



Appendix A. Radiated Spurious Emission

Test Engineer :	Luke Chang	Temperature :	18~20°C
		Relative Humidity :	41~42%

15C 2.4GHz 2400~2483.5MHz

WIFI 802.11b (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)
802.11b CH 01 2412MHz		2389.2	52.41	-21.59	74	48.95	31.94	6.17	34.65	170	40	P	H
		2378.31	39.56	-14.44	54	36.11	31.93	6.17	34.65	170	40	A	H
	*	2412	102.39	-	-	98.87	31.95	6.21	34.64	170	40	P	H
	*	2412	97.21	-	-	93.69	31.95	6.21	34.64	170	40	A	H
													H
													H
		2378.67	47.4	-26.6	74	43.95	31.93	6.17	34.65	181	331	P	V
		2378.31	35.36	-18.64	54	31.91	31.93	6.17	34.65	181	331	A	V
	*	2412	96.72	-	-	93.2	31.95	6.21	34.64	181	331	P	V
	*	2412	91.45	-	-	87.93	31.95	6.21	34.64	181	331	A	V
													V
													V
802.11b CH 06 2437MHz		2360.58	48.41	-25.59	74	45	31.92	6.14	34.65	311	42	P	H
		2385.78	36.64	-17.36	54	33.18	31.94	6.17	34.65	311	42	A	H
	*	2437	104.41	-	-	100.84	31.97	6.24	34.64	311	42	P	H
	*	2437	99.31	-	-	95.74	31.97	6.24	34.64	311	42	A	H
		2484.08	51.39	-22.61	74	47.73	31.99	6.3	34.63	311	42	P	H
		2484.04	40.66	-13.34	54	37	31.99	6.3	34.63	311	42	A	H
		2378.94	46.74	-27.26	74	43.29	31.93	6.17	34.65	134	119	P	V
		2389.65	33.95	-20.05	54	30.49	31.94	6.17	34.65	134	119	A	V
	*	2437	97.65	-	-	94.08	31.97	6.24	34.64	134	119	P	V
	*	2437	91.96	-	-	88.39	31.97	6.24	34.64	134	119	A	V
		2490.08	47.94	-26.06	74	44.27	32	6.3	34.63	134	119	P	V
		2483.88	35.86	-18.14	54	32.2	31.99	6.3	34.63	134	119	A	V



802.11b CH 11 2462MHz	*	2462	104.24	-	-	100.63	31.98	6.27	34.64	157	75	P	H
	*	2462	98.79	-	-	95.18	31.98	6.27	34.64	157	75	A	H
		2484.84	52.47	-21.53	74	48.81	31.99	6.3	34.63	157	75	P	H
		2488.72	41.61	-12.39	54	37.94	32	6.3	34.63	157	75	A	H
													H
													H
	*	2462	99.42	-	-	95.81	31.98	6.27	34.64	172	114	P	V
	*	2462	94.42	-	-	90.81	31.98	6.27	34.64	172	114	A	V
		2496.12	48.9	-25.1	74	45.19	32	6.34	34.63	172	114	P	V
		2488.72	35.4	-18.6	54	31.73	32	6.3	34.63	172	114	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15C 2.4GHz 2400~2483.5MHz

WIFI 802.11b (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.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		4824	42.87	-31.13	74	60.72	34.36	8.6	60.81	100	0	P	H
													H
													H
													H
		4824	44.12	-29.88	74	61.97	34.36	8.6	60.81	100	0	P	V
													V
													V
													V
802.11b CH 06 2437MHz		4874	42.35	-31.65	74	59.87	34.4	8.77	60.69	100	0	P	H
		7311	45.23	-28.77	74	58.07	35.74	11.94	60.52	100	0	P	H
													H
													H
		4874	43.63	-30.37	74	61.15	34.4	8.77	60.69	100	0	P	V
		7311	49.29	-24.71	74	62.13	35.74	11.94	60.52	100	0	P	V
													V
													V
802.11b CH 11 2462MHz		4924	42.73	-31.27	74	59.92	34.44	8.94	60.57	100	0	P	H
		7386	44.93	-29.07	74	57.79	35.72	11.98	60.56	100	0	P	H
													H
													H
		4924	44.33	-29.67	74	61.52	34.44	8.94	60.57	100	0	P	V
		7386	46.41	-27.59	74	59.27	35.72	11.98	60.56	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15C 2.4GHz 2400~2483.5MHz

WIFI 802.11g (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)
802.11g CH 01 2412MHz		2390	61.77	-12.23	74	58.26	31.94	6.21	34.64	311	76	P	H
		2390	43.92	-10.08	54	40.41	31.94	6.21	34.64	311	76	A	H
	*	2412	102.78	-	-	99.26	31.95	6.21	34.64	311	76	P	H
	*	2412	91.08	-	-	87.56	31.95	6.21	34.64	311	76	A	H
													H
													H
		2389.47	51.77	-22.23	74	48.31	31.94	6.17	34.65	154	352	P	V
		2390.01	36.13	-17.87	54	32.62	31.94	6.21	34.64	154	352	A	V
	*	2412	97.04	-	-	93.52	31.95	6.21	34.64	154	352	P	V
	*	2412	86	-	-	82.48	31.95	6.21	34.64	154	352	A	V
													V
													V
802.11g CH 06 2437MHz		2389.83	56.35	-17.65	74	52.84	31.94	6.21	34.64	312	44	P	H
		2390	40.91	-13.09	54	37.4	31.94	6.21	34.64	312	44	A	H
	*	2437	107.51	-	-	103.94	31.97	6.24	34.64	312	44	P	H
	*	2437	95.95	-	-	92.38	31.97	6.24	34.64	312	44	A	H
		2491.96	57.11	-16.89	74	53.4	32	6.34	34.63	312	44	P	H
		2483.6	42.67	-11.33	54	39.01	31.99	6.3	34.63	312	44	A	H
		2389.74	49.87	-24.13	74	46.41	31.94	6.17	34.65	146	110	P	V
		2390	36.85	-17.15	54	33.34	31.94	6.21	34.64	146	110	A	V
	*	2437	102.9	-	-	99.33	31.97	6.24	34.64	146	110	P	V
	*	2437	91.05	-	-	87.48	31.97	6.24	34.64	146	110	A	V
		2485.16	49.61	-24.39	74	45.95	31.99	6.3	34.63	146	110	P	V
		2483.52	36.63	-17.37	54	32.97	31.99	6.3	34.63	146	110	A	V



802.11g CH 11 2462MHz	*	2462	106.3	-	-	102.69	31.98	6.27	34.64	186	72	P	H
	*	2462	94.82	-	-	91.21	31.98	6.27	34.64	186	72	A	H
		2483.6	67.76	-6.24	74	64.1	31.99	6.3	34.63	186	72	P	H
		2483.52	48.13	-5.87	54	44.47	31.99	6.3	34.63	186	72	A	H
													H
													H
	*	2462	100.92	-	-	97.31	31.98	6.27	34.64	325	145	P	V
	*	2462	89.85	-	-	86.24	31.98	6.27	34.64	325	145	A	V
		2483.68	65.32	-8.68	74	61.66	31.99	6.3	34.63	325	145	P	V
		2483.52	43.91	-10.09	54	40.25	31.99	6.3	34.63	325	145	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15C 2.4GHz 2400~2483.5MHz

WIFI 802.11g (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.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11g CH 01 2412MHz		4824	39.78	-34.22	74	57.63	34.36	8.6	60.81	100	0	P	H
													H
													H
													H
		4824	40.03	-33.97	74	57.88	34.36	8.6	60.81	100	0	P	V
													V
													V
													V
802.11g CH 06 2437MHz		4874	38.86	-35.14	74	56.38	34.4	8.77	60.69	100	0	P	H
		7311	46.58	-27.42	74	59.42	35.74	11.94	60.52	100	0	P	H
													H
													H
		4874	40.06	-33.94	74	57.58	34.4	8.77	60.69	100	0	P	V
		7311	51.47	-22.53	74	64.31	35.74	11.94	60.52	169	93	P	V
		7311	46.28	-7.72	54	59.12	35.74	11.94	60.52	169	93	A	V
													V
802.11g CH 11 2462MHz		4924	39.71	-34.29	74	56.9	34.44	8.94	60.57	100	0	P	H
		7386	44.62	-29.38	74	57.48	35.72	11.98	60.56	100	0	P	H
													H
													H
		4924	40	-34	74	57.19	34.44	8.94	60.57	100	0	P	V
		7386	46.45	-27.55	74	59.31	35.72	11.98	60.56	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15C 2.4GHz 2400~2483.5MHz

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.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 01 2412MHz		2390	66.62	-7.38	74	63.11	31.94	6.21	34.64	347	40	P	H
		2390	46.89	-7.11	54	43.38	31.94	6.21	34.64	347	40	A	H
	*	2412	102.91	-	-	99.39	31.95	6.21	34.64	347	40	P	H
	*	2412	91.5	-	-	87.98	31.95	6.21	34.64	347	40	A	H
													H
													H
		2389.74	60.75	-13.25	74	57.29	31.94	6.17	34.65	148	333	P	V
		2390	43.08	-10.92	54	39.57	31.94	6.21	34.64	148	333	A	V
	*	2412	97.39	-	-	93.87	31.95	6.21	34.64	148	333	P	V
	*	2412	86.06	-	-	82.54	31.95	6.21	34.64	148	333	A	V
													V
													V
802.11n HT20 CH 06 2437MHz		2388.57	58.09	-15.91	74	54.63	31.94	6.17	34.65	235	28	P	H
		2390	43.03	-10.97	54	39.52	31.94	6.21	34.64	235	28	A	H
	*	2437	108.41	-	-	104.84	31.97	6.24	34.64	235	28	P	H
	*	2437	96.8	-	-	93.23	31.97	6.24	34.64	235	28	A	H
		2486.16	55.59	-18.41	74	51.93	31.99	6.3	34.63	235	28	P	H
		2483.52	42.28	-11.72	54	38.62	31.99	6.3	34.63	235	28	A	H
		2389.56	48.96	-25.04	74	45.5	31.94	6.17	34.65	136	120	P	V
		2390	35.96	-18.04	54	32.45	31.94	6.21	34.64	136	120	A	V
	*	2437	101.17	-	-	97.6	31.97	6.24	34.64	136	120	P	V
	*	2437	90	-	-	86.43	31.97	6.24	34.64	136	120	A	V
		2484.6	52.09	-21.91	74	48.43	31.99	6.3	34.63	136	120	P	V
		2483.56	38.42	-15.58	54	34.76	31.99	6.3	34.63	136	120	A	V



802.11n HT20 CH 11 2462MHz	*	2462	107.03	-	-	103.42	31.98	6.27	34.64	204	4	P	H
	*	2462	95.46	-	-	91.85	31.98	6.27	34.64	204	4	A	H
		2484.92	72.75	-1.25	74	69.09	31.99	6.3	34.63	204	4	P	H
		2483.52	52.27	-1.73	54	48.61	31.99	6.3	34.63	204	4	P	H
													H
													H
	*	2465.381	100.76	-	-	97.15	31.98	6.27	34.64	153	331	P	V
	*	2466.132	89.4	-	-	85.79	31.98	6.27	34.64	153	331	A	V
		2483.6	64.26	-9.74	74	60.6	31.99	6.3	34.63	153	331	P	V
		2483.52	43.66	-10.34	54	40	31.99	6.3	34.63	153	331	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15C 2.4GHz 2400~2483.5MHz

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.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 01 2412MHz		4824	39.36	-34.64	74	57.21	34.36	8.6	60.81	100	0	P	H
													H
													H
													H
		4824	39.45	-34.55	74	57.3	34.36	8.6	60.81	100	0	P	V
													V
													V
													V
802.11n HT20 CH 06 2437MHz		4874	39.06	-34.94	74	56.58	34.4	8.77	60.69	100	0	P	H
		7311	47.38	-26.62	74	60.22	35.74	11.94	60.52	100	0	P	H
													H
													H
		4874	39.21	-34.79	74	56.73	34.4	8.77	60.69	100	0	P	V
		7311	52.44	-21.56	74	65.28	35.74	11.94	60.52	153	67	P	V
		7311	47.33	-6.67	54	60.17	35.74	11.94	60.52	153	67	A	V
													V
802.11n HT20 CH 11 2462MHz		4924	40.35	-33.65	74	57.54	34.44	8.94	60.57	100	0	P	H
		7386	45.92	-28.08	74	58.78	35.72	11.98	60.56	100	0	P	H
													H
													H
		4924	39.74	-34.26	74	56.93	34.44	8.94	60.57	100	0	P	V
		7386	47.07	-26.93	74	59.93	35.72	11.98	60.56	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15C 2.4GHz 2400~2483.5MHz

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.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 03 2422MHz		2387.85	60.94	-13.06	74	57.48	31.94	6.17	34.65	233	27	P	H
		2389.92	47.83	-6.17	54	44.32	31.94	6.21	34.64	233	27	A	H
	*	2422	100.01	-	-	96.45	31.96	6.24	34.64	233	27	P	H
	*	2422	90.39	-	-	86.83	31.96	6.24	34.64	233	27	A	H
		2489.68	50.42	-23.58	74	46.75	32	6.3	34.63	233	27	P	H
		2492.24	38.14	-15.86	54	34.43	32	6.34	34.63	233	27	A	H
		2390.01	55.48	-18.52	74	51.97	31.94	6.21	34.64	151	99	P	V
		2389.83	43.21	-10.79	54	39.7	31.94	6.21	34.64	151	99	A	V
	*	2422	92.18	-	-	88.62	31.96	6.24	34.64	151	99	P	V
	*	2422	82.45	-	-	78.89	31.96	6.24	34.64	151	99	A	V
		2493.2	46.84	-27.16	74	43.13	32	6.34	34.63	151	99	P	V
802.11n HT40 CH 06 2437MHz		2389.83	67.84	-6.16	74	64.33	31.94	6.21	34.64	211	27	P	H
		2389.74	51.16	-2.84	54	47.7	31.94	6.17	34.65	211	27	A	H
	*	2437	105.51	-	-	101.94	31.97	6.24	34.64	211	27	P	H
	*	2437	95.37	-	-	91.8	31.97	6.24	34.64	211	27	A	H
		2484.32	65.68	-8.32	74	62.02	31.99	6.3	34.63	211	27	P	H
		2483.64	50.39	-3.61	54	46.73	31.99	6.3	34.63	211	27	A	H
		2389.74	57.23	-16.77	74	53.77	31.94	6.17	34.65	176	207	P	V
		2390	43.78	-10.22	54	40.27	31.94	6.21	34.64	176	207	A	V
	*	2437	98.83	-	-	95.26	31.97	6.24	34.64	176	207	P	V
	*	2437	88.86	-	-	85.29	31.97	6.24	34.64	176	207	A	V
		2484.48	57.44	-16.56	74	53.78	31.99	6.3	34.63	176	207	P	V
		2483.68	42.83	-11.17	54	39.17	31.99	6.3	34.63	176	207	A	V



802.11n HT40 CH 09 2452MHz		2389.47	50.76	-23.24	74	47.3	31.94	6.17	34.65	334	53	P	H
		2389.38	39.26	-14.74	54	35.8	31.94	6.17	34.65	334	53	A	H
	*	2452	103.4	-	-	99.8	31.97	6.27	34.64	334	53	P	H
	*	2452	93.39	-	-	89.79	31.97	6.27	34.64	334	53	A	H
		2484.2	66.69	-7.31	74	63.03	31.99	6.3	34.63	334	53	P	H
		2483.52	52.52	-1.48	54	48.86	31.99	6.3	34.63	334	53	A	H
		2389.65	48.16	-25.84	74	44.7	31.94	6.17	34.65	165	336	P	V
		2389.56	36.23	-17.77	54	32.77	31.94	6.17	34.65	165	336	A	V
	*	2452	97.5	-	-	93.9	31.97	6.27	34.64	165	336	P	V
	*	2452	87.66	-	-	84.06	31.97	6.27	34.64	165	336	A	V
		2487.4	56.79	-17.21	74	53.13	31.99	6.3	34.63	165	336	P	V
		2483.52	43.96	-10.04	54	40.3	31.99	6.3	34.63	165	336	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

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.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 03 2422MHz		4844	38.99	-35.01	74	56.69	34.38	8.69	60.77	100	0	P	H
		7266	41.34	-32.66	74	54.18	35.74	11.93	60.51	100	0	P	H
													H
													H
		4844	38.74	-35.26	74	56.44	34.38	8.69	60.77	100	0	P	V
		7266	42.35	-31.65	74	55.19	35.74	11.93	60.51	100	0	P	V
													V
													V
802.11n HT40 CH 06 2437MHz		4874	39.02	-34.98	74	56.54	34.4	8.77	60.69	100	0	P	H
		7311	46.12	-27.88	74	58.96	35.74	11.94	60.52	100	0	P	H
													H
													H
		4874	38.25	-35.75	74	55.77	34.4	8.77	60.69	100	0	P	V
		7311	49.21	-24.79	74	62.05	35.74	11.94	60.52	100	0	P	V
													V
													V
802.11n HT40 CH 09 2452MHz		4904	37.99	-36.01	74	55.32	34.43	8.85	60.61	100	0	P	H
		7356	42.44	-31.56	74	55.28	35.73	11.97	60.54	100	0	P	H
													H
													H
		4904	38.51	-35.49	74	55.84	34.43	8.85	60.61	100	0	P	V
		7356	42.79	-31.21	74	55.63	35.73	11.97	60.54	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15C Emission below 1GHz

2.4GHz WIFI 802.11n HT20 (LF)

[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 per 15.209(c).
!	Test result is over limit line.
P/A	Peak or Average
H/V	H orizontal or V ertical



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”.



15C 2.4GHz 2400~2483.5MHz

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 01 2412MHz		2388.39	62.15	-11.85	74	58.69	31.94	6.17	34.65	120	242	P	H
		2389.92	46.5	-7.5	54	42.99	31.94	6.21	34.64	120	242	A	H
	*	2412	103.01	-	-	99.49	31.95	6.21	34.64	120	242	P	H
	*	2412	92.47	-	-	88.95	31.95	6.21	34.64	120	242	A	H
													H
													H
		2390	61.16	-12.84	74	57.65	31.94	6.21	34.64	161	330	P	V
		2390	43.9	-10.1	54	40.39	31.94	6.21	34.64	161	330	A	V
	*	2412	101.07	-	-	97.55	31.95	6.21	34.64	161	330	P	V
	*	2412	91.03	-	-	87.51	31.95	6.21	34.64	161	330	A	V
													V
													V
802.11n HT20 CH 06 2437MHz		2388.57	53.18	-20.82	74	49.72	31.94	6.17	34.65	186	244	P	H
		2389.29	41.18	-12.82	54	37.72	31.94	6.17	34.65	186	244	A	H
	*	2437	104.14	-	-	100.57	31.97	6.24	34.64	186	244	P	H
	*	2437	93.59	-	-	90.02	31.97	6.24	34.64	186	244	A	H
		2494.12	50.84	-23.16	74	47.13	32	6.34	34.63	186	244	P	H
		2484.08	38.45	-15.55	54	34.79	31.99	6.3	34.63	186	244	A	H
		2389.74	50.69	-23.31	74	47.23	31.94	6.17	34.65	105	31	P	V
		2362.83	38.76	-15.24	54	35.35	31.92	6.14	34.65	105	31	A	V
	*	2437	102.51	-	-	98.94	31.97	6.24	34.64	105	31	P	V
	*	2437	93.02	-	-	89.45	31.97	6.24	34.64	105	31	A	V
		2496.36	49.84	-24.16	74	46.13	32	6.34	34.63	105	31	P	V
		2498.48	37.79	-16.21	54	34.08	32	6.34	34.63	105	31	A	V



802.11n HT20 CH 11 2462MHz	*	2462	102.15	-	-	98.54	31.98	6.27	34.64	196	242	P	H
	*	2462	92.24	-	-	88.63	31.98	6.27	34.64	196	242	A	H
		2484.48	63.54	-10.46	74	59.88	31.99	6.3	34.63	196	242	P	H
		2483.52	44.2	-9.8	54	40.54	31.99	6.3	34.63	196	242	A	H
													H
													H
	*	2462	100.37	-	-	96.76	31.98	6.27	34.64	130	331	P	V
	*	2462	89.76	-	-	86.15	31.98	6.27	34.64	130	331	A	V
		2484.16	58.56	-15.44	74	54.9	31.99	6.3	34.63	130	331	P	V
		2484.4	41.9	-12.1	54	38.24	31.99	6.3	34.63	130	331	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15C 2.4GHz 2400~2483.5MHz

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 01 2412MHz		4824	38.67	-35.33	74	56.52	34.36	8.6	60.81	100	0	P	H
													H
													H
													H
		4824	39.41	-34.59	74	57.26	34.36	8.6	60.81	100	0	P	V
													V
													V
													V
802.11n HT20 CH 06 2437MHz		4874	38.4	-35.6	74	55.92	34.4	8.77	60.69	100	0	P	H
		7311	41.82	-32.18	74	54.66	35.74	11.94	60.52	100	0	P	H
													H
													H
		4874	38.16	-35.84	74	55.68	34.4	8.77	60.69	100	0	P	V
		7311	47.63	-26.37	74	60.47	35.74	11.94	60.52	100	0	P	V
													V
													V
802.11n HT20 CH 11 2462MHz		4924	39.58	-34.42	74	56.77	34.44	8.94	60.57	100	0	P	H
		7386	44.35	-29.65	74	57.21	35.72	11.98	60.56	100	0	P	H
													H
													H
		4924	40.21	-33.79	74	57.4	34.44	8.94	60.57	100	0	P	V
		7386	46.82	-27.18	74	59.68	35.72	11.98	60.56	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15C 2.4GHz 2400~2483.5MHz

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 03 2422MHz		2389.38	52.79	-21.21	74	49.33	31.94	6.17	34.65	144	244	P	H
		2389.92	40.78	-13.22	54	37.27	31.94	6.21	34.64	144	244	A	H
	*	2422	97.32	-	-	93.76	31.96	6.24	34.64	144	244	P	H
	*	2422	86.3	-	-	82.74	31.96	6.24	34.64	144	244	A	H
		2487.4	47.55	-26.45	74	43.89	31.99	6.3	34.63	144	244	P	H
		2483.52	36.14	-17.86	54	32.48	31.99	6.3	34.63	144	244	A	H
		2389.74	50.17	-23.83	74	46.71	31.94	6.17	34.65	163	330	P	V
		2389.65	38.96	-15.04	54	35.5	31.94	6.17	34.65	163	330	A	V
	*	2422	96.26	-	-	92.7	31.96	6.24	34.64	163	330	P	V
	*	2422	85.81	-	-	82.25	31.96	6.24	34.64	163	330	A	V
		2492.44	47.93	-26.07	74	44.22	32	6.34	34.63	163	330	P	V
		2484.72	35.73	-18.27	54	32.07	31.99	6.3	34.63	163	330	A	V
802.11n HT40 CH 06 2437MHz		2389.83	53.56	-20.44	74	50.05	31.94	6.21	34.64	162	241	P	H
		2389.56	41.43	-12.57	54	37.97	31.94	6.17	34.65	162	241	A	H
	*	2437	101.42	-	-	97.85	31.97	6.24	34.64	162	241	P	H
	*	2437	90.81	-	-	87.24	31.97	6.24	34.64	162	241	A	H
		2484.48	55.76	-18.24	74	52.1	31.99	6.3	34.63	162	241	P	H
		2483.56	38.92	-15.08	54	35.26	31.99	6.3	34.63	162	241	A	H
		2387.85	54.65	-19.35	74	51.19	31.94	6.17	34.65	100	327	P	V
		2390	41.28	-12.72	54	37.77	31.94	6.21	34.64	100	327	A	V
	*	2437	99.96	-	-	96.39	31.97	6.24	34.64	100	327	P	V
	*	2437	89.56	-	-	85.99	31.97	6.24	34.64	100	327	A	V
		2486.6	52.03	-21.97	74	48.37	31.99	6.3	34.63	100	327	P	V
		2483.56	38.29	-15.71	54	34.63	31.99	6.3	34.63	100	327	A	V



802.11n HT40 CH 09 2452MHz		2386.32	51.76	-22.24	74	48.3	31.94	6.17	34.65	157	240	P	H
		2389.38	39.85	-14.15	54	36.39	31.94	6.17	34.65	157	240	A	H
	*	2452	100.63	-	-	97.03	31.97	6.27	34.64	157	240	P	H
	*	2452	89.5	-	-	85.9	31.97	6.27	34.64	157	240	A	H
		2484.72	56.71	-17.29	74	53.05	31.99	6.3	34.63	157	240	P	H
		2483.72	43.93	-10.07	54	40.27	31.99	6.3	34.63	157	240	A	H
		2384.07	50.86	-23.14	74	47.41	31.93	6.17	34.65	130	330	P	V
		2383.53	38.98	-15.02	54	35.53	31.93	6.17	34.65	130	330	A	V
	*	2452	98.98	-	-	95.38	31.97	6.27	34.64	130	330	P	V
	*	2452	88.59	-	-	84.99	31.97	6.27	34.64	130	330	A	V
		2484.6	56.23	-17.77	74	52.57	31.99	6.3	34.63	130	330	P	V
		2483.6	44.03	-9.97	54	40.37	31.99	6.3	34.63	130	330	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

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 03 2422MHz		4844	39.04	-34.96	74	56.74	34.38	8.69	60.77	100	0	P	H
		7266	41.93	-32.07	74	54.77	35.74	11.93	60.51	100	0	P	H
													H
													H
		4844	38.38	-35.62	74	56.08	34.38	8.69	60.77	100	0	P	V
		7266	46.16	-27.84	74	59	35.74	11.93	60.51	100	0	P	V
													V
													V
802.11n HT40 CH 06 2437MHz		4874	38.11	-35.89	74	55.63	34.4	8.77	60.69	100	0	P	H
		7311	44.62	-29.38	74	57.46	35.74	11.94	60.52	100	0	P	H
													H
													H
		4874	38.79	-35.21	74	56.31	34.4	8.77	60.69	100	0	P	V
		7311	47.96	-26.04	74	60.8	35.74	11.94	60.52	100	0	P	V
													V
													V
802.11n HT40 CH 09 2452MHz		4904	37.97	-36.03	74	55.3	34.43	8.85	60.61	100	0	P	H
		7356	41.95	-32.05	74	54.79	35.73	11.97	60.54	100	0	P	H
													H
													H
		4904	38.98	-35.02	74	56.31	34.43	8.85	60.61	100	0	P	V
		7356	43.74	-30.26	74	56.58	35.73	11.97	60.54	100	0	P	V
													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	H orizontal or V ertical



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

3. Level(dBμV/m) =

Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

4. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

3. 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)

4. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

For Average Limit @ 2390MHz:

3. 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)

4. 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”.