



Appendix B. Radiated Spurious Emission

Test Engineer :	Derreck Chen and Jesse Wang	Temperature :	22~23°C
		Relative Humidity :	45~47%

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		5713.8	63.08	-10.92	74	55.04	32.29	33.64	9.39	100	180	P	H
		5724.84	72.59	-5.71	78.3	64.48	32.31	33.64	9.44	100	180	P	H
		5713.8	52.75	-1.25	54	44.71	32.29	33.64	9.39	100	180	A	H
	*	5741	108.46	-	-	100.33	32.34	33.65	9.44	100	180	P	H
	*	5741	101.09	-	-	92.96	32.34	33.65	9.44	100	180	A	H
													H
													H
													H
		5701.96	56.11	-17.89	74	48.06	32.29	33.63	9.39	104	80	P	V
		5723.24	66.5	-11.8	78.3	58.39	32.31	33.64	9.44	104	80	P	V
		5714.44	46.61	-7.39	54	38.57	32.29	33.64	9.39	104	80	A	V
	*	5741	102.17	-	-	94.04	32.34	33.65	9.44	104	80	P	V
	*	5741	95.26	-	-	87.13	32.34	33.65	9.44	104	80	A	V
													V
													V
													V



WIFI Ant. 1	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)
802.11a CH 157 5785MHz		5698.04	52	-22	74	43.97	32.27	33.63	9.39	100	172	P	H
		5724.92	53.12	-25.18	78.3	45.01	32.31	33.64	9.44	100	172	P	H
		5704.84	44.3	-9.7	54	36.26	32.29	33.64	9.39	100	172	A	H
	*	5785	108.12	-	-	99.9	32.39	33.66	9.49	100	172	P	H
	*	5785	101.37	-	-	93.15	32.39	33.66	9.49	100	172	A	H
		5853.52	52.85	-25.45	78.3	44.48	32.51	33.68	9.54	100	172	P	H
		5860.24	52	-22	74	43.64	32.51	33.69	9.54	100	172	P	H
		5865.04	43.75	-10.25	54	35.39	32.51	33.69	9.54	100	172	A	H
		5690.92	49.96	-24.04	74	41.93	32.27	33.63	9.39	100	78	P	V
		5724.6	49.89	-28.41	78.3	41.78	32.31	33.64	9.44	100	78	P	V
		5705	41.7	-12.3	54	33.66	32.29	33.64	9.39	100	78	A	V
	*	5789	102.97	-	-	94.73	32.41	33.66	9.49	100	78	P	V
	*	5789	95.74	-	-	87.5	32.41	33.66	9.49	100	78	A	V
		5856.64	50.7	-27.6	78.3	42.33	32.51	33.68	9.54	100	78	P	V
		5867.76	49.96	-24.04	74	41.6	32.51	33.69	9.54	100	78	P	V
		5864.96	41.84	-12.16	54	33.48	32.51	33.69	9.54	100	78	A	V



WIFI Ant. 1	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)
802.11a CH 165 5825MHz	*	5822	109.75	-	-	101.44	32.46	33.67	9.52	254	142	P	H
	*	5822	102.13	-	-	93.82	32.46	33.67	9.52	254	142	A	H
		5850.8	65.48	-12.82	78.3	57.14	32.48	33.68	9.54	254	142	P	H
		5864.32	61.49	-12.51	74	53.13	32.51	33.69	9.54	254	142	P	H
		5861.52	49.61	-4.39	54	41.25	32.51	33.69	9.54	254	142	A	H
													H
													H
													H
	*	5823	102.62	-	-	94.31	32.46	33.67	9.52	116	78	P	V
	*	5823	96	-	-	87.69	32.46	33.67	9.52	116	78	A	V
		5851.44	59.38	-18.92	78.3	51.04	32.48	33.68	9.54	116	78	P	V
		5864.32	54.53	-19.47	74	46.17	32.51	33.69	9.54	116	78	P	V
		5862.8	45.26	-8.74	54	36.9	32.51	33.69	9.54	116	78	A	V
													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 Ant. 1	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)
802.11a CH 149 5745MHz		11490	46.84	-27.16	74	27.59	40.01	34.71	13.95	100	0	P	H
		17235	50.1	-23.9	74	27.72	41.41	35.98	16.95	100	0	P	H
													H
													H
		11490	46.9	-27.1	74	27.65	40.01	34.71	13.95	100	0	P	V
		17235	50.11	-23.89	74	27.73	41.41	35.98	16.95	100	0	P	V
													V
													V
802.11a CH 157 5785MHz		11570	47.29	-26.71	74	28.17	39.89	34.77	14	100	0	P	H
		17355	50.05	-23.95	74	27.33	41.67	35.98	17.03	100	0	P	H
													H
													H
		11570	46.77	-27.23	74	27.65	39.89	34.77	14	100	0	P	V
		17355	50.61	-23.39	74	27.89	41.67	35.98	17.03	100	0	P	V
													V
													V
802.11a CH 165 5825MHz		11650	46.83	-27.17	74	27.81	39.78	34.81	14.05	100	0	P	H
		17475	50.77	-23.23	74	27.73	41.93	35.99	17.1	100	0	P	H
													H
													H
		11650	46.75	-27.25	74	27.73	39.78	34.81	14.05	100	0	P	V
		17475	50.66	-23.34	74	27.62	41.93	35.99	17.1	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 Ant. 1	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)
802.11n HT20 CH 149 5745MHz		5715	59.49	-14.51	74	51.45	32.29	33.64	9.39	100	180	P	H
		5721.88	63.62	-14.68	78.3	55.51	32.31	33.64	9.44	100	180	P	H
		5714.04	49.02	-4.98	54	40.98	32.29	33.64	9.39	100	180	A	H
	*	5742	105.06	-	-	96.93	32.34	33.65	9.44	100	180	P	H
	*	5742	98.4	-	-	90.27	32.34	33.65	9.44	100	180	A	H
		5853.84	50.58	-27.72	78.3	42.21	32.51	33.68	9.54	100	180	P	H
		5870.96	49.9	-24.1	74	41.52	32.53	33.69	9.54	100	180	P	H
		5860.64	41.72	-12.28	54	33.36	32.51	33.69	9.54	100	180	A	H
		5713.64	53.99	-20.01	74	45.95	32.29	33.64	9.39	366	111	P	V
		5723.24	58.25	-20.05	78.3	50.14	32.31	33.64	9.44	366	111	P	V
		5714.44	44.67	-9.33	54	36.63	32.29	33.64	9.39	366	111	A	V
	*	5742	101	-	-	92.87	32.34	33.65	9.44	366	111	P	V
	*	5742	94.7	-	-	86.57	32.34	33.65	9.44	366	111	A	V
		5856.56	50.67	-27.63	78.3	42.3	32.51	33.68	9.54	366	111	P	V
		5866.08	50.15	-23.85	74	41.79	32.51	33.69	9.54	366	111	P	V
		5880.88	40.88	-13.12	54	32.5	32.53	33.69	9.54	366	111	A	V



WIFI Ant. 1	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)
802.11n HT20 CH 165 5825MHz		5692.76	52.8	-21.2	74	44.77	32.27	33.63	9.39	101	140	P	H
		5724.04	52	-26.3	78.3	43.89	32.31	33.64	9.44	101	140	P	H
		5707.56	43.13	-10.87	54	35.09	32.29	33.64	9.39	101	140	A	H
	*	5827	105.62	-	-	97.31	32.46	33.67	9.52	101	140	P	H
	*	5827	99.76	-	-	91.45	32.46	33.67	9.52	101	140	A	H
		5852.72	59.92	-18.38	78.3	51.58	32.48	33.68	9.54	101	140	P	H
		5866.56	56.08	-17.92	74	47.72	32.51	33.69	9.54	101	140	P	H
		5860.32	47.91	-6.09	54	39.55	32.51	33.69	9.54	101	140	A	H
		5712.44	49.84	-24.16	74	41.8	32.29	33.64	9.39	118	75	P	V
		5721.16	49.66	-28.64	78.3	41.6	32.31	33.64	9.39	118	75	P	V
		5712.12	40.6	-13.4	54	32.56	32.29	33.64	9.39	118	75	A	V
	*	5829	100.55	-	-	92.24	32.46	33.67	9.52	118	75	P	V
	*	5829	94.47	-	-	86.16	32.46	33.67	9.52	118	75	A	V
		5850.48	55.23	-23.07	78.3	46.89	32.48	33.68	9.54	118	75	P	V
		5863.52	52.4	-21.6	74	44.04	32.51	33.69	9.54	118	75	P	V
		5860.16	44.21	-9.79	54	35.85	32.51	33.69	9.54	118	75	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 HT20 (Harmonic @ 3m)

WIFI Ant. 1	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)
802.11n HT20 CH 149 5745MHz		11490	46.62	-27.38	74	27.37	40.01	34.71	13.95	100	0	P	H
		17235	49.94	-24.06	74	27.56	41.41	35.98	16.95	100	0	P	H
													H
													H
		11490	45.91	-28.09	74	26.66	40.01	34.71	13.95	100	0	P	V
		17235	50.28	-23.72	74	27.9	41.41	35.98	16.95	100	0	P	V
													V
													V
802.11n HT20 CH 157 5785MHz													H
													H
													H
													H
													V
													V
													V
													V
802.11n HT20 CH 165 5825MHz		11650	46.71	-27.29	74	27.69	39.78	34.81	14.05	100	0	P	H
		17475	50.29	-23.71	74	27.25	41.93	35.99	17.1	100	0	P	H
													H
													H
		11650	46.06	-27.94	74	27.04	39.78	34.81	14.05	100	0	P	V
		17475	50.11	-23.89	74	27.07	41.93	35.99	17.1	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 HT40 (Band Edge @ 3m)**

WIFI Ant. 1	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)
802.11n HT40 CH 151 5755MHz		5711.8	63.82	-10.18	74	55.78	32.29	33.64	9.39	100	142	P	H
		5717.08	66.18	-12.12	78.3	58.14	32.29	33.64	9.39	100	142	P	H
		5714.2	51.72	-2.28	54	43.68	32.29	33.64	9.39	100	142	A	H
	*	5755	102.57	-	-	94.42	32.36	33.65	9.44	100	142	P	H
	*	5755	96.06	-	-	87.91	32.36	33.65	9.44	100	142	A	H
		5857.84	52.65	-25.65	78.3	44.29	32.51	33.69	9.54	100	142	P	H
		5861.2	50.71	-23.29	74	42.35	32.51	33.69	9.54	100	142	P	H
		5861.36	43.04	-10.96	54	34.68	32.51	33.69	9.54	100	142	A	H
		5708.76	56.25	-17.75	74	48.21	32.29	33.64	9.39	100	79	P	V
		5720.36	57.61	-20.69	78.3	49.55	32.31	33.64	9.39	100	79	P	V
		5711.88	46.65	-7.35	54	38.61	32.29	33.64	9.39	100	79	A	V
	*	5755	96.65	-	-	88.5	32.36	33.65	9.44	100	79	P	V
	*	5755	89.47	-	-	81.32	32.36	33.65	9.44	100	79	A	V
		5855.84	50.21	-28.09	78.3	41.84	32.51	33.68	9.54	100	79	P	V
		5883.04	50.38	-23.62	74	41.97	32.53	33.69	9.57	100	79	P	V
		5885.2	41.59	-12.41	54	33.19	32.53	33.7	9.57	100	79	A	V



WIFI Ant. 1	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)
802.11n HT40 CH 159 5795MHz		5713.56	53.75	-20.25	74	45.71	32.29	33.64	9.39	100	172	P	H
		5719.64	54.29	-24.01	78.3	46.23	32.31	33.64	9.39	100	172	P	H
		5712.36	45.5	-8.5	54	37.46	32.29	33.64	9.39	100	172	A	H
	*	5795	102.32	-	-	94.08	32.41	33.66	9.49	100	172	P	H
	*	5795	95.78	-	-	87.54	32.41	33.66	9.49	100	172	A	H
		5854.96	55.77	-22.53	78.3	47.4	32.51	33.68	9.54	100	172	P	H
		5862.08	53.65	-20.35	74	45.29	32.51	33.69	9.54	100	172	P	H
		5861.68	45.67	-8.33	54	37.31	32.51	33.69	9.54	100	172	A	H
		5714.36	50.74	-23.26	74	42.7	32.29	33.64	9.39	100	79	P	V
		5718.76	50.99	-27.31	78.3	42.93	32.31	33.64	9.39	100	79	P	V
		5714.92	42.46	-11.54	54	34.42	32.29	33.64	9.39	100	79	A	V
	*	5795	96.7	-	-	88.46	32.41	33.66	9.49	100	79	P	V
	*	5795	90.08	-	-	81.84	32.41	33.66	9.49	100	79	A	V
		5851.28	55.38	-22.92	78.3	47.04	32.48	33.68	9.54	100	79	P	V
		5864.8	52.49	-21.51	74	44.13	32.51	33.69	9.54	100	79	P	V
		5866.96	42.53	-11.47	54	34.17	32.51	33.69	9.54	100	79	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 Ant. 1	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)
802.11n HT40 CH 151 5755MHz		11510	46.4	-27.6	74	27.18	40	34.73	13.95	100	0	P	H
		17265	50.69	-23.31	74	28.23	41.49	35.98	16.95	100	0	P	H
													H
													H
		11510	47.04	-26.96	74	27.82	40	34.73	13.95	100	0	P	V
		17265	50.98	-23.02	74	28.52	41.49	35.98	16.95	100	0	P	V
													V
													V
802.11n HT40 CH 159 5795MHz		11590	46.28	-27.72	74	27.19	39.86	34.77	14	100	0	P	H
		17385	50.86	-23.14	74	28.08	41.74	35.99	17.03	100	0	P	H
													H
													H
		11590	46.91	-27.09	74	27.82	39.86	34.77	14	100	0	P	V
		17385	50.49	-23.51	74	27.71	41.74	35.99	17.03	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

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		72.12	12.03	-27.97	40	37.37	5.41	31.79	1.04			P	H
		130.98	13.03	-30.47	43.5	31.83	11.52	31.78	1.46			P	H
		236.28	13.4	-32.6	46	33.13	10.25	31.77	1.79			P	H
		360.2	14.35	-31.65	46	29.26	14.7	31.78	2.17			P	H
		596.1	20.44	-25.56	46	31.14	18.44	32.03	2.89			P	H
		864.9	21.35	-24.65	46	29.41	20.1	31.6	3.44	121	47	P	H
													H
													H
													H
													H
													H
													H
		45.12	13.09	-26.91	40	34.02	9.84	31.81	1.04			P	V
		104.52	12.33	-31.17	43.5	32.01	10.82	31.78	1.28			P	V
		230.88	10.56	-35.44	46	30.93	9.61	31.77	1.79			P	V
		300	24.48	-21.52	46	41.13	13	31.76	2.11	100	201	P	V
		618.5	20.09	-25.91	46	30.2	18.97	32.04	2.96			P	V
		960.1	28.5	-25.5	54	35.38	20.4	30.96	3.68			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.
!	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”.



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.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 149 5745MHz		5712.6	61.76	-12.24	74	53.72	32.29	33.64	9.39	100	176	P	H
		5724.28	68.41	-9.89	78.3	60.3	32.31	33.64	9.44	100	176	P	H
		5714.76	52.47	-1.53	54	44.43	32.29	33.64	9.39	100	176	A	H
	*	5749	108.86	-	-	100.73	32.34	33.65	9.44	100	176	P	H
	*	5749	102.13	-	-	94	32.34	33.65	9.44	100	176	A	H
													H
													H
													H
		5714.12	52.52	-21.48	74	44.48	32.29	33.64	9.39	352	63	P	V
		5724.76	59.7	-18.6	78.3	51.59	32.31	33.64	9.44	352	63	P	V
		5715	42.81	-11.19	54	34.77	32.29	33.64	9.39	352	63	A	V
	*	5748	99.34	-	-	91.21	32.34	33.65	9.44	352	63	P	V
	*	5748	92.19	-	-	84.06	32.34	33.65	9.44	352	63	A	V
													V
													V
													V



WIFI Ant. 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)
802.11a CH 157 5785MHz		5712.2	56.12	-17.88	74	48.08	32.29	33.64	9.39	221	182	P	H
		5725	64.51	-13.79	78.3	56.4	32.31	33.64	9.44	221	182	P	H
		5714.52	46.55	-7.45	54	38.51	32.29	33.64	9.39	221	182	A	H
	*	5785	109.86	-	-	101.64	32.39	33.66	9.49	221	182	P	H
	*	5785	103.17	-	-	94.95	32.39	33.66	9.49	221	182	A	H
		5850.64	55.14	-23.16	78.3	46.8	32.48	33.68	9.54	221	182	P	H
		5860.32	54.11	-19.89	74	45.75	32.51	33.69	9.54	221	182	P	H
		5861.92	45.01	-8.99	54	36.65	32.51	33.69	9.54	221	182	A	H
		5713.32	49.86	-24.14	74	41.82	32.29	33.64	9.39	100	240	P	V
		5719.4	49.63	-28.67	78.3	41.57	32.31	33.64	9.39	100	240	P	V
		5714.2	40.93	-13.07	54	32.89	32.29	33.64	9.39	100	240	A	V
	*	5780	96.66	-	-	88.43	32.39	33.65	9.49	100	240	P	V
	*	5780	90.5	-	-	82.27	32.39	33.65	9.49	100	240	A	V
		5850.8	48.86	-29.44	78.3	40.52	32.48	33.68	9.54	100	240	P	V
		5865.52	52.01	-21.99	74	43.65	32.51	33.69	9.54	100	240	P	V
		5869.04	40.94	-13.06	54	32.58	32.51	33.69	9.54	100	240	A	V



WIFI Ant. 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)
802.11a CH 165 5825MHz	*	5825	109.76	-	-	101.45	32.46	33.67	9.52	222	173	P	H
	*	5825	102.9	-	-	94.59	32.46	33.67	9.52	222	173	A	H
		5853.28	70.91	-7.39	78.3	62.57	32.48	33.68	9.54	222	173	P	H
		5860.24	62.91	-11.09	74	54.55	32.51	33.69	9.54	222	173	P	H
		5860.48	52.17	-1.83	54	43.81	32.51	33.69	9.54	222	173	A	H
													H
													H
													H
	*	5825	93.04	-	-	84.73	32.46	33.67	9.52	318	94	A	V
	*	5827	98.63	-	-	90.32	32.46	33.67	9.52	318	94	P	V
		5851.6	55.98	-22.32	78.3	47.64	32.48	33.68	9.54	318	94	P	V
		5866.64	52.42	-21.58	74	44.06	32.51	33.69	9.54	318	94	P	V
		5860	44.23	-9.77	54	35.87	32.51	33.69	9.54	318	94	A	V
													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 Ant. 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)
802.11a CH 149 5745MHz		11490	46.34	-27.66	74	27.09	40.01	34.71	13.95	100	0	P	H
		17235	50.79	-23.21	74	28.41	41.41	35.98	16.95	100	0	P	H
													H
													H
		11490	46.33	-27.67	74	27.08	40.01	34.71	13.95	100	0	P	V
		17235	50.47	-23.53	74	28.09	41.41	35.98	16.95	100	0	P	V
													V
													V
802.11a CH 157 5785MHz		11570	48.81	-25.19	74	29.69	39.89	34.77	14	100	0	P	H
		17355	50.7	-23.3	74	27.98	41.67	35.98	17.03	100	0	P	H
													H
													H
		11570	47.23	-26.77	74	28.11	39.89	34.77	14	100	0	P	V
		17355	50.44	-23.56	74	27.72	41.67	35.98	17.03	100	0	P	V
													V
													V
802.11a CH 165 5825MHz		11650	46.94	-27.06	74	27.92	39.78	34.81	14.05	100	0	P	H
		17475	50.17	-23.83	74	27.13	41.93	35.99	17.1	100	0	P	H
													H
													H
		11650	46.84	-27.16	74	27.82	39.78	34.81	14.05	100	0	P	V
		17475	50.2	-23.8	74	27.16	41.93	35.99	17.1	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 Ant. 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)
802.11n HT20 CH 149 5745MHz		5712.68	63.51	-10.49	74	55.47	32.29	33.64	9.39	226	171	P	H
		5722.28	67.44	-10.86	78.3	59.33	32.31	33.64	9.44	226	171	P	H
		5714.76	53.1	-0.9	54	45.06	32.29	33.64	9.39	226	171	A	H
	*	5741	108.77	-	-	100.64	32.34	33.65	9.44	226	171	P	H
	*	5741	102.09	-	-	93.96	32.34	33.65	9.44	226	171	A	H
		5856.32	52.51	-25.79	78.3	44.14	32.51	33.68	9.54	226	171	P	H
		5864.4	51.67	-22.33	74	43.31	32.51	33.69	9.54	226	171	P	H
		5862.56	43.07	-10.93	54	34.71	32.51	33.69	9.54	226	171	A	H
		5714.28	54.82	-19.18	74	46.78	32.29	33.64	9.39	311	98	P	V
		5724.2	59.8	-18.5	78.3	51.69	32.31	33.64	9.44	311	98	P	V
		5713.56	44.5	-9.5	54	36.46	32.29	33.64	9.39	311	98	A	V
	*	5749	99.78	-	-	91.65	32.34	33.65	9.44	311	98	P	V
	*	5749	92.56	-	-	84.43	32.34	33.65	9.44	311	98	A	V
		5854.72	49.88	-28.42	78.3	41.51	32.51	33.68	9.54	311	98	P	V
		5881.04	49.63	-24.37	74	41.25	32.53	33.69	9.54	311	98	P	V
		5889.04	41.11	-12.89	54	32.68	32.56	33.7	9.57	311	98	A	V



WIFI Ant. 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)
802.11n HT20 CH 165 5825MHz		5713.64	53.87	-20.13	74	45.83	32.29	33.64	9.39	225	170	P	H
		5717.64	53.25	-25.05	78.3	45.19	32.31	33.64	9.39	225	170	P	H
		5714.2	44.41	-9.59	54	36.37	32.29	33.64	9.39	225	170	A	H
	*	5823	108.48	-	-	100.17	32.46	33.67	9.52	225	170	P	H
	*	5823	101.57	-	-	93.26	32.46	33.67	9.52	225	170	A	H
		5851.28	64.59	-13.71	78.3	56.25	32.48	33.68	9.54	225	170	P	H
		5866.16	60.22	-13.78	74	51.86	32.51	33.69	9.54	225	170	P	H
		5860	50.99	-3.01	54	42.63	32.51	33.69	9.54	225	170	A	H
		5701.24	49.16	-24.84	74	41.11	32.29	33.63	9.39	351	92	P	V
		5720.76	50.5	-27.8	78.3	42.44	32.31	33.64	9.39	351	92	P	V
		5712.2	40.61	-13.39	54	32.57	32.29	33.64	9.39	351	92	A	V
	*	5828	97.06	-	-	88.75	32.46	33.67	9.52	351	92	P	V
	*	5828	90.84	-	-	82.53	32.46	33.67	9.52	351	92	A	V
		5851.2	56.31	-21.99	78.3	47.97	32.48	33.68	9.54	351	92	P	V
		5865.36	51.74	-22.26	74	43.38	32.51	33.69	9.54	351	92	P	V
		5860.16	43.2	-10.8	54	34.84	32.51	33.69	9.54	351	92	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 HT20 (Harmonic @ 3m)

WIFI Ant. 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)
802.11n HT20 CH 149 5745MHz		11490	46.57	-27.43	74	27.32	40.01	34.71	13.95	100	0	P	H
		17232	51.15	-22.85	74	28.79	41.41	35.98	16.93	100	0	P	H
													H
													H
		11490	47.14	-26.86	74	27.89	40.01	34.71	13.95	100	0	P	V
		17232	51.87	-22.13	74	29.51	41.41	35.98	16.93	100	0	P	V
													V
													V
802.11n HT20 CH 157 5785MHz													H
													H
													H
													H
													V
													V
													V
													V
802.11n HT20 CH 165 5825MHz		11650	46.94	-27.06	74	27.92	39.78	34.81	14.05	100	0	P	H
		17472	50.17	-23.83	74	27.15	41.93	35.99	17.08	100	0	P	H
													H
													H
		11650	46.84	-27.16	74	27.82	39.78	34.81	14.05	100	0	P	V
		17472	50.2	-23.8	74	27.18	41.93	35.99	17.08	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 HT40 (Band Edge @ 3m)

WIFI Ant. 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)
802.11n HT40 CH 151 5755MHz		5708.44	63.29	-10.71	74	55.25	32.29	33.64	9.39	225	170	P	H
		5718.04	70.47	-7.83	78.3	62.41	32.31	33.64	9.39	225	170	P	H
		5712.84	53.5	-0.5	54	45.46	32.29	33.64	9.39	225	170	A	H
	*	5750	103.35	-	-	95.22	32.34	33.65	9.44	225	170	P	H
	*	5750	97	-	-	88.87	32.34	33.65	9.44	225	170	A	H
		5856.96	54.36	-23.94	78.3	45.99	32.51	33.68	9.54	225	170	P	H
		5867.68	52.53	-21.47	74	44.17	32.51	33.69	9.54	225	170	P	H
		5860.08	44.54	-9.46	54	36.18	32.51	33.69	9.54	225	170	A	H
		5711.72	49.38	-24.62	74	41.34	32.29	33.64	9.39	128	240	P	V
		5716.28	52.13	-26.17	78.3	44.09	32.29	33.64	9.39	128	240	P	V
		5712.76	41.79	-12.21	54	33.75	32.29	33.64	9.39	128	240	A	V
	*	5762	87.95	-	-	79.75	32.36	33.65	9.49	128	240	P	V
	*	5762	80.96	-	-	72.76	32.36	33.65	9.49	128	240	A	V
		5850.56	49.05	-29.25	78.3	40.71	32.48	33.68	9.54	128	240	P	V
		5874.24	50.71	-23.29	74	42.33	32.53	33.69	9.54	128	240	P	V
		5883.04	40.94	-13.06	54	32.53	32.53	33.69	9.57	128	240	A	V



WIFI Ant. 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)
802.11n HT40 CH 159 5795MHz		5695.48	58.83	-15.17	74	50.8	32.27	33.63	9.39	226	170	P	H
		5720.68	60	-18.3	78.3	51.94	32.31	33.64	9.39	226	170	P	H
		5713.96	49.88	-4.12	54	41.84	32.29	33.64	9.39	226	170	A	H
	*	5801	104.93	-	-	96.69	32.41	33.66	9.49	226	170	P	H
	*	5801	98.48	-	-	90.24	32.41	33.66	9.49	226	170	A	H
		5854.48	62.22	-16.08	78.3	53.85	32.51	33.68	9.54	226	170	P	H
		5863.04	61.58	-12.42	74	53.22	32.51	33.69	9.54	226	170	P	H
		5860	51.93	-2.07	54	43.57	32.51	33.69	9.54	226	170	A	H
		5709.88	50.73	-23.27	74	42.69	32.29	33.64	9.39	321	94	P	V
		5720.52	51.25	-27.05	78.3	43.19	32.31	33.64	9.39	321	94	P	V
		5713.96	42.53	-11.47	54	34.49	32.29	33.64	9.39	321	94	A	V
	*	5789	95.58	-	-	87.34	32.41	33.66	9.49	321	94	P	V
	*	5789	89.04	-	-	80.8	32.41	33.66	9.49	321	94	A	V
		5850.72	53.9	-24.4	78.3	45.56	32.48	33.68	9.54	321	94	P	V
		5860.08	52.55	-21.45	74	44.19	32.51	33.69	9.54	321	94	P	V
		5860.32	44.09	-9.91	54	35.73	32.51	33.69	9.54	321	94	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 Ant. 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)
802.11n HT40 CH 151 5755MHz		11510	47.75	-26.25	74	28.53	40	34.73	13.95	100	0	P	H
		17268	50.27	-23.73	74	27.81	41.49	35.98	16.95	100	0	P	H
													H
													H
		11510	46.56	-27.44	74	27.34	40	34.73	13.95	100	0	P	V
		17268	52.16	-21.84	74	29.7	41.49	35.98	16.95	100	0	P	V
													V
													V
802.11n HT40 CH 159 5795MHz		11590	47.5	-26.5	74	28.41	39.86	34.77	14	100	0	P	H
		17388	51.65	-22.35	74	28.87	41.74	35.99	17.03	100	0	P	H
													H
													H
		11590	47.39	-26.61	74	28.3	39.86	34.77	14	100	0	P	V
		17388	50.46	-23.54	74	27.68	41.74	35.99	17.03	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

5GHz WIFI 802.11n HT40 (LF @ 3m)

[illegible]



Note symbol

*	Fundamental Frequency which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	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.	
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”.



Band 4 5725~5850MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

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)
802.11n HT20 CH 149 5745MHz		5714.28	62.6	-11.4	74	54.56	32.29	33.64	9.39	215	173	P	H
		5723.96	70.73	-7.57	78.3	62.62	32.31	33.64	9.44	215	173	P	H
		5714.68	53.74	-0.26	54	45.7	32.29	33.64	9.39	215	173	A	H
	*	5742	110.75	-	-	102.62	32.34	33.65	9.44	215	173	P	H
	*	5742	104.32	-	-	96.19	32.34	33.65	9.44	215	173	A	H
		5856.96	52.72	-25.58	78.3	44.35	32.51	33.68	9.54	215	173	P	H
		5872.96	53.16	-20.84	74	44.78	32.53	33.69	9.54	215	173	P	H
		5861.44	44.48	-9.52	54	36.12	32.51	33.69	9.54	215	173	A	H
		5706.92	50.54	-23.46	74	42.5	32.29	33.64	9.39	100	157	P	V
		5723.8	53.77	-24.53	78.3	45.66	32.31	33.64	9.44	100	157	P	V
		5712.12	42.12	-11.88	54	34.08	32.29	33.64	9.39	100	157	A	V
	*	5742	95.44	-	-	87.31	32.34	33.65	9.44	100	157	P	V
	*	5742	88.57	-	-	80.44	32.34	33.65	9.44	100	157	A	V
		5857.76	49.18	-29.12	78.3	40.82	32.51	33.69	9.54	100	157	P	V
		5882.16	49.1	-24.9	74	40.69	32.53	33.69	9.57	100	157	P	V
		5881.44	41.28	-12.72	54	32.87	32.53	33.69	9.57	100	157	A	V



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)
802.11n HT20 CH 157 5785MHz		5712.2	61.6	-12.4	74	53.56	32.29	33.64	9.39	218	172	P	H
		5722.92	62.71	-15.59	78.3	54.6	32.31	33.64	9.44	218	172	P	H
		5714.92	51.02	-2.98	54	42.98	32.29	33.64	9.39	218	172	A	H
	*	5789	114.75	-	-	106.51	32.41	33.66	9.49	218	172	P	H
	*	5789	107.33	-	-	99.09	32.41	33.66	9.49	218	172	A	H
		5850.56	61.48	-16.82	78.3	53.14	32.48	33.68	9.54	218	172	P	H
		5864.56	57.65	-16.35	74	49.29	32.51	33.69	9.54	218	172	P	H
		5860.16	48.86	-5.14	54	40.5	32.51	33.69	9.54	218	172	A	H
		5713.72	49.77	-24.23	74	41.73	32.29	33.64	9.39	100	157	P	V
		5718.76	50.21	-28.09	78.3	42.15	32.31	33.64	9.39	100	157	P	V
		5712.76	41.44	-12.56	54	33.4	32.29	33.64	9.39	100	157	A	V
	*	5783	100.1	-	-	91.88	32.39	33.66	9.49	100	157	P	V
	*	5783	92.96	-	-	84.74	32.39	33.66	9.49	100	157	A	V
		5850.32	49.17	-29.13	78.3	40.83	32.48	33.68	9.54	100	157	P	V
		5863.36	50.38	-23.62	74	42.02	32.51	33.69	9.54	100	157	P	V
		5862.96	41.63	-12.37	54	33.27	32.51	33.69	9.54	100	157	A	V



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)
802.11n HT20 CH 165 5825MHz		5714.84	54.99	-19.01	74	46.95	32.29	33.64	9.39	100	170	P	H
		5715.16	54.3	-24	78.3	46.26	32.29	33.64	9.39	100	170	P	H
		5713	46.28	-7.72	54	38.24	32.29	33.64	9.39	100	170	A	H
	*	5825	111.35	-	-	103.04	32.46	33.67	9.52	100	170	P	H
	*	5825	104.45	-	-	96.14	32.46	33.67	9.52	100	170	A	H
		5850	67.62	-6.38	74	59.28	32.48	33.68	9.54	100	170	P	H
		5861.84	62.26	-11.74	74	53.9	32.51	33.69	9.54	100	170	P	H
		5860.56	53	-1	54	44.64	32.51	33.69	9.54	100	170	A	H
		5701.32	50.05	-23.95	74	42	32.29	33.63	9.39	118	77	P	V
		5715.1	49.69	-28.61	78.3	41.65	32.29	33.64	9.39	118	77	P	V
		5714.52	41.58	-12.42	54	33.54	32.29	33.64	9.39	118	77	A	V
	*	5825	101.75	-	-	93.44	32.46	33.67	9.52	118	77	P	V
	*	5825	95.09	-	-	86.78	32.46	33.67	9.52	118	77	A	V
		5850	57.13	-16.87	74	48.79	32.48	33.68	9.54	118	77	P	V
		5860.56	53.45	-20.55	74	45.09	32.51	33.69	9.54	118	77	P	V
		5860.48	45.51	-8.49	54	37.15	32.51	33.69	9.54	118	77	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 HT20 (Harmonic @ 3m)

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)
802.11n HT20 CH 149 5745MHz		11490	47.34	-26.66	74	28.09	40.01	34.71	13.95	100	0	P	H
		17235	50.55	-23.45	74	28.17	41.41	35.98	16.95	100	0	P	H
													H
													H
		11490	46.66	-27.34	74	27.41	40.01	34.71	13.95	100	0	P	V
		17235	50.47	-23.53	74	28.09	41.41	35.98	16.95	100	0	P	V
													V
													V
802.11n HT20 CH 157 5785MHz		11570	46.61	-27.39	74	27.49	39.89	34.77	14	100	0	P	H
		17355	50.14	-23.86	74	27.42	41.67	35.98	17.03	100	0	P	H
													H
													H
		11570	46.52	-27.48	74	27.4	39.89	34.77	14	100	0	P	V
		17355	50.07	-23.93	74	27.35	41.67	35.98	17.03	100	0	P	V
													V
													V
802.11n HT20 CH 165 5825MHz		11650	46.91	-27.09	74	27.89	39.78	34.81	14.05	100	0	P	H
		17475	50.41	-23.59	74	27.37	41.93	35.99	17.1	100	0	P	H
													H
													H
		11650	46.23	-27.77	74	27.21	39.78	34.81	14.05	100	0	P	V
		17475	50.42	-23.58	74	27.38	41.93	35.99	17.1	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 HT40 (Band Edge @ 3m)**

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)
802.11n HT40 CH 151 5755MHz		5710.92	65.34	-8.66	74	57.3	32.29	33.64	9.39	102	170	P	H
		5723.8	63.86	-14.44	78.3	55.75	32.31	33.64	9.44	102	170	P	H
		5712.92	53.2	-0.8	54	45.16	32.29	33.64	9.39	102	170	A	H
	*	5755	104.59	-	-	96.44	32.36	33.65	9.44	102	170	P	H
	*	5755	97.13	-	-	88.98	32.36	33.65	9.44	102	170	A	H
		5853.92	52.15	-26.15	78.3	43.78	32.51	33.68	9.54	102	170	P	H
		5870.96	53.09	-20.91	74	44.71	32.53	33.69	9.54	102	170	P	H
		5860	44.37	-9.63	54	36.01	32.51	33.69	9.54	102	170	A	H
		5705.48	55.97	-18.03	74	47.93	32.29	33.64	9.39	288	93	P	V
		5724.76	59.59	-18.71	78.3	51.48	32.31	33.64	9.44	288	93	P	V
		5713.4	48.49	-5.51	54	40.45	32.29	33.64	9.39	288	93	A	V
	*	5755	97.77	-	-	89.62	32.36	33.65	9.44	288	93	P	V
	*	5755	91.09	-	-	82.94	32.36	33.65	9.44	288	93	A	V
		5857.2	49.35	-28.95	78.3	40.98	32.51	33.68	9.54	288	93	P	V
		5888.16	50.45	-23.55	74	42.02	32.56	33.7	9.57	288	93	P	V
		5864.72	41.99	-12.01	54	33.63	32.51	33.69	9.54	288	93	A	V



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)
802.11n HT40 CH 159 5795MHz		5714	58.44	-15.56	74	50.4	32.29	33.64	9.39	104	166	P	H
		5717.48	63.25	-15.05	78.3	55.21	32.29	33.64	9.39	104	166	P	H
		5713.56	50.51	-3.49	54	42.47	32.29	33.64	9.39	104	166	A	H
	*	5795	107.77	-	-	99.53	32.41	33.66	9.49	104	166	P	H
	*	5795	100.9	-	-	92.66	32.41	33.66	9.49	104	166	A	H
		5851.36	65.03	-13.27	78.3	56.69	32.48	33.68	9.54	104	166	P	H
		5860.56	63.34	-10.66	74	54.98	32.51	33.69	9.54	104	166	P	H
		5860	52.82	-1.18	54	44.46	32.51	33.69	9.54	104	166	A	H
		5713	53.38	-20.62	74	45.34	32.29	33.64	9.39	298	92	P	V
		5724.12	54.18	-24.12	78.3	46.07	32.31	33.64	9.44	298	92	P	V
		5714.76	44.33	-9.67	54	36.29	32.29	33.64	9.39	298	92	A	V
	*	5795	102.04	-	-	93.8	32.41	33.66	9.49	298	92	P	V
	*	5795	94.29	-	-	86.05	32.41	33.66	9.49	298	92	A	V
		5850.64	55.02	-23.28	78.3	46.68	32.48	33.68	9.54	298	92	P	V
		5870.64	53.34	-20.66	74	44.96	32.53	33.69	9.54	298	92	P	V
		5860	44.95	-9.05	54	36.59	32.51	33.69	9.54	298	92	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 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)
802.11n HT40 CH 151 5755MHz		11510	46.63	-27.37	74	27.41	40	34.73	13.95	100	0	P	H
		17265	50.53	-23.47	74	28.07	41.49	35.98	16.95	100	0	P	H
													H
													H
		11510	46.46	-27.54	74	27.24	40	34.73	13.95	100	0	P	V
		17265	50.13	-23.87	74	27.67	41.49	35.98	16.95	100	0	P	V
													V
													V
802.11n HT40 CH 159 5795MHz		11590	46.74	-27.26	74	27.65	39.86	34.77	14	100	0	P	H
		17385	50.65	-23.35	74	27.87	41.74	35.99	17.03	100	0	P	H
													H
													H
		11590	47.57	-26.43	74	28.48	39.86	34.77	14	100	0	P	V
		17385	50.18	-23.82	74	27.4	41.74	35.99	17.03	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

5GHz WIFI 802.11n HT20 (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 HT20 LF		87.51	17.45	-22.55	40	39.86	8.1	31.79	1.28			P	H
		168.78	17.21	-26.29	43.5	38.48	8.87	31.78	1.64			P	H
		270.3	20.97	-25.03	46	38.4	12.4	31.77	1.94			P	H
		402.2	21.09	-24.91	46	34.74	15.83	31.8	2.32			P	H
		697.6	21.25	-24.75	46	31.25	18.9	32.04	3.14			P	H
		944	24.42	-21.58	46	31.28	20.54	31.08	3.68	189	114	P	H
													H
													H
													H
													H
													H
													H
		42.96	30.56	-9.44	40	50.73	10.97	31.81	0.67	200	92	P	V
		154.47	12.77	-30.73	43.5	33.27	9.82	31.78	1.46			P	V
		248.7	14.1	-31.9	46	32.09	11.84	31.77	1.94			P	V
		349	14.29	-31.71	46	29.74	14.16	31.78	2.17			P	V
		640.9	20.97	-25.03	46	30.95	19.1	32.04	2.96			P	V
		954.5	23.75	-22.25	46	30.56	20.51	31	3.68			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.
!	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”.