Appendix A. Radiated Spurious Emission

15C 2.4GHz 2400~2483.5MHz

BT (Band Edge @ 3m)

BT	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
BT CH00 2402MHz		2350.56	51.49	-22.51	74	47.46	31.25	9.12	36.34	216	305	P	H
		2350.56	26.7	-27.3	54	-	-	-	-	-	-	A	H
	*	2401.78	77.4	-	-	72.96	31.3	9.22	36.08	216	305	P	H
	*	2401.78	52.61	-	-	-	-	-	-	-	-	A	H
		2349.13	51.08	-22.92	74	47.05	31.25	9.12	36.34	214	305	P	V
		2349.13	26.29	-27.71	54	-	-	-	-	-	-	A	V
	*	2402.04	69.54	-	-	65.1	31.3	9.22	36.08	214	305	P	V
	*	2402.04	44.75	-	-	-	-	-	-	-	-	A	V
BT CH 39 2441MHz	*	2440.91	76.55	-	-	71.84	31.34	9.28	35.91	150	330	P	H
	*	2440.91	51.76	-	-	-	-	-	-	-	-	A	H
	*	2441.1	74.36	-	-	69.65	31.34	9.28	35.91	172	267	P	V
	*	2441.1	49.57	-	-	-	-	-	-	-	-	A	V
BT CH 78 2480MHz	*	2480.05	76.72	-	-	71.81	31.37	9.33	35.79	150	330	P	H
	*	2480.05	51.93	-	-	-	-	-	-	-	-	A	H
		2491.46	50.89	-23.11	74	45.91	31.39	9.33	35.74	150	330	P	H
		2491.46	26.1	-27.9	54	-	-	-	-	-	-	A	H
	*	2479.98	75.77	-	-	70.86	31.37	9.33	35.79	168	267	P	V
	*	2479.98	50.98	-	-	-	-	-	-	-	-	A	V
		2485.86	51.99	-22.01	74	47.08	31.37	9.33	35.79	168	267	P	V
		2485.86	27.2	-26.8	54	-	-	-	-	-	-	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

BT (Harmonic @ 3m)

BT	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
BT CH 00 2402MHz		4803	47.91	-26.09	74	37.91	34.88	11.71	36.59	214	65	P	H
		4803	23.12	-30.88	54	-	-	-	-	-	-	A	H
		4803	45.2	-28.8	74	35.2	34.88	11.71	36.59	214	356	P	V
		4803	20.41	-33.59	54	-	-	-	-	-	-	A	V
BT CH 39 2441MHz		4881	49.56	-24.44	74	39.72	34.92	11.76	36.84	197	65	P	H
		4881	24.77	-29.23	54	-	-	-	-	-	-	A	H
		7323	50.29	-23.71	74	39.8	35.57	13.84	38.92	214	0	P	H
		7323	25.5	-28.5	54	-	-	-	-	-	-	A	H
		4881	49.97	-24.03	74	40.13	34.92	11.76	36.84	214	356	P	V
		4881	25.18	-28.82	54	-	-	-	-	-	-	A	V
		7323	50.38	-23.62	74	39.89	35.57	13.84	38.92	214	16	P	V
		7323	25.59	-28.41	54	-	-	-	-	-	-	A	V
BT CH 78 2480MHz		4959	50.1	-23.9	74	40.47	34.97	11.81	37.15	197	65	P	H
		4959	25.31	-28.69	54	-	-	-	-	-	-	A	H
		7440	50.79	-23.21	74	40.19	35.59	13.92	38.91	214	167	P	H
		7440	26	-28	54	-	-	-	-	-	-	A	H
		4959	49.24	-24.76	74	39.61	34.97	11.81	37.15	214	137	P	V
		4959	24.45	-29.55	54	-	-	-	-	-	-	A	V
		7440	50.68	-23.32	74	40.08	35.59	13.92	38.91	169	360	P	V
		7440	25.89	-28.11	54	-	-	-	-	-	-	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15C Emission below 1GHz

2.4GHz BT (LF)

BT	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz BT LF		30	30.42	-9.58	40	40.09	19.2	3.79	32.66	100	0	P	H
		56.19	19.22	-20.78	40	40.89	7.14	3.79	32.6			P	H
		98.87	20.8	-22.7	43.5	38.2	11.19	4.04	32.63			P	H
		122.15	25.05	-18.45	43.5	41.98	11.48	4.23	32.64			P	H
		169.68	21.03	-22.47	43.5	38.15	10.95	4.44	32.51			P	H
		669.23	28.33	-17.67	46	34.6	19.63	6.05	31.95			P	H
		30	30.39	-9.61	40	40.06	19.2	3.79	32.66	100	109	P	V
		36.79	27.38	-12.62	40	40.43	15.77	3.79	32.61			P	V
		53.28	21.52	-18.48	40	42.42	7.92	3.79	32.61			P	V
		99.84	16.98	-26.52	43.5	34.27	11.3	4.04	32.63			P	V
		119.24	18.67	-24.83	43.5	35.63	11.45	4.23	32.64			P	V
		223.03	18.68	-27.32	46	35.7	10.86	4.61	32.49			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 per 15.209(c).
!	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	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 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. 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".