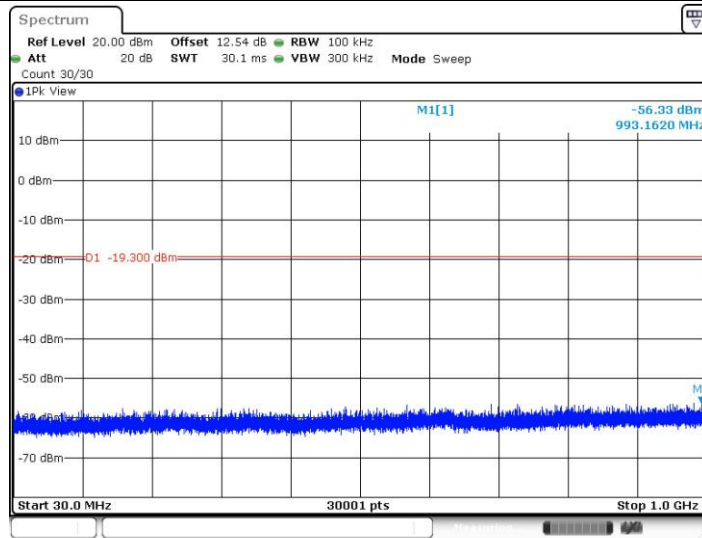


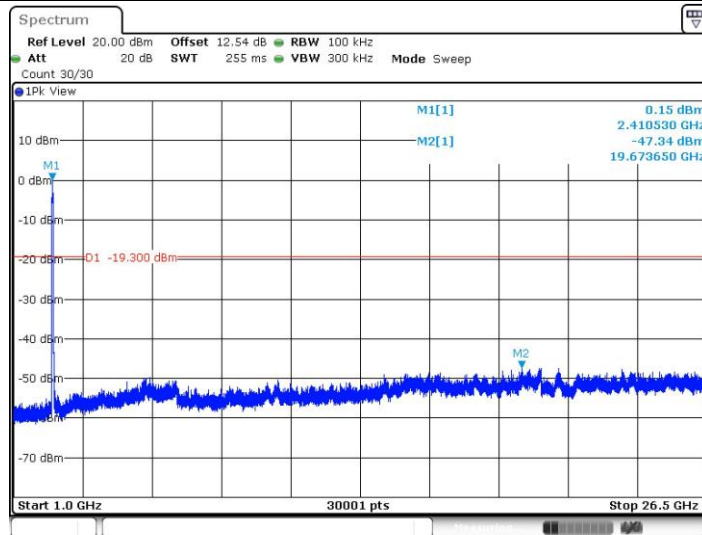


11AX40-CDD_Ant1_2422_30~1000

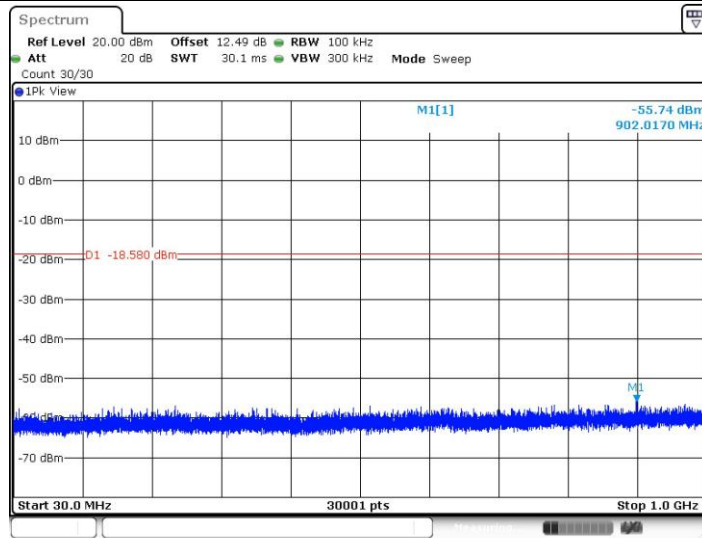


Date: 20.JAN.2022 21:47:00

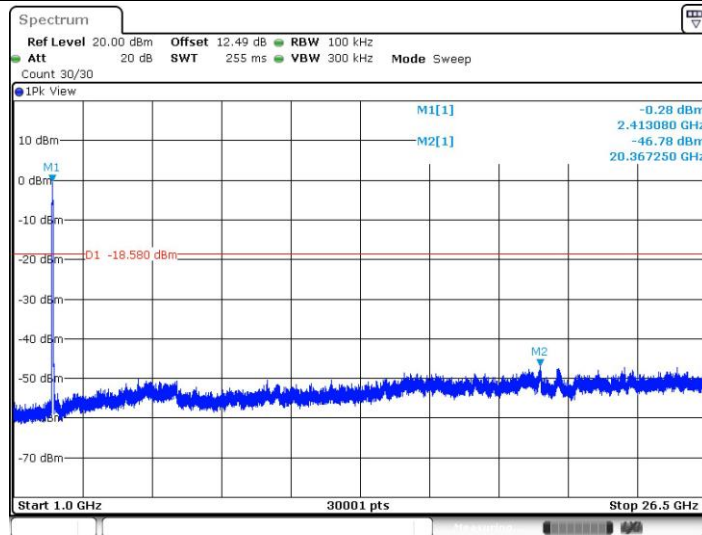
11AX40-CDD_Ant1_2422_1000~26500



Date: 20.JAN.2022 21:47:36

11AX40-CDD_Ant2_2422_30~1000


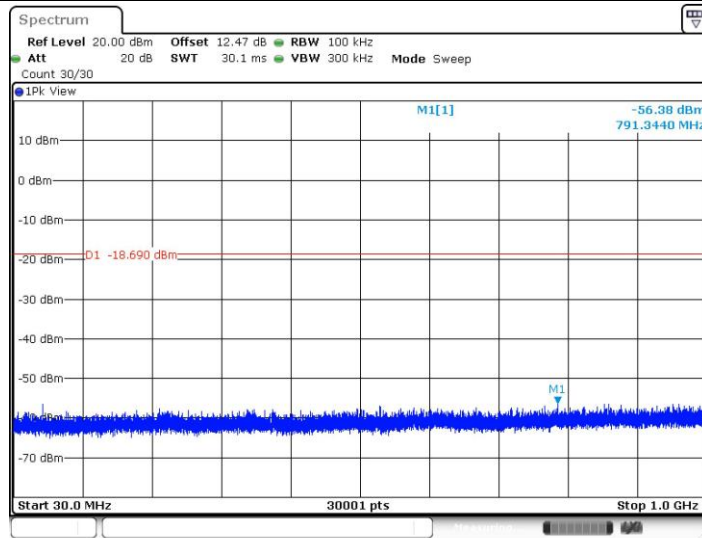
Date: 20.JAN.2022 21:49:31

11AX40-CDD_Ant2_2422_1000~26500


Date: 20.JAN.2022 21:50:08

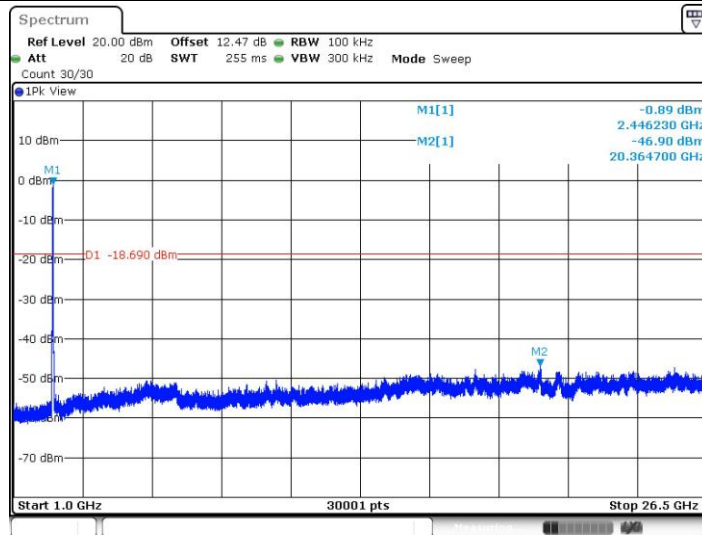


11AX40-CDD_Ant1_2437_30~1000



Date: 20.JAN.2022 21:52:52

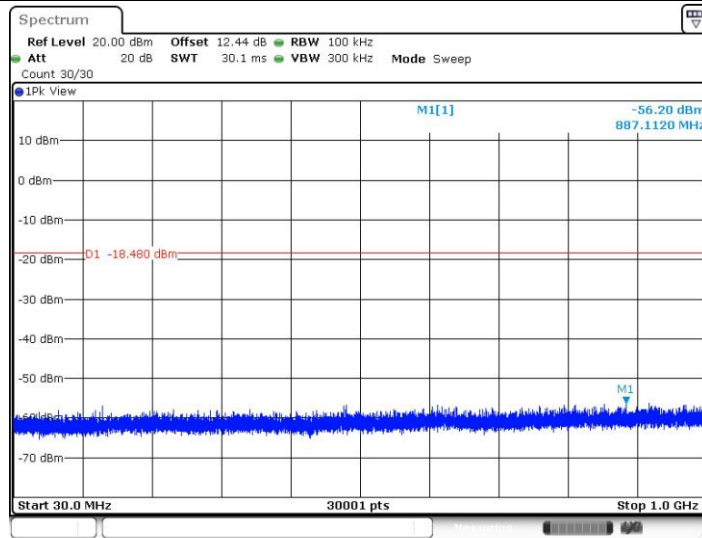
11AX40-CDD_Ant1_2437_1000~26500



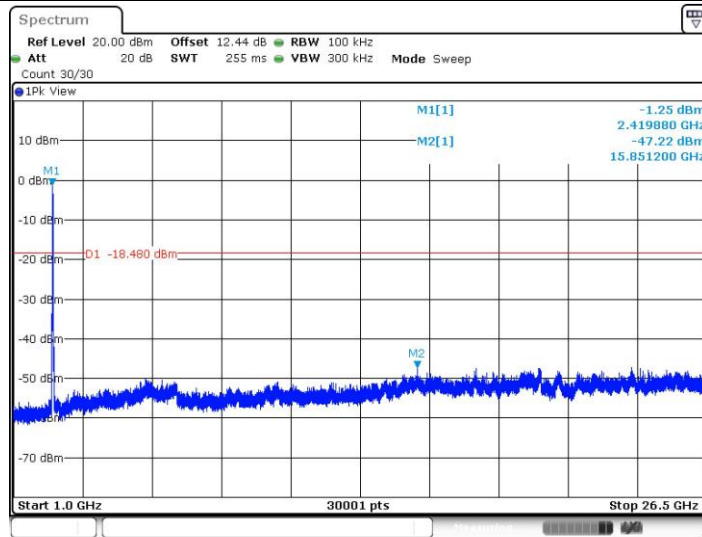
Date: 20.JAN.2022 21:53:29



11AX40-CDD_Ant2_2437_30~1000

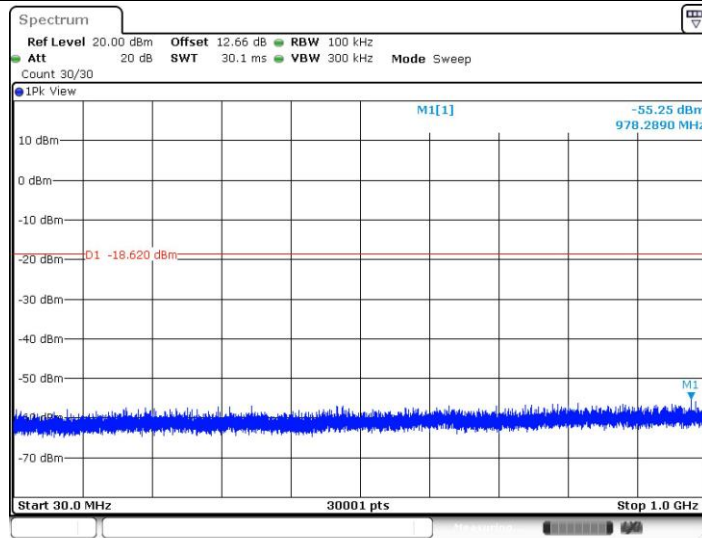


11AX40-CDD_Ant2_2437_1000~26500



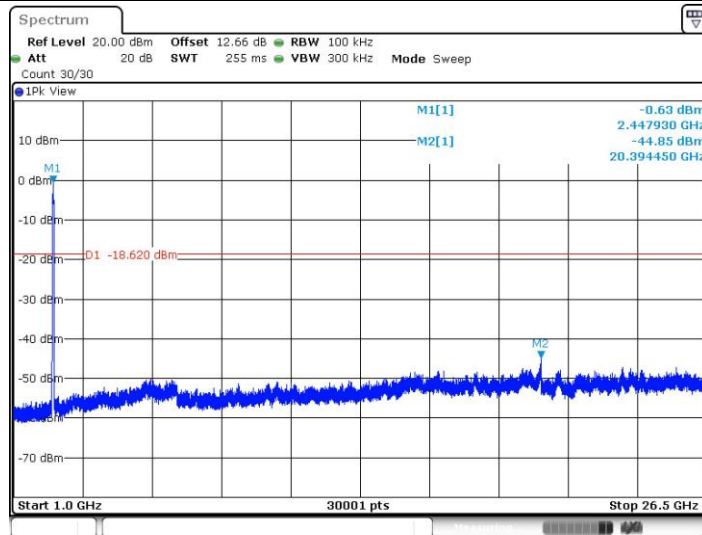


11AX40-CDD_Ant1_2452_30~1000



Date: 20.JAN.2022 22:01:35

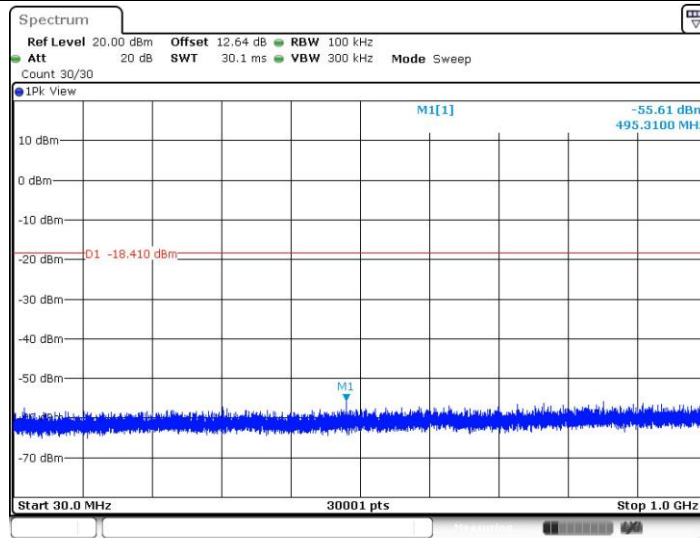
11AX40-CDD_Ant1_2452_1000~26500



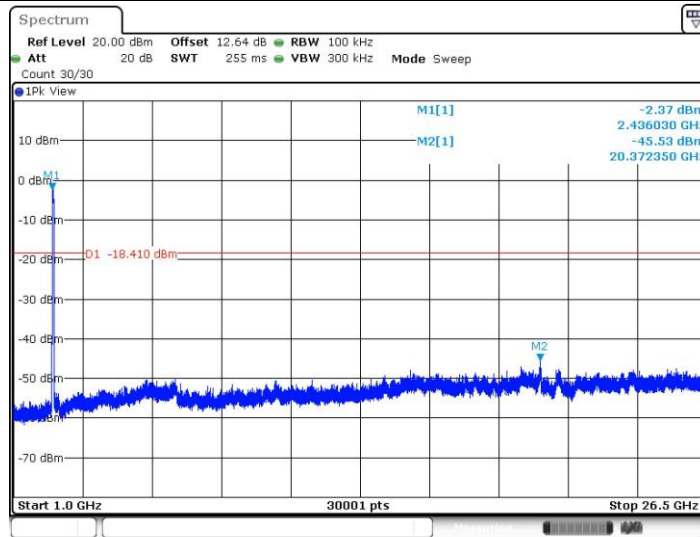
Date: 20.JAN.2022 22:02:12



11AX40-CDD_Ant2_2452_30~1000



11AX40-CDD_Ant2_2452_1000~26500



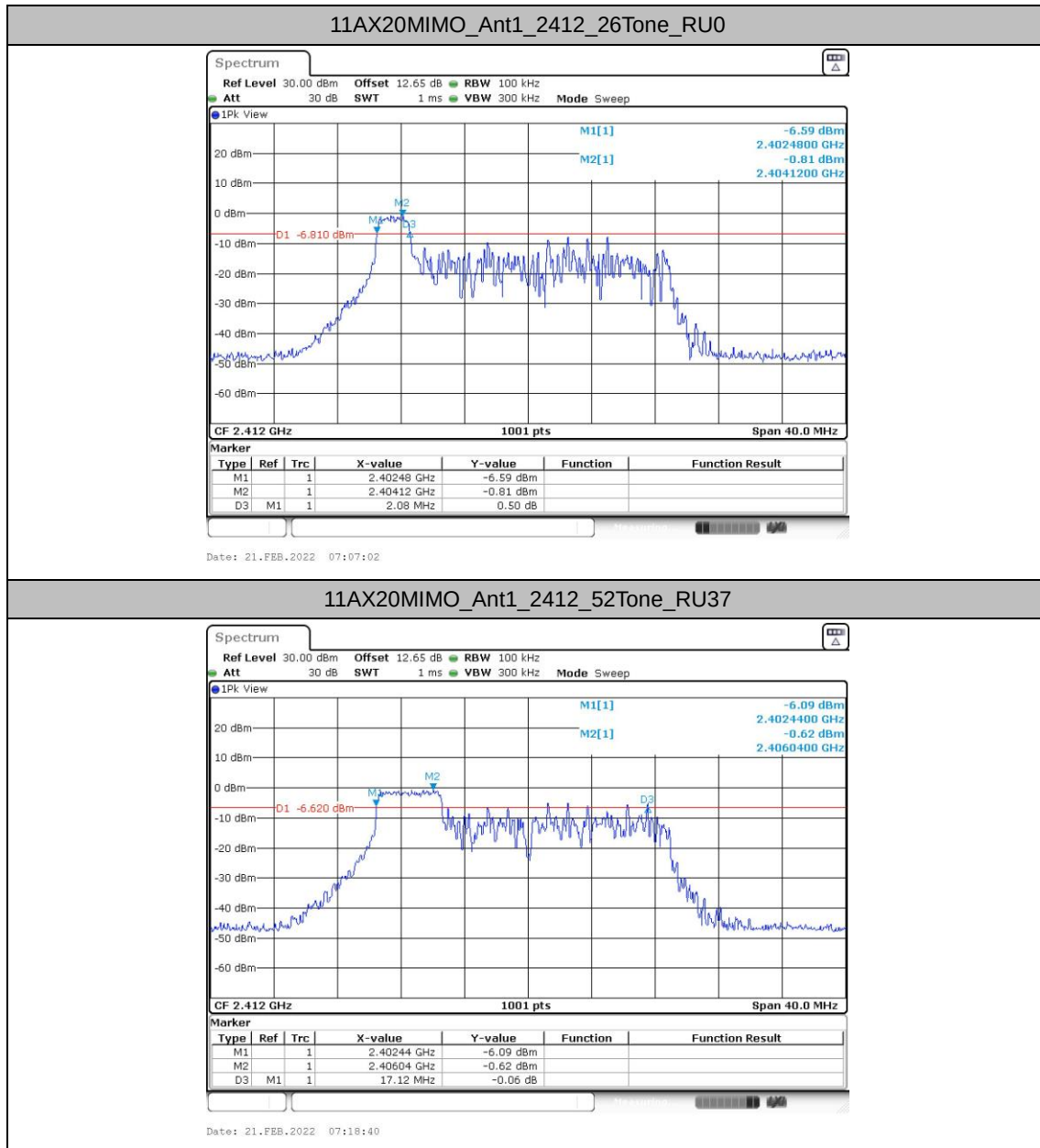
DTS Bandwidth for partial RU

Test Result

Test Mode	Antenna	Frequency [MHz]	Ru Size	Ru Index	DTS BW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11AX20MI MO	Ant1	2412	26Tone	RU0	2.08	2402.48	2404.56	0.5	PASS
			52Tone	RU37	17.12	2402.44	2419.56	0.5	PASS
			106Tone	RU53	15.88	2402.44	2418.32	0.5	PASS
	Ant2	2412	26Tone	RU0	2.08	2402.48	2404.56	0.5	PASS
			52Tone	RU37	17.08	2402.44	2419.52	0.5	PASS
			106Tone	RU53	17.12	2402.44	2419.56	0.5	PASS
	Ant1	2437	26Tone	RU4	2.56	2435.72	2438.28	0.5	PASS
			52Tone	RU38	11.76	2431.56	2443.32	0.5	PASS
			106Tone	RU53	15.20	2427.44	2442.64	0.5	PASS
	Ant2	2437	26Tone	RU4	10.00	2432.00	2442.00	0.5	PASS
			52Tone	RU38	15.12	2429.44	2444.56	0.5	PASS
			106Tone	RU53	17.12	2427.44	2444.56	0.5	PASS
	Ant1	2462	26Tone	RU8	2.08	2469.44	2471.52	0.5	PASS
			52Tone	RU40	17.08	2454.44	2471.52	0.5	PASS
			106Tone	RU54	17.12	2454.44	2471.56	0.5	PASS
	Ant2	2462	26Tone	RU8	2.04	2469.48	2471.52	0.5	PASS
			52Tone	RU40	13.32	2458.20	2471.52	0.5	PASS
			106Tone	RU54	17.16	2454.40	2471.56	0.5	PASS

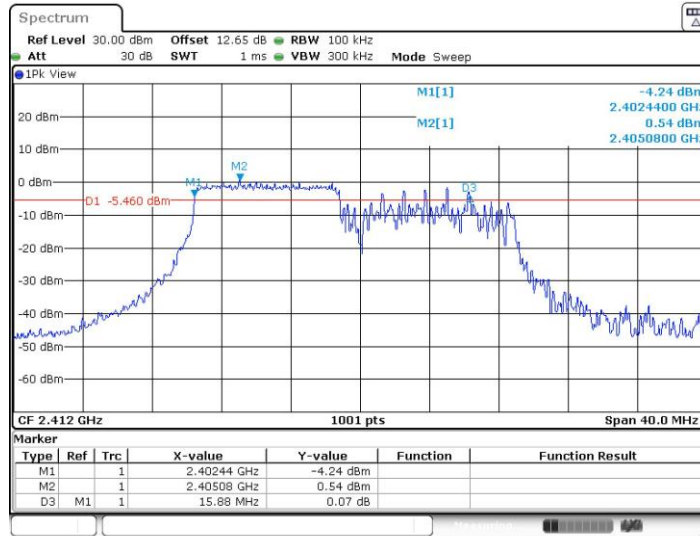


Test Graphs



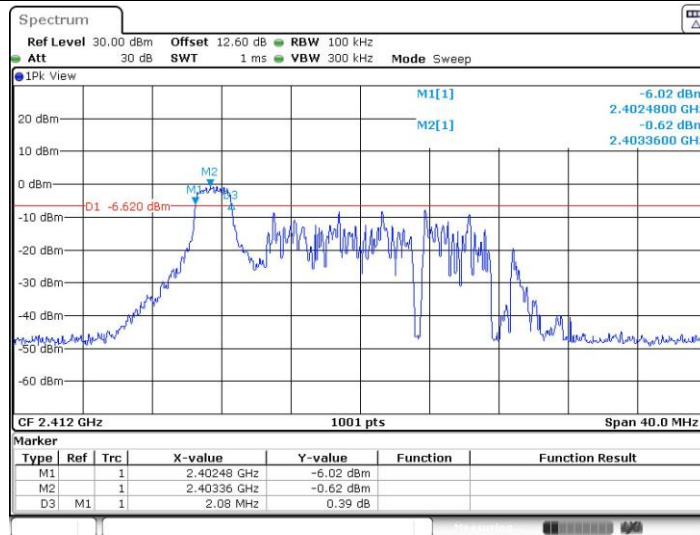


11AX20MIMO_Ant1_2412_106Tone_RU53



Date: 21.FEB.2022 07:24:59

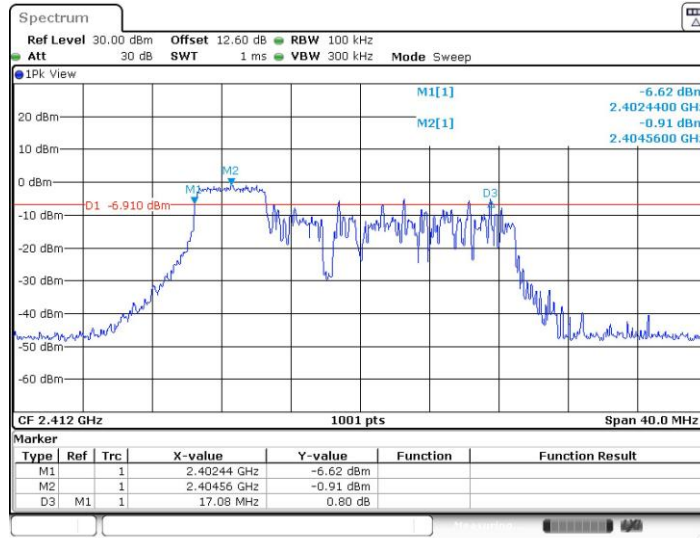
11AX20MIMO_Ant2_2412_26Tone_RU0



Date: 21.FEB.2022 07:12:36

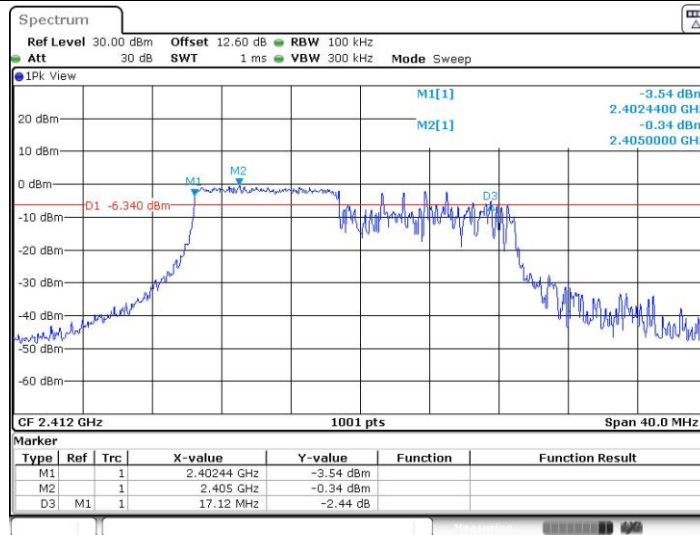


11AX20MIMO_Ant2_2412_52Tone_RU37



Date: 21.FEB.2022 07:23:12

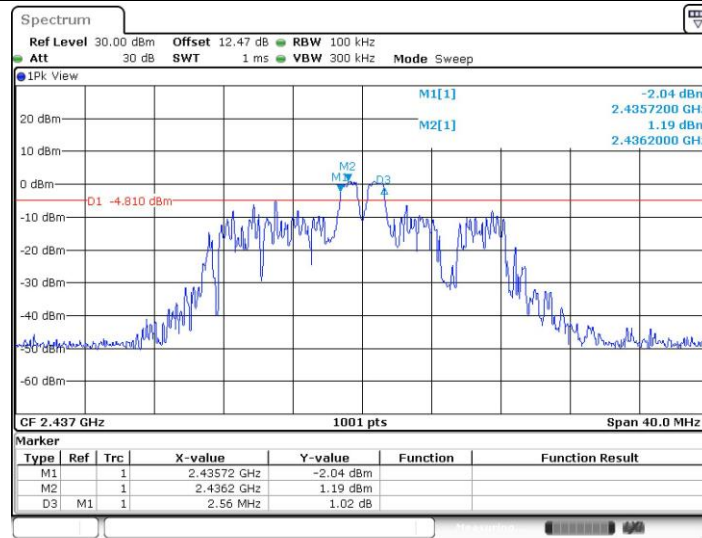
11AX20MIMO_Ant2_2412_106Tone_RU53



Date: 21.FEB.2022 07:27:29



11AX20MIMO_Ant1_2437_26Tone_RU4



Date: 30.JAN.2022 21:54:09

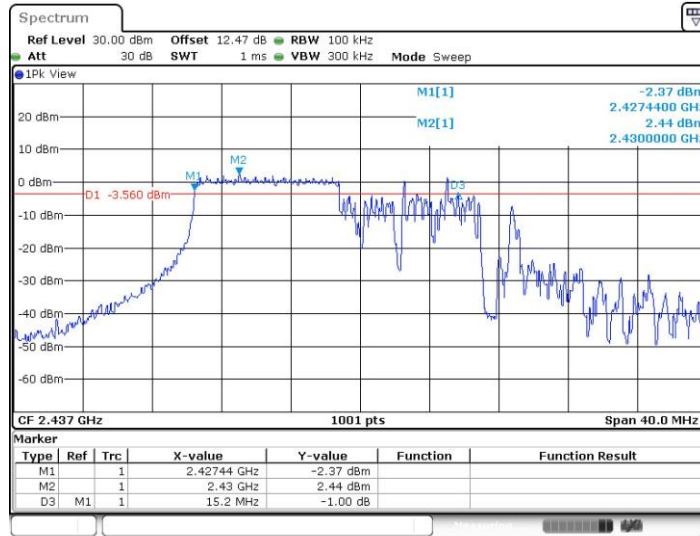
11AX20MIMO_Ant1_2437_52Tone_RU38



Date: 30.JAN.2022 21:58:50



11AX20MIMO_Ant1_2437_106Tone_RU53



Date: 30.JAN.2022 21:39:03

11AX20MIMO_Ant2_2437_26Tone_RU4



Date: 30.JAN.2022 21:54:38

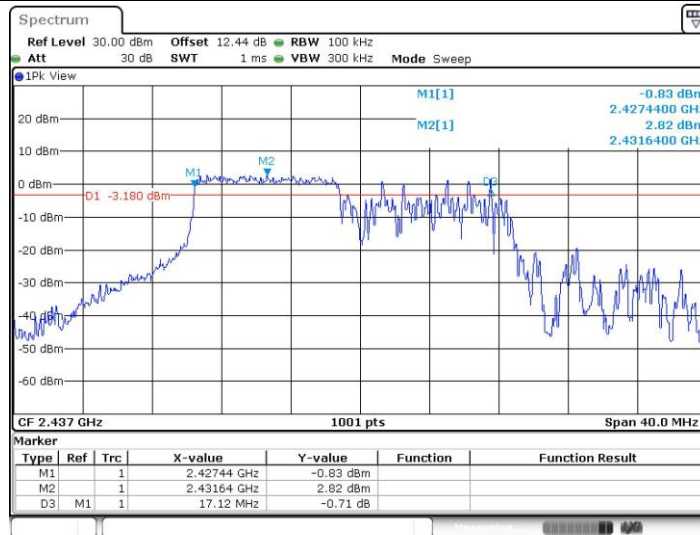


11AX20MIMO_Ant2_2437_52Tone_RU38



Date: 30.JAN.2022 21:59:20

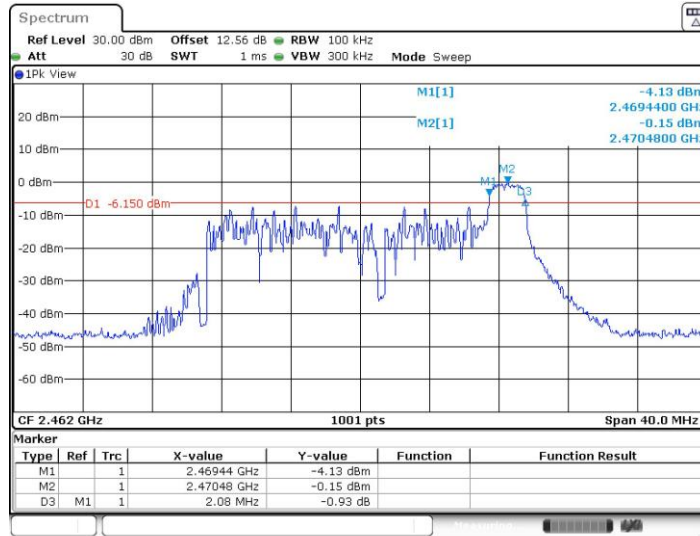
11AX20MIMO_Ant2_2437_106Tone_RU53



Date: 30.JAN.2022 21:39:33

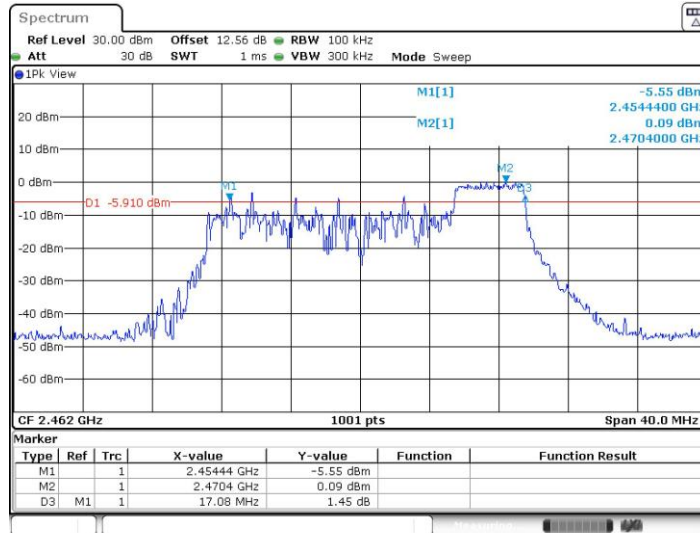


11AX20MIMO_Ant1_2462_26Tone_RU8



Date: 21.FEB.2022 07:30:30

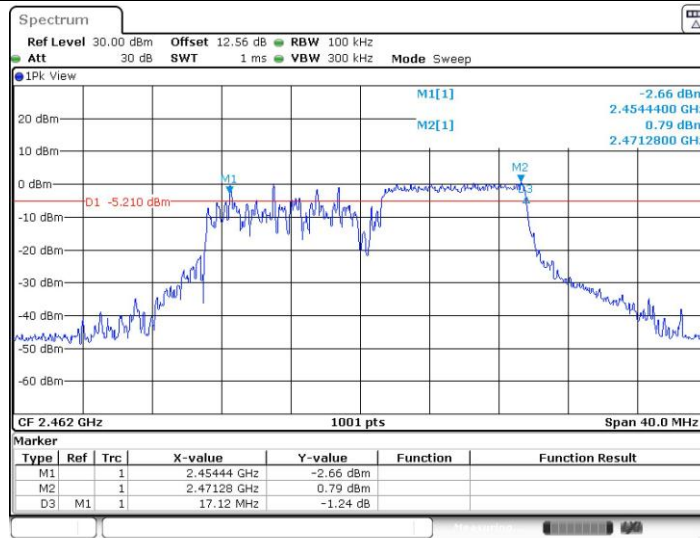
11AX20MIMO_Ant1_2462_52Tone_RU40



Date: 21.FEB.2022 07:36:17

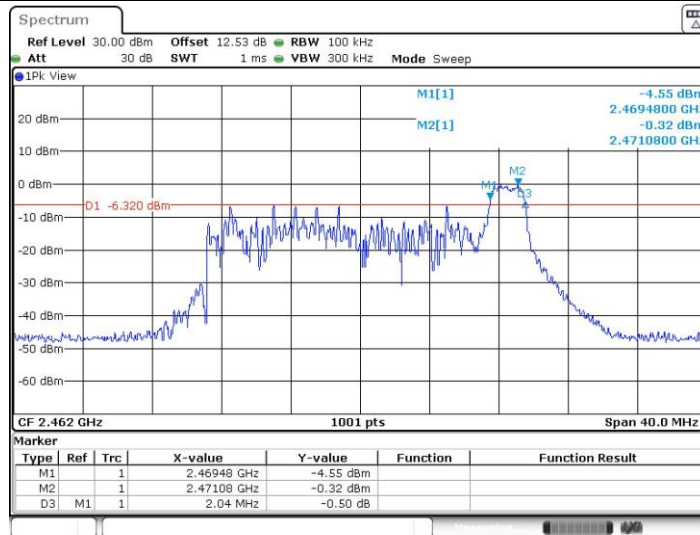


11AX20MIMO_Ant1_2462_106Tone_RU54



Date: 21.FEB.2022 07:41:48

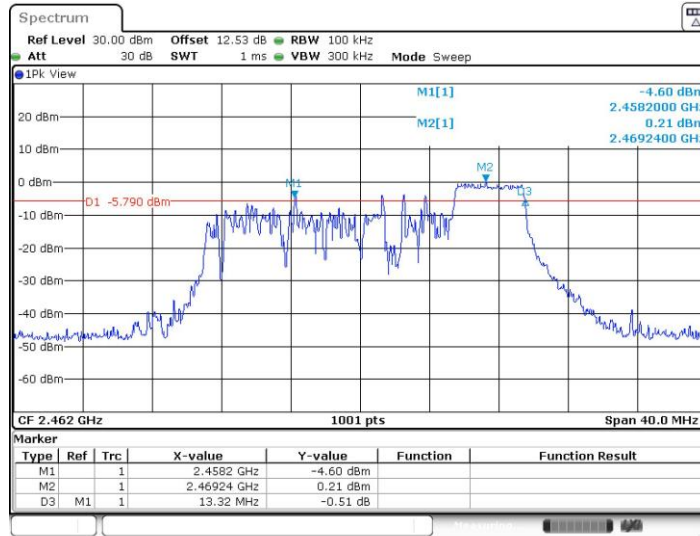
11AX20MIMO_Ant2_2462_26Tone_RU8



Date: 21.FEB.2022 07:33:21

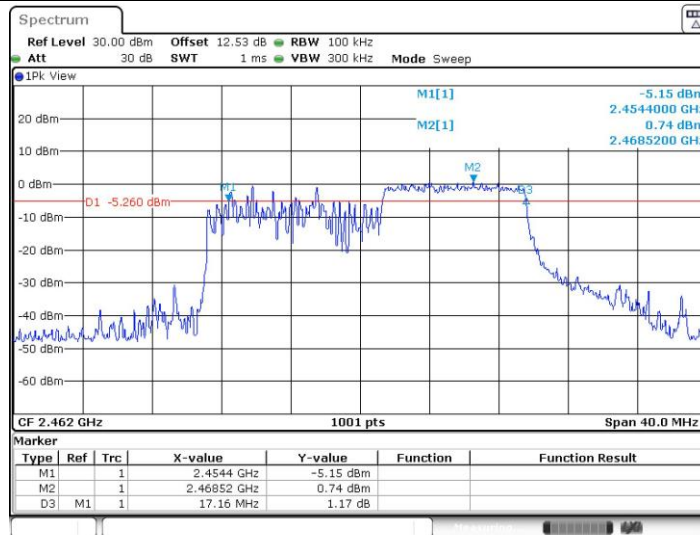


11AX20MIMO_Ant2_2462_52Tone_RU40



Date: 21.FEB.2022 07:38:57

11AX20MIMO_Ant2_2462_106Tone_RU54



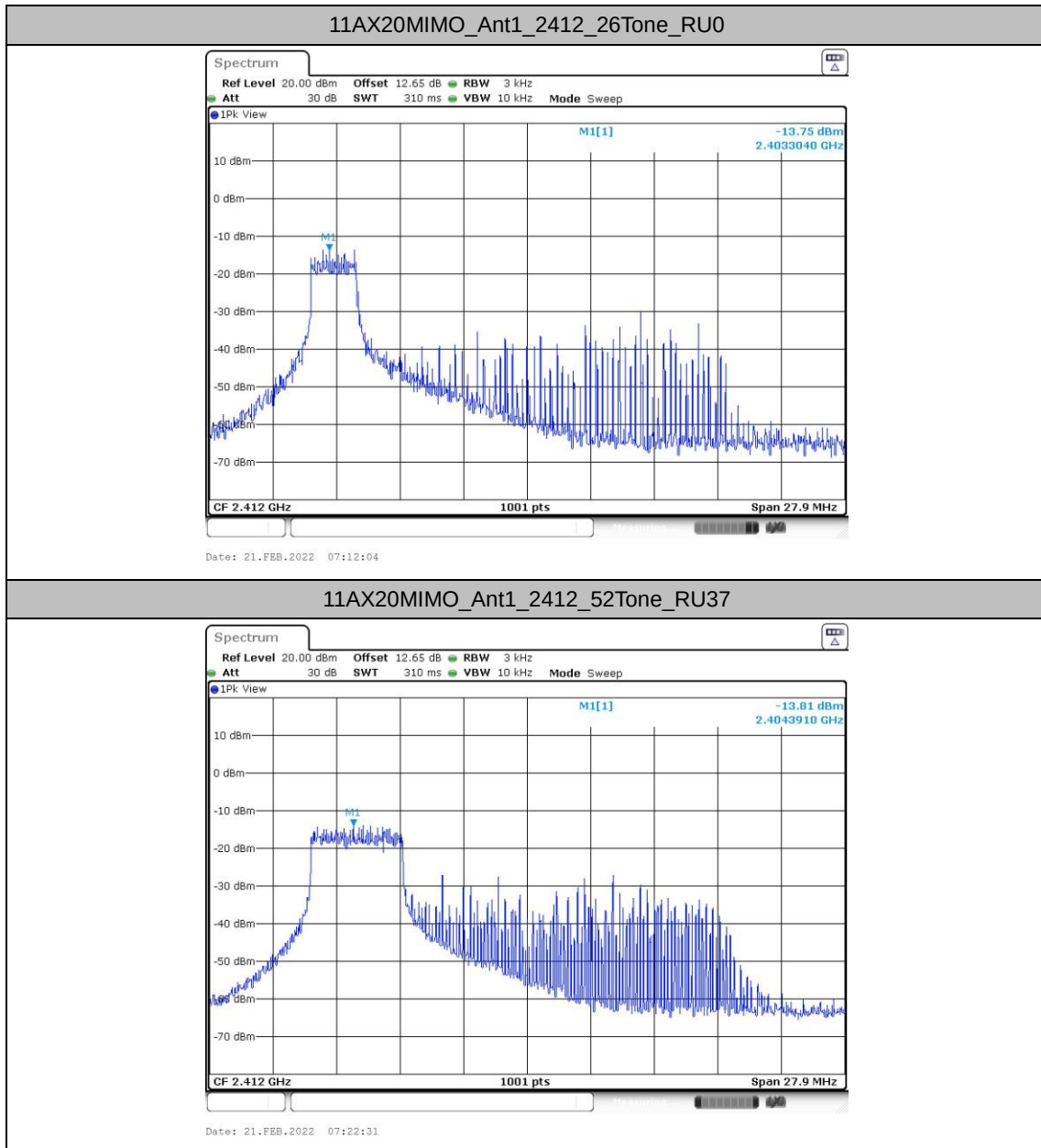
Date: 21.FEB.2022 07:44:34

Maximum power spectral density for partial RU

Test Result

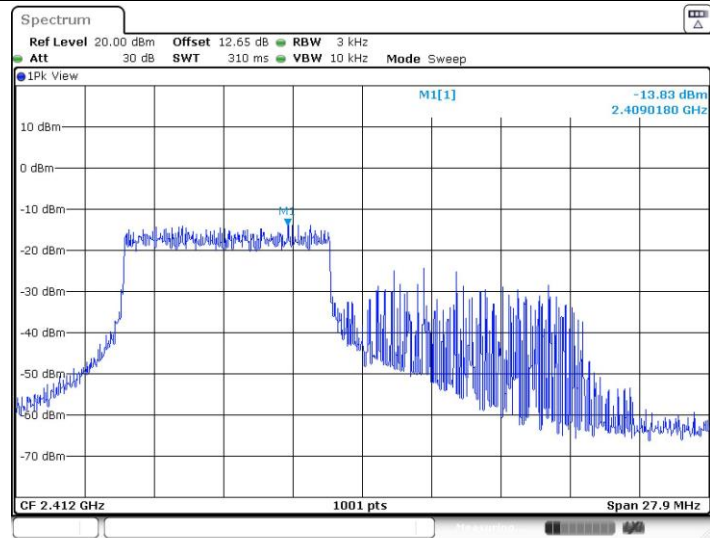
TestMode	Antenna	Frequency[MHz]	RuSize	RuIndex	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
11AX20MIMO	Ant1	2412	26Tone	RU0	-13.75	≤8.00	PASS
			52Tone	RU37	-13.81	≤8.00	PASS
			106Tone	RU53	-13.83	≤8.00	PASS
	Ant2	2412	26Tone	RU0	-13.42	≤8.00	PASS
			52Tone	RU37	-13.88	≤8.00	PASS
			106Tone	RU53	-13.74	≤8.00	PASS
	total	2412	26Tone	RU0	-10.57	≤8.00	PASS
			52Tone	RU37	-10.83	≤8.00	PASS
			106Tone	RU53	-10.77	≤8.00	PASS
	Ant1	2437	26Tone	RU4	-11.66	≤8.00	PASS
			52Tone	RU38	-11.11	≤8.00	PASS
			106Tone	RU53	-12.43	≤8.00	PASS
	Ant2	2437	26Tone	RU4	-10.67	≤8.00	PASS
			52Tone	RU38	-11.27	≤8.00	PASS
			106Tone	RU53	-9.38	≤8.00	PASS
	total	2437	26Tone	RU4	-8.13	≤8.00	PASS
			52Tone	RU38	-8.18	≤8.00	PASS
			106Tone	RU53	-7.63	≤8.00	PASS
	Ant1	2462	26Tone	RU8	-13.45	≤8.00	PASS
			52Tone	RU40	-13.45	≤8.00	PASS
			106Tone	RU54	-13.63	≤8.00	PASS
	Ant2	2462	26Tone	RU8	-12.55	≤8.00	PASS
			52Tone	RU40	-13.24	≤8.00	PASS
			106Tone	RU54	-12.93	≤8.00	PASS
	total	2462	26Tone	RU8	-9.97	≤8.00	PASS
			52Tone	RU40	-10.33	≤8.00	PASS
			106Tone	RU54	-10.26	≤8.00	PASS

Test Graphs



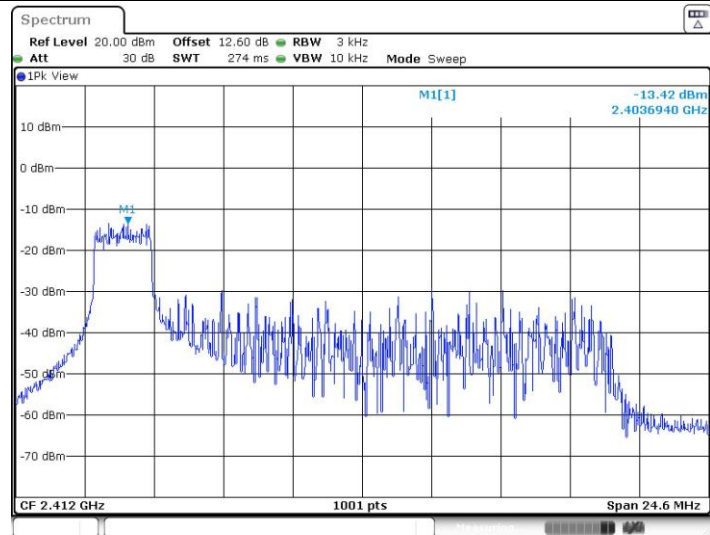


11AX20MIMO_Ant1_2412_106Tone_RU53



Date: 21.FEB.2022 07:26:48

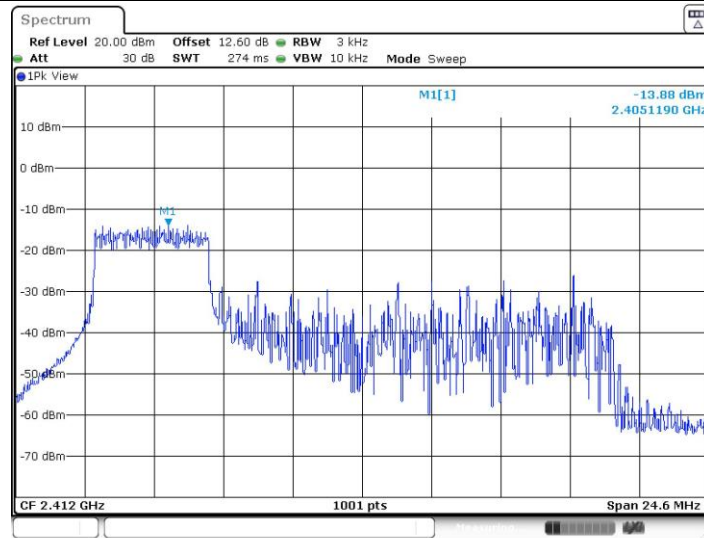
11AX20MIMO_Ant2_2412_26Tone_RU0



Date: 21.FEB.2022 07:15:11

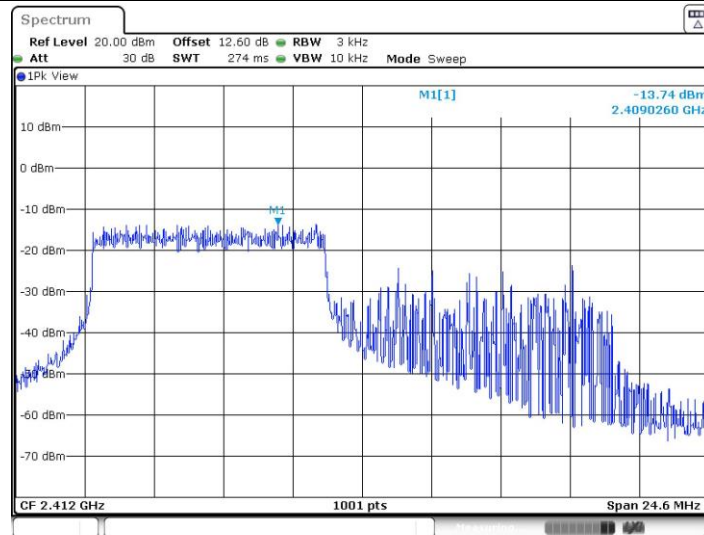


11AX20MIMO_Ant2_2412_52Tone_RU37



Date: 21.FEB.2022 07:23:49

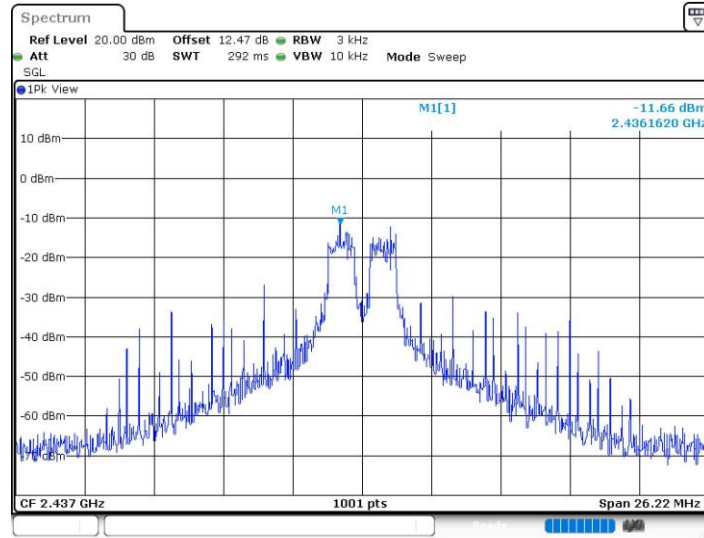
11AX20MIMO_Ant2_2412_106Tone_RU53



Date: 21.FEB.2022 07:28:35

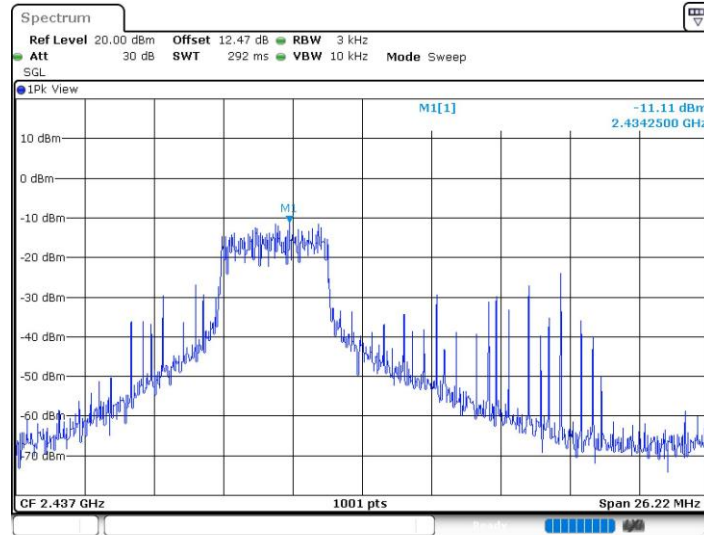


11AX20MIMO_Ant1_2437_26Tone_RU4



Date: 30.JAN.2022 21:56:17

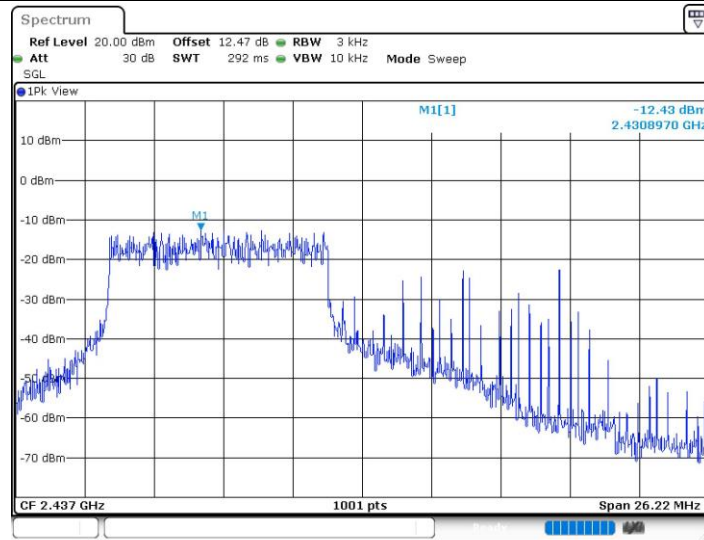
11AX20MIMO_Ant1_2437_52Tone_RU38



Date: 30.JAN.2022 21:59:04

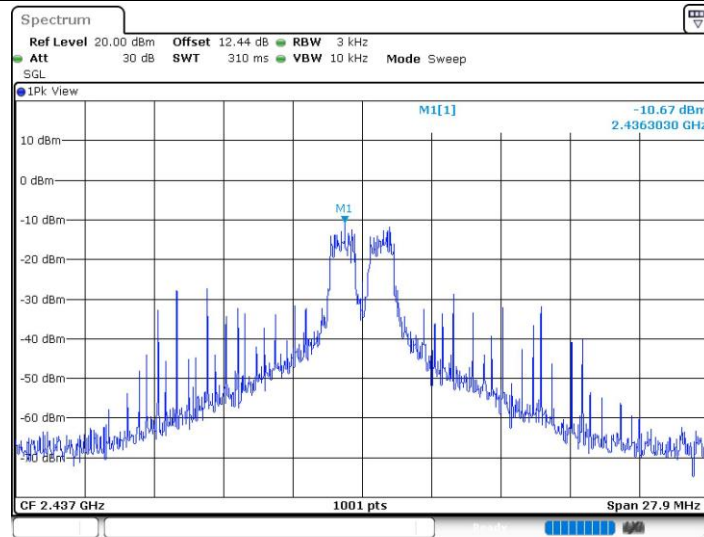


11AX20MIMO_Ant1_2437_106Tone_RU53



Date: 30.JAN.2022 21:39:17

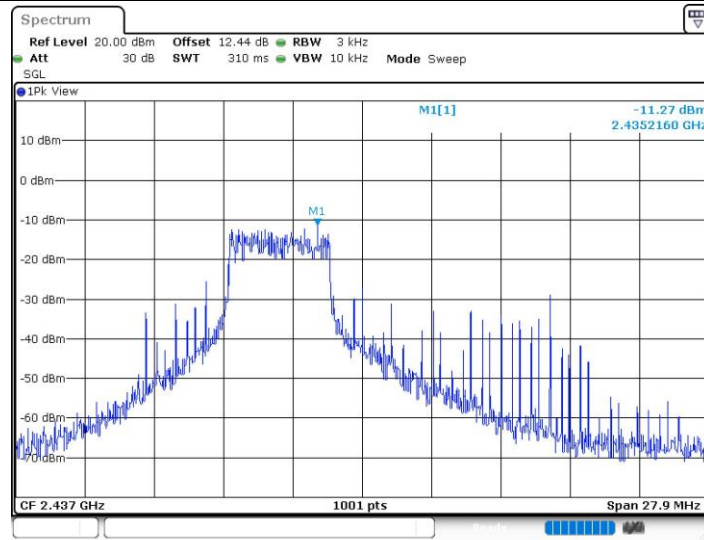
11AX20MIMO_Ant2_2437_26Tone_RU4



Date: 30.JAN.2022 21:56:30

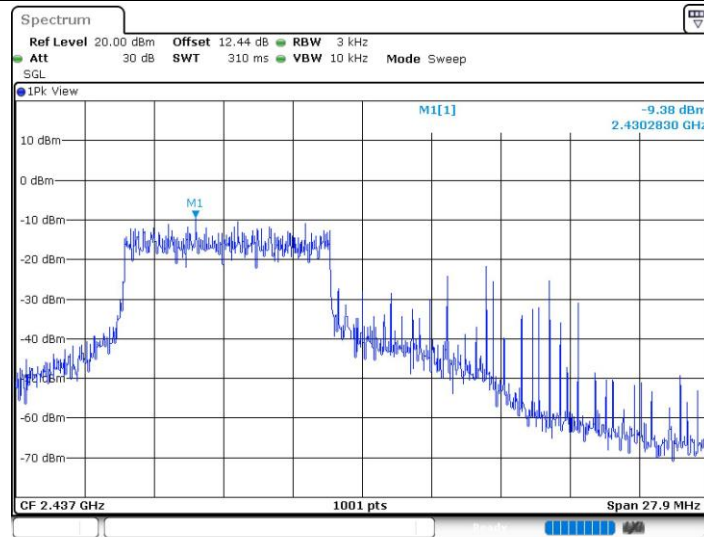


11AX20MIMO_Ant2_2437_52Tone_RU38



Date: 30.JAN.2022 21:59:35

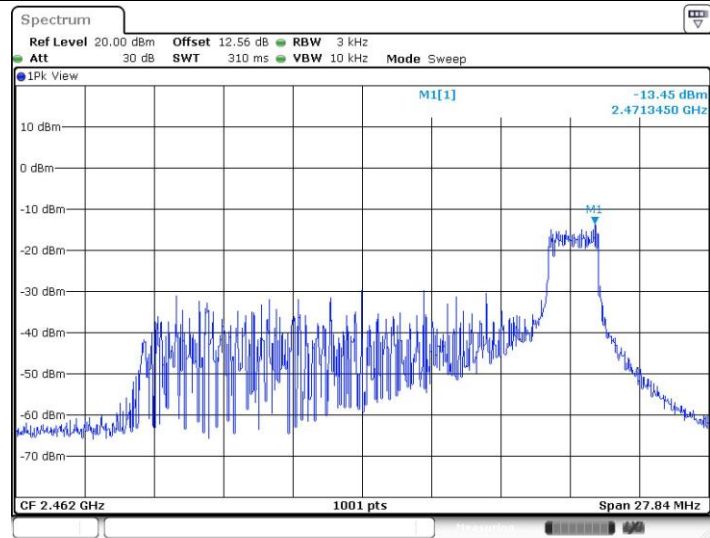
11AX20MIMO_Ant2_2437_106Tone_RU53



Date: 30.JAN.2022 21:39:49

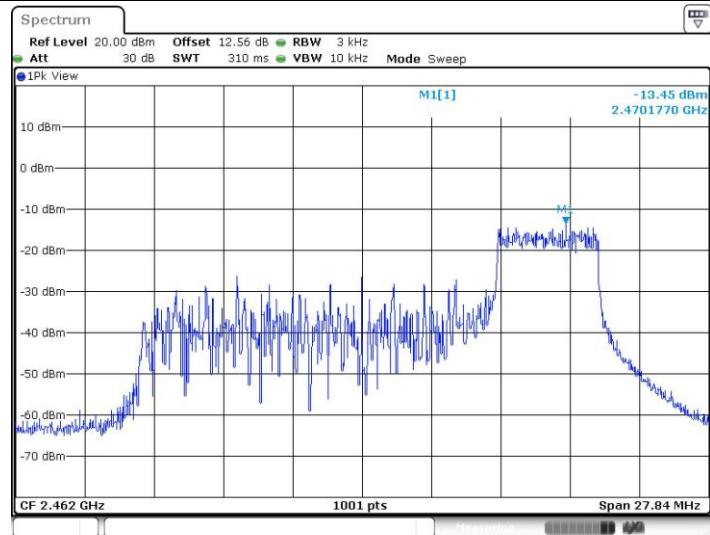


11AX20MIMO_Ant1_2462_26Tone_RU8



Date: 14.MAR.2022 17:48:36

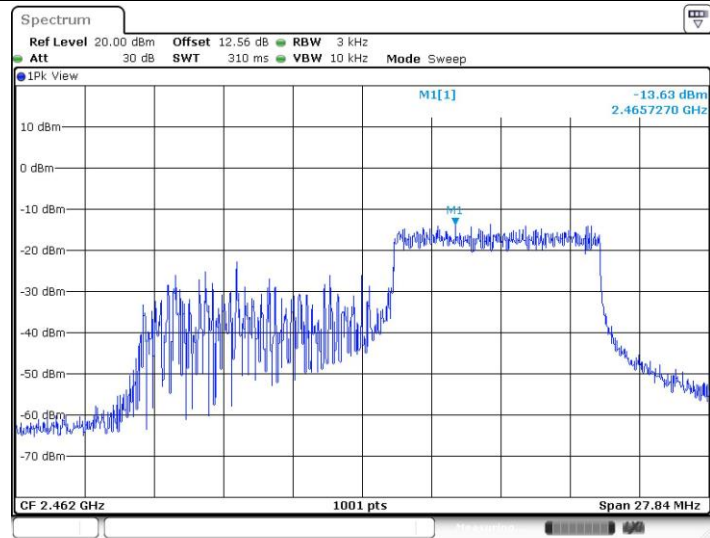
11AX20MIMO_Ant1_2462_52Tone_RU40



Date: 14.MAR.2022 17:53:10

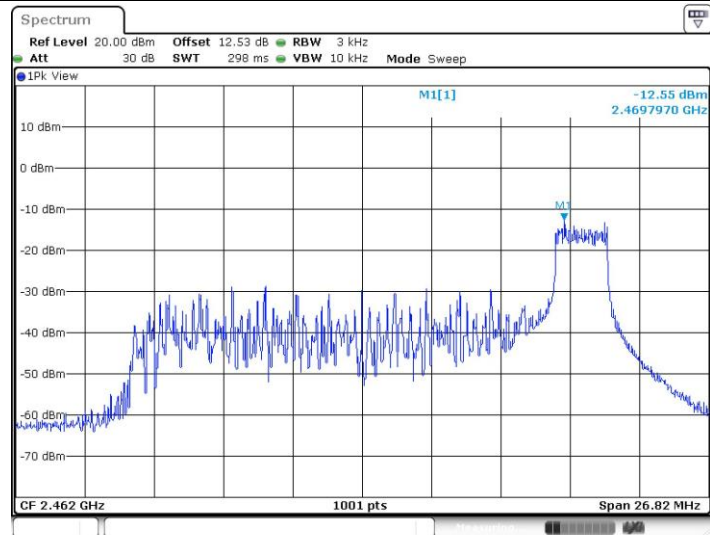


11AX20MIMO_Ant1_2462_106Tone_RU54



Date: 14.MAR.2022 17:56:46

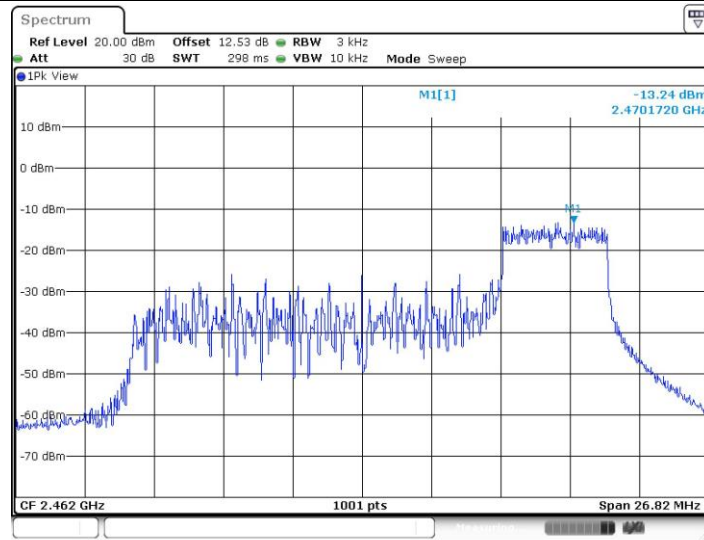
11AX20MIMO_Ant2_2462_26Tone_RU8



Date: 14.MAR.2022 17:49:30

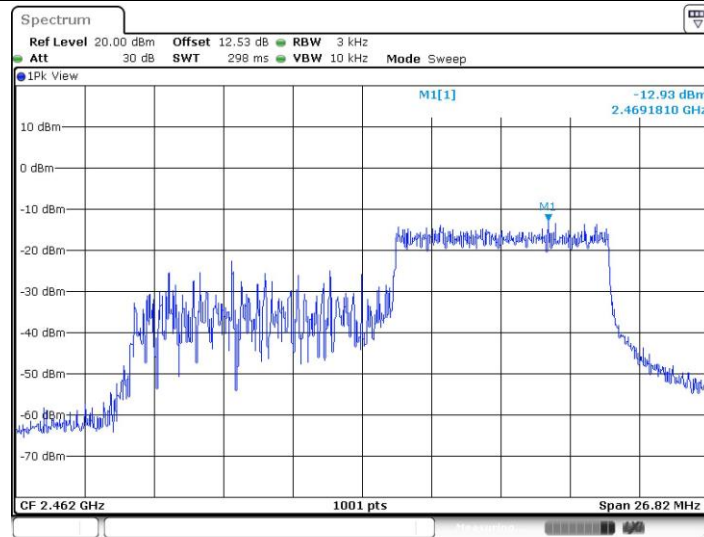


11AX20MIMO_Ant2_2462_52Tone_RU40



Date: 14.MAR.2022 17:55:12

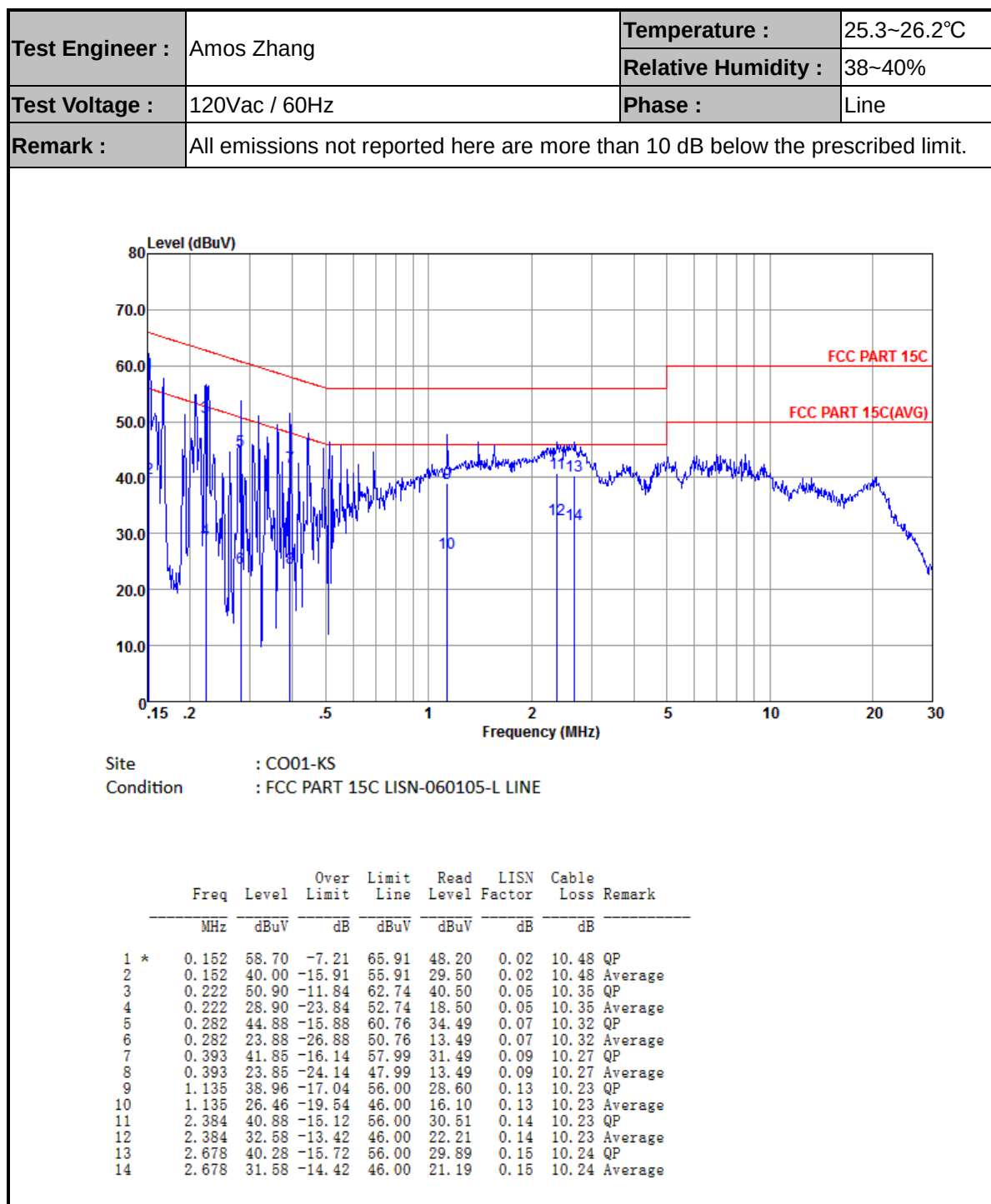
11AX20MIMO_Ant2_2462_106Tone_RU54



Date: 14.MAR.2022 17:57:04

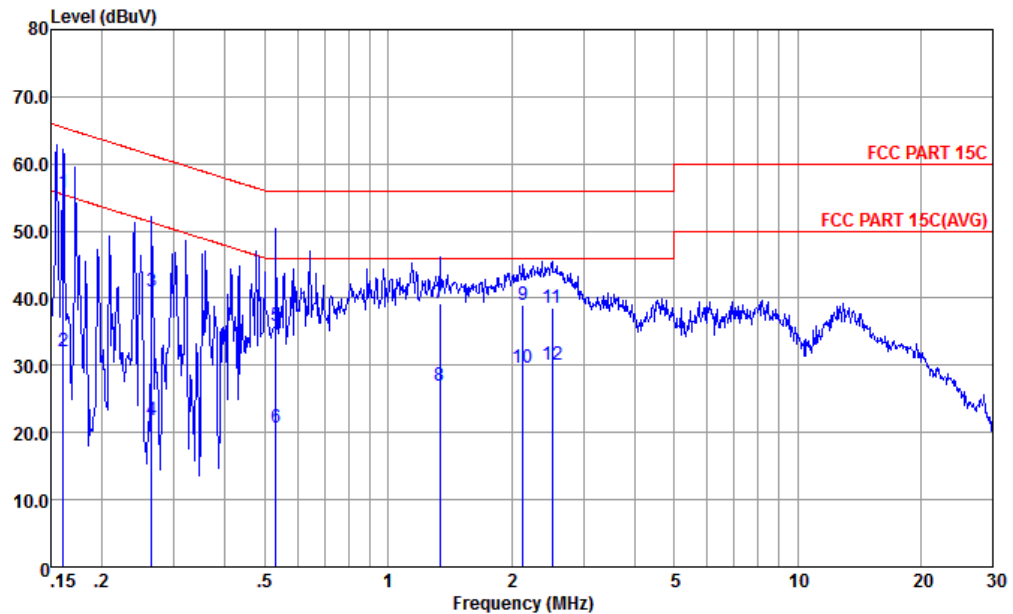


Appendix B. AC Conducted Emission Test Results





Test Engineer :	Amos Zhang	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 15C LISN-060105-N NEUTRAL

	Freq	Level	Over	Limit	Read	LISN	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
1 *	0.161	55.76	-9.67	65.43	45.20	0.11	10.45	QP
2	0.161	32.06	-23.37	55.43	21.50	0.11	10.45	Average
3	0.264	41.02	-20.27	61.29	30.60	0.10	10.32	QP
4	0.264	21.92	-29.37	51.29	11.50	0.10	10.32	Average
5	0.532	35.85	-20.15	56.00	25.50	0.11	10.24	QP
6	0.532	20.65	-25.35	46.00	10.30	0.11	10.24	Average
7	1.338	39.16	-16.84	56.00	28.80	0.13	10.23	QP
8	1.338	26.96	-19.04	46.00	16.60	0.13	10.23	Average
9	2.133	38.97	-17.03	56.00	28.60	0.14	10.23	QP
10	2.133	29.67	-16.33	46.00	19.30	0.14	10.23	Average
11	2.513	38.58	-17.42	56.00	28.19	0.15	10.24	QP
12	2.513	29.98	-16.02	46.00	19.59	0.15	10.24	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

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
15+16		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2387.22	49.53	-24.47	74	49.94	31.96	7.11	39.48	110	86	P	H
		2387.22	39.95	-14.05	54	40.36	31.96	7.11	39.48	110	86	A	H
		2412	105.41	---	---	105.74	32.02	7.15	39.5	110	86	P	H
		2414	102.96	---	---	103.27	32.03	7.16	39.5	110	86	A	H
		2388.78	49.2	-24.8	74	49.6	31.97	7.11	39.48	368	240	P	V
		2387.22	38.83	-15.17	54	39.24	31.96	7.11	39.48	368	240	A	V
		2412	102.26	---	---	102.59	32.02	7.15	39.5	368	240	P	V
		2414	99.72	---	---	100.03	32.03	7.16	39.5	368	240	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 802.11b (Harmonic @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
15+16		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		4824	41.18	-32.82	74	62.21	34.08	10.32	65.43	100	355	P	H
		4824	40.56	-33.44	74	61.59	34.08	10.32	65.43	100	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 802.11 ax HE20 Full (Band Edge @ 3m)

WIFI Ant. 15+16	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)
8802.11ax HE20 Full CH 11 2462MHz		2486.425	64.67	-9.33	74	64.69	32.17	7.29	39.48	157	293	P	H
		2485.465	50.96	-3.04	54	50.98	32.17	7.29	39.48	157	293	A	H
		2469	110.22	---	---	110.31	32.14	7.26	39.49	157	293	P	H
		2468	100.45	---	---	100.54	32.14	7.26	39.49	157	293	A	H
		2485.99	59.68	-14.32	74	59.7	32.17	7.29	39.48	320	243	P	V
		2486.32	47.02	-6.98	54	47.04	32.17	7.29	39.48	320	243	A	V
		2467.5	106.97	---	---	107.06	32.14	7.26	39.49	320	243	P	V
		2468	97.17	---	---	97.26	32.14	7.26	39.49	320	243	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 802.11 ax HE20 Full (Harmonic @ 3m)

WIFI Ant. 15+16	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		4924.5	41.27	-32.73	74	62.24	34.02	10.45	65.44	100	360	P	H
HE20 Full		7386	40.9	-33.1	74	57.66	35.69	12.84	65.29	100	360	P	H
CH 11		4924.5	40.83	-33.17	74	61.8	34.02	10.45	65.44	100	2	P	V
2462MHz		7386	41.91	-32.09	74	58.67	35.69	12.84	65.29	100	2	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 HE20 Partial 26 (Band Edge @ 3m)

WIFI Ant. 15+16	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 26/8 CH 11 2462MHz		2483.5	70.12	-3.88	74	69.17	32.12	8.33	39.5	100	279	P	H
		2483.5	43.15	-10.85	54	42.2	32.12	8.33	39.5	100	279	A	H
		2472	113.09	---	---	112.16	32.12	8.31	39.5	100	279	P	H
		2470	105.32	---	---	104.41	32.1	8.31	39.5	100	279	A	H
		2484.22	63.84	-10.16	74	62.89	32.12	8.33	39.5	332	37	P	V
		2484.22	41.98	-12.02	54	41.03	32.12	8.33	39.5	332	37	A	V
		2470	112.25	---	---	111.34	32.1	8.31	39.5	332	37	P	V
		2470	103.71	---	---	102.8	32.1	8.31	39.5	332	37	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 802.11 ax HE40 Full (Band Edge @ 3m)

WIFI Ant. 15+16	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 09 2452MHz		2385.66	53.44	-20.56	74	53.85	31.96	7.11	39.48	106	286	P	H
		2389.82	41.49	-12.51	54	41.89	31.97	7.11	39.48	106	286	A	H
		2484.34	62.68	-11.32	74	62.7	32.17	7.29	39.48	106	286	P	H
		2485.78	50.29	-3.71	54	50.31	32.17	7.29	39.48	106	286	A	H
		2446	108.49	---	---	108.67	32.09	7.22	39.49	106	286	P	H
		2448	97.77	---	---	97.94	32.1	7.22	39.49	106	286	A	H
		2387.48	49.95	-24.05	74	50.36	31.96	7.11	39.48	371	245	P	V
		2389.95	38.63	-15.37	54	39.03	31.97	7.11	39.48	371	245	A	V
		2484.52	58.96	-15.04	74	58.98	32.17	7.29	39.48	371	245	P	V
		2485.54	45.12	-8.88	54	45.14	32.17	7.29	39.48	371	245	A	V
		2448	104.54	---	---	104.71	32.1	7.22	39.49	371	245	P	V
		2448	94.87	---	---	95.04	32.1	7.22	39.49	371	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 802.11 ax HE40 Full (Harmonic @ 3m)**

WIFI Ant. 15+16	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		4903.5	39.04	-34.96	74	60.06	34	10.42	65.44	300	360	P	H
HE40 Full		7356	41.61	-32.39	74	58.39	35.66	12.83	65.27	300	360	P	H
CH 09		4903.5	38.39	-35.61	74	59.41	34	10.42	65.44	100	301	P	V
2452MHz		7356	41.97	-32.03	74	58.75	35.66	12.83	65.27	100	301	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Emission below 1GHz

2.4GHz WIFI 802.11ax HE20 (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
15+16		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz 802.11ax HE20 LF		31.94	17.14	-22.86	40	26	22.48	0.86	32.2	-	-	P	H
		143.49	14.51	-28.99	43.5	27.51	17.02	2.09	32.11	-	-	P	H
		229.82	18.28	-27.72	46	30.61	17.19	2.64	32.16	-	-	P	H
		288.99	17.71	-28.29	46	27.71	19.15	2.97	32.12	-	-	P	H
		370.47	17.03	-28.97	46	24.79	21.13	3.35	32.24	-	-	P	H
		611.03	23.39	-22.61	46	25.24	26.13	4.3	32.28	100	0	P	H
		45.52	27.55	-12.45	40	41.9	16.68	1.17	32.2	100	0	P	V
		75.59	20.03	-19.97	40	37.46	13.28	1.49	32.2	-	-	P	V
		334.58	17.11	-28.89	46	25.89	20.2	3.19	32.17	-	-	P	V
		522.76	21.49	-24.51	46	25.22	24.64	3.98	32.35	-	-	P	V
		750.71	25.77	-20.23	46	24.91	28.4	4.76	32.3	-	-	P	V
		914.64	27.11	-18.89	46	24.56	29.49	5.26	32.2	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



<Simultaneous transmission>

Co-location-- WIFI 802.11 ax HE20 Full&Part 96---LTE_B48_BW_20M

2.4GHz 2400~2483.5MHz

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

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
15+16		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
8802.11ax HE20 Full CH 11 2462MHz		2484.22	62.28	-11.72	74	61.33	32.12	8.33	39.5	100	281	P	H
		2483.5	50.87	-3.13	54	49.92	32.12	8.33	39.5	100	281	A	H
		2464	103.01	---	---	102.12	32.1	8.29	39.5	100	281	P	H
		2455	95.35	---	---	94.48	32.1	8.27	39.5	100	281	A	H
		2486.8	58.11	-15.89	74	57.15	32.12	8.34	39.5	210	68	P	V
		2483.8	47.3	-6.7	54	46.35	32.12	8.33	39.5	210	68	A	V
		2467	102.26	---	---	101.37	32.1	8.29	39.5	210	68	P	V
		2470	94.64	---	---	93.73	32.1	8.31	39.5	210	68	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 802.11 ax HE20 Full (Harmonic @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
15+16		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ax HE20 Full CH 11 2462MHz		4924	39.95	-34.05	74	60.41	34.1	10.88	65.44	100	3	P	H
		7388	42.88	-31.12	74	58.9	35.8	13.48	65.3	100	3	P	H
		4924	40.9	-33.1	74	61.36	34.1	10.88	65.44	300	0	P	V
		7388	42.87	-31.13	74	58.89	35.8	13.48	65.3	300	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	P eak or A verage
H/V	H orizontal or V ertical



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.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
15+16		(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													
2412MHz		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

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)

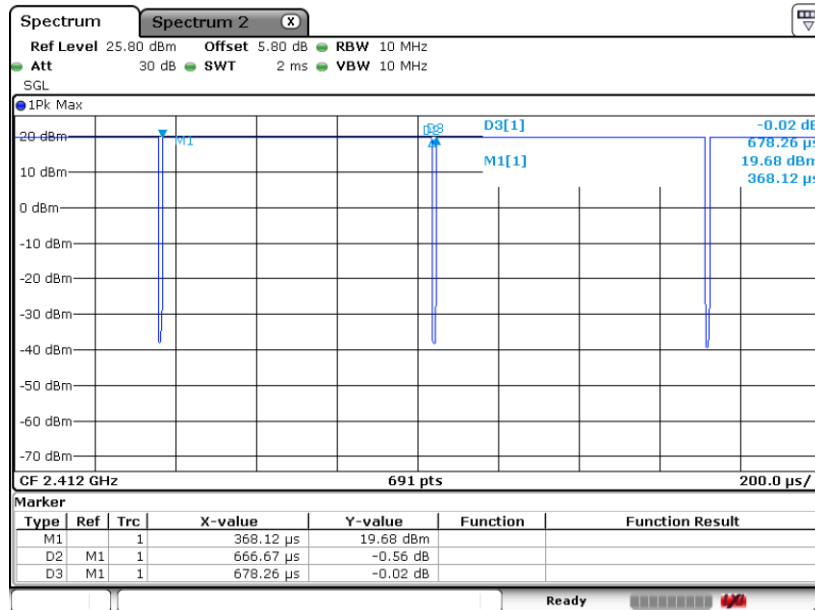
= -10.46(dB)

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

Appendix D. Duty Cycle Plots

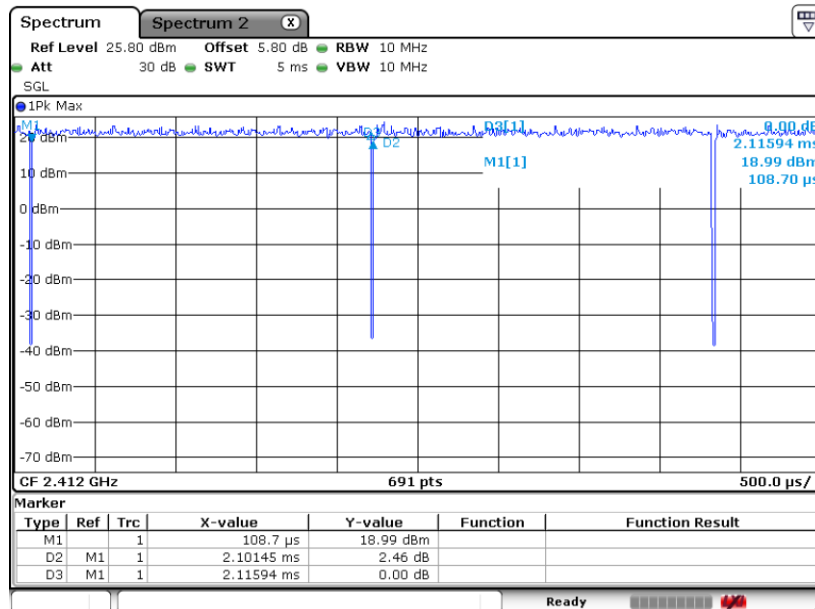
Band	Duty Cycle(%)	T(ms)	1/T(kHz)	VBW Setting
802.11b	98.29	-	-	10Hz
802.11g	99.32	-	-	10Hz
802.11ax HE20	100	-	-	10Hz
802.11ax HE40	100	-	-	10Hz
802.11ax HE20-26ru	100	-	-	10Hz
802.11ax HE20-52ru	100	-	-	10Hz
802.11ax HE20-106ru	100	-	-	10Hz

802.11b



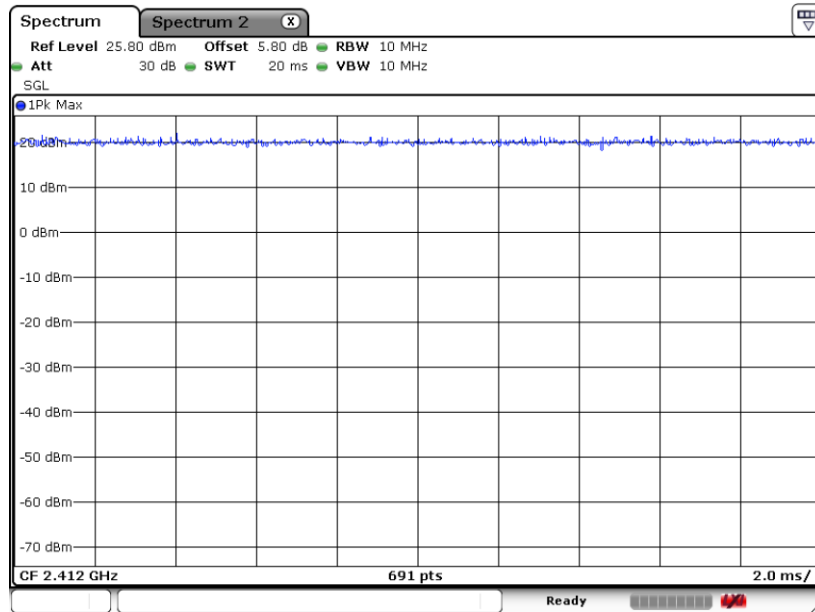
Date: 10 JAN 2022 14:18:49

802.11g



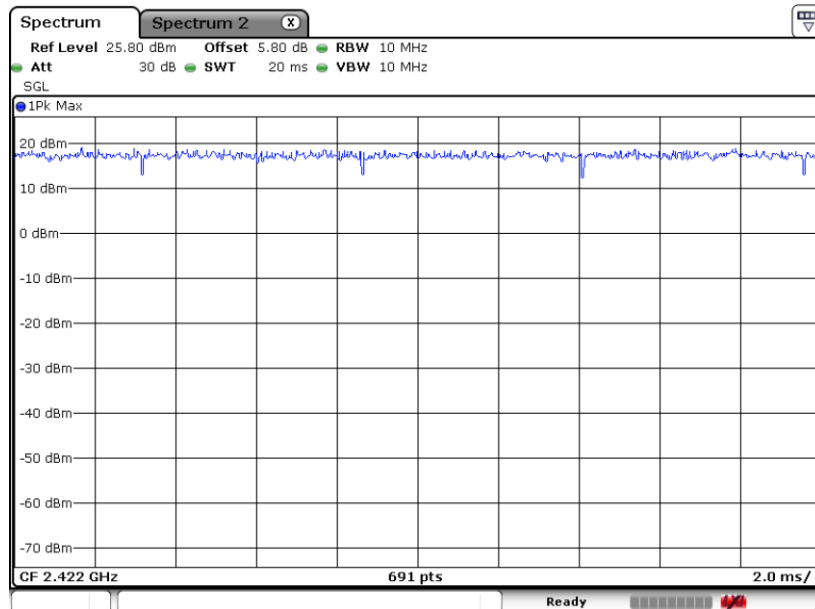
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802.11ax HE20



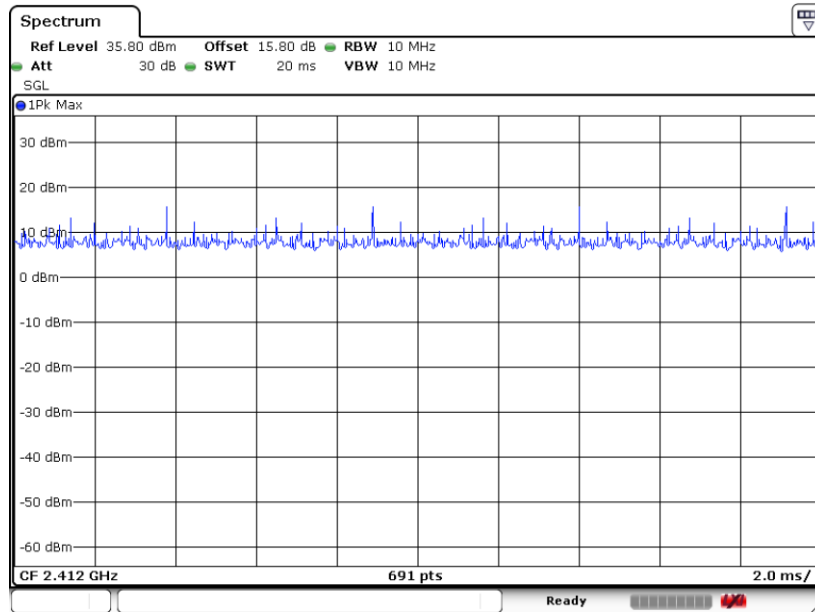
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802.11ax HE40

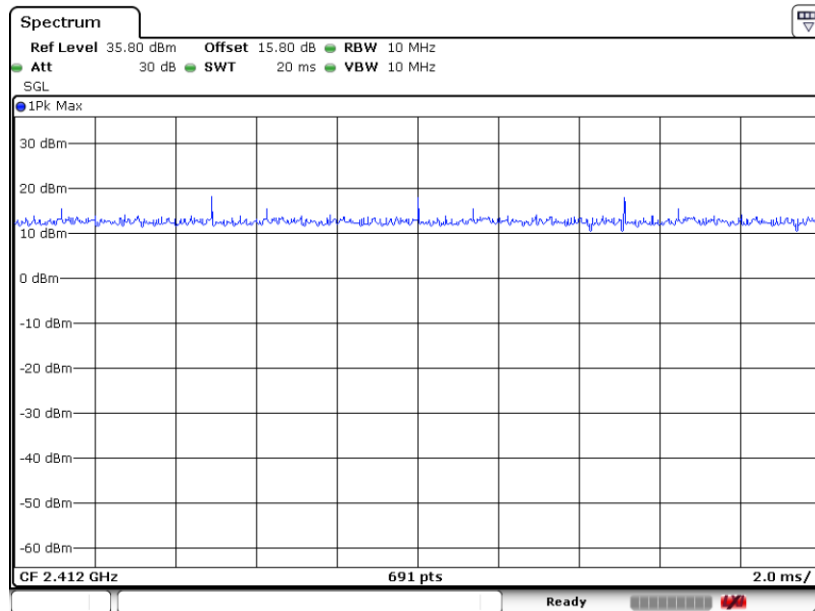


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802.11ax HE20-26ru

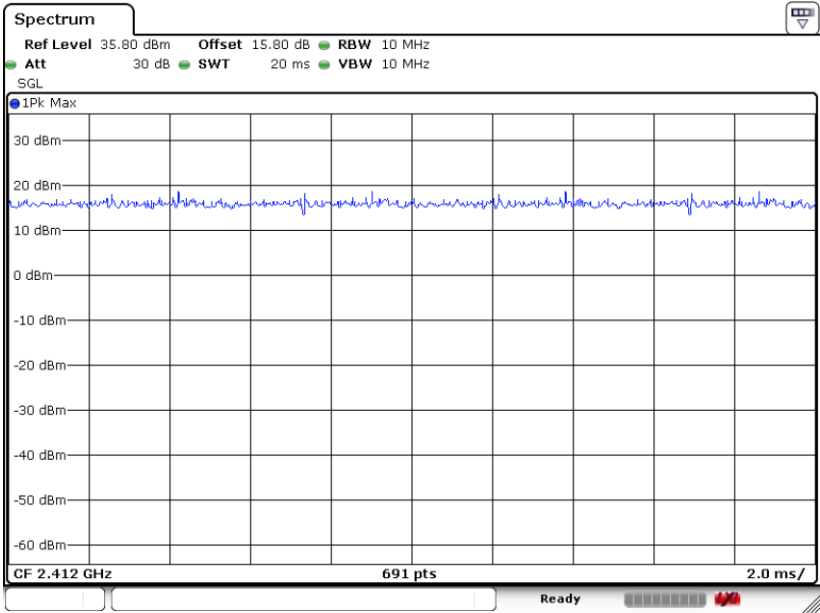


802.11ax HE20-52ru





802.11ax HE20-106ru



Date: 23.JAN.2022 13:59:48