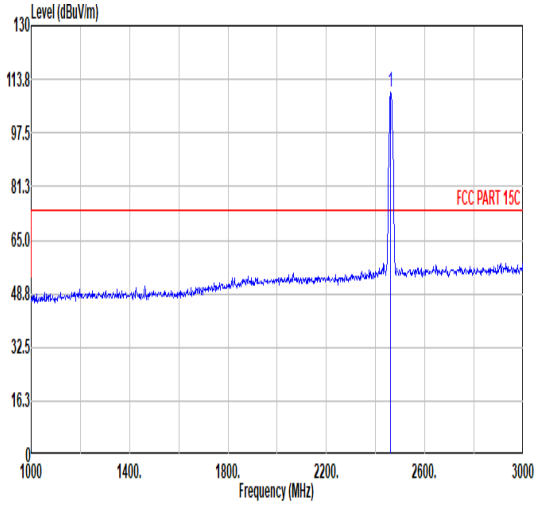
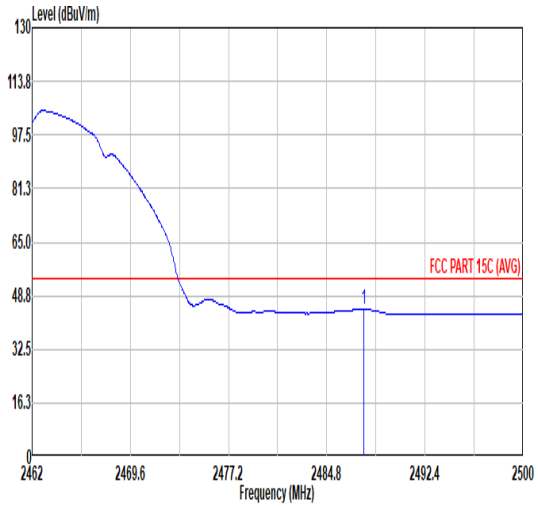
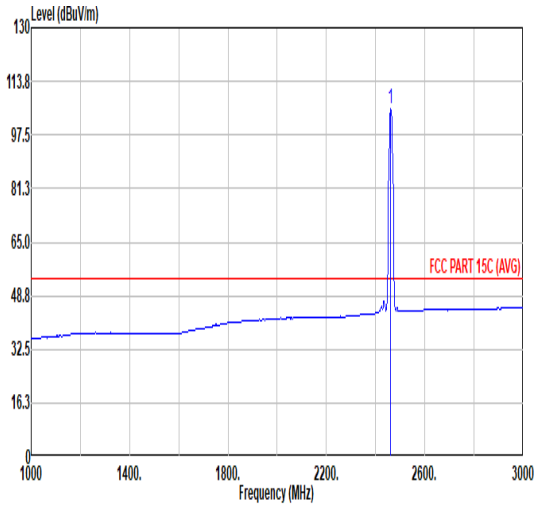
Mode	2	
	Band Edge - L	
	2400-2483.5_802.11b_CH06_2437MHz	
ANT	7+8	
Pol.	Horizontal	Fundamental
Peak	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2387.85 55.80 74.00 -18.20 41.61 31.97 7.11 30.89 6.00 100 142 PEAK	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2437.00 111.66 74.00 37.66 97.19 32.05 7.20 30.78 6.00 100 142 PEAK
Avg	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2388.87 42.59 54.00 -11.41 28.39 31.98 7.11 30.89 6.00 100 142 AVERAGE	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2437.00 106.95 54.00 52.95 92.48 32.05 7.20 30.78 6.00 100 142 AVERAGE

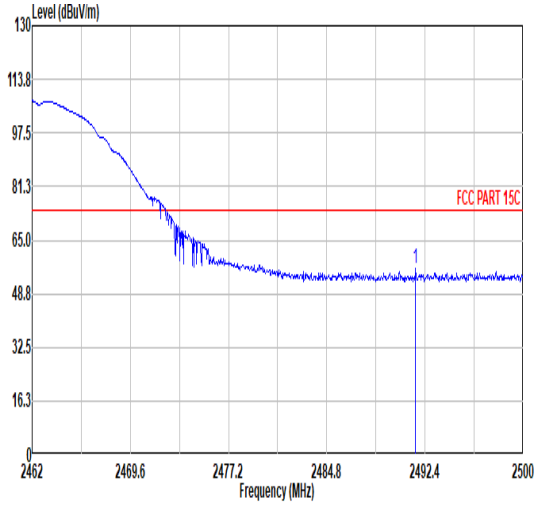
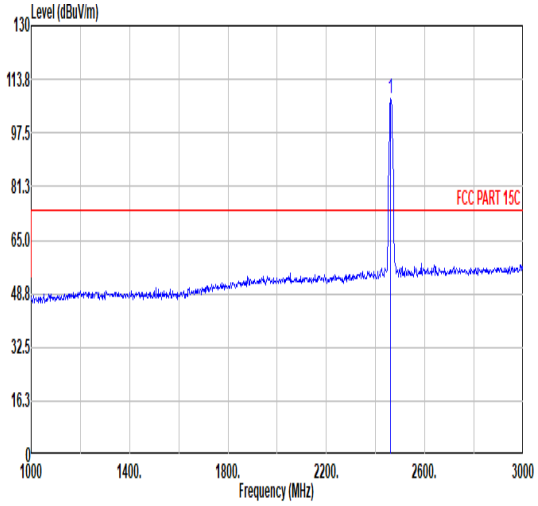
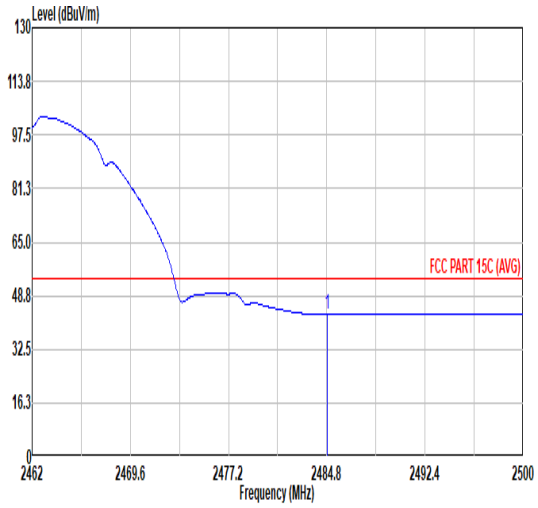
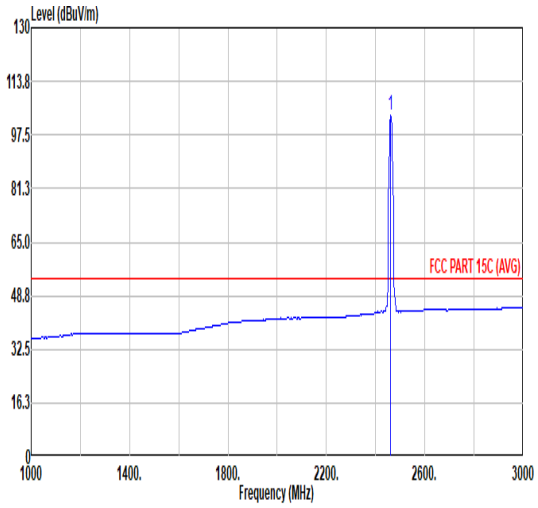
Mode	2	
	Band Edge - R	
	2400-2483.5_802.11b_CH06_2437MHz	
ANT	7+8	
Pol.	Horizontal	Fundamental
Peak	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2486.83 55.91 74.00 -18.09 41.13 32.13 7.29 30.64 6.00 100 142 PEAK	Blank
Avg	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2484.75 43.40 54.00 -10.60 28.62 32.13 7.29 30.64 6.00 100 142 AVERAGE	Blank

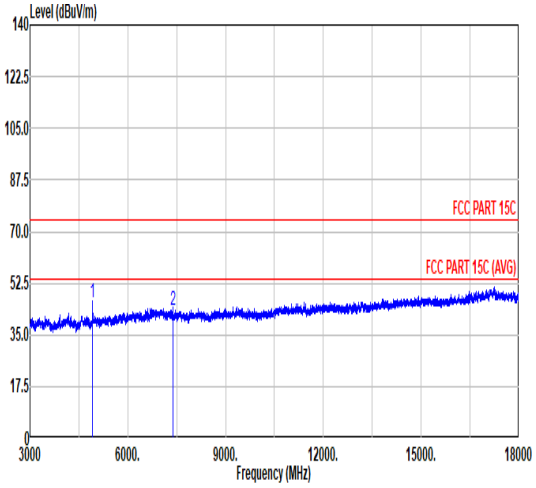
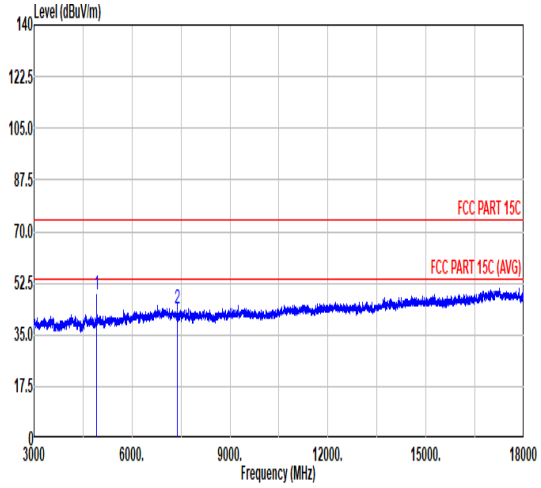
Mode	2	
	Band Edge - L	
	2400-2483.5_802.11b_CH06_2437MHz	
ANT	7+8	
Pol.	Vertical	Fundamental
Peak	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2374.14 55.33 74.00 -18.67 41.20 31.94 7.09 30.90 6.00 295 292 PEAK	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2437.00 108.53 74.00 34.53 94.06 32.05 7.20 30.78 6.00 295 292 PEAK
Avg	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2389.50 42.42 54.00 -11.58 28.22 31.98 7.11 30.89 6.00 295 292 AVERAGE	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2437.00 103.78 54.00 49.78 89.31 32.05 7.20 30.78 6.00 295 292 AVERAGE

Mode	2	
	Band Edge - R	
	2400-2483.5_802.11b_CH06_2437MHz	
ANT	7+8	
Pol.	Vertical	Fundamental
Peak	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2484.00 55.49 74.00 -18.51 40.71 32.13 7.29 30.64 6.00 295 292 PEAK	Blank
Avg	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2484.69 43.28 54.00 -10.72 28.50 32.13 7.29 30.64 6.00 295 292 AVERAGE	Blank

Mode	2	
	Harmonic	
	2400-2483.5_802.11b_CH06_2437MHz	
ANT	7+8	
Pol.	Horizontal	Vertical
Peak Avg	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 4874.00 47.24 74.00 -26.76 66.29 34.10 12.29 65.44 0.00 100 0 PEAK 2 7311.00 42.29 74.00 -31.71 57.01 35.80 14.73 65.25 0.00 100 0 PEAK	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 4874.00 47.68 74.00 -26.32 66.73 34.10 12.29 65.44 0.00 100 113 Peak 2 7311.00 45.23 74.00 -28.77 59.95 35.80 14.73 65.25 0.00 100 312 Peak

Mode	3	
	Band Edge	
	2400-2483.5_802.11b_CH11_2462MHz	
ANT	7+8	
Pol.	Horizontal	Fundamental
Peak	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2487.46 56.59 74.00 -17.41 41.80 32.13 7.30 30.64 6.00 141 137 PEAK	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2462.00 109.85 74.00 35.85 95.22 32.09 7.25 30.71 6.00 141 137 PEAK
Avg	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2487.65 44.83 54.00 -9.17 30.03 32.13 7.30 30.63 6.00 141 137 AVERAGE	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2462.00 105.26 54.00 51.26 90.63 32.09 7.25 30.71 6.00 141 137 AVERAGE

Mode	3	
	Band Edge	
	2400-2483.5_802.11b_CH11_2462MHz	
ANT	7+8	
Pol.	Vertical	Fundamental
Peak	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2491.68 56.48 74.00 -17.52 41.66 32.14 7.30 30.62 6.00 103 13 PEAK	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2462.00 108.16 74.00 34.16 93.53 32.09 7.25 30.71 6.00 103 13 PEAK
Avg	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2484.84 43.39 54.00 -10.61 28.61 32.13 7.29 30.64 6.00 103 13 AVERAGE	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2462.00 103.49 54.00 49.49 88.86 32.09 7.25 30.71 6.00 103 13 AVERAGE

Mode	3	
	Harmonic	
	2400-2483.5_802.11b_CH11_2462MHz	
ANT	7+8	
Pol.	Horizontal	Vertical
Peak Avg	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 4924.00 45.77 74.00 -28.23 64.89 34.10 12.22 65.44 0.00 100 0 PEAK 2 7386.00 43.17 74.00 -30.83 57.88 35.80 14.78 65.29 0.00 100 0 PEAK	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 4924.00 48.73 74.00 -25.27 67.85 34.10 12.22 65.44 0.00 100 126 Peak 2 7386.00 43.81 74.00 -30.19 58.52 35.80 14.78 65.29 0.00 300 0 Peak