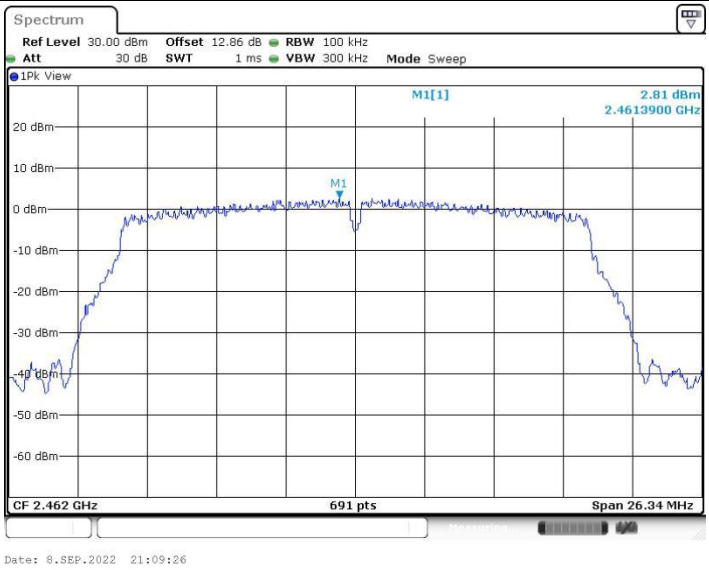
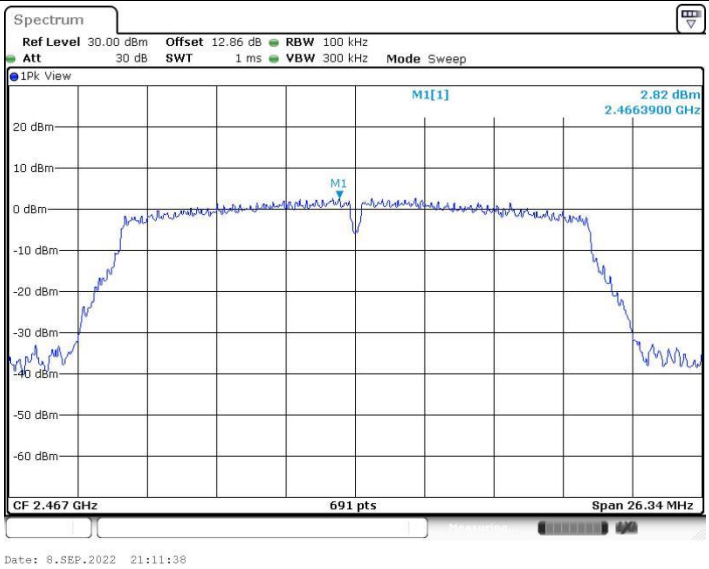
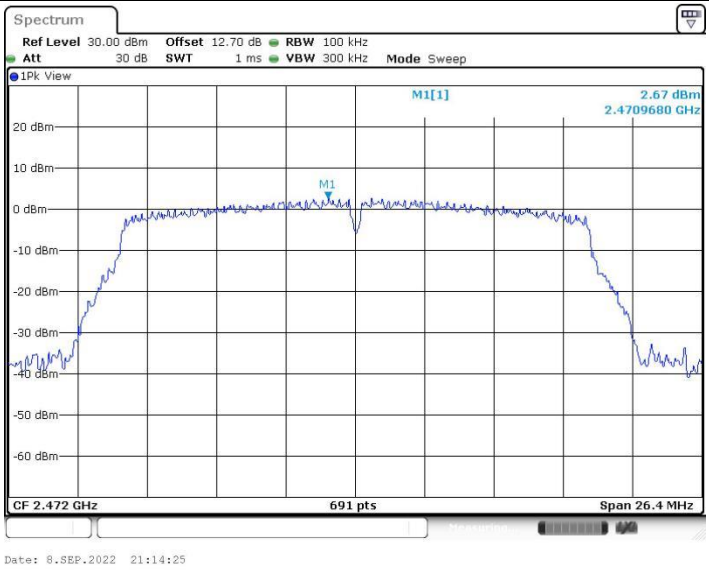
11N20SISO_Ant1_2462



11N20SISO_Ant1_2467



11N20SISO_Ant1_2472



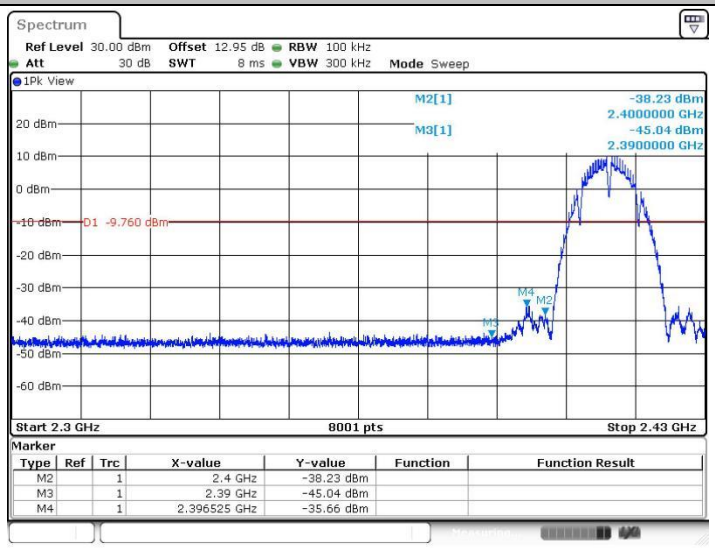
Band edge measurements

Test Result

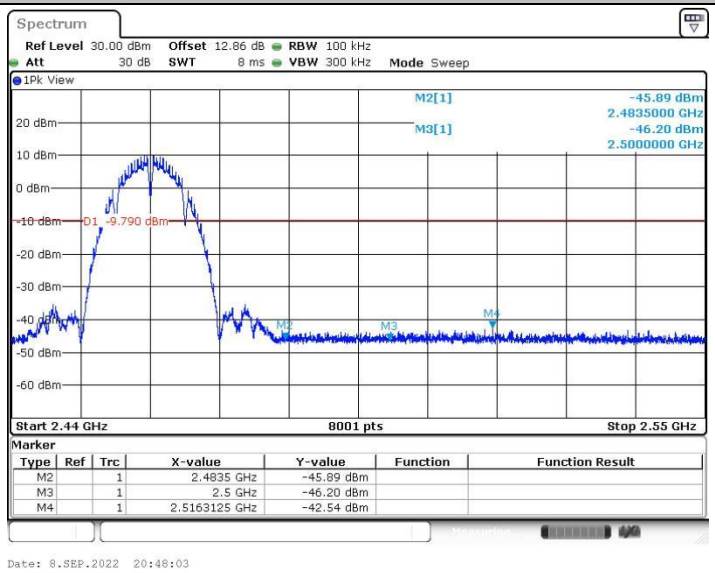
TestMode	Antenna	ChName	Freq(MHz)	RefLevel[dBm/100KHz]	Result[dBm/100KHz]	Limit[dBm/100KHz]	Verdict
11B	Ant1	Low	2412	10.24	-35.66	≤-9.76	PASS
		High	2462	10.21	-42.54	≤-9.79	PASS
			2467	9.63	-38.38	≤-10.37	PASS
			2472	9.82	-35.63	≤-10.18	PASS
11G	Ant1	Low	2412	4.01	-33.69	≤-15.99	PASS
		High	2462	3.93	-42.61	≤-16.07	PASS
			2467	4.10	-38.02	≤-15.9	PASS
			2472	3.53	-33.56	≤-16.47	PASS
11N20SISO	Ant1	Low	2412	3.16	-35.9	≤-16.84	PASS
		High	2462	2.81	-42.48	≤-17.19	PASS
			2467	2.82	-38	≤-17.18	PASS
			2472	2.67	-34.02	≤-17.33	PASS

Test Graphs

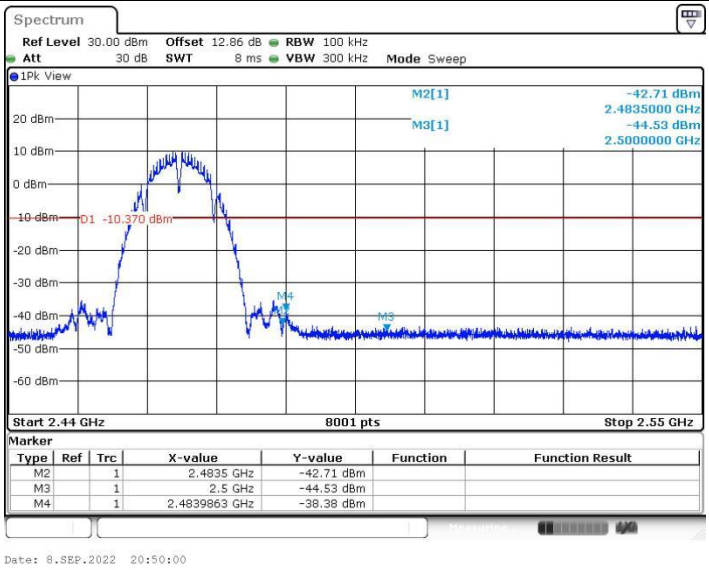
11B_Ant1_Low_2412



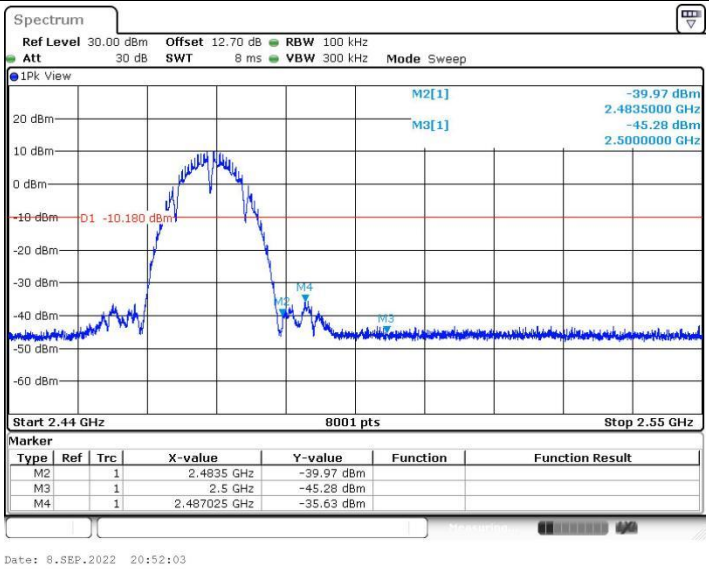
11B_Ant1_High_2462



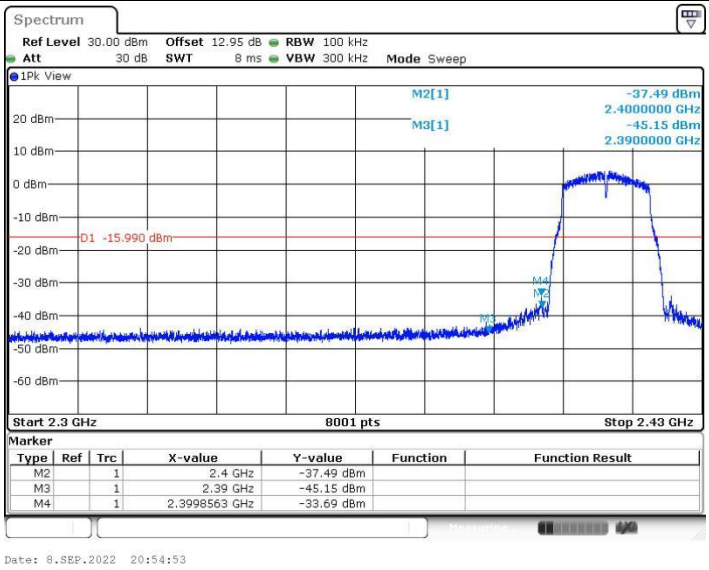
11B_Ant1_High_2467



11B_Ant1_High_2472



11G_Ant1_Low_2412



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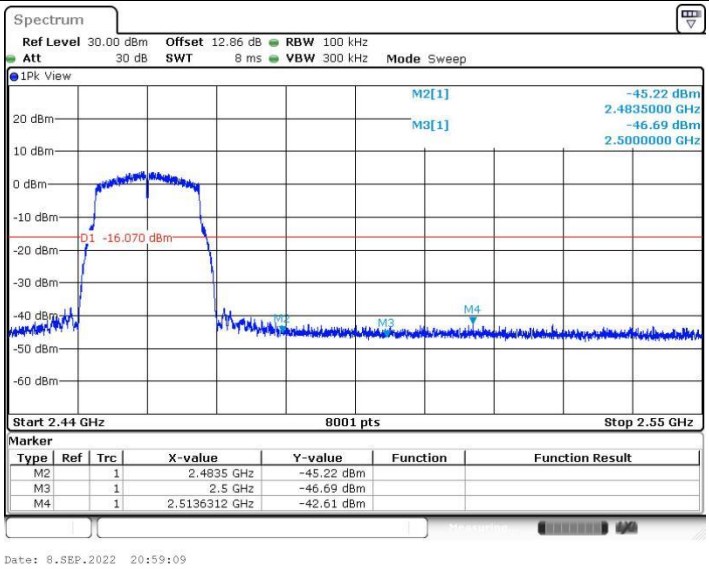

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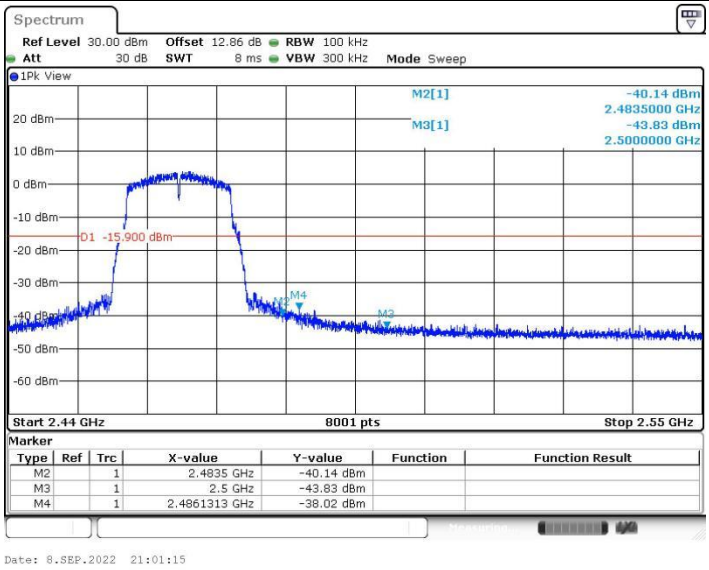
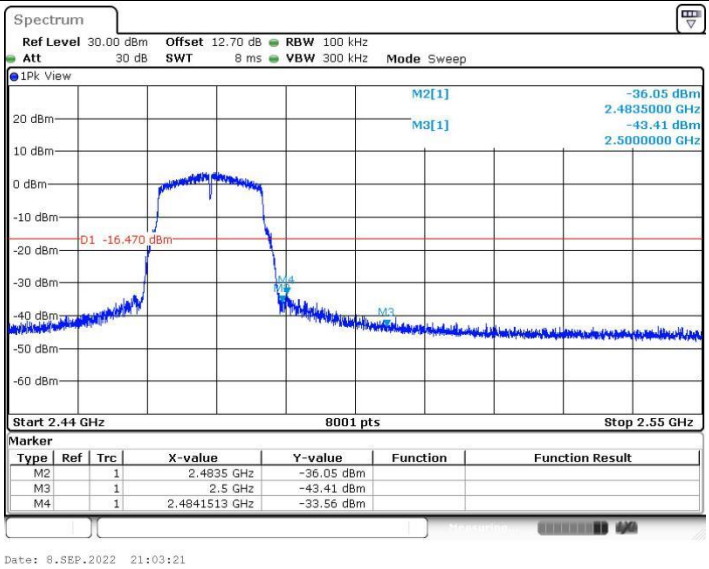
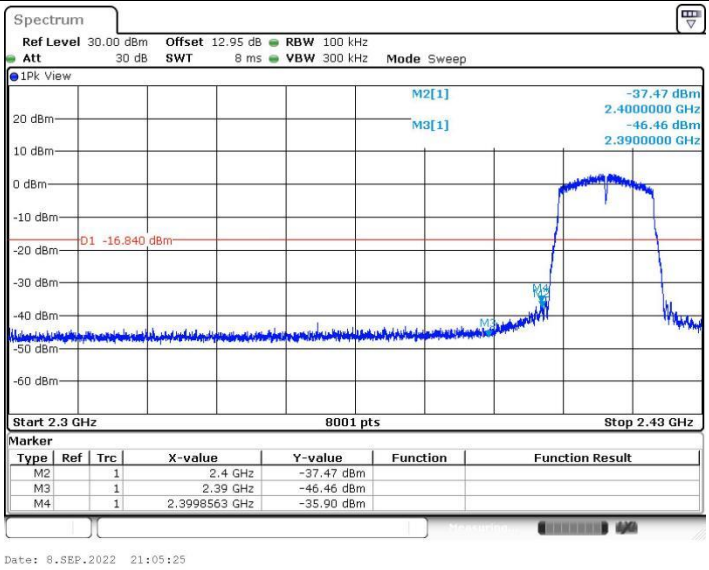


11G_Ant1_High_2472



11N20SISO_Ant1_Low_2412



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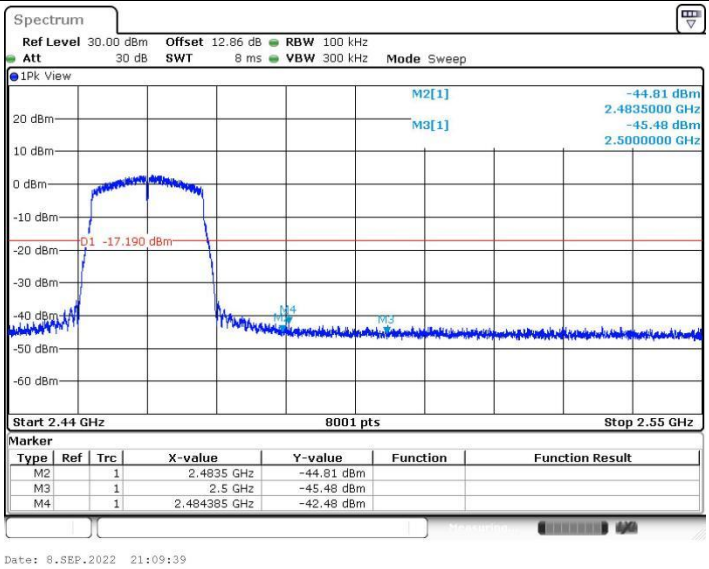
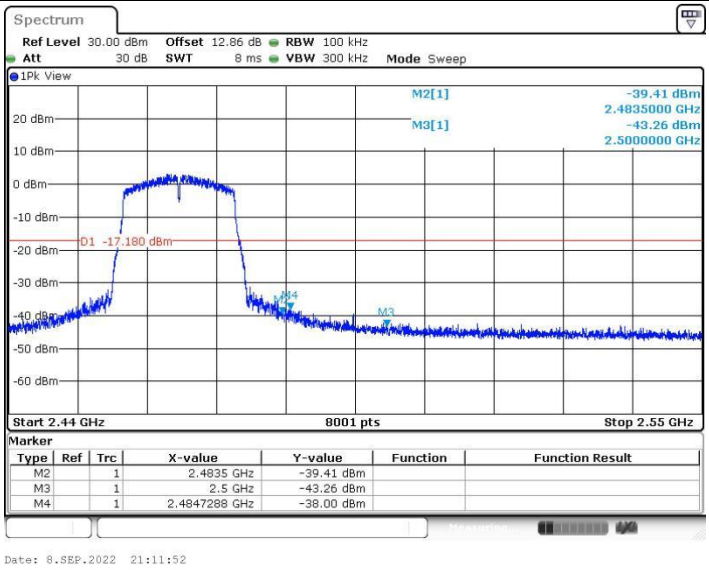
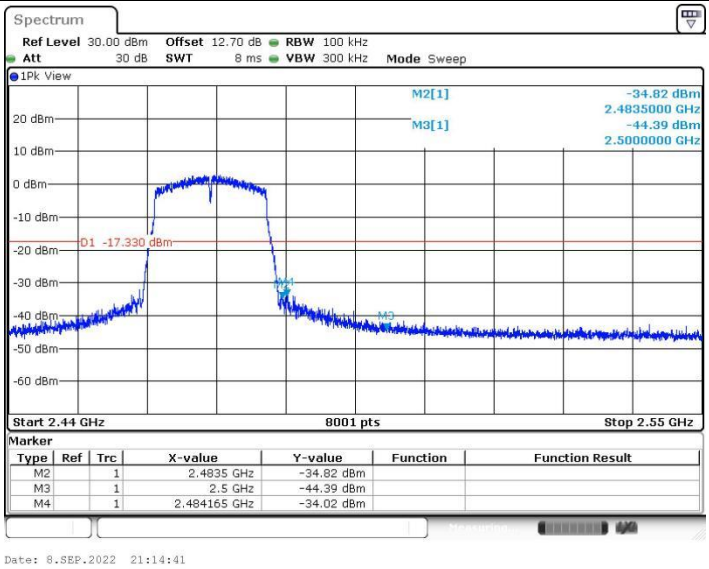


11N20SISO_Ant1_High_2467



11N20SISO_Ant1_High_2472



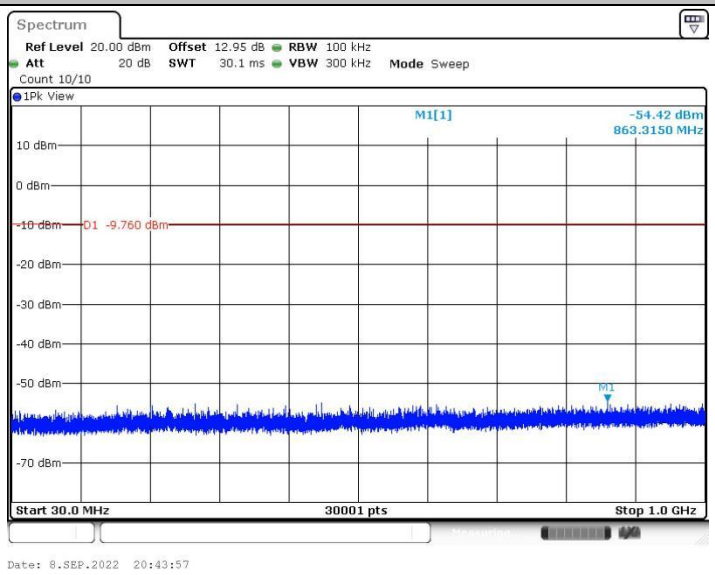
Conducted Spurious Emission

Test Result

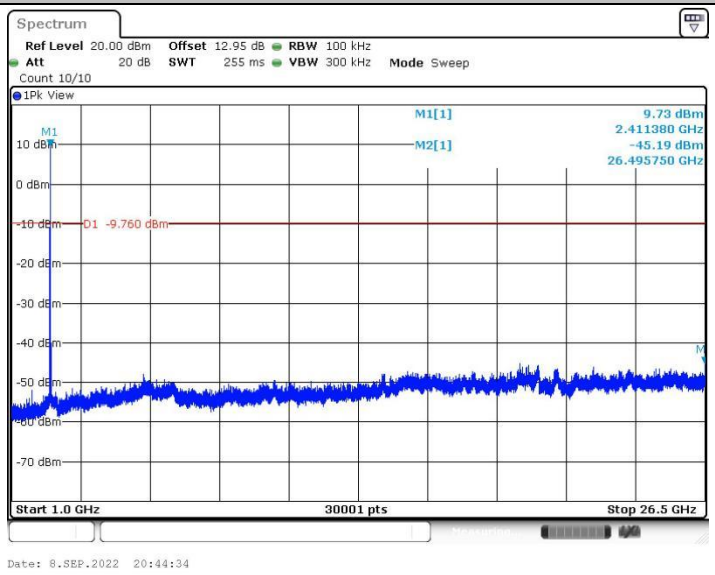
TestMode	Antenna	Freq(MHz)	FreqRange [Mhz]	RefLevel [dBm/100KHz]	Result [dBm/100KHz]	Limit [dBm/100KHz]	Verdict
11B	Ant1	2412	30~1000	10.24	-54.42	≤-9.76	PASS
			1000~26500	10.24	-45.19	≤-9.76	PASS
		2437	30~1000	10.75	-54.52	≤-9.25	PASS
			1000~26500	10.75	-44.44	≤-9.25	PASS
		2462	30~1000	10.21	-54.51	≤-9.79	PASS
			1000~26500	10.21	-45.54	≤-9.79	PASS
		2467	30~1000	9.63	-54.34	≤-10.37	PASS
			1000~26500	9.63	-45.96	≤-10.37	PASS
		2472	30~1000	9.82	-55.16	≤-10.18	PASS
			1000~26500	9.82	-46.25	≤-10.18	PASS
11G	Ant1	2412	30~1000	4.01	-54.55	≤-15.99	PASS
			1000~26500	4.01	-45.6	≤-15.99	PASS
		2437	30~1000	3.92	-53.84	≤-16.08	PASS
			1000~26500	3.92	-45.81	≤-16.08	PASS
		2462	30~1000	3.93	-54.93	≤-16.07	PASS
			1000~26500	3.93	-46.01	≤-16.07	PASS
		2467	30~1000	4.10	-54.25	≤-15.9	PASS
			1000~26500	4.10	-45.52	≤-15.9	PASS
		2472	30~1000	3.53	-54	≤-16.47	PASS
			1000~26500	3.53	-45.88	≤-16.47	PASS
11N20SISO	Ant1	2412	30~1000	3.16	-54.72	≤-16.84	PASS
			1000~26500	3.16	-45.34	≤-16.84	PASS
		2437	30~1000	3.39	-53.99	≤-16.61	PASS
			1000~26500	3.39	-45.31	≤-16.61	PASS
		2462	30~1000	2.81	-54.69	≤-17.19	PASS
			1000~26500	2.81	-44.82	≤-17.19	PASS
		2467	30~1000	2.82	-54.29	≤-17.18	PASS
			1000~26500	2.82	-45.37	≤-17.18	PASS
		2472	30~1000	2.67	-54.96	≤-17.33	PASS
			1000~26500	2.67	-45.44	≤-17.33	PASS

Test Graphs

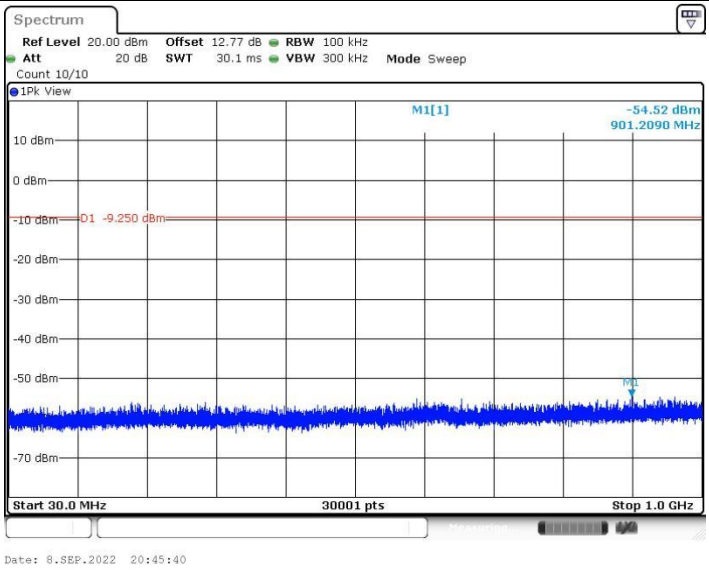
11B_Ant1_2412_30~1000



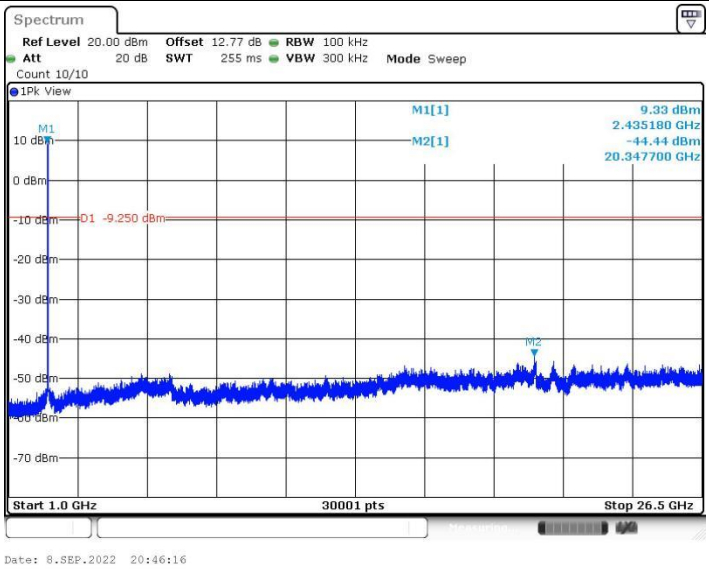
11B_Ant1_2412_1000~26500



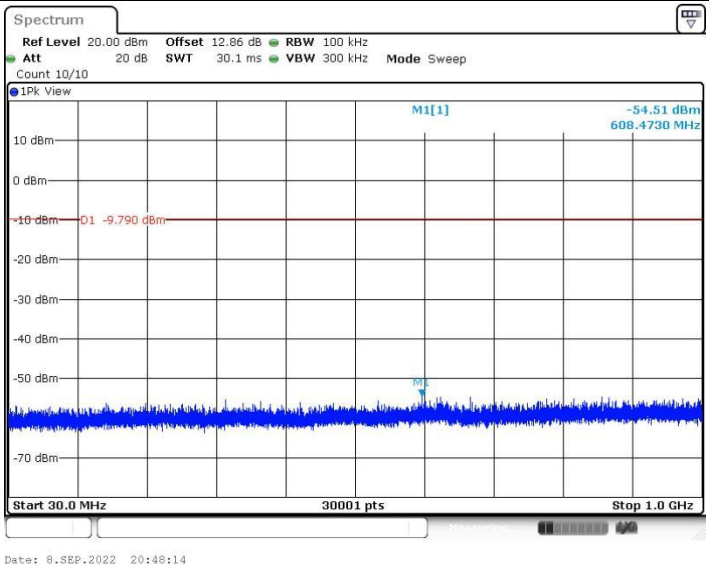
11B_Ant1_2437_30~1000



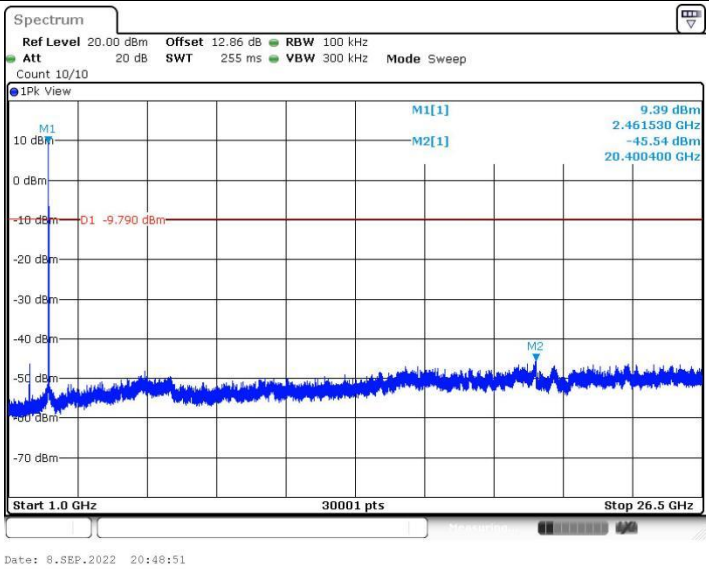
11B_Ant1_2437_1000~26500



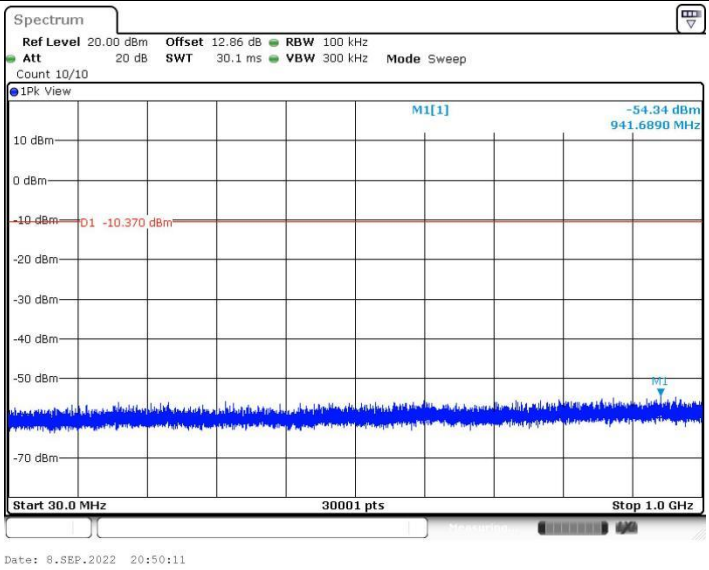
11B_Ant1_2462_30~1000



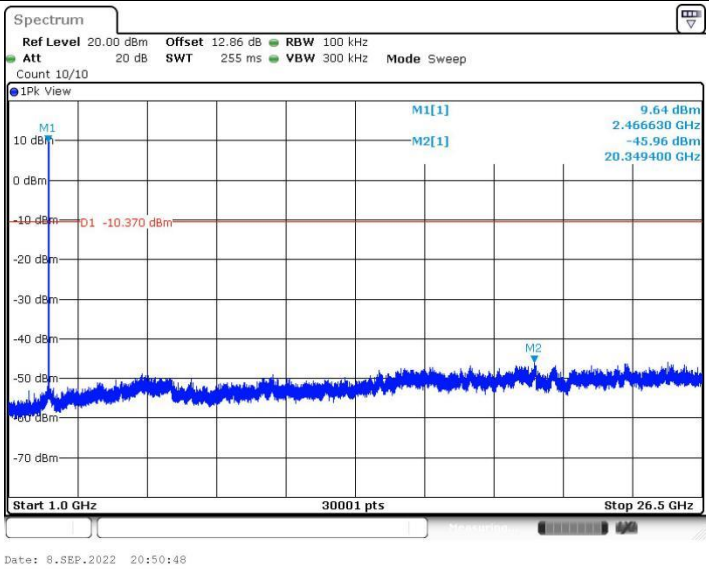
11B_Ant1_2462_1000~26500



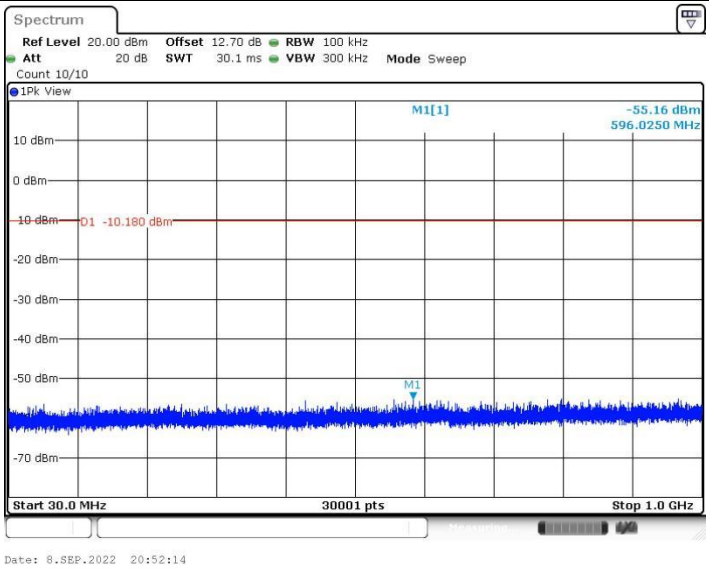
11B_Ant1_2467_30~1000



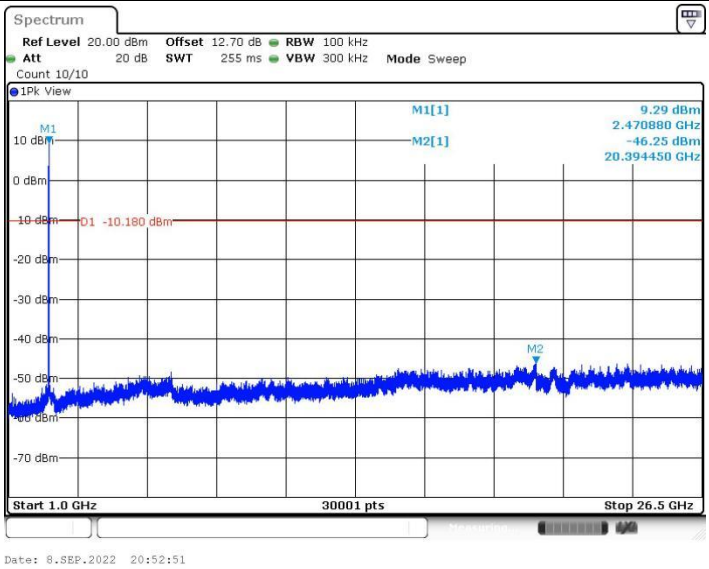
11B_Ant1_2467_1000~26500



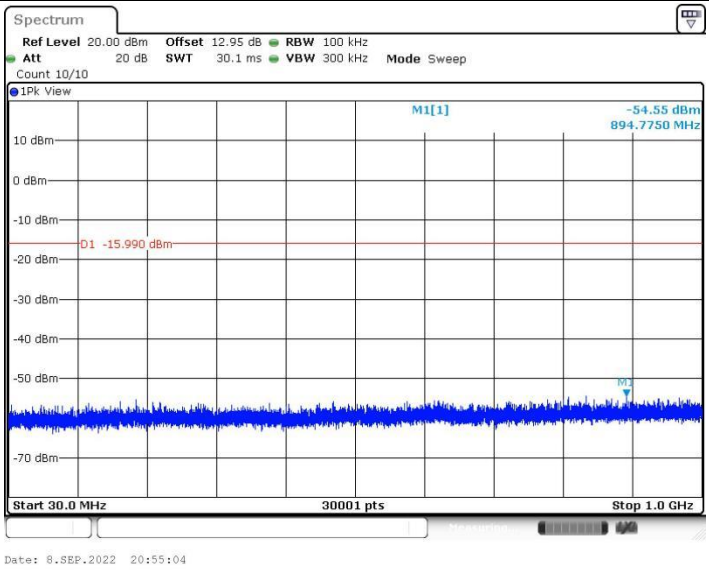
11B_Ant1_2472_30~1000



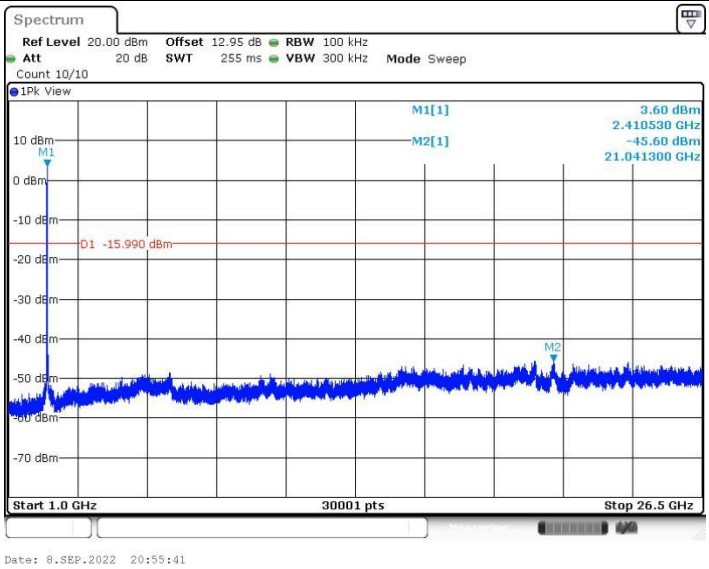
11B_Ant1_2472_1000~26500



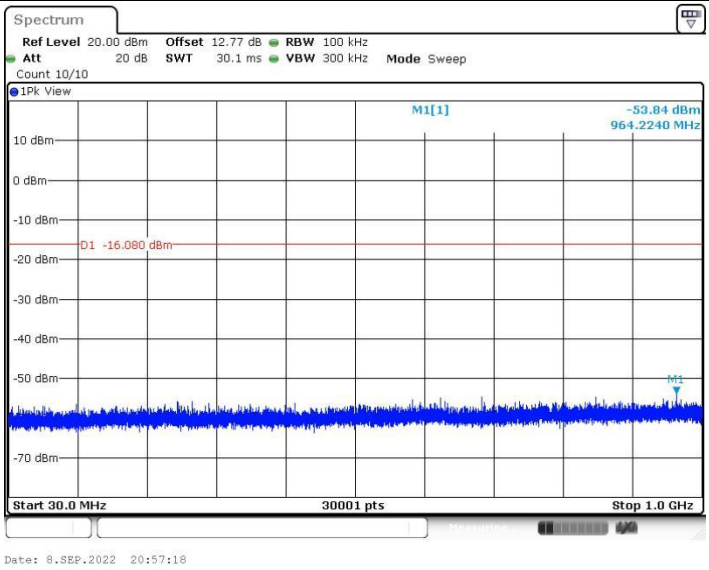
11G_Ant1_2412_30~1000



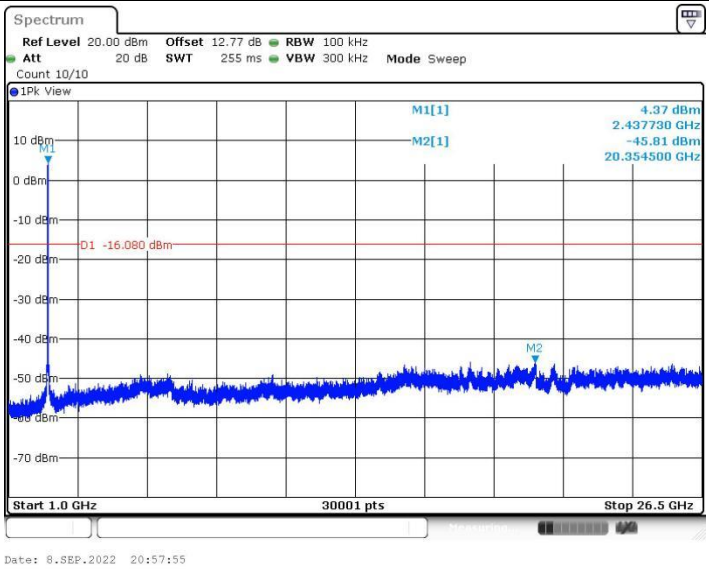
11G_Ant1_2412_1000~26500



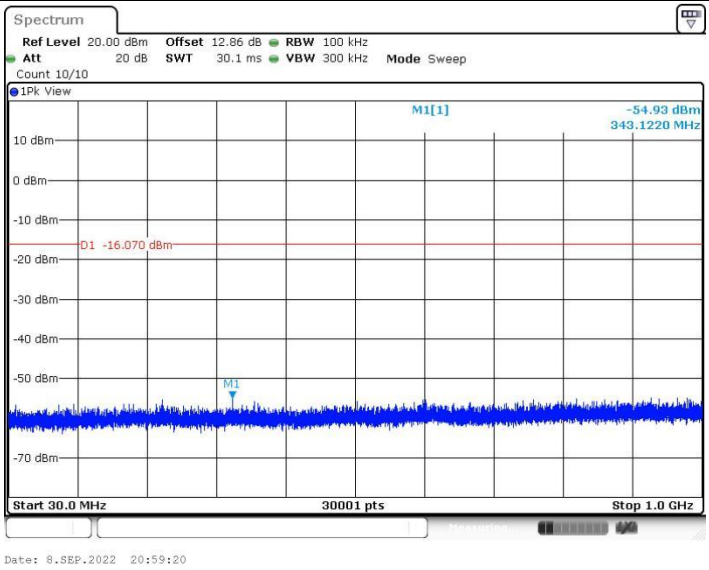
11G_Ant1_2437_30~1000



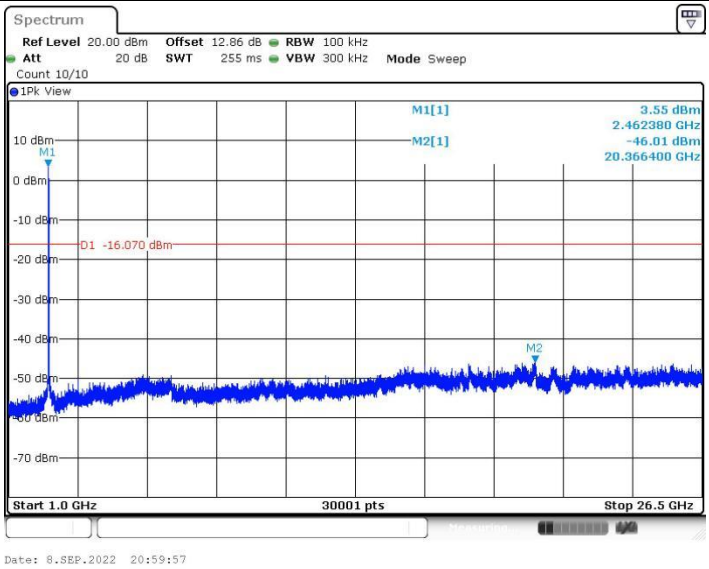
11G_Ant1_2437_1000~26500



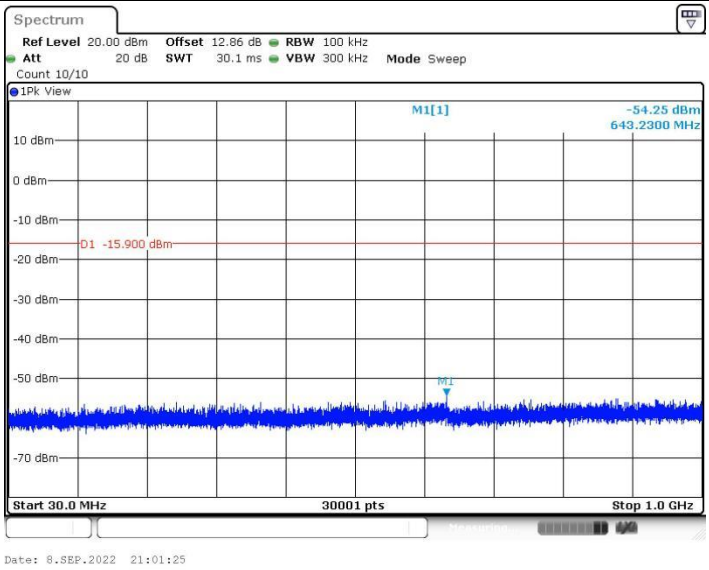
11G_Ant1_2462_30~1000



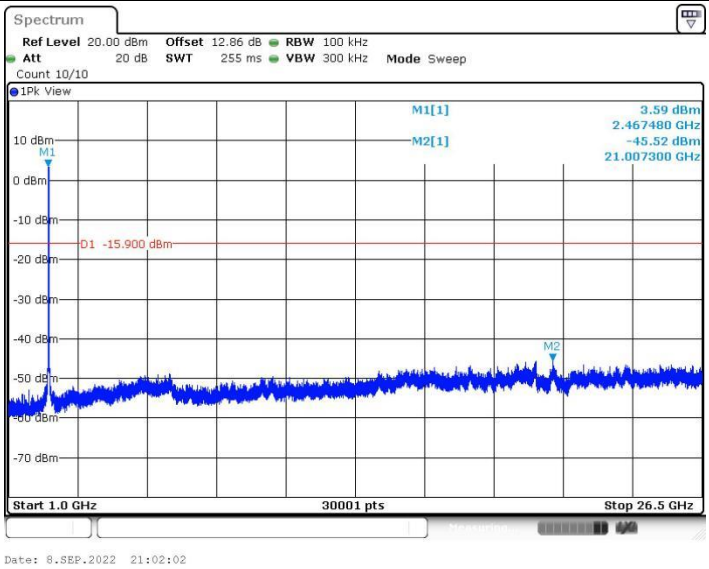
11G_Ant1_2462_1000~26500



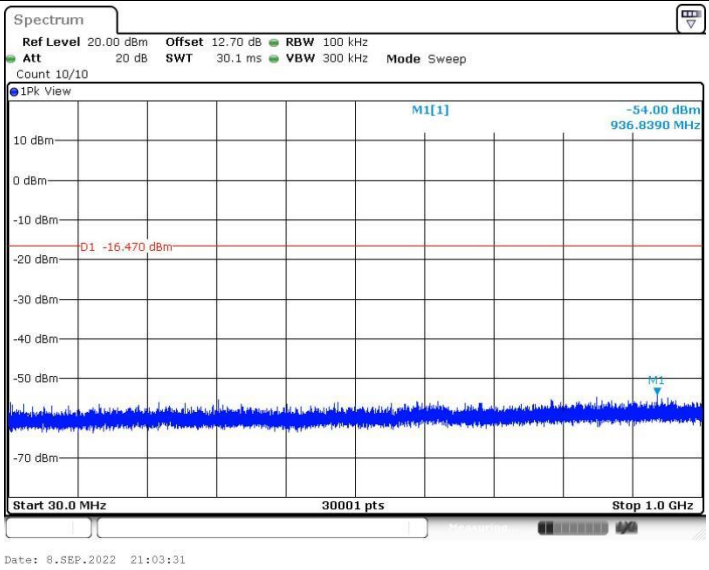
11G_Ant1_2467_30~1000



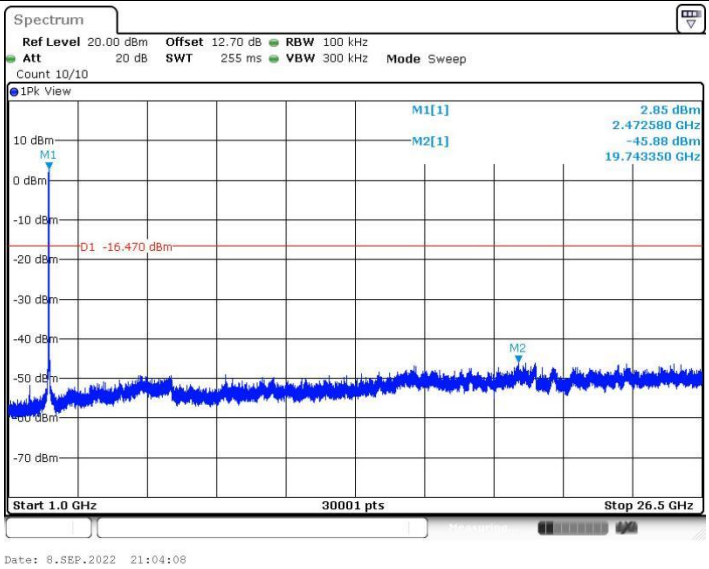
11G_Ant1_2467_1000~26500



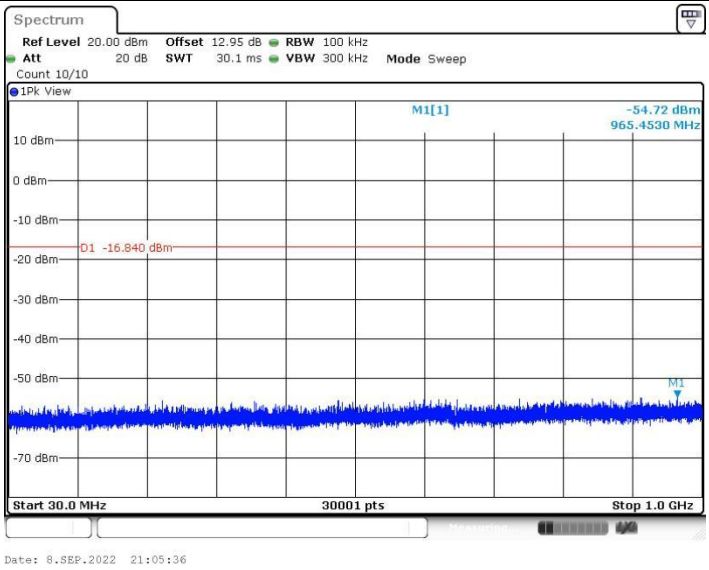
11G_Ant1_2472_30~1000



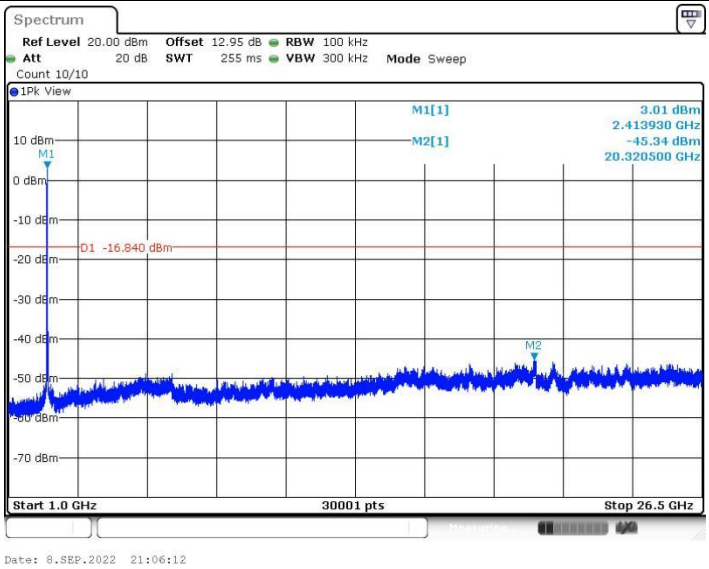
11G_Ant1_2472_1000~26500



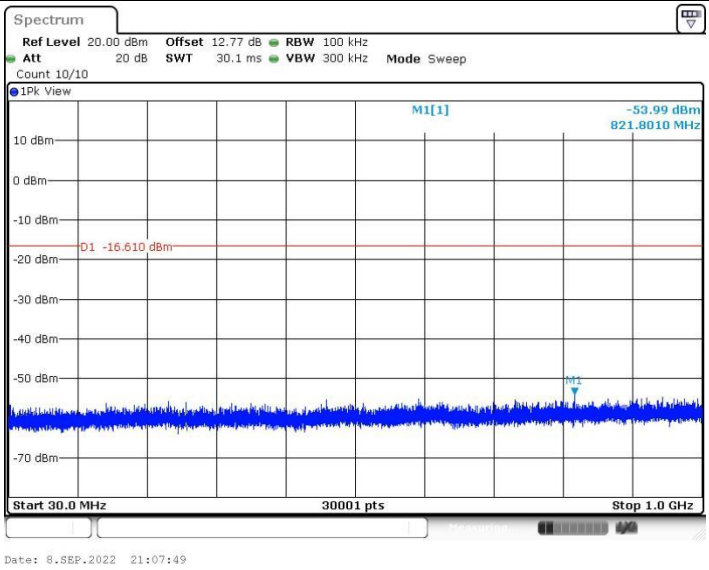
11N20SISO_Ant1_2412_30~1000



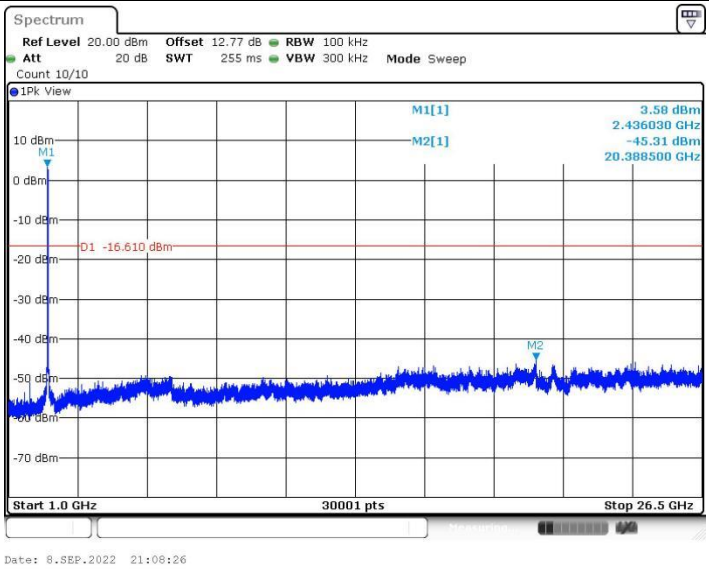
11N20SISO_Ant1_2412_1000~26500



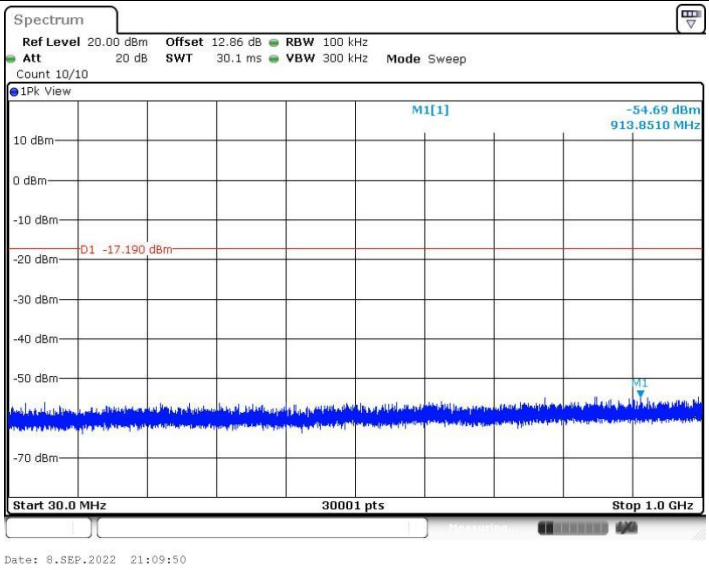
11N20SISO_Ant1_2437_30~1000



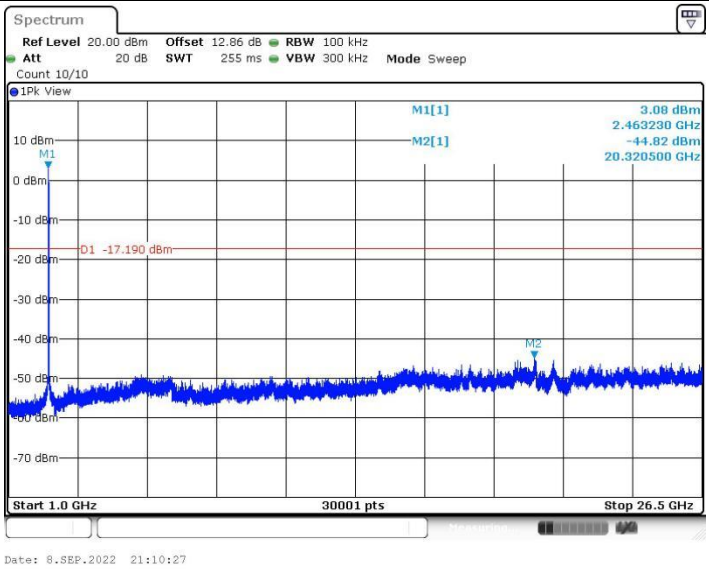
11N20SISO_Ant1_2437_1000~26500



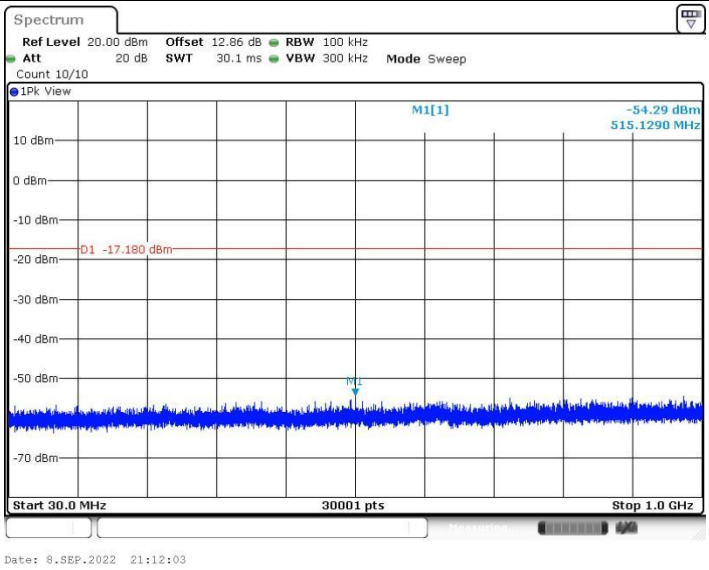
11N20SISO_Ant1_2462_30~1000



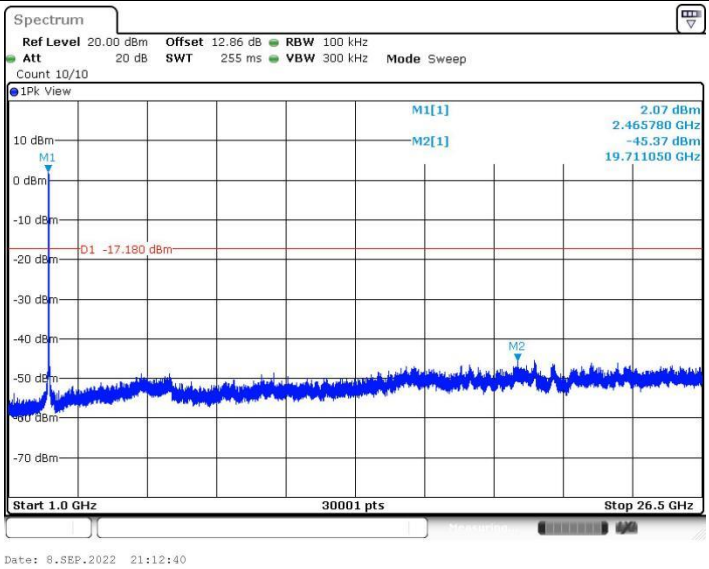
11N20SISO_Ant1_2462_1000~26500



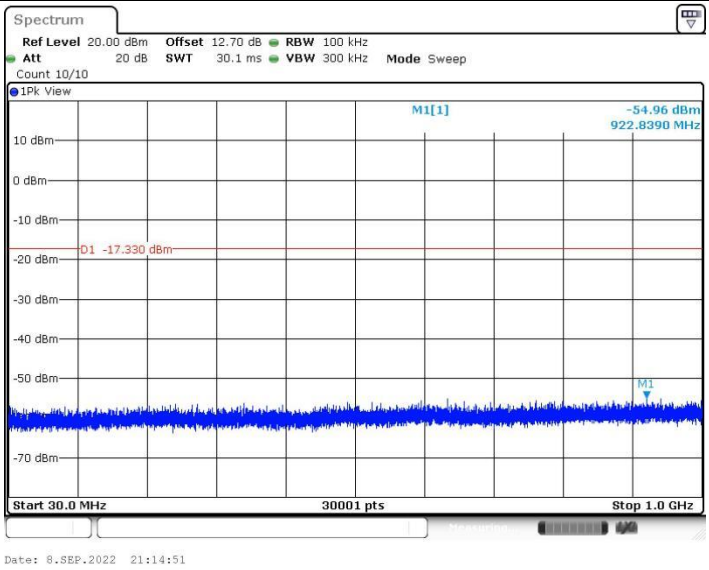
11N20SISO_Ant1_2467_30~1000



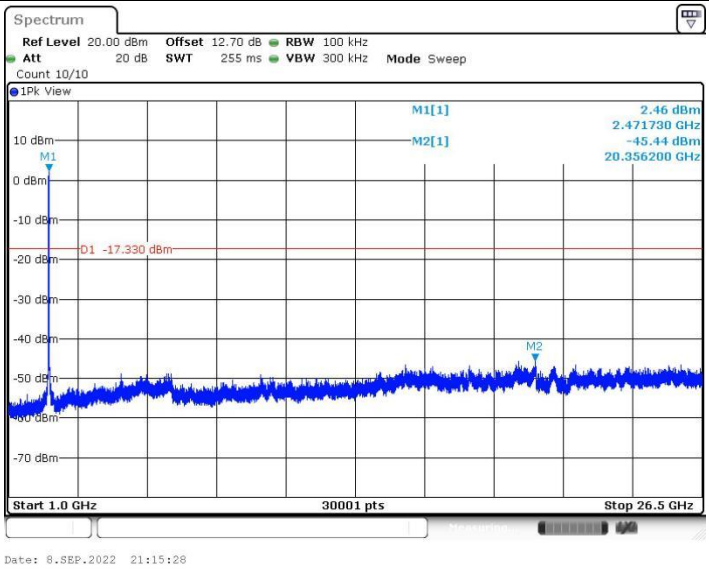
11N20SISO_Ant1_2467_1000~26500



11N20SISO_Ant1_2472_30~1000



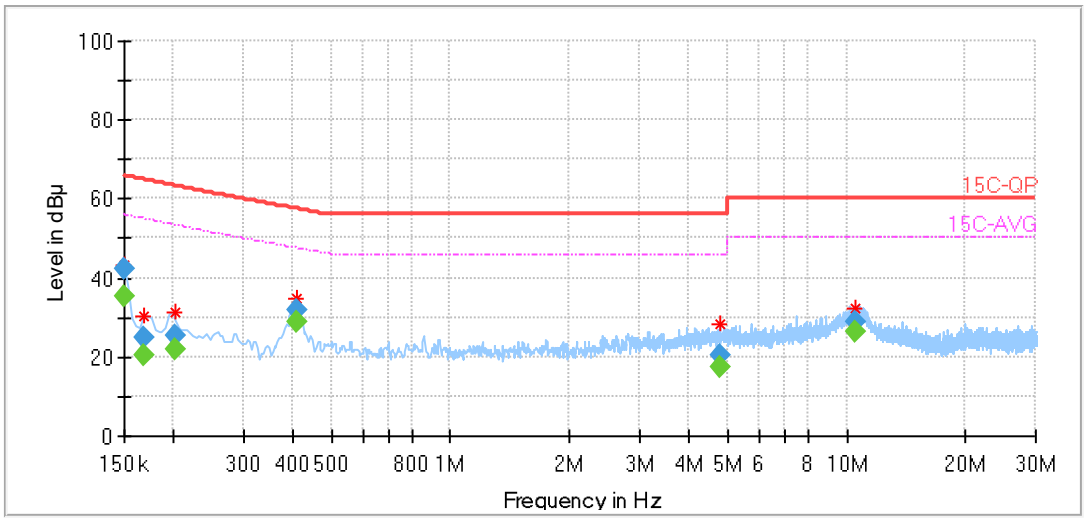
11N20SISO_Ant1_2472_1000~26500



Appendix B. AC Conducted Emission Test Results

Test Engineer :	Amos Zhang	**Temperature :**	25.3~26.2℃
		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.		

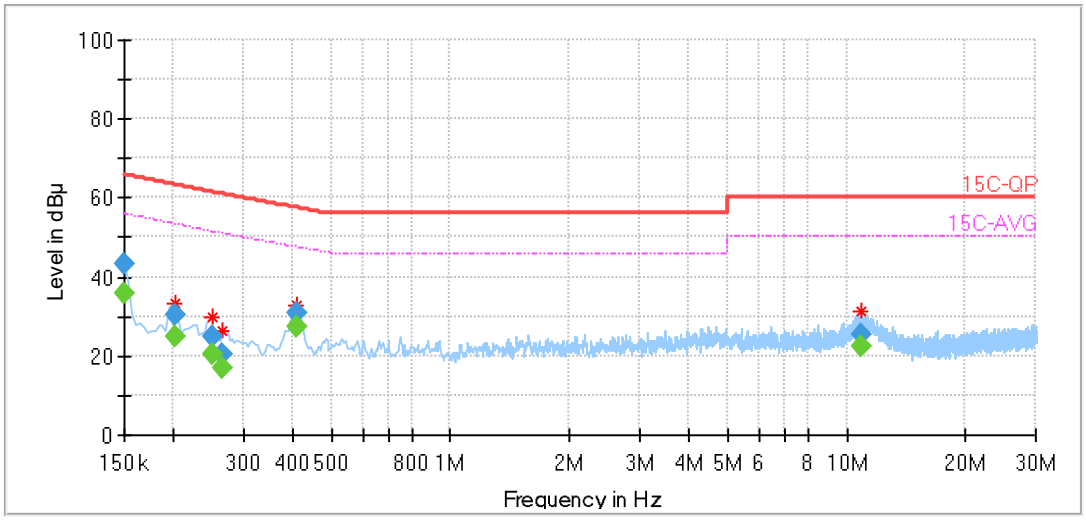
Full Spectrum



Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.150000	---	35.20	56.00	20.80	L1	OFF	20.1
0.150000	42.39	---	66.00	23.61	L1	OFF	20.1
0.168656	---	20.31	54.94	34.63	L1	OFF	20.0
0.168656	24.84	---	64.95	40.11	L1	OFF	20.0
0.200756	---	21.76	53.40	31.63	L1	OFF	20.0
0.200756	25.14	---	63.43	38.29	L1	OFF	20.0
0.406688	---	28.72	47.58	18.86	L1	OFF	19.9
0.406688	31.81	---	57.60	25.79	L1	OFF	19.9
4.790962	---	17.56	46.00	28.44	L1	OFF	19.9
4.790962	20.44	---	56.00	35.56	L1	OFF	19.9
10.550475	---	26.20	50.00	23.80	L1	OFF	20.0
10.550475	28.73	---	60.00	31.27	L1	OFF	20.0

Test Engineer :	Amos Zhang	**Temperature :**	25.3~26.2℃
		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.		

Full Spectrum



Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.150000	---	36.02	56.00	19.98	N	OFF	20.2
0.150000	43.16	---	66.00	22.84	N	OFF	20.2
0.200756	---	25.05	53.40	28.34	N	OFF	20.2
0.200756	30.21	---	63.43	33.22	N	OFF	20.2
0.249262	---	20.26	51.54	31.28	N	OFF	20.1
0.249262	24.84	---	61.58	36.74	N	OFF	20.1
0.264900	---	16.95	51.03	34.08	N	OFF	20.1
0.264900	20.29	---	61.07	40.78	N	OFF	20.1
0.407456	---	27.41	47.56	20.15	N	OFF	19.9
0.407456	30.66	---	57.59	26.93	N	OFF	19.9
10.879656	---	22.58	50.00	27.42	N	OFF	20.1
10.879656	25.31	---	60.00	34.69	N	OFF	20.1

Appendix C. Radiated Spurious Emission

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

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.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2382.41	52.86	-21.14	74	49.77	32.86	7.1	36.87	300	124	P	H
		2383.84	43.4	-10.6	54	40.31	32.86	7.1	36.87	300	124	A	H
	*	2412	108.54	-	-	105.36	32.9	7.13	36.85	300	124	P	H
	*	2412	106.18	-	-	103	32.9	7.13	36.85	300	124	A	H
		2386.18	50.73	-23.27	74	47.61	32.88	7.1	36.86	148	53	P	V
		2383.84	40.71	-13.29	54	37.62	32.86	7.1	36.87	148	53	A	V
	*	2414	105.71	-	-	102.53	32.9	7.13	36.85	148	53	P	V
	*	2412	103.46	-	-	100.28	32.9	7.13	36.85	148	53	A	V
802.11b CH 06 2437MHz		2389.56	50.38	-23.62	74	47.26	32.88	7.1	36.86	312	222	P	H
		2360.05	39.7	-14.3	54	36.68	32.83	7.07	36.88	312	222	A	H
	*	2436	108.98	-	-	105.72	32.92	7.19	36.85	312	222	P	H
	*	2438	106.52	-	-	103.23	32.94	7.19	36.84	312	222	A	H
		2484.16	50.27	-23.73	74	46.86	32.98	7.25	36.82	312	222	P	H
		2483.5	39.51	-14.49	54	36.1	32.98	7.25	36.82	312	222	A	H
		2364.08	50.58	-23.42	74	47.56	32.83	7.07	36.88	107	293	P	V
		2356.15	39.48	-14.52	54	36.49	32.83	7.04	36.88	107	293	A	V
	*	2436	106.47	-	-	103.21	32.92	7.19	36.85	107	293	P	V
	*	2436	104.11	-	-	100.85	32.92	7.19	36.85	107	293	A	V
		2497.54	50.52	-23.48	74	47.05	33	7.28	36.81	107	293	P	V
		2483.5	38.72	-15.28	54	35.31	32.98	7.25	36.82	107	293	A	V

802.11b CH 11 2462MHz	*	2462	109.69	-	-	106.34	32.96	7.22	36.83	312	131	P	H
	*	2462	107.33	-	-	103.98	32.96	7.22	36.83	312	131	A	H
		2487.94	53.01	-20.99	74	49.57	33	7.25	36.81	312	131	P	H
		2487.64	44.68	-9.32	54	41.24	33	7.25	36.81	312	131	A	H
	*	2462	106.65	-	-	103.3	32.96	7.22	36.83	127	295	P	V
	*	2462	104.21	-	-	100.86	32.96	7.22	36.83	127	295	A	V
		2487.76	51.13	-22.87	74	47.69	33	7.25	36.81	127	295	P	V
		2487.64	41.4	-12.6	54	37.96	33	7.25	36.81	127	295	A	V
802.11b CH 12 2467MHz	*	2466	107.82	-	-	104.47	32.96	7.22	36.83	314	128	P	H
	*	2468	105.42	-	-	102.07	32.96	7.22	36.83	314	128	A	H
		2483.74	57.05	-16.95	74	53.64	32.98	7.25	36.82	314	128	P	H
		2483.98	50.91	-3.09	54	47.5	32.98	7.25	36.82	314	128	A	H
	*	2468	104.39	-	-	101.04	32.96	7.22	36.83	392	80	P	V
	*	2468	102.27	-	-	98.92	32.96	7.22	36.83	392	80	A	V
		2483.98	55.63	-18.37	74	52.22	32.98	7.25	36.82	392	80	P	V
		2483.98	49.54	-4.46	54	46.13	32.98	7.25	36.82	392	80	A	V
802.11b CH 13 2472MHz	*	2472	104.45	-	-	101.07	32.98	7.22	36.82	275	126	P	H
	*	2472	101.92	-	-	98.54	32.98	7.22	36.82	275	126	A	H
		2483.98	56.38	-17.62	74	52.97	32.98	7.25	36.82	275	126	P	H
		2487.34	50.78	-3.22	54	47.37	32.98	7.25	36.82	275	126	A	H
	*	2472	101.36	-	-	97.98	32.98	7.22	36.82	394	81	P	V
	*	2472	99.12	-	-	95.74	32.98	7.22	36.82	394	81	A	V
		2483.98	55.04	-18.96	74	51.63	32.98	7.25	36.82	394	81	P	V
		2483.86	49.24	-4.76	54	45.83	32.98	7.25	36.82	394	81	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. 1	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)
802.11b CH 01 2412MHz		4830	44.69	-29.31	74	65.62	34.2	10.25	65.38	300	0	P	H
		4830	46.42	-27.58	74	67.35	34.2	10.25	65.38	100	0	P	V
802.11b CH 06 2437MHz		4875	46.15	-27.85	74	67.05	34.23	10.29	65.42	300	0	P	H
		7305	51.26	-22.74	74	68.59	35.86	12.72	65.91	217	330	P	H
		7305	46.99	-7.01	54	64.32	35.86	12.72	65.91	217	330	A	H
		4875	47.3	-26.7	74	68.2	34.23	10.29	65.42	100	0	P	V
		7305	46.89	-27.11	74	64.22	35.86	12.72	65.91	100	0	P	V
802.11b CH 11 2462MHz		4920	47.5	-26.5	74	68.35	34.26	10.34	65.45	300	0	P	H
		7380	51.38	-22.62	74	68.88	35.88	12.73	66.11	175	331	P	H
		7380	46.92	-7.08	54	64.42	35.88	12.73	66.11	175	331	A	H
		4920	48.84	-25.16	74	69.69	34.26	10.34	65.45	100	0	P	V
		7380	47.56	-26.44	74	65.06	35.88	12.73	66.11	100	0	P	V
802.11b CH 12 2467MHz	*	4935	45.76	-28.24	74	66.58	34.26	10.37	65.45	300	0	P	H
	*	7401	47.26	-26.74	74	64.86	35.88	12.73	66.21	300	0	P	H
		4935	46.12	-27.88	74	66.94	34.26	10.37	65.45	100	0	P	V
		7401	45.48	-28.52	74	63.08	35.88	12.73	66.21	100	0	P	V
802.11b CH 13 2472MHz		4950	42.43	-31.57	74	63.23	34.27	10.39	65.46	300	0	P	H
		7416	43.37	-30.63	74	60.94	35.88	12.76	66.21	300	0	P	H
		4950	43.29	-30.71	74	64.09	34.27	10.39	65.46	100	0	P	V
		7416	42.72	-31.28	74	60.29	35.88	12.76	66.21	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 802.11g (Band Edge @ 3m)

WIFI Ant. 1	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)
802.11g CH 01 2412MHz		2389.95	60.57	-13.43	74	57.45	32.88	7.1	36.86	357	137	P	H
		2389.95	48.16	-5.84	54	45.04	32.88	7.1	36.86	357	137	A	H
	*	2412	111.05	-	-	107.87	32.9	7.13	36.85	357	137	P	H
	*	2414	103.58	-	-	100.4	32.9	7.13	36.85	357	137	A	H
		2389.69	55.94	-18.06	74	52.82	32.88	7.1	36.86	116	260	P	V
		2372.01	45.32	-8.68	54	42.26	32.86	7.07	36.87	116	260	A	V
	*	2410	108.37	-	-	105.19	32.9	7.13	36.85	116	260	P	V
	*	2410	101	-	-	97.82	32.9	7.13	36.85	116	260	A	V
802.11g CH 06 2437MHz		2387.35	53.56	-20.44	74	50.44	32.88	7.1	36.86	312	220	P	H
		2389.56	42.57	-11.43	54	39.45	32.88	7.1	36.86	312	220	A	H
	*	2438	110.29	-	-	107	32.94	7.19	36.84	312	220	P	H
	*	2438	102.83	-	-	99.54	32.94	7.19	36.84	312	220	A	H
		2483.68	53.78	-20.22	74	50.37	32.98	7.25	36.82	312	220	P	H
		2483.56	42.47	-11.53	54	39.06	32.98	7.25	36.82	312	220	A	H
		2388.52	52.44	-21.56	74	49.32	32.88	7.1	36.86	133	260	P	V
		2389.95	42.08	-11.92	54	38.96	32.88	7.1	36.86	133	260	A	V
	*	2436	108.82	-	-	105.56	32.92	7.19	36.85	133	260	P	V
	*	2436	101.34	-	-	98.08	32.92	7.19	36.85	133	260	A	V
		2483.5	50.54	-23.46	74	47.13	32.98	7.25	36.82	133	260	P	V
		2483.5	40.22	-13.78	54	36.81	32.98	7.25	36.82	133	260	A	V
802.11g CH 11 2462MHz	*	2460	110.88	-	-	107.53	32.96	7.22	36.83	311	135	P	H
	*	2462	103.16	-	-	99.81	32.96	7.22	36.83	311	135	A	H
		2483.5	60.15	-13.85	74	56.74	32.98	7.25	36.82	311	135	P	H
		2483.8	47.3	-6.7	54	43.89	32.98	7.25	36.82	311	135	A	H
	*	2462	107.9	-	-	104.55	32.96	7.22	36.83	129	265	P	V
	*	2462	100.81	-	-	97.46	32.96	7.22	36.83	129	265	A	V
		2483.74	54.48	-19.52	74	51.07	32.98	7.25	36.82	129	265	P	V
		2483.5	42.71	-11.29	54	39.3	32.98	7.25	36.82	129	265	A	V

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

WIFI Ant. 1	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)
802.11g CH 12 2467MHz	*	2468	107.8	-	-	104.45	32.96	7.22	36.83	311	138	P	H
	*	2468	100.57	-	-	97.22	32.96	7.22	36.83	311	138	A	H
		2484.58	64.18	-9.82	74	60.77	32.98	7.25	36.82	311	138	P	H
		2483.5	50.91	-3.09	54	47.5	32.98	7.25	36.82	311	138	A	H
	*	2470	106.14	-	-	102.79	32.96	7.22	36.83	394	77	P	V
	*	2468	98.27	-	-	94.92	32.96	7.22	36.83	394	77	A	V
		2484.58	61.64	-12.36	74	58.23	32.98	7.25	36.82	394	77	P	V
		2483.5	49.48	-4.52	54	46.07	32.98	7.25	36.82	394	77	A	V
802.11g CH 13 2472MHz	*	2474	104.81	-	-	101.4	32.98	7.25	36.82	275	137	P	H
	*	2472	97.64	-	-	94.26	32.98	7.22	36.82	275	137	A	H
		2484.04	61.61	-12.39	74	58.2	32.98	7.25	36.82	275	137	P	H
		2484.16	50.49	-3.51	54	47.08	32.98	7.25	36.82	275	137	A	H
	*	2472	103.8	-	-	100.42	32.98	7.22	36.82	395	78	P	V
	*	2472	95.84	-	-	92.46	32.98	7.22	36.82	395	78	A	V
		2483.86	59.61	-14.39	74	56.2	32.98	7.25	36.82	395	78	P	V
		2484.22	49.52	-4.48	54	46.11	32.98	7.25	36.82	395	78	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 802.11g (Harmonic @ 3m)

WIFI Ant. 1	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)
802.11g CH 01 2412MHz		4830	42.77	-31.23	74	63.7	34.2	10.25	65.38	300	0	P	H
		4830	43.07	-30.93	74	64	34.2	10.25	65.38	100	0	P	V
802.11g CH 06 2437MHz		4875	42.45	-31.55	74	63.35	34.23	10.29	65.42	300	0	P	H
		7305	52.55	-21.45	74	69.88	35.86	12.72	65.91	225	330	P	H
		7305	40.19	-13.81	54	57.52	35.86	12.72	65.91	225	330	A	H
		4875	43.7	-30.3	74	64.6	34.23	10.29	65.42	100	0	P	V
		7305	45.78	-28.22	74	63.11	35.86	12.72	65.91	100	0	P	V
802.11g CH 11 2462MHz		4920	45.37	-28.63	74	66.22	34.26	10.34	65.45	300	0	P	H
		7380	51.28	-22.72	74	68.78	35.88	12.73	66.11	345	310	P	H
		7380	40.28	-13.72	54	57.78	35.88	12.73	66.11	345	310	A	H
		4920	45.62	-28.38	74	66.47	34.26	10.34	65.45	100	0	P	V
		7380	46.72	-27.28	74	64.22	35.88	12.73	66.11	100	0	P	V
802.11g CH 12 2467MHz		4935	42.03	-31.97	74	62.85	34.26	10.37	65.45	300	0	P	H
		7401	44.04	-29.96	74	61.64	35.88	12.73	66.21	300	0	P	H
		4935	41.88	-32.12	74	62.7	34.26	10.37	65.45	100	0	P	V
		7401	42.42	-31.58	74	60.02	35.88	12.73	66.21	100	0	P	V
802.11g CH 13 2472MHz		4950	40.48	-33.52	74	61.28	34.27	10.39	65.46	300	0	P	H
		7416	42.04	-31.96	74	59.61	35.88	12.76	66.21	300	0	P	H
		4950	40.41	-33.59	74	61.21	34.27	10.39	65.46	100	0	P	V
		7416	42.15	-31.85	74	59.72	35.88	12.76	66.21	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 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1	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)
802.11n HT20 CH 01 2412MHz		2388.39	58.85	-15.15	74	55.73	32.88	7.1	36.86	357	139	P	H
		2389.95	47.09	-6.91	54	43.97	32.88	7.1	36.86	357	139	A	H
	*	2414	110.69	-	-	107.51	32.9	7.13	36.85	357	139	P	H
	*	2412	103.02	-	-	99.84	32.9	7.13	36.85	357	139	A	H
		2384.1	54.76	-19.24	74	51.67	32.86	7.1	36.87	116	258	P	V
		2389.95	43.99	-10.01	54	40.87	32.88	7.1	36.86	116	258	A	V
	*	2414	107.78	-	-	104.6	32.9	7.13	36.85	116	258	P	V
	*	2412	100.18	-	-	97	32.9	7.13	36.85	116	258	A	V
802.11n HT20 CH 06 2437MHz		2389.56	53.01	-20.99	74	49.89	32.88	7.1	36.86	312	220	P	H
		2389.95	42.77	-11.23	54	39.65	32.88	7.1	36.86	312	220	A	H
	*	2438	108.76	-	-	105.47	32.94	7.19	36.84	312	220	P	H
	*	2438	101.99	-	-	98.7	32.94	7.19	36.84	312	220	A	H
		2483.5	53.94	-20.06	74	50.53	32.98	7.25	36.82	312	220	P	H
		2483.5	42.45	-11.55	54	39.04	32.98	7.25	36.82	312	220	A	H
		2388.13	52.3	-21.7	74	49.18	32.88	7.1	36.86	133	260	P	V
		2389.95	42.04	-11.96	54	38.92	32.88	7.1	36.86	133	260	A	V
	*	2436	107.9	-	-	104.64	32.92	7.19	36.85	133	260	P	V
	*	2436	100.58	-	-	97.32	32.92	7.19	36.85	133	260	A	V
		2483.74	50.48	-23.52	74	47.07	32.98	7.25	36.82	133	260	P	V
		2483.56	40.18	-13.82	54	36.77	32.98	7.25	36.82	133	260	A	V
802.11n HT20 CH 11 2462MHz	*	2462	110.69	-	-	107.34	32.96	7.22	36.83	310	146	P	H
	*	2462	102.79	-	-	99.44	32.96	7.22	36.83	310	146	A	H
		2484.34	59.34	-14.66	74	55.93	32.98	7.25	36.82	310	146	P	H
		2483.74	46.93	-7.07	54	43.52	32.98	7.25	36.82	310	146	A	H
	*	2464	107.39	-	-	104.04	32.96	7.22	36.83	127	264	P	V
	*	2464	100.5	-	-	97.15	32.96	7.22	36.83	127	264	A	V
		2483.8	55	-19	74	51.59	32.98	7.25	36.82	127	264	P	V
		2483.56	42.52	-11.48	54	39.11	32.98	7.25	36.82	127	264	A	V

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

WIFI Ant. 1	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)
802.11n HT20 CH 12 2467MHz	*	2462	107.5	-	-	104.15	32.96	7.22	36.83	312	144	P	H
	*	2466	99.79	-	-	96.44	32.96	7.22	36.83	312	144	A	H
		2485.06	63.45	-10.55	74	60.04	32.98	7.25	36.82	312	144	P	H
		2483.5	50.85	-3.15	54	47.44	32.98	7.25	36.82	312	144	A	H
	*	2470	105.06	-	-	101.71	32.96	7.22	36.83	392	79	P	V
	*	2468	97.25	-	-	93.9	32.96	7.22	36.83	392	79	A	V
		2483.86	60.97	-13.03	74	57.56	32.98	7.25	36.82	392	79	P	V
		2483.5	48.74	-5.26	54	45.33	32.98	7.25	36.82	392	79	A	V
802.11n HT20 CH 13 2472MHz	*	2474	100.98	-	-	97.57	32.98	7.25	36.82	275	136	P	H
	*	2470	93.66	-	-	90.31	32.96	7.22	36.83	275	136	A	H
		2484.94	60.86	-13.14	74	57.45	32.98	7.25	36.82	275	136	P	H
		2483.5	50.37	-3.63	54	46.96	32.98	7.25	36.82	275	136	A	H
	*	2472	100.59	-	-	97.21	32.98	7.22	36.82	394	77	P	V
	*	2472	91.7	-	-	88.32	32.98	7.22	36.82	394	77	A	V
		2483.62	60.96	-13.04	74	57.55	32.98	7.25	36.82	394	77	P	V
		2483.5	49.5	-4.5	54	46.09	32.98	7.25	36.82	394	77	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 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1	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)
802.11n HT20 CH 01 2412MHz		4830	42.61	-31.39	74	63.54	34.2	10.25	65.38	300	0	P	H
		4830	41.81	-32.19	74	62.74	34.2	10.25	65.38	100	0	P	V
802.11n HT20 CH 06 2437MHz		4875	41.76	-32.24	74	62.66	34.23	10.29	65.42	300	0	P	H
		7305	47.77	-26.23	74	65.1	35.86	12.72	65.91	300	0	P	H
		4875	43.5	-30.5	74	64.4	34.23	10.29	65.42	100	0	P	V
		7305	45.31	-28.69	74	62.64	35.86	12.72	65.91	100	0	P	V
802.11n HT20 CH 11 2462MHz		4920	45.83	-28.17	74	66.68	34.26	10.34	65.45	300	0	P	H
		7380	48.85	-25.15	74	66.35	35.88	12.73	66.11	300	0	P	H
		4920	44.34	-29.66	74	65.19	34.26	10.34	65.45	100	0	P	V
		7380	46.05	-27.95	74	63.55	35.88	12.73	66.11	100	0	P	V
802.11n HT20 CH 12 2467MHz		4935	41.06	-32.94	74	61.88	34.26	10.37	65.45	300	0	P	H
		7401	43.88	-30.12	74	61.48	35.88	12.73	66.21	300	0	P	H
		4935	41.85	-32.15	74	62.67	34.26	10.37	65.45	100	0	P	V
		7401	42.96	-31.04	74	60.56	35.88	12.73	66.21	100	0	P	V
802.11n HT20 CH 13 2472MHz		4950	41.4	-32.6	74	62.2	34.27	10.39	65.46	300	0	P	H
		7416	41.95	-32.05	74	59.52	35.88	12.76	66.21	300	0	P	H
		4950	40.31	-33.69	74	61.11	34.27	10.39	65.46	100	0	P	V
		7416	42.36	-31.64	74	59.93	35.88	12.76	66.21	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

Emission below 1GHz

2.4GHz WIFI 802.11g (LF)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz 802.11g LF		57.16	25.91	-14.09	40	44.59	13.1	1.13	32.91	-	-	P	H
		167.74	23.94	-19.56	43.5	38.74	16.06	1.97	32.83	-	-	P	H
		337.49	32.22	-13.78	46	42.17	20.15	2.8	32.9	-	-	P	H
		415.09	35.29	-10.71	46	43.15	21.93	3.11	32.9	-	-	P	H
		448.07	35.63	-10.37	46	42.95	22.5	3.23	33.05	-	-	P	H
		800.18	32.22	-13.78	46	34.38	26.26	4.32	32.74	-	-	P	H
		38.73	33.09	-6.91	40	45.35	19.78	0.89	32.93	-	-	P	V
		107.6	30.62	-12.88	43.5	44.95	16.96	1.57	32.86	-	-	P	V
		273.47	33.96	-12.04	46	45.39	18.84	2.52	32.79	-	-	P	V
		429.64	27.79	-18.21	46	35.42	22.18	3.16	32.97	-	-	P	V
		558.65	29.11	-16.89	46	33.52	25.08	3.61	33.1	-	-	P	V
		851.59	29.6	-16.4	46	30.91	26.59	4.46	32.36	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against 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.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
		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”.

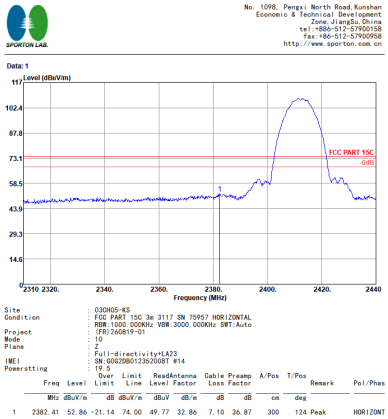
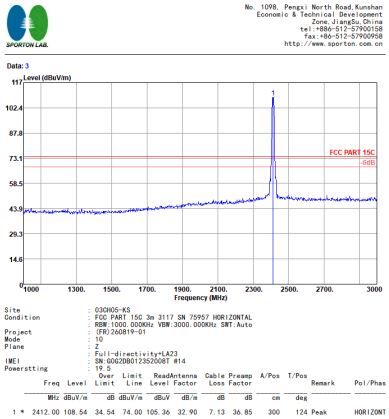
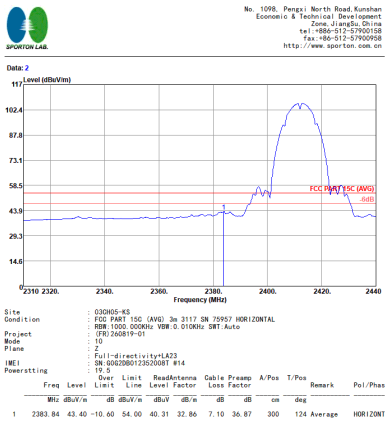
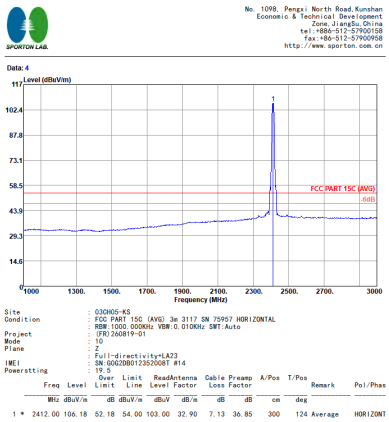
Appendix D. Radiated Spurious Emission Plots

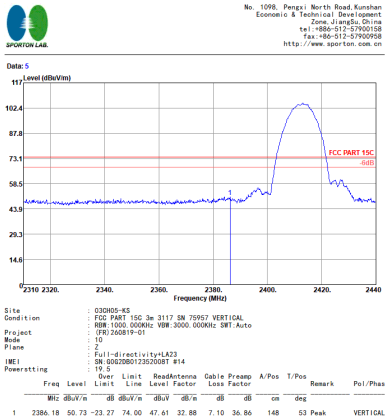
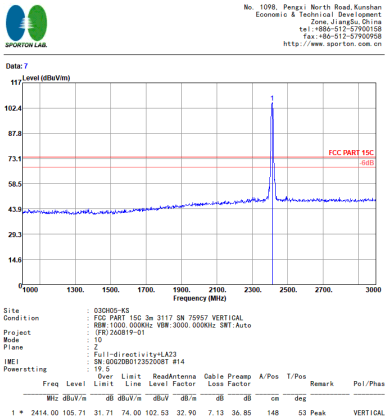
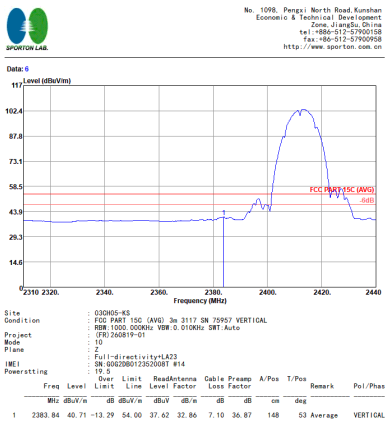
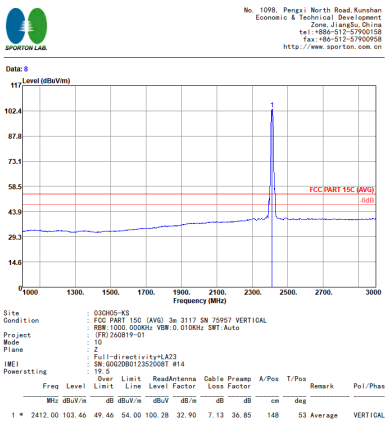
Note symbol

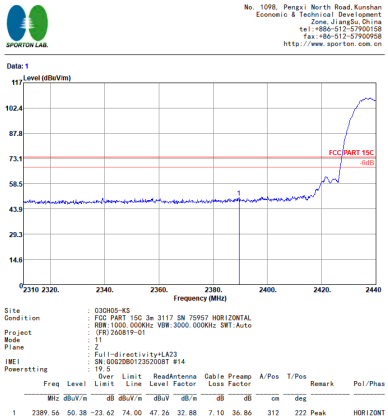
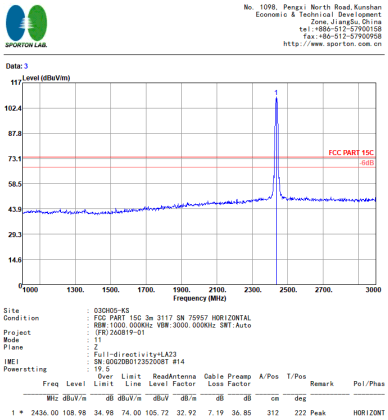
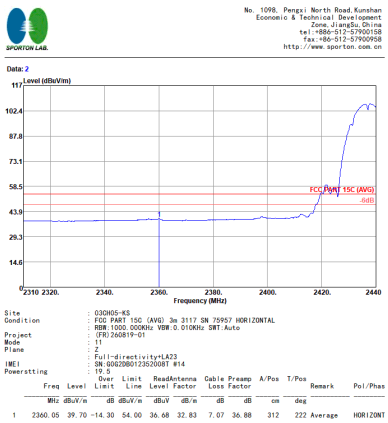
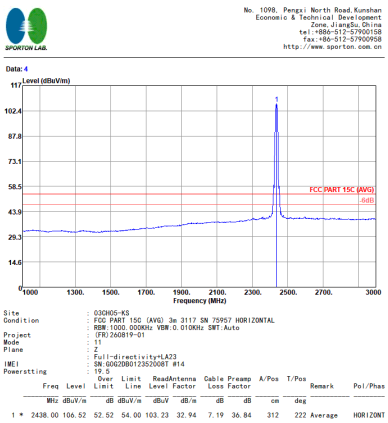
-L	**Low channel location**
-R	**High channel location**

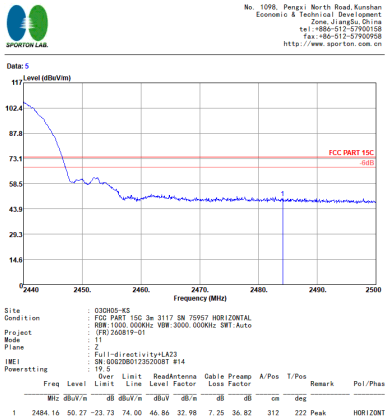
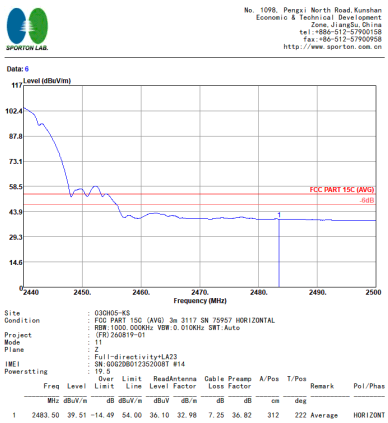
2.4GHz 2400~2483.5MHz

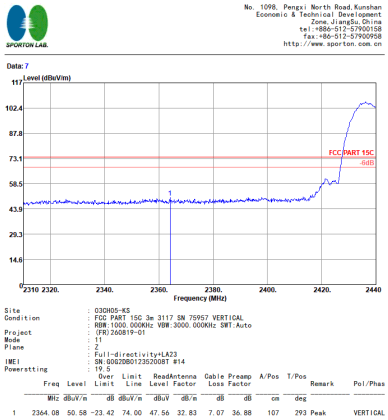
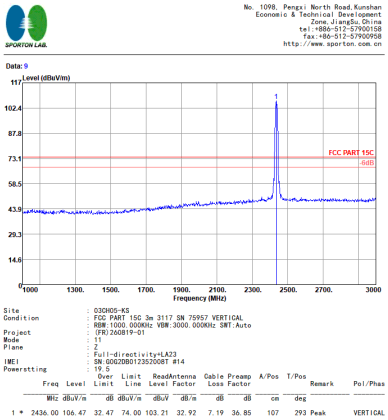
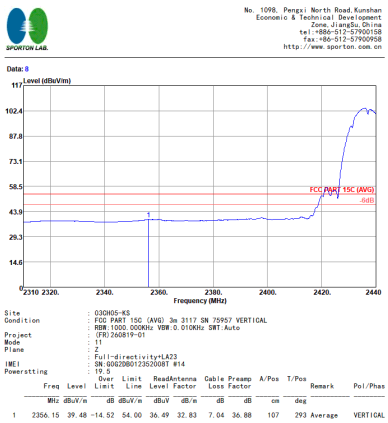
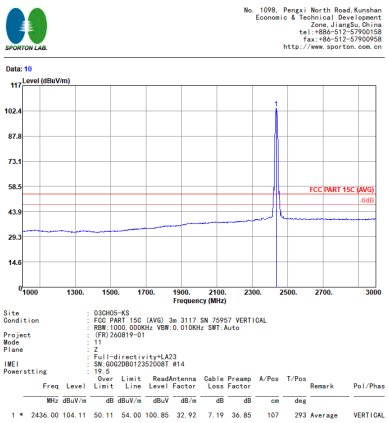
WIFI 802.11b (Band Edge @ 3m)

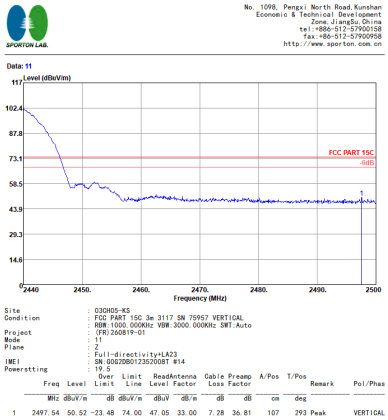
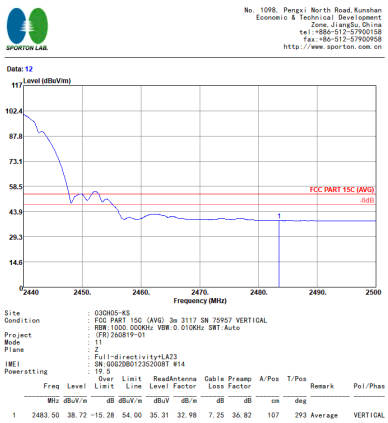
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

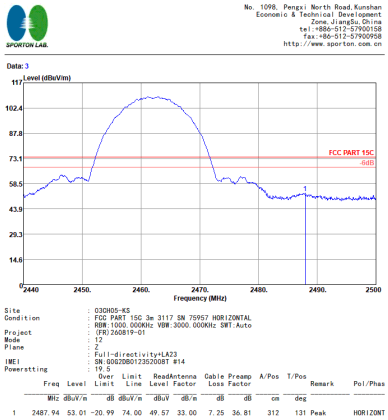
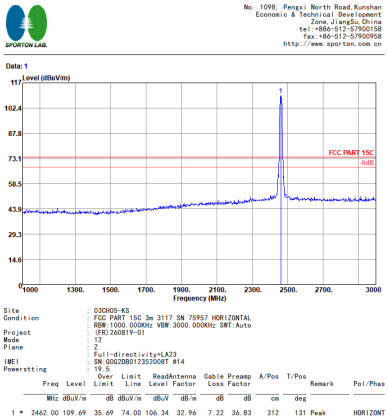
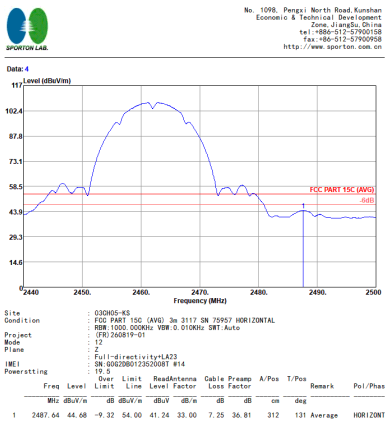
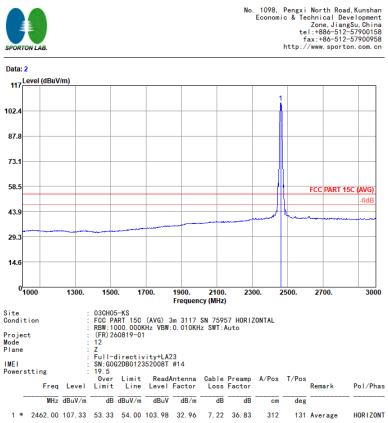
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1	Vertical	Fundamental
Peak		
Avg.		

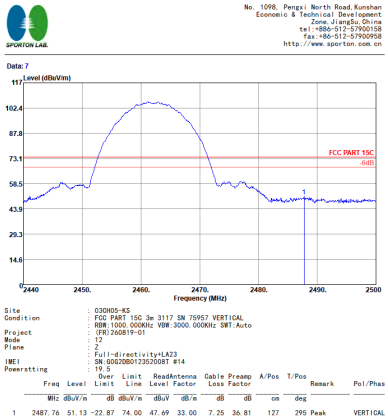
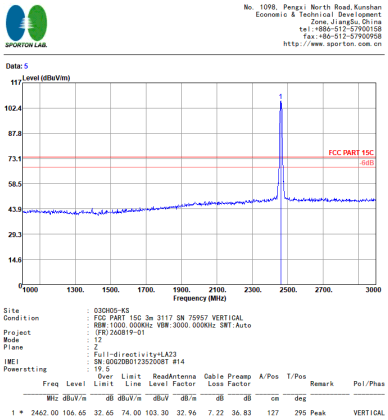
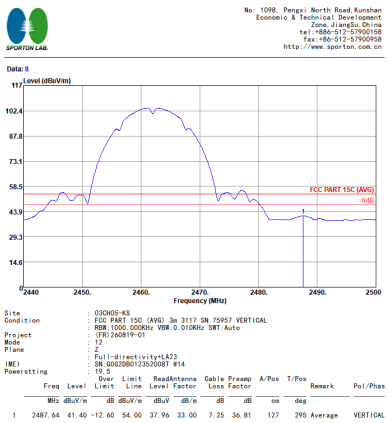
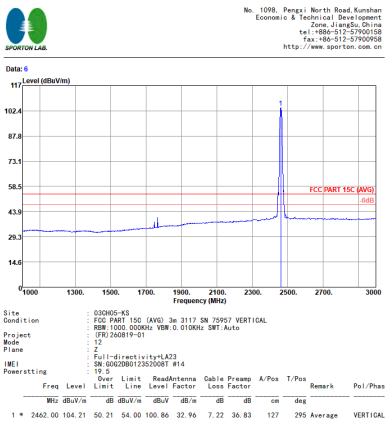
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		

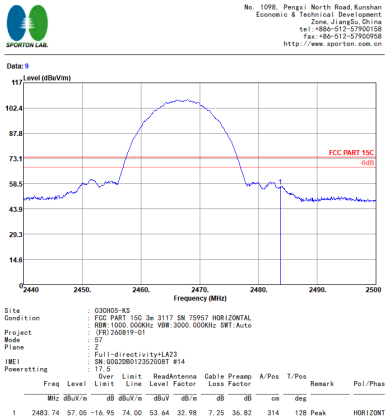
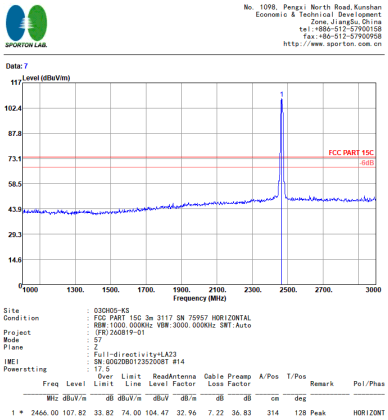
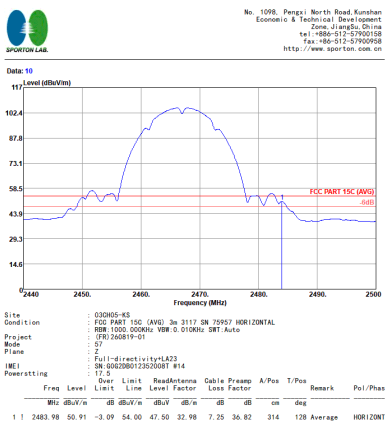
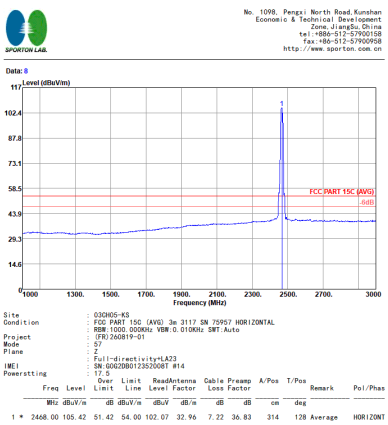
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

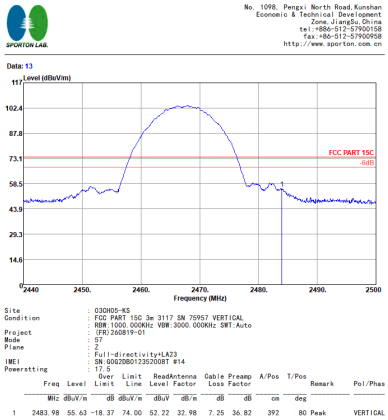
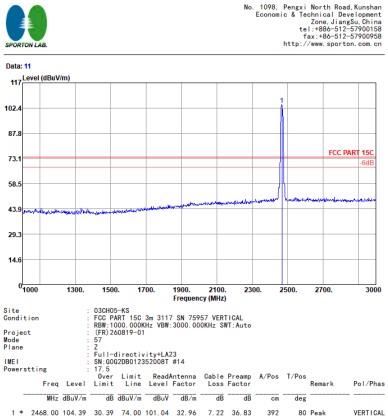
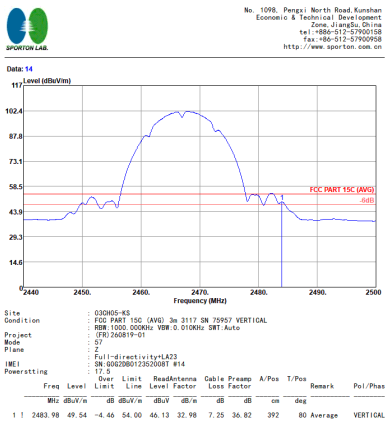
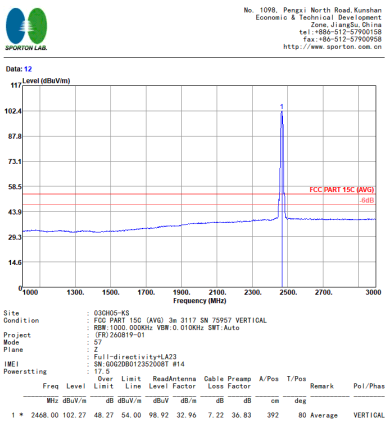
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		

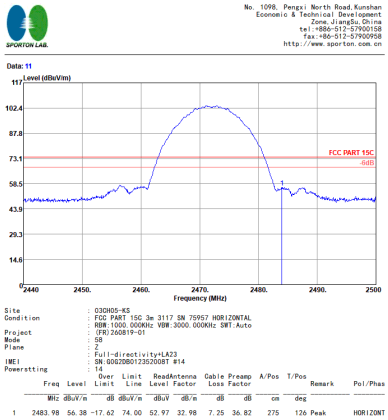
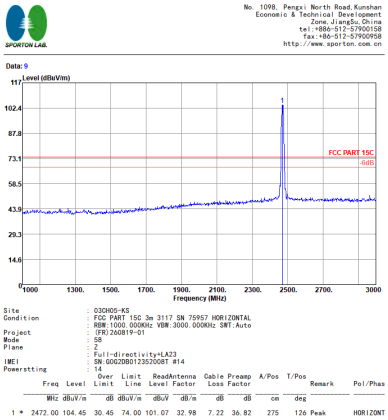
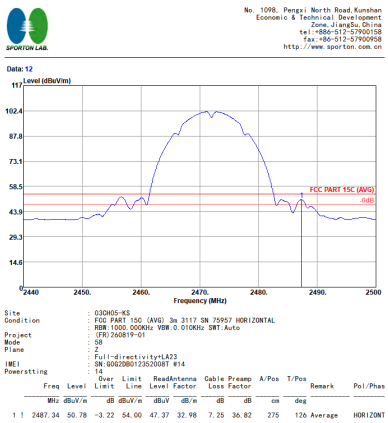
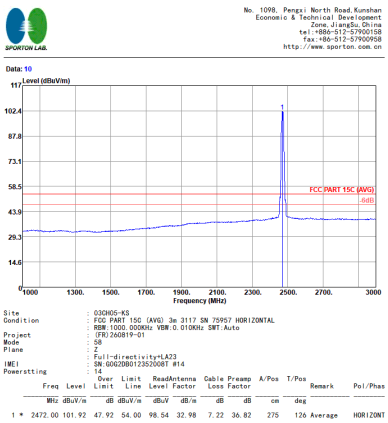
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

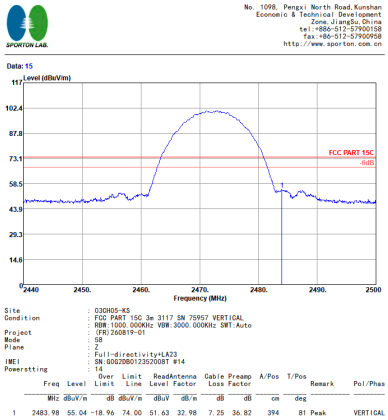
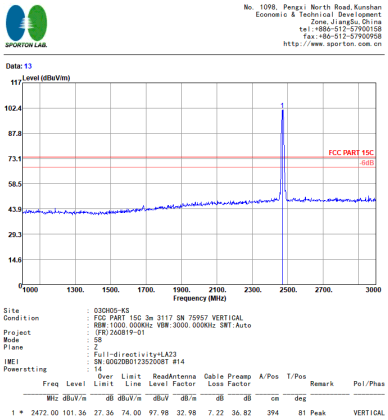
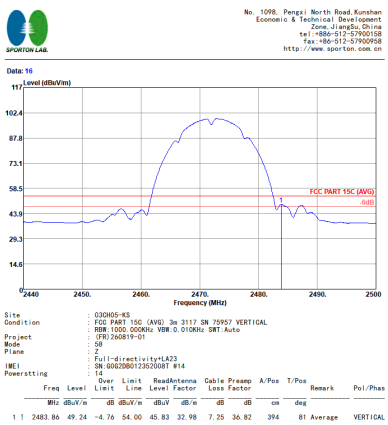
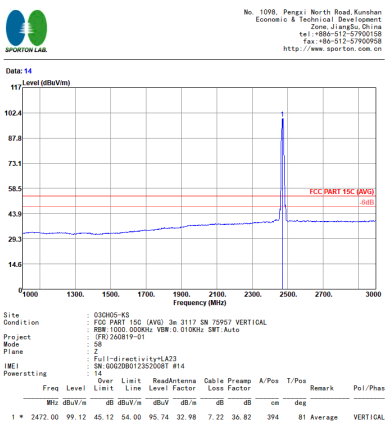
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1	Vertical	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH12 2467MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

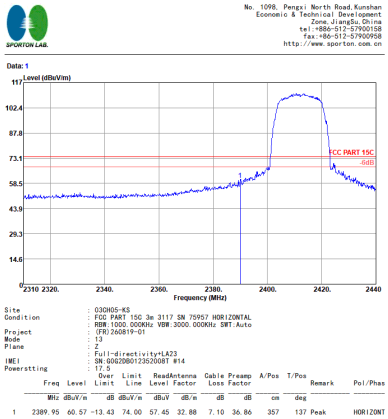
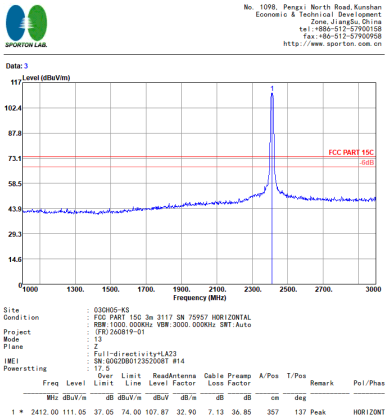
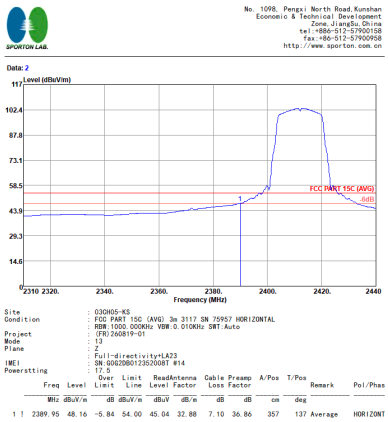
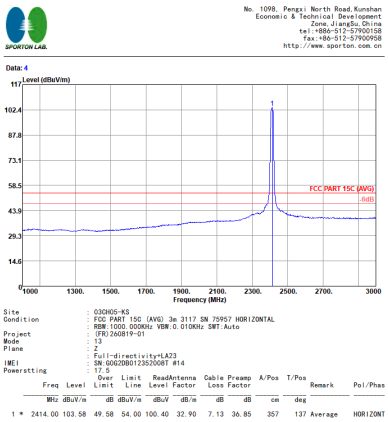
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH12 2467MHz	
1	Vertical	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH13 2472MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH13 2472MHz	
1	Vertical	Fundamental
Peak		
Avg.		

2.4GHz 2400~2483.5MHz

WIFI 802.11g (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1	Horizontal	Fundamental
Peak		
Avg.