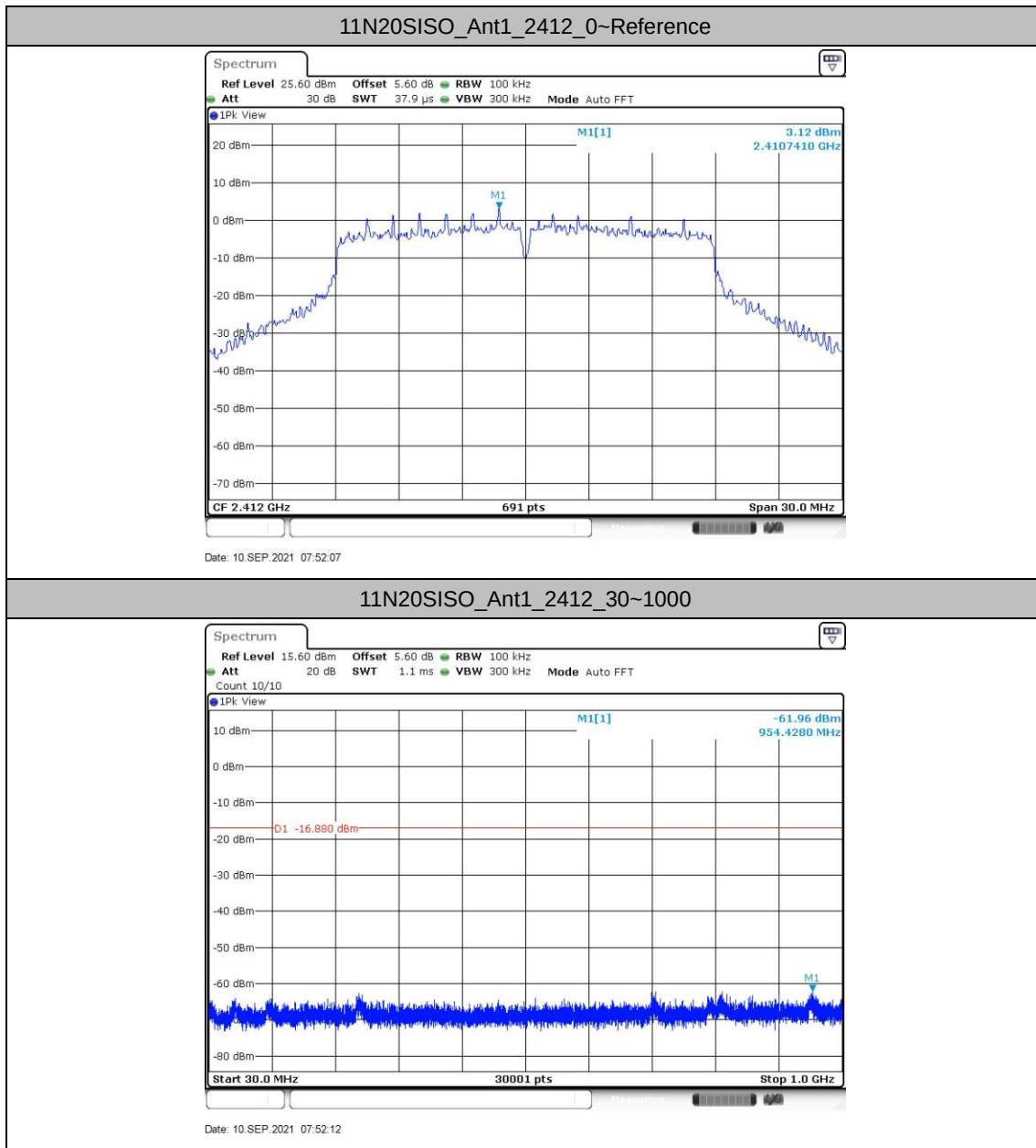
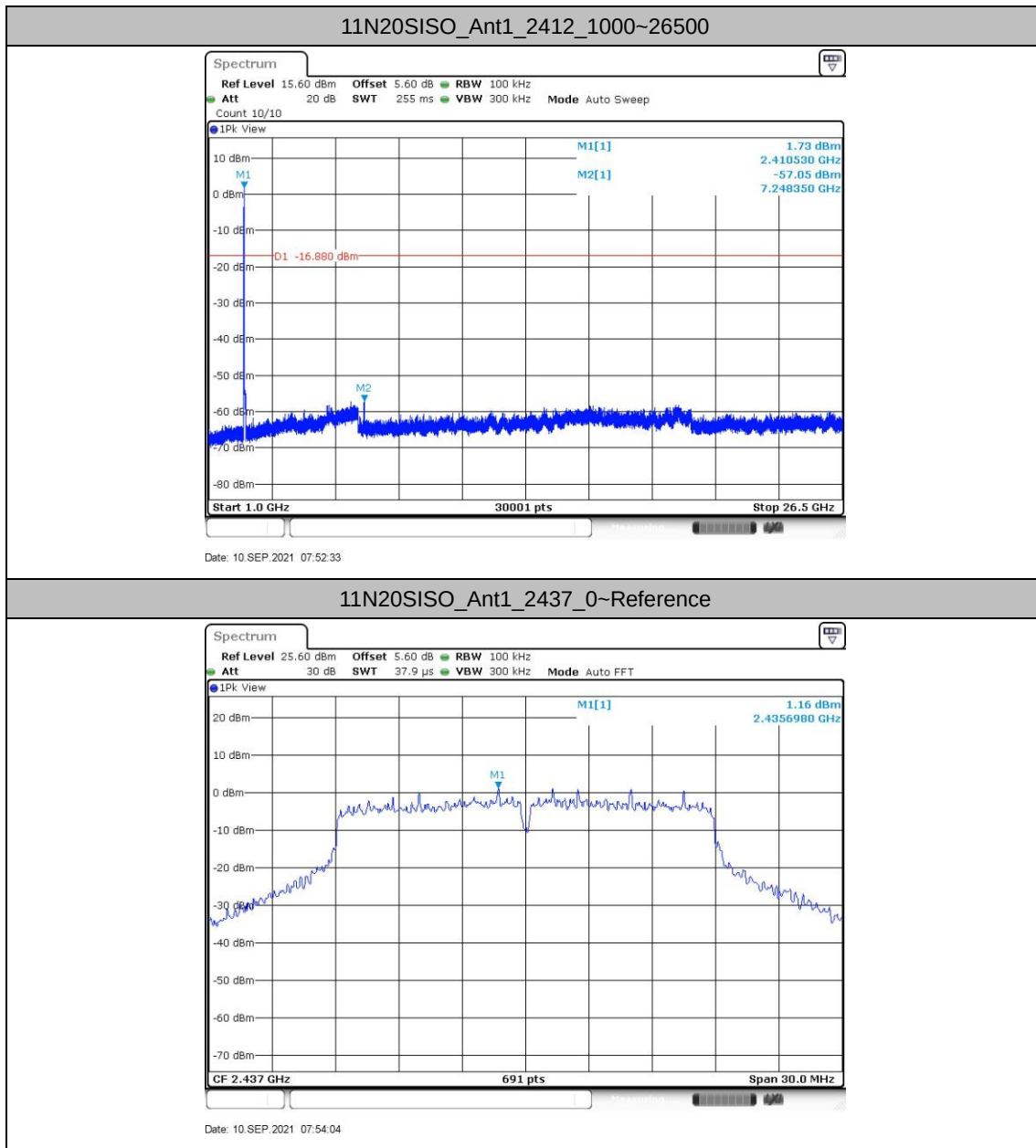
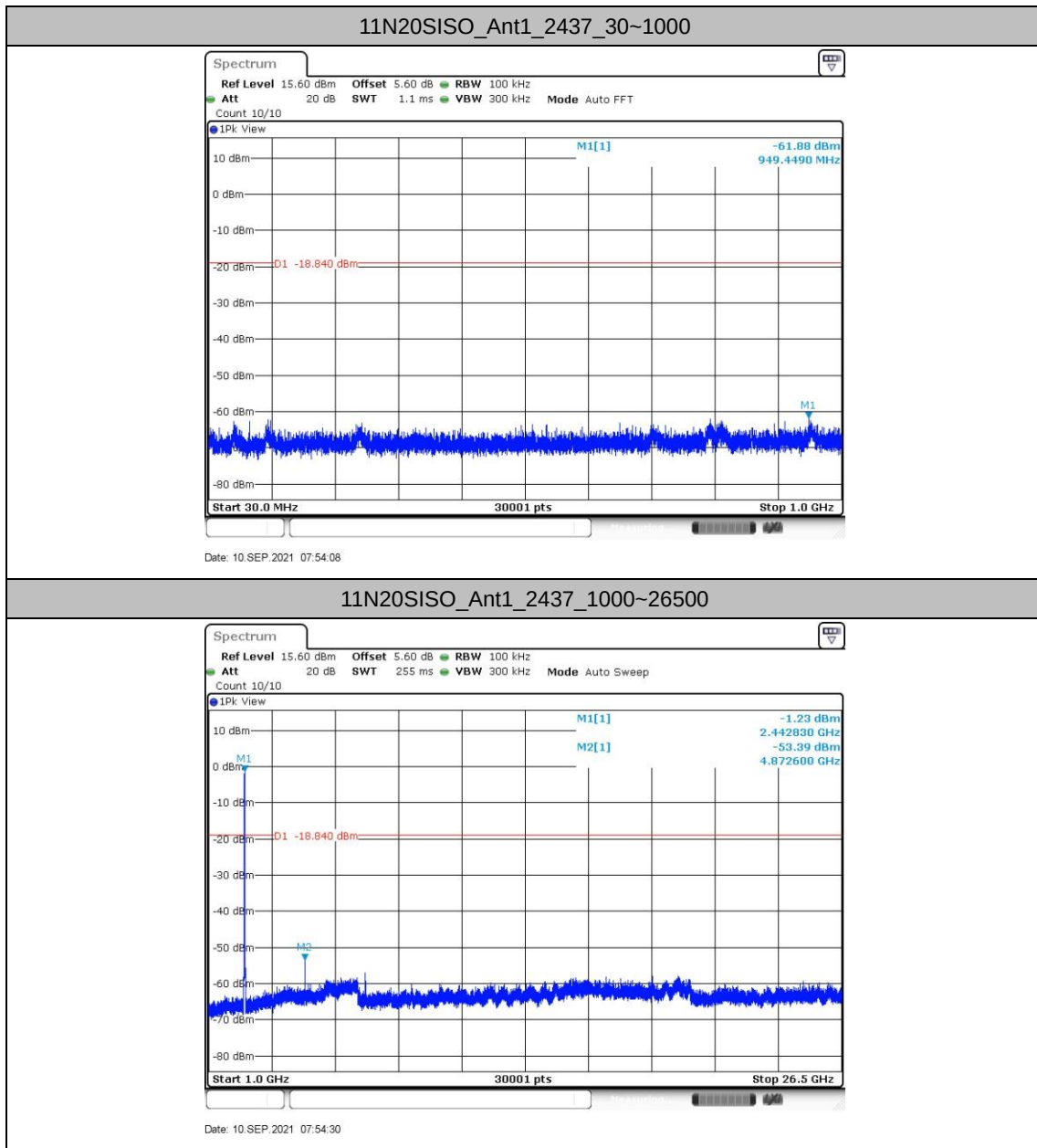
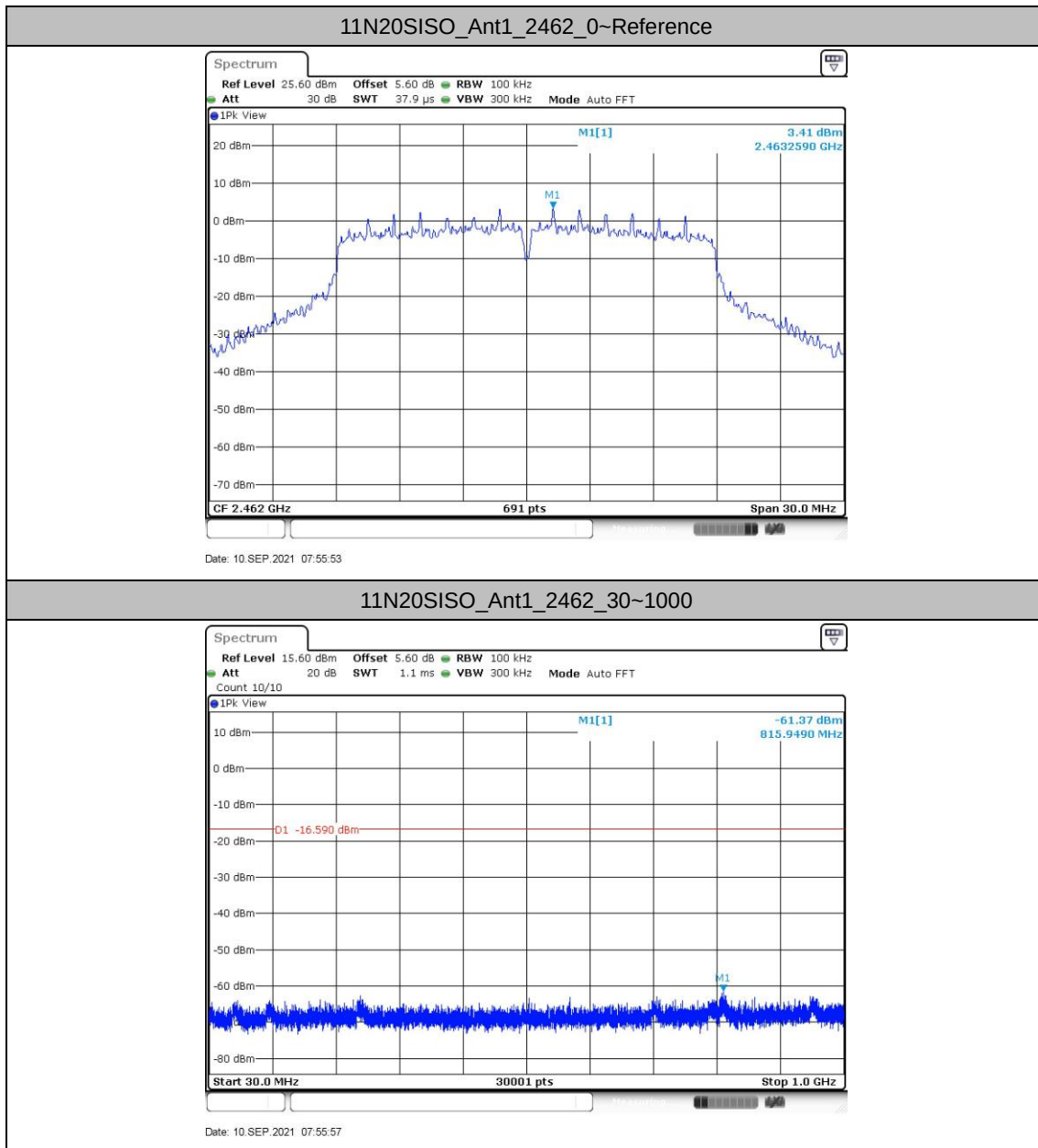
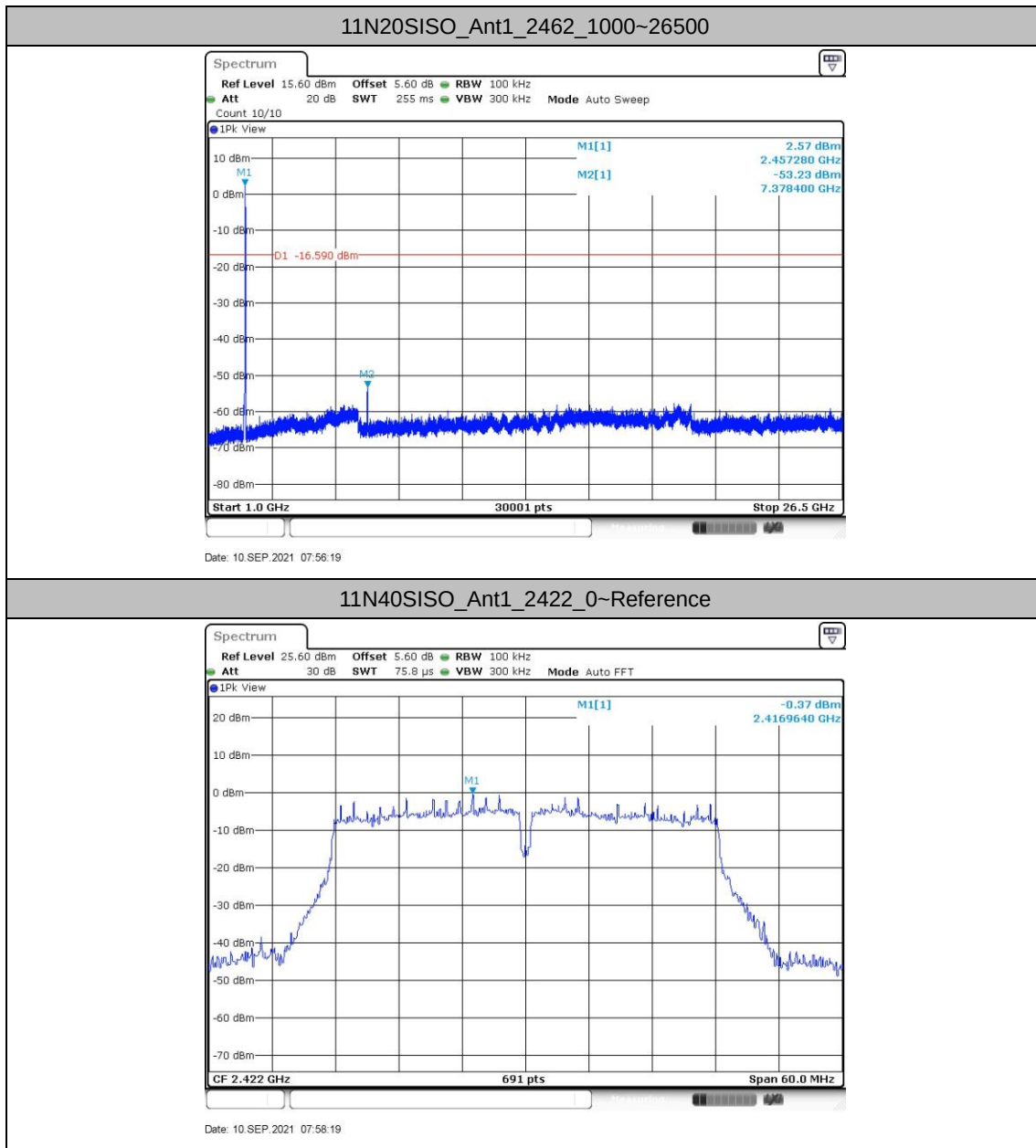


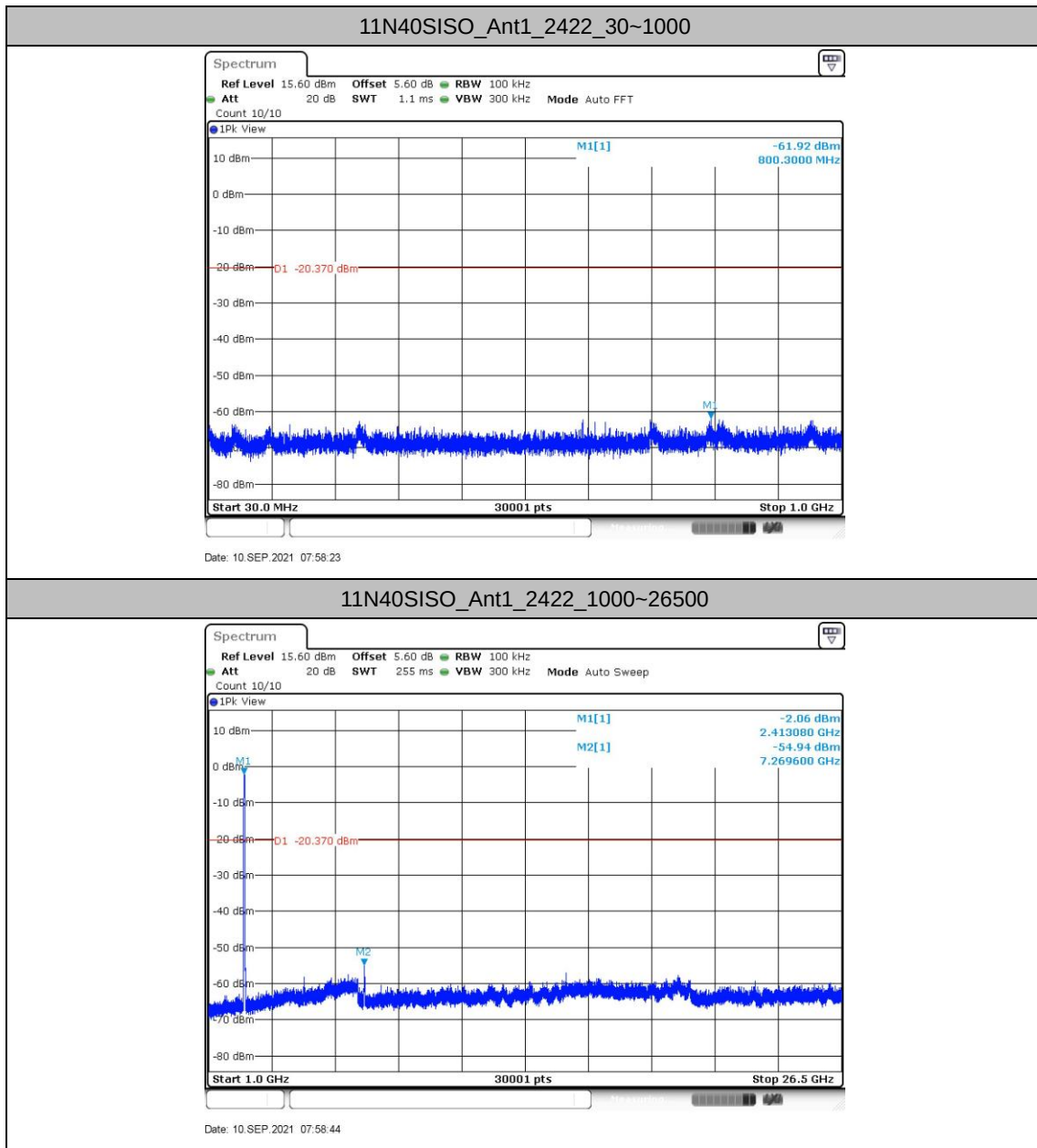


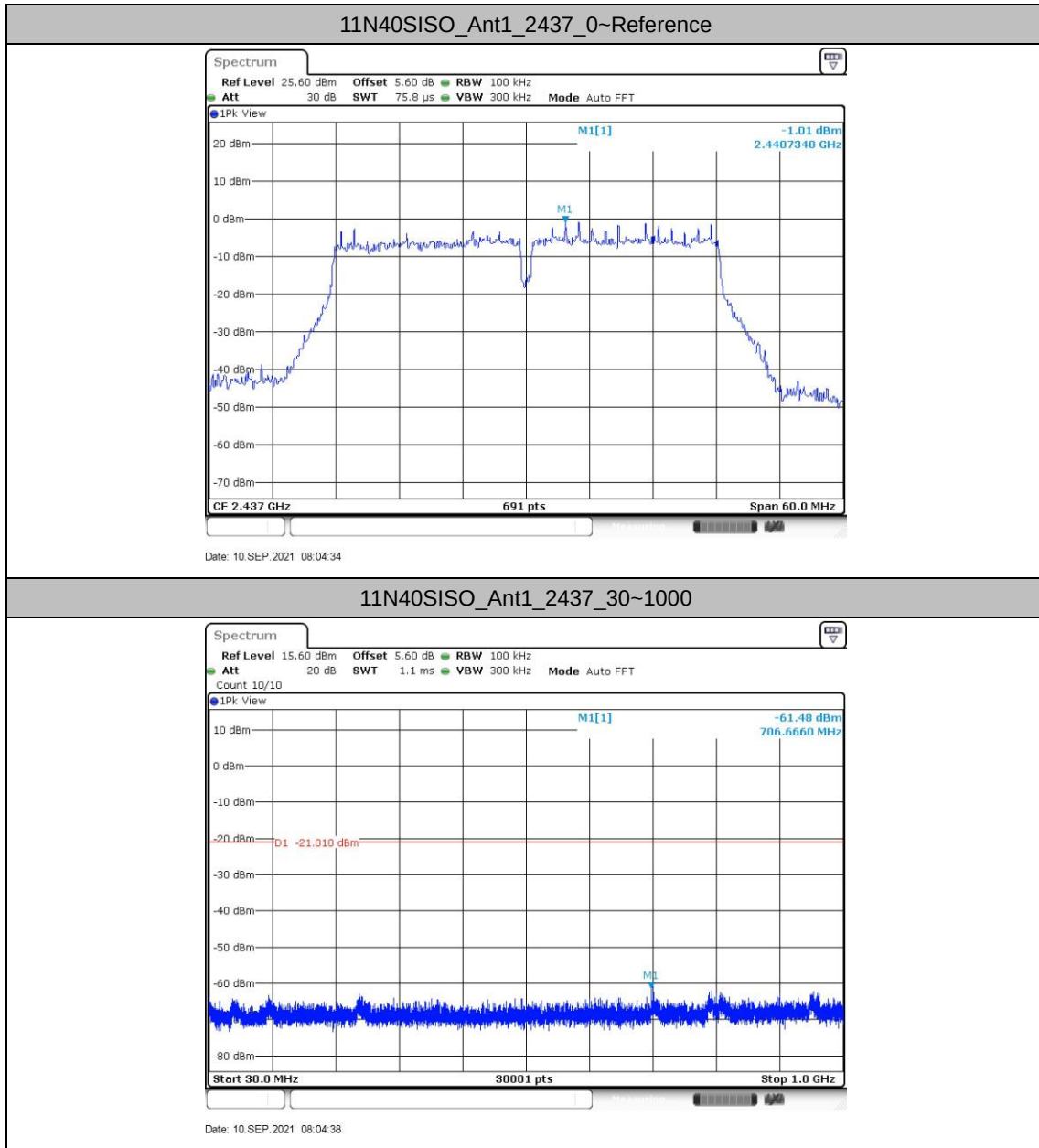


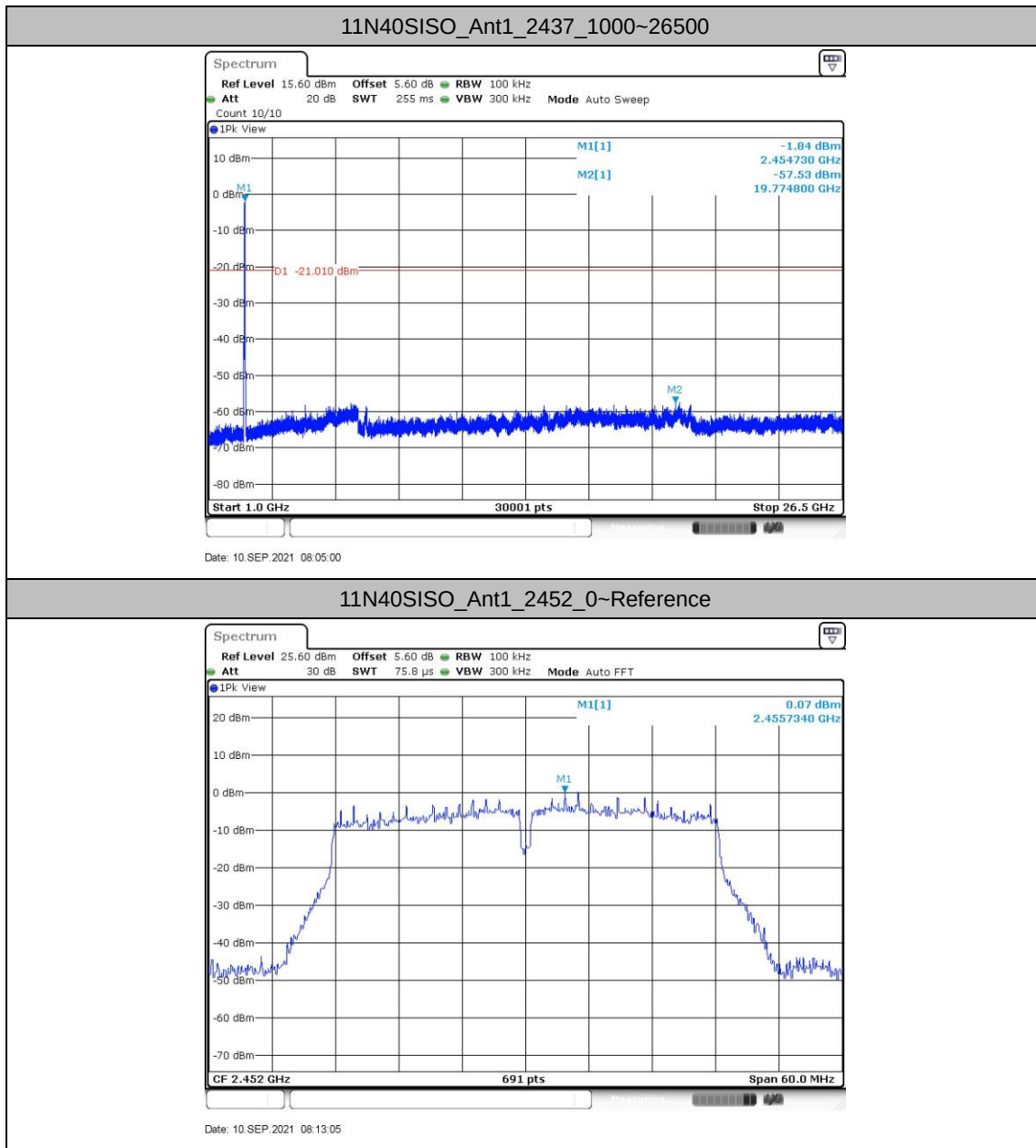


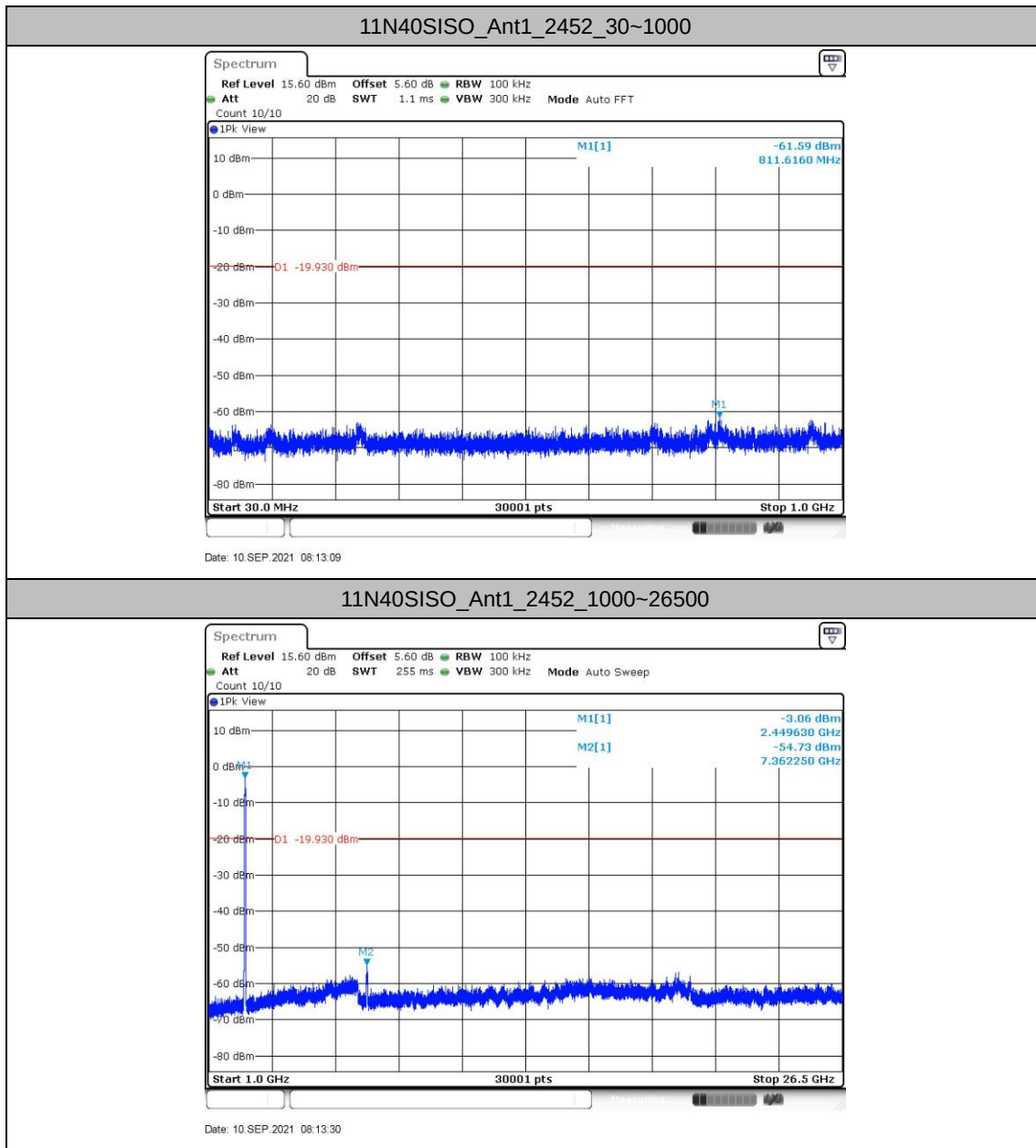








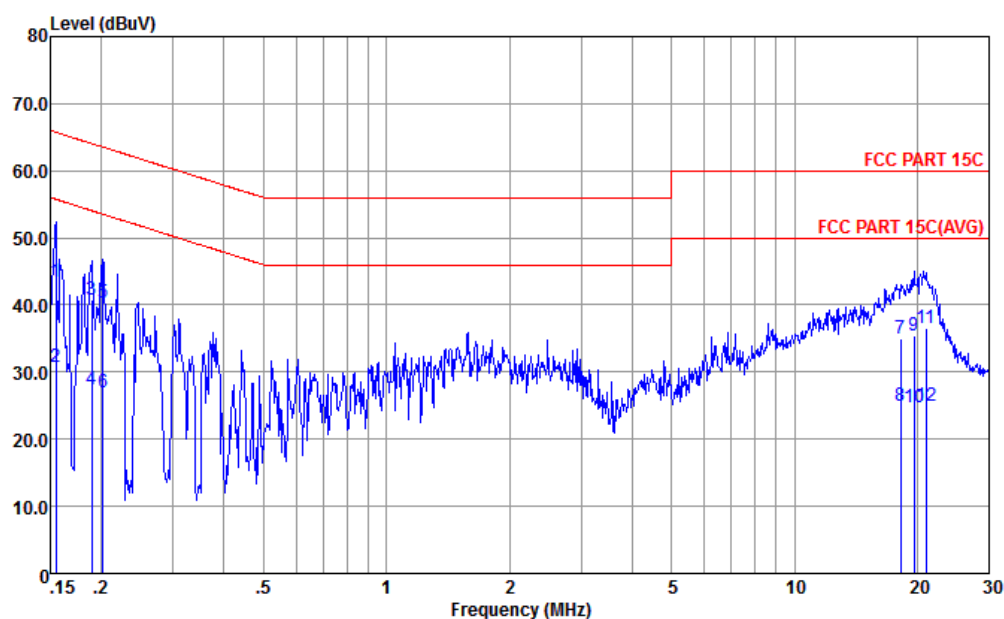






Appendix B. AC Conducted Emission Test Results

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



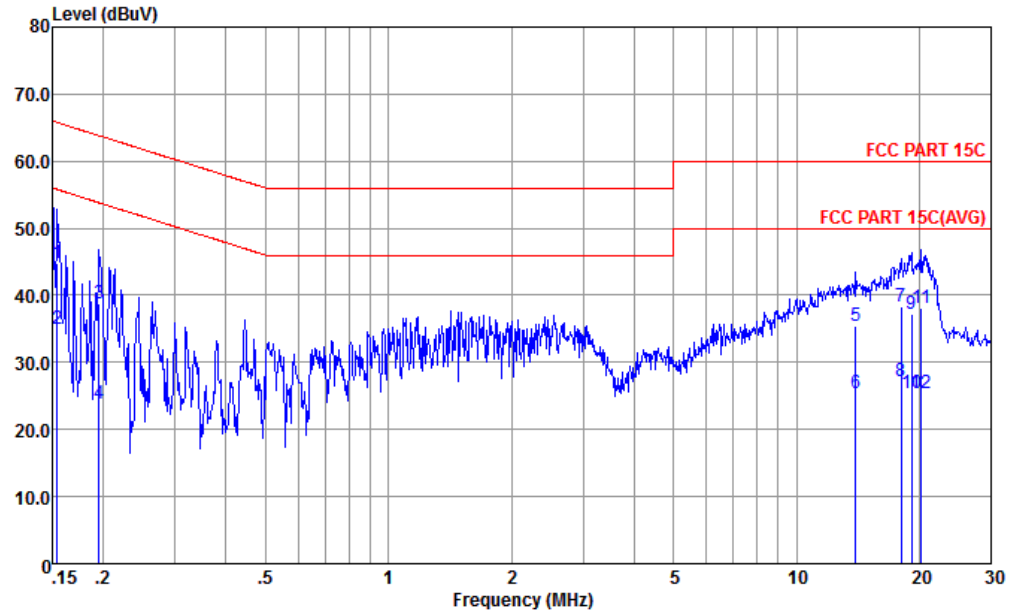
Site : CO01-KS

Condition : FCC PART 15C LISN-L-060105-CN02 LINE

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss	
			dB	dBuV	dBuV	dB	dB	
1 *	0.155	43.44	-22.30	65.74	32.90	0.07	10.47	QP
2	0.155	30.84	-24.90	55.74	20.30	0.07	10.47	Average
3	0.189	40.67	-23.39	64.06	30.21	0.08	10.38	QP
4	0.189	27.37	-26.69	54.06	16.91	0.08	10.38	Average
5	0.202	40.35	-23.19	63.54	29.90	0.09	10.36	QP
6	0.202	27.05	-26.49	53.54	16.60	0.09	10.36	Average
7	18.232	34.93	-25.07	60.00	22.51	1.96	10.46	QP
8	18.232	25.03	-24.97	50.00	12.61	1.96	10.46	Average
9	19.635	35.40	-24.60	60.00	22.79	2.12	10.49	QP
10	19.635	24.80	-25.20	50.00	12.19	2.12	10.49	Average
11	21.035	36.66	-23.34	60.00	23.91	2.24	10.51	QP
12	21.035	24.96	-25.04	50.00	12.21	2.24	10.51	Average



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-N-060105-CN02 NEUTRAL

	Freq	Level	Over	Limit	Read	LISN	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
1	0.154	44.72	-21.06	65.78	34.10	0.15	10.47	QP
2 *	0.154	34.92	-20.86	55.78	24.30	0.15	10.47	Average
3	0.195	38.74	-25.06	63.80	28.20	0.17	10.37	QP
4	0.195	23.84	-29.96	53.80	13.30	0.17	10.37	Average
5	13.989	35.49	-24.51	60.00	23.29	1.81	10.39	QP
6	13.989	25.49	-24.51	50.00	13.29	1.81	10.39	Average
7	18.039	38.43	-21.57	60.00	25.50	2.47	10.46	QP
8	18.039	27.13	-22.87	50.00	14.20	2.47	10.46	Average
9	19.122	37.21	-22.79	60.00	24.09	2.64	10.48	QP
10	19.122	25.31	-24.69	50.00	12.19	2.64	10.48	Average
11	20.270	38.21	-21.79	60.00	24.90	2.81	10.50	QP
12	20.270	25.51	-24.49	50.00	12.20	2.81	10.50	Average

Note:

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



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		2384.62	54.77	-19.23	74	48.94	32.15	7.13	33.45	133	133	P	H
		2386.7	43.94	-10.06	54	38.08	32.15	7.16	33.45	133	133	A	H
	*	2412	103.81	-	-	97.87	32.2	7.18	33.44	133	133	P	H
	*	2414	100.58	-	-	94.64	32.2	7.18	33.44	133	133	A	H
		2352.12	55.74	-18.26	74	49.01	33.08	7.1	33.45	100	67	P	V
		2385.92	45.15	-8.85	54	37.94	33.5	7.16	33.45	100	67	P	V
		2412	104.26	-	-	97.15	33.37	7.18	33.44	100	67	A	V
	*	2410	101.01	-	-	93.9	33.37	7.18	33.44	100	67	P	V
802.11b CH 11 2462MHz		2491.84	54.68	-19.32	74	49.1	31.7	7.3	33.42	122	165	P	H
		2487.16	43.84	-10.16	54	38.29	31.7	7.27	33.42	122	165	A	H
	*	2462	102.83	-	-	97.11	31.9	7.25	33.43	122	165	P	H
	*	2460	99.63	-	-	93.91	31.9	7.25	33.43	122	165	A	H
		2497.24	56.34	-17.66	74	49.73	32.73	7.3	33.42	100	241	P	V
		2486.98	45.09	-8.91	54	38.38	32.86	7.27	33.42	100	241	A	V
	*	2462	104.15	-	-	97.34	32.99	7.25	33.43	100	241	P	V
	*	2464	100.94	-	-	94.13	32.99	7.25	33.43	100	241	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		4824	44.04	-29.96	74	58.84	34.98	10.26	60.04	300	0	P	H
		4824	43.5	-30.5	74	58.44	34.84	10.26	60.04	300	360	P	V
802.11b CH 06 2437MHz		4872	46.58	-27.42	74	61.25	35.04	10.32	60.03	300	0	P	H
		7308	42.98	-31.02	74	53.88	36.86	12.75	60.51	300	0	P	H
		4872	45.35	-28.65	74	60.23	34.83	10.32	60.03	300	360	P	V
		7308	42.83	-31.17	74	54.2	36.39	12.75	60.51	300	360	P	V
802.11b CH 11 2462MHz		4926	45.1	-28.9	74	59.63	35.1	10.39	60.02	300	0	P	H
		7386	44.22	-29.78	74	55.04	36.88	12.83	60.53	300	0	P	H
		4926	44.42	-29.58	74	59.23	34.82	10.39	60.02	300	360	P	V
		7386	43.86	-30.14	74	55.12	36.44	12.83	60.53	300	360	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		2389.69	56.05	-17.95	74	50.19	32.15	7.16	33.45	130	152	P	H
		2389.95	46.13	-7.87	54	40.27	32.15	7.16	33.45	130	152	A	H
	*	2412	105.77	-	-	99.83	32.2	7.18	33.44	130	152	P	H
	*	2412	98.01	-	-	92.07	32.2	7.18	33.44	130	152	A	H
		2372.92	57.15	-16.85	74	50.18	33.29	7.13	33.45	100	71	P	V
		2389.95	46.75	-7.25	54	39.54	33.5	7.16	33.45	100	71	A	V
	*	2410	105.22	-	-	98.11	33.37	7.18	33.44	100	71	P	V
	*	2410	97.47	-	-	90.36	33.37	7.18	33.44	100	71	A	V
802.11g CH 11 2462MHz		2485.24	55.32	-18.68	74	49.78	31.7	7.27	33.43	128	21	P	H
		2483.68	45.25	-8.75	54	39.61	31.8	7.27	33.43	128	21	A	H
	*	2462	103.78	-	-	98.06	31.9	7.25	33.43	128	21	P	H
	*	2460	95.9	-	-	90.18	31.9	7.25	33.43	128	21	A	H
		2484.76	56.74	-17.26	74	50.04	32.86	7.27	33.43	100	85	P	V
		2483.5	46.42	-7.58	54	39.72	32.86	7.27	33.43	100	85	A	V
	*	2460	104.19	-	-	97.38	32.99	7.25	33.43	100	85	P	V
	*	2460	96.41	-	-	89.6	32.99	7.25	33.43	100	85	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		4824	44.4	-29.6	74	59.2	34.98	10.26	60.04	300	0	P	H
		4824	42.57	-31.43	74	57.51	34.84	10.26	60.04	300	360	P	V
802.11g CH 06 2437MHz		4872	45.24	-28.76	74	59.91	35.04	10.32	60.03	300	0	P	H
		7308	43.44	-30.56	74	54.34	36.86	12.75	60.51	300	0	P	H
		4872	43.74	-30.26	74	58.62	34.83	10.32	60.03	300	360	P	V
		7308	42.69	-31.31	74	54.06	36.39	12.75	60.51	300	360	P	V
802.11g CH 11 2462MHz		4926	44.17	-29.83	74	58.7	35.1	10.39	60.02	300	0	P	H
		7386	43.83	-30.17	74	54.65	36.88	12.83	60.53	300	0	P	H
		4926	41.77	-32.23	74	56.58	34.82	10.39	60.02	300	360	P	V
		7386	42.71	-31.29	74	53.97	36.44	12.83	60.53	300	360	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		2388.91	56.51	-17.49	74	50.65	32.15	7.16	33.45	164	23	P	H
		2389.95	46.47	-7.53	54	40.61	32.15	7.16	33.45	164	23	A	H
	*	2410	104.38	-	-	98.44	32.2	7.18	33.44	164	23	P	H
	*	2410	96.35	-	-	90.41	32.2	7.18	33.44	164	23	A	H
		2357.45	56.48	-17.52	74	49.75	33.08	7.1	33.45	100	112	P	V
		2389.95	46.16	-7.84	54	38.95	33.5	7.16	33.45	100	112	A	V
	*	2412	102.17	-	-	95.06	33.37	7.18	33.44	100	112	P	V
	*	2412	94.12	-	-	87.01	33.37	7.18	33.44	100	112	A	V
802.11n HT20 CH 11 2462MHz		2485.72	55.74	-18.26	74	50.2	31.7	7.27	33.43	109	24	P	H
		2483.56	45.44	-8.56	54	39.8	31.8	7.27	33.43	109	24	A	H
	*	2462	103.27	-	-	97.55	31.9	7.25	33.43	109	24	P	H
	*	2460	95.35	-	-	89.63	31.9	7.25	33.43	109	24	A	H
		2484.16	55.86	-18.14	74	49.16	32.86	7.27	33.43	100	195	P	V
		2483.56	46.48	-7.52	54	39.78	32.86	7.27	33.43	100	195	A	V
	*	2458	102.98	-	-	96.17	32.99	7.25	33.43	100	195	P	V
	*	2460	94.91	-	-	88.1	32.99	7.25	33.43	100	195	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		4824	43.88	-30.12	74	58.68	34.98	10.26	60.04	300	0	P	H
		4824	42.53	-31.47	74	57.47	34.84	10.26	60.04	300	360	P	V
802.11n HT20 CH 06 2437MHz		4872	44.41	-29.59	74	59.08	35.04	10.32	60.03	300	0	P	H
		7308	42.8	-31.2	74	53.7	36.86	12.75	60.51	300	0	P	H
		4872	42.51	-31.49	74	57.39	34.83	10.32	60.03	300	360	P	V
		7308	43.2	-30.8	74	54.57	36.39	12.75	60.51	300	360	P	V
802.11n HT20 CH 11 2462MHz		4926	43.09	-30.91	74	57.62	35.1	10.39	60.02	300	0	P	H
		7386	44.62	-29.38	74	55.44	36.88	12.83	60.53	300	0	P	H
		4926	42.69	-31.31	74	57.5	34.82	10.39	60.02	300	360	P	V
		7386	42.68	-31.32	74	53.94	36.44	12.83	60.53	300	360	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 HT40 (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 HT40 CH 03 2422MHz		2383.45	56.89	-17.11	74	51.06	32.15	7.13	33.45	107	32	P	H
		2389.95	47.67	-6.33	54	41.81	32.15	7.16	33.45	107	32	A	H
		2426	101.3	-	-	95.44	32.1	7.2	33.44	107	32	P	H
		2424	92.83	-	-	86.97	32.1	7.2	33.44	107	32	A	H
		2485.6	54.83	-19.17	74	49.29	31.7	7.27	33.43	107	32	P	H
		2483.62	45.09	-8.91	54	39.45	31.8	7.27	33.43	107	32	A	H
		2387.35	57.84	-16.16	74	50.63	33.5	7.16	33.45	144	238	P	V
		2389.95	48.67	-5.33	54	41.46	33.5	7.16	33.45	144	238	A	V
		2426	101.1	-	-	94.1	33.24	7.2	33.44	144	238	P	V
		2426	92.73	-	-	85.73	33.24	7.2	33.44	144	238	A	V
		2486.92	56.61	-17.39	74	49.9	32.86	7.27	33.42	144	238	P	V
		2483.86	46.01	-7.99	54	39.31	32.86	7.27	33.43	144	238	A	V
802.11n HT40 CH 09 2452MHz		2385.4	54.75	-19.25	74	48.92	32.15	7.13	33.45	216	26	P	H
		2387.48	44.88	-9.12	54	39.02	32.15	7.16	33.45	216	26	A	H
	*	2456	101.69	-	-	95.97	31.9	7.25	33.43	216	26	P	H
	*	2454	93.23	-	-	87.51	31.9	7.25	33.43	216	26	A	H
		2484.04	56.96	-17.04	74	51.32	31.8	7.27	33.43	216	26	P	H
		2483.5	46.94	-7.06	54	41.3	31.8	7.27	33.43	216	26	A	H
		2379.16	56.01	-17.99	74	49.04	33.29	7.13	33.45	197	239	P	V
		2389.17	46.33	-7.67	54	39.12	33.5	7.16	33.45	197	239	A	V
	*	2456	102.39	-	-	95.58	32.99	7.25	33.43	197	239	P	V
	*	2456	93.86	-	-	87.05	32.99	7.25	33.43	197	239	A	V
		2483.62	57.44	-16.56	74	50.74	32.86	7.27	33.43	197	239	P	V
		2483.62	47.91	-6.09	54	41.21	32.86	7.27	33.43	197	239	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 HT40 (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		4842	42.97	-31.03	74	57.72	35	10.28	60.03	300	0	P	H
HT40		7266	43.48	-30.52	74	54.42	36.85	12.72	60.51	300	0	P	H
CH 03		4842	42.61	-31.39	74	57.53	34.83	10.28	60.03	300	360	P	V
2422MHz		7266	43.38	-30.62	74	54.8	36.37	12.72	60.51	300	360	P	V
802.11n		4872	42.43	-31.57	74	57.1	35.04	10.32	60.03	300	0	P	H
HT40		7308	43.81	-30.19	74	54.71	36.86	12.75	60.51	300	0	P	H
CH 06		4872	42.51	-31.49	74	57.39	34.83	10.32	60.03	300	360	P	V
2437MHz		7308	43.25	-30.75	74	54.62	36.39	12.75	60.51	300	360	P	V
802.11n		4902	42.85	-31.15	74	58.5	35.06	10.37	61.08	300	0	P	H
HT40		7356	44.36	-29.64	74	55.75	36.87	12.8	61.06	300	0	P	H
CH 09		4902	41.25	-32.75	74	57.14	34.82	10.37	61.08	300	360	P	V
2452MHz		7356	44.38	-29.62	74	56.22	36.42	12.8	61.06	300	360	P	V
Remark	3. No other spurious found. 4. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz

Emission below 1GHz

2.4GHz WIFI 802.11n HT40 (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 802.11n HT40 LF		30	21.01	-18.99	40	27.57	25.1	0.54	32.2	-	-	P	H
		154.16	28.64	-14.86	43.5	41.87	16.86	2.01	32.1	174	210	P	H
		213.33	27.36	-16.14	43.5	41.87	15.23	2.39	32.13	-	-	P	H
		311.3	23.49	-22.51	46	33.22	19.51	2.88	32.12	-	-	P	H
		741.98	29.5	-16.5	46	29.37	27.96	4.45	32.28	-	-	P	H
		807.94	29.14	-16.86	46	28.45	28.37	4.64	32.32	-	-	P	H
		33.88	30.03	-9.97	40	38.65	22.98	0.6	32.2	-	-	P	V
		47.46	31.11	-8.89	40	46.63	15.87	0.81	32.2	234	262	P	V
		150.28	24.5	-19	43.5	37.52	17.1	1.98	32.1	-	-	P	V
		215.27	27.27	-16.23	43.5	41.75	15.25	2.4	32.13	-	-	P	V
		745.86	28.23	-17.77	46	27.98	28.08	4.46	32.29	-	-	P	V
		842.86	29.26	-16.74	46	27.76	29.15	4.74	32.39	-	-	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		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)

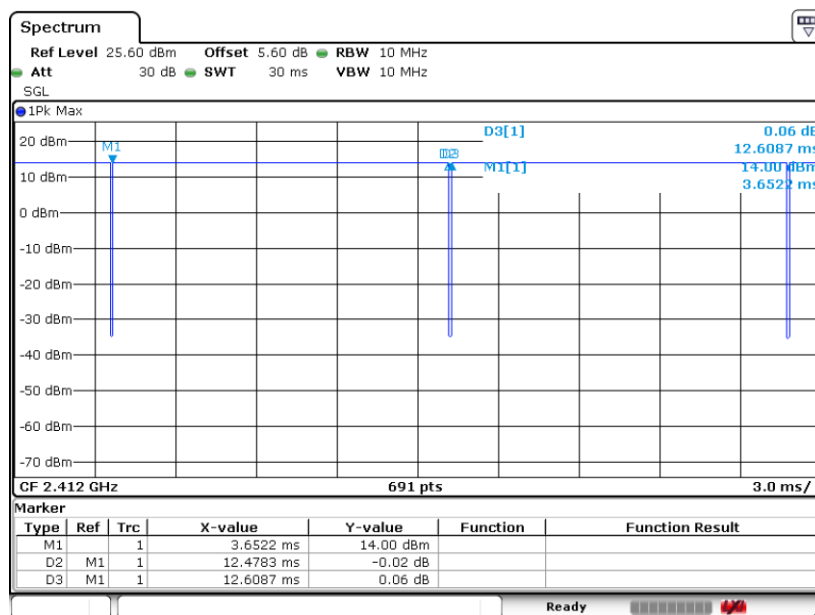
= -10.46(dB)

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

Appendix D. Duty Cycle Plots

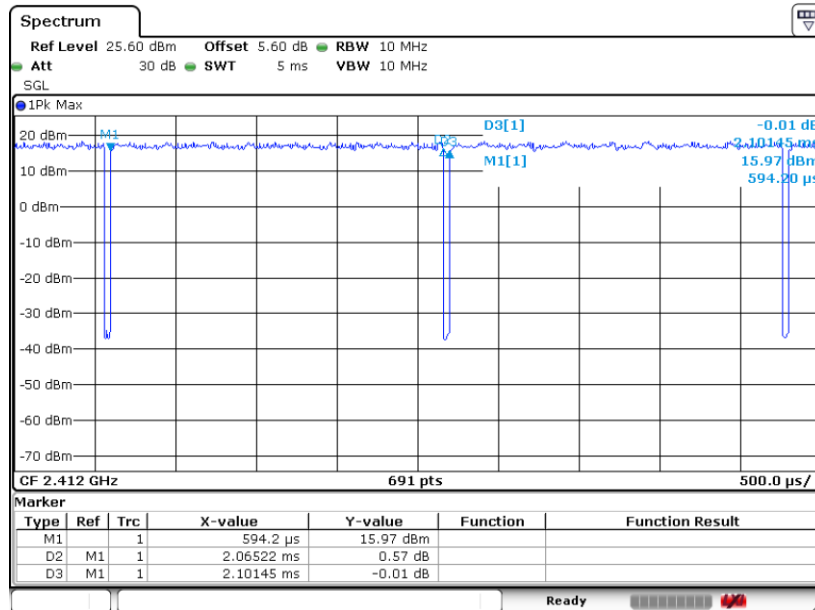
Band	Duty Cycle(%)	T(ms)	1/T(kHz)	VBW Setting
802.11b	98.97	-	-	10HZ
802.11g	98.28	-	-	10HZ
802.11n HT20	98.15	-	-	10HZ
802.11n HT40	94.93	0.9493	1.0534	1.6KHZ

802.11b

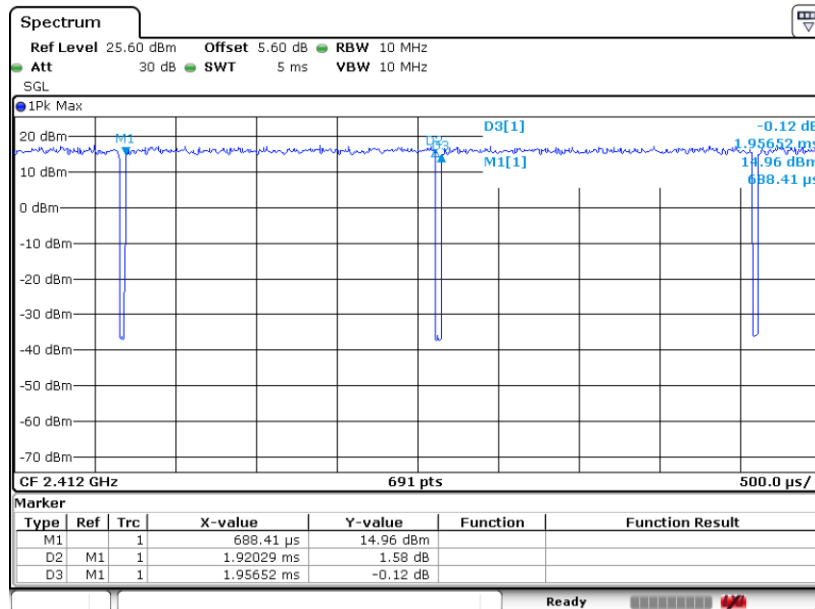




802.11g



802.11n HT20



802.11n HT40

