



Appendix A. Radiated Spurious Emission

Test Engineer :	Kyle Jhuang, Citta Ke and Karl Hou	Temperature :	25~26°C
		Relative Humidity :	50~51%

15E Band 4 - 5725~5850MHz

WIFI 802.11a (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)
802.11a CH 149 5745MHz		5714.2	69.43	-4.57	74	58.63	35.77	7.15	32.12	147	250	P	H
		5724.44	75.69	-2.61	78.3	64.87	35.78	7.16	32.12	147	250	P	H
		5714.6	49.85	-4.15	54	39.05	35.77	7.15	32.12	147	250	A	H
	*	5743	107.64	-	-	96.78	35.79	7.18	32.11	147	250	P	H
	*	5743	97.43	-	-	86.57	35.79	7.18	32.11	147	250	A	H
													H
													H
													H
		5714.84	63.67	-10.33	74	52.87	35.77	7.15	32.12	123	202	P	V
		5723.56	69.78	-8.52	78.3	58.96	35.78	7.16	32.12	123	202	P	V
		5714.6	46.89	-7.11	54	36.09	35.77	7.15	32.12	123	202	A	V
	*	5743	102.68	-	-	91.82	35.79	7.18	32.11	123	202	P	V
	*	5743	92.42	-	-	81.56	35.79	7.18	32.11	123	202	A	V
													V
													V
													V
Remark - No other spurious found. - All results are PASS against Peak and Average limit line.													



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)
802.11a CH 157 5785MHz		5702.6	54.29	-19.71	74	43.49	35.77	7.15	32.12	139	169	P	H
		5717.72	54.79	-23.51	78.3	43.97	35.78	7.16	32.12	139	169	P	H
		5709.96	44.27	-9.73	54	33.47	35.77	7.15	32.12	139	169	A	H
	*	5787	106.79	-	-	95.86	35.83	7.2	32.1	139	169	P	H
	*	5787	96.65	-	-	85.72	35.83	7.2	32.1	139	169	A	H
		5850.48	56.45	-21.85	78.3	45.39	35.88	7.26	32.08	139	169	P	H
		5867.6	56.01	-17.99	74	44.91	35.89	7.28	32.07	139	169	P	H
		5864.72	44.82	-9.18	54	33.72	35.89	7.28	32.07	139	169	A	H
		5706.28	54.67	-19.33	74	43.87	35.77	7.15	32.12	118	200	P	V
		5723.32	54.35	-23.95	78.3	43.53	35.78	7.16	32.12	118	200	P	V
		5712.36	43.8	-10.2	54	33	35.77	7.15	32.12	118	200	A	V
	*	5783	102.62	-	-	91.7	35.82	7.2	32.1	118	200	P	V
	*	5783	102.43	-	-	91.51	35.82	7.2	32.1	118	200	A	V
		5853.04	53.24	-25.06	78.3	42.18	35.88	7.26	32.08	118	200	P	V
		5866.32	53.85	-20.15	74	42.75	35.89	7.28	32.07	118	200	P	V
		5872.08	43.71	-10.29	54	32.6	35.9	7.28	32.07	118	200	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



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)
802.11a CH 165 5825MHz	*	5827	106.51	-	-	95.5	35.86	7.24	32.09	104	247	P	H
	*	5827	96.77	-	-	85.76	35.86	7.24	32.09	104	247	A	H
		5852.96	72.49	-5.81	78.3	61.43	35.88	7.26	32.08	104	247	P	H
		5862.32	63.73	-10.27	74	52.63	35.89	7.28	32.07	104	247	P	H
		5860.72	48.51	-5.49	54	37.41	35.89	7.28	32.07	104	247	A	H
													H
													H
													H
	*	5823	100.16	-	-	89.15	35.86	7.24	32.09	100	220	P	V
	*	5823	90.05	-	-	79.04	35.86	7.24	32.09	100	220	A	V
		5853.44	65.13	-13.17	78.3	54.07	35.88	7.26	32.08	100	220	P	V
		5863.92	56.89	-17.11	74	45.79	35.89	7.28	32.07	100	220	P	V
		5863.52	44.64	-9.36	54	33.54	35.89	7.28	32.07	100	220	A	V
													V
													V
													V
													V
													V
Remark - No other spurious found. - All results are PASS against Peak and Average limit line.													



15E Band 4 5725~5850MHz

WIFI 802.11a (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)
802.11a CH 149 5745MHz		11492	51.07	-22.93	74	58.66	38.99	10.33	56.91	100	33	P	H
		11492	41.07	-12.93	54	48.66	38.99	10.33	56.91	100	33	A	H
		17232	48.25	-25.75	74	51.3	42.01	12.65	57.71	100	0	P	H
													H
		11488	59.72	-14.28	74	67.31	38.99	10.33	56.91	100	204	P	V
		11488	48.48	-5.52	54	56.07	38.99	10.33	56.91	100	204	A	V
		17232	47.19	-26.81	74	50.24	42.01	12.65	57.71	100	0	P	V
													V
802.11a CH 157 5785MHz		11572	52.69	-21.31	74	60.21	39.03	10.36	56.91	100	51	P	H
		11572	42.81	-11.19	54	50.33	39.03	10.36	56.91	100	51	A	H
		17352	47.4	-26.6	74	50.6	41.96	12.85	58.01	100	0	P	H
													H
		11570	58.56	-15.44	74	66.08	39.03	10.36	56.91	101	204	P	V
		11570	47.8	-6.2	54	55.32	39.03	10.36	56.91	101	204	A	V
		17352	47.39	-26.61	74	50.59	41.96	12.85	58.01	100	0	P	V
													V
802.11a CH 165 5825MHz		11650	53.64	-20.36	74	61.1	39.06	10.41	56.93	100	18	P	H
		11650	43.56	-10.44	54	51.02	39.06	10.41	56.93	100	18	A	H
		17473	47.48	-26.52	74	50.84	41.91	13.04	58.31	100	0	P	H
													H
		11652	59.89	-14.11	74	67.35	39.06	10.41	56.93	100	206	P	V
		11652	47.39	-6.61	54	54.85	39.06	10.41	56.93	100	206	A	V
		17473	47.34	-26.66	74	50.7	41.91	13.04	58.31	100	0	P	V
													V
Remark	1. No other spurious found.												
	2. All results are PASS against Peak and Average limit line.												



15E Emission below 1GHz

5GHz WIFI 802.11a (LF @ 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)
5GHz 802.11a LF		36.75	30.61	-9.39	40	46.38	15.3	0.74	31.81	100	77	P	H
		113.16	29.66	-13.84	43.5	48.78	11.5	1.16	31.78	-	-	P	H
		200.37	34.01	-9.49	43.5	55.2	9.11	1.48	31.78	-	-	P	H
		394.5	33.13	-12.87	46	47.23	15.7	2	31.8	-	-	P	H
		913.2	33.41	-12.59	46	38.06	23.65	3.02	31.32	-	-	P	H
		999.3	34.75	-19.25	54	37.44	24.71	3.25	30.65	-	-	P	H
													H
													H
													H
													H
													H
													H
		104.25	34.32	-9.18	43.5	54.38	10.6	1.12	31.78	108	57	P	V
		186.06	33.55	-9.95	43.5	55.02	8.88	1.43	31.78	-	-	P	V
		200.37	28.66	-14.84	43.5	49.85	9.11	1.48	31.78	-	-	P	V
		443.5	32.78	-13.22	46	45.44	17.06	2.12	31.84	-	-	P	V
		666.8	33.88	-12.12	46	43.02	20.3	2.6	32.04	-	-	P	V
		734	33.37	-12.63	46	40.63	22.02	2.72	32	-	-	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		(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”.



15E Band 4 5725~5850MHz

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 149 5745MHz		5710.76	69.52	-4.48	74	58.72	35.77	7.15	32.12	100	192	P	H
		5724.52	75.25	-3.05	78.3	64.43	35.78	7.16	32.12	100	192	P	H
		5714.92	51.44	-2.56	54	40.64	35.77	7.15	32.12	100	192	A	H
	*	5743	110.89	-	-	100.03	35.79	7.18	32.11	100	192	P	H
	*	5743	100.65	-	-	89.79	35.79	7.18	32.11	100	192	A	H
													H
													H
													H
		5714.28	64.73	-9.27	74	53.93	35.77	7.15	32.12	123	204	P	V
		5721	69.42	-8.88	78.3	58.6	35.78	7.16	32.12	123	204	P	V
		5714.92	47.56	-6.44	54	36.76	35.77	7.15	32.12	123	204	A	V
	*	5747	104.46	-	-	93.6	35.79	7.18	32.11	123	204	P	V
	*	5747	94.45	-	-	83.59	35.79	7.18	32.11	123	204	A	V
													V
													V
													V
Remark	1. No other spurious found.												
	2. All results are PASS against Peak and Average limit line.												



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 157 5785MHz		5711.32	56.04	-17.96	74	45.24	35.77	7.15	32.12	100	183	P	H
		5721.8	59.02	-19.28	78.3	48.2	35.78	7.16	32.12	100	183	P	H
		5714.84	45.47	-8.53	54	34.67	35.77	7.15	32.12	100	183	A	H
	*	5787	112.18	-	-	101.25	35.83	7.2	32.1	100	183	P	H
	*	5787	100.53	-	-	89.6	35.83	7.2	32.1	100	183	A	H
		5853.36	56.66	-21.64	78.3	45.6	35.88	7.26	32.08	100	183	P	H
		5864.8	55.94	-18.06	74	44.84	35.89	7.28	32.07	100	183	P	H
		5865.04	45.59	-8.41	54	34.49	35.89	7.28	32.07	100	183	A	H
		5707.56	54.27	-19.73	74	43.47	35.77	7.15	32.12	103	205	P	V
		5724.52	54.71	-23.59	78.3	43.89	35.78	7.16	32.12	103	205	P	V
		5711.24	44	-10	54	33.2	35.77	7.15	32.12	103	205	A	V
	*	5783	104.28	-	-	93.36	35.82	7.2	32.1	103	205	P	V
	*	5783	94.73	-	-	83.81	35.82	7.2	32.1	103	205	A	V
		5850.72	54.49	-23.81	78.3	43.43	35.88	7.26	32.08	103	205	P	V
		5867.28	53.88	-20.12	74	42.78	35.89	7.28	32.07	103	205	P	V
		5867.92	43.96	-10.04	54	32.86	35.89	7.28	32.07	103	205	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



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 165 5825MHz	*	5823	110.08	-	-	99.07	35.86	7.24	32.09	100	192	P	H
	*	5823	100.34	-	-	89.33	35.86	7.24	32.09	100	192	A	H
		5851.44	73.26	-5.04	78.3	62.2	35.88	7.26	32.08	100	192	P	H
		5862.48	67.42	-6.58	74	56.32	35.89	7.28	32.07	100	192	P	H
		5860.4	49.87	-4.13	54	38.77	35.89	7.28	32.07	100	192	A	H
													H
													H
													H
	*	5827	103.66	-	-	92.65	35.86	7.24	32.09	100	203	P	V
	*	5827	93.5	-	-	82.49	35.86	7.24	32.09	100	203	A	V
		5852	65.96	-12.34	78.3	54.9	35.88	7.26	32.08	100	203	P	V
		5860	60.24	-13.76	74	49.16	35.89	7.26	32.07	100	203	P	V
		5865.6	45.7	-8.3	54	34.6	35.89	7.28	32.07	100	203	A	V
													V
													V
													V
Remark - No other spurious found. - All results are PASS against Peak and Average limit line.													



15E Band 4 5725~5850MHz

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 149 5745MHz		11492	51.88	-22.12	74	59.47	38.99	10.33	56.91	100	18	P	H
		11492	41.88	-12.12	54	49.47	38.99	10.33	56.91	100	18	A	H
		17233	48.31	-25.69	74	51.36	42.01	12.65	57.71	100	0	P	H
													H
		11492	59.25	-14.75	74	66.84	38.99	10.33	56.91	100	152	P	V
		11492	49.16	-4.84	54	56.75	38.99	10.33	56.91	100	152	A	V
		17237	48.25	-25.75	74	51.26	42.01	12.69	57.71	100	0	P	V
													V
802.11n HT20 CH 157 5785MHz		11570	53.38	-20.62	74	60.9	39.03	10.36	56.91	100	16	P	H
		11570	43.35	-10.65	54	50.87	39.03	10.36	56.91	100	16	A	H
		17353	48.49	-25.51	74	51.69	41.96	12.85	58.01	100	0	P	H
													H
		11570	59.48	-14.52	74	67	39.03	10.36	56.91	100	123	P	V
		11570	49.27	-4.73	54	56.79	39.03	10.36	56.91	100	123	A	V
		17353	48.39	-25.61	74	51.59	41.96	12.85	58.01	100	0	P	V
													V
802.11n HT20 CH 165 5825MHz		11652	55.89	-18.11	74	63.35	39.06	10.41	56.93	100	45	P	H
		11652	45.82	-8.18	54	53.28	39.06	10.41	56.93	100	45	A	H
		17473	47.96	-26.04	74	51.32	41.91	13.04	58.31	100	0	P	H
													H
		11650	59.71	-14.29	74	67.17	39.06	10.41	56.93	100	188	P	V
		11650	49.57	-4.43	54	57.03	39.06	10.41	56.93	100	188	A	V
		17473	48.13	-25.87	74	51.49	41.91	13.04	58.31	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15E Band 4 5725~5850MHz

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 151 5755MHz		5713.64	67.47	-6.53	74	56.67	35.77	7.15	32.12	100	192	P	H
		5721.32	70.84	-7.46	78.3	60.02	35.78	7.16	32.12	100	192	P	H
		5714.2	51.99	-2.01	54	41.19	35.77	7.15	32.12	100	192	P	H
	*	5757	105.28	-	-	94.4	35.81	7.18	32.11	100	192	P	H
	*	5757	94.86	-	-	83.98	35.81	7.18	32.11	100	192	A	H
		5852.32	55.25	-23.05	78.3	44.19	35.88	7.26	32.08	100	192	P	H
		5866	55.16	-18.84	74	44.06	35.89	7.28	32.07	100	192	P	H
		5866.96	44.74	-9.26	54	33.64	35.89	7.28	32.07	100	192	A	H
		5714.84	62.85	-11.15	74	52.05	35.77	7.15	32.12	103	202	P	V
		5723.4	65.86	-12.44	78.3	55.04	35.78	7.16	32.12	103	202	P	V
		5714.84	48.44	-5.56	54	37.64	35.77	7.15	32.12	103	202	A	V
	*	5753	99.19	-	-	88.31	35.81	7.18	32.11	103	202	P	V
	*	5753	88.9	-	-	78.02	35.81	7.18	32.11	103	202	A	V
		5852.96	54.2	-24.1	78.3	43.14	35.88	7.26	32.08	103	202	P	V
		5889.92	53.99	-20.01	74	42.83	35.92	7.3	32.06	103	202	P	V
		5866.96	43.9	-10.1	54	32.8	35.89	7.28	32.07	103	202	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



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 159 5795MHz		5711.48	59.13	-14.87	74	48.33	35.77	7.15	32.12	102	171	P	H
		5722.28	59.77	-18.53	78.3	48.95	35.78	7.16	32.12	102	171	P	H
		5713.24	46.26	-7.74	54	35.46	35.77	7.15	32.12	102	171	A	H
	*	5793	105.23	-	-	94.28	35.83	7.22	32.1	102	171	P	H
	*	5793	95.33	-	-	84.38	35.83	7.22	32.1	102	171	A	H
		5851.76	63.09	-15.21	78.3	52.03	35.88	7.26	32.08	102	171	P	H
		5867.52	59.05	-14.95	74	47.95	35.89	7.28	32.07	102	171	P	H
		5866.8	45.77	-8.23	54	34.67	35.89	7.28	32.07	102	171	A	H
		5713.24	54.54	-19.46	74	43.74	35.77	7.15	32.12	113	203	P	V
		5723.8	55.42	-22.88	78.3	44.6	35.78	7.16	32.12	113	203	P	V
		5713.56	44.24	-9.76	54	33.44	35.77	7.15	32.12	113	203	A	V
	*	5797	99.49	-	-	88.54	35.83	7.22	32.1	113	203	P	V
	*	5797	89.29	-	-	78.34	35.83	7.22	32.1	113	203	A	V
		5850	58.49	-15.51	74	47.43	35.88	7.26	32.08	113	203	P	V
		5864.16	53.99	-20.01	74	42.89	35.89	7.28	32.07	113	203	P	V
		5866.24	44.21	-9.79	54	33.11	35.89	7.28	32.07	113	203	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15E Band 4 5725~5850MHz

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 151 5755MHz		11510	47.8	-26.2	74	55.36	39	10.34	56.9	100	0	P	H
		17265	47.46	-26.54	74	50.53	41.99	12.73	57.79	100	0	P	H
													H
													H
		11510	53.24	-20.76	74	60.8	39	10.34	56.9	133	55	P	V
		11510	43.36	-10.64	54	50.92	39	10.34	56.9	133	55	A	V
		17265	48.46	-25.54	74	51.53	41.99	12.73	57.79	100	0	P	V
													V
802.11n HT40 CH 159 5795MHz		11590	47.96	-26.04	74	55.47	39.03	10.38	56.92	100	0	P	H
		17385	49.06	-24.94	74	52.28	41.95	12.93	58.1	100	0	P	H
													H
													H
		11590	54.39	-19.61	74	61.9	39.03	10.38	56.92	122	36	P	V
		11590	44.55	-9.45	54	52.06	39.03	10.38	56.92	122	36	A	V
		17385	47.63	-26.37	74	50.85	41.95	12.93	58.1	100	0	P	V
													V
Remark	1. No other spurious found.												
	2. All results are PASS against Peak and Average limit line.												



15E Emission below 1GHz

5GHz WIFI 802.11n HT40 (LF @ 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)
5GHz 802.11n HT40 LF		111.27	29.01	-14.49	43.5	48.44	11.2	1.15	31.78	-	-	P	H
		139.89	27.93	-15.57	43.5	46.95	11.5	1.26	31.78	-	-	P	H
		199.83	36.64	-6.86	43.5	57.85	9.1	1.47	31.78	100	233	P	H
		393.8	33.62	-12.38	46	47.76	15.66	2	31.8	-	-	P	H
		491.1	32.98	-13.02	46	44.74	17.91	2.21	31.88	-	-	P	H
		913.2	37.15	-8.85	46	41.8	23.65	3.02	31.32	-	-	P	H
													H
													H
													H
													H
													H
													H
		93.45	29.09	-14.41	43.5	50.77	9.04	1.06	31.78	-	-	P	V
		123.96	27.87	-15.63	43.5	46.87	11.58	1.2	31.78	-	-	P	V
		200.37	30.12	-13.38	43.5	51.31	9.11	1.48	31.78	-	-	P	V
		554.8	34.35	-11.65	46	44.08	19.9	2.34	31.97	-	-	P	V
		600.3	35.54	-10.46	46	45.44	19.7	2.44	32.04	141	61	P	V
		666.8	34.73	-11.27	46	43.87	20.3	2.6	32.04	-	-	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”.