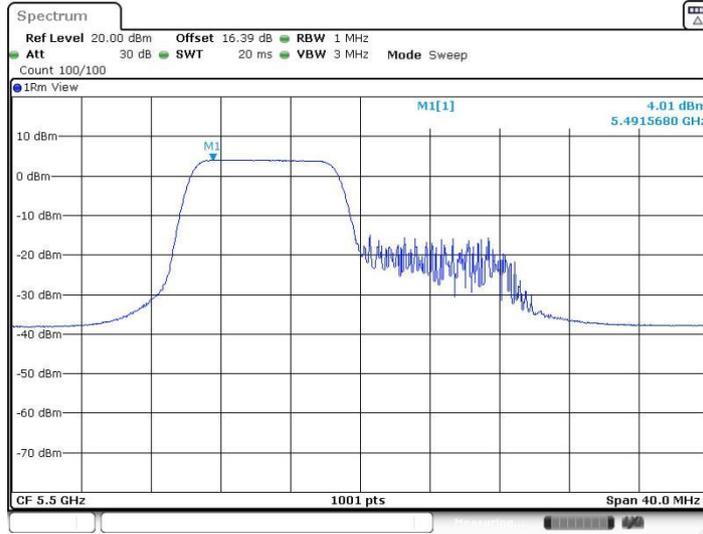


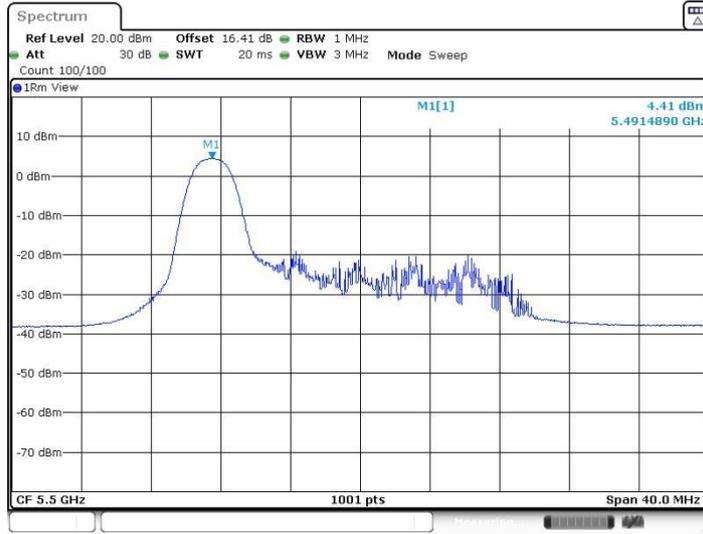


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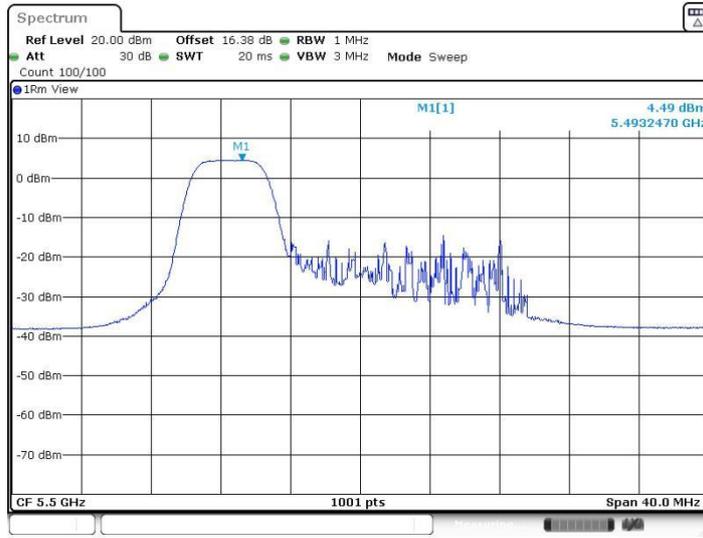
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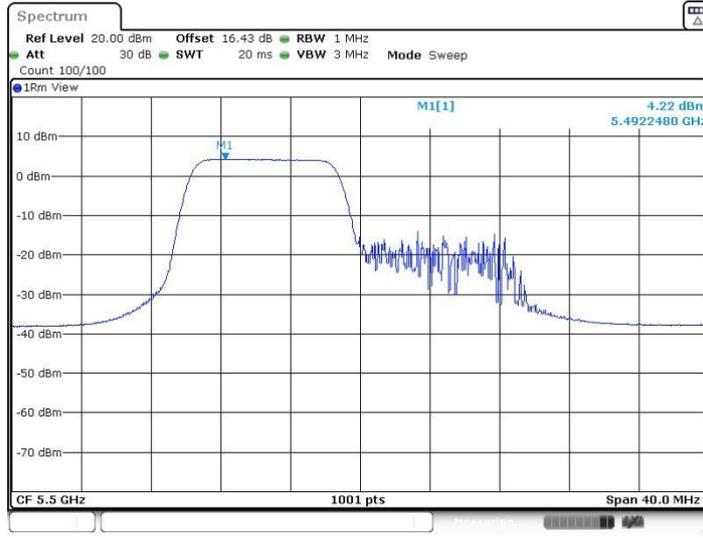


11AX20MIMO_Ant2_5500_52Tone_RU37



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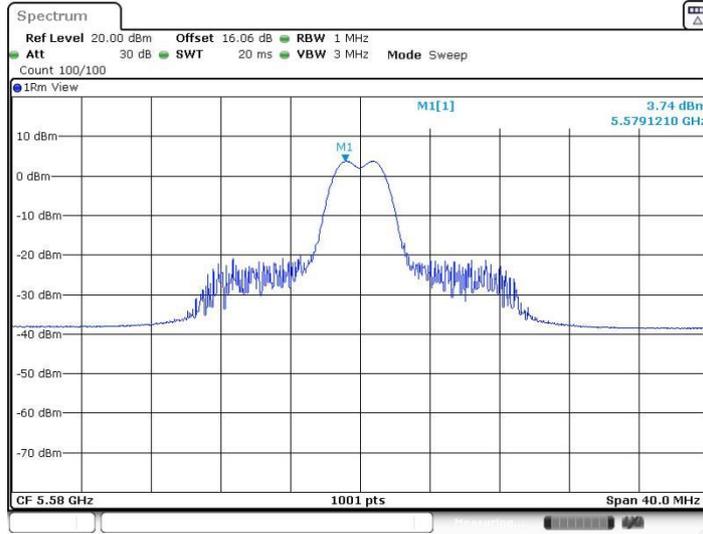
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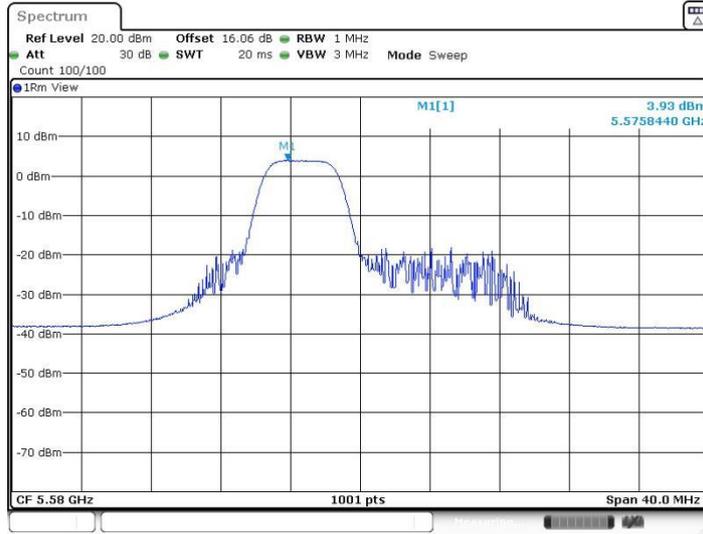


11AX20MIMO_Ant1_5580_26Tone_RU4



Date: 29.JUN.2022 04:06:09

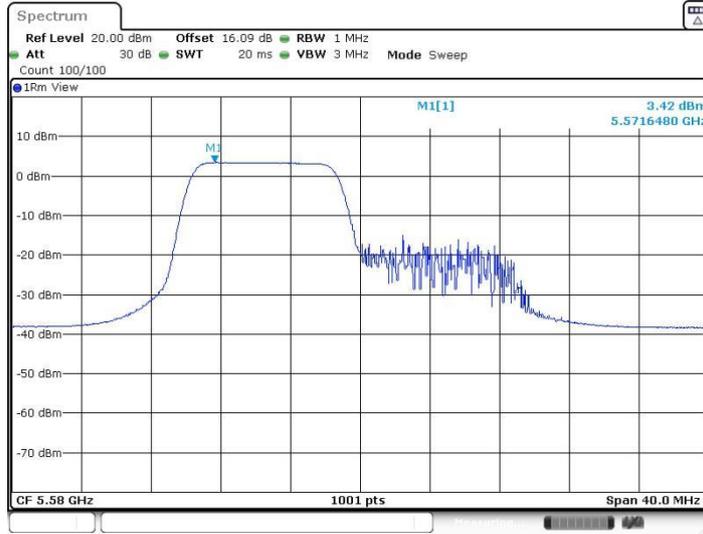
11AX20MIMO_Ant1_5580_52Tone_RU38



Date: 29.JUN.2022 04:03:00

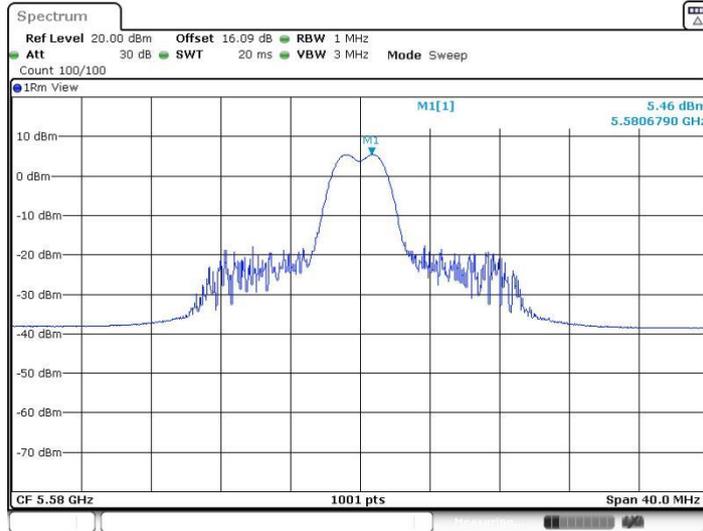


11AX20MIMO_Ant1_5580_106Tone_RU53



Date: 29.JUN.2022 03:50:10

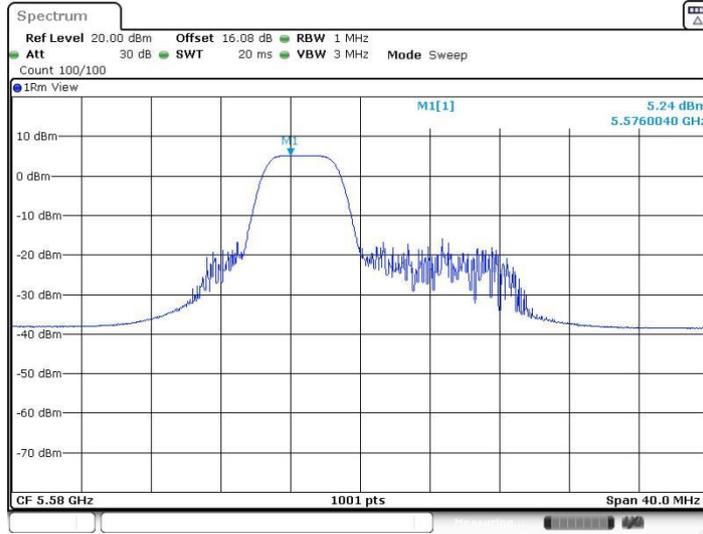
11AX20MIMO_Ant2_5580_26Tone_RU4



Date: 29.JUN.2022 04:06:20

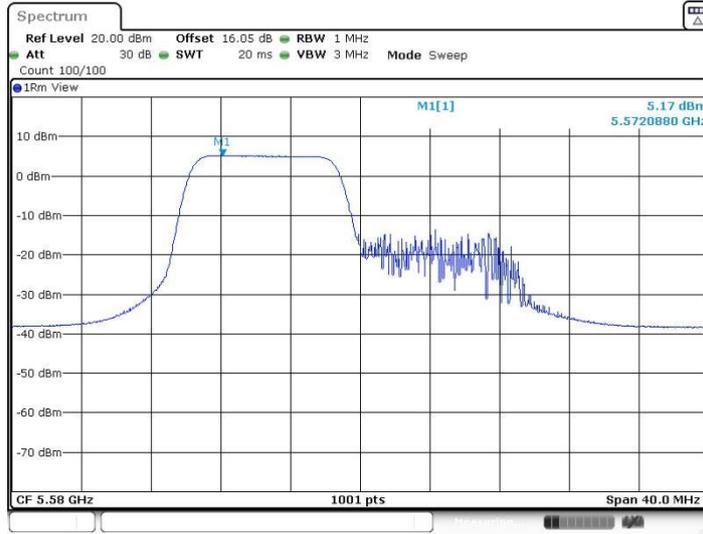


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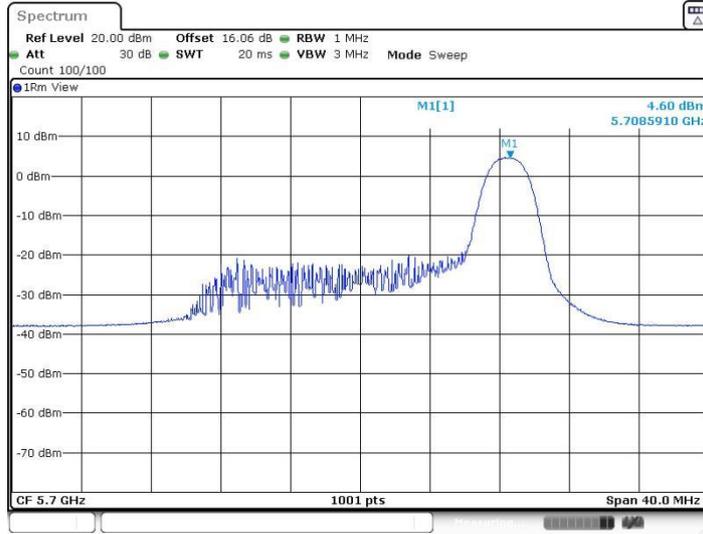
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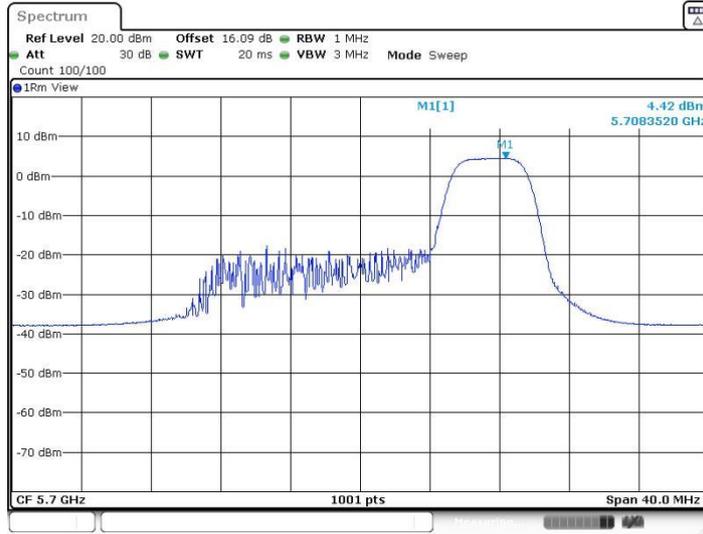


11AX20MIMO_Ant1_5700_26Tone_RU8



Date: 29.JUN.2022 04:07:46

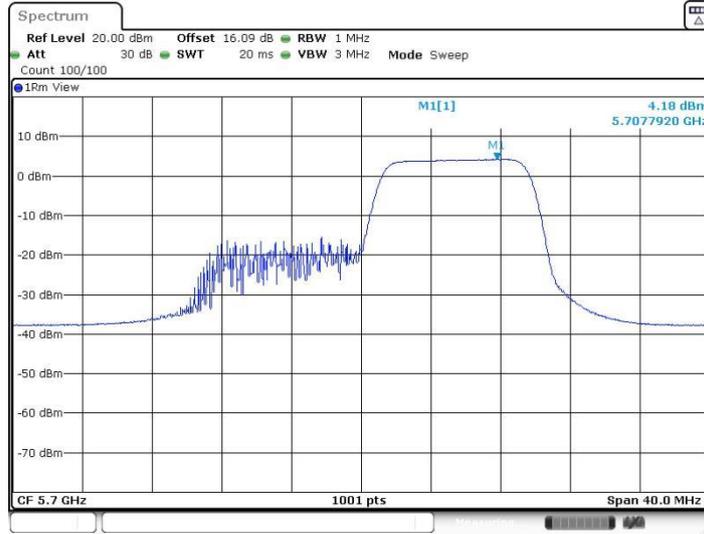
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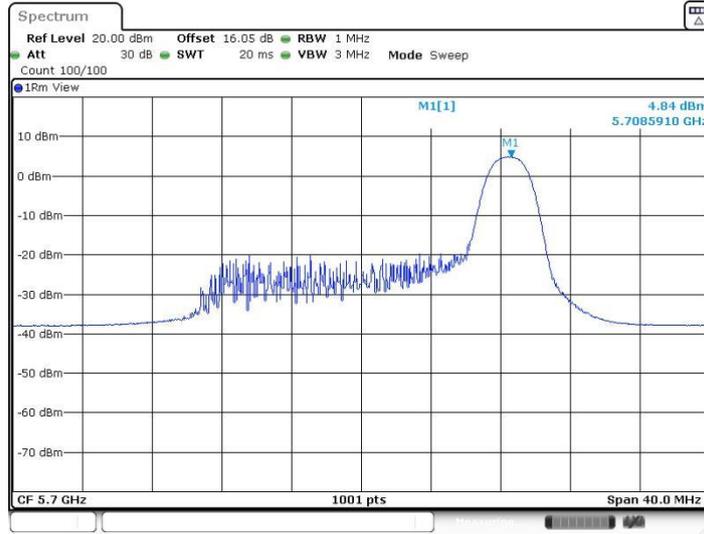


11AX20MIMO_Ant1_5700_106Tone_RU54



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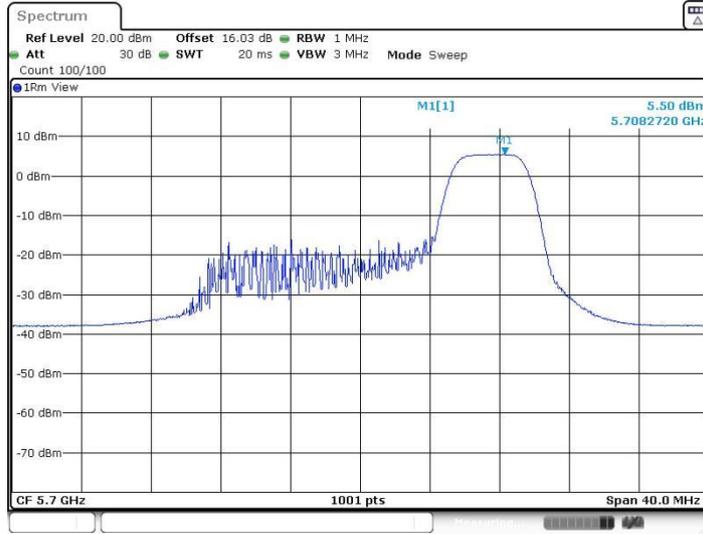
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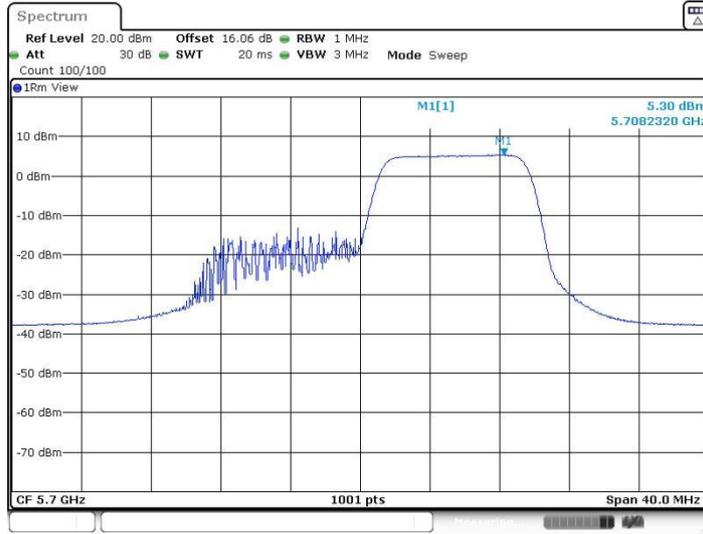


11AX20MIMO_Ant2_5700_52Tone_RU40



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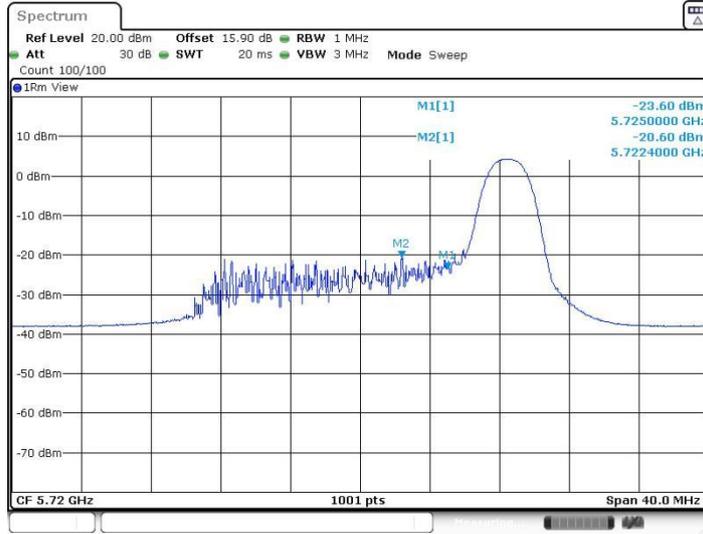
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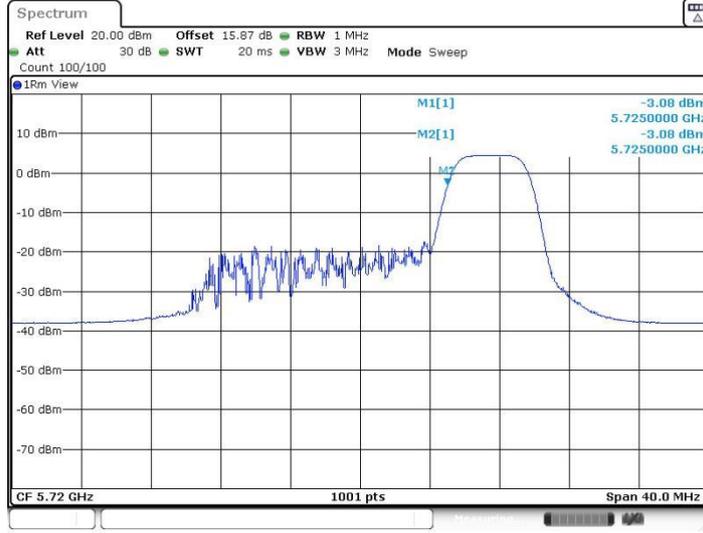


11AX20MIMO_Ant1_5720_UNII-2C_26Tone_RU8



Date: 29.JUN.2022 04:20:58

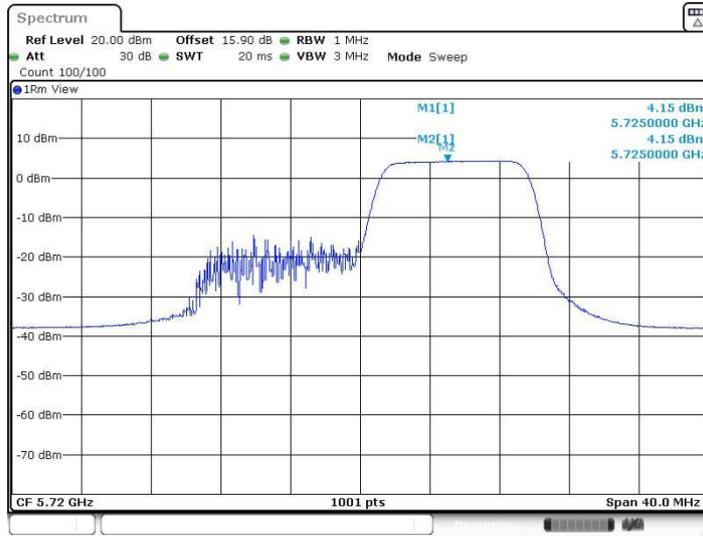
11AX20MIMO_Ant1_5720_UNII-2C_52Tone_RU40



Date: 29.JUN.2022 04:17:43

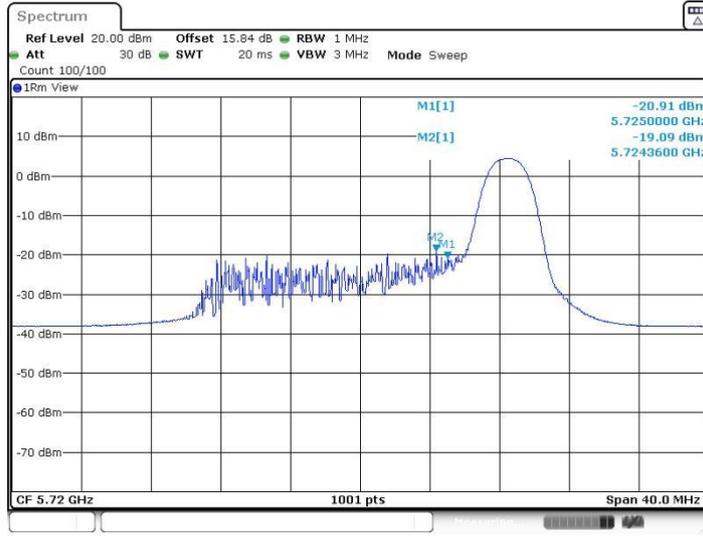


11AX20MIMO_Ant1_5720_UNII-2C_106Tone_RU54

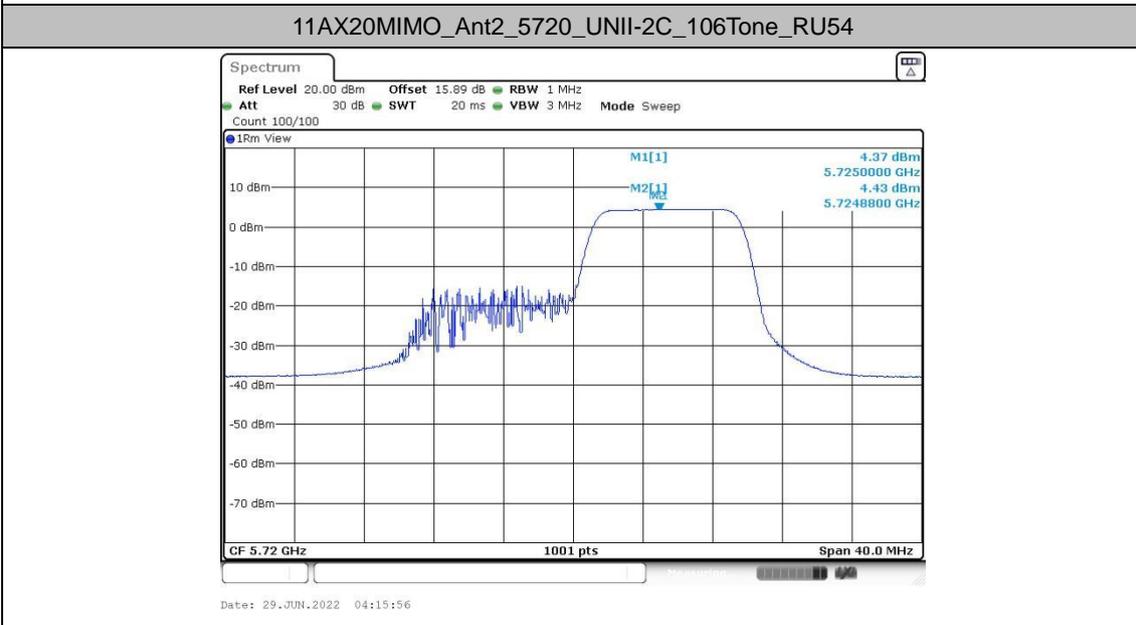
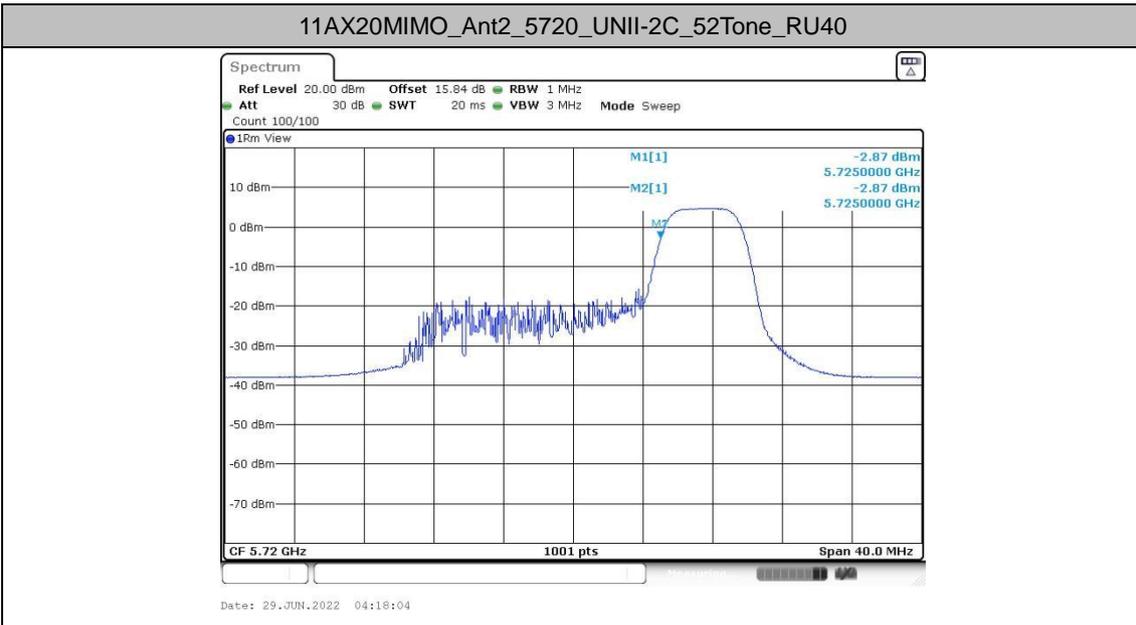


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11AX20MIMO_Ant2_5720_UNII-2C_26Tone_RU8

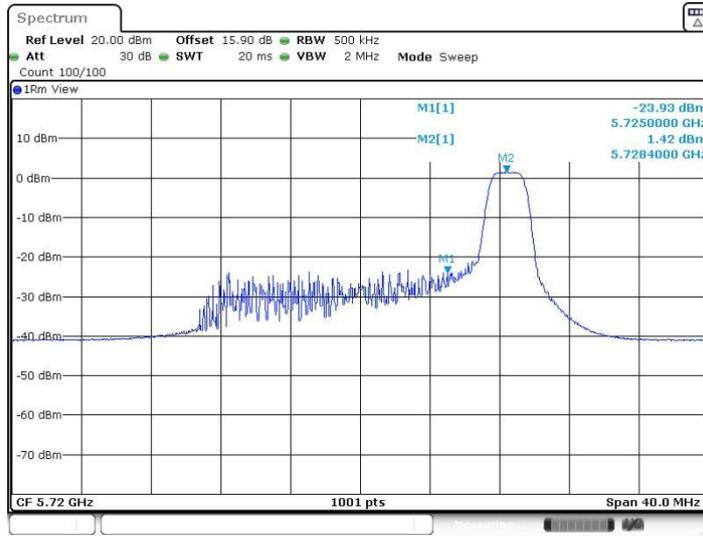


Date: 29.JUN.2022 04:21:19



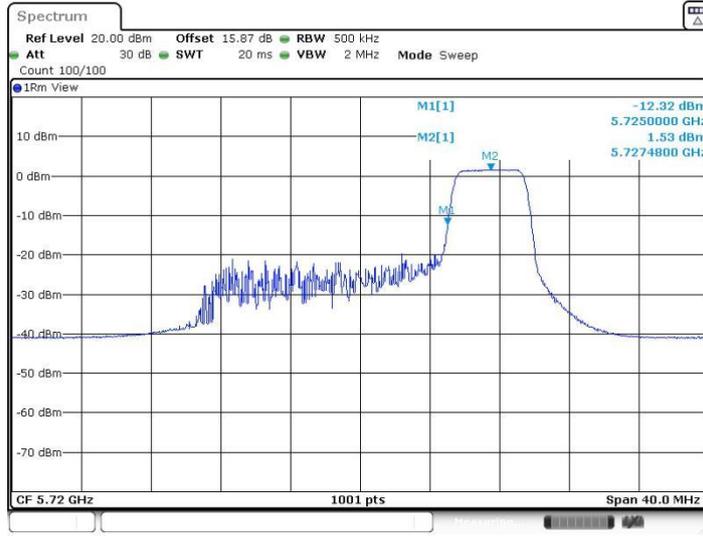


11AX20MIMO_Ant1_5720_UNII-3_26Tone_RU8



Date: 29.JUN.2022 04:21:08

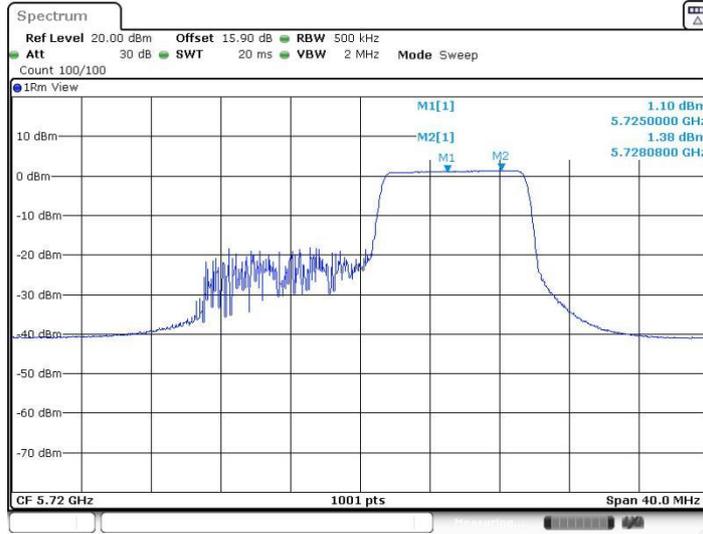
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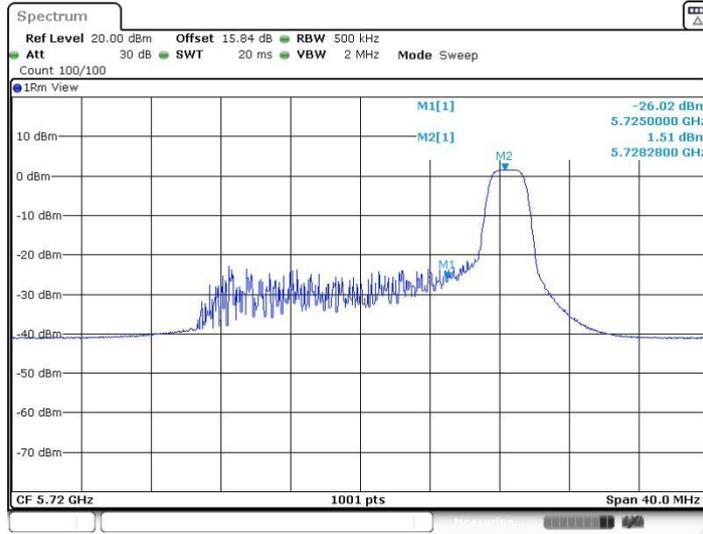


11AX20MIMO_Ant1_5720_UNII-3_106Tone_RU54



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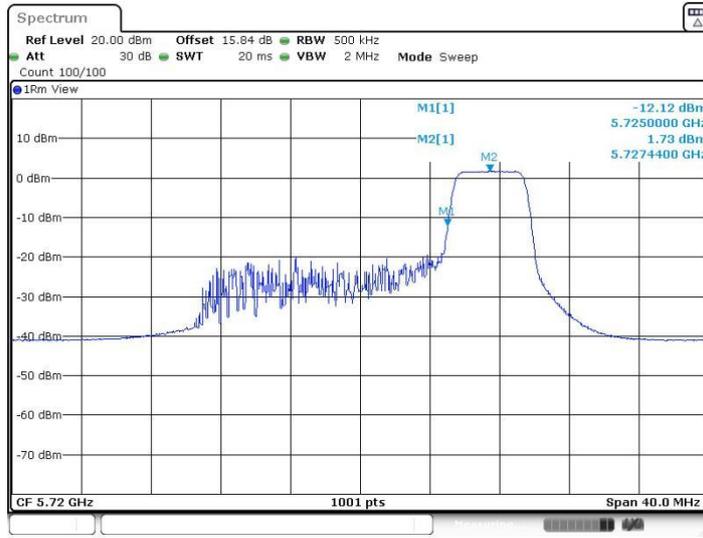
11AX20MIMO_Ant2_5720_UNII-3_26Tone_RU8



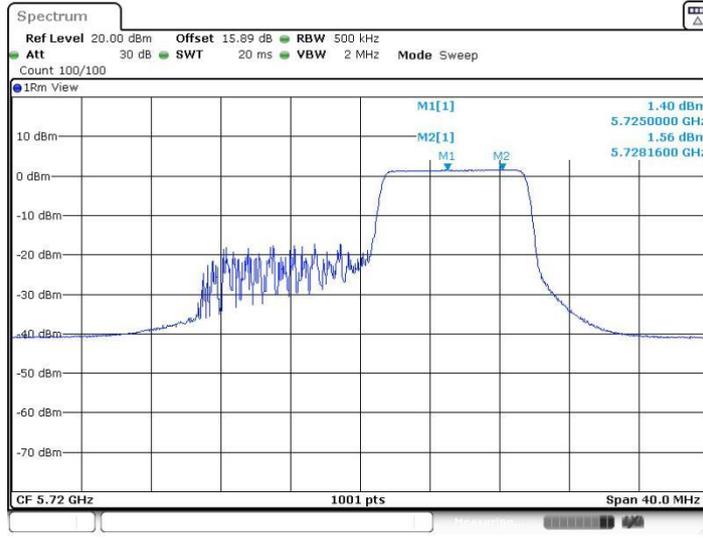
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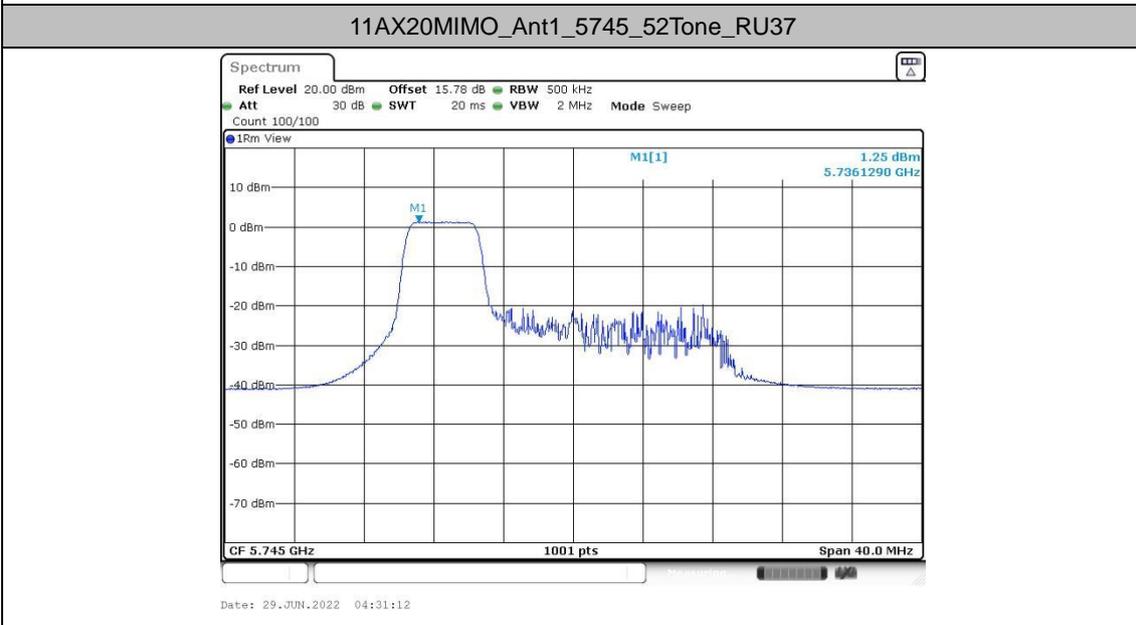
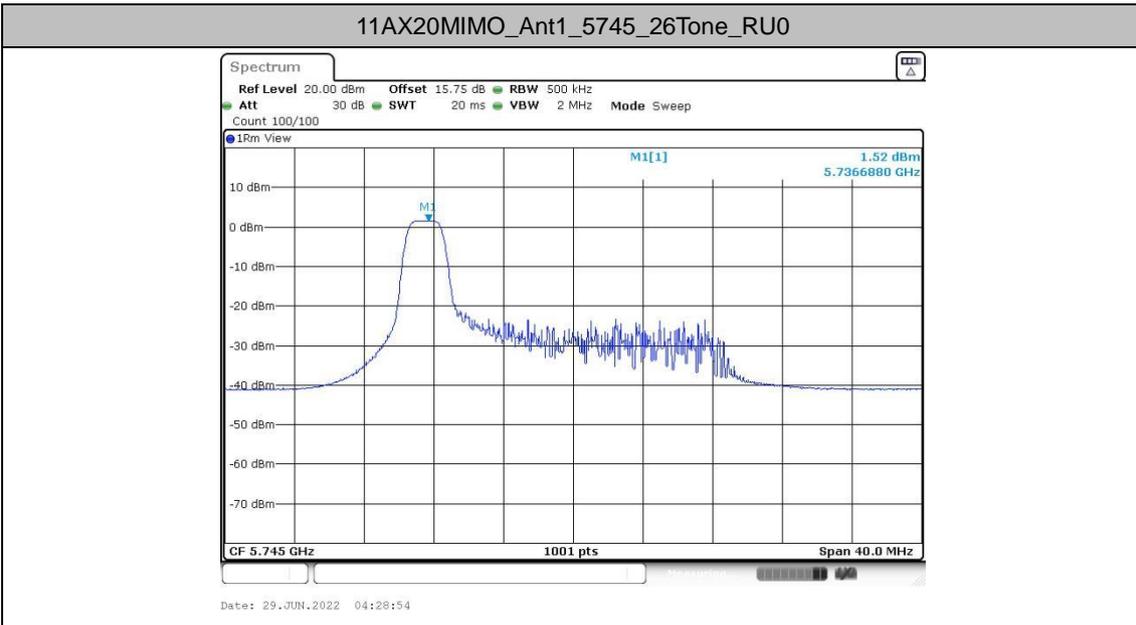


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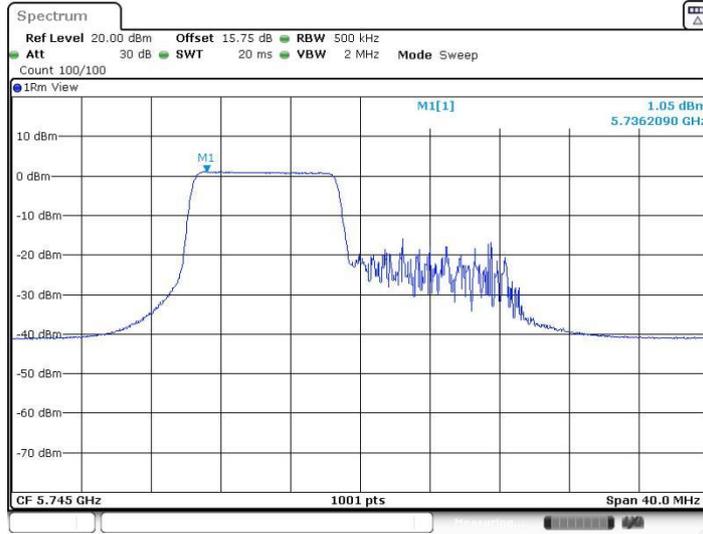
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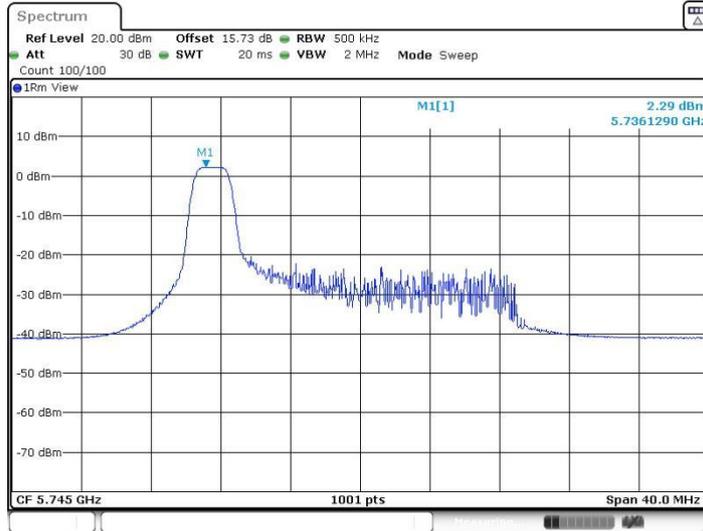


11AX20MIMO_Ant1_5745_106Tone_RU53



Date: 29.JUN.2022 04:32:10

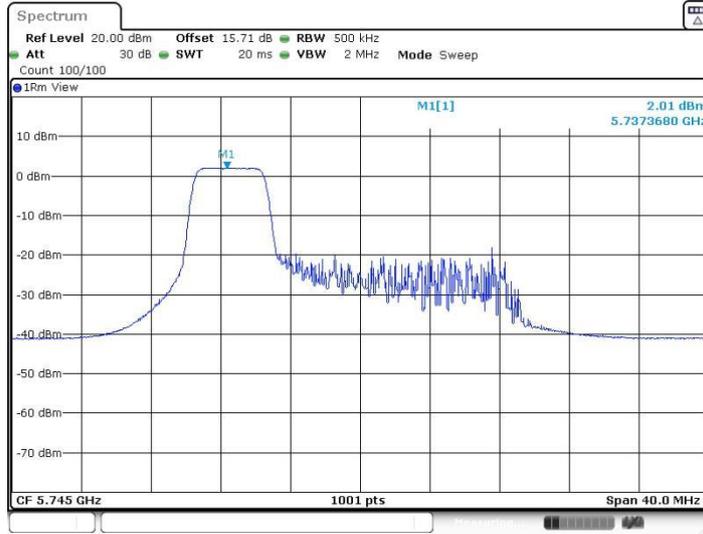
11AX20MIMO_Ant2_5745_26Tone_RU0



Date: 29.JUN.2022 04:29:38

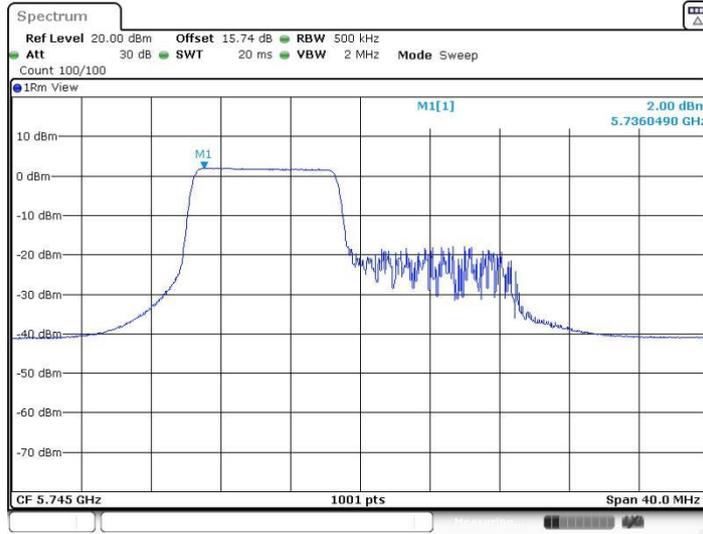


11AX20MIMO_Ant2_5745_52Tone_RU37

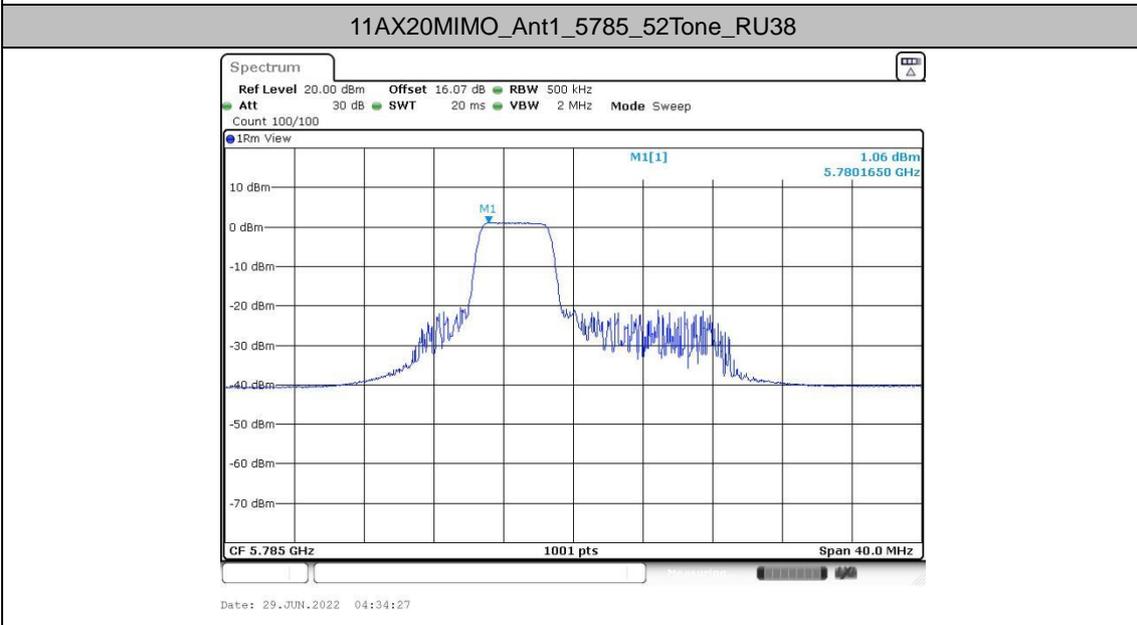
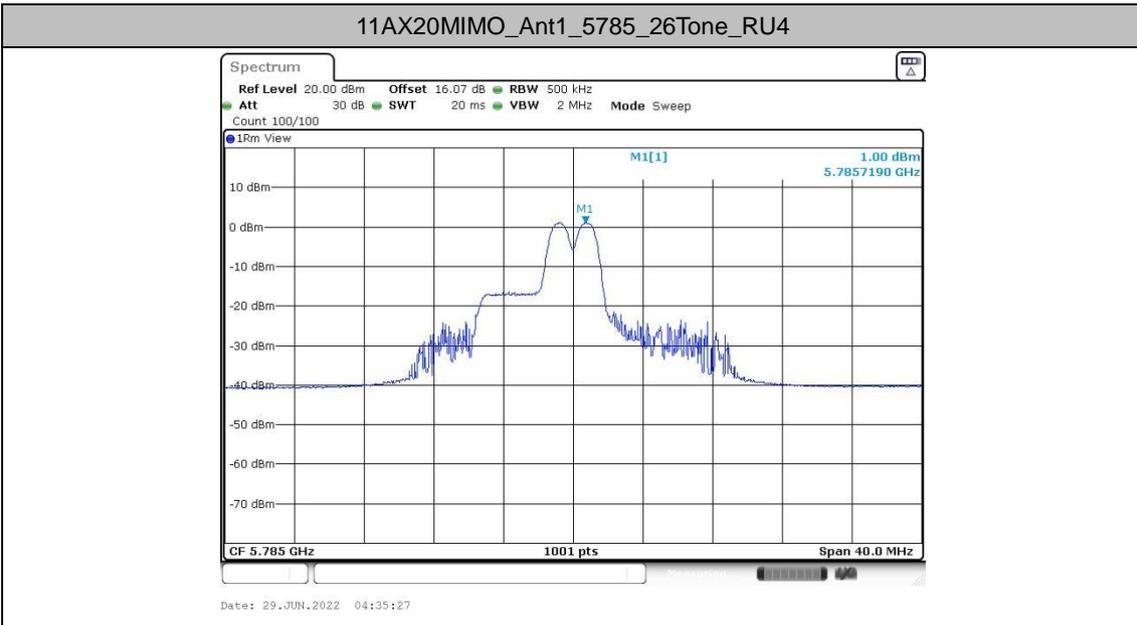


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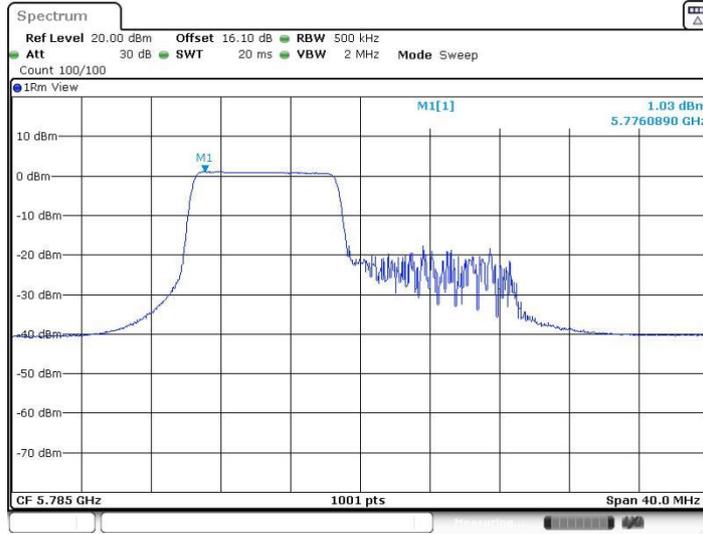


Date: 29.JUN.2022 04:32:21



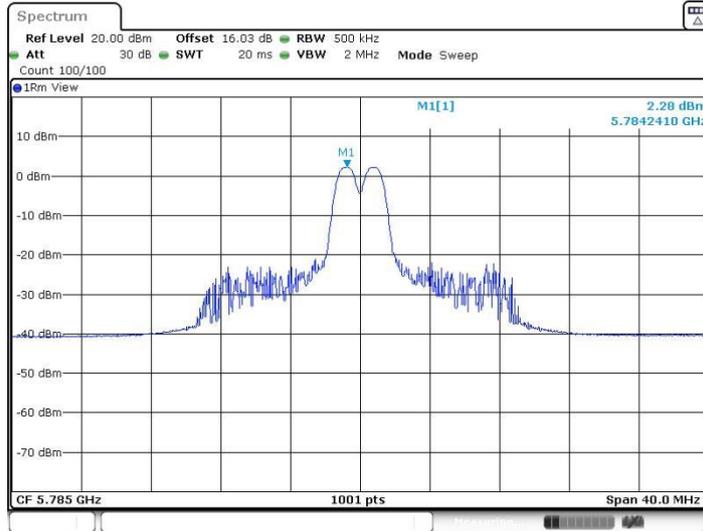


11AX20MIMO_Ant1_5785_106Tone_RU53



Date: 29.JUN.2022 04:33:19

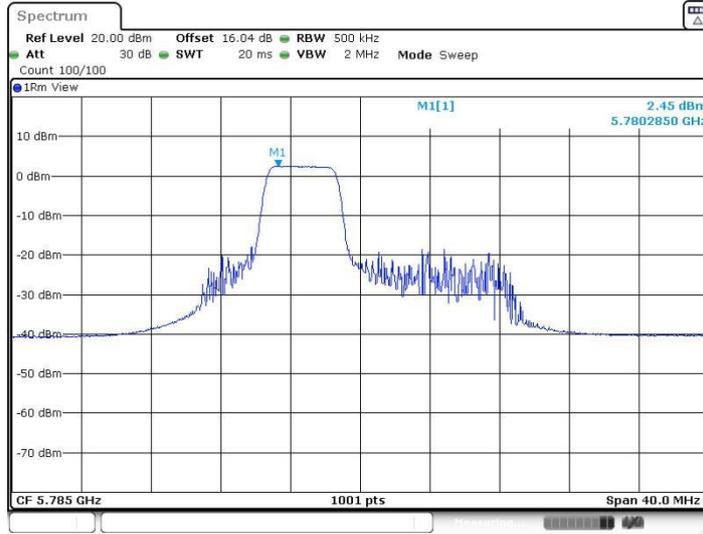
11AX20MIMO_Ant2_5785_26Tone_RU4



Date: 29.JUN.2022 04:35:38

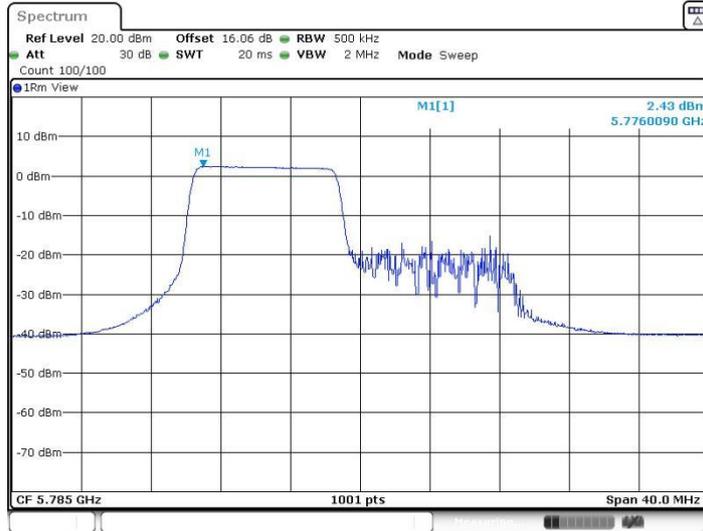


11AX20MIMO_Ant2_5785_52Tone_RU38



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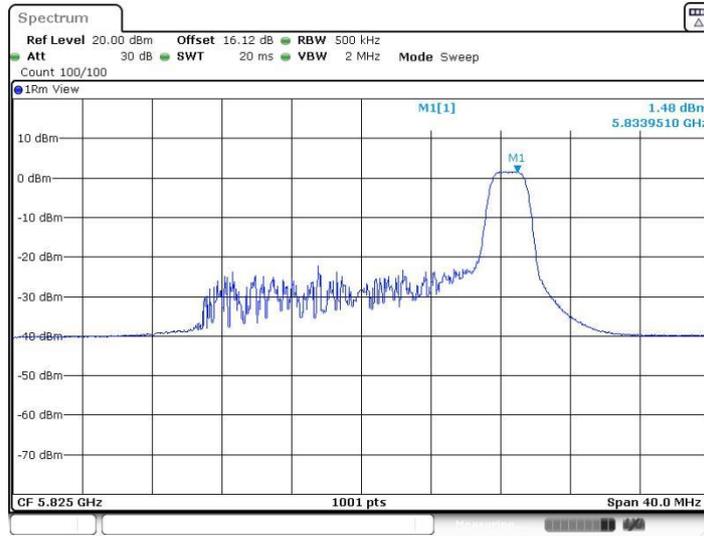
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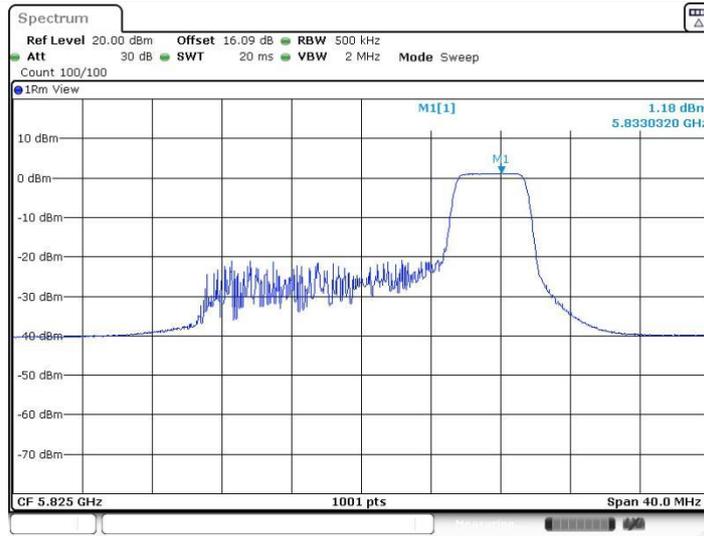


11AX20MIMO_Ant1_5825_26Tone_RU8



Date: 29.JUN.2022 04:23:40

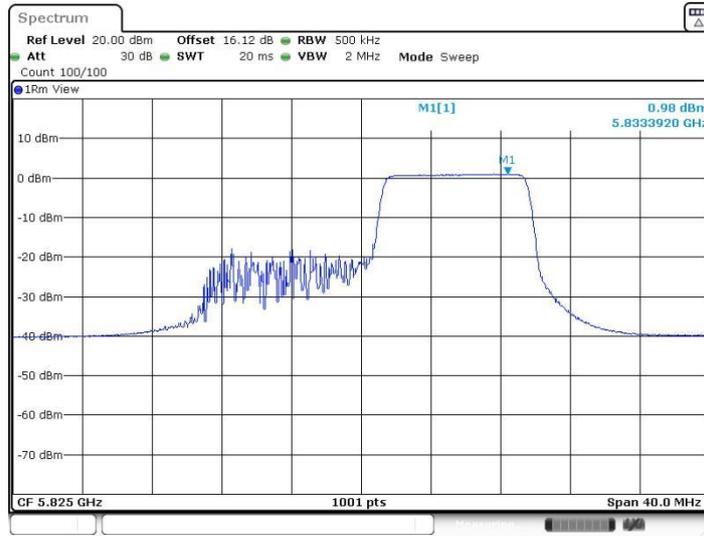
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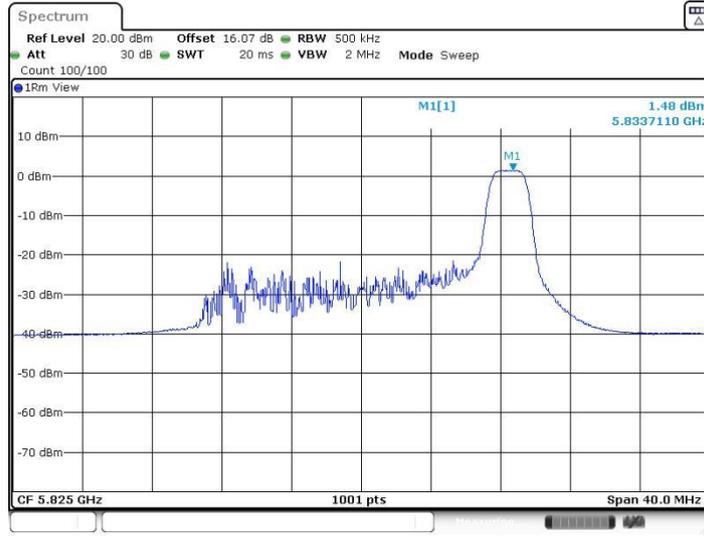
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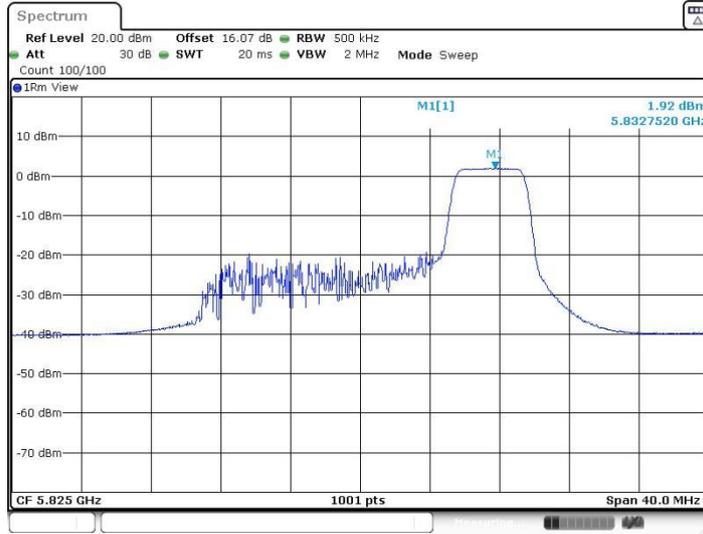


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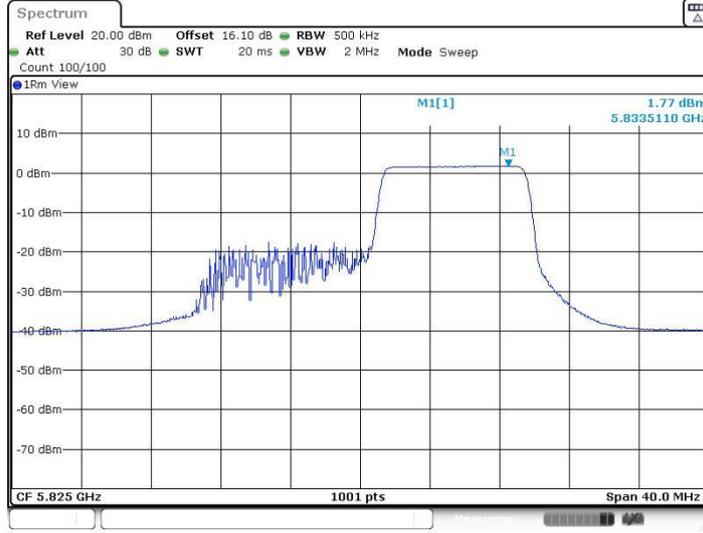


11AX20MIMO_Ant2_5825_52Tone_RU40



Date: 29.JUN.2022 04:26:09

11AX20MIMO_Ant2_5825_106Tone_RU54

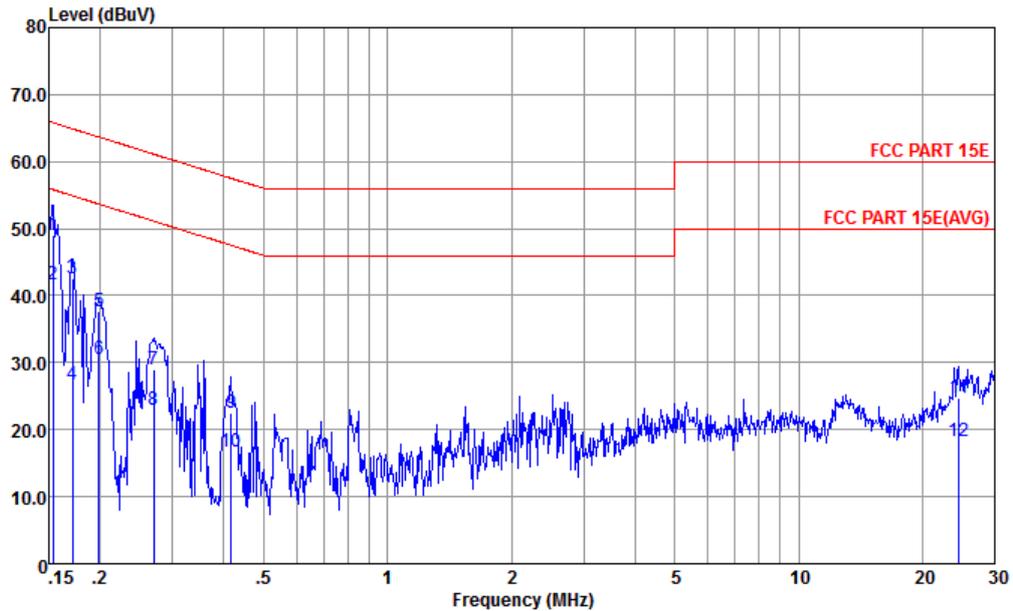


Date: 29.JUN.2022 04:27:13



Appendix B. AC Conducted Emission Test Results

Test Engineer :	Amos Zhao	Temperature :	25.3~26.2°C
		Relative Humidity :	38~40%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		

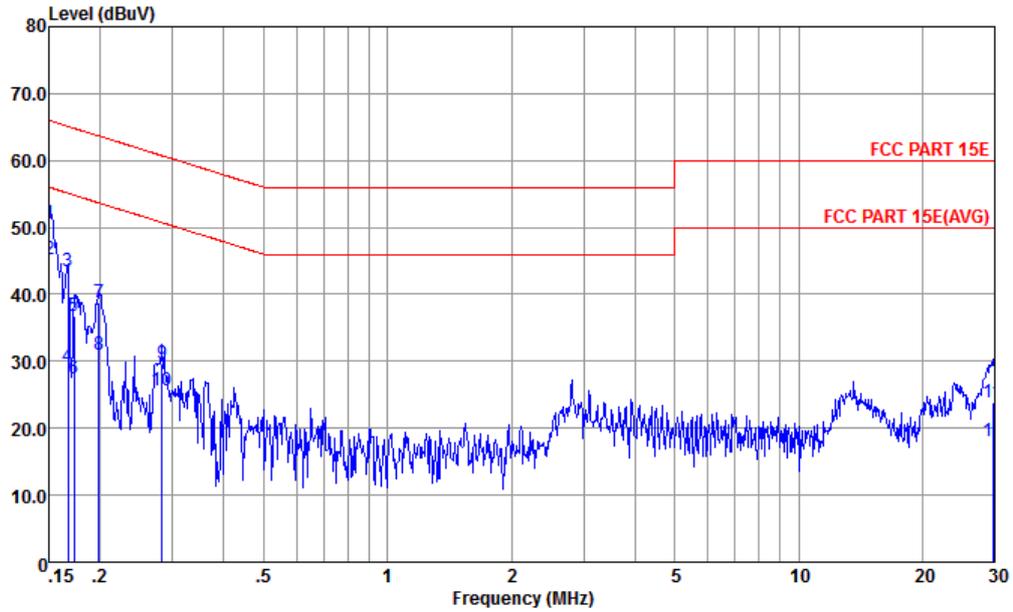


Site : CO01-KS
Condition : FCC PART 15E LISN-060105-L LINE

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.153	49.09	-16.73	65.82	38.60	0.02	10.47	QP
2 *	0.153	41.69	-14.13	55.82	31.20	0.02	10.47	Average
3	0.171	42.66	-22.24	64.90	32.20	0.03	10.43	QP
4	0.171	26.76	-28.14	54.90	16.30	0.03	10.43	Average
5	0.199	37.61	-26.06	63.67	27.20	0.04	10.37	QP
6	0.199	30.61	-23.06	53.67	20.20	0.04	10.37	Average
7	0.270	28.98	-32.14	61.12	18.60	0.06	10.32	QP
8	0.270	22.88	-28.24	51.12	12.50	0.06	10.32	Average
9	0.417	22.55	-34.96	57.51	12.20	0.09	10.26	QP
10	0.417	16.65	-30.86	47.51	6.30	0.09	10.26	Average
11	24.529	24.81	-35.19	60.00	13.61	0.64	10.56	QP
12	24.529	18.31	-31.69	50.00	7.11	0.64	10.56	Average



Test Engineer :	Amos Zhao	Temperature :	25.3~26.2°C
		Relative Humidity :	38~40%
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 : FCC PART 15E LISN-060105-N NEUTRAL

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.150	50.69	-15.31	66.00	40.10	0.11	10.48	QP
2 *	0.150	45.29	-10.71	56.00	34.70	0.11	10.48	Average
3	0.167	43.34	-21.78	65.12	32.79	0.11	10.44	QP
4	0.167	29.17	-25.95	55.12	18.62	0.11	10.44	Average
5	0.173	36.73	-28.08	64.81	26.20	0.11	10.42	QP
6	0.173	27.33	-27.48	54.81	16.80	0.11	10.42	Average
7	0.199	38.67	-25.00	63.67	28.20	0.10	10.37	QP
8	0.199	31.07	-22.60	53.67	20.60	0.10	10.37	Average
9	0.283	29.62	-31.10	60.72	19.20	0.10	10.32	QP
10	0.283	25.62	-25.10	50.72	15.20	0.10	10.32	Average
11	29.684	23.75	-36.25	60.00	12.30	0.82	10.63	QP
12	29.684	17.95	-32.05	50.00	6.50	0.82	10.63	Average

Note:

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



Appendix C. Radiated Spurious Emission

UNII-1 - 5150~5250MHz

WIFI 802.11ax HE40 Full (Band Edge @ 3m)

WIFI Ant.	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE40 Full CH 38 5190MHz		5026.005	58.44	-15.56	74	42.94	34.15	10.57	29.22	106	282	P	H
		5149.897	47.9	-6.1	54	32.19	34.4	10.62	29.31	106	282	A	H
		5190	106.26	-	-	90.51	34.47	10.63	29.35	106	282	P	H
		5190	95.16	-	-	79.41	34.47	10.63	29.35	106	282	A	H
		5395.596	55.51	-18.49	74	39.7	34.5	10.88	29.57	106	282	P	H
		5350.326	44.89	-9.11	54	29.08	34.5	10.83	29.52	106	282	A	H
		5121.575	58.4	-15.6	74	42.73	34.34	10.61	29.28	322	251	P	V
		5149.821	47.44	-6.56	54	31.73	34.4	10.62	29.31	322	251	A	V
		5190	104.4	-	-	88.65	34.46	10.63	29.34	322	251	P	V
		5190	93.06	-	-	77.28	34.49	10.64	29.35	322	251	A	V
		5371.944	57.3	-16.7	74	41.48	34.5	10.86	29.54	322	251	P	V
	5459.766	44.84	-9.16	54	28.95	34.53	10.98	29.62	322	251	A	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

UNII-1 5150~5250MHz

WIFI 802.11ax HE40 Full (Harmonic @ 3m)

WIFI Ant.	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE40 Full CH 38 5190MHz		10380	45.06	-23.24	68.3	58.53	37.42	15.57	66.46	100	47	P	H
		10380	46.14	-23.24	68.3	59.61	37.42	15.57	66.46	100	160	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



UNII-1 5150~5250MHz
WIFI 802.11ax HE80 Full (Band Edge @ 3m)

WIFI Ant.	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE80 Full CH 42 5210MHz		5149.03	59.11	-14.89	74	43.4	34.4	10.62	29.31	100	283	P	H
		5149.03	48.51	-5.49	54	32.8	34.4	10.62	29.31	100	283	A	H
		5210	104.45	-	-	88.68	34.48	10.64	29.35	100	283	P	H
		5210	92.28	-	-	76.51	34.48	10.64	29.35	100	283	A	H
		5447.3	56.18	-17.82	74	40.31	34.52	10.96	29.61	100	283	P	H
		5350.967	44.99	-9.01	54	29.18	34.5	10.83	29.52	100	283	A	H
		5139.678	59.18	-14.82	74	43.48	34.38	10.62	29.3	284	240	P	V
		5149.758	47.52	-6.48	54	31.81	34.4	10.62	29.31	284	240	A	V
		5210	100.49	-	-	84.7	34.5	10.67	29.38	284	240	P	V
		5210	89.3	-	-	73.52	34.5	10.66	29.38	284	240	A	V
	5453.133	56.3	-17.7	74	40.41	34.53	10.97	29.61	284	240	P	V	
	5458.717	44.84	-9.16	54	28.95	34.53	10.98	29.62	284	240	A	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

UNII-1 5150~5250MHz
WIFI 802.11ax HE80 Full (Harmonic @ 3m)

WIFI Ant.	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE80 Full CH 42 5210MHz		10420	46.4	-21.9	68.3	59.76	37.46	15.59	66.41	100	236	P	H
		10420	45.65	-21.9	68.3	59.01	37.46	15.59	66.41	100	294	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



UNII-2A- - 5250~5350MHz

WIFI 802.11ax HE20 Partial 26 (Band Edge @ 3m)

WIFI Ant. CDD 17+18	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE20 Partial 26/0 CH52 5280MHz		5122.079	57.64	-16.36	74	41.97	34.34	10.61	29.28	100	29	P	H
		5064.359	46.56	-7.44	54	30.98	34.23	10.59	29.24	100	29	A	H
		5260	103.07	-	-	87.28	34.5	10.71	29.42	100	29	P	H
		5260	94.46	-	-	78.67	34.5	10.71	29.42	100	29	A	H
		5425.707	55.92	-18.08	74	40.07	34.51	10.93	29.59	100	29	P	H
		5458.48	44.75	-9.25	54	28.86	34.53	10.98	29.62	100	29	A	H
		5021.458	58.11	-15.89	74	42.61	34.14	10.57	29.21	100	102	P	V
		5056.299	46.44	-7.56	54	30.88	34.21	10.58	29.23	100	102	A	V
		5260	99.54	-	-	83.75	34.5	10.71	29.42	100	102	P	V
		5260	91.25	-	-	75.46	34.5	10.71	29.42	100	102	A	V
		5360.667	55.02	-18.98	74	39.21	34.5	10.84	29.53	100	102	P	V
		5459.307	44.7	-9.3	54	28.81	34.53	10.98	29.62	100	102	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



UNII-2A- 5250~5350MHz
WIFI 802.11ax HE160 Full (Band Edge @ 3m)

WIFI Ant.	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE160 Full CH 50 5250MHz		5148.2	60.83	-13.17	74	44.49	35.03	10.62	29.31	100	284	P	H
		5149.133	49.3	-4.7	54	32.96	35.03	10.62	29.31	100	284	A	H
		5250	101.45	-	-	85.06	35.11	10.68	29.4	100	284	P	H
		5250	90.13	-	-	73.74	35.1	10.67	29.38	100	284	A	H
		5375.412	59.68	-14.32	74	43.12	35.25	10.86	29.55	100	284	P	H
		5351.836	48.93	-5.07	54	32.39	35.23	10.83	29.52	100	284	A	H
		5131.133	60.32	-13.68	74	43.99	35.01	10.61	29.29	373	222	P	V
		5146.883	48.39	-5.61	54	32.05	35.03	10.62	29.31	373	222	A	V
		5250	97.77	-	-	81.38	35.1	10.67	29.38	373	222	P	V
		5250	86.62	-	-	70.25	35.09	10.65	29.37	373	222	A	V
		5416.894	57.5	-16.5	74	40.88	35.28	10.92	29.58	373	222	P	V
	5353.712	47.15	-6.85	54	30.61	35.23	10.83	29.52	373	222	A	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

UNII-2A- 5250~5350MHz
WIFI 802.11ax HE160 Full (Harmonic @ 3m)

WIFI Ant.	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE160Full CH 50 5250MHz		10500	45.28	-23.02	68.3	58.42	37.55	15.63	66.32	100	268	P	H
		10500	45.75	-22.55	68.3	58.89	37.55	15.63	66.32	100	258	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



UNII-2C- - 5470~5725MHz

WIFI 802.11ax HE20 Full (Band Edge @ 3m)

WIFI Ant.	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE20 Full CH 140 5700MHz		5700	111.04	-	-	93.98	35.58	11.28	29.8	100	296	P	H
		5700	100.24	-	-	83.18	35.58	11.28	29.8	100	296	A	H
		5735.265	59.14	-9.16	68.3	41.98	35.63	11.32	29.79	100	296	P	H
		5700	109.96	-	-	92.9	35.58	11.28	29.8	329	264	P	V
		5700	97.89	-	-	80.83	35.58	11.28	29.8	329	264	A	V
		5725.32	60.51	-7.79	68.3	43.37	35.62	11.31	29.79	329	264	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

UNII-2C- 5470~5725MHz

WIFI 802.11ax HE20 (Harmonic @ 3m)

WIFI Ant.	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE20 Full CH 140 5700MHz		11400	45.18	-28.82	74	56.25	38.34	16.1	65.51	100	321	P	H
		11400	46.31	-27.69	74	57.38	38.34	16.1	65.51	100	360	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Emission below 1GHz

WIFI 802.11ax HE160 Full (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
CDD 17+18		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ax HE160 Full LF		34.85	33.24	-6.76	40	42.78	22.45	0.71	32.7	-	-	P	H
		41.64	31.08	-8.92	40	44.13	18.82	0.97	32.84	-	-	P	H
		64.92	22.52	-17.48	40	42.21	12.2	1.21	33.1	-	-	P	H
		172.59	31.19	-12.31	43.5	46.59	15.54	2	32.94	-	-	P	H
		250.19	20.16	-25.84	46	31.82	19.02	2.42	33.1	-	-	P	H
		350.1	20.53	-25.47	46	30.08	20.5	2.85	32.9	-	-	P	H
		34.85	31.05	-8.95	40	47.78	22.45	0.71	39.89	-	-	P	V
		46.49	28.64	-11.36	40	51.17	16.36	1.03	39.92	-	-	P	V
		54.25	26.63	-13.37	40	52.06	13.4	1.1	39.93	-	-	P	V
		100.81	24.17	-19.33	43.5	45.15	16.19	1.52	38.69	-	-	P	V
		171.62	23.64	-19.86	43.5	45.01	15.59	1.99	38.95	-	-	P	V
		216.24	23.61	-22.39	46	44.61	15.26	2.24	38.5	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



UNII-3 - 5725~5850MHz

WIFI 802.11ax HE20_ (Band Edge @ 3m)

WIFI Ant.	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE20 CH 149 5745MHz		5644.592	58	-10.3	68.3	41.87	34.68	11.23	29.78	101	119	P	H
		5683.462	58.67	-34.43	93.1	42.44	34.75	11.27	29.79	101	119	P	H
		5719.422	67.84	-42.9	110.74	51.51	34.82	11.3	29.79	101	119	P	H
		5724.217	77.05	-43.46	120.51	60.7	34.83	11.31	29.79	101	119	P	H
		5745	114.9	-	-	98.48	34.88	11.33	29.79	101	119	P	H
		5745	104.3	-	-	87.88	34.88	11.33	29.79	101	119	A	H
		5644.389	57.63	-10.67	68.3	41.5	34.68	11.23	29.78	299	82	P	V
		5669.851	58.1	-24.93	83.03	41.91	34.73	11.25	29.79	299	82	P	V
		5719.142	62.61	-48.05	110.66	46.28	34.82	11.3	29.79	299	82	P	V
		5724.942	69.6	-52.57	122.17	53.25	34.83	11.31	29.79	299	82	P	V
		5745	110.75	-	-	94.33	34.88	11.33	29.79	299	82	P	V
	5745	99.73	-	-	83.31	34.88	11.33	29.79	299	82	A	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

UNII-3 5725~5850MHz

WIFI 802.11ax HE20_ (Harmonic @ 3m)

WIFI Ant.	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE20 CH 149 5745MHz		11490	45.88	-28.12	74	56.8	38.39	16.15	65.46	100	347	P	H
		11490	45.95	-28.05	74	56.87	38.39	16.15	65.46	100	326	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



UNII-3 5725~5850MHz
WIFI 802.11ax HE20_Partial 106 (Band Edge @ 3m)

Table with 14 columns: WIFI Ant. CDD 17+18, Note, Frequency (MHz), Level (dBµV/m), Over Limit (dB), Limit Line (dBµV/m), Read Level (dBµV), Antenna Factor (dB/m), Path Loss (dB), Preamp Factor (dB), Ant Pos (cm), Table Pos (deg), Peak Avg. (P/A), Pol. (H/V). Rows include test data for frequencies like 5825, 5854.067, 5873.442, etc., and a Remark section at the bottom.



UNII-3 5725~5850MHz
WIFI 802.11ax HE40_Full (Band Edge @ 3m)

Table with 14 columns: WIFI Ant., Note, Frequency (MHz), Level (dBµV/m), Over Limit (dB), Limit Line (dBµV/m), Read Level (dBµV), Antenna Factor (dB/m), Path Loss (dB), Preamp Factor (dB), Ant Pos (cm), Table Pos (deg), Peak Avg. (P/A), Pol. (H/V). Rows include test data for 802.11ax HE40 Full CH 159 5795MHz and a Remark section.



UNII-3 5725~5850MHz
WIFI 802.11ax HE40_Full (Harmonic @ 3m)

Table with 14 columns: WIFI Ant., Note, Frequency (MHz), Level (dBµV/m), Over Limit (dB), Limit Line (dBµV/m), Read Level (dBµV), Antenna Factor (dB/m), Path Loss (dB), Preamp Factor (dB), Ant Pos (cm), Table Pos (deg), Peak Avg. (P/A), Pol. (H/V). Rows include test results for 802.11ax HE40 Full and CH 159 5795MHz, and a Remark section.



UNII-3 5725~5850MHz
WIFI 802.11ax HE80_Full (Band Edge @ 3m)

Table with 14 columns: WIFI Ant. CDD 17+18, Note, Frequency (MHz), Level (dBµV/m), Over Limit (dB), Limit Line (dBµV/m), Read Level (dBµV), Antenna Factor (dB/m), Path Loss (dB), Preamp Factor (dB), Ant Pos (cm), Table Pos (deg), Peak Avg. (P/A), Pol. (H/V). Rows include frequencies from 5629.645 to 5931.858 MHz.

Remark
1. No other spurious found.
2. All results are PASS against Peak and Average limit line.



UNII-3 5725~5850MHz
WIFI 802.11ax HE80_Full (Harmonic @ 3m)

Table with 14 columns: WIFI Ant., Note, Frequency (MHz), Level (dBµV/m), Over Limit (dB), Limit Line (dBµV/m), Read Level (dBµV), Antenna Factor (dB/m), Path Loss (dB), Preamp Factor (dB), Ant Pos (cm), Table Pos (deg), Peak Avg. (P/A), Pol. (H/V). Includes data for 802.11ax HE80 Full CH 155 5775MHz and a Remark section.

Emission below 1GHz

WIFI 802.11ax HE20 Full (LF @ 3m)

Table with 14 columns: WIFI Ant., Note, Frequency (MHz), Level (dBµV/m), Over Limit (dB), Limit Line (dBµV/m), Read Level (dBµV), Antenna Factor (dB/m), Path Loss (dB), Preamp Factor (dB), Ant Pos (cm), Table Pos (deg), Peak Avg. (P/A), Pol. (H/V). Includes data for 802.11ax HE20 Full LF and a Remark section.



Co-location

UNII-2A- - 5250~5350MHz

WIFI 802.11ax HE160 Full&BLE_Tx_Ch39<E_B48_BW_20M (Band Edge @ 3m)

WIFI Ant.	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE160 Full CH 50 5250MHz		5099.133	62.9	-11.1	74	46.58	34.98	10.6	29.26	100	118	P	H
		5148.75	50.81	-3.19	54	34.47	35.03	10.62	29.31	100	118	A	H
		5250	105.09	-	-	88.65	35.15	10.73	29.44	100	118	P	H
		5250	94.63	-	-	78.22	35.12	10.69	29.4	100	118	A	H
		5380.522	59.99	-14.01	74	43.42	35.25	10.87	29.55	100	118	P	H
		5359.284	50.13	-3.87	54	33.59	35.23	10.84	29.53	100	118	A	H
		5149.633	59.94	-14.06	74	43.6	35.03	10.62	29.31	289	71	P	V
		5139.833	48.5	-5.5	54	32.16	35.02	10.62	29.3	289	71	A	V
		5250	100.42	-	-	84.01	35.12	10.69	29.4	289	71	P	V
		5250	90.05	-	-	73.64	35.12	10.69	29.4	289	71	A	V
		5380.522	57.99	-16.01	74	41.42	35.25	10.87	29.55	289	71	P	V
		5358.878	47.37	-6.63	54	30.83	35.23	10.84	29.53	289	71	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

UNII-2A- 5250~5350MHz

WIFI 802.11ax HE160 Full&BLE_Tx_Ch39<E_B48_BW_20M (Harmonic @ 3m)

WIFI Ant.	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE160Full CH 50 5250MHz		10500	42.96	-25.34	68.3	55.29	38.36	15.63	66.32	100	252	P	H
		10500	44.4	-23.9	68.3	56.73	38.36	15.63	66.32	100	101	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE160 Full&BLE_Tx_Ch39<E_B48_BW_20M (Band Edge @ 3m)

BLE	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE CH 39 2480MHz		2480	98.5	-	-	84.74	31.14	7.28	30.66	198	102	P	H
		2480	95.98	-	-	82.22	31.14	7.28	30.66	198	102	A	H
	*	2497.68	56.25	-17.75	74	42.37	31.17	7.32	30.61	198	102	P	H
	*	2496.08	45.32	-8.68	54	31.46	31.16	7.31	30.61	198	102	A	H
		2480	84.51	-	-	70.75	31.14	7.28	30.66	143	360	P	V
		2480	82.27	-	-	68.51	31.14	7.28	30.66	143	360	A	V
	*	2486	56.29	-17.71	74	42.49	31.15	7.29	30.64	143	360	P	V
	*	2494.26	45.41	-8.59	54	31.56	31.16	7.31	30.62	143	360	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE160 Full&BLE_Tx_Ch39<E_B48_BW_20M (Harmonic @ 3m)

BLE	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE CH 39 2480MHz		4960	46.08	-27.92	74	66.23	34.8	10.5	65.45	100	96	P	H
		7440	40.95	-	-	56.82	36.59	12.87	65.33	300	123	P	H
		4960	43.59	-30.41	74	63.74	34.8	10.5	65.45	295	360	P	V
		7440	41.14	-	-	57.01	36.59	12.87	65.33	300	275	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Co-location

UNII-2A- - 5250~5350MHz

WIFI 802.11ax HE160 Full& WIFI 802.11 ax HE40 Full <E_B48_BW_20M (Band Edge @ 3m)

WIFI Ant.	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE160 Full CH 50 5250MHz		5148.65	62.45	-11.55	74	46.11	35.03	10.62	29.31	100	290	P	H
		5149.033	50.33	-3.67	54	33.99	35.03	10.62	29.31	100	290	A	H
		5250	102.4	-	-	85.97	35.14	10.72	29.43	100	290	P	H
		5250	92.04	-	-	75.64	35.11	10.68	29.39	100	290	A	H
		5379.458	59.54	-14.46	74	42.97	35.25	10.87	29.55	100	290	P	H
		5368.706	49.3	-4.7	54	32.75	35.24	10.85	29.54	100	290	A	H
		5130.917	59.74	-14.26	74	43.41	35.01	10.61	29.29	320	240	P	V
		5149.5	49.44	-4.56	54	33.1	35.03	10.62	29.31	320	240	A	V
		5250	100.56	-	-	84.12	35.14	10.72	29.42	320	240	P	V
		5250	89.27	-	-	72.87	35.11	10.68	29.39	320	240	A	V
	5350.086	57.7	-16.3	74	41.16	35.23	10.83	29.52	320	240	P	V	
	5350.436	47.88	-6.12	54	31.34	35.23	10.83	29.52	320	240	A	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

UNII-2A- 5250~5350MHz

WIFI 802.11ax HE160 Full& WIFI 802.11 ax HE40 Full <E_B48_BW_20M (Harmonic @ 3m)

WIFI Ant.	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE160Full CH 50 5250MHz		10500	44.74	-23.56	68.3	57.07	38.36	15.63	66.32	100	307	P	H
		10500	43.28	-25.02	68.3	55.61	38.36	15.63	66.32	161	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE160 Full& WIFI 802.11 ax HE40 Full <E_B48_BW_20M (Band Edge @ 3m)

WIFI Ant.	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE40 Full CH 03 2422MHz		2385.6	61.94	-12.06	74	48.77	30.95	7.11	30.89	100	119	P	H
		2387.28	47.78	-6.22	54	34.6	30.96	7.11	30.89	100	119	A	H
		2422	104.89	-	-	91.53	31.03	7.16	30.83	100	119	P	H
		2422	95.08	-	-	81.72	31.03	7.16	30.83	100	119	A	H
	*	2488.612	54.64	-19.36	74	40.82	31.15	7.3	30.63	100	119	P	H
	*	2483.542	43.08	-10.92	54	29.3	31.14	7.29	30.65	100	119	A	H
		2389.632	59.72	-14.28	74	46.54	30.96	7.11	30.89	393	245	P	V
		2389.968	48.95	-5.05	54	35.77	30.96	7.11	30.89	393	245	A	V
		2422	103.38	-	-	90.02	31.03	7.16	30.83	393	245	P	V
		2422	93.81	-	-	80.43	31.03	7.17	30.82	393	245	A	V
	*	2494.54	54.9	-19.1	74	41.05	31.16	7.31	30.62	393	245	P	V
*	2483.542	43	-11	54	29.22	31.14	7.29	30.65	393	245	A	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE160 Full& WIFI 802.11 ax HE40 Full <E_B48_BW_20M (Harmonic @ 3m)

WIFI Ant.	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE40 Full CH 03 2422MHz		4844	42.87	-31.13	74	63.37	34.59	10.34	65.43	297	360	P	H
		7266.2	41.35	-	-	57.21	36.55	12.81	65.22	300	100	P	H
		4844	43.68	-30.32	74	64.18	34.59	10.34	65.43	300	163	P	V
		7266.2	41.79	-	-	57.65	36.55	12.81	65.22	137	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Note symbol

*	Fundamental Frequency which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is over limit line.
P/A	Peak or Average
H/V	Horizontal or Vertical



A calculation example for radiated spurious emission is shown as below:

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.		(MHz)	(dBμV/m)	(dB)	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
CDD 17+18		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
CH 01		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H
2412MHz													

1. Path Loss(dB) = Cable loss(dB) + Filter loss(dB) + Attenuator loss(dB)
2. Level(dBμV/m) = Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
3. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)
= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
= 32.22(dB/m) + 4.58(dB) + 54.51(dBμV) – 35.86 (dB)
= 55.45 (dBμV/m)
2. Over Limit(dB)
= Level(dBμV/m) – Limit Line(dBμV/m)
= 55.45(dBμV/m) – 74(dBμV/m)
= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBμV/m)
= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
= 32.22(dB/m) + 4.58(dB) + 42.6(dBμV) – 35.86 (dB)
= 43.54 (dBμV/m)
2. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)
= 43.54(dBμV/m) – 54(dBμV/m)
= -10.46(dB)

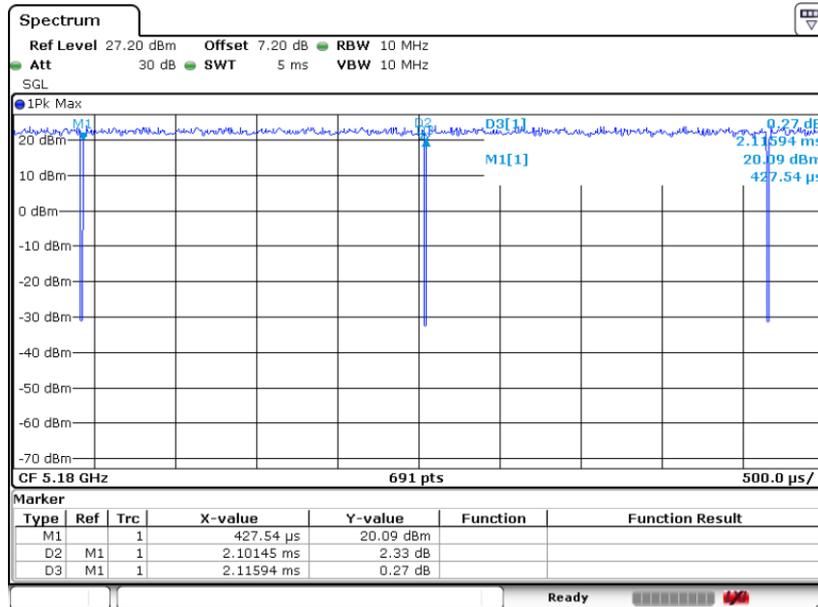
Both peak and average measured complies with the limit line, so test result is “PASS”.



Appendix D. Duty Cycle Plots

Band	Duty Cycle(%)	T(ms)	1/T(kHz)	VBW Setting
802.11a	100	-	-	10Hz
802.11ax HE20	100	-	-	10Hz
802.11ax HE40	98.86	-	-	10Hz
802.11ax HE80	98.26	-	-	10Hz
802.11ax HE160	99.30	-	-	10Hz
802.11ax HE20-5180-26ru-1	100	-	-	10Hz
802.11ax HE20-5180-52ru-1	100	-	-	10Hz
802.11ax HE20-5180-106ru-1	100	-	-	10Hz

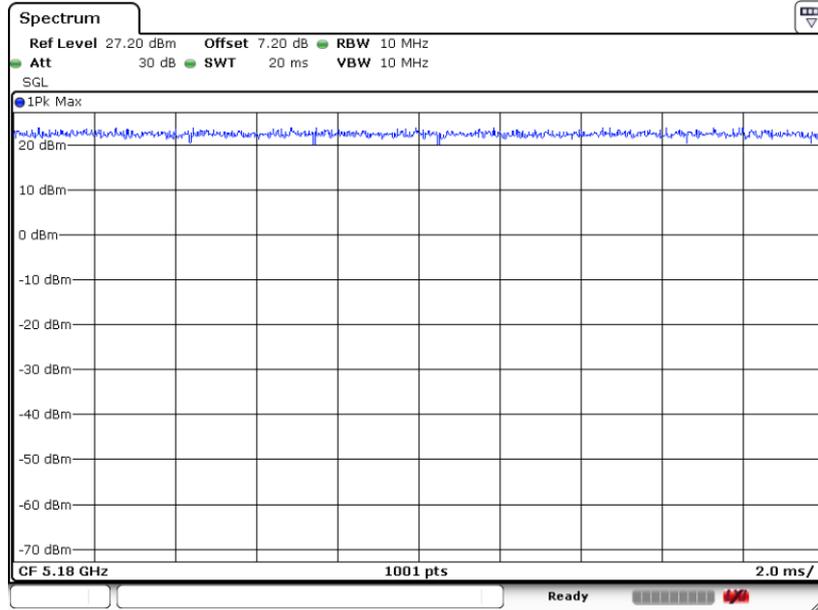
802.11a



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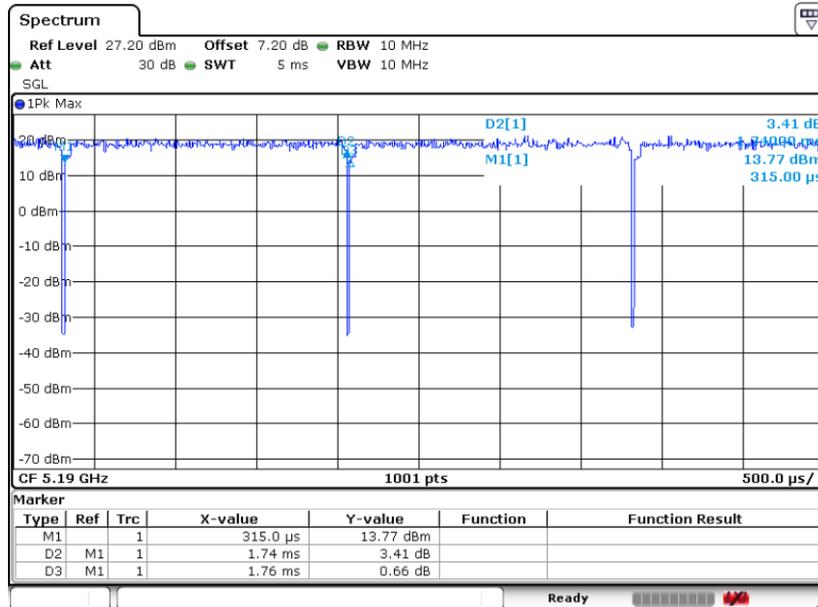


802.11ax HE20



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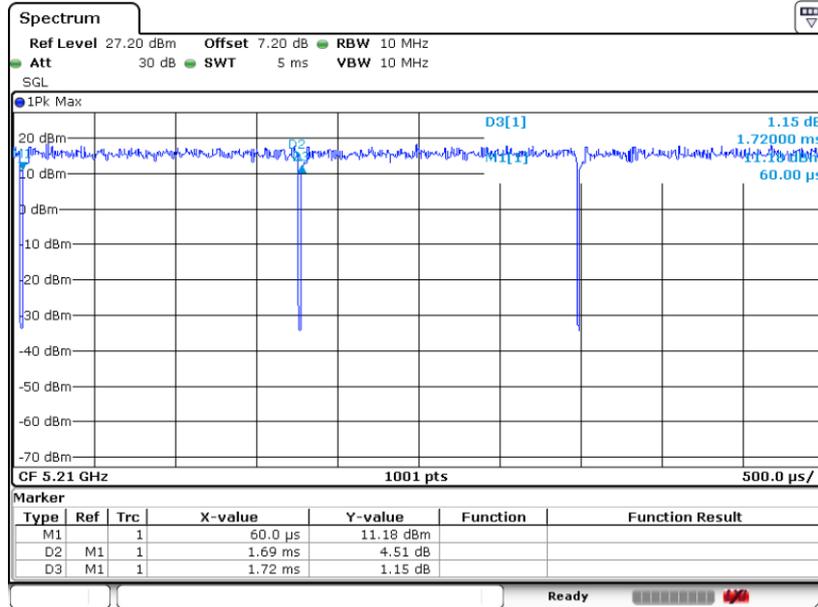
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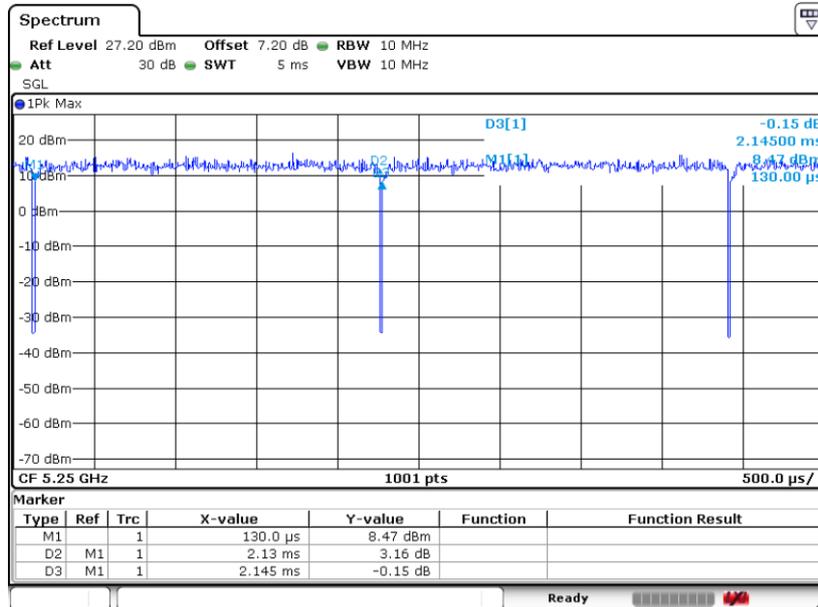


802.11ax HE80



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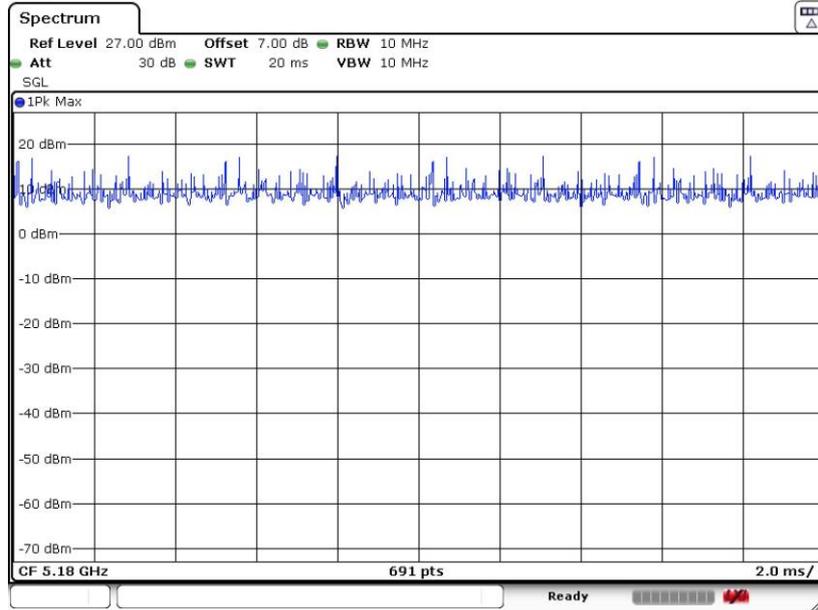
802.11ax HE160



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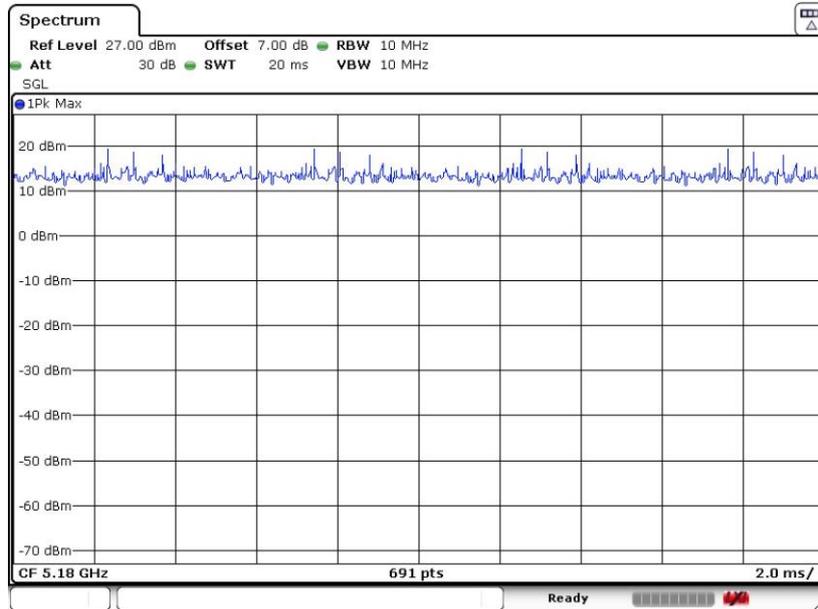


802.11ax HE20-5180-26ru-1



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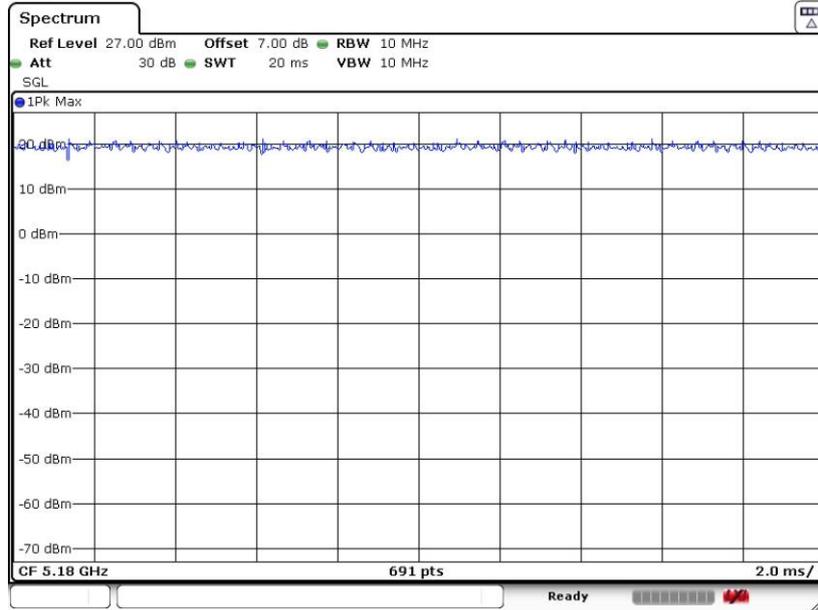
802.11ax HE20-5180-52ru-1



Date: 28.JUN.2022 17:20:15



802.11ax HE20-5180-106ru-1



Date: 28.JUN.2022 17:22:13