



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		2373.31	42.3	-31.7	74	43.37	26.96	6.01	34.04	100	118	P	H
		2373.31	17.51	-36.49	54	-	-	-	-	-	-	A	H
	*	2402.17	101.37	-	-	102.39	27.01	6.01	34.04	100	118	P	H
		2402.17	76.58	-	-	-	-	-	-	-	-	A	H
													H
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		2367.46	42.29	-31.71	74	43.41	26.91	6.01	34.04	383	329	P	V
		2367.46	17.5	-36.5	54	-	-	-	-	-	-	A	V
	*	2401.91	98.49	-	-	99.51	27.01	6.01	34.04	383	329	P	V
		2401.91	73.7	-	-	-	-	-	-	-	-	A	V
													V
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BT CH 39 2441MHz		2362.82	42.06	-31.94	74	43.25	26.91	5.95	34.05	100	117	P	H
		2362.82	17.27	-36.73	54	-	-	-	-	-	-	A	H
	*	2441.29	101.29	-	-	102.11	27.16	6.04	34.02	100	117	P	H
		2441.29	76.5	-	-	-	-	-	-	-	-	A	H
		2493.35	42.42	-31.58	74	43.03	27.3	6.09	34	100	117	P	H
		2493.35	17.63	-36.37	54	-	-	-	-	-	-	A	H
		2354.08	41.59	-32.41	74	42.78	26.91	5.95	34.05	370	224	P	V
		2354.08	16.8	-37.2	54	-	-	-	-	-	-	A	V
	*	2440.91	98.36	-	-	99.18	27.16	6.04	34.02	370	224	P	V
		2440.91	73.57	-	-	-	-	-	-	-	-	A	V
		2499.05	42.23	-31.77	74	42.84	27.3	6.09	34	370	224	P	V
		2499.05	17.44	-36.56	54	-	-	-	-	-	-	A	V



BT CH 78 2480MHz	*	2479.84	99.8	-	-	100.49	27.25	6.07	34.01	102	116	P	H
		2479.84	75.01	-	-	-	-	-	-	-	-	A	H
		2483.62	44.66	-29.34	74	45.33	27.25	6.09	34.01	102	116	P	H
		2483.62	19.87	-34.13	54	-	-	-	-	-	-	A	H
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	*	2479.84	97.94	-	-	98.63	27.25	6.07	34.01	400	11	P	V
		2479.84	73.15	-	-	-	-	-	-	-	-	A	V
		2483.5	44.17	-29.83	74	44.84	27.25	6.09	34.01	400	11	P	V
		2483.5	19.38	-34.62	54	-	-	-	-	-	-	A	V
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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	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 CH 00 2402MHz		4804	36.34	-37.66	74	61.68	31.1	8.65	65.09	100	0	P	H
		4804	11.55	-42.45	54	-	-	-	-	-	-	A	H
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		4804	38.11	-35.89	74	63.45	31.1	8.65	65.09	100	0	P	V
		4804	13.32	-40.68	54	-	-	-	-	-	-	A	V
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													V
BT CH 39 2441MHz		4882	38.89	-35.11	74	63.96	31.21	8.74	65.02	100	0	P	H
		4882	14.1	-39.9	54	-	-	-	-	-	-	A	H
		7323	40.07	-33.93	74	58.58	36.12	10.44	65.07	100	0	P	H
		7323	15.28	-38.72	54	-	-	-	-	-	-	A	H
		4882	38.88	-35.12	74	63.95	31.21	8.74	65.02	100	0	P	V
		4882	14.09	-39.91	54	-	-	-	-	-	-	A	V
		7323	39.85	-34.15	74	58.36	36.12	10.44	65.07	100	0	P	V
		7323	15.06	-38.94	54	-	-	-	-	-	-	A	V
BT CH 78 2480MHz		4960	37.05	-36.95	74	61.85	31.34	8.79	64.93	100	0	P	H
		4960	12.26	-41.74	54	-	-	-	-	-	-	A	H
		7440	40.78	-33.22	74	58.96	36.39	10.52	65.09	100	0	P	H
		7440	15.99	-38.01	54	-	-	-	-	-	-	A	H
		4960	37.79	-36.21	74	62.59	31.34	8.79	64.93	100	0	P	V
		4960	13	-41	54	-	-	-	-	-	-	A	V
		7440	40.4	-33.6	74	58.58	36.39	10.52	65.09	100	0	P	V
		7440	15.61	-38.39	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		30.54	16.63	-23.37	40	30.06	17.73	0.67	31.83			P	H
		116.4	11.43	-32.07	43.5	30.6	11.33	1.28	31.78			P	H
		298.11	22.82	-23.18	46	39.51	12.96	2.11	31.76			P	H
		407.1	26.17	-19.83	46	39.44	16.13	2.41	31.81			P	H
		657.7	28.86	-17.14	46	38.86	19.02	3.02	32.04			P	H
		820.1	31	-15	46	39.32	20.1	3.4	31.82	200	158	P	H
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		42.69	28.23	-11.77	40	48.25	11.12	0.67	31.81	300	52	P	V
		159.87	13.59	-29.91	43.5	34.3	9.61	1.46	31.78			P	V
		294.87	15.36	-30.64	46	32.12	12.89	2.11	31.76			P	V
		448.4	19.26	-26.74	46	32.06	16.47	2.57	31.84			P	V
		661.2	23.92	-22.08	46	33.95	18.99	3.02	32.04			P	V
		935.6	23.46	-22.54	46	30.56	20.37	3.68	31.15			P	V
													V
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													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”.