



Appendix A. Radiated Spurious Emission

Test Engineer :	Bill Chang and Ian Liang	Temperature :	25~26°C
		Relative Humidity :	50~51%

15C 2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	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		2389.38	47.06	-26.94	74	46.83	27.03	6.57	33.37	100	117	P	H
		2390	40.87	-13.13	54	40.64	27.03	6.57	33.37	100	117	A	H
	*	2412.859	100.34	-	-	99.92	27.08	6.68	33.34	100	117	P	H
	*	2411.189	98.18	-	-	97.76	27.08	6.68	33.34	100	117	A	H
													H
													H
		2390	45.76	-28.24	74	45.53	27.03	6.57	33.37	100	208	P	V
		2390	37.84	-16.16	54	37.61	27.03	6.57	33.37	100	208	A	V
	*	2411.105	96.48	-	-	96.06	27.08	6.68	33.34	100	208	P	V
	*	2411.189	94.47	-	-	94.05	27.08	6.68	33.34	100	208	A	V
													V
													V
802.11b CH 06 2437MHz		2387.4	43.67	-30.33	74	43.44	27.03	6.57	33.37	129	241	P	H
		2389.56	32.44	-21.56	54	32.21	27.03	6.57	33.37	129	241	A	H
	*	2436.072	101.5	-	-	100.91	27.12	6.79	33.32	129	241	P	H
	*	2436.156	99.26	-	-	98.67	27.12	6.79	33.32	129	241	A	H
		2484	44.23	-29.77	74	43.23	27.26	7.01	33.27	129	241	P	H
		2491.6	31.98	-22.02	54	30.93	27.3	7.01	33.26	129	241	A	H
		2386.14	43.71	-30.29	74	43.48	27.03	6.57	33.37	120	188	P	V
		2389.2	31.51	-22.49	54	31.28	27.03	6.57	33.37	120	188	A	V
	*	2436.156	98.92	-	-	98.33	27.12	6.79	33.32	120	188	P	V
	*	2436.239	96.88	-	-	96.29	27.12	6.79	33.32	120	188	A	V
		2489.2	42.58	-31.42	74	41.53	27.3	7.01	33.26	120	188	P	V
		2496.48	31.01	-22.99	54	29.96	27.3	7.01	33.26	120	188	A	V



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	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 11 2462MHz	*	2462.875	102.33	-	-	101.51	27.21	6.9	33.29	103	244	P	H
	*	2461.206	99.89	-	-	99.07	27.21	6.9	33.29	103	244	A	H
		2483.52	53.66	-20.34	74	52.66	27.26	7.01	33.27	103	244	P	H
		2483.52	49.09	-4.91	54	48.09	27.26	7.01	33.27	103	244	A	H
													H
													H
	*	2461.122	98.37	-	-	97.55	27.21	6.9	33.29	100	208	P	V
	*	2461.206	96.32	-	-	95.5	27.21	6.9	33.29	100	208	A	V
		2483.56	49.28	-24.72	74	48.28	27.26	7.01	33.27	100	208	P	V
		2483.52	44.21	-9.79	54	43.21	27.26	7.01	33.27	100	208	A	V
													V
													V
Remark	1. No other spurious found.												
	2. All results are PASS against Peak and Average limit line.												



15C 2.4GHz 2400~2483.5MHz

WIFI 802.11b (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	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		4824	43.99	-30.01	74	57.75	31.06	10.57	55.39	100	0	P	H
													H
													H
													H
		4824	43.03	-30.97	74	56.79	31.06	10.57	55.39	100	0	P	V
													V
													V
													V
802.11b CH 06 2437MHz		4874	43.91	-30.09	74	57.57	31.13	10.63	55.42	100	0	P	H
		7311	49.38	-24.62	74	55.23	36.11	13.63	55.59	100	0	P	H
													H
													H
		4874	44.09	-29.91	74	57.75	31.13	10.63	55.42	100	0	P	V
		7311	50.33	-23.67	74	56.18	36.11	13.63	55.59	100	0	P	V
													V
													V
802.11b CH 11 2462MHz		4924	45.03	-28.97	74	58.56	31.2	10.73	55.46	100	0	P	H
		7386	49.85	-24.15	74	55.38	36.33	13.66	55.52	100	0	P	H
													H
													H
		4924	43.17	-30.83	74	56.7	31.2	10.73	55.46	100	0	P	V
		7386	50.6	-23.4	74	56.13	36.33	13.66	55.52	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15C 2.4GHz 2400~2483.5MHz
WIFI 802.11g (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	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)
802.11g CH 01 2412MHz		2389.92	63.9	-10.1	74	63.67	27.03	6.57	33.37	104	240	P	H
		2389.65	41.76	-12.24	54	41.53	27.03	6.57	33.37	104	240	A	H
	*	2413.444	100.8	-	-	100.38	27.08	6.68	33.34	104	240	P	H
	*	2414	92.52	-	-	92.1	27.08	6.68	33.34	104	240	A	H
													H
													H
		2388.75	59.16	-14.84	74	58.93	27.03	6.57	33.37	100	203	P	V
		2389.29	39.2	-14.8	54	38.97	27.03	6.57	33.37	100	203	A	V
	*	2413.277	97.99	-	-	97.57	27.08	6.68	33.34	100	203	P	V
	*	2410	89.53	-	-	89.11	27.08	6.68	33.34	100	203	A	V
													V
													V
802.11g CH 06 2437MHz		2386.59	51.09	-22.91	74	50.86	27.03	6.57	33.37	104	247	P	H
		2389.65	37.56	-16.44	54	37.33	27.03	6.57	33.37	104	247	A	H
	*	2435	102.35	-	-	101.76	27.12	6.79	33.32	104	247	P	H
	*	2435	94.52	-	-	93.93	27.12	6.79	33.32	104	247	A	H
		2492.2	49.62	-24.38	74	48.57	27.3	7.01	33.26	104	247	P	H
		2483.72	36.53	-17.47	54	35.53	27.26	7.01	33.27	104	247	A	H
		2386.86	50.23	-23.77	74	50	27.03	6.57	33.37	118	205	P	V
		2389.65	34.04	-19.96	54	33.81	27.03	6.57	33.37	118	205	A	V
	*	2436.907	99.58	-	-	98.94	27.17	6.79	33.32	118	205	P	V
	*	2435	90.67	-	-	90.08	27.12	6.79	33.32	118	205	A	V
		2484.2	47.12	-26.88	74	46.12	27.26	7.01	33.27	118	205	P	V
		2487.8	34.35	-19.65	54	33.3	27.3	7.01	33.26	118	205	A	V



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	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)
802.11g CH 11 2462MHz	*	2464	102.03	-	-	101.21	27.21	6.9	33.29	104	240	P	H
	*	2460	93.78	-	-	92.96	27.21	6.9	33.29	104	240	A	H
		2484.4	59.99	-14.01	74	58.99	27.26	7.01	33.27	104	240	P	H
		2483.52	45.29	-8.71	54	44.29	27.26	7.01	33.27	104	240	A	H
													H
													H
	*	2460	99.09	-	-	98.27	27.21	6.9	33.29	100	200	P	V
	*	2460	90.11	-	-	89.29	27.21	6.9	33.29	100	200	A	V
		2483.8	56.91	-17.09	74	55.91	27.26	7.01	33.27	100	200	P	V
		2483.56	40.8	-13.2	54	39.8	27.26	7.01	33.27	100	200	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15C 2.4GHz 2400~2483.5MHz

WIFI 802.11g (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	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)
802.11g CH 01 2412MHz		4824	43.99	-30.01	74	57.75	31.06	10.57	55.39	100	0	P	H
													H
													H
													H
		4824	43.49	-30.51	74	57.25	31.06	10.57	55.39	100	0	P	V
													V
													V
													V
802.11g CH 06 2437MHz		4874	44.59	-29.41	74	58.25	31.13	10.63	55.42	100	0	P	H
		7311	50.1	-23.9	74	55.95	36.11	13.63	55.59	100	0	P	H
													H
													H
		4874	43.76	-30.24	74	57.42	31.13	10.63	55.42	100	0	P	V
		7311	49.46	-24.54	74	55.31	36.11	13.63	55.59	100	0	P	V
													V
													V
802.11g CH 11 2462MHz		4924	43.15	-30.85	74	56.68	31.2	10.73	55.46	100	0	P	H
		7386	49.27	-24.73	74	54.8	36.33	13.66	55.52	100	0	P	H
													H
													H
		4924	43.77	-30.23	74	57.3	31.2	10.73	55.46	100	0	P	V
		7386	49.23	-24.77	74	54.76	36.33	13.66	55.52	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15C Emission below 1GHz

2.4GHz WIFI 802.11g (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	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)
2.4GHz 802.11g LF		60.24	27.13	-12.87	40	52.41	5.5	1.02	31.8	115	273	P	H
		184.44	18.09	-25.41	43.5	38.8	9.2	1.87	31.78			P	H
		225.21	18.51	-27.49	46	37.5	10.7	2.09	31.78			P	H
		507.2	19.98	-26.02	46	30.34	18.35	3.19	31.9			P	H
		671.7	22.7	-23.3	46	30.65	20.38	3.71	32.04			P	H
		957.3	27.99	-18.01	46	30.67	23.83	4.47	30.98			P	H
													H
													H
													H
													H
													H
													H
		32.16	31.07	-8.93	40	43.06	19	0.84	31.83	107	135	P	V
		137.19	12.6	-30.9	43.5	30.41	12.36	1.61	31.78			P	V
		251.94	17.32	-28.68	46	33.88	13	2.21	31.77			P	V
		313.3	14.96	-31.04	46	30.03	14.2	2.5	31.77			P	V
		680.1	22.3	-23.7	46	30.17	20.44	3.73	32.04			P	V
		962.9	26.84	-27.16	54	29.43	23.85	4.49	30.93			P	V
													V
													V
													V
													V
													V
													V
													V
													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 per 15.209(c).
!	Test result is over limit line.
P/A	Peak or Average
H/V	Horizontal or Vertical



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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(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. Level(dBμV/m) =

Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

2. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Cable 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) + Cable 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”.



15C 2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 01 2412MHz		2388.57	62.01	-11.99	74	61.78	27.03	6.57	33.37	103	252	P	H
		2390	46.16	-7.84	54	45.93	27.03	6.57	33.37	103	252	A	H
	*	2410	102.35	-	-	101.93	27.08	6.68	33.34	103	252	P	H
	*	2410	93.89	-	-	93.47	27.08	6.68	33.34	103	252	A	H
													H
													H
		2388.93	58.24	-15.76	74	58.01	27.03	6.57	33.37	123	181	P	V
		2389.38	42.87	-11.13	54	42.64	27.03	6.57	33.37	123	181	A	V
	*	2409.352	100.53	-	-	100.12	27.08	6.68	33.35	123	181	P	V
	*	2410	92.17	-	-	91.75	27.08	6.68	33.34	123	181	A	V
													V
													V
802.11n HT20 CH 06 2437MHz		2384.25	51.88	-22.12	74	51.69	26.99	6.57	33.37	103	241	P	H
		2389.65	39.39	-14.61	54	39.16	27.03	6.57	33.37	103	241	A	H
	*	2435	104.85	-	-	104.26	27.12	6.79	33.32	103	241	P	H
	*	2435	96.03	-	-	95.44	27.12	6.79	33.32	103	241	A	H
		2484.12	50.65	-23.35	74	49.65	27.26	7.01	33.27	103	241	P	H
		2487.72	37.57	-16.43	54	36.52	27.3	7.01	33.26	103	241	A	H
		2388.57	48.21	-25.79	74	47.98	27.03	6.57	33.37	121	157	P	V
		2386.23	36.42	-17.58	54	36.19	27.03	6.57	33.37	121	157	A	V
	*	2436.501	102.81	-	-	102.17	27.17	6.79	33.32	121	157	P	V
	*	2439	93.81	-	-	93.17	27.17	6.79	33.32	121	157	A	V
		2483.6	52.02	-21.98	74	51.02	27.26	7.01	33.27	121	157	P	V
		2484.36	36.4	-17.6	54	35.4	27.26	7.01	33.27	121	157	A	V



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 11 2462MHz	*	2460	104.56	-	-	103.74	27.21	6.9	33.29	100	240	P	H
	*	2463.794	95.8	-	-	94.98	27.21	6.9	33.29	100	240	A	H
		2485.72	64.65	-9.35	74	63.65	27.26	7.01	33.27	100	240	P	H
		2483.56	48.27	-5.73	54	47.27	27.26	7.01	33.27	100	240	A	H
													H
													H
	*	2460	102.25	-	-	101.43	27.21	6.9	33.29	117	154	P	V
	*	2464	93.5	-	-	92.68	27.21	6.9	33.29	117	154	A	V
		2483.6	67.51	-6.49	74	66.51	27.26	7.01	33.27	117	154	P	V
		2483.56	45.16	-8.84	54	44.16	27.26	7.01	33.27	117	154	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15C 2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 01 2412MHz		4824	43.31	-30.69	74	57.07	31.06	10.57	55.39	100	0	P	H
													H
													H
													H
		4824	42.89	-31.11	74	56.65	31.06	10.57	55.39	100	0	P	V
													V
													V
													V
802.11n HT20 CH 06 2437MHz		4874	43.59	-30.41	74	57.25	31.13	10.63	55.42	100	0	P	H
		7311	49.06	-24.94	74	54.91	36.11	13.63	55.59	100	0	P	H
													H
													H
		4874	43.73	-30.27	74	57.39	31.13	10.63	55.42	100	0	P	V
		7311	50.16	-23.84	74	56.01	36.11	13.63	55.59	100	0	P	V
													V
													V
802.11n HT20 CH 11 2462MHz		4924	44.1	-29.9	74	57.63	31.2	10.73	55.46	100	0	P	H
		7386	49.73	-24.27	74	55.26	36.33	13.66	55.52	100	0	P	H
													H
													H
		4924	43.48	-30.52	74	57.01	31.2	10.73	55.46	100	0	P	V
		7386	50.93	-23.07	74	56.46	36.33	13.66	55.52	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15C 2.4GHz 2400~2483.5MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 03 2422MHz		2386.95	67.03	-6.97	74	66.8	27.03	6.57	33.37	103	245	P	H
		2390	51.32	-2.68	54	51.09	27.03	6.57	33.37	103	245	P	H
	*	2424	99.21	-	-	98.74	27.12	6.68	33.33	103	245	P	H
	*	2424	90.66	-	-	90.19	27.12	6.68	33.33	103	245	A	H
		2486	66.73	-7.27	74	65.73	27.26	7.01	33.27	100	246	P	H
		2484.12	50.03	-3.97	54	49.03	27.26	7.01	33.27	100	246	P	H
		2386.5	65.21	-8.79	74	64.98	27.03	6.57	33.37	100	181	P	V
		2389.47	50.13	-3.87	54	49.9	27.03	6.57	33.37	100	181	A	V
	*	2420	96.73	-	-	96.27	27.12	6.68	33.34	100	181	P	V
	*	2420	87.96	-	-	87.5	27.12	6.68	33.34	100	181	A	V
		2485.28	67.54	-6.46	74	66.54	27.26	7.01	33.27	121	153	P	V
		2484.5	49.24	-4.76	54	48.24	27.26	7.01	33.27	121	153	P	V
802.11n HT40 CH 06 2437MHz		2389.74	59.49	-14.51	74	59.26	27.03	6.57	33.37	100	246	P	H
		2389.92	45.46	-8.54	54	45.23	27.03	6.57	33.37	100	246	A	H
	*	2435	100.17	-	-	99.58	27.12	6.79	33.32	100	246	P	H
	*	2435	90.85	-	-	90.26	27.12	6.79	33.32	100	246	A	H
		2483.88	59.68	-14.32	74	58.68	27.26	7.01	33.27	100	246	P	H
		2484	44.37	-9.63	54	43.37	27.26	7.01	33.27	100	246	A	H
		2390	57.45	-16.55	74	57.22	27.03	6.57	33.37	120	155	P	V
		2389.92	44.05	-9.95	54	43.82	27.03	6.57	33.37	120	155	A	V
	*	2439	98.85	-	-	98.21	27.17	6.79	33.32	120	155	P	V
	*	2439	89.3	-	-	88.66	27.17	6.79	33.32	120	155	A	V
		2484.56	59.23	-14.77	74	58.23	27.26	7.01	33.27	120	155	P	V
		2483.6	43.91	-10.09	54	42.91	27.26	7.01	33.27	120	155	A	V



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 09 2452MHz		2390	60.5	-13.5	74	60.27	27.03	6.57	33.37	100	246	P	H
		2390	46.53	-7.47	54	46.3	27.03	6.57	33.37	100	246	P	H
	*	2450	100.02	-	-	99.37	27.17	6.79	33.31	100	246	P	H
	*	2450	91.1	-	-	90.45	27.17	6.79	33.31	100	246	A	H
		2487.2	67.37	-6.63	74	66.36	27.26	7.01	33.26	100	246	P	H
		2484.64	50.81	-3.19	54	49.81	27.26	7.01	33.27	100	246	A	H
		2389.2	56.86	-17.14	74	56.63	27.03	6.57	33.37	120	155	P	V
		2390	45.11	-8.89	54	44.88	27.03	6.57	33.37	120	155	P	V
	*	2454	98.53	-	-	97.72	27.21	6.9	33.3	121	153	P	V
	*	2454	89.61	-	-	88.8	27.21	6.9	33.3	121	153	A	V
		2486.28	67.81	-6.19	74	66.81	27.26	7.01	33.27	121	153	P	V
		2483.64	49.22	-4.78	54	48.22	27.26	7.01	33.27	121	153	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15C 2.4GHz 2400~2483.5MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 03 2422MHz		4844	44.44	-29.56	74	58.16	31.08	10.6	55.4	100	0	P	H
		7266	49.68	-24.32	74	55.67	36.02	13.61	55.62	100	0	P	H
													H
													H
		4844	43.67	-30.33	74	57.39	31.08	10.6	55.4	100	0	P	V
		7266	50.36	-23.64	74	56.35	36.02	13.61	55.62	100	0	P	V
													V
													V
802.11n HT40 CH 06 2437MHz		4874	45.28	-28.72	74	58.94	31.13	10.63	55.42	100	0	P	H
		7311	50.26	-23.74	74	56.11	36.11	13.63	55.59	100	0	P	H
													H
													H
		4874	43.76	-30.24	74	57.42	31.13	10.63	55.42	100	0	P	V
		7311	50.51	-23.49	74	56.36	36.11	13.63	55.59	100	0	P	V
													V
													V
802.11n HT40 CH 09 2452MHz		4904	44.38	-29.62	74	57.95	31.18	10.7	55.45	100	0	P	H
		7356	50.08	-23.92	74	55.73	36.24	13.65	55.54	100	0	P	H
													H
													H
		4904	44.06	-29.94	74	57.63	31.18	10.7	55.45	100	0	P	V
		7356	49.77	-24.23	74	55.42	36.24	13.65	55.54	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15C Emission below 1GHz

2.4GHz WIFI 802.11n HT20 (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz 802.11n HT20 LF		47.01	22.71	-17.29	40	43.11	10.45	0.96	31.81			P	H
		102.63	26.99	-16.51	43.5	46.75	10.63	1.39	31.78			P	H
		263.28	29.94	-16.06	46	45.77	13.68	2.26	31.77	114	5	P	H
		592.6	21.12	-24.88	46	30.14	19.55	3.46	32.03			P	H
		834.1	25.49	-20.51	46	30.6	22.51	4.13	31.75			P	H
		958	27.93	-18.07	46	30.6	23.83	4.47	30.97			P	H
													H
													H
													H
													H
													H
													H
		42.96	30.45	-9.55	40	48.16	13.16	0.94	31.81	192	304	P	V
		98.31	21.13	-22.37	43.5	41.48	10.06	1.37	31.78			P	V
		250.05	21.41	-24.59	46	38.18	12.8	2.2	31.77			P	V
		459.6	18.98	-27.02	46	30.31	17.49	3.03	31.85			P	V
		620.6	22.13	-23.87	46	30.71	19.91	3.55	32.04			P	V
		964.3	26.3	-27.7	54	28.87	23.86	4.49	30.92			P	V
													V
													V
													V
													V
													V
													V
													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 per 15.209(c).
!	Test result is over limit line.
P/A	Peak or Average
H/V	Horizontal or Vertical



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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(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. Level(dBμV/m) =

Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

2. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Cable 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) + Cable 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”.