



Appendix B. Radiated Spurious Emission

15C 2.4GHz 2400~2483.5MHz

BT (Band Edge @ 3m)

BT	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BT CH00 2402MHz		2389.17	43.33	-30.67	74	43.1	27.03	6.57	33.37	101	0	P	H
		2389.17	18.48	-35.52	54	-	-	-	-	-	-	A	H
	*	2402.04	99.45	-	-	99.2	27.03	6.57	33.35	101	0	P	H
	*	2402.04	74.6	-	-	-	-	-	-	-	-	A	H
		2382.15	40.64	-33.36	74	40.45	26.99	6.57	33.37	109	129	P	V
		2382.15	15.79	-38.21	54	-	-	-	-	-	-	A	V
	*	2402.04	94.15	-	-	93.9	27.03	6.57	33.35	109	129	P	V
	*	2402.04	69.3	-	-	-	-	-	-	-	-	A	V
BT CH 39 2441MHz		2369.09	40.04	-33.96	74	39.81	26.99	6.62	33.38	120	4	P	H
		2369.09	15.19	-38.81	54	-	-	-	-	-	-	A	H
	*	2441.1	101.25	-	-	100.6	27.17	6.79	33.31	120	4	P	H
	*	2441.1	76.4	-	-	-	-	-	-	-	-	A	H
		2485.18	40.82	-33.18	74	39.82	27.26	7.01	33.27	120	4	P	H
		2485.18	15.97	-38.03	54	-	-	-	-	-	-	A	H
		2387.71	40.99	-33.01	74	40.76	27.03	6.57	33.37	107	142	P	V
		2387.71	16.14	-37.86	54	-	-	-	-	-	-	A	V
	*	2440.91	92.58	-	-	91.93	27.17	6.79	33.31	107	142	P	V
	*	2440.91	67.73	-	-	-	-	-	-	-	-	A	V
		2492.59	41.53	-32.47	74	40.48	27.3	7.01	33.26	107	142	P	V
		2492.59	16.68	-37.32	54	-	-	-	-	-	-	A	V



BT	Note	Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BT CH 78 2480MHz	*	2479.84	100.19	-	-	99.19	27.26	7.01	33.27	117	9	P	H
	*	2479.84	75.34	-	-	-	-	-	-	-	-	A	H
		2483.69	46.52	-27.48	74	45.52	27.26	7.01	33.27	117	9	P	H
		2483.69	21.67	-32.33	54	-	-	-	-	-	-	A	H
	*	2479.91	93.78	-	-	92.78	27.26	7.01	33.27	100	118	P	V
	*	2479.91	68.93	-	-	-	-	-	-	-	-	A	V
		2485.37	43.31	-30.69	74	42.31	27.26	7.01	33.27	100	118	P	V
		2485.37	18.46	-35.54	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 (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BT CH 00 2402MHz		4803	41.23	-32.77	74	55.05	31.03	10.53	55.38	100	0	P	H
		4803	40.64	-33.36	74	54.46	31.03	10.53	55.38	100	0	P	V
BT CH 39 2441MHz		4881	42.16	-31.84	74	55.78	31.13	10.67	55.42	100	0	P	H
		7311	46.99	-27.01	74	52.84	36.11	13.63	55.59	100	0	P	H
		4881	41.75	-32.25	74	55.37	31.13	10.67	55.42	100	0	P	V
		7311	46.86	-27.14	74	52.71	36.11	13.63	55.59	100	0	P	V
BT CH 78 2480MHz		4959	41.63	-32.37	74	55.09	31.25	10.77	55.48	100	0	P	H
		7440	47.35	-26.65	74	52.63	36.47	13.7	55.45	100	0	P	H
		4959	42.57	-31.43	74	56.03	31.25	10.77	55.48	100	0	P	V
		7440	46.85	-27.15	74	52.13	36.47	13.7	55.45	100	0	P	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 (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
2.4GHz BT LF		52.68	24.19	-15.81	40	46.79	8.22	0.98	31.8	115	48	P	H
		186.87	26.19	-17.31	43.5	46.88	9.2	1.89	31.78			P	H
		295.14	21.65	-24.35	46	37.28	13.7	2.43	31.76			P	H
		431.6	18.53	-27.47	46	30.45	16.97	2.94	31.83			P	H
		736.1	24.67	-21.33	46	31.47	21.33	3.87	32			P	H
		940.5	26.76	-19.24	46	29.79	23.66	4.42	31.11			P	H
		32.7	22.52	-17.48	40	34.99	18.5	0.86	31.83	134	246	P	V
		52.14	14.78	-25.22	40	37.38	8.22	0.98	31.8			P	V
		295.95	14.69	-31.31	46	30.3	13.72	2.43	31.76			P	V
		640.2	23.11	-22.89	46	31.43	20.1	3.62	32.04			P	V
		772.5	27.47	-18.53	46	33.64	21.82	3.96	31.95			P	V
		962.2	27.46	-26.54	54	30.06	23.85	4.49	30.94			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	Peak or Average
H/V	Horizontal or Vertical



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

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11b CH 01		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
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”.