



Appendix A. Radiated Spurious Emission

Test Engineer :	Derreck Chen, Ken Wu, and Nick Yu	Temperature :	21~23°C
		Relative Humidity :	47~49%

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		5713.56	73.79	-0.21	74	62.64	35.22	10.08	34.15	100	0	P	H	
		5719.56	76.53	-1.77	78.3	65.42	35.23	10.03	34.15	100	0	P	H	
		5714.12	52.04	-1.96	54	40.89	35.22	10.08	34.15	100	0	A	H	
	*	5743	111.52	-	-	100.47	35.24	9.98	34.17	100	0	P	H	
	*	5743	102.26	-	-	91.21	35.24	9.98	34.17	100	0	A	H	
														H
														H
														H
			5713.64	64.98	-9.02	74	53.83	35.22	10.08	34.15	184	206	P	V
			5724.52	70.87	-7.43	78.3	59.76	35.23	10.03	34.15	184	206	P	V
			5713.16	47.39	-6.61	54	36.24	35.22	10.08	34.15	184	206	A	V
	*		5743	106.95	-	-	95.9	35.24	9.98	34.17	184	206	P	V
	*		5743	97.45	-	-	86.4	35.24	9.98	34.17	184	206	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		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 157 5785MHz		5711	60.93	-13.07	74	49.78	35.22	10.08	34.15	100	360	P	H
		5724.2	69.08	-9.22	78.3	57.97	35.23	10.03	34.15	100	360	P	H
		5710.84	47.52	-6.48	54	36.37	35.22	10.08	34.15	100	360	A	H
	*	5783	111.58	-	-	100.61	35.27	9.93	34.23	100	360	P	H
	*	5783	102.67	-	-	91.7	35.27	9.93	34.23	100	360	A	H
		5854.4	57.05	-21.25	78.3	46.06	35.32	9.98	34.31	100	360	P	H
		5869.04	57.13	-16.87	74	46.13	35.32	10.03	34.35	100	360	P	H
		5861.68	44.54	-9.46	54	33.54	35.32	10.03	34.35	100	360	A	H
		5709.08	56.81	-17.19	74	45.66	35.22	10.08	34.15	200	199	P	V
		5720.12	56.95	-21.35	78.3	45.84	35.23	10.03	34.15	200	199	P	V
		5710.84	43.74	-10.26	54	32.59	35.22	10.08	34.15	200	199	A	V
	*	5787	108.23	-	-	97.25	35.28	9.93	34.23	200	199	P	V
	*	5787	98.64	-	-	87.66	35.28	9.93	34.23	200	199	A	V
		5859.84	57.25	-21.05	78.3	46.3	35.32	9.98	34.35	200	199	P	V
		5861.6	56.3	-17.7	74	45.3	35.32	10.03	34.35	200	199	P	V
		5861.04	43.75	-10.25	54	32.75	35.32	10.03	34.35	200	199	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	111.19	-	-	100.23	35.3	9.93	34.27	100	0	P	H	
	*	5827	101.13	-	-	90.17	35.3	9.93	34.27	100	0	A	H	
		5852.96	73.05	-5.25	78.3	62.07	35.31	9.98	34.31	100	0	P	H	
		5863.92	66	-8	74	55	35.32	10.03	34.35	100	0	P	H	
		5861.12	49.19	-4.81	54	38.19	35.32	10.03	34.35	100	0	A	H	
														H
														H
														H
	*	5824	108.51	-	-	97.55	35.3	9.93	34.27	182	203	P	V	
	*	5824	99.21	-	-	88.25	35.3	9.93	34.27	182	203	A	V	
		5852.64	69.08	-9.22	78.3	58.1	35.31	9.98	34.31	182	203	P	V	
		5864.56	65.29	-8.71	74	54.29	35.32	10.03	34.35	182	203	P	V	
		5860.16	49.03	-4.97	54	38.03	35.32	10.03	34.35	182	203	A	V	
														V
														V
														V
													V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.													



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		11490	45.94	-28.06	74	50.23	38.19	14.49	56.97	100	0	P	H
		17235	50.57	-23.43	74	47.59	42.21	16.96	56.19	100	0	P	H
													H
													H
		11490	46.75	-27.25	74	51.04	38.19	14.49	56.97	100	0	P	V
		17235	50.43	-23.57	74	47.45	42.21	16.96	56.19	100	0	P	V
													V
													V
802.11a CH 157 5785MHz		11570	45.39	-28.61	74	49.34	38.3	14.53	56.78	100	0	P	H
		17355	50.45	-23.55	74	47.47	42.12	17.08	56.22	100	0	P	H
													H
													H
		11570	51.01	-22.99	74	54.96	38.3	14.53	56.78	100	0	P	V
		17355	49.73	-24.27	74	46.75	42.12	17.08	56.22	100	0	P	V
													V
													V
802.11a CH 165 5825MHz		11650	45.92	-28.08	74	49.55	38.39	14.59	56.61	100	0	P	H
		17475	49.53	-24.47	74	46.55	42.03	17.2	56.25	100	0	P	H
													H
													H
		11650	52.83	-21.17	74	56.46	38.39	14.59	56.61	100	0	P	V
		17475	50.06	-23.94	74	47.08	42.03	17.2	56.25	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



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		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)	
802.11n HT20 CH 149 5745MHz		5711.48	71.08	-2.92	74	59.93	35.22	10.08	34.15	100	360	P	H	
		5718.44	77.57	-0.73	78.3	66.46	35.23	10.03	34.15	100	360	P	H	
		5714.6	52.07	-1.93	54	40.92	35.22	10.08	34.15	100	360	A	H	
	*	5743	111	-	-	99.95	35.24	9.98	34.17	100	360	P	H	
	*	5743	71.69	-	-	60.64	35.24	9.98	34.17	100	360	A	H	
														H
														H
														H
														V
														V
														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		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 157 5785MHz		5710.84	60.98	-13.02	74	49.83	35.22	10.08	34.15	100	360	P	H
		5722.68	61.1	-17.2	78.3	49.99	35.23	10.03	34.15	100	360	P	H
		5708.92	47.39	-6.61	54	36.24	35.22	10.08	34.15	100	360	A	H
	*	5783	111.13	-	-	100.16	35.27	9.93	34.23	100	360	P	H
	*	5783	101.8	-	-	90.83	35.27	9.93	34.23	100	360	A	H
		5852.16	57.12	-21.18	78.3	46.14	35.31	9.98	34.31	100	360	P	H
		5863.12	57.12	-16.88	74	46.12	35.32	10.03	34.35	100	360	P	H
		5862.24	44.68	-9.32	54	33.68	35.32	10.03	34.35	100	360	A	H
		5703.4	57.11	-16.89	74	45.93	35.22	10.08	34.12	200	197	P	V
		5719.48	56.49	-21.81	78.3	45.38	35.23	10.03	34.15	200	197	P	V
		5713.24	43.7	-10.3	54	32.55	35.22	10.08	34.15	200	197	A	V
	*	5787	107.6	-	-	96.62	35.28	9.93	34.23	200	197	P	V
	*	5787	97.56	-	-	86.58	35.28	9.93	34.23	200	197	A	V
		5856.56	56.81	-21.49	78.3	45.82	35.32	9.98	34.31	200	197	P	V
		5861.44	56.21	-17.79	74	45.21	35.32	10.03	34.35	200	197	P	V
	5860.24	43.29	-10.71	54	32.29	35.32	10.03	34.35	200	197	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)
802.11n HT20 CH 165 5825MHz	*	5825	110.2	-	-	99.24	35.3	9.93	34.27	100	0	P	H
		5854.8	69.38	-8.92	78.3	58.39	35.32	9.98	34.31	100	0	P	H
		5863.52	65.2	-8.8	74	54.2	35.32	10.03	34.35	100	0	P	H
		5860.56	49	-5	54	38	35.32	10.03	34.35	100	0	A	H
													H
													H
													H
													H
	*	5824	107.6	-	-	96.64	35.3	9.93	34.27	182	203	P	V
	*	5824	98.27	-	-	87.31	35.3	9.93	34.27	182	203	A	V
		5852.96	68.4	-9.9	78.3	57.42	35.31	9.98	34.31	182	203	P	V
		5866.24	66.43	-7.57	74	55.43	35.32	10.03	34.35	182	203	P	V
		5860.08	48.48	-5.52	54	37.48	35.32	10.03	34.35	182	203	A	V
													V
												V	
												V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



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		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 149 5745MHz		11490	47.76	-26.24	74	52.05	38.19	14.49	56.97	100	0	P	H
		17235	49.98	-24.02	74	47	42.21	16.96	56.19	100	0	P	H
													H
													H
		11490	46.35	-27.65	74	50.64	38.19	14.49	56.97	100	0	P	V
		17235	51.28	-22.72	74	48.3	42.21	16.96	56.19	100	0	P	V
													V
802.11n HT20 CH 157 5785MHz		11570	45.55	-28.45	74	49.5	38.3	14.53	56.78	100	0	P	H
		17355	50.57	-23.43	74	47.59	42.12	17.08	56.22	100	0	P	H
													H
													H
		11570	47.68	-26.32	74	51.63	38.3	14.53	56.78	100	0	P	V
		17355	51.08	-22.92	74	48.1	42.12	17.08	56.22	100	0	P	V
													V
802.11n HT20 CH 165 5825MHz		11650	46.38	-27.62	74	50.01	38.39	14.59	56.61	100	0	P	H
		17475	50.47	-23.53	74	47.49	42.03	17.2	56.25	100	0	P	H
													H
													H
		11650	47.63	-26.37	74	51.26	38.39	14.59	56.61	100	0	P	V
		17475	49.49	-24.51	74	46.51	42.03	17.2	56.25	100	0	P	V
													V
Remark	1. No other spurious found.												
	2. All results are PASS against Peak and Average limit line.												



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		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 151 5755MHz		5713.96	73.14	-0.86	74	61.99	35.22	10.08	34.15	100	360	P	H
		5722.12	76.03	-2.27	78.3	64.92	35.23	10.03	34.15	100	360	P	H
		5714.68	53.56	-0.44	54	42.41	35.22	10.08	34.15	100	360	A	H
	*	5757	106.68	-	-	95.64	35.26	9.98	34.2	100	360	P	H
	*	5757	97.14	-	-	86.1	35.26	9.98	34.2	100	360	A	H
		5856.24	55.7	-22.6	78.3	44.71	35.32	9.98	34.31	100	360	P	H
		5875.92	55.96	-18.04	74	44.95	35.33	10.03	34.35	100	360	P	H
		5860.48	43.12	-10.88	54	32.12	35.32	10.03	34.35	100	360	A	H
		5713.88	69.71	-4.29	74	58.56	35.22	10.08	34.15	185	194	P	V
		5724.52	71.58	-6.72	78.3	60.47	35.23	10.03	34.15	185	194	P	V
		5714.76	49.3	-4.7	54	38.15	35.22	10.08	34.15	185	194	A	V
	*	5757	102.48	-	-	91.44	35.26	9.98	34.2	185	194	P	V
	*	5757	92.28	-	-	81.24	35.26	9.98	34.2	185	194	A	V
		5855.04	55.2	-23.1	78.3	44.21	35.32	9.98	34.31	185	194	P	V
		5871.52	55.41	-18.59	74	44.4	35.33	10.03	34.35	185	194	P	V
	5872.72	42.7	-11.3	54	31.69	35.33	10.03	34.35	185	194	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)
802.11n HT40 CH 159 5795MHz		5714.52	61.41	-12.59	74	50.26	35.22	10.08	34.15	110	0	P	H
		5723.08	65.45	-12.85	78.3	54.34	35.23	10.03	34.15	110	0	P	H
		5714.84	47.87	-6.13	54	36.72	35.22	10.08	34.15	110	0	A	H
	*	5797	106.59	-	-	95.66	35.28	9.88	34.23	110	0	P	H
	*	5797	97.23	-	-	86.3	35.28	9.88	34.23	110	0	A	H
		5852.24	62.07	-16.23	78.3	51.09	35.31	9.98	34.31	110	0	P	H
		5861.52	60.29	-13.71	74	49.29	35.32	10.03	34.35	110	0	P	H
		5860.48	47.17	-6.83	54	36.17	35.32	10.03	34.35	110	0	A	H
		5712.28	58.16	-15.84	74	47.01	35.22	10.08	34.15	169	204	P	V
		5723.32	61.35	-16.95	78.3	50.24	35.23	10.03	34.15	169	204	P	V
		5714.68	45.26	-8.74	54	34.11	35.22	10.08	34.15	169	204	A	V
	*	5793	104.81	-	-	93.88	35.28	9.88	34.23	169	204	P	V
	*	5793	95.06	-	-	84.13	35.28	9.88	34.23	169	204	A	V
		5851.04	60.8	-17.5	78.3	49.82	35.31	9.98	34.31	169	204	P	V
		5861.84	58.42	-15.58	74	47.42	35.32	10.03	34.35	169	204	P	V
	5860.48	45.59	-8.41	54	34.59	35.32	10.03	34.35	169	204	A	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



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		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 151 5755MHz		11510	45.2	-28.8	74	49.44	38.2	14.51	56.95	100	0	P	H
		17265	49.57	-24.43	74	46.57	42.19	17.01	56.2	100	0	P	H
													H
													H
		11510	44.97	-29.03	74	49.21	38.2	14.51	56.95	100	0	P	V
		17265	49.74	-24.26	74	46.74	42.19	17.01	56.2	100	0	P	V
													V
802.11n HT40 CH 159 5795MHz		11590	45.49	-28.51	74	49.36	38.32	14.55	56.74	100	0	P	H
		17385	50.63	-23.37	74	47.64	42.09	17.13	56.23	100	0	P	H
													H
													H
		11590	45.94	-28.06	74	49.81	38.32	14.55	56.74	100	0	P	V
		17385	50.48	-23.52	74	47.49	42.09	17.13	56.23	100	0	P	V
													V
Remark	1. No other spurious found.												
	2. All results are PASS against Peak and Average 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

- Level(dBμV/m) =
Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
- Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

- 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)
- Over Limit(dB)
= Level(dBμV/m) – Limit Line(dBμV/m)
= 55.45(dBμV/m) – 74(dBμV/m)
= -18.55(dB)

For Average Limit @ 2390MHz:

- 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)
- 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”.



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		5724.52	72.02	-1.98	74	60.91	35.23	10.03	34.15	100	4	P	H	
		5722.6	49.59	-4.41	54	38.48	35.23	10.03	34.15	100	4	A	H	
	*	5744	107.81	-	-	96.76	35.24	9.98	34.17	100	4	P	H	
	*	5744	98.53	-	-	87.48	35.24	9.98	34.17	100	4	A	H	
													H	
													H	
													H	
													H	
													V	
													V	
													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		5708.92	58.33	-15.67	74	47.18	35.22	10.08	34.15	100	0	P	H	
		5709.64	45.28	-8.72	54	34.13	35.22	10.08	34.15	100	0	A	H	
	*	5784	107.36	-	-	96.39	35.27	9.93	34.23	100	0	P	H	
	*	5784	98.05	-	-	87.08	35.27	9.93	34.23	100	0	A	H	
		5862.96	56.5	-17.5	74	45.5	35.32	10.03	34.35	100	0	P	H	
		5861.28	43.14	-10.86	54	32.14	35.32	10.03	34.35	100	0	A	H	
														H
														H
			5704.76	55.87	-18.13	74	44.72	35.22	10.08	34.15	152	188	P	V
			5718.28	42.8	-11.2	54	31.69	35.23	10.03	34.15	152	188	A	V
	*		5789	104.3	-	-	93.37	35.28	9.88	34.23	152	188	P	V
	*		5789	94.85	-	-	83.92	35.28	9.88	34.23	152	188	A	V
			5888	56.21	-17.79	74	45.17	35.34	10.09	34.39	152	188	P	V
			5862.24	43.1	-10.9	54	32.1	35.32	10.03	34.35	152	188	A	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 165 5825MHz	*	5824	106.24	-	-	95.28	35.3	9.93	34.27	100	357	P	H
	*	5824	96.15	-	-	85.19	35.3	9.93	34.27	100	357	A	H
		5850.56	61.02	-12.98	74	50.04	35.31	9.98	34.31	100	357	P	H
		5850.16	45.87	-8.13	54	34.89	35.31	9.98	34.31	100	357	A	H
													H
													H
													H
													H
	*	5822	104.13	-	-	93.17	35.3	9.93	34.27	198	190	P	V
	*	5822	94.84	-	-	83.88	35.3	9.93	34.27	198	190	A	V
		5850.56	59.92	-14.08	74	48.94	35.31	9.98	34.31	198	190	P	V
		5850.8	45.51	-8.49	54	34.53	35.31	9.98	34.31	198	190	A	V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



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		11490	45.89	-28.11	74	50.18	38.19	14.49	56.97	100	0	P	H
		17325	50.24	-23.76	74	47.24	42.15	17.06	56.21	100	0	P	H
													H
													H
		11490	45.47	-28.53	74	49.76	38.19	14.49	56.97	100	0	P	V
		17325	49.02	-24.98	74	46.02	42.15	17.06	56.21	100	0	P	V
													V
802.11n HT20 CH 157 5785MHz		11571	44.77	-29.23	74	48.72	38.3	14.53	56.78	100	0	P	H
		17355	49.98	-24.02	74	47	42.12	17.08	56.22	100	0	P	H
													H
													H
		11571	45.56	-28.44	74	49.51	38.3	14.53	56.78	100	0	P	V
		17355	49.6	-24.4	74	46.62	42.12	17.08	56.22	100	0	P	V
													V
802.11n HT20 CH 165 5825MHz		11649	46.65	-27.35	74	50.28	38.39	14.59	56.61	100	0	P	H
		17475	50.12	-23.88	74	47.14	42.03	17.2	56.25	100	0	P	H
													H
													H
		11649	46.34	-27.66	74	49.97	38.39	14.59	56.61	100	0	P	V
		17475	49.95	-24.05	74	46.97	42.03	17.2	56.25	100	0	P	V
													V
Remark	1. No other spurious found.												
	2. All results are PASS against Peak and Average limit line.												



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		5711	66.76	-7.24	74	55.61	35.22	10.08	34.15	100	183	P	H
		5723.16	70.79	-7.51	78.3	59.68	35.23	10.03	34.15	100	183	P	H
		5714.92	47.39	-6.61	54	36.24	35.22	10.08	34.15	100	183	A	H
	*	5757	103.37	-	-	92.33	35.26	9.98	34.2	100	183	P	H
	*	5757	93.45	-	-	82.41	35.26	9.98	34.2	100	183	A	H
		5852.8	56.23	-22.07	78.3	45.25	35.31	9.98	34.31	100	183	P	H
		5863.44	56.89	-17.11	74	45.89	35.32	10.03	34.35	100	183	P	H
		5860.08	44.38	-9.62	54	33.38	35.32	10.03	34.35	100	183	A	H
		5712.84	63.18	-10.82	74	52.03	35.22	10.08	34.15	124	15	P	V
		5723.24	67.14	-11.16	78.3	56.03	35.23	10.03	34.15	124	15	P	V
		5714.52	45.22	-8.78	54	34.07	35.22	10.08	34.15	124	15	A	V
	*	5757	100.38	-	-	89.34	35.26	9.98	34.2	124	15	P	V
	*	5757	90.18	-	-	79.14	35.26	9.98	34.2	124	15	A	V
		5852.8	55.27	-23.03	78.3	44.29	35.31	9.98	34.31	124	15	P	V
		5878.24	54.97	-19.03	74	43.96	35.33	10.03	34.35	124	15	P	V
	5861.04	43.44	-10.56	54	32.44	35.32	10.03	34.35	124	15	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		5693.64	57.65	-16.35	74	46.48	35.21	10.08	34.12	100	189	P	H
		5715.4	56.45	-21.85	78.3	45.3	35.22	10.08	34.15	100	189	P	H
		5692.68	44.5	-9.5	54	33.33	35.21	10.08	34.12	100	189	A	H
	*	5797	104.27	-	-	93.34	35.28	9.88	34.23	100	189	P	H
	*	5797	93.58	-	-	82.65	35.28	9.88	34.23	100	189	A	H
		5852.32	59.4	-18.9	78.3	48.42	35.31	9.98	34.31	100	189	P	H
		5861.76	57.71	-16.29	74	46.71	35.32	10.03	34.35	100	189	P	H
		5862.88	45.2	-8.8	54	34.2	35.32	10.03	34.35	100	189	A	H
		5693.8	56.01	-17.99	74	44.84	35.21	10.08	34.12	124	15	P	V
		5724.36	56.17	-22.13	78.3	45.06	35.23	10.03	34.15	124	15	P	V
		5714.68	43.06	-10.94	54	31.91	35.22	10.08	34.15	124	15	A	V
	*	5793	100.81	-	-	89.88	35.28	9.88	34.23	124	15	P	V
	*	5793	90.7	-	-	79.77	35.28	9.88	34.23	124	15	A	V
		5850.4	56.59	-21.71	78.3	45.61	35.31	9.98	34.31	124	15	P	V
		5866.16	56.56	-17.44	74	45.56	35.32	10.03	34.35	124	15	P	V
	5872.08	43.81	-10.19	54	32.8	35.33	10.03	34.35	124	15	A	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



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		11511	47.04	-26.96	74	51.28	38.2	14.51	56.95	100	0	P	H
		17265	49.45	-24.55	74	46.45	42.19	17.01	56.2	100	0	P	H
													H
													H
		11511	46.44	-27.56	74	50.68	38.2	14.51	56.95	100	0	P	V
		17265	49.54	-24.46	74	46.54	42.19	17.01	56.2	100	0	P	V
													V
802.11n HT40 CH 159 5795MHz		11589	45.71	-28.29	74	49.58	38.32	14.55	56.74	100	0	P	H
		17385	49.98	-24.02	74	46.99	42.09	17.13	56.23	100	0	P	H
													H
													H
		11589	46.51	-27.49	74	50.38	38.32	14.55	56.74	100	0	P	V
		17385	48.89	-25.11	74	45.9	42.09	17.13	56.23	100	0	P	V
													V
Remark	1. No other spurious found.												
	2. All results are PASS against Peak and Average 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

- Level(dBμV/m) =
Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
- Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

- 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)
- Over Limit(dB)
= Level(dBμV/m) – Limit Line(dBμV/m)
= 55.45(dBμV/m) – 74(dBμV/m)
= -18.55(dB)

For Average Limit @ 2390MHz:

- 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)
- 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”.