



Appendix A. Radiated Spurious Emission

Test Engineer :	Stan Hsieh, Luke Chang, and Lewis He	Temperature :	22~23°C
		Relative Humidity :	45~47%

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.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2390	56.85	-17.15	74	57.65	27.23	6.01	34.04	115	149	P	H
		2389.56	47.85	-6.15	54	48.65	27.23	6.01	34.04	115	149	A	H
	*	2413.193	108.42	-	-	109.14	27.28	6.04	34.04	115	149	P	H
	*	2413.36	105.8	-	-	106.52	27.28	6.04	34.04	115	149	A	H
													H
													H
		2389.56	61.62	-12.38	74	62.42	27.23	6.01	34.04	202	213	P	V
		2390	53.43	-0.57	54	54.23	27.23	6.01	34.04	202	213	A	V
	*	2412.024	115.06	-	-	115.78	27.28	6.04	34.04	202	213	P	V
	*	2413.11	111.57	-	-	112.29	27.28	6.04	34.04	202	213	A	V
													V
													V
802.11b CH 06 2437MHz		2389.65	56.52	-17.48	74	57.32	27.23	6.01	34.04	238	199	P	H
		2390	47.12	-6.88	54	47.92	27.23	6.01	34.04	238	199	A	H
	*	2438.243	110.71	-	-	111.33	27.37	6.04	34.03	238	199	P	H
	*	2438.326	108.14	-	-	108.76	27.37	6.04	34.03	238	199	A	H
		2483.52	54.61	-19.39	74	55.07	27.46	6.09	34.01	238	199	P	H
		2483.68	45.78	-8.22	54	46.24	27.46	6.09	34.01	238	199	A	H
		2389.74	62.2	-11.8	74	63	27.23	6.01	34.04	175	217	P	V
		2389.92	53.18	-0.82	54	53.98	27.23	6.01	34.04	175	217	A	V
	*	2437.074	115.24	-	-	115.86	27.37	6.04	34.03	175	217	P	V
	*	2438.827	112.14	-	-	112.76	27.37	6.04	34.03	175	217	A	V
		2483.56	62.06	-11.94	74	62.52	27.46	6.09	34.01	175	217	P	V
		2483.52	52.43	-1.57	54	52.89	27.46	6.09	34.01	175	217	A	V



802.11b CH 11 2462MHz	*	2462.041	109.73	-	-	110.27	27.41	6.07	34.02	229	196	P	H
	*	2460.955	107.12	-	-	107.66	27.41	6.07	34.02	229	196	A	H
		2484.12	55.81	-18.19	74	56.27	27.46	6.09	34.01	229	196	P	H
		2483.52	47.01	-6.99	54	47.47	27.46	6.09	34.01	229	196	A	H
													H
													H
	*	2462.041	115.1	-	-	115.64	27.41	6.07	34.02	165	227	P	V
	*	2463.293	111.57	-	-	112.11	27.41	6.07	34.02	165	227	A	V
		2483.72	60.69	-13.31	74	61.15	27.46	6.09	34.01	165	227	P	V
		2483.52	51.91	-2.09	54	52.37	27.46	6.09	34.01	165	227	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.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		4824	35.12	-38.88	74	53.76	31.32	8.65	58.61	100	0	P	H
													H
													H
													H
		4824	42.3	-31.7	74	60.94	31.32	8.65	58.61	100	0	P	V
													V
													V
													V
802.11b CH 06 2437MHz		4874	41.23	-32.77	74	59.65	31.41	8.69	58.52	100	0	P	H
		7311	42.45	-31.55	74	53.94	36.28	10.39	58.16	100	0	P	H
													H
													H
		4874	40.23	-33.77	74	58.65	31.41	8.69	58.52	100	0	P	V
		7311	44.99	-29.01	74	56.48	36.28	10.39	58.16	100	0	P	V
													V
													V
802.11b CH 11 2462MHz		4924	43.64	-30.36	74	61.78	31.49	8.79	58.42	100	0	P	H
		7386	42.18	-31.82	74	53.54	36.47	10.48	58.31	100	0	P	H
													H
													H
		4924	41.05	-32.95	74	59.19	31.49	8.79	58.42	100	0	P	V
		7386	43.72	-30.28	74	55.08	36.47	10.48	58.31	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.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11g CH 01 2412MHz		2389.65	63.6	-10.4	74	64.4	27.23	6.01	34.04	139	147	P	H
		2390	46.9	-7.1	54	47.7	27.23	6.01	34.04	139	147	A	H
	*	2414	105.52	-	-	106.24	27.28	6.04	34.04	139	147	P	H
	*	2414	97.74	-	-	98.46	27.28	6.04	34.04	139	147	A	H
													H
													H
		2388.48	67.24	-6.76	74	68.04	27.23	6.01	34.04	157	242	P	V
		2390	53.85	-0.15	54	54.65	27.23	6.01	34.04	157	242	A	V
	*	2414	112.92	-	-	113.64	27.28	6.04	34.04	157	242	P	V
	*	2414	104.95	-	-	105.67	27.28	6.04	34.04	157	242	A	V
													V
													V
802.11g CH 06 2437MHz		2389.74	54.92	-19.08	74	55.72	27.23	6.01	34.04	245	199	P	H
		2390	45.95	-8.05	54	46.75	27.23	6.01	34.04	245	199	A	H
	*	2437	111.3	-	-	111.92	27.37	6.04	34.03	245	199	P	H
	*	2437	103.32	-	-	103.94	27.37	6.04	34.03	245	199	A	H
		2484.6	54.57	-19.43	74	55.03	27.46	6.09	34.01	245	199	P	H
		2483.56	44.94	-9.06	54	45.4	27.46	6.09	34.01	245	199	A	H
		2389.47	60.84	-13.16	74	61.64	27.23	6.01	34.04	174	219	P	V
		2390	51.37	-2.63	54	52.17	27.23	6.01	34.04	174	219	A	V
	*	2437	116.53	-	-	117.15	27.37	6.04	34.03	174	219	P	V
	*	2437	109.12	-	-	109.74	27.37	6.04	34.03	174	219	A	V
		2483.76	60.12	-13.88	74	60.58	27.46	6.09	34.01	174	219	P	V
		2483.68	50.95	-3.05	54	51.41	27.46	6.09	34.01	174	219	A	V



802.11g CH 11 2462MHz	*	2464	107.04	-	-	107.58	27.41	6.07	34.02	225	195	P	H
	*	2464	99.28	-	-	99.82	27.41	6.07	34.02	225	195	A	H
		2484.08	61.38	-12.62	74	61.84	27.46	6.09	34.01	225	195	P	H
		2483.56	47.5	-6.5	54	47.96	27.46	6.09	34.01	225	195	A	H
													H
													H
	*	2464	113.3	-	-	113.84	27.41	6.07	34.02	167	236	P	V
	*	2464	105.78	-	-	106.32	27.41	6.07	34.02	167	236	A	V
		2483.6	66.89	-7.11	74	67.35	27.46	6.09	34.01	167	236	P	V
		2483.56	53.11	-0.89	54	53.57	27.46	6.09	34.01	167	236	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.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11g CH 01 2412MHz		4824	36.44	-37.56	74	55.08	31.32	8.65	58.61	100	0	P	H
													H
													H
													H
		4824	35.81	-38.19	74	54.45	31.32	8.65	58.61	100	0	P	V
													V
													V
													V
802.11g CH 06 2437MHz		4874	35.49	-38.51	74	53.91	31.41	8.69	58.52	100	0	P	H
		7311	41.95	-32.05	74	53.44	36.28	10.39	58.16	100	0	P	H
													H
													H
		4874	35.34	-38.66	74	53.76	31.41	8.69	58.52	100	0	P	V
		7311	42.68	-31.32	74	54.17	36.28	10.39	58.16	100	0	P	V
													V
													V
802.11g CH 11 2462MHz		4924	35.03	-38.97	74	53.17	31.49	8.79	58.42	100	0	P	H
		7386	40.41	-33.59	74	51.77	36.47	10.48	58.31	100	0	P	H
													H
													H
		4924	34.12	-39.88	74	52.26	31.49	8.79	58.42	100	0	P	V
		7386	40.9	-33.1	74	52.26	36.47	10.48	58.31	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.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 01 2412MHz		2389.92	58.35	-15.65	74	59.15	27.23	6.01	34.04	136	146	P	H
		2389.92	47.06	-6.94	54	47.86	27.23	6.01	34.04	136	146	A	H
	*	2414	104.98	-	-	105.7	27.28	6.04	34.04	136	146	P	H
	*	2414	97.39	-	-	98.11	27.28	6.04	34.04	136	146	A	H
													H
													H
		2387.22	64.86	-9.14	74	65.66	27.23	6.01	34.04	158	245	P	V
		2390	53.29	-0.71	54	54.09	27.23	6.01	34.04	158	245	A	V
	*	2414	111.56	-	-	112.28	27.28	6.04	34.04	158	245	P	V
	*	2414	104.17	-	-	104.89	27.28	6.04	34.04	158	245	A	V
													V
													V
802.11n HT20 CH 06 2437MHz		2346.99	52.1	-21.9	74	53.1	27.1	5.95	34.05	124	223	P	H
		2388.48	42.47	-11.53	54	43.27	27.23	6.01	34.04	124	223	A	H
	*	2439	101.28	-	-	101.9	27.37	6.04	34.03	124	223	P	H
	*	2439	92.59	-	-	93.21	27.37	6.04	34.03	124	223	A	H
		2499.92	53.14	-20.86	74	53.55	27.5	6.09	34	124	223	P	H
		2500	44.1	-9.9	54	44.51	27.5	6.09	34	124	223	A	H
		2388.93	62.59	-11.41	74	63.39	27.23	6.01	34.04	149	228	P	V
		2389.92	51.93	-2.07	54	52.73	27.23	6.01	34.04	149	228	A	V
	*	2435	116.68	-	-	117.35	27.32	6.04	34.03	149	228	P	V
	*	2435	108.91	-	-	109.58	27.32	6.04	34.03	149	228	A	V
		2483.96	60.52	-13.48	74	60.98	27.46	6.09	34.01	149	228	P	V
		2483.52	50.4	-3.6	54	50.86	27.46	6.09	34.01	149	228	A	V



802.11n HT20 CH 11 2462MHz	*	2464	107.42	-	-	107.96	27.41	6.07	34.02	234	194	P	H
	*	2464	99.65	-	-	100.19	27.41	6.07	34.02	234	194	A	H
		2483.88	63.33	-10.67	74	63.79	27.46	6.09	34.01	234	194	P	H
		2483.52	49.49	-4.51	54	49.95	27.46	6.09	34.01	234	194	A	H
													H
													H
	*	2460	113.09	-	-	113.63	27.41	6.07	34.02	178	241	P	V
	*	2460	105.17	-	-	105.71	27.41	6.07	34.02	178	241	A	V
		2484.12	67.32	-6.68	74	67.78	27.46	6.09	34.01	178	241	P	V
		2483.52	53.61	-0.39	54	54.07	27.46	6.09	34.01	178	241	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		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 01 2412MHz		4824	36.16	-37.84	74	54.8	31.32	8.65	58.61	100	0	P	H
													H
													H
													H
		4824	34.22	-39.78	74	52.86	31.32	8.65	58.61	100	0	P	V
													V
													V
													V
802.11n HT20 CH 06 2437MHz		4874	35.71	-38.29	74	54.13	31.41	8.69	58.52	100	0	P	H
		7311	40.99	-33.01	74	52.48	36.28	10.39	58.16	100	0	P	H
													H
													H
		4874	35.89	-38.11	74	54.31	31.41	8.69	58.52	100	0	P	V
		7311	42.29	-31.71	74	53.78	36.28	10.39	58.16	100	0	P	V
													V
													V
802.11n HT20 CH 11 2462MHz		4924	34.35	-39.65	74	52.49	31.49	8.79	58.42	100	0	P	H
		7386	39.35	-34.65	74	50.71	36.47	10.48	58.31	100	0	P	H
													H
													H
		4924	33.9	-40.1	74	52.04	31.49	8.79	58.42	100	0	P	V
		7386	41.82	-32.18	74	53.18	36.47	10.48	58.31	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		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 03 2422MHz		2389.83	61.99	-12.01	74	62.79	27.23	6.01	34.04	213	199	P	H
		2389.92	47.93	-6.07	54	48.73	27.23	6.01	34.04	213	199	A	H
	*	2420	102.04	-	-	102.71	27.32	6.04	34.03	213	199	P	H
	*	2420	93.26	-	-	93.93	27.32	6.04	34.03	213	199	A	H
													H
													H
		2390	69.51	-4.49	74	70.31	27.23	6.01	34.04	156	236	P	V
		2389.92	53.05	-0.95	54	53.85	27.23	6.01	34.04	156	236	A	V
	*	2424	106.79	-	-	107.46	27.32	6.04	34.03	156	236	P	V
	*	2424	99.31	-	-	99.98	27.32	6.04	34.03	156	236	A	V
													V
													V
802.11n HT40 CH 06 2437MHz		2389.65	57.12	-16.88	74	57.92	27.23	6.01	34.04	206	197	P	H
		2389.83	46.54	-7.46	54	47.34	27.23	6.01	34.04	206	197	A	H
	*	2439	104.58	-	-	105.2	27.37	6.04	34.03	206	197	P	H
	*	2439	97.32	-	-	97.94	27.37	6.04	34.03	206	197	A	H
		2484.04	57.02	-16.98	74	57.48	27.46	6.09	34.01	206	197	P	H
		2483.92	46.6	-7.4	54	47.06	27.46	6.09	34.01	206	197	A	H
		2390	64.95	-9.05	74	65.75	27.23	6.01	34.04	152	229	P	V
		2389.65	52.94	-1.06	54	53.74	27.23	6.01	34.04	152	229	A	V
	*	2439	110.91	-	-	111.53	27.37	6.04	34.03	152	229	P	V
	*	2439	103.51	-	-	104.13	27.37	6.04	34.03	152	229	A	V
		2483.64	61.87	-12.13	74	62.33	27.46	6.09	34.01	152	229	P	V
		2483.52	50.16	-3.84	54	50.62	27.46	6.09	34.01	152	229	A	V



802.11n HT40 CH 09 2452MHz	*	2450	103.47	-	-	104.05	27.37	6.07	34.02	190	196	P	H
	*	2450	95.74	-	-	96.32	27.37	6.07	34.02	190	196	A	H
		2483.56	58.66	-15.34	74	59.12	27.46	6.09	34.01	190	196	P	H
		2483.52	48.77	-5.23	54	49.23	27.46	6.09	34.01	190	196	A	H
													H
													H
	*	2450	108.93	-	-	109.51	27.37	6.07	34.02	153	222	P	V
	*	2450	101.98	-	-	102.56	27.37	6.07	34.02	153	222	A	V
		2484.08	63.55	-10.45	74	64.01	27.46	6.09	34.01	153	222	P	V
		2483.84	53.7	-0.3	54	54.16	27.46	6.09	34.01	153	222	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 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 03 2422MHz		4844	33.46	-40.54	74	52	31.35	8.69	58.58	100	0	P	H
													H
													H
													H
		4844	33.05	-40.95	74	51.59	31.35	8.69	58.58	100	0	P	V
													V
													V
													V
802.11n HT40 CH 06 2437MHz		4874	33.03	-40.97	74	51.45	31.41	8.69	58.52	100	0	P	H
		7311	38.99	-35.01	74	50.48	36.28	10.39	58.16	100	0	P	H
													H
													H
		4874	32.81	-41.19	74	51.23	31.41	8.69	58.52	100	0	P	V
		7311	39.21	-34.79	74	50.7	36.28	10.39	58.16	100	0	P	V
													V
													V
802.11n HT40 CH 09 2452MHz		4924	32.56	-41.44	74	50.7	31.49	8.79	58.42	100	0	P	H
		7386	38.18	-35.82	74	49.54	36.47	10.48	58.31	100	0	P	H
													H
													H
		4924	32.57	-41.43	74	50.71	31.49	8.79	58.42	100	0	P	V
		7386	38.53	-35.47	74	49.89	36.47	10.48	58.31	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 802.11b (LF)

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)
2.4GHz 802.11b LF		62.94	28.4	-11.6	40	54.2	4.95	1.04	31.79			P	H
		189.03	33.57	-9.93	43.5	55.53	8.18	1.64	31.78	142	33	P	H
		250.05	29.34	-16.66	46	47.16	12.01	1.94	31.77			P	H
		349.7	21.49	-24.51	46	36.91	14.19	2.17	31.78			P	H
		384	21.47	-24.53	46	35.92	15.02	2.32	31.79			P	H
		850.2	25.66	-20.34	46	33.69	20.2	3.44	31.67			P	H
													H
													H
													H
													H
													H
													H
		62.94	28.57	-11.43	40	54.37	4.95	1.04	31.79			P	V
		189.03	33.34	-10.16	43.5	55.3	8.18	1.64	31.78	163	32	P	V
		250.05	30.31	-15.69	46	48.13	12.01	1.94	31.77			P	V
		349.7	22.64	-23.36	46	38.06	14.19	2.17	31.78			P	V
		384	21.84	-24.16	46	36.29	15.02	2.32	31.79			P	V
		750.1	28.81	-17.19	46	37.74	19.8	3.25	31.98			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	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 CH 01 2412MHz		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
		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 802.11g (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		2389.74	58.98	-15.02	74	59.78	27.23	6.01	34.04	114	114	P	H
		2390	47.21	-6.79	54	48.01	27.23	6.01	34.04	114	114	A	H
	*	2411	104.88	-	-	105.6	27.28	6.04	34.04	114	114	P	H
	*	2411	96.86	-	-	97.58	27.28	6.04	34.04	114	114	A	H
													H
													H
		2389.2	65.87	-8.13	74	66.67	27.23	6.01	34.04	107	351	P	V
		2389.74	53.74	-0.26	54	54.54	27.23	6.01	34.04	107	351	A	V
	*	2413	112.38	-	-	113.1	27.28	6.04	34.04	107	351	P	V
	*	2413	104.4	-	-	105.12	27.28	6.04	34.04	107	351	A	V
													V
													V
802.11g CH 06 2437MHz		2388.84	57.75	-16.25	74	58.55	27.23	6.01	34.04	165	55	P	H
		2390.01	47.65	-6.35	54	48.45	27.23	6.01	34.04	165	55	A	H
	*	2438	111.81	-	-	112.43	27.37	6.04	34.03	165	55	P	H
	*	2438	104.36	-	-	104.98	27.37	6.04	34.03	165	55	A	H
		2484.44	55.44	-18.56	74	55.9	27.46	6.09	34.01	165	55	P	H
		2483.56	45.82	-8.18	54	46.28	27.46	6.09	34.01	165	55	A	H
		2389.65	60.47	-13.53	74	61.27	27.23	6.01	34.04	107	351	P	V
		2389.92	51.54	-2.46	54	52.34	27.23	6.01	34.04	107	351	A	V
	*	2438	116.42	-	-	117.04	27.37	6.04	34.03	107	351	P	V
	*	2438	108.69	-	-	109.31	27.37	6.04	34.03	107	351	A	V
		2483.56	57.14	-16.86	74	57.6	27.46	6.09	34.01	107	351	P	V
		2483.52	48.21	-5.79	54	48.67	27.46	6.09	34.01	107	351	A	V



802.11g CH 11 2462MHz	*	2461	108.76	-	-	109.3	27.41	6.07	34.02	163	54	P	H
	*	2461	100.68	-	-	101.22	27.41	6.07	34.02	163	54	A	H
		2483.96	64.4	-9.6	74	64.86	27.46	6.09	34.01	163	54	P	H
		2483.6	50.11	-3.89	54	50.57	27.46	6.09	34.01	163	54	A	H
													H
													H
	*	2462	113.19	-	-	113.73	27.41	6.07	34.02	102	352	P	V
	*	2462	105.23	-	-	105.77	27.41	6.07	34.02	102	352	A	V
		2483.96	66.79	-7.21	74	67.25	27.46	6.09	34.01	102	352	P	V
		2483.56	53.82	-0.18	54	54.28	27.46	6.09	34.01	102	352	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	32.99	-41.01	74	51.63	31.32	8.65	58.61	100	0	P	H
													H
													H
													H
		4824	32.7	-41.3	74	51.34	31.32	8.65	58.61	100	0	P	V
													V
													V
													V
802.11g CH 06 2437MHz		4874	34.41	-39.59	74	52.83	31.41	8.69	58.52	100	0	P	H
		7311	40.89	-33.11	74	52.38	36.28	10.39	58.16	100	0	P	H
													H
													H
		4874	36.33	-37.67	74	54.75	31.41	8.69	58.52	100	0	P	V
		7311	39.49	-34.51	74	50.98	36.28	10.39	58.16	100	0	P	V
													V
													V
802.11g CH 11 2462MHz		4924	34.95	-39.05	74	53.09	31.49	8.79	58.42	100	0	P	H
		7386	37.81	-36.19	74	49.17	36.47	10.48	58.31	100	0	P	H
													H
													H
		4924	34.33	-39.67	74	52.47	31.49	8.79	58.42	100	0	P	V
		7386	37.9	-36.1	74	49.26	36.47	10.48	58.31	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		2389.83	61.02	-12.98	74	61.82	27.23	6.01	34.04	173	109	P	H
		2390	48.73	-5.27	54	49.53	27.23	6.01	34.04	173	109	A	H
	*	2410	106.54	-	-	107.26	27.28	6.04	34.04	173	109	P	H
	*	2410	99.16	-	-	99.88	27.28	6.04	34.04	173	109	A	H
													H
													H
		2389.74	67.45	-6.55	74	68.25	27.23	6.01	34.04	109	344	P	V
		2390	53.97	-0.03	54	54.77	27.23	6.01	34.04	109	344	A	V
	*	2414	111.61	-	-	112.33	27.28	6.04	34.04	109	344	P	V
	*	2410	103.58	-	-	104.3	27.28	6.04	34.04	109	344	A	V
													V
													V
802.11n HT20 CH 06 2437MHz		2389.83	58.01	-15.99	74	58.81	27.23	6.01	34.04	149	111	P	H
		2389.92	46.57	-7.43	54	47.37	27.23	6.01	34.04	149	111	A	H
	*	2439	111.81	-	-	112.43	27.37	6.04	34.03	149	111	P	H
	*	2439	104.2	-	-	104.82	27.37	6.04	34.03	149	111	A	H
		2483.6	55.24	-18.76	74	55.7	27.46	6.09	34.01	149	111	P	H
		2483.68	46.21	-7.79	54	46.67	27.46	6.09	34.01	149	111	A	H
		2389.47	63	-11	74	63.8	27.23	6.01	34.04	107	348	P	V
		2390	51.81	-2.19	54	52.61	27.23	6.01	34.04	107	348	A	V
	*	2435	116.36	-	-	117.03	27.32	6.04	34.03	107	348	P	V
	*	2439	108.65	-	-	109.27	27.37	6.04	34.03	107	348	A	V
		2483.72	57.97	-16.03	74	58.43	27.46	6.09	34.01	107	348	P	V
		2483.52	48.8	-5.2	54	49.26	27.46	6.09	34.01	107	348	A	V



802.11n HT20 CH 11 2462MHz	*	2464	107.34	-	-	107.88	27.41	6.07	34.02	145	110	P	H
	*	2464	99.67	-	-	100.21	27.41	6.07	34.02	145	110	A	H
		2484.12	61.5	-12.5	74	61.96	27.46	6.09	34.01	145	110	P	H
		2483.64	49.46	-4.54	54	49.92	27.46	6.09	34.01	145	110	A	H
													H
													H
	*	2464	112.33	-	-	112.87	27.41	6.07	34.02	102	347	P	V
	*	2464	103.94	-	-	104.48	27.41	6.07	34.02	102	347	A	V
		2483.88	66.4	-7.6	74	66.86	27.46	6.09	34.01	102	347	P	V
		2483.52	53.49	-0.51	54	53.95	27.46	6.09	34.01	102	347	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	32.51	-41.49	74	51.15	31.32	8.65	58.61	100	0	P	H
													H
													H
													H
		4824	32.71	-41.29	74	51.35	31.32	8.65	58.61	100	0	P	V
													V
													V
													V
802.11n HT20 CH 06 2437MHz		4874	38.28	-35.72	74	56.7	31.41	8.69	58.52	100	0	P	H
		7308	38.16	-35.84	74	49.65	36.28	10.39	58.16	100	0	P	H
													H
													H
		4872	33.96	-40.04	74	52.38	31.41	8.69	58.52	100	0	P	V
		7308	38.83	-35.17	74	50.32	36.28	10.39	58.16	100	0	P	V
													V
													V
802.11n HT20 CH 11 2462MHz		4926	36.24	-37.76	74	54.38	31.49	8.79	58.42	100	0	P	H
		7386	37.33	-36.67	74	48.69	36.47	10.48	58.31	100	0	P	H
													H
													H
		4926	32.16	-41.84	74	50.3	31.49	8.79	58.42	100	0	P	V
		7386	36.84	-37.16	74	48.2	36.47	10.48	58.31	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		2389.11	58.21	-15.79	74	59.01	27.23	6.01	34.04	161	109	P	H
		2390	48.45	-5.55	54	49.25	27.23	6.01	34.04	161	109	A	H
	*	2420	101.49	-	-	102.16	27.32	6.04	34.03	161	109	P	H
	*	2420	93.49	-	-	94.16	27.32	6.04	34.03	161	109	A	H
		2484.04	53.35	-20.65	74	53.81	27.46	6.09	34.01	161	109	P	H
		2483.84	44.72	-9.28	54	45.18	27.46	6.09	34.01	161	109	A	H
		2388.57	63.16	-10.84	74	63.96	27.23	6.01	34.04	123	347	P	V
		2389.65	53.94	-0.06	54	54.74	27.23	6.01	34.04	123	347	A	V
	*	2420	106.13	-	-	106.8	27.32	6.04	34.03	123	347	P	V
	*	2420	98.8	-	-	99.47	27.32	6.04	34.03	123	347	A	V
		2483.56	55.12	-18.88	74	55.58	27.46	6.09	34.01	123	347	P	V
		2483.56	46.09	-7.91	54	46.55	27.46	6.09	34.01	123	347	A	V
802.11n HT40 CH 06 2437MHz		2387.04	58.27	-15.73	74	59.07	27.23	6.01	34.04	146	110	P	H
		2389.74	48.47	-5.53	54	49.27	27.23	6.01	34.04	146	110	A	H
	*	2439	106.89	-	-	107.51	27.37	6.04	34.03	146	110	P	H
	*	2439	98.79	-	-	99.41	27.37	6.04	34.03	146	110	A	H
		2483.64	56.85	-17.15	74	57.31	27.46	6.09	34.01	146	110	P	H
		2483.8	47.27	-6.73	54	47.73	27.46	6.09	34.01	146	110	A	H
		2389.92	66.23	-7.77	74	67.03	27.23	6.01	34.04	107	349	P	V
		2390	53.85	-0.15	54	54.65	27.23	6.01	34.04	107	349	A	V
	*	2439	110.59	-	-	111.21	27.37	6.04	34.03	107	349	P	V
	*	2439	103.4	-	-	104.02	27.37	6.04	34.03	107	349	A	V
		2483.52	59.79	-14.21	74	60.25	27.46	6.09	34.01	107	349	P	V
		2483.64	49.79	-4.21	54	50.25	27.46	6.09	34.01	107	349	A	V



802.11n HT40 CH 09 2452MHz		2389.38	54.98	-19.02	74	55.78	27.23	6.01	34.04	147	109	P	H
		2389.29	46.25	-7.75	54	47.05	27.23	6.01	34.04	147	109	A	H
	*	2450	105.65	-	-	106.23	27.37	6.07	34.02	147	109	P	H
	*	2450	96.39	-	-	96.97	27.37	6.07	34.02	147	109	A	H
		2483.6	58.96	-15.04	74	59.42	27.46	6.09	34.01	147	109	P	H
		2483.52	50.35	-3.65	54	50.81	27.46	6.09	34.01	147	109	A	H
		2389.11	58.84	-15.16	74	59.64	27.23	6.01	34.04	105	352	P	V
		2389.29	50.04	-3.96	54	50.84	27.23	6.01	34.04	105	352	A	V
	*	2450	109	-	-	109.58	27.37	6.07	34.02	105	352	P	V
	*	2450	100.94	-	-	101.52	27.37	6.07	34.02	105	352	A	V
		2483.84	63.08	-10.92	74	63.54	27.46	6.09	34.01	105	352	P	V
		2483.52	53.78	-0.22	54	54.24	27.46	6.09	34.01	105	352	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		4842	32.45	-41.55	74	50.99	31.35	8.69	58.58	100	0	P	H
		7266	37.11	-36.89	74	48.66	36.21	10.34	58.1	100	0	P	H
													H
													H
		4842	33.57	-40.43	74	52.11	31.35	8.69	58.58	100	0	P	V
		7266	37.95	-36.05	74	49.5	36.21	10.34	58.1	100	0	P	V
													V
													V
802.11n HT40 CH 06 2437MHz		4872	33.52	-40.48	74	51.94	31.41	8.69	58.52	100	0	P	H
		7308	37.6	-36.4	74	49.09	36.28	10.39	58.16	100	0	P	H
													H
													H
		4872	32.76	-41.24	74	51.18	31.41	8.69	58.52	100	0	P	V
		7308	38.18	-35.82	74	49.67	36.28	10.39	58.16	100	0	P	V
													V
													V
802.11n HT40 CH 09 2452MHz		4902	33.38	-40.62	74	51.64	31.46	8.74	58.46	100	0	P	H
		7356	37.74	-36.26	74	49.15	36.4	10.44	58.25	100	0	P	H
													H
													H
		4902	32.37	-41.63	74	50.63	31.46	8.74	58.46	100	0	P	V
		7356	37.3	-36.7	74	48.71	36.4	10.44	58.25	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 802.11g (LF)

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)
2.4GHz 802.11g LF		62.94	28.47	-11.53	40	54.27	4.95	1.04	31.79	101	63	P	H
		157.44	19.3	-24.2	43.5	39.92	9.7	1.46	31.78			P	H
		220.35	25.73	-20.27	46	47.39	8.33	1.79	31.78			P	H
		349.7	22.2	-23.8	46	37.62	14.19	2.17	31.78			P	H
		384	20.79	-25.21	46	35.24	15.02	2.32	31.79			P	H
		750.1	28.39	-17.61	46	37.32	19.8	3.25	31.98			P	H
													H
													H
													H
													H
													H
													H
		31.35	27.44	-12.56	40	41.27	17.33	0.67	31.83			P	V
		189.03	33.13	-10.37	43.5	55.09	8.18	1.64	31.78	334	253	P	V
		250.05	30.14	-15.86	46	47.96	12.01	1.94	31.77			P	V
		351.1	22.59	-23.41	46	37.94	14.26	2.17	31.78			P	V
		384	21.86	-24.14	46	36.31	15.02	2.32	31.79			P	V
		750.1	27.96	-18.04	46	36.89	19.8	3.25	31.98			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	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 CH 01 2412MHz		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
		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		2389.38	64.67	-9.33	74	65.47	27.23	6.01	34.04	136	202	P	H
		2390	53.54	-0.46	54	54.34	27.23	6.01	34.04	136	202	A	H
	*	2410	111.95	-	-	112.67	27.28	6.04	34.04	136	202	P	H
	*	2410	104.26	-	-	104.98	27.28	6.04	34.04	136	202	A	H
													H
													H
		2390	61.1	-12.9	74	61.9	27.23	6.01	34.04	100	49	P	V
		2389.92	47.71	-6.29	54	48.51	27.23	6.01	34.04	100	49	A	V
	*	2410.104	105.54	-	-	106.26	27.28	6.04	34.04	100	49	P	V
	*	2410	97.11	-	-	97.83	27.28	6.04	34.04	100	49	A	V
													V
													V
802.11n HT20 CH 06 2437MHz		2389.74	63.93	-10.07	74	64.73	27.23	6.01	34.04	167	200	P	H
		2389.83	53.21	-0.79	54	54.01	27.23	6.01	34.04	167	200	A	H
	*	2435	117.98	-	-	118.65	27.32	6.04	34.03	167	200	P	H
	*	2435	110.11	-	-	110.78	27.32	6.04	34.03	167	200	A	H
		2483.52	58.47	-15.53	74	58.93	27.46	6.09	34.01	167	200	P	H
		2483.56	49.33	-4.67	54	49.79	27.46	6.09	34.01	167	200	A	H
		2387.49	56.1	-17.9	74	56.9	27.23	6.01	34.04	146	32	P	V
		2389.92	47.6	-6.4	54	48.4	27.23	6.01	34.04	146	32	A	V
	*	2439	114.32	-	-	114.94	27.37	6.04	34.03	146	32	P	V
	*	2439	106.46	-	-	107.08	27.37	6.04	34.03	146	32	A	V
		2484.28	54.43	-19.57	74	54.89	27.46	6.09	34.01	146	32	P	V
		2483.52	46.07	-7.93	54	46.53	27.46	6.09	34.01	146	32	A	V



802.11n HT20 CH 11 2462MHz	*	2464	114.27	-	-	114.81	27.41	6.07	34.02	148	184	P	H
	*	2464	106.48	-	-	107.02	27.41	6.07	34.02	148	184	A	H
		2484.28	64.36	-9.64	74	64.82	27.46	6.09	34.01	148	184	P	H
		2483.52	53.8	-0.2	54	54.26	27.46	6.09	34.01	148	184	A	H
													H
													H
	*	2464	107.45	-	-	107.99	27.41	6.07	34.02	137	57	P	V
	*	2464	99.06	-	-	99.6	27.41	6.07	34.02	137	57	A	V
		2484.16	57.75	-16.25	74	58.21	27.46	6.09	34.01	137	57	P	V
		2483.6	47.67	-6.33	54	48.13	27.46	6.09	34.01	137	57	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	32.03	-41.97	74	50.67	31.32	8.65	58.61	100	0	P	H
													H
													H
													H
		4824	33	-41	74	51.64	31.32	8.65	58.61	100	0	P	V
													V
													V
													V
802.11n HT20 CH 06 2437MHz		4872	45.59	-28.41	74	39.03	31.41	8.69	33.54	100	0	P	H
		7308	49.72	-24.28	74	37.49	36.28	10.39	34.44	100	0	P	H
													H
													H
		4872	47.14	-26.86	74	40.58	31.41	8.69	33.54	100	0	P	V
		7308	50.13	-23.87	74	37.9	36.28	10.39	34.44	100	0	P	V
													V
													V
802.11n HT20 CH 11 2462MHz		4926	34.01	-39.99	74	52.15	31.49	8.79	58.42	100	0	P	H
		7386	38.4	-35.6	74	49.76	36.47	10.48	58.31	100	0	P	H
													H
													H
		4926	38.17	-35.83	74	56.31	31.49	8.79	58.42	100	0	P	V
		7386	38.83	-35.17	74	50.19	36.47	10.48	58.31	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		2389.74	67.65	-6.35	74	68.45	27.23	6.01	34.04	155	192	P	H
		2390	53.5	-0.5	54	54.3	27.23	6.01	34.04	155	192	A	H
	*	2424	107.95	-	-	108.62	27.32	6.04	34.03	155	192	P	H
	*	2424	99.24	-	-	99.91	27.32	6.04	34.03	155	192	A	H
		2483.68	53.68	-20.32	74	54.14	27.46	6.09	34.01	155	192	P	H
		2483.52	45.79	-8.21	54	46.25	27.46	6.09	34.01	155	192	A	H
		2389.65	55.78	-18.22	74	56.58	27.23	6.01	34.04	100	49	P	V
		2389.92	46.8	-7.2	54	47.6	27.23	6.01	34.04	100	49	A	V
	*	2420	99.36	-	-	100.03	27.32	6.04	34.03	100	49	P	V
	*	2420	91.25	-	-	91.92	27.32	6.04	34.03	100	49	A	V
		2493.76	53.17	-20.83	74	53.58	27.5	6.09	34	100	49	P	V
		2483.72	43.49	-10.51	54	43.95	27.46	6.09	34.01	100	49	A	V
802.11n HT40 CH 06 2437MHz		2388.57	64.84	-9.16	74	65.64	27.23	6.01	34.04	153	192	P	H
		2390	53.45	-0.55	54	54.25	27.23	6.01	34.04	153	192	A	H
	*	2439	113.21	-	-	113.83	27.37	6.04	34.03	153	192	P	H
	*	2439	104.81	-	-	105.43	27.37	6.04	34.03	153	192	A	H
		2483.68	60.91	-13.09	74	61.37	27.46	6.09	34.01	153	192	P	H
		2483.72	49.21	-4.79	54	49.67	27.46	6.09	34.01	153	192	A	H
		2387.94	57.19	-16.81	74	57.99	27.23	6.01	34.04	139	40	P	V
		2389.38	46.89	-7.11	54	47.69	27.23	6.01	34.04	139	40	A	V
	*	2439	105.08	-	-	105.7	27.37	6.04	34.03	139	40	P	V
	*	2439	97.46	-	-	98.08	27.37	6.04	34.03	139	40	A	V
		2483.52	54.65	-19.35	74	55.11	27.46	6.09	34.01	139	40	P	V
		2483.56	45.99	-8.01	54	46.45	27.46	6.09	34.01	139	40	A	V



802.11n HT40 CH 09 2452MHz		2389.11	59.63	-14.37	74	60.43	27.23	6.01	34.04	155	195	P	H
		2389.92	49.94	-4.06	54	50.74	27.23	6.01	34.04	155	195	A	H
	*	2450	111.84	-	-	112.42	27.37	6.07	34.02	155	195	P	H
	*	2450	103.53	-	-	104.11	27.37	6.07	34.02	155	195	A	H
		2483.6	64.09	-9.91	74	64.55	27.46	6.09	34.01	155	195	P	H
		2483.52	52.89	-1.11	54	53.35	27.46	6.09	34.01	155	195	A	H
		2375.16	53.17	-20.83	74	54.01	27.19	6.01	34.04	136	48	P	V
		2390	44.82	-9.18	54	45.62	27.23	6.01	34.04	136	48	A	V
	*	2450	103.95	-	-	104.53	27.37	6.07	34.02	136	48	P	V
	*	2450	95.64	-	-	96.22	27.37	6.07	34.02	136	48	A	V
		2484	58.99	-15.01	74	59.45	27.46	6.09	34.01	136	48	P	V
		2483.52	49.32	-4.68	54	49.78	27.46	6.09	34.01	136	48	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		4842	32.11	-41.89	74	50.65	31.35	8.69	58.58	100	0	P	H
		7266	38.34	-35.66	74	49.89	36.21	10.34	58.1	100	0	P	H
													H
													H
		4842	32.1	-41.9	74	50.64	31.35	8.69	58.58	100	0	P	V
		7266	38.93	-35.07	74	50.48	36.21	10.34	58.1	100	0	P	V
													V
													V
802.11n HT40 CH 06 2437MHz		4872	33.45	-40.55	74	51.87	31.41	8.69	58.52	100	0	P	H
		7308	37.71	-36.29	74	49.2	36.28	10.39	58.16	100	0	P	H
													H
													H
		4872	32.78	-41.22	74	51.2	31.41	8.69	58.52	100	0	P	V
		7308	38.57	-35.43	74	50.06	36.28	10.39	58.16	100	0	P	V
													V
													V
802.11n HT40 CH 09 2452MHz		4902	32.71	-41.29	74	50.97	31.46	8.74	58.46	100	0	P	H
		7356	39.08	-34.92	74	50.49	36.4	10.44	58.25	100	0	P	H
													H
													H
		4902	32.09	-41.91	74	50.35	31.46	8.74	58.46	100	0	P	V
		7356	37.18	-36.82	74	48.59	36.4	10.44	58.25	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)

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)
2.4GHz 802.11n HT20 LF		31.35	26.73	-13.27	40	40.56	17.33	0.67	31.83			P	H
		62.94	27.69	-12.31	40	53.49	4.95	1.04	31.79			P	H
		189.03	34.23	-9.27	43.5	56.19	8.18	1.64	31.78	100	99	P	H
		384	21	-25	46	35.45	15.02	2.32	31.79			P	H
		540.1	19.6	-26.4	46	30.28	18.5	2.77	31.95			P	H
		750.1	28.72	-17.28	46	37.65	19.8	3.25	31.98			P	H
													H
													H
													H
													H
													H
													H
		39.72	19.41	-20.59	40	37.71	12.85	0.67	31.82			P	V
		141.78	22.11	-21.39	43.5	41.94	10.49	1.46	31.78			P	V
		204.69	28.64	-14.86	43.5	50.37	8.41	1.64	31.78	302	68	P	V
		384	21.67	-24.33	46	36.12	15.02	2.32	31.79			P	V
		561.8	20.84	-25.16	46	31.55	18.5	2.77	31.98			P	V
		723.5	20.7	-25.3	46	29.97	19.6	3.14	32.01			P	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	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 CH 01 2412MHz		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
		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”.