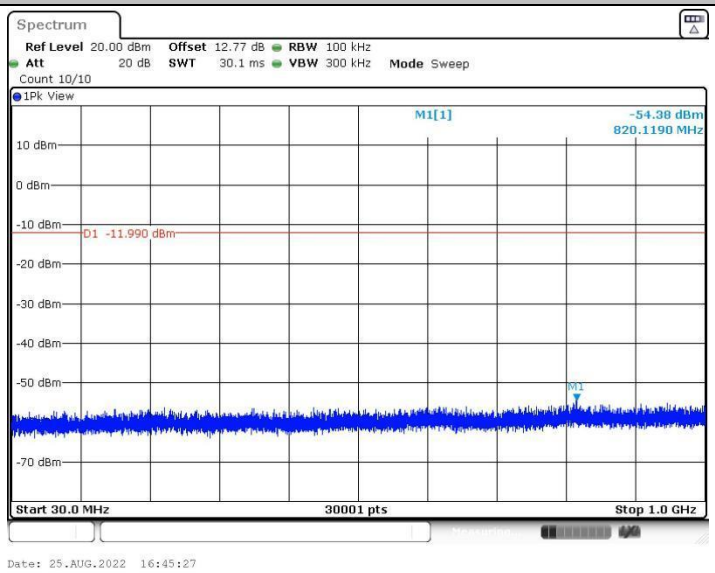
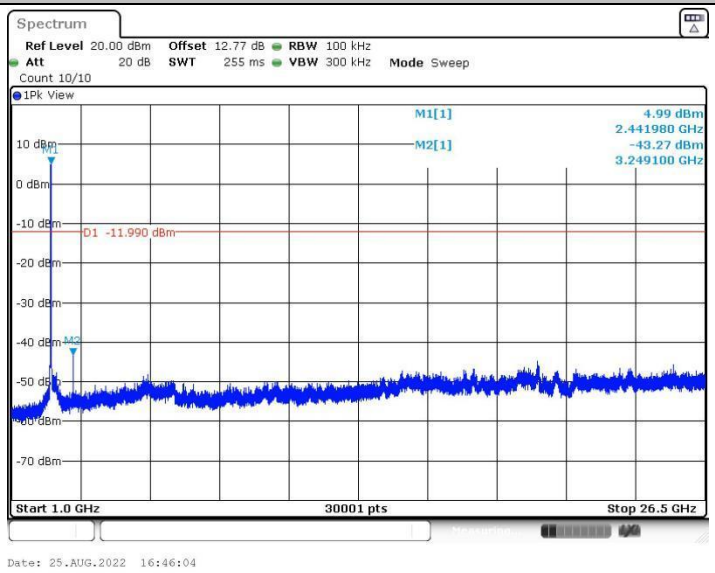
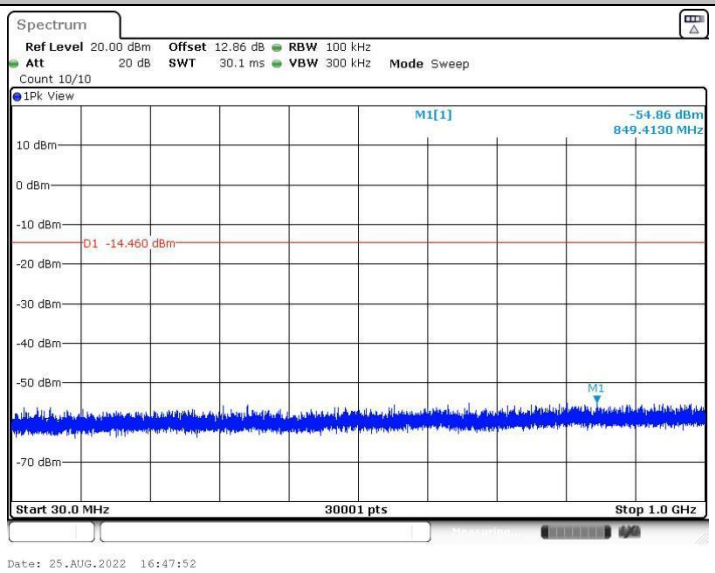
11G_Ant1_2437_30~1000



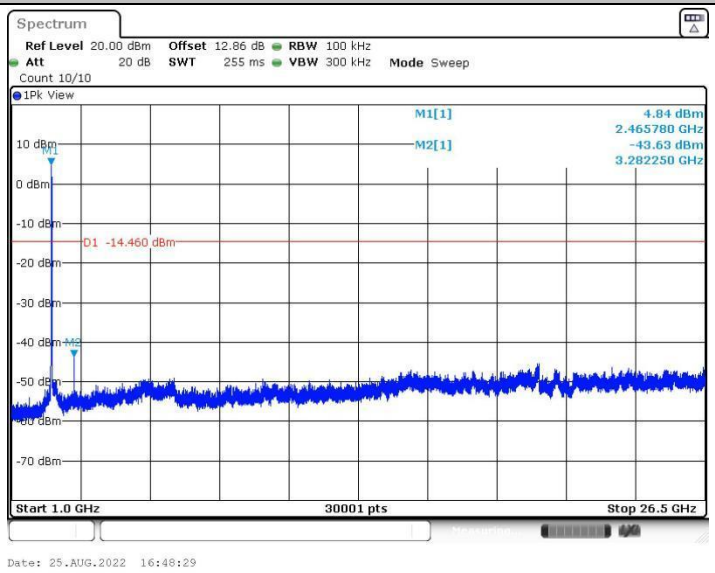
11G_Ant1_2437_1000~26500



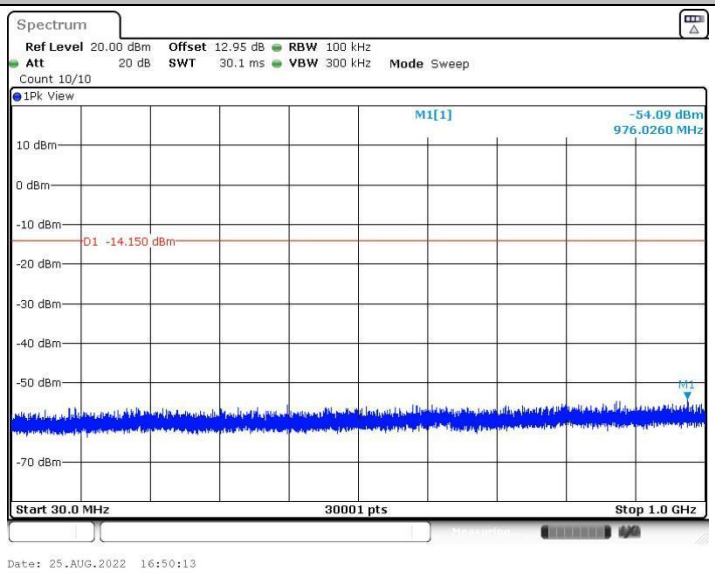
11G_Ant1_2462_30~1000



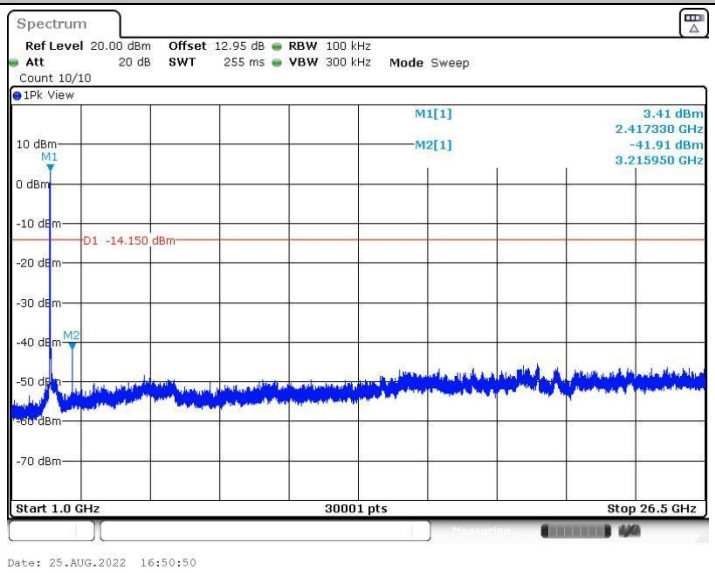
11G_Ant1_2462_1000~26500



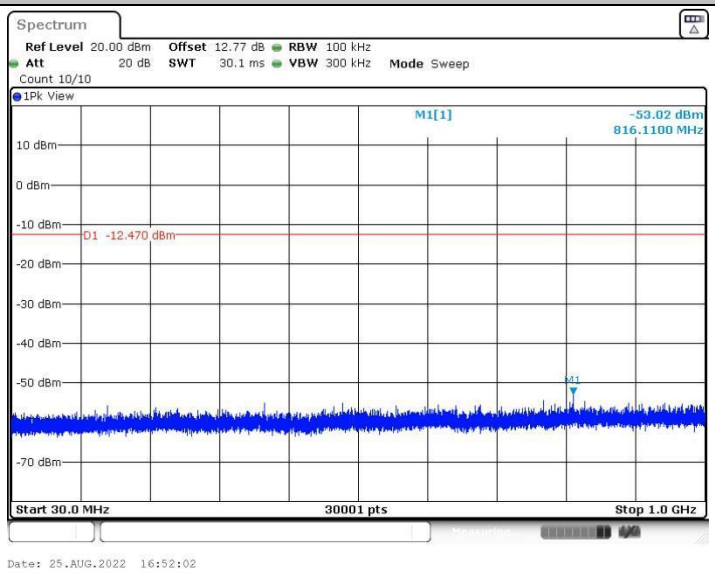
11N20SISO_Ant1_2412_30~1000



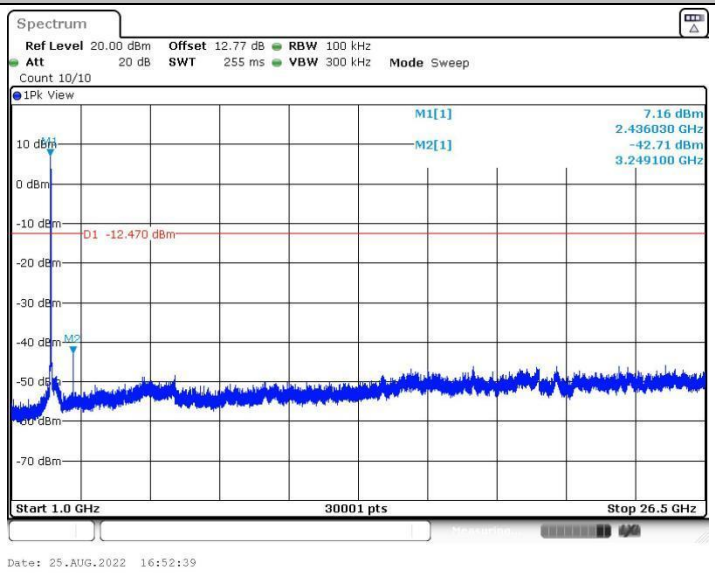
11N20SISO_Ant1_2412_1000~26500



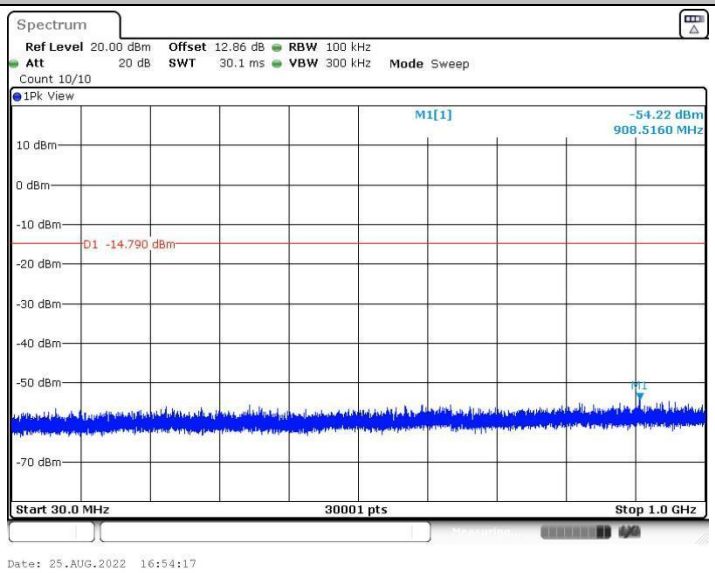
11N20SISO_Ant1_2437_30~1000



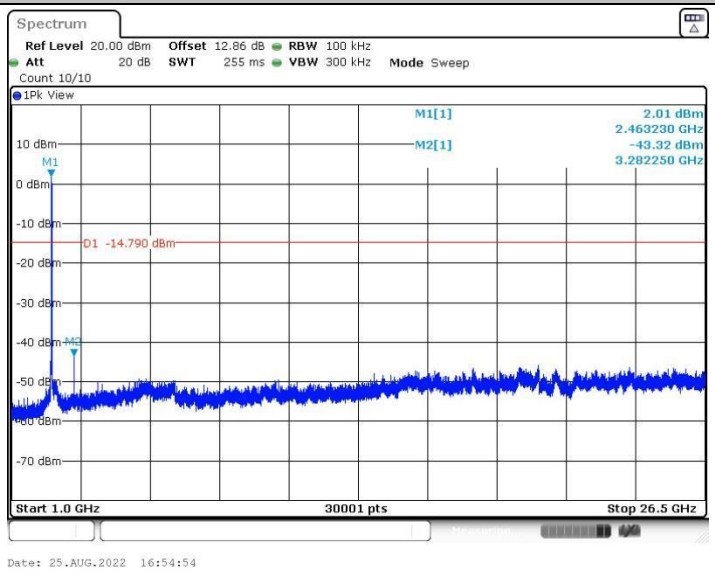
11N20SISO_Ant1_2437_1000~26500



11N20SISO_Ant1_2462_30~1000

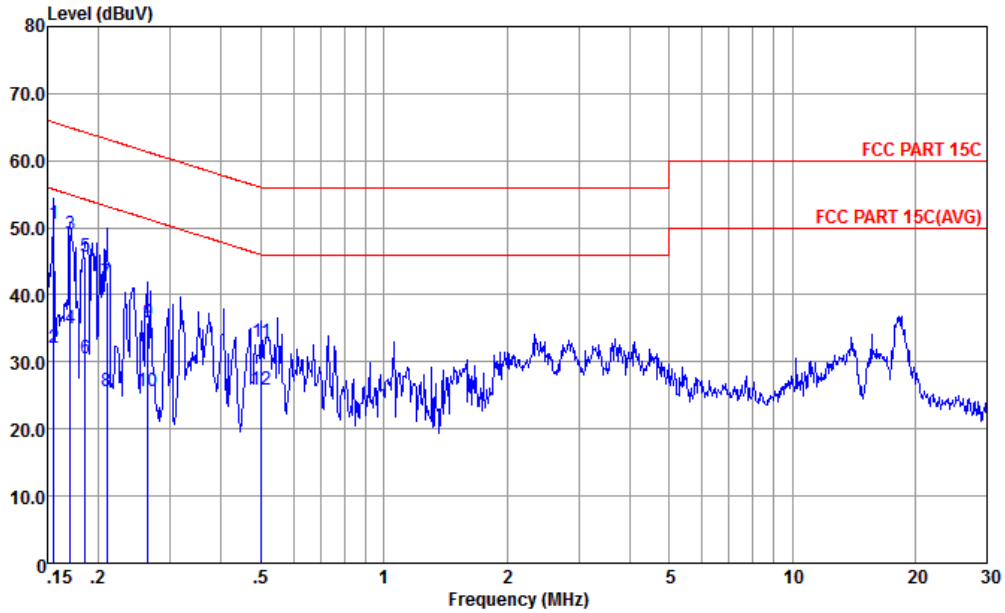


11N20SISO_Ant1_2462_1000~26500



Appendix B. AC Conducted Emission Test Results

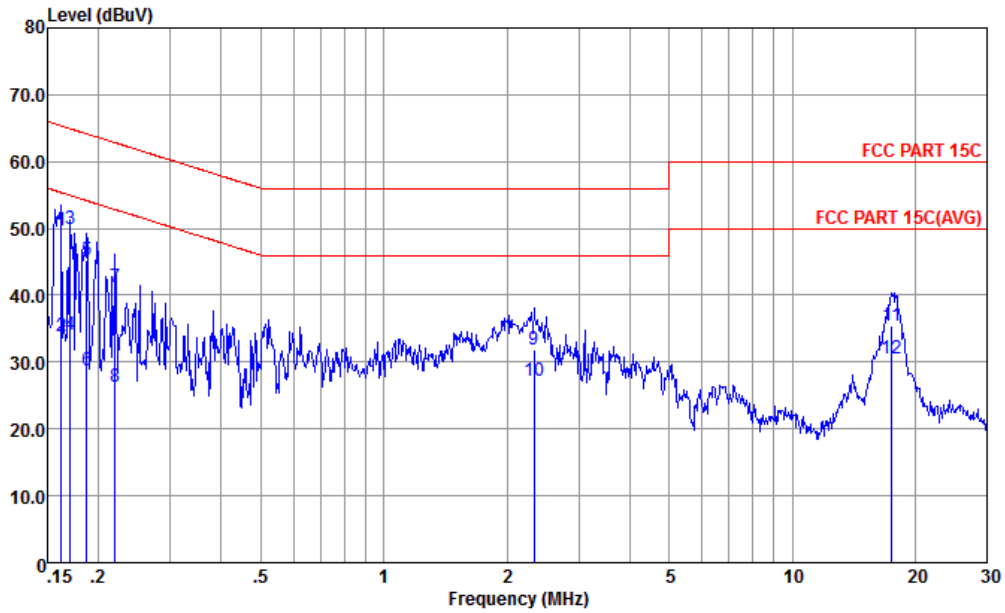
Test Engineer :	Amos Zhang	**Temperature :**	25.3~26.2℃
		Relative Humidity :	38~40%
Test Voltage :	120Vac / 60Hz	**Phase :**	Line
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



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

	Freq MHz	Level dBuV	Over Limit dB	Limit Line dBuV	Read Level dBuV	LISN Factor dB	Cable Loss dB	Remark
1 *	0.156	50.69	-15.00	65.69	40.20	0.02	10.47	QP
2	0.156	32.09	-23.60	55.69	21.60	0.02	10.47	Average
3	0.170	48.96	-15.98	64.94	38.50	0.03	10.43	QP
4	0.170	34.96	-19.98	54.94	24.50	0.03	10.43	Average
5	0.185	45.63	-18.61	64.24	35.21	0.03	10.39	QP
6	0.185	30.63	-23.61	54.24	20.21	0.03	10.39	Average
7	0.209	41.90	-21.33	63.23	31.50	0.04	10.36	QP
8	0.209	25.60	-27.63	53.23	15.20	0.04	10.36	Average
9	0.264	35.89	-25.40	61.29	25.51	0.06	10.32	QP
10	0.264	25.59	-25.70	51.29	15.21	0.06	10.32	Average
11	0.502	32.94	-23.06	56.00	22.60	0.10	10.24	QP
12	0.502	25.94	-20.06	46.00	15.60	0.10	10.24	Average

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.		



Site : CO01-KS
Condition : FCC PART 15C LISN-060105-N NEUTRAL

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.162	49.75	-15.59	65.34	39.19	0.11	10.45	QP
2	0.162	33.85	-21.49	55.34	23.29	0.11	10.45	Average
3 *	0.170	49.83	-15.11	64.94	39.29	0.11	10.43	QP
4	0.170	34.03	-20.91	54.94	23.49	0.11	10.43	Average
5	0.187	45.29	-18.86	64.15	34.80	0.10	10.39	QP
6	0.187	28.69	-25.46	54.15	18.20	0.10	10.39	Average
7	0.220	41.25	-21.58	62.83	30.80	0.10	10.35	QP
8	0.220	26.25	-26.58	52.83	15.80	0.10	10.35	Average
9	2.334	31.98	-24.02	56.00	21.61	0.14	10.23	QP
10	2.334	27.28	-18.72	46.00	16.91	0.14	10.23	Average
11	17.568	35.47	-24.53	60.00	24.60	0.42	10.45	QP
12	17.568	30.47	-19.53	50.00	19.60	0.42	10.45	Average

Note:

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

Appendix C. Radiated Spurious Emission

Channel	Power setting
11b CH01	1
11b CH06	6
11b CH11	12
11g CH01	7
11g CH06	0
11g CH11	12
11n20 CH01	4
11n20 CH06	0
11n20 CH11	11

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		2386.44	55.16	-18.84	74	52.04	32.88	7.1	36.86	134	108	P	H
		2385.92	46.82	-7.18	54	43.7	32.88	7.1	36.86	134	108	A	H
	*	2414	109.04	-	-	105.86	32.9	7.13	36.85	134	108	P	H
	*	2412	106.61	-	-	103.43	32.9	7.13	36.85	134	108	A	H
		2387.09	53.82	-20.18	74	50.7	32.88	7.1	36.86	391	75	P	V
		2385.92	45.01	-8.99	54	41.89	32.88	7.1	36.86	391	75	A	V
	*	2412	106.29	-	-	103.11	32.9	7.13	36.85	391	75	P	V
	*	2412	103.74	-	-	100.56	32.9	7.13	36.85	391	75	A	V
802.11b CH 11 2462MHz		2483.68	58.23	-15.77	74	54.82	32.98	7.25	36.82	377	106	P	H
		2483.5	47.22	-6.78	54	43.81	32.98	7.25	36.82	377	106	A	H
	*	2462	108.89	-	-	105.54	32.96	7.22	36.83	377	106	P	H
	*	2462	106.31	-	-	102.96	32.96	7.22	36.83	377	106	A	H
		2488.18	57.32	-16.68	74	53.88	33	7.25	36.81	378	40	P	V
		2487.76	47.71	-6.29	54	44.27	33	7.25	36.81	378	40	A	V
	*	2462	107.01	-	-	103.66	32.96	7.22	36.83	378	40	P	V
	*	2462	104.44	-	-	101.09	32.96	7.22	36.83	378	40	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		3210	56.29	-29.57	85.86	79.7	33.02	8.3	64.73	300	0	P	H
		4830	52.14	-21.86	74	73.07	34.2	10.25	65.38	100	118	P	H
		4830	50.57	-3.43	54	71.5	34.2	10.25	65.38	100	118	A	H
		3210	50.86	-32.36	83.22	74.27	33.02	8.3	64.73	100	0	P	V
		4830	45.93	-28.07	74	66.86	34.2	10.25	65.38	100	0	P	V
802.11b CH 06 2437MHz		3255	58.97	-26.48	85.45	82.31	33	8.37	64.71	300	0	P	H
		4875	52.18	-21.82	74	73.08	34.23	10.29	65.42	117	118	P	H
		4875	50.46	-3.54	54	71.36	34.23	10.29	65.42	117	118	A	H
		7305	44.83	-29.17	74	62.16	35.86	12.72	65.91	300	0	P	H
		3255	54.93	-25.79	80.72	78.27	33	8.37	64.71	100	0	P	V
		4875	46.39	-27.61	74	67.29	34.23	10.29	65.42	100	0	P	V
		7305	44.65	-29.35	74	61.98	35.86	12.72	65.91	100	0	P	V
802.11b CH 11 2462MHz		3285	56.34	-30.43	86.77	79.67	32.99	8.39	64.71	300	0	P	H
		4920	52.31	-21.69	74	73.16	34.26	10.34	65.45	100	119	P	H
		4920	50.45	-3.55	54	71.3	34.26	10.34	65.45	100	119	A	H
		7380	43.94	-30.06	74	61.44	35.88	12.73	66.11	300	0	P	H
		3285	52.23	-31.78	84.01	75.56	32.99	8.39	64.71	100	0	P	V
		4920	47.92	-26.08	74	68.77	34.26	10.34	65.45	100	0	P	V
		7380	43.31	-30.69	74	60.81	35.88	12.73	66.11	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	69.79	-4.21	74	66.67	32.88	7.1	36.86	134	110	P	H
		2389.95	52.3	-1.7	54	49.18	32.88	7.1	36.86	134	110	A	H
	*	2416	111.58	-	-	108.37	32.9	7.16	36.85	134	110	P	H
	*	2416	102.99	-	-	99.78	32.9	7.16	36.85	134	110	A	H
		2389.95	67.44	-6.56	74	64.32	32.88	7.1	36.86	392	74	P	V
		2389.95	50.55	-3.45	54	47.43	32.88	7.1	36.86	392	74	A	V
	*	2418	106.67	-	-	103.46	32.9	7.16	36.85	392	74	P	V
	*	2412	98.99	-	-	95.81	32.9	7.13	36.85	392	74	A	V
802.11g CH 11 2462MHz		2483.62	70.72	-3.28	74	67.31	32.98	7.25	36.82	100	102	P	H
		2483.5	52.69	-1.31	54	49.28	32.98	7.25	36.82	100	102	A	H
	*	2468	109.5	-	-	106.15	32.96	7.22	36.83	100	102	P	H
	*	2468	101.99	-	-	98.64	32.96	7.22	36.83	100	102	A	H
		2483.56	68.64	-5.36	74	65.23	32.98	7.25	36.82	387	16	P	V
		2483.5	51.62	-2.38	54	48.21	32.98	7.25	36.82	387	16	A	V
	*	2454	108.04	-	-	104.69	32.96	7.22	36.83	387	16	P	V
	*	2456	100.52	-	-	97.17	32.96	7.22	36.83	387	16	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		3210	58.32	-22.85	81.17	81.73	33.02	8.3	64.73	300	0	P	H
		4830	47.62	-26.38	74	68.55	34.2	10.25	65.38	300	0	P	H
		3210	51.89	-22.12	74.01	75.3	33.02	8.3	64.73	100	0	P	V
		4830	43.78	-30.22	74	64.71	34.2	10.25	65.38	100	0	P	V
802.11g CH 06 2437MHz		3255	58.3	-23.52	81.82	81.64	33	8.37	64.71	300	0	P	H
		4875	50.36	-23.64	74	71.26	34.23	10.29	65.42	252	36	P	H
		4875	38.68	-15.32	54	59.58	34.23	10.29	65.42	252	36	A	H
		7305	50.49	-23.51	74	67.82	35.86	12.72	65.91	100	200	P	H
		3255	55.18	-23.34	78.52	78.52	33	8.37	64.71	100	0	P	V
		4875	45.91	-28.09	74	66.81	34.23	10.29	65.42	100	0	P	V
		7305	51	-23	74	68.33	35.86	12.72	65.91	158	331	P	V
		7305	39.6	-14.4	54	56.93	35.86	12.72	65.91	158	331	A	V
802.11g CH 11 2462MHz		3285	55.79	-24.27	80.06	79.12	32.99	8.39	64.71	300	0	P	H
		4920	48.03	-25.97	74	68.88	34.26	10.34	65.45	300	0	P	H
		7380	47.52	-26.48	74	65.02	35.88	12.73	66.11	300	0	P	H
		3285	51.92	-26.27	78.19	75.25	32.99	8.39	64.71	100	0	P	V
		4920	44.34	-29.66	74	65.19	34.26	10.34	65.45	100	0	P	V
		7380	46.23	-27.77	74	63.73	35.88	12.73	66.11	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		2389.82	67.01	-6.99	74	63.89	32.88	7.1	36.86	135	110	P	H
		2389.95	52.06	-1.94	54	48.94	32.88	7.1	36.86	135	110	A	H
	*	2416	110.23	-	-	107.02	32.9	7.16	36.85	135	110	P	H
	*	2416	102.54	-	-	99.33	32.9	7.16	36.85	135	110	A	H
		2389.43	64.68	-9.32	74	61.56	32.88	7.1	36.86	392	73	P	V
		2389.95	50.03	-3.97	54	46.91	32.88	7.1	36.86	392	73	A	V
	*	2418	106.67	-	-	103.46	32.9	7.16	36.85	392	73	P	V
	*	2408	98.71	-	-	95.53	32.9	7.13	36.85	392	73	A	V
802.11n HT20 CH 11 2462MHz		2483.68	68.71	-5.29	74	65.3	32.98	7.25	36.82	100	103	P	H
		2483.5	52.53	-1.47	54	49.12	32.98	7.25	36.82	100	103	A	H
	*	2466	109.71	-	-	106.36	32.96	7.22	36.83	100	103	P	H
	*	2466	102.22	-	-	98.87	32.96	7.22	36.83	100	103	A	H
		2483.62	69.54	-4.46	74	66.13	32.98	7.25	36.82	378	26	P	V
		2483.5	52.9	-1.1	54	49.49	32.98	7.25	36.82	378	26	A	V
	*	2468	108.71	-	-	105.36	32.96	7.22	36.83	378	26	P	V
	*	2466	100.26	-	-	96.91	32.96	7.22	36.83	378	26	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.	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)
802.11n HT20 CH 01 2412MHz		3210	58.01	-22.59	80.6	81.42	33.02	8.3	64.73	300	0	P	H
		4830	47.02	-26.98	74	67.95	34.2	10.25	65.38	300	0	P	H
		3210	52.03	-25.21	77.24	75.44	33.02	8.3	64.73	100	0	P	V
		4830	43.08	-30.92	74	64.01	34.2	10.25	65.38	100	0	P	V
802.11n HT20 CH 06 2437MHz		3255	59.48	-24.15	83.63	82.82	33	8.37	64.71	300	0	P	H
		4875	51.59	-22.41	74	72.49	34.23	10.29	65.42	106	118	P	H
		4875	41.12	-12.88	54	62.02	34.23	10.29	65.42	106	118	A	H
		7305	48.69	-25.31	74	66.02	35.86	12.72	65.91	300	0	P	H
		3255	54.95	-24.61	79.56	78.29	33	8.37	64.71	100	0	P	V
		4875	46.14	-27.86	74	67.04	34.23	10.29	65.42	100	0	P	V
		7305	48.54	-25.46	74	65.87	35.86	12.72	65.91	100	0	P	V
802.11n HT20 CH 11 2462MHz		3285	56.87	-24.36	81.23	80.2	32.99	8.39	64.71	300	0	P	H
		4920	47.84	-26.16	74	68.69	34.26	10.34	65.45	300	0	P	H
		7380	46.66	-27.34	74	64.16	35.88	12.73	66.11	300	0	P	H
		3285	52.37	-27.34	79.71	75.7	32.99	8.39	64.71	100	0	P	V
		4920	43.74	-30.26	74	64.59	34.26	10.34	65.45	100	0	P	V
		7380	47.46	-26.54	74	64.96	35.88	12.73	66.11	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. 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)
2.4GHz 802.11g LF		120.21	28.81	-14.69	43.5	42.15	17.86	1.66	32.86	-	-	P	H
		191.99	27.82	-15.68	43.5	42.27	16.49	2.11	33.05	-	-	P	H
		320.03	30.14	-15.86	46	39.64	20.68	2.72	32.9	-	-	P	H
		456.8	23.28	-22.72	46	29.01	23.72	3.26	32.71	-	-	P	H
		632.37	25.95	-20.05	46	28.98	25.76	3.84	32.63	-	-	P	H
		820.55	29.11	-16.89	46	30.26	27.02	4.37	32.54	-	-	P	H
		34.85	26.88	-13.12	40	35.97	22.9	0.71	32.7	-	-	P	V
		76.56	22.42	-17.58	40	40.29	13.71	1.32	32.9	-	-	P	V
		120.21	23.16	-20.34	43.5	36.5	17.86	1.66	32.86	-	-	P	V
		191.99	21.66	-21.84	43.5	36.11	16.49	2.11	33.05	-	-	P	V
		320.03	20.99	-25.01	46	30.49	20.68	2.72	32.9	-	-	P	V
		670.2	27.71	-18.29	46	30.68	25.82	3.95	32.74	-	-	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”.

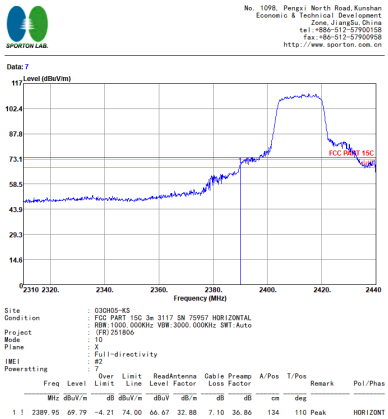
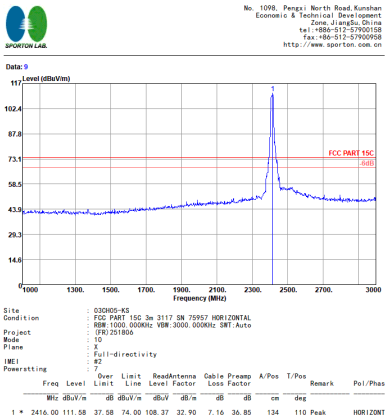
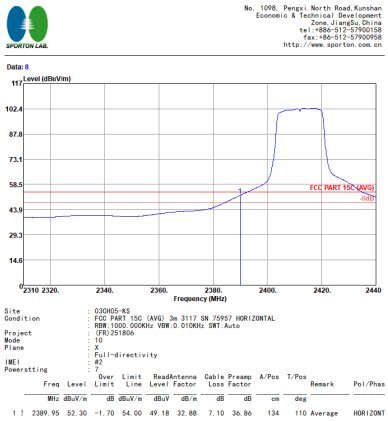
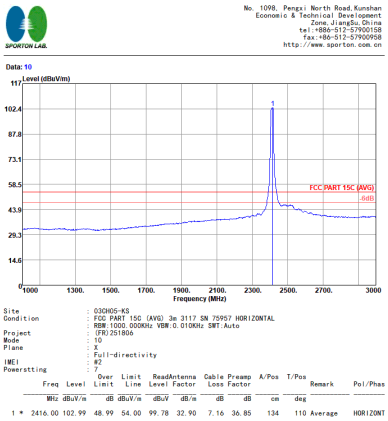
Appendix D. Radiated Spurious Emission Plots

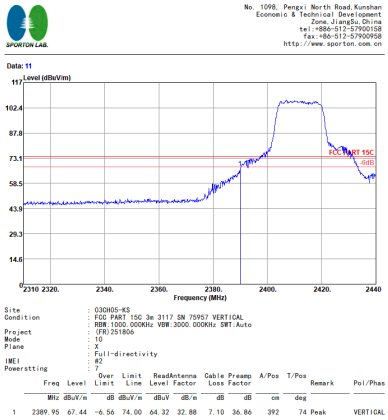
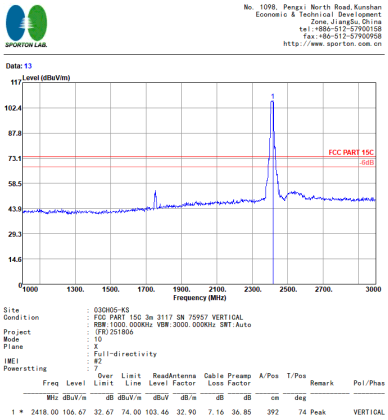
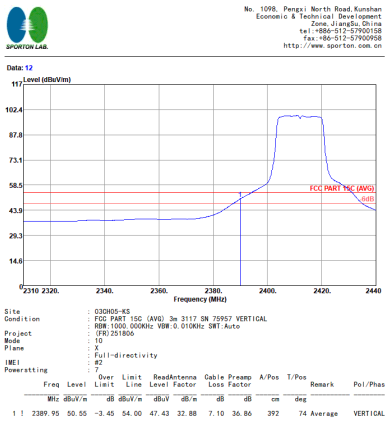
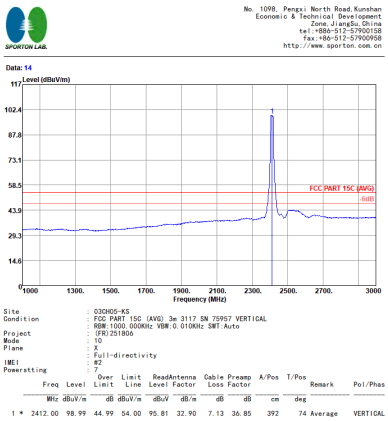
Note symbol

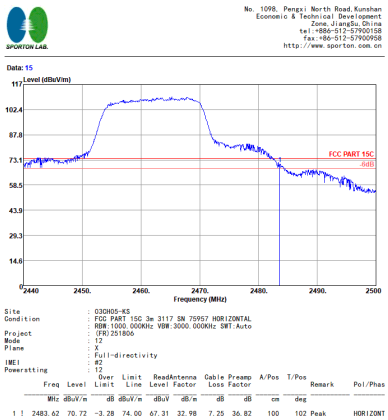
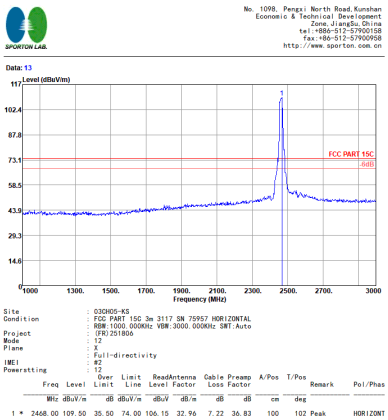
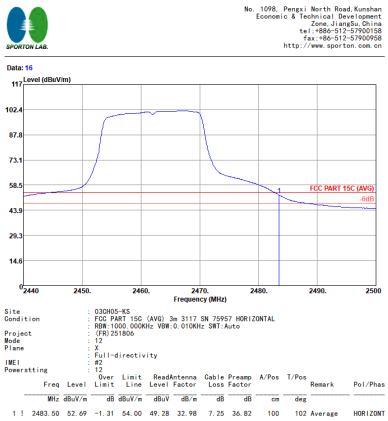
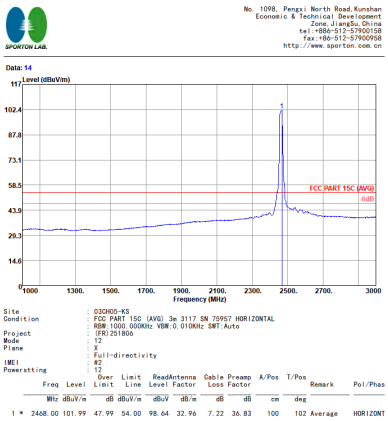
-L	**Low channel location**
-R	**High channel location**

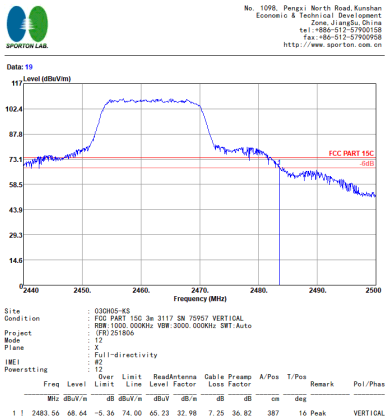
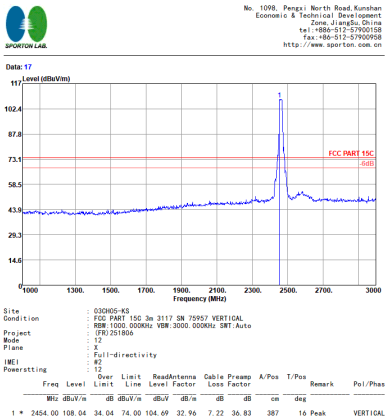
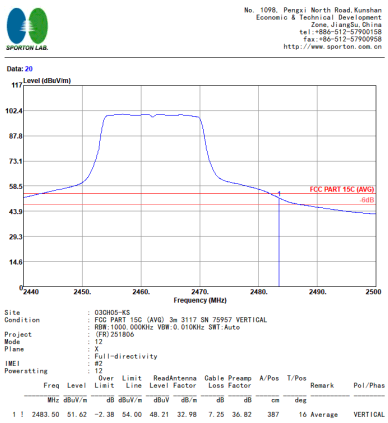
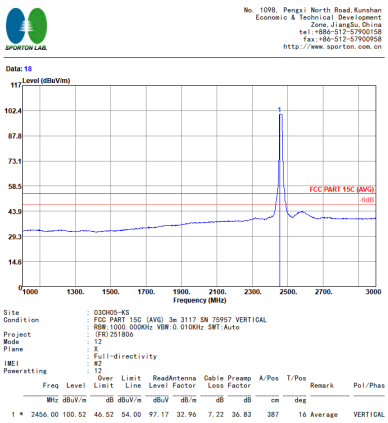
2.4GHz 2400~2483.5MHz

WIFI 802.11g (Band Edge @ 3m)

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

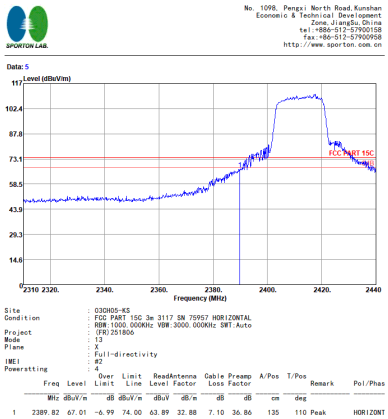
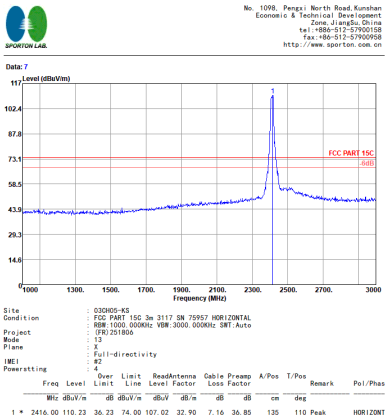
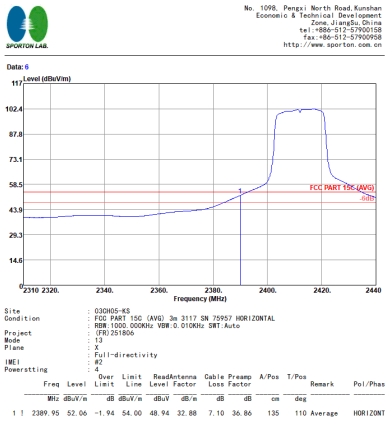
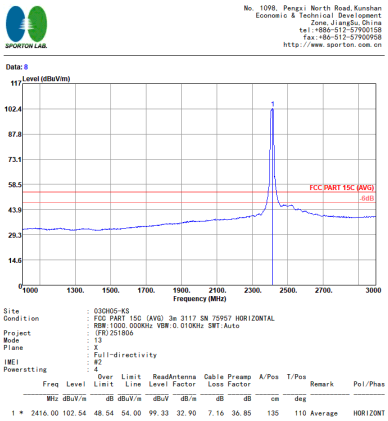
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1	Vertical	Fundamental
Peak		
Avg.		

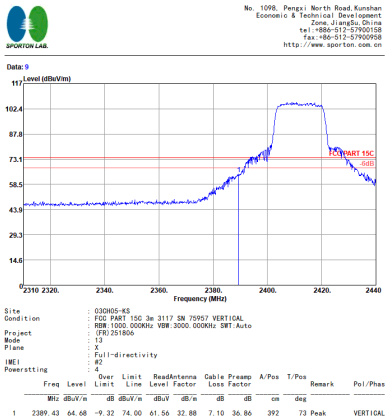
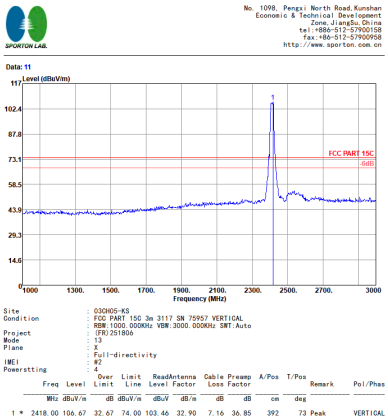
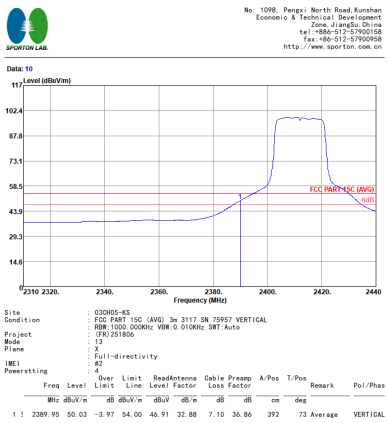
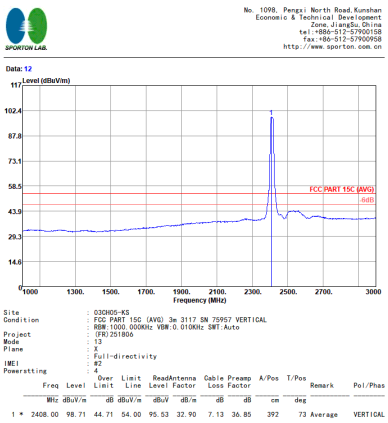
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

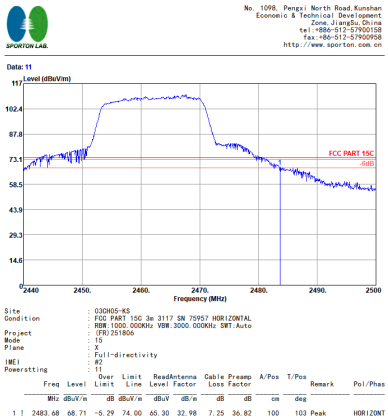
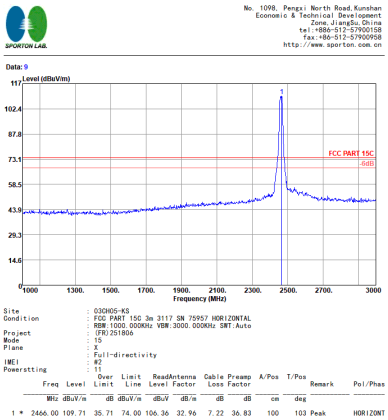
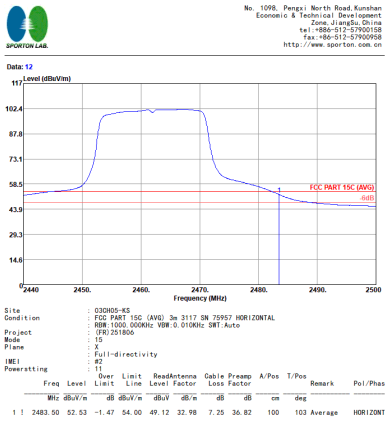
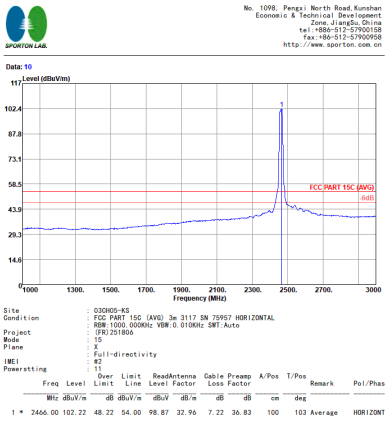
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1	Vertical	Fundamental
Peak		
Avg.		

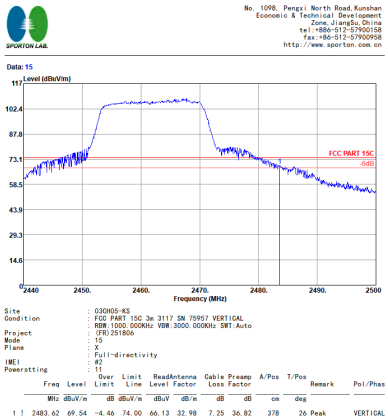
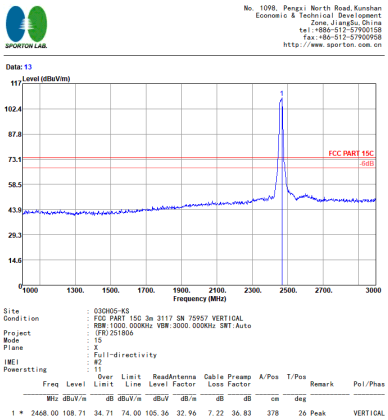
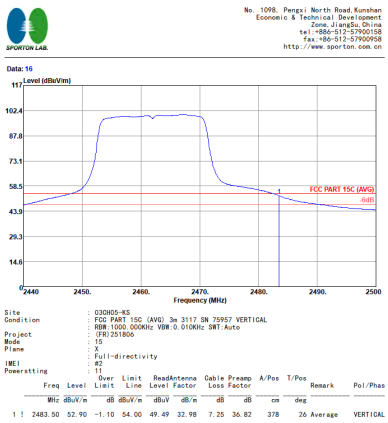
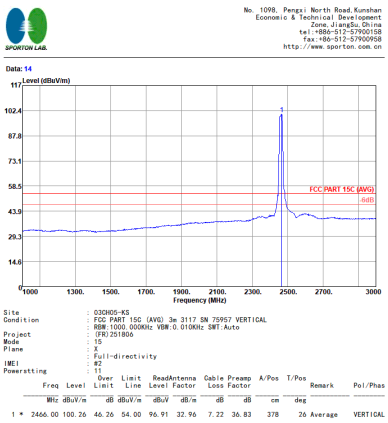
2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

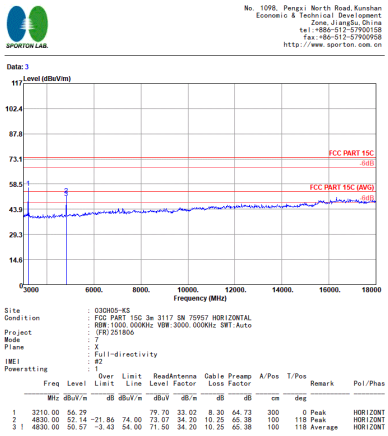
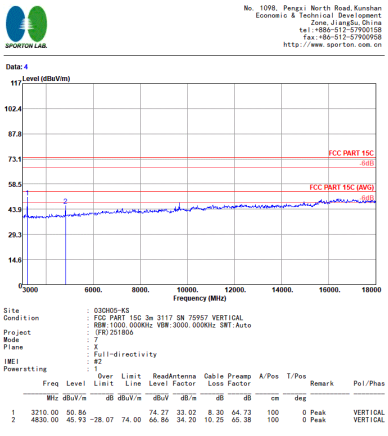
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Vertical	Fundamental
Peak		
Avg.		

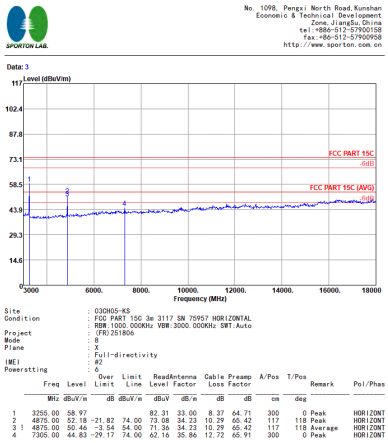
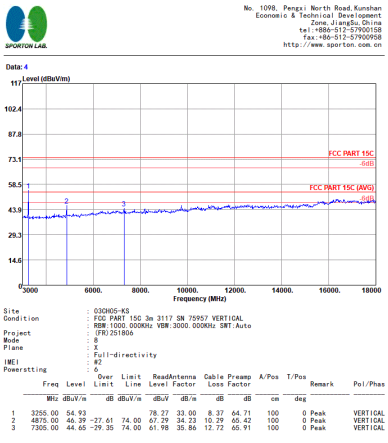
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

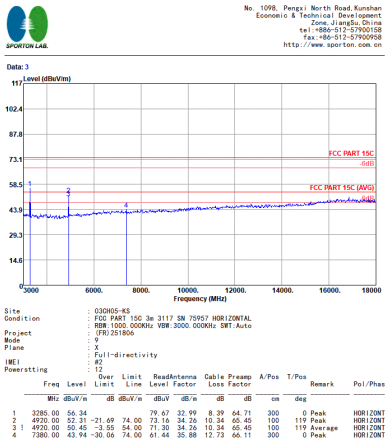
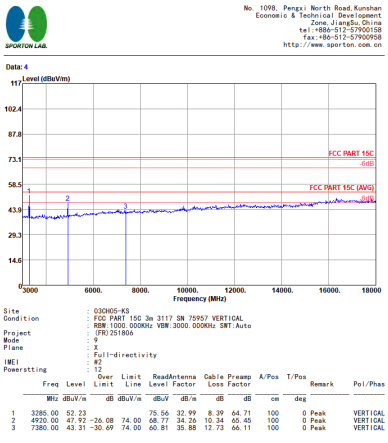
WIFI	2.4GHz 2400~2483.5MHz Fundamental @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Vertical	Fundamental
Peak		
Avg.		

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Harmonic @ 3m)

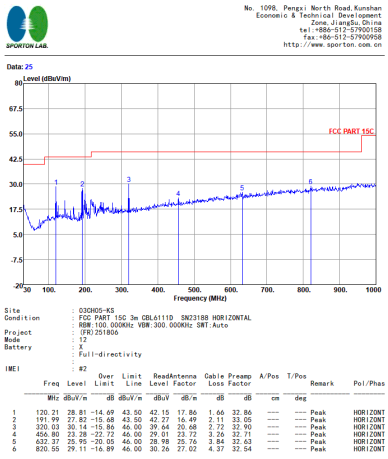
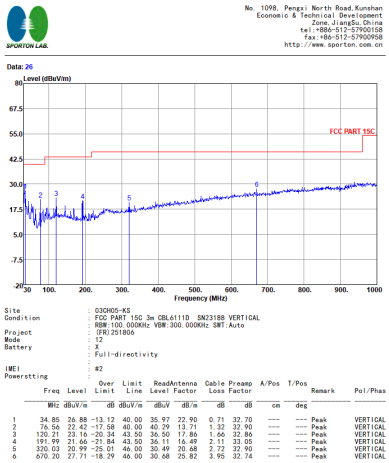
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH01 2412MHz	
1	Horizontal	Vertical
Peak Avg.	 No. 1098, Pengzi North Road,Kunshan Economic & Technical Development Zone,JiangSu,China tel:+86-512-57900158 fax:+86-512-57900958 http://www.sporton.com.cn Data: 3 Level (dBuV/m) 117 102.4 87.8 73.1 58.5 43.9 29.3 14.6 0 FCC PART 15C -6dB FCC PART 15C (AVG) -6dB 3000 6000. 8000. 10000. 12000. 14000. 16000. 18000 Frequency (MHz) Site : 03CH05-KS Condition : FCC PART 15C 3m 3117 SN 75957 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : (FR)251806 Mode : 7 Plane : X : Full-directivity IMEI : #2 Powersetting : 1 Freq Level Over Limit Limit Line ReadAntenna Level Factor Cable Loss Preamp Factor A/Pos T/Pos Remark Pol/Phas MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 3210.00 56.29 79.70 33.02 8.30 64.73 300 0 Peak HORIZONT 2 4830.00 52.14 -21.86 74.00 73.07 34.20 10.25 65.38 100 118 Peak HORIZONT 3 ! 4830.00 50.57 -3.43 54.00 71.50 34.20 10.25 65.38 100 118 Average HORIZONT	 No. 1098, Pengzi North Road,Kunshan Economic & Technical Development Zone,JiangSu,China tel:+86-512-57900158 fax:+86-512-57900958 http://www.sporton.com.cn Data: 4 Level (dBuV/m) 117 102.4 87.8 73.1 58.5 43.9 29.3 14.6 0 FCC PART 15C -6dB FCC PART 15C (AVG) -6dB 3000 6000. 8000. 10000. 12000. 14000. 16000. 18000 Frequency (MHz) Site : 03CH05-KS Condition : FCC PART 15C 3m 3117 SN 75957 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : (FR)251806 Mode : 7 Plane : X : Full-directivity IMEI : #2 Powersetting : 1 Freq Level Over Limit Limit Line ReadAntenna Level Factor Cable Loss Preamp Factor A/Pos T/Pos Remark Pol/Phas MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 3210.00 50.86 74.27 33.02 8.30 64.73 100 0 Peak VERTICAL 2 4830.00 45.93 -28.07 74.00 66.86 34.20 10.25 65.38 100 0 Peak VERTICAL

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.	 No. 1098, Pengxi North Road,Kunshan Economic & Technical Development Zone,JiangSu China tel:+86-512-57900158 fax:+86-512-57900958 http://www.sporton.com.cn Data: 3 Level (dBuV/m) 117 102.4 87.8 73.1 58.5 43.9 29.3 14.6 0 3000 6000. 8000. 10000. 12000. 14000. 16000. 18000 Frequency (MHz) FCC PART 15C -6dB FCC PART 15C (AVG) -6dB Site : 03CH05-KS Condition : FCC PART 15C 3m 3117 SN 75957 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : (FR)251806 Mode : 8 Plane : X : Full-directivity IMEI : #2 Powerstting : 6 Freq Level Over Limit Limit Line ReadAntenna Level Factor Cable Loss Factor Preamp Factor A/Pos T/Pos Remark Pol/Phas MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 3255.00 58.97 82.31 33.00 8.37 64.71 300 0 Peak HORIZONT 2 4875.00 52.18 -21.82 74.00 73.08 34.23 10.29 65.42 117 118 Peak HORIZONT 3 i 4875.00 50.46 -3.54 54.00 71.36 34.23 10.29 65.42 117 118 Average HORIZONT 4 7305.00 44.83 -29.17 74.00 62.16 35.86 12.72 65.91 300 0 Peak HORIZONT	 No. 1098, Pengxi North Road,Kunshan Economic & Technical Development Zone,JiangSu China tel:+86-512-57900158 fax:+86-512-57900958 http://www.sporton.com.cn Data: 4 Level (dBuV/m) 117 102.4 87.8 73.1 58.5 43.9 29.3 14.6 0 3000 6000. 8000. 10000. 12000. 14000. 16000. 18000 Frequency (MHz) FCC PART 15C -6dB FCC PART 15C (AVG) -6dB Site : 03CH05-KS Condition : FCC PART 15C 3m 3117 SN 75957 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : (FR)251806 Mode : 8 Plane : Z : Full-directivity IMEI : #2 Powerstting : 6 Freq Level Over Limit Limit Line ReadAntenna Level Factor Cable Loss Factor Preamp Factor A/Pos T/Pos Remark Pol/Phas MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 3255.00 54.93 78.27 33.00 8.37 64.71 100 0 Peak VERTICAL 2 4875.00 46.39 -27.61 74.00 67.29 34.23 10.29 65.42 100 0 Peak VERTICAL 3 7305.00 44.65 -29.35 74.00 61.98 35.86 12.72 65.91 100 0 Peak VERTICAL

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.	 No. 1098, Pengxi North Road,Kunshan Economic & Technical Development Zone,JiangSu China tel:+86-512-57900158 fax:+86-512-57900958 http://www.sporton.com.cn Data: 3 Level (dBuV/m) 117 102.4 87.8 73.1 58.5 43.9 29.3 14.6 0 3000 6000. 8000. 10000. 12000. 14000. 16000. 18000 Frequency (MHz) FCC PART 15C -6dB FCC PART 15C (AVG) -6dB Site : 03CH05-KS Condition : FCC PART 15C 3m 3117 SN 75957 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : (FR)251806 Mode : 9 Plane : X : Full-directivity IMEI : #2 Powerstting : 12 Freq Level Over Limit Limit Line ReadAntenna Level Factor Cable Loss Preamp Factor A/Pos T/Pos Remark Pol/Phas MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 3285.00 56.34 79.67 32.99 8.39 64.71 300 0 Peak HORIZONT 2 4920.00 52.31 -21.69 74.00 73.16 34.26 10.34 65.45 100 119 Peak HORIZONT 3 I 4920.00 50.45 -3.55 54.00 71.30 34.26 10.34 65.45 100 119 Average HORIZONT 4 7380.00 43.94 -30.06 74.00 61.44 35.88 12.73 66.11 300 0 Peak HORIZONT	 No. 1098, Pengxi North Road,Kunshan Economic & Technical Development Zone,JiangSu China tel:+86-512-57900158 fax:+86-512-57900958 http://www.sporton.com.cn Data: 4 Level (dBuV/m) 117 102.4 87.8 73.1 58.5 43.9 29.3 14.6 0 3000 6000. 8000. 10000. 12000. 14000. 16000. 18000 Frequency (MHz) FCC PART 15C -6dB FCC PART 15C (AVG) -6dB Site : 03CH05-KS Condition : FCC PART 15C 3m 3117 SN 75957 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : (FR)251806 Mode : 9 Plane : X : Full-directivity IMEI : #2 Powerstting : 12 Freq Level Over Limit Limit Line ReadAntenna Level Factor Cable Loss Preamp Factor A/Pos T/Pos Remark Pol/Phas MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 3285.00 52.23 75.56 32.99 8.39 64.71 100 0 Peak VERTICAL 2 4920.00 47.92 -26.08 74.00 68.77 34.26 10.34 65.45 100 0 Peak VERTICAL 3 7380.00 43.31 -30.69 74.00 60.81 35.88 12.73 66.11 100 0 Peak VERTICAL

Emission below 1GHz

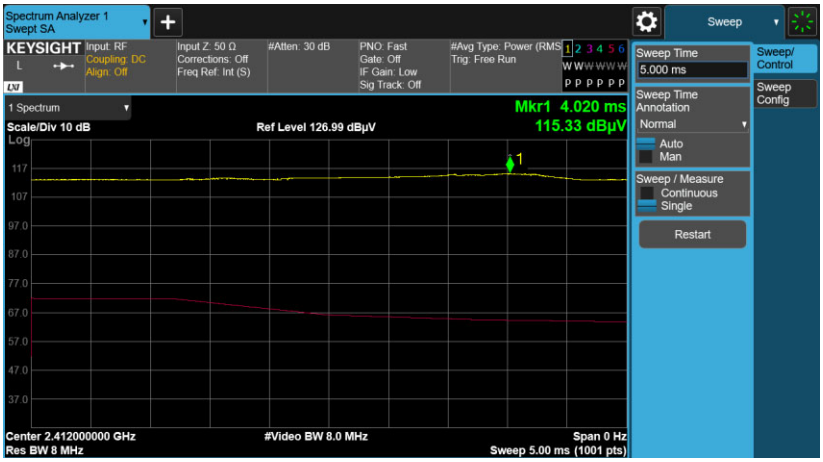
2.4GHz WIFI 802.11g (LF)

WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11g LF	
1	Horizontal	Vertical
QP / Peak		

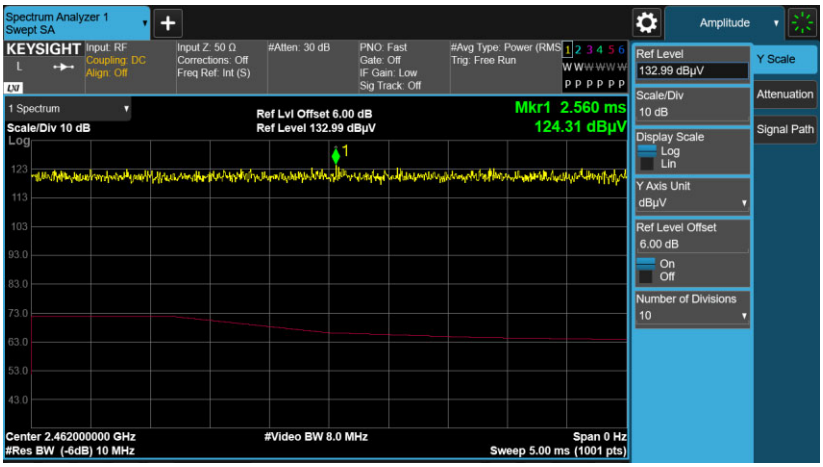
Appendix E. Duty Cycle Plots

Band	Duty Cycle(%)	T(ms)	1/T(kHz)	VBW Setting
802.11b	100	-	-	10Hz
802.11g	100	-	-	10Hz
802.11n HT20	100	-	-	10Hz

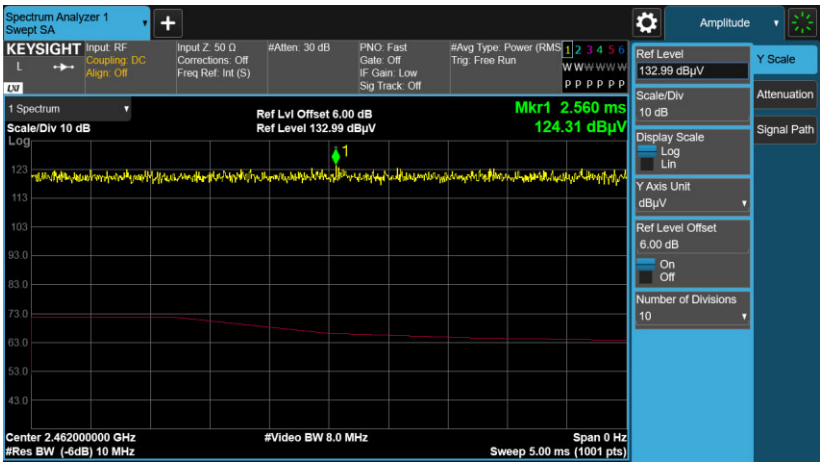
802.11b



802.11g



802.11n HT20


Spectrum Analyzer 1
Swept SA
KEYSIGHT
Input: RF
Coupling: DC
Align: Off
Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)
#Atten: 30 dB
PNO: Fast
Gate: Off
IF Gain: Low
Sig Track: Off
#Avg Type: Power (RMS)
Trig: Free Run
1 Spectrum
Scale/Div 10 dB
Ref Lvl Offset 6.00 dB
Ref Level 132.99 dBµV
Mkr1 2.560 ms
124.31 dBµV
Center 2.462000000 GHz
#Res BW (-6dB) 10 MHz
#Video BW 8.0 MHz
Span 0 Hz
Sweep 5.00 ms (1001 pts)
Amplitude
Ref Level
132.99 dBµV
Scale/Div
10 dB
Display Scale
Log
Lin
Y Axis Unit
dBµV
Ref Level Offset
6.00 dB
On
Off
Number of Divisions
10
Y Scale
Attenuation
Signal Path