Appendix C. Radiated Spurious Emission

<For Ant. 1>

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)	•	(dBµV/m)	(dB _µ V)	(dB/m)	(dB)	(dB)	(cm)		(P/A)	
		2334.48	53.45	-20.55	74	54.33	27.05	5.33	33.26	142	229	Р	Н
		2385.96	43.76	-10.24	54	44.38	27.23	5.39	33.24	142	229	Α	Н
	*	2410.688	94.5	-	-	95.02	27.28	5.42	33.22	142	229	Р	Н
	*	2410.855	91.89	-	-	92.41	27.28	5.42	33.22	142	229	Α	Н
802.11b													Н
CH 01													Н
2412MHz		2344.29	53.09	-20.91	74	53.91	27.1	5.33	33.25	345	360	Р	V
241201112		2388.57	43.29	-10.71	54	43.91	27.23	5.39	33.24	345	360	Α	V
	*	2413.193	91.79	-	-	92.31	27.28	5.42	33.22	345	360	Р	V
	*	2413.277	89.11	-	-	89.63	27.28	5.42	33.22	345	360	Α	V
													V
													V
		2381.82	53.06	-20.94	74	53.72	27.19	5.39	33.24	117	211	Р	Н
		2359.05	43.35	-10.65	54	44.13	27.14	5.33	33.25	117	211	Α	Н
	*	2435.738	90.84	-	-	91.31	27.32	5.42	33.21	117	211	Р	Н
	*	2435.822	88.31	-	-	88.78	27.32	5.42	33.21	117	211	Α	Н
000 445		2487.64	53.33	-20.67	74	53.55	27.5	5.46	33.18	117	211	Р	Н
802.11b CH 06		2489.8	43.53	-10.47	54	43.75	27.5	5.46	33.18	117	211	Α	Н
2437MHz		2389.38	53.52	-20.48	74	54.14	27.23	5.39	33.24	337	331	Р	V
2437101112		2388.57	43.28	-10.72	54	43.9	27.23	5.39	33.24	337	331	Α	V
	*	2435.655	89.23	-	-	89.7	27.32	5.42	33.21	337	331	Р	V
	*	2435.905	86.62	-	-	87.09	27.32	5.42	33.21	337	331	Α	V
		2491.44	53.69	-20.31	74	53.91	27.5	5.46	33.18	337	331	Р	V
		2499.68	43.37	-10.63	54	43.58	27.5	5.46	33.17	337	331	Α	V

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	*	2460.621	89.66	-	-	90.01	27.41	5.44	33.2	144	210	Р	Н
	*	2460.872	87.06		-	87.41	27.41	5.44	33.2	144	210	Α	Н
		2485.08	53.42	-20.58	74	53.68	27.46	5.46	33.18	144	210	Р	Н
		2488.4	43.6	-10.4	54	43.82	27.5	5.46	33.18	144	210	Α	Н
													Н
802.11b													Н
CH 11	*	2460.872	86.76	-	-	87.11	27.41	5.44	33.2	369	360	Р	V
2462MHz	*	2460.788	84.19	-	-	84.54	27.41	5.44	33.2	369	360	Α	V
		2485.08	53.27	-20.73	74	53.53	27.46	5.46	33.18	369	360	Р	V
		2488.64	43.52	-10.48	54	43.74	27.5	5.46	33.18	369	360	Α	V
													V
													V
	1. N	o other spurious	s found	•		•					•		
Remark		·		Daaleas -	A	sit line n							
	2. A	II results are PA	SS against	Peak and	Average III	iit iinė.							

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WIFI 802.11b (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level	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)	
		4824	44.33	-29.67	74	65.9	31.46	7.58	60.61	100	0	Р	Н
													Н
802.11b													Н
CH 01													Н
2412MHz		4824	46.94	-27.06	74	68.51	31.46	7.58	60.61	100	0	Р	V
													V
													V
													V
		4872	42.95	-31.05	74	64.21	31.56	7.7	60.52	100	0	Р	Н
		7308	45.28	-28.72	74	60.54	36.18	9.49	60.93	100	0	Р	Н
802.11b													Н
CH 06													Н
2437MHz		4872	46.48	-27.52	74	67.74	31.56	7.7	60.52	100	0	Р	V
		7308	44.42	-29.58	74	59.68	36.18	9.49	60.93	100	0	Р	V
													V
		4926	47.24	-26.76	74	68.07	31.66	7.93	60.42	100	0	Р	Н
		7386	42.7	-31.3	74	57.99	36.37	9.53	61.19	100	0	Р	Н
													Н
802.11b													Н
CH 11		4926	50.07	-23.93	74	70.9	31.66	7.93	60.42	100	0	Р	V
2462MHz		7386	43.87	-30.13	74	59.16	36.37	9.53	61.19	100	0	Р	V
													V
													V

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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)	(dB _µ V)	(dB/m)	(dB)	(dB)	(cm)	(deg)		
		2361.57	53.31	-20.69	74	54.09	27.14	5.33	33.25	147	207	Р	Н
		2365.35	43.32	-10.68	54	44.03	27.14	5.39	33.24	147	207	Α	Н
	*	2410.35	80.03	-	-	80.55	27.28	5.42	33.22	147	207	Р	Н
	*	2410.27	72.84	-	-	73.36	27.28	5.42	33.22	147	207	Α	Н
802.11g													Н
CH 01													Н
2412MHz		2327.28	53.8	-20.2	74	54.68	27.05	5.33	33.26	105	154	Р	V
24 (2WII 12		2359.59	43.29	-10.71	54	44.07	27.14	5.33	33.25	105	154	Α	V
	*	2410.1	75.69	1	-	76.21	27.28	5.42	33.22	105	154	Р	V
	*	2410.35	67.89	1	-	68.41	27.28	5.42	33.22	105	154	Α	V
													V
													V
		2372.19	53.92	-20.08	74	54.58	27.19	5.39	33.24	116	228	Р	П
		2361.93	43.22	-10.78	54	44	27.14	5.33	33.25	116	228	Α	Н
	*	2435.4	77.15	1	-	77.62	27.32	5.42	33.21	116	228	Р	Н
	*	2435.49	69.99	1	-	70.46	27.32	5.42	33.21	116	228	Α	Н
000 44		2497.4	52.88	-21.12	74	53.09	27.5	5.46	33.17	116	228	Р	Н
802.11g CH 06		2484.08	43.58	-10.42	54	43.84	27.46	5.46	33.18	116	228	Α	Н
2437MHz		2345.28	52.97	-21.03	74	53.79	27.1	5.33	33.25	100	156	Р	V
2407111112		2387.76	43.37	-10.63	54	43.99	27.23	5.39	33.24	100	156	Α	V
	*	2435.4	72.74	1	-	73.21	27.32	5.42	33.21	100	156	Р	V
	*	2435.07	65.49	ı	-	65.96	27.32	5.42	33.21	100	156	Α	V
		2487.2	53.19	-20.81	74	53.45	27.46	5.46	33.18	100	156	Р	V
		2486.84	43.57	-10.43	54	43.83	27.46	5.46	33.18	100	156	Α	V

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	*	2460.2	77.1	-	-	77.45	27.41	5.44	33.2	164	43	Р	Н
	*	2460.45	69.86	-	-	70.21	27.41	5.44	33.2	164	43	Α	Н
		2489.44	53.26	-20.74	74	53.48	27.5	5.46	33.18	164	43	Р	Н
		2483.72	43.63	-10.37	54	43.89	27.46	5.46	33.18	164	43	Α	Н
													Н
802.11g													Н
CH 11 2462MHz	*	2460.54	73.24	-	-	73.59	27.41	5.44	33.2	227	191	Р	V
2402IVI	*	2460.79	65.13	-	-	65.48	27.41	5.44	33.2	227	191	Α	V
		2491.16	52.91	-21.09	74	53.13	27.5	5.46	33.18	227	191	Р	V
		2487.2	43.7	-10.3	54	43.96	27.46	5.46	33.18	227	191	Α	V
													V
													٧
Remark		o other spurious		Dook and	Avorago lin	nit lina	ı		1	1	1	1	

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-328-4978

WIFI 802.11g (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant. 1		(MHz)	(dBµV/m)	Limit (dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
		4824	38.95	-35.05	74	60.52	31.46	7.58	60.61	100	0	Р	Н
													Н
													Н
802.11g													Н
CH 01		4824	39.44	-34.56	74	61.01	31.46	7.58	60.61	100	0	Р	V
2412MHz													V
													V
													V
		4874	38.08	-35.92	74	59.34	31.56	7.7	60.52	100	0	Р	Н
		7311	42.32	-31.68	74	57.58	36.18	9.49	60.93	100	0	Р	Н
													Н
802.11g													Н
CH 06		4874	39.69	-34.31	74	60.95	31.56	7.7	60.52	100	0	Р	V
2437MHz		7311	42.61	-31.39	74	57.87	36.18	9.49	60.93	100	0	Р	V
													V
													V
		4924	38.95	-35.05	74	59.78	31.66	7.93	60.42	100	0	Р	Н
		7386	41.43	-32.57	74	56.72	36.37	9.53	61.19	100	0	Р	Н
													Н
802.11g													Н
CH 11		4924	41.64	-32.36	74	62.47	31.66	7.93	60.42	100	0	Р	V
2462MHz		7386	41.2	-32.8	74	56.49	36.37	9.53	61.19	100	0	Р	V
													V
													V
Remark		other spurious		Peak and	Average lim	it line.			ı		l		-

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TEL: 886-3-327-3456 FAX: 886-3-328-4978

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant. 1		(MHz)	(dBµV/m)	Limit (dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
		2375.97	53.69	-20.31	74	54.35	27.19	5.39	33.24	201	56	Р	Н
		2385.87	43.79	-10.21	54	44.41	27.23	5.39	33.24	201	56	Α	Н
	*	2435.404	93.88	-	-	94.35	27.32	5.42	33.21	201	56	Р	Н
	*	2435.488	86.66	-	-	87.13	27.32	5.42	33.21	201	56	Α	Н
802.11n		2494.52	53.77	-20.23	74	53.98	27.5	5.46	33.17	201	56	Р	Н
HT20		2483.72	44.04	-9.96	54	44.3	27.46	5.46	33.18	201	56	Α	Н
CH 06		2355.27	53.41	-20.59	74	54.19	27.14	5.33	33.25	375	331	Р	V
2437MHz		2360.49	43.6	-10.4	54	44.38	27.14	5.33	33.25	375	331	Α	V
	*	2435.404	91.89	-	-	92.36	27.32	5.42	33.21	375	331	Р	V
	*	2435.655	84.72	-	-	85.19	27.32	5.42	33.21	375	331	Α	V
		2491.96	54.61	-19.39	74	54.82	27.5	5.46	33.17	375	331	Р	V
		2486.52	43.99	-10.01	54	44.25	27.46	5.46	33.18	375	331	Α	V

Remark

SPORTON INTERNATIONAL INC.

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^{1.} No other spurious found.

^{2.} All results are PASS against Peak and Average limit line.

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)	(dB _µ V)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		4872	39.38	-34.62	74	60.64	31.56	7.7	60.52	100	0	Р	Н
		7308	44.44	-29.56	74	59.7	36.18	9.49	60.93	100	0	Р	Н
802.11n													Н
HT20													Н
CH 06		4878	45.35	-28.65	74	66.61	31.56	7.7	60.52	100	0	Р	V
2437MHz		7308	46.34	-27.66	74	61.6	36.18	9.49	60.93	100	0	Р	V
													٧
													V
	1. No	o other spurious	e found									•	
Remark		•											
	2. All	I results are PA	SS against F	Peak and	Average lim	it line.							

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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)	(dB _µ V)	(dB/m)	(dB)	(dB)	(cm)		(P/A)	, ,
		2327.82	53.04	-20.96	74	53.92	27.05	5.33	33.26	125	228	Р	Н
		2386.86	43.83	-10.17	54	44.45	27.23	5.39	33.24	125	228	Α	Н
	*	2419.7	75.18	-	-	75.65	27.32	5.42	33.21	125	228	Р	Н
	*	2419.62	68.14	-	-	68.61	27.32	5.42	33.21	125	228	Α	Н
802.11n		2489.2	53.81	-20.19	74	54.03	27.5	5.46	33.18	125	228	Р	Н
HT40		2495.76	44.07	-9.93	54	44.28	27.5	5.46	33.17	125	228	Α	Η
CH 03		2332.41	53.05	-20.95	74	53.93	27.05	5.33	33.26	113	156	Р	<
2422MHz		2364.45	43.8	-10.2	54	44.51	27.14	5.39	33.24	113	156	Α	٧
	*	2419.12	70.43	-	-	70.94	27.28	5.42	33.21	113	156	Р	٧
	*	2419.46	63.15	-	-	63.66	27.28	5.42	33.21	113	156	Α	٧
		2499.72	52.9	-21.1	74	53.11	27.5	5.46	33.17	113	156	Р	٧
		2488	44.18	-9.82	54	44.4	27.5	5.46	33.18	113	156	Α	٧
		2386.59	53.33	-20.67	74	53.95	27.23	5.39	33.24	115	227	Р	П
		2387.85	43.83	-10.17	54	44.45	27.23	5.39	33.24	115	227	Α	П
	*	2434.98	73.78	-	-	74.25	27.32	5.42	33.21	115	227	Р	Н
	*	2434.57	66.42	-	-	66.89	27.32	5.42	33.21	115	227	Α	Н
802.11n		2496.96	53.51	-20.49	74	53.72	27.5	5.46	33.17	115	227	Р	Н
HT40		2498.32	44.28	-9.72	54	44.49	27.5	5.46	33.17	115	227	Α	Н
CH 06		2317.47	53.26	-20.74	74	54.24	27.01	5.27	33.26	100	156	Р	V
2437MHz		2389.38	43.61	-10.39	54	44.23	27.23	5.39	33.24	100	156	Α	V
	*	2434.15	68.94	-	-	69.41	27.32	5.42	33.21	100	156	Р	V
	*	2434.4	61.78	-	-	62.25	27.32	5.42	33.21	100	156	Α	٧
		2499.96	53.64	-20.36	74	53.85	27.5	5.46	33.17	100	156	Р	V
		2483.76	44.01	-9.99	54	44.27	27.46	5.46	33.18	100	156	Α	V

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		2325.12	52.68	-21.32	74	53.56	27.05	5.33	33.26	108	210	Р	Н
		2371.11	43.76	-10.24	54	44.42	27.19	5.39	33.24	108	210	Α	Н
	*	2450.02	72.69	-	-	73.08	27.37	5.44	33.2	108	210	Р	Н
	*	2453.94	65.74	-	-	66.09	27.41	5.44	33.2	108	210	Α	Н
802.11n		2494	52.93	-21.07	74	53.14	27.5	5.46	33.17	108	210	Р	Н
HT40		2484.32	44.14	-9.86	54	44.4	27.46	5.46	33.18	108	210	Α	Н
CH 09		2334.39	53.01	-20.99	74	53.89	27.05	5.33	33.26	170	190	Р	V
2452MHz		2382.36	43.92	-10.08	54	44.58	27.19	5.39	33.24	170	190	Α	V
	*	2449.85	67.54	-	-	67.93	27.37	5.44	33.2	170	190	Р	V
	*	2449.01	60.12	-	-	60.51	27.37	5.44	33.2	170	190	Α	V
		2498	53.23	-20.77	74	53.44	27.5	5.46	33.17	170	190	Р	V
		2491.56	44.08	-9.92	54	44.3	27.5	5.46	33.18	170	190	Α	V

Remark

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^{1.} No other spurious found.

^{2.} All results are PASS against Peak and Average limit line.

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)	(dB _µ V)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V
		4824	37.88	-36.12	74	59.45	31.46	7.58	60.61	100	0	Р	Н
													Н
802.11n													Н
HT40													Н
CH 03		4824	38.23	-35.77	74	59.8	31.46	7.58	60.61	100	0	Р	V
2422MHz													V
													V
													٧
		4874	37.96	-36.04	74	59.22	31.56	7.7	60.52	100	0	Р	Н
		7311	41.87	-32.13	74	57.13	36.18	9.49	60.93	100	0	Р	Н
802.11n													Н
HT40													Н
CH 06		4874	38.51	-35.49	74	59.77	31.56	7.7	60.52	100	0	Р	V
2437MHz		7311	41.6	-32.4	74	56.86	36.18	9.49	60.93	100	0	Р	٧
													٧
													V
		4904	39.12	-34.88	74	60.13	31.63	7.82	60.46	100	0	Р	Н
		7356	41.75	-32.25	74	57.03	36.3	9.51	61.09	100	0	Р	Н
802.11n													Н
HT40													Н
CH 09		4904	38.98	-35.02	74	59.99	31.63	7.82	60.46	100	0	Р	V
2452MHz		7356	41.15	-32.85	74	56.43	36.3	9.51	61.09	100	0	Р	V
													V
													V
				1									

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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)
		108.03	28.53	-14.97	43.5	48.83	11.2	1.14	32.64			Р	Н
		192.81	37.83	-5.67	43.5	59.46	9.61	1.48	32.72	100	326	Р	Н
		241.14	32.4	-13.6	46	51.45	12.06	1.62	32.73			Р	Н
		385.4	31.48	-14.52	46	46.05	16.12	2.13	32.82			Р	Н
		602.4	34.91	-11.09	46	45.75	19.62	2.57	33.03			Р	Н
		825	29.88	-16.12	46	37.25	22.3	3.07	32.74			Р	Н
													Н
													Н
													Н
													Н
													Н
2.4GHz													Н
802.11b LF		51.06	31.71	-8.29	40	54.67	8.89	0.93	32.78	114	2	Р	V
LF		99.66	23.2	-20.3	43.5	44.29	10.4	1.14	32.63			Р	V
		192.81	30.39	-13.11	43.5	52.02	9.61	1.48	32.72			Р	V
		400.1	25.7	-20.3	46	39.89	16.52	2.13	32.84			Р	V
		506.5	28.9	-17.1	46	41.24	18.26	2.33	32.93			Р	V
		699	28.53	-17.47	46	38.11	20.59	2.82	32.99			Р	V
													V
													V
													V
													V
													V
													V

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<For MIMO Ant. 1 + 2>

2.4GHz 2400~2483.5MHz

Report No.: FR4O2349C

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)		(dBµV/m)	(dB _µ V)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	
		2387.04	53.34	-20.66	74	53.96	27.23	5.39	33.24	115	315	Р	Н
		2365.35	43.66	-10.34	54	44.37	27.14	5.39	33.24	115	315	Α	Н
	*	2410.1	87.04	-	-	87.56	27.28	5.42	33.22	115	315	Р	Н
	*	2413.95	80.09	-	-	80.61	27.28	5.42	33.22	115	315	Α	Н
802.11n													Н
HT20													Н
CH 01		2387.31	52.88	-21.12	74	53.5	27.23	5.39	33.24	361	269	Р	٧
2412MHz		2389.92	43.91	-10.09	54	44.51	27.23	5.39	33.22	361	269	Α	٧
	*	2410.35	86.18	-	-	86.7	27.28	5.42	33.22	361	269	Р	٧
	*	2413.86	79.17	-	-	79.69	27.28	5.42	33.22	361	269	Α	٧
													٧
													٧
		2389.47	53.57	-20.43	74	54.19	27.23	5.39	33.24	225	315	Р	Н
		2379.93	43.65	-10.35	54	44.31	27.19	5.39	33.24	225	315	Α	Н
	*	2435.15	87.2	-	-	87.67	27.32	5.42	33.21	225	315	Р	Н
	*	2435.49	79.85	-	-	80.32	27.32	5.42	33.21	225	315	Α	Н
802.11n		2485.56	53.16	-20.84	74	53.42	27.46	5.46	33.18	225	315	Р	Н
HT20		2489	44	-10	54	44.22	27.5	5.46	33.18	225	315	Α	Н
CH 06		2389.74	52.84	-21.16	74	53.46	27.23	5.39	33.24	370	269	Р	٧
2437MHz		2389.56	43.88	-10.12	54	44.5	27.23	5.39	33.24	370	269	Α	V
	*	2435.32	87.97	-	-	88.44	27.32	5.42	33.21	370	269	Р	V
	*	2435.74	80.65	-	-	81.12	27.32	5.42	33.21	370	269	Α	٧
		2491.48	53.59	-20.41	74	53.81	27.5	5.46	33.18	370	269	Р	٧
		2487.32	44.2	-9.8	54	44.46	27.46	5.46	33.18	370	269	Α	٧

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	*	2463.54	88.07	-	-	88.42	27.41	5.44	33.2	136	312	Р	Н
	*	2463.54	79.73	-	-	80.08	27.41	5.44	33.2	136	312	Α	Н
		2499.4	53.01	-20.99	74	53.22	27.5	5.46	33.17	136	312	Р	Н
		2484.44	44.15	-9.85	54	44.41	27.46	5.46	33.18	136	312	Α	Н
802.11n													Н
HT20													Н
CH 11	*	2460.45	87.48	-	-	87.83	27.41	5.44	33.2	351	266	Р	٧
2462MHz	*	2460.87	80.32	-	-	80.67	27.41	5.44	33.2	351	266	Α	V
		2485.72	53.37	-20.63	74	53.63	27.46	5.46	33.18	351	266	Р	V
		2484.8	44.12	-9.88	54	44.38	27.46	5.46	33.18	351	266	Α	V
													V
													V

Remark

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^{1.} No other spurious found.

^{2.} All results are PASS against Peak and Average limit line.

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		Avg.	
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V
		4824	38.81	-35.19	74	60.38	31.46	7.58	60.61	100	0	Р	Н
													Н
802.11n													Н
HT20													Н
CH 01		4824	38.42	-35.58	74	59.99	31.46	7.58	60.61	100	0	Р	V
2412MHz													٧
													V
													V
		4874	38.72	-35.28	74	59.98	31.56	7.7	60.52	100	0	Р	Н
		7311	43.02	-30.98	74	58.28	36.18	9.49	60.93	100	0	Р	Н
802.11n													Н
HT20													Н
CH 06		4874	38.1	-35.9	74	59.36	31.56	7.7	60.52	100	0	Р	V
2437MHz		7311	42.5	-31.5	74	57.76	36.18	9.49	60.93	100	0	Р	V
													V
													V
		4924	38.69	-35.31	74	59.52	31.66	7.93	60.42	100	0	Р	Н
		7386	41.16	-32.84	74	56.45	36.37	9.53	61.19	100	0	Р	Н
802.11n													Н
HT20													Н
CH 11		4924	39.08	-34.92	74	59.91	31.66	7.93	60.42	100	0	Р	٧
2462MHz		7386	41.79	-32.21	74	57.08	36.37	9.53	61.19	100	0	Р	٧
													V
													٧

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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)		(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)		
		99.66	23.31	-20.19	43.5	44.4	10.4	1.14	32.63			Р	Н
		192.81	36.15	-7.35	43.5	57.78	9.61	1.48	32.72	163	174	Р	Н
		216.84	34.25	-11.75	46	55.1	10.26	1.62	32.73			Р	Н
		433.7	29.15	-16.85	46	42.82	17.04	2.16	32.87			Р	Н
		626.9	32.14	-13.86	46	42.62	19.92	2.62	33.02			Р	Н
		795.6	30.92	-15.08	46	38.78	22.05	2.97	32.88			Р	Н
													Н
													Н
													Н
													Н
2.4GHz													Н
802.11n													Н
HT20		51.33	35.98	-4.02	40	58.94	8.89	0.93	32.78	199	221	Р	V
LF		86.43	19.4	-20.6	40	42.21	8.72	1.14	32.67			Р	V
		192.81	26.5	-17	43.5	48.13	9.61	1.48	32.72			Р	V
		398.7	27.95	-18.05	46	42.19	16.47	2.13	32.84			Р	V
		495.3	27.68	-18.32	46	40.16	18.11	2.33	32.92			Р	V
		722.8	24.42	-21.58	46	33.51	21.05	2.82	32.96			Р	V
													V
													V
													V
													V
													V
													V

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Note symbol

Report No. : FR4O2349C

*	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

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A calculation example for radiated spurious emission is shown as below:

Report No.: FR4O2349C

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	Р	Н
CH 01													
2412MHz		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	Α	Н

1. Level($dB\mu V/m$) =

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

2. Over Limit(dB) = Level(dB μ V/m) – Limit Line(dB μ V/m)

For Peak Limit @ 2390MHz:

- 1. Level(dBµV/m)
- = Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBµV) Preamp Factor(dB)
- $= 32.22(dB/m) + 4.58(dB) + 54.51(dB\mu V) 35.86 (dB)$
- $= 55.45 (dB\mu V/m)$
- 2. Over Limit(dB)
- = Level($dB\mu V/m$) Limit Line($dB\mu V/m$)
- $= 55.45(dB\mu V/m) 74(dB\mu V/m)$
- = -18.55(dB)

For Average Limit @ 2390MHz:

- 1. Level(dBµV/m)
- = Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dB μ V) Preamp Factor(dB)
- $= 32.22(dB/m) + 4.58(dB) + 42.6(dB\mu V) 35.86 (dB)$
- $= 43.54 (dB\mu V/m)$
- 2. Over Limit(dB)
- = Level($dB\mu V/m$) Limit Line($dB\mu V/m$)
- $=43.54(dB\mu V/m) 54(dB\mu V/m)$
- = -10.46(dB)

Both peak and average measured complies with the limit line, so test result is "PASS".

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