Appendix B. Radiated Spurious Emission

Toot Engineer	Karl Hay Dayer Las Datar Line Citta Ke, and Nick Vi	Temperature :	22~25°C
rest Engineer :	Karl Hou, Rover Lee, Peter Liao, Citta Ke, and Nick Yu	Relative Humidity :	52~56%

Band 2 - 5250~5350MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant. 1+2		(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)
		5069.68	54.31	-19.69	74	42.42	31.57	11.27	30.95	100	196	Р	Н
		5132.86	42.53	-11.47	54	30.61	31.63	11.24	30.95	100	196	Α	Н
	*	5260	114.54	-	-	102.46	31.77	11.26	30.95	100	196	Р	Н
	*	5260	104.25	-	-	92.17	31.77	11.26	30.95	100	196	Α	Н
		5389.44	54.55	-19.45	74	42.02	31.88	11.6	30.95	100	196	Р	Н
802.11a CH 52		5437.68	43.47	-10.53	54	30.85	31.93	11.64	30.95	100	196	Α	Н
5260MHz		5117.26	53.62	-20.38	74	41.71	31.62	11.24	30.95	100	120	Р	٧
3200WITI2		5112.32	42.03	-11.97	54	30.12	31.62	11.24	30.95	100	120	Α	٧
	*	5260	111.19	-	-	99.11	31.77	11.26	30.95	100	120	Р	٧
	*	5260	102.84	-	-	90.76	31.77	11.26	30.95	100	120	Α	V
		5446.08	53.73	-20.27	74	41.09	31.95	11.64	30.95	100	120	Р	V
		5436.96	42.9	-11.1	54	30.28	31.93	11.64	30.95	100	120	Α	V
		5094.9	52.95	-21.05	74	41.03	31.6	11.27	30.95	100	197	Р	Н
		5059.02	42.2	-11.8	54	30.27	31.57	11.31	30.95	100	197	Α	Н
	*	5300	113.37	-	-	101.17	31.8	11.35	30.95	100	197	Р	Н
	*	5300	104.01	-	-	91.81	31.8	11.35	30.95	100	197	Α	Н
000 44 -		5353.44	58.37	-15.63	74	45.95	31.85	11.52	30.95	100	197	Р	Н
802.11a CH 60		5350.08	46.02	-7.98	54	33.6	31.85	11.52	30.95	100	197	Α	Н
5300MHz		5081.38	53.64	-20.36	74	41.74	31.58	11.27	30.95	100	119	Р	V
3300W112		5133.9	41.88	-12.12	54	29.96	31.63	11.24	30.95	100	119	Α	٧
	*	5300	111.36	-	-	99.16	31.8	11.35	30.95	100	119	Р	٧
	*	5300	102.26	-	-	90.06	31.8	11.35	30.95	100	119	Α	٧
		5351.76	57.18	-16.82	74	44.76	31.85	11.52	30.95	100	119	Р	٧
		5352	44.46	-9.54	54	32.04	31.85	11.52	30.95	100	119	Α	V

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* 5320 112.26 99.96 31.82 11.43 30.95 100 195 Ρ Н * 5320 103.24 -90.94 31.82 11.43 30.95 100 195 Α Н -Ρ 5351.68 64.25 -9.75 74 51.83 31.85 11.52 30.95 100 195 Н 31.85 100 5351.04 52.23 -1.77 54 39.81 11.52 30.95 195 Α Η Н 802.11a Н CH 64 ٧ 5320 111.4 99.1 31.82 11.43 30.95 100 119 5320MHz 5320 101.58 31.82 30.95 ٧ 89.28 11.43 100 119 Α ٧ 5350.72 62.34 -11.66 74 49.92 31.85 11.52 30.95 100 119 5350.24 50.48 31.85 11.52 30.95 100 Α ٧ -3.52 54 38.06 119 ٧ ٧ No other spurious found. Remark All results are PASS against Peak and Average limit line.

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WIFI 802.11a (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V
		10520	59.92	-8.28	68.2	59.99	39.82	17.31	57.2	100	164	Р	Н
		15780	45.61	-28.39	74	43.9	37.97	21.79	58.05	100	0	Р	Н
802.11a													Н
CH 52													Н
5260MHz		10520	66.79	-1.41	68.2	66.86	39.82	17.31	57.2	100	147	Р	V
0200111112		15780	46.29	-27.71	74	44.58	37.97	21.79	58.05	100	0	Р	V
													V
		10600	57.65	-16.35	74	57.51	39.92	17.4	57.18	100	152	Р	V
						46.35	39.92				152		Н
		10600	46.49	-7.51	54			17.4	57.18	100		A	
802.11a		15900	44.38	-29.62	74	42.49	37.82	21.88	57.81	100	0	Р	Н
CH 60		10600	61.96	-12.04	74	61.82	39.92	17.4	57.18	100	150	Р	H V
5300MHz		10600	52.29	-1.71	54	52.15	39.92	17.4	57.18	100	150	A	V
		15900	46.18	-27.82	74	44.29	37.82	21.88	57.81	100	0	Р	V
													V
		10640	46.99	-27.01	74	46.74	39.97	17.45	57.17	100	0	Р	Н
		15960	44.24	-29.76	74	42.23	37.74	21.94	57.67	100	0	Р	Н
802.11a													Н
CH 64													Н
5320MHz		10640	48.59	-25.41	74	48.34	39.97	17.45	57.17	100	0	Р	V
3020Mii 12		15960	43.33	-30.67	74	41.32	37.74	21.94	57.67	100	0	Р	V
													V
													V

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WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant. 1+2		(MHz)	(dBµV/m)	Limit (dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos	Avg. (P/A)	(H/V)
		5116.74	53.28	-20.72	74	41.37	31.62	11.24	30.95	100	195	P	Н
		5141.18	42.6	-11.4	54	30.69	31.65	11.21	30.95	100	195	Α	Н
	*	5260	109.31	-	-	97.23	31.77	11.26	30.95	100	195	Р	Н
	*	5260	101.16	-	-	89.08	31.77	11.26	30.95	100	195	Α	Н
802.11n		5417.76	53.55	-20.45	74	40.98	31.92	11.6	30.95	100	195	Р	Н
HT20		5438.4	43.46	-10.54	54	30.84	31.93	11.64	30.95	100	195	Α	Н
CH 52		5145.34	52.74	-21.26	74	40.83	31.65	11.21	30.95	100	122	Р	V
5260MHz		5117.52	42.63	-11.37	54	30.72	31.62	11.24	30.95	100	122	Α	V
	*	5260	109.21	-	-	97.13	31.77	11.26	30.95	100	122	Р	٧
	*	5260	101.01	-	-	88.93	31.77	11.26	30.95	100	122	Α	٧
		5404.56	53.71	-20.29	74	41.16	31.9	11.6	30.95	100	122	Р	٧
		5441.52	43.56	-10.44	54	30.94	31.93	11.64	30.95	100	122	Α	٧
		5118.82	54.86	-19.14	74	42.95	31.62	11.24	30.95	100	187	Р	Н
		5060.58	43.08	-10.92	54	31.19	31.57	11.27	30.95	100	187	Α	Н
	*	5300	111.91	-	-	99.71	31.8	11.35	30.95	100	187	Р	Н
	*	5300	102.01	-	-	89.81	31.8	11.35	30.95	100	187	Α	Н
802.11n		5350.32	60.36	-13.64	74	47.94	31.85	11.52	30.95	100	187	Р	Н
HT20		5352	48.65	-5.35	54	36.23	31.85	11.52	30.95	100	187	Α	Н
CH 60		5040.82	54.39	-19.61	74	42.48	31.55	11.31	30.95	100	117	Р	V
5300MHz		5134.42	43.17	-10.83	54	31.25	31.63	11.24	30.95	100	117	Α	V
	*	5300	110.71	-	-	98.51	31.8	11.35	30.95	100	117	Р	٧
	*	5300	101.02	-	-	88.82	31.8	11.35	30.95	100	117	Α	٧
		5353.44	59.6	-14.4	74	47.18	31.85	11.52	30.95	100	117	Р	V
		5350.08	48.41	-5.59	54	35.99	31.85	11.52	30.95	100	117	Α	V

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	*	5322	110.17	-	-	97.87	31.82	11.43	30.95	100	196	Р	Н
	*	5322	99.71	-	-	87.41	31.82	11.43	30.95	100	196	Α	Н
		5350.24	63.19	-10.81	74	50.77	31.85	11.52	30.95	100	196	Р	Н
		5350.4	52.72	-1.28	54	40.3	31.85	11.52	30.95	100	196	Α	Н
802.11n													Н
HT20													Н
CH 64	*	5320	108.92	-	-	96.62	31.82	11.43	30.95	100	120	Р	V
5320MHz	*	5320	99.27	-	-	86.97	31.82	11.43	30.95	100	120	Α	V
		5351.36	63.38	-10.62	74	50.96	31.85	11.52	30.95	100	120	Р	V
		5350.72	51.98	-2.02	54	39.56	31.85	11.52	30.95	100	120	Α	V
													V
													٧
	1. No	o other spurious	s found.	,		,				,			
Remark	2. Al	I results are PA	SS against l	Peak and	Average lir	nit line.							

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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)		(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/\
		10525	61.89	-6.31	68.2	61.96	39.82	17.31	57.2	100	121	Р	Н
		15780	47.56	-26.44	74	45.85	37.97	21.79	58.05	100	0	Р	Н
802.11n													Н
HT20													Н
CH 52		10520	67	-1.2	68.2	67.07	39.82	17.31	57.2	100	146	Р	V
5260MHz		15780	45.52	-28.48	74	43.81	37.97	21.79	58.05	100	0	Р	V
													V
													V
		10605	59.19	-14.81	74	59.05	39.92	17.4	57.18	100	150	Р	Н
		10605	46.16	-7.84	54	46.02	39.92	17.4	57.18	100	150	Α	Н
802.11n		15900	42.56	-31.44	74	40.67	37.82	21.88	57.81	100	0	Р	Н
HT20													Н
CH 60		10600	64.7	-9.3	74	64.56	39.92	17.4	57.18	100	148	Р	V
5300MHz		10600	52.23	-1.77	54	52.09	39.92	17.4	57.18	100	148	Α	V
		15900	46.03	-27.97	74	44.14	37.82	21.88	57.81	100	0	Р	V
													V
		10640	50.4	-23.6	74	50.15	39.97	17.45	57.17	100	0	Р	Н
		15960	43.86	-30.14	74	41.85	37.74	21.94	57.67	100	0	Р	Н
802.11n													Н
HT20													Н
CH 64		10640	53	-21	74	52.75	39.97	17.45	57.17	100	0	Р	V
5320MHz		15960	43.55	-30.45	74	41.54	37.74	21.94	57.67	100	0	Р	V
													V
													V

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

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WIFI 802.11n HT40 (Band Edge @ 3m)

Ant. 1+2					Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	FOI.
1_2				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
172		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V
-		5147.16	54.8	-19.2	74	42.89	31.65	11.21	30.95	100	195	Р	Н
_		5147.94	44.57	-9.43	54	32.66	31.65	11.21	30.95	100	195	Α	Н
	*	5270	109.34	-	-	97.17	31.77	11.35	30.95	100	195	Р	Н
	*	5270	99.17	-	-	87	31.77	11.35	30.95	100	195	Α	Н
802.11n		5350.32	65.27	-8.73	74	52.85	31.85	11.52	30.95	100	195	Р	Н
HT40		5350.32	52.87	-1.13	54	40.45	31.85	11.52	30.95	100	195	Α	Н
CH 54		5149.76	54.65	-19.35	74	42.74	31.65	11.21	30.95	100	119	Р	V
5270MHz		5147.94	44.35	-9.65	54	32.44	31.65	11.21	30.95	100	119	Α	V
	*	5270	108.15	-	-	95.98	31.77	11.35	30.95	100	119	Р	V
	*	5270	98.88	-	-	86.71	31.77	11.35	30.95	100	119	Α	V
		5352	61.17	-12.83	74	48.75	31.85	11.52	30.95	100	119	Р	V
		5350.56	51.07	-2.93	54	38.65	31.85	11.52	30.95	100	119	Α	V
		5012.74	52.71	-21.29	74	40.8	31.52	11.34	30.95	100	188	Р	Н
		5061.88	42.37	-11.63	54	30.48	31.57	11.27	30.95	100	188	Α	Н
	*	5310	103.1	-	-	90.8	31.82	11.43	30.95	100	188	Р	Н
	*	5310	93.32	-	-	81.02	31.82	11.43	30.95	100	188	Α	Н
802.11n		5352	61.19	-12.81	74	48.77	31.85	11.52	30.95	100	188	Р	Н
HT40		5350.32	51.17	-2.83	54	38.75	31.85	11.52	30.95	100	188	Α	Н
CH 62		5144.3	52.91	-21.09	74	41	31.65	11.21	30.95	100	120	Р	V
5310MHz		5125.32	42.47	-11.53	54	30.55	31.63	11.24	30.95	100	120	Α	V
	*	5310	102.95	-	-	90.65	31.82	11.43	30.95	100	120	Р	V
	*	5310	92.98	-	-	80.68	31.82	11.43	30.95	100	120	Α	V
		5350.8	58.08	-15.92	74	45.66	31.85	11.52	30.95	100	120	Р	V
		5350.08	49.44	-4.56	54	37.02	31.85	11.52	30.95	100	120	Α	V

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WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol
Ant. 1+2		(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
		10540	59.42	-8.78	68.2	59.46	39.84	17.31	57.19	100	122	Р	Н
		15810	44.43	-29.57	74	42.66	37.93	21.82	57.98	100	0	Р	Н
802.11n													Н
HT40													Н
CH 54		10540	60.77	-7.43	68.2	60.81	39.84	17.31	57.19	100	153	Р	V
5270MHz		15810	43.32	-30.68	74	41.55	37.93	21.82	57.98	100	0	Р	٧
													V
													V
		10620	45.71	-28.29	74	45.55	39.94	17.4	57.18	100	0	Р	Н
		15930	42.1	-31.9	74	40.15	37.78	21.91	57.74	100	0	Р	Н
802.11n													Н
HT40													Н
CH 62		10620	46.56	-27.44	74	46.4	39.94	17.4	57.18	100	0	Р	V
5310MHz		15930	41.94	-32.06	74	39.99	37.78	21.91	57.74	100	0	Р	V
													V
													V

All results are PASS against Peak and Average limit line.

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WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant. 1+2		(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)
		5090.74	58.91	-15.09	74	46.99	31.6	11.27	30.95	100	196	Р	Η
		5047.58	49.36	-4.64	54	37.45	31.55	11.31	30.95	100	196	Α	Н
	*	5290	98.61	-	-	86.43	31.78	11.35	30.95	100	196	Р	Н
	*	5290	88.05	-	-	75.87	31.78	11.35	30.95	100	196	Α	Н
802.11ac		5351.04	62.5	-11.5	74	50.08	31.85	11.52	30.95	100	196	Р	Н
VHT80		5378.88	52.85	-1.15	54	40.4	31.88	11.52	30.95	100	196	Р	Н
CH 58		5144.04	58.65	-15.35	74	46.74	31.65	11.21	30.95	100	120	Р	٧
5290MHz		5065.26	49.86	-4.14	54	37.97	31.57	11.27	30.95	100	120	Α	٧
	*	5290	97.23	-	-	85.05	31.78	11.35	30.95	100	120	Р	٧
	*	5290	86.84	-	-	74.66	31.78	11.35	30.95	100	120	Α	٧
		5350.32	61.63	-12.37	74	49.21	31.85	11.52	30.95	100	120	Р	٧
		5357.04	52.69	-1.31	54	40.27	31.85	11.52	30.95	100	120	Α	V

Remark

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^{1.} No other spurious found.

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

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	
		10580	46.54	-27.46	74	46.46	39.9	17.36	57.18	100	0	Р	Н
		15870	43.74	-30.26	74	41.86	37.84	21.88	57.84	100	0	Р	Н
802.11ac													Н
VHT80													Н
CH 58		10580	46.7	-27.3	74	46.62	39.9	17.36	57.18	100	0	Р	V
5290MHz		15870	42.48	-31.52	74	40.6	37.84	21.88	57.84	100	0	Р	V
													V
													V
	1. No	o other spurious	s found.										
Remark	2. Al	I results are PA	SS against F	Peak and	Average lim	it line.							

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Band 3 - 5470~5725MHz

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+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5459.92	61.12	-12.88	74	48.48	31.95	11.64	30.95	100	219	Р	Н
		5469.36	66.16	-2.04	68.2	53.47	31.97	11.67	30.95	100	219	Р	Н
		5459.92	48.9	-5.1	54	36.26	31.95	11.64	30.95	100	219	Α	Н
	*	5502	115.88	-	-	103.14	32	11.7	30.96	100	219	Р	Н
902.446	*	5502	104.6	-	-	91.86	32	11.7	30.96	100	219	Α	Н
802.11a CH 100													Н
5500MHz		5459.12	62.06	-11.94	74	49.42	31.95	11.64	30.95	100	124	Р	V
3300WI112		5468.88	64.08	-4.12	68.2	51.39	31.97	11.67	30.95	100	124	Р	V
		5460	48.62	-5.38	54	35.98	31.95	11.64	30.95	100	124	Α	V
	*	5500	112.97	-	-	100.25	32	11.67	30.95	100	124	Р	V
	*	5500	102.2	-	-	89.48	32	11.67	30.95	100	124	Α	V
													V
		5431.6	55.2	-18.8	74	42.58	31.93	11.64	30.95	100	232	Р	Н
		5467.6	44.17	-9.83	54	31.48	31.97	11.67	30.95	100	232	Α	Н
	*	5580	118.21	-	-	105.35	32.1	11.74	30.98	100	232	Р	Н
	*	5580	108	-	-	95.14	32.1	11.74	30.98	100	232	Α	Н
000 44		5738.4	56.71	-17.29	74	43.56	32.34	11.84	31.03	100	232	Р	Н
802.11a CH 116		5731.225	45.36	-8.64	54	32.24	32.31	11.84	31.03	100	232	Α	Н
5580MHz		5355.52	53.45	-20.55	74	41.03	31.85	11.52	30.95	100	269	Р	V
3300WIF12		5455.36	42.46	-11.54	54	29.82	31.95	11.64	30.95	100	269	Α	٧
	*	5580	116.37	-	-	103.51	32.1	11.74	30.98	100	269	Р	V
	*	5580	106.08	-	-	93.22	32.1	11.74	30.98	100	269	Α	V
		5732.8	54.02	-19.98	74	40.9	32.31	11.84	31.03	100	269	Р	V
		5728.075	43.1	-10.9	54	29.97	32.31	11.84	31.02	100	269	Α	V

SPORTON INTERNATIONAL INC.

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

* 5702 114.46 101.34 32.29 11.84 31.01 100 232 Ρ Н * 5702 103.32 -90.2 32.29 11.84 31.01 100 232 Α Н Ρ 5725.24 67.03 -1.17 68.2 53.9 32.31 11.84 31.02 100 232 Н Η Η 802.11a Н CH 140 ٧ 5698 111.22 98.14 32.27 11.82 31.01 100 273 5700MHz 100.37 87.29 32.27 11.82 31.01 100 ٧ 5698 273 Α 100 273 ٧ 5725.16 65.97 -2.23 68.2 52.84 32.31 11.84 31.02 ٧ ٧ ٧ No other spurious found. Remark All results are PASS against Peak and Average limit line.

SPORTON INTERNATIONAL INC.

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

Band 3 - 5470~5725MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)		(P/A)	
		11000	50.96	-23.04	74	49.8	40.4	17.86	57.1	100	0	Р	Н
		16500	45.91	-22.29	68.2	40.19	39.3	22.42	56	100	0	Р	Н
802.11a													Н
CH 100													Н
5500MHz		11000	51.25	-22.75	74	50.09	40.4	17.86	57.1	100	0	Р	V
3300WII 12		16500	44.04	-24.16	68.2	38.32	39.3	22.42	56	100	0	Р	V
													V
													V
		11160	58.35	-15.65	74	57.34	40.3	18.04	57.33	100	155	Р	Н
		11160	47.59	-6.41	54	46.58	40.3	18.04	57.33	100	155	Α	Н
		16740	45.43	-22.77	68.2	38.85	40.07	22.65	56.14	100	0	Р	Н
802.11a													Н
CH 116		11160	62.39	-11.61	74	61.38	40.3	18.04	57.33	100	182	Р	V
5580MHz		11160	51.71	-2.29	54	50.7	40.3	18.04	57.33	100	182	Α	V
		16740	45.1	-23.1	68.2	38.52	40.07	22.65	56.14	100	0	Р	V
													V
		11400	49.07	-24.93	74	48.26	40.16	18.31	57.66	100	0	Р	Н
		17100	46.49	-21.71	68.2	38.94	41.22	22.99	56.66	100	0	Р	Н
													Н
802.11a													Н
CH 140		11400	51	-23	74	50.19	40.16	18.31	57.66	100	0	Р	V
5700MHz		17100	45.74	-22.46	68.2	38.19	41.22	22.99	56.66	100	0	Р	V
													V
													V

SPORTON INTERNATIONAL INC.

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

Band 3 - 5470~5725MHz WIFI 802.11n HT20 (Band Edge @ 3m)

Report No.: FR6O0801-01F

WIFI Note Frequency Level Over Limit Read **Antenna** Cable Preamp Ant **Table** Peak Pol. Ant. Limit **Factor** Pos Pos Line Level Loss **Factor** Avg. 1+2 (MHz) (dBµV/m) (dB) (dB \(V/m \) (dBµV) (dB/m) (dB) (dB) (cm) (deg) (P/A) (H/V) 5458 62.18 -11.82 74 49.54 31.95 11.64 30.95 100 230 Н 5468.56 66.94 -1.2668.2 54.25 31.97 100 230 11.67 30.95 Η 5460 51.54 -2.46 54 31.95 11.64 30.95 100 230 Α Н 38.9 * 5500 112.61 99.89 32 11.67 30.95 100 230 Ρ Н 5500 102.56 89.84 32 11.67 30.95 100 230 Α Н 802.11n **HT20** Н **CH 100** 31.95 Ρ ٧ 5457.04 63.05 -10.9574 50.41 11.64 30.95 110 126 5500MHz 54.41 Р ٧ 5469.84 67.1 -1.1 68.2 31.97 11.67 30.95 110 126 5458.32 52.13 -1.87 54 39.49 31.95 11.64 30.95 110 126 Α ٧ 5500 111.02 98.3 32 11.67 30.95 110 126 Ρ ٧ * 5500 100.87 88.15 32 11.67 30.95 110 126 Α ٧ ٧ Ρ 5434.48 74 31.93 11.64 30.95 100 232 Н 55.62 -18.38 43 5444.08 31.93 100 232 43.77 -10.2354 31.15 11.64 30.95 Α Н 5580 116.74 -103.88 32.1 11.74 30.98 100 232 Ρ Н * 5580 106.19 93.33 32.1 11.74 30.98 100 232 Α Н 802.11n 5728.775 55.03 -18.97 74 41.9 32.31 11.84 31.02 100 232 Н HT20 5726.5 44.76 -9.2454 31.63 32.31 11.84 31.02 100 232 Α Η **CH 116** Ρ 5453.68 53.24 -20.76 74 40.6 31.95 11.64 30.95 100 269 ٧ 5580MHz 5456.8 43.46 -10.54 54 30.82 31.95 11.64 30.95 100 269 Α ٧ * 5580 114.28 101.42 32.1 11.74 30.98 100 269 Ρ ٧ * ٧ 5580 104 91.14 32.1 11.74 30.98 100 269 100 269 Ρ ٧ 5753.8 53.58 -20.42 74 40.39 32.36 11.86 31.03 5737.875 43.93 -10.07 54 30.78 32.34 11.84 31.03 100 269 Α ٧

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	*	5698	110.86	-	-	97.78	32.27	11.82	31.01	100	232	Р	Н
	*	5698	101.08	-	-	88	32.27	11.82	31.01	100	232	Α	Н
		5725	66.79	-1.41	68.2	53.66	32.31	11.84	31.02	100	232	Р	Н
													Н
802.11n													Н
HT20													Н
CH 140	*	5698	107.7	-	-	94.62	32.27	11.82	31.01	100	281	Р	V
5700MHz	*	5698	97.28	-	-	84.2	32.27	11.82	31.01	100	281	Α	٧
		5725	63.24	-4.96	68.2	50.11	32.31	11.84	31.02	100	281	Р	V
													V
													V
													٧
	1. N	o other spuriou	ıs found.					•				•	
Remark	2. Al	I results are PA	ASS against	Peak and	Average lir	nit line.							

SPORTON INTERNATIONAL INC.

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

Band 3 - 5470~5725MHz

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)		
		11000	51.14	-22.86	74	49.98	40.4	17.86	57.1	100	0	Р	Н
		16500	45.9	-22.3	68.2	40.18	39.3	22.42	56	100	0	Р	Н
802.11n													Н
HT20													Н
CH 100		11000	52.99	-21.01	74	51.83	40.4	17.86	57.1	100	0	Р	V
5500MHz		16500	44.88	-23.32	68.2	39.16	39.3	22.42	56	100	0	Р	V
													V
													V
		11160	61.04	-12.96	74	60.03	40.3	18.04	57.33	100	152	Р	Н
		11160	48.34	-5.66	54	47.33	40.3	18.04	57.33	100	152	Α	Н
802.11n		16740	46.06	-27.94	74	39.48	40.07	22.65	56.14	100	0	Р	Н
HT20													Н
CH 116		11160	64.15	-9.85	74	63.14	40.3	18.04	57.33	100	178	Р	V
5580MHz		11160	52.61	-1.39	54	51.6	40.3	18.04	57.33	100	178	Α	V
		16740	44.27	-29.73	74	37.69	40.07	22.65	56.14	100	0	Р	V
													V
		11400	47.22	-26.78	74	46.41	40.16	18.31	57.66	100	0	Р	Н
		17100	47.02	-21.18	68.2	39.47	41.22	22.99	56.66	100	0	Р	Н
802.11n													Н
HT20													Н
CH 140		11400	50.21	-23.79	74	49.4	40.16	18.31	57.66	100	0	Р	V
5700MHz		17100	46.37	-21.83	68.2	38.82	41.22	22.99	56.66	100	0	Р	V
													V
													V

Remark

- No other spurious found.
- All results are PASS against Peak and Average limit line.

SPORTON INTERNATIONAL INC.

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Band 3 - 5470~5725MHz

Report No. : FR6O0801-01F

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)	(dB _µ V)	(dB/m)	(dB)	(dB)	(cm)		(P/A)	•
		5442.16	60.1	-13.9	74	47.48	31.93	11.64	30.95	100	232	Р	Н
		5469.52	62.89	-5.31	68.2	50.2	31.97	11.67	30.95	100	232	Р	Н
		5458.72	50.17	-3.83	54	37.53	31.95	11.64	30.95	100	232	Α	Н
	*	5510	106.67	-	-	93.93	32	11.7	30.96	100	232	Р	Н
802.11n	*	5510	96.29	-	-	83.55	32	11.7	30.96	100	232	Α	Н
HT40		5760.975	59.8	-8.4	68.2	46.62	32.36	11.86	31.04	100	232	Р	Н
CH 102		5458.96	61.24	-12.76	74	48.6	31.95	11.64	30.95	111	125	Р	V
5510MHz		5469.04	66.47	-1.73	68.2	53.78	31.97	11.67	30.95	111	125	Р	V
		5459.92	51.08	-2.92	54	38.44	31.95	11.64	30.95	111	125	Α	V
	*	5510	105.91	-	-	93.17	32	11.7	30.96	111	125	Р	V
	*	5510	95.61	-	-	82.87	32	11.7	30.96	111	125	Α	V
		5756.425	61	-7.2	68.2	47.82	32.36	11.86	31.04	111	125	Р	V
		5457.52	62.59	-11.41	74	49.95	31.95	11.64	30.95	100	234	Р	Н
		5468.56	65.93	-2.27	68.2	53.24	31.97	11.67	30.95	100	234	Р	Н
		5457.52	52.26	-1.74	54	39.62	31.95	11.64	30.95	100	234	Α	Н
	*	5550	113.56	-	-	100.72	32.07	11.74	30.97	100	234	Р	Н
802.11n	*	5550	103.06	-	-	90.22	32.07	11.74	30.97	100	234	Α	Н
HT40		5735.25	55.31	-12.89	68.2	42.16	32.34	11.84	31.03	100	234	Р	Н
CH 110		5456.56	62.93	-11.07	74	50.29	31.95	11.64	30.95	100	122	Р	V
5550MHz		5469.04	66.77	-1.43	68.2	54.08	31.97	11.67	30.95	100	122	Р	V
		5459.68	52.5	-1.5	54	39.86	31.95	11.64	30.95	100	122	Α	V
	*	5560	109.92	-	-	97.08	32.07	11.74	30.97	100	122	Р	V
	*	5560	100.41	-	-	87.57	32.07	11.74	30.97	100	122	Α	V
		5763.25	54.03	-14.17	68.2	40.85	32.36	11.86	31.04	100	122	Р	V

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5360.32 60.54 -13.46 74 31.85 11.52 30.95 Ρ 48.12 100 235 Н 5463.76 58.57 -9.63 68.2 45.88 31.97 11.67 30.95 100 235 Н 5410.72 100 235 48.82 -5.18 54 36.27 31.9 11.6 30.95 Α Н 5670 110.39 97.34 32.24 11.82 31.01 100 235 Н 5670 100.08 87.03 32.24 11.82 31.01 100 235 -Α Н 802.11n -4.24 32.31 235 Р HT40 5725 63.96 68.2 50.83 11.84 31.02 100 Н **CH 134** 5433.28 59.94 -14.06 74 47.32 31.93 11.64 30.95 100 273 ٧ 5670MHz 5461.84 58.63 -9.57 68.2 45.96 31.95 11.67 30.95 100 273 Ρ V 5381.92 48.8 -5.2 54 36.27 31.88 11.6 30.95 100 273 ٧ Ρ ٧ 5670 107.34 94.29 32.24 11.82 31.01 100 273 * ٧ 5670 97.1 -84.05 32.24 11.82 31.01 100 273 Α 5727.375 62.91 -5.29 68.2 49.78 32.31 11.84 31.02 100 273 Ρ ٧ No other spurious found. Remark

SPORTON INTERNATIONAL INC.

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

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

Band 3 - 5470~5725MHz

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)		(dBµV/m)	(dB _µ V)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/\
		11020	47.35	-26.65	74	46.22	40.39	17.86	57.12	100	0	Р	Н
		16530	44.54	-23.66	68.2	38.69	39.41	22.46	56.02	100	0	Р	Н
802.11n													Н
HT40													Н
CH 102		11020	48.61	-25.39	74	47.48	40.39	17.86	57.12	100	0	Р	V
5510MHz		16530	43.74	-24.46	68.2	37.89	39.41	22.46	56.02	100	0	Р	V
													V
													V
		11100	57.95	-16.05	74	56.9	40.34	17.95	57.24	227	267	Р	Н
		11100	44.74	-9.26	54	43.69	40.34	17.95	57.24	227	267	Α	Н
802.11n		16650	44.74	-23.46	68.2	38.46	39.8	22.57	56.09	100	0	Р	Н
HT40													Н
CH 110		11100	61.6	-12.4	74	60.55	40.34	17.95	57.24	100	180	Р	V
5550MHz		11100	48.09	-5.91	54	47.04	40.34	17.95	57.24	100	180	Α	V
		16650	45.63	-22.57	68.2	39.35	39.8	22.57	56.09	100	0	Р	V
													V
		11340	46.2	-27.8	74	45.35	40.2	18.22	57.57	100	0	Р	Н
		17010	46.63	-21.57	68.2	39.13	40.95	22.91	56.36	100	0	Р	Н
802.11n													Н
HT40													Н
CH 134		11340	46.42	-27.58	74	45.57	40.2	18.22	57.57	100	0	Р	V
5670MHz		17010	45.02	-23.18	68.2	37.52	40.95	22.91	56.36	100	0	Р	V
													V
													V

Remark

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

SPORTON INTERNATIONAL INC.

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Band 3 - 5470~5725MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dBµV/m)		(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V
		5442.16	62.12	-11.88	74	49.5	31.93	11.64	30.95	100	232	Р	Н
		5468.8	61.58	-6.62	68.2	48.89	31.97	11.67	30.95	100	232	Р	Н
		5442.4	52.8	-1.2	54	40.18	31.93	11.64	30.95	100	232	Α	Н
	*	5530	101.68	-	-	88.93	32.02	11.7	30.97	100	232	Р	Н
802.11ac	*	5530	92.22	-	-	79.47	32.02	11.7	30.97	100	232	Α	Н
VHT80		5735.6	60.49	-7.71	68.2	47.34	32.34	11.84	31.03	100	232	Р	Н
CH 106		5456.32	60.49	-13.51	74	47.85	31.95	11.64	30.95	100	265	Р	V
5530MHz		5465.2	61.85	-6.35	68.2	49.16	31.97	11.67	30.95	100	265	Р	V
		5456.08	51.87	-2.13	54	39.23	31.95	11.64	30.95	100	265	Α	V
	*	5530	100.8	-	-	88.05	32.02	11.7	30.97	100	265	Р	V
	*	5530	90.31	-	-	77.56	32.02	11.7	30.97	100	265	Α	V
		5747.15	59.49	-8.71	68.2	46.32	32.34	11.86	31.03	100	265	Р	V
		5445.04	60.38	-13.62	74	47.76	31.93	11.64	30.95	100	230	Р	Н
		5469.28	60.46	-7.74	68.2	47.77	31.97	11.67	30.95	100	230	Р	Н
		5454.88	52.14	-1.86	54	39.5	31.95	11.64	30.95	100	230	Α	Н
	*	5610	107.85	-	-	94.93	32.14	11.77	30.99	100	230	Р	Н
802.11ac	*	5610	98.13	-	-	85.21	32.14	11.77	30.99	100	230	Α	Н
VHT80		5726.675	67.01	-1.19	68.2	53.88	32.31	11.84	31.02	100	230	Р	Н
CH 122		5459.92	60.82	-13.18	74	48.18	31.95	11.64	30.95	100	270	Р	V
5610MHz		5467.36	61.01	-7.19	68.2	48.32	31.97	11.67	30.95	100	270	Р	V
		5455.12	52.17	-1.83	54	39.53	31.95	11.64	30.95	100	270	Α	٧
	*	5610	106.22	-	-	93.3	32.14	11.77	30.99	100	270	Р	٧
	*	5610	95.68	-	-	82.76	32.14	11.77	30.99	100	270	Α	٧
		5727.025	64.81	-3.39	68.2	51.68	32.31	11.84	31.02	100	270	Р	V

SPORTON INTERNATIONAL INC.

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Band 3 5470~5725MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol
Ant. 1+2		(MHz)	(dBµV/m)	Limit (dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)		Avg. (P/A)	(H/V
		11060	46.98	-27.02	74	45.91	40.36	17.9	57.19	100	0	Р	Н
		16590	44.43	-23.77	68.2	38.36	39.58	22.54	56.05	100	0	Р	Н
802.11ac													Н
VHT80													Н
CH 106		11060	46.59	-27.41	74	45.52	40.36	17.9	57.19	100	0	Р	V
5530MHz		16590	45.74	-22.46	68.2	39.67	39.58	22.54	56.05	100	0	Р	V
													V
													V
		11220	52.13	-21.87	74	51.18	40.27	18.08	57.4	100	0	Р	Н
		16830	46.45	-21.75	68.2	39.54	40.35	22.76	56.2	100	0	Р	Н
802.11ac													Н
VHT80													Н
CH 122		11220	45.7	-28.3	74	44.75	40.27	18.08	57.4	100	0	Р	V
5610MHz		16830	46.74	-21.46	68.2	39.83	40.35	22.76	56.2	100	0	Р	V
													V
													V

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

SPORTON INTERNATIONAL INC.

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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+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	1	(H/V)
	*	5722	118.66	ı	-	105.53	32.31	11.84	31.02	100	233	Р	Н
	*	5722	107.16	1	-	94.03	32.31	11.84	31.02	100	233	Α	Н
													Н
													Н
000 44 -													Н
802.11a													Н
CH 144 5720MHz	*	5722	115.1	1	-	101.97	32.31	11.84	31.02	100	278	Р	V
37 20 WIT 12	*	5722	103.8	1	-	90.67	32.31	11.84	31.02	100	278	Α	V
													V
													V
													V
													V
	1. No	other spurious	s found.										
Remark		results are PA		eak and	l Average lim	it line.							

SPORTON INTERNATIONAL INC.

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

WIFI 802.11a (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos		Avg.	
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		11440	55.6	-18.4	74	54.81	40.14	18.36	57.71	100	274	Р	Н
		11440	44.59	-9.41	54	43.8	40.14	18.36	57.71	100	274	Α	Н
000.44		17160	47.93	-26.07	74	40.34	41.43	23.06	56.9	100	0	Р	Н
802.11a													Н
CH 144 5720MHz		11440	63.14	-10.86	74	62.35	40.14	18.36	57.71	100	122	Р	V
37 20WII 12		11440	52.52	-1.48	54	51.73	40.14	18.36	57.71	100	122	Α	V
		17160	48.26	-25.74	74	40.67	41.43	23.06	56.9	100	0	Р	V
													V
	1. No	other spurious	s found.										
Remark		results are PA		eak and	Average lim	it line.							

SPORTON INTERNATIONAL INC.

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+2		(MHz)	(dBµV/m)	Limit (dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	
	*	5722	117.85	-	-	104.72	32.31	11.84	31.02	100	233	Р	Н
	*	5722	105.6	-	-	92.47	32.31	11.84	31.02	100	233	Α	Н
													Н
													Н
802.11n													Н
HT20													Н
CH 144	*	5722	113.74	-	-	100.61	32.31	11.84	31.02	100	279	Р	V
5720MHz	*	5722	101.89	-	-	88.76	32.31	11.84	31.02	100	279	Α	V
													V
													V
													V
													V

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

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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)
		11445	54.76	-19.24	74	53.97	40.14	18.36	57.71	100	142	Р	Н
		11445	45.32	-8.68	54	44.53	40.14	18.36	57.71	100	142	Α	Н
802.11n		17160	46.41	-27.59	74	38.82	41.43	23.06	56.9	100	0	Р	Н
HT20													Н
CH 144		11440	62.47	-11.53	74	61.68	40.14	18.36	57.71	100	121	Р	V
5720MHz		11440	52.08	-1.92	54	51.29	40.14	18.36	57.71	100	121	Α	V
		17160	47.31	-26.69	74	39.72	41.43	23.06	56.9	100	0	Р	V
													V
	1 N/	o other spurious	s found	1	ı	1	1		1	1	1		
Remark	i. INC	outer spurious	s iourid.										
Remark		I results are PA		Peak and	l 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. 1+2		(MHz)	(dBµV/m)	Limit (dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)		Avg. (P/A)	
	*	5712	115.88	-	-	102.77	32.29	11.84	31.02	100	235	Р	Н
	*	5712	103.16	-	-	90.05	32.29	11.84	31.02	100	235	Α	Н
													Н
													Н
802.11n													Н
HT40													Н
CH 142	*	5708	111.77	-	-	98.66	32.29	11.84	31.02	100	279	Р	V
5710MHz	*	5708	99.62	-	-	86.51	32.29	11.84	31.02	100	279	Α	V
													V
													V
													V
													V

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

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WIFI 802.11n HT40 (Harmonic @ 3m)

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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)	($dB\mu V/m$)	(dB _µ V)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		11420	56.61	-17.39	74	55.83	40.15	18.31	57.68	100	141	Р	Н
		11420	44.42	-9.58	54	43.64	40.15	18.31	57.68	100	141	Α	Н
802.11n		17130	46.8	-27.2	74	39.23	41.33	23.02	56.78	100	0	Р	Н
HT40													Н
CH 142		11420	61.51	-12.49	74	60.73	40.15	18.31	57.68	100	122	Р	V
5710MHz		11420	51.11	-2.89	54	50.33	40.15	18.31	57.68	100	122	Α	V
		17130	46.42	-27.58	74	38.85	41.33	23.02	56.78	100	0	Р	V
													V
	1. No	o other spurious	s found									•	,
Remark		•			_								
	2. Al	I results are PA	.SS against F	Peak and	Average lim	it line.							ļ

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

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant. 1+2		(MHz)	(dBµV/m)	Limit (dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)		Avg. (P/A)	
	*	5688	112.46	-	-	99.38	32.27	11.82	31.01	100	233	Р	Н
	*	5688	101.14	-	-	88.06	32.27	11.82	31.01	100	233	Α	Н
													Н
													Н
802.11ac													Н
VHT80													Н
CH 138	*	5688	109.8	-	-	96.72	32.27	11.82	31.01	100	273	Р	V
5690MHz	*	5688	97.96	-	-	84.88	32.27	11.82	31.01	100	273	Α	V
													V
													V
													٧
													V

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

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WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant. 1+2		(MHz)	(dBµV/m)	Limit (dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)		Avg. (P/A)	
		11380	46.21	-27.79	74	45.41	40.17	18.27	57.64	100	0	Р	Н
		17070	45.61	-28.39	74	38.05	41.11	22.99	56.54	100	0	Р	Н
802.11ac													Н
VHT80													Н
CH 138		11380	47.02	-26.98	74	46.22	40.17	18.27	57.64	100	0	Р	V
5690MHz		17070	45.4	-28.6	74	37.84	41.11	22.99	56.54	100	0	Р	V
													V
													٧
Remark		o other spurious										ı	
	2. All	results are PA	SS against F	Peak and	Average lim	it line.							

SPORTON INTERNATIONAL INC.

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

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+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V
		31.08	23.97	-16.03	40	30.39	25.26	0.78	32.46	-	-	Р	Н
		47.82	21.91	-18.09	40	37.39	16.2	0.78	32.46	-	-	Р	Н
		139.08	30.77	-12.73	43.5	43.94	17.82	1.43	32.42	-	-	Р	Н
		141.24	31.47	-12.03	43.5	44.39	17.75	1.75	32.42	228	275	Р	Н
		250.05	24.06	-21.94	46	36.05	18.5	1.83	32.32	-	-	Р	Н
		960.1	33.09	-20.91	54	29.21	30.17	4.75	31.04	-	-	Р	Н
													Н
													Н
													Н
													Н
													Н
802.11a													Н
LF		43.77	34.28	-5.72	40	47.9	18.06	0.78	32.46	-	-	Р	V
		45.66	34.44	-5.56	40	49.05	17.07	0.78	32.46	100	190	Р	V
		87.78	29.55	-10.45	40	46.35	14.58	1.06	32.44	-	-	Р	V
		174.45	31.13	-12.37	43.5	46.17	15.63	1.75	32.42	-	-	Р	V
		842.5	31.19	-14.81	46	30.36	28.49	4.28	31.94	-	-	Р	V
		951.7	33.23	-12.77	46	29.31	30.28	4.75	31.11	-	-	Р	V
													V
													V
													V
													V
													V
													V

2. All results are PASS against limit line.

SPORTON INTERNATIONAL INC.

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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
		51.06	25.34	-14.66	40	42.43	14.59	0.78	32.46	-	-	Р	Н
		81.03	23.95	-16.05	40	41.52	13.81	1.06	32.44	-	-	Р	Н
		138	30.5	-13	43.5	43.65	17.84	1.43	32.42	227	279	Р	Н
		139.35	30.21	-13.29	43.5	43.4	17.8	1.43	32.42	-	-	Р	Н
		250.05	24.78	-21.22	46	36.77	18.5	1.83	32.32	-	-	Р	Н
		953.8	33.98	-12.02	46	30.07	30.25	4.75	31.09	-	-	Р	Н
													Н
													Н
													Н
													Н
													Н
802.11n													Н
HT20 LF		45.66	34.94	-5.06	40	49.55	17.07	0.78	32.46	100	189	Р	V
LF		81.03	30.38	-9.62	40	47.95	13.81	1.06	32.44	-	-	Р	V
		100.47	31.22	-12.28	43.5	46.11	16.11	1.43	32.43	-	-	Р	V
		155.55	30.12	-13.38	43.5	43.54	17.25	1.75	32.42	-	-	Р	V
		173.64	30.38	-13.12	43.5	45.37	15.68	1.75	32.42	-	-	Р	V
		929.3	33.13	-12.87	46	30.12	29.72	4.6	31.31	-	-	Р	V
													V
													V
													V
													V
													V
													V

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WIFI 802.11n HT40 (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
		30.54	24.01	-15.99	40	30.43	25.26	0.78	32.46	-	-	Р	Н
		47.82	23.33	-16.67	40	38.81	16.2	0.78	32.46	-	-	Р	Н
		139.08	31.94	-11.56	43.5	45.11	17.82	1.43	32.42	184	274	Р	Н
		141.24	31.92	-11.58	43.5	44.84	17.75	1.75	32.42	-	-	Р	Н
		883.8	32.15	-13.85	46	30.57	28.8	4.45	31.67	-	-	Р	Н
		939.8	33.14	-12.86	46	29.73	30.03	4.6	31.22	-	-	Р	Н
													Н
													Н
													Н
													Н
													Н
802.11n													Н
HT40 LF		45.12	33.98	-6.02	40	48.59	17.07	0.78	32.46	100	189	Р	٧
LF		47.82	33.63	-6.37	40	49.11	16.2	0.78	32.46	-	-	Р	V
		81.03	29.51	-10.49	40	47.08	13.81	1.06	32.44	-	-	Р	V
		155.55	30.73	-12.77	43.5	44.15	17.25	1.75	32.42	-	-	Р	V
		173.91	31.31	-12.19	43.5	46.3	15.68	1.75	32.42	-	-	Р	V
		953.1	33.59	-12.41	46	29.69	30.25	4.75	31.1	-	-	Р	V
													V
													V
													V
													V
													V
													V

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WIFI 802.11ac HT80 (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)
		30.27	24.1	-15.9	40	29.98	25.8	0.78	32.46	-	-	Р	Н
		51.06	22.92	-17.08	40	40.01	14.59	0.78	32.46	-	-	Р	Н
		140.16	31.21	-12.29	43.5	44.11	17.77	1.75	32.42	235	272	Р	Н
		159.87	27.79	-15.71	43.5	41.46	17	1.75	32.42	-	-	Р	Н
		250.05	24.1	-21.9	46	36.09	18.5	1.83	32.32	-	-	Р	Н
		954.5	32.82	-13.18	46	28.92	30.24	4.75	31.09	-	-	Р	Н
													Н
													Н
													Н
													Н
802.11ac													Н
HT80													Н
LF		45.66	34.69	-5.31	40	49.3	17.07	0.78	32.46	100	192	Р	V
		47.82	34.11	-5.89	40	49.59	16.2	0.78	32.46	-	-	Р	V
		81.03	30.08	-9.92	40	47.65	13.81	1.06	32.44	-	-	Р	V
		141.24	29.03	-14.47	43.5	41.95	17.75	1.75	32.42	-	-	Р	V
		155.55	30.59	-12.91	43.5	44.01	17.25	1.75	32.42	-	-	Р	V
		962.9	33.21	-20.79	54	29.34	30.14	4.75	31.02	-	-	Р	V
													V
													V
													V
													V
													V
													V

SPORTON INTERNATIONAL INC.

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<EUT with RJ-45>

Band 3 - 5470~5725MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant. 1+2		(MHz)	(dBµV/m)	Limit (dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)		Avg. (P/A)	
		5459.12	63.42	-10.58	74	50.78	31.95	11.64	30.95	233	230	Р	Н
		5469.68	66.39	-1.81	68.2	53.7	31.97	11.67	30.95	233	230	Р	Н
		5459.92	51.41	-2.59	54	38.77	31.95	11.64	30.95	233	230	Α	Н
	*	5500	112.6	-	-	99.88	32	11.67	30.95	233	230	Р	Н
802.11n	*	5500	101.85	-	-	89.13	32	11.67	30.95	233	230	Α	Н
HT20													Н
CH 100		5458.32	62.27	-11.73	74	49.63	31.95	11.64	30.95	331	327	Р	٧
5500MHz		5465.84	66.15	-2.05	68.2	53.46	31.97	11.67	30.95	331	327	Р	٧
		5459.28	50.06	-3.94	54	37.42	31.95	11.64	30.95	331	327	Α	V
	*	5502	110.95	-	-	98.21	32	11.7	30.96	331	327	Р	V
	*	5502	101.42	-	-	88.68	32	11.7	30.96	331	327	Α	V
													V
Remark		o other spurious		Peak and	Average lim	it line.			,	1	-	1	,

SPORTON INTERNATIONAL INC.

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

Band 3 - 5470~5725MHz

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)	($dB\mu V/m$)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		11000	52.6	-21.4	74	51.44	40.4	17.86	57.1	100	0	Р	Н
		16500	44.77	-23.43	68.2	39.05	39.3	22.42	56	100	0	Р	Н
802.11n													Н
HT20													Н
CH 100		11000	52.87	-21.13	74	51.71	40.4	17.86	57.1	100	0	Р	٧
5500MHz		16500	44.74	-23.46	68.2	39.02	39.3	22.42	56	100	0	Р	٧
													V
													V
	1. No	other spurious	s found.										
Remark		results are PA		eak and	Average lim	it line.							

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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)
		47.01	24.52	-15.48	40	40	16.2	0.78	32.46	-	-	Р	Н
		161.22	30.23	-13.27	43.5	44.01	16.89	1.75	32.42	-	-	Р	Н
		187.14	32.81	-10.69	43.5	48.22	15.3	1.7	32.41	100	0	Р	Н
		305.6	27.05	-18.95	46	37.28	19.67	2.34	32.24	-	-	Р	Н
		458.2	24.32	-21.68	46	30.58	23.24	2.89	32.39	-	-	Р	Н
		663.3	27.27	-18.73	46	29.75	26.11	3.82	32.41	-	-	Р	Н
													Н
													Н
													Н
													Н
000 44 =													Н
802.11n HT20													Н
LF		47.01	38.15	-1.85	40	53.63	16.2	0.78	32.46	100	157	Р	V
_,		47.01	28.22	-11.78	40	43.7	16.2	0.78	32.46	100	157	QP	V
		77.52	30.84	-9.16	40	48.9	13.32	1.06	32.44	-	-	Р	V
		122.88	33.54	-9.96	43.5	46.82	17.72	1.43	32.43	-	-	Р	V
		308.4	25.63	-20.37	46	35.77	19.76	2.34	32.24	-	-	Р	V
		657.7	27.16	-18.84	46	29.9	26.06	3.61	32.41	-	-	Р	V
		850.2	31.34	-14.66	46	30.34	28.61	4.28	31.89	-	-	Р	V
													V
													V
													V
													V
													V

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Note symbol

Report No. : FR6O0801-01F

*	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:

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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)	(dB _µ V)	(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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