Appendix B. Radiated Spurious Emission

Tool Engineer	Korl Hay Bayar Las Batar Line Citta Kaland Niels V.	Temperature :	22~25°C
Test Engineer :	Karl Hou, Rover Lee, Peter Liao, Citta Ke, and Nick Yu	Relative Humidity :	52~56%

Band 4 - 5725~5850MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant. 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)	
		5613.6	57.02	-11.18	68.2	44.1	32.14	11.77	30.99	104	233	Р	Н
		5699.2	65.82	-38.79	104.61	52.74	32.27	11.82	31.01	104	233	Р	Н
		5719	84.21	-26.31	110.52	71.08	32.31	11.84	31.02	104	233	Р	Н
		5724.6	91.77	-29.52	121.29	78.64	32.31	11.84	31.02	104	233	Р	Н
	*	5743	118.54	-	-	105.37	32.34	11.86	31.03	104	233	Р	Н
	*	5743	107.16	-	-	93.99	32.34	11.86	31.03	104	233	Α	Н
													Н
802.11a													Н
CH 149 5745MHz		5637.6	56.21	-11.99	68.2	43.23	32.19	11.79	31	100	274	Р	٧
3743WITZ		5697.8	64.67	-38.91	103.58	51.59	32.27	11.82	31.01	100	274	Р	٧
		5718.4	80.37	-29.98	110.35	67.24	32.31	11.84	31.02	100	274	Р	V
		5722.8	89.84	-27.34	117.18	76.71	32.31	11.84	31.02	100	274	Р	V
	*	5746	115.52	-	-	102.35	32.34	11.86	31.03	100	274	Р	٧
	*	5746	104.07	-	-	90.9	32.34	11.86	31.03	100	274	Α	٧
													V
													V

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

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)
		5628	58.02	-10.18	68.2	45.05	32.17	11.79	30.99	100	235	Р	Н
		5655.4	57.08	-15.13	72.21	44.08	32.22	11.79	31.01	100	235	Р	Н
		5701.2	58.02	-47.52	105.54	44.9	32.29	11.84	31.01	100	235	Р	Н
		5723.8	60.53	-58.93	119.46	47.4	32.31	11.84	31.02	100	235	Р	Н
	*	5783	116.89	-	-	103.67	32.39	11.88	31.05	100	235	Р	Н
	*	5783	105.54	-	-	92.32	32.39	11.88	31.05	100	235	Α	Н
		5850	58.2	-64	122.2	44.75	32.48	12.03	31.06	100	235	Р	Н
		5872.4	56.51	-49.42	105.93	42.88	32.53	12.17	31.07	100	235	Р	Н
		5877.6	56.8	-46.47	103.27	43.17	32.53	12.17	31.07	100	235	Р	Н
		5942	57.83	-10.37	68.2	43.84	32.63	12.45	31.09	100	235	Р	Н
													Н
802.11a													Н
CH 157		5631.8	55.83	-12.37	68.2	42.87	32.17	11.79	31	100	272	Р	V
5785MHz		5696.4	55.89	-46.66	102.55	42.81	32.27	11.82	31.01	100	272	Р	V
		5719.2	57.32	-53.26	110.58	44.19	32.31	11.84	31.02	100	272	Р	V
		5723	57.11	-60.53	117.64	43.98	32.31	11.84	31.02	100	272	Р	V
	*	5783	113.54	-	-	100.32	32.39	11.88	31.05	100	272	Р	V
	*	5783	102.51	-	-	89.29	32.39	11.88	31.05	100	272	Α	V
		5852.4	55.46	-61.27	116.73	42.01	32.48	12.03	31.06	100	272	Р	V
		5859.2	56.86	-52.76	109.62	43.39	32.51	12.03	31.07	100	272	Р	V
		5905.8	56.32	-26.05	82.37	42.51	32.58	12.31	31.08	100	272	Р	V
		5926.6	56.8	-11.4	68.2	42.98	32.6	12.31	31.09	100	272	Р	V
													V
													V

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

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
	*	5824	117.18	-	-	103.74	32.46	12.03	31.05	100	232	Р	Н
	*	5824	105.93	-	-	92.49	32.46	12.03	31.05	100	232	Α	Н
		5851.2	75.19	-44.27	119.46	61.74	32.48	12.03	31.06	100	232	Р	Н
		5856.4	68.12	-42.29	110.41	54.64	32.51	12.03	31.06	100	232	Р	Н
		5876.8	62.24	-41.62	103.86	48.61	32.53	12.17	31.07	100	232	Р	Н
		5950	57.37	-10.83	68.2	43.38	32.63	12.45	31.09	100	232	Р	Н
													Н
802.11a													Н
CH 165	*	5824	113.03	-	-	99.59	32.46	12.03	31.05	101	277	Р	V
5825MHz	*	5824	102.05	-	-	88.61	32.46	12.03	31.05	101	277	Α	V
		5850	70.74	-51.46	122.2	57.29	32.48	12.03	31.06	101	277	Р	V
		5855	65.98	-44.82	110.8	52.5	32.51	12.03	31.06	101	277	Р	V
		5875.8	59.52	-45.09	104.61	45.89	32.53	12.17	31.07	101	277	Р	V
		5949	56.15	-12.05	68.2	42.16	32.63	12.45	31.09	101	277	Р	V
													V
													V
													V

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)	, ,	(dBµV/m)	(dB _µ V)	(dB/m)	(dB)	(dB)	(cm)			
		11490	60.18	-13.82	74	59.45	40.11	18.4	57.78	100	143	Р	Н
		11490	45.85	-8.15	54	45.12	40.11	18.4	57.78	100	143	Α	Н
802.11a		17232	49.87	-18.33	68.2	42.22	41.65	23.14	57.14	100	0	Р	Н
													Н
CH 149 5745MHz		11490	62.74	-11.26	74	62.01	40.11	18.4	57.78	100	124	Р	V
3/45WITZ		11490	52.59	-1.41	54	51.86	40.11	18.4	57.78	100	124	Α	V
		17232	49.23	-18.97	68.2	41.58	41.65	23.14	57.14	100	0	Р	V
													V
		11570	56.34	-17.66	74	55.7	39.95	18.49	57.8	100	304	Р	Н
		11570	45.27	-8.73	54	44.63	39.95	18.49	57.8	100	304	Α	Н
		17352	48.05	-20.15	68.2	40.34	42.02	23.25	57.56	100	0	Р	Н
802.11a													Н
CH 157		11570	62.56	-11.44	74	61.92	39.95	18.49	57.8	100	123	Р	V
5785MHz		11570	52.8	-1.2	54	52.16	39.95	18.49	57.8	100	123	Α	V
		17352	47.64	-20.56	68.2	39.93	42.02	23.25	57.56	100	0	Р	V
													V
		11650	55.68	-18.32	74	55.1	39.8	18.58	57.8	100	303	Р	Н
		11650	46.05	-7.95	54	45.47	39.8	18.58	57.8	100	303	Α	Н
		17472	47.05	-21.15	68.2	39.28	42.39	23.36	57.98	100	0	Р	Н
802.11a													Н
CH 165		11650	61.86	-12.14	74	61.28	39.8	18.58	57.8	100	122	Р	V
5825MHz		11650	52.47	-1.53	54	51.89	39.8	18.58	57.8	100	122	Α	V
		17472	47.14	-21.06	68.2	39.37	42.39	23.36	57.98	100	0	Р	V
													V

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

SPORTON INTERNATIONAL INC.

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

Band 4 5725~5850MHz 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)
		5618.8	57.25	-10.95	68.2	44.3	32.17	11.77	30.99	100	236	Р	Н
		5699.2	64.64	-39.97	104.61	51.56	32.27	11.82	31.01	100	236	Р	Н
		5719.8	83.13	-27.61	110.74	70	32.31	11.84	31.02	100	236	Р	Н
		5724.6	92.12	-29.17	121.29	78.99	32.31	11.84	31.02	100	236	Р	Н
	*	5747	116.93	-	-	103.76	32.34	11.86	31.03	100	236	Р	Н
	*	5747	104.66	-	-	91.49	32.34	11.86	31.03	100	236	Α	Н
802.11n													Н
HT20													Н
CH 149		5628.4	56.18	-12.02	68.2	43.22	32.17	11.79	31	100	279	Р	V
5745MHz		5693.2	61.66	-38.53	100.19	48.58	32.27	11.82	31.01	100	279	Р	V
		5719.6	79.89	-30.8	110.69	66.76	32.31	11.84	31.02	100	279	Р	V
		5724.8	87.62	-34.12	121.74	74.49	32.31	11.84	31.02	100	279	Р	V
	*	5746	113.31	-	-	100.14	32.34	11.86	31.03	100	279	Р	V
	*	5746	101.17	-	-	88	32.34	11.86	31.03	100	279	А	V
													V
													V

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

Page Number : B5 of B19

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)
		5612	57.04	-11.16	68.2	44.12	32.14	11.77	30.99	100	236	Р	Н
		5698.4	56.89	-47.13	104.02	43.81	32.27	11.82	31.01	100	236	Р	Н
		5716	57.63	-52.05	109.68	44.52	32.29	11.84	31.02	100	236	Р	Н
		5722.8	58.53	-58.65	117.18	45.4	32.31	11.84	31.02	100	236	Р	Н
	*	5783	116.17	-	-	102.95	32.39	11.88	31.05	100	236	Р	Н
	*	5783	103.73	-	-	90.51	32.39	11.88	31.05	100	236	Α	Н
		5852.2	57.29	-59.89	117.18	43.84	32.48	12.03	31.06	100	236	Р	Н
		5863	56.82	-51.74	108.56	43.21	32.51	12.17	31.07	100	236	Р	Н
		5899.6	57.36	-29.6	86.96	43.71	32.56	12.17	31.08	100	236	Р	Н
		5947.2	56.76	-11.44	68.2	42.77	32.63	12.45	31.09	100	236	Р	Н
802.11n													Н
HT20													Н
CH 157		5648.4	56.24	-11.96	68.2	43.26	32.19	11.79	31	100	278	Р	V
5785MHz		5697.6	56.93	-46.5	103.43	43.85	32.27	11.82	31.01	100	278	Р	V
		5712.8	56.35	-52.44	108.79	43.24	32.29	11.84	31.02	100	278	Р	V
		5722.4	58.66	-57.61	116.27	45.53	32.31	11.84	31.02	100	278	Р	V
	*	5783	112.6	-	-	99.38	32.39	11.88	31.05	100	278	Р	V
	*	5783	100.45	-	-	87.23	32.39	11.88	31.05	100	278	Α	V
		5853.4	56.05	-58.4	114.45	42.6	32.48	12.03	31.06	100	278	Р	V
		5870.8	56.09	-50.28	106.37	42.46	32.53	12.17	31.07	100	278	Р	V
		5885.2	57.27	-40.36	97.63	43.65	32.53	12.17	31.08	100	278	Р	V
		5945.8	57.86	-10.34	68.2	43.87	32.63	12.45	31.09	100	278	Р	٧
													٧
													V

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

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)
	*	5827	115.51	-	-	102.07	32.46	12.03	31.05	100	234	Р	Н
	*	5827	103.57	-	-	90.13	32.46	12.03	31.05	100	234	Α	Н
		5850.2	74.53	-47.21	121.74	61.08	32.48	12.03	31.06	100	234	Р	Н
		5856.2	65.2	-45.26	110.46	51.72	32.51	12.03	31.06	100	234	Р	Н
		5877.4	58.26	-45.16	103.42	44.63	32.53	12.17	31.07	100	234	Р	Н
		5943	56.98	-11.22	68.2	42.99	32.63	12.45	31.09	100	234	Р	Н
802.11n													Н
HT20													Н
CH 165	*	5827	111.42	-	-	97.98	32.46	12.03	31.05	100	277	Р	V
5825MHz	*	5827	99.38	-	-	85.94	32.46	12.03	31.05	100	277	Α	V
		5850	69.72	-52.48	122.2	56.27	32.48	12.03	31.06	100	277	Р	V
		5856	61.54	-48.98	110.52	48.06	32.51	12.03	31.06	100	277	Р	V
		5898.4	56.6	-31.25	87.85	42.95	32.56	12.17	31.08	100	277	Р	V
		5941.4	56.53	-11.67	68.2	42.54	32.63	12.45	31.09	100	277	Р	V
													V
													V
Remark		o other spurious		eak and	l Average lim	it line.							

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

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.		(BALL -)	(-ID)//)	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	(110
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)		(P/A)	
		11490	53.99	-20.01	74	53.26	40.11	18.4	57.78	100	143	Р	Н
		11490	45.83	-8.17	54	45.1	40.11	18.4	57.78	100	143	Α	Н
802.11n		17232	47.28	-20.92	68.2	39.63	41.65	23.14	57.14	100	0	Р	Н
HT20													Н
CH 149		11490	62.38	-11.62	74	61.65	40.11	18.4	57.78	100	124	Р	V
5745MHz		11490	52.26	-1.74	54	51.53	40.11	18.4	57.78	100	124	Α	V
		17232	48.46	-19.74	68.2	40.81	41.65	23.14	57.14	100	0	Р	V
													V
		11570	55.33	-18.67	74	54.69	39.95	18.49	57.8	100	304	Р	Н
		11570	45.71	-8.29	54	45.07	39.95	18.49	57.8	100	304	Α	Н
802.11n		17352	46.96	-21.24	68.2	39.25	42.02	23.25	57.56	100	0	Р	Н
HT20													Н
CH 157		11570	63.46	-10.54	74	62.82	39.95	18.49	57.8	100	124	Р	V
5785MHz		11570	52.86	-1.14	54	52.22	39.95	18.49	57.8	100	124	Α	V
		17352	46.85	-21.35	68.2	39.14	42.02	23.25	57.56	100	0	Р	V
													V
		11650	53.67	-20.33	74	53.09	39.8	18.58	57.8	100	303	Р	Н
		11650	45.9	-8.1	54	45.32	39.8	18.58	57.8	100	303	Α	Н
802.11n		17472	46.7	-21.5	68.2	38.93	42.39	23.36	57.98	100	0	Р	Н
HT20													Н
CH 165		11650	61.31	-12.69	74	60.73	39.8	18.58	57.8	100	121	Р	V
5825MHz		11650	52.13	-1.87	54	51.55	39.8	18.58	57.8	100	121	Α	V
		17472	46.44	-21.76	68.2	38.67	42.39	23.36	57.98	100	0	Р	V
													V

Remark

1. No other spurious found.

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

SPORTON INTERNATIONAL INC.

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

Page Number : B8 of B19

Band 4 5725~5850MHz 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)	Pos (deg)	Avg. (P/A)	
		5649.6	59.22	-8.98	68.2	46.21	32.22	11.79	31	100	236	Р	Н
		5697	70.35	-32.64	102.99	57.27	32.27	11.82	31.01	100	236	Р	Н
		5715.6	88.94	-20.63	109.57	75.83	32.29	11.84	31.02	100	236	Р	Н
		5722.6	89.39	-27.34	116.73	76.26	32.31	11.84	31.02	100	236	Р	Н
	*	5757	113.36	-	-	100.18	32.36	11.86	31.04	100	236	Р	Н
	*	5757	101.21	-	-	88.03	32.36	11.86	31.04	100	236	Α	Н
		5852.4	62.32	-54.41	116.73	48.87	32.48	12.03	31.06	100	236	Р	Н
		5871.6	58.98	-47.17	106.15	45.35	32.53	12.17	31.07	100	236	Р	Н
		5890.4	57.52	-36.25	93.77	43.87	32.56	12.17	31.08	100	236	Р	Н
		5941.8	56.13	-12.07	68.2	42.14	32.63	12.45	31.09	100	236	Р	Н
802.11n													Н
HT40													Н
CH 151		5650	56.96	-11.24	68.2	43.95	32.22	11.79	31	100	282	Р	V
5755MHz		5699	69.64	-34.82	104.46	56.56	32.27	11.82	31.01	100	282	Р	V
		5719	86.8	-23.72	110.52	73.67	32.31	11.84	31.02	100	282	Р	V
		5720.2	86.1	-25.16	111.26	72.97	32.31	11.84	31.02	100	282	Р	V
	*	5753	109.84	-	-	96.65	32.36	11.86	31.03	100	282	Р	V
	*	5753	98.01	-	-	84.82	32.36	11.86	31.03	100	282	Α	V
		5850.2	56.62	-65.12	121.74	43.17	32.48	12.03	31.06	100	282	Р	V
		5855.6	57.38	-53.25	110.63	43.9	32.51	12.03	31.06	100	282	Р	V
		5918	57.02	-16.34	73.36	43.22	32.58	12.31	31.09	100	282	Р	V
		5945.2	56.5	-11.7	68.2	42.51	32.63	12.45	31.09	100	282	Р	V
													V
													V

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

WIFI Preamp Note Level Over Limit Read Antenna Cable **Table** Peak Pol. Frequency Ant Ant. Limit Line Level **Factor** Loss Factor Pos Pos Avg. (dB) (dB \(\psi V/m \) 1+2 (MHz) (dBµV/m) (dB_µV) (dB/m) (dB) (dB) (cm) (deg) (P/A) (H/V) 5646.6 57.47 -10.7368.2 44.49 32.19 11.79 31 100 234 Н 47.14 Р 5699.4 60.22 -44.54 104.76 32.27 11.82 31.01 100 234 Н 5717.4 65.4 -44.67 110.07 52.29 32.29 11.84 31.02 100 234 Ρ Н 5722 66.37 -48.99 115.36 53.24 32.31 11.84 31.02 100 234 Ρ Н * 5797 114.35 101.11 32.41 11.88 31.05 100 234 Ρ Н 5797 102 88.76 32.41 11.88 31.05 100 234 Α Η Р 75.03 32.48 31.06 100 5852 -42.61 117.64 61.58 12.03 234 Н 5861 68.64 -40.48 55.03 32.51 12.17 31.07 100 234 Ρ Н 109.12 Ρ 5891.8 61.96 -30.7792.73 48.31 32.56 12.17 31.08 100 234 Н 5935.4 57.94 -10.2668.2 44.12 32.6 12.31 31.09 100 234 Ρ Н 802.11n Н **HT40** Н **CH 159** 5600.6 56.14 -12.06 68.2 43.21 32.14 11.77 30.98 100 283 Ρ ٧ 5795MHz 5697.6 62.02 -41.41 103.43 48.94 32.27 11.82 31.01 100 283 Ρ ٧ 5720 63 -47.8 110.8 49.87 32.31 11.84 31.02 100 283 Ρ ٧ ٧ 5724.2 65.56 -54.82 120.38 52.43 32.31 11.84 31.02 100 283 Ρ 5797 109.96 96.72 32.41 11.88 31.05 100 283 ٧ * ٧ 5797 97.93 84.69 32.41 11.88 31.05 100 283 Α 5852 74.62 -43.02 117.64 61.17 32.48 12.03 31.06 100 283 Ρ V 5856 -42.52 110.52 54.52 32.51 12.03 31.06 100 283 Ρ ٧ 68 ٧ 5892.4 59.8 -32.4992.29 46.15 32.56 12.17 31.08 100 283 Ρ Ρ 5925.8 56.22 -11.98 68.2 42.4 32.6 12.31 31.09 100 283 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

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant.	Note	Frequency	Level	Over	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Pos	Peak Avg.	
1+2		(MHz)	(dBµV/m)		(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	1
		11510	54.3	-19.7	74	53.55	40.1	18.45	57.8	100	143	Р	Н
		11510	46.21	-7.79	54	45.46	40.1	18.45	57.8	100	143	Α	Н
802.11n		17268	47.15	-21.05	68.2	39.49	41.75	23.17	57.26	100	0	Р	Н
HT40													Н
CH 151		11510	62.72	-11.28	74	61.97	40.1	18.45	57.8	100	122	Р	V
5755MHz		11510	52.62	-1.38	54	51.87	40.1	18.45	57.8	100	122	Α	V
		17268	47.44	-20.76	68.2	39.78	41.75	23.17	57.26	100	0	Р	V
													V
		11590	54.65	-19.35	74	54	39.91	18.54	57.8	100	333	Р	Н
		11590	45.32	-8.68	54	44.67	39.91	18.54	57.8	100	333	Α	Н
802.11n		17388	47.21	-20.99	68.2	39.47	42.13	23.29	57.68	100	0	Р	Н
HT40													Н
CH 159		11590	61.9	-12.1	74	61.25	39.91	18.54	57.8	100	122	Р	V
5795MHz		11590	52.7	-1.3	54	52.05	39.91	18.54	57.8	100	122	Α	V
		17388	48.31	-19.89	68.2	40.57	42.13	23.29	57.68	100	0	Р	V
													V

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

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

Band 4 5725~5850MHz 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/\
		5646.8	66.63	-1.57	68.2	53.65	32.19	11.79	31	100	235	Р	Н
		5686.8	83.83	-11.63	95.46	70.75	32.27	11.82	31.01	100	235	Р	Н
		5713	85.84	-23	108.84	72.73	32.29	11.84	31.02	100	235	Р	Н
		5722.2	87.15	-28.67	115.82	74.02	32.31	11.84	31.02	100	235	Р	Н
	*	5773	108.26	-	-	95.05	32.39	11.86	31.04	100	235	Р	Н
	*	5773	98.85	-	-	85.64	32.39	11.86	31.04	100	235	Α	Н
		5850.6	81.43	-39.4	120.83	67.98	32.48	12.03	31.06	100	235	Р	Н
		5863.2	81.48	-27.02	108.5	67.87	32.51	12.17	31.07	100	235	Р	Н
		5876	73.65	-30.81	104.46	60.02	32.53	12.17	31.07	100	235	Р	Н
		5925.6	63.36	-4.84	68.2	49.54	32.6	12.31	31.09	100	235	Р	Н
802.11ac													Н
VHT80													Н
CH 155		5650	63.77	-4.43	68.2	50.76	32.22	11.79	31	100	273	Р	V
5775MHz		5692.4	81.56	-18.04	99.6	68.48	32.27	11.82	31.01	100	273	Р	V
		5717.6	82.87	-27.26	110.13	69.74	32.31	11.84	31.02	100	273	Р	V
		5722.4	85.62	-30.65	116.27	72.49	32.31	11.84	31.02	100	273	Р	V
	*	5773	105.85	-	-	92.64	32.39	11.86	31.04	100	273	Р	V
	*	5773	96.89	-	-	83.68	32.39	11.86	31.04	100	273	Α	V
		5852.8	76.63	-39.19	115.82	63.18	32.48	12.03	31.06	100	273	Р	V
		5857.8	75.64	-34.37	110.01	62.17	32.51	12.03	31.07	100	273	Р	V
		5876.2	68.9	-35.41	104.31	55.27	32.53	12.17	31.07	100	273	Р	V
		5929.6	60.64	-7.56	68.2	46.82	32.6	12.31	31.09	100	273	Р	V
													V
													V

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

SPORTON INTERNATIONAL INC.

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

Page Number : B12 of B19

WIFI 802.11ac VHT80 (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
		11550	57.09	-16.91	74	56.41	39.99	18.49	57.8	100	306	Р	Н
		11550	45.24	-8.76	54	44.56	39.99	18.49	57.8	100	306	Α	Н
802.11ac		17328	48.22	-19.98	68.2	40.54	41.91	23.21	57.44	100	0	Р	Н
VHT80													Н
CH 155		11550	60.13	-13.87	74	59.45	39.99	18.49	57.8	100	122	Р	V
5775MHz		11550	47.5	-6.5	54	46.82	39.99	18.49	57.8	100	122	Α	V
		17328	47.52	-20.68	68.2	39.84	41.91	23.21	57.44	100	0	Р	V
													V

Remark

1. No other spurious found.

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

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

Page Number : B13 of B19

Emission below 1GHz

5GHz WIFI 802.11n HT20 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V
		31.62	24.89	-15.11	40	31.85	24.72	0.78	32.46	-	-	Р	Н
		81.03	23.28	-16.72	40	40.85	13.81	1.06	32.44	-	-	Р	Н
		140.16	31.25	-12.25	43.5	44.15	17.77	1.75	32.42	170	254	Р	Н
		250.05	25.39	-20.61	46	37.38	18.5	1.83	32.32	-	-	Р	Н
		840.4	31.74	-14.26	46	30.97	28.44	4.28	31.95	-	-	Р	Н
		948.2	32.93	-13.07	46	29.06	30.27	4.75	31.15	-	-	Р	Н
													Н
													Н
													Н
													Н
5GHz													Н
802.11n													Н
HT20		45.12	34.05	-5.95	40	48.66	17.07	0.78	32.46	-	-	Р	V
LF		47.01	34.07	-5.93	40	49.55	16.2	0.78	32.46	101	186	Р	V
		141.24	30.96	-12.54	43.5	43.88	17.75	1.75	32.42	-	-	Р	V
		174.18	30.21	-13.29	43.5	45.25	15.63	1.75	32.42	-	-	Р	V
		923.7	32.9	-13.1	46	30.1	29.56	4.6	31.36	-	-	Р	V
		948.2	33.04	-12.96	46	29.17	30.27	4.75	31.15	-	-	Р	V
													V
													V
													V
													V
													V
													V

2. All results are PASS against limit line.

SPORTON INTERNATIONAL INC.

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

Page Number : B14 of B19

<EUT with RJ-45>

Band 4 - 5725~5850MHz

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)
		5604.8	57.63	-10.57	68.2	44.71	32.14	11.77	30.99	100	234	Р	Н
		5693.8	58.81	-41.82	100.63	45.73	32.27	11.82	31.01	100	234	Р	Н
		5718.8	61.81	-48.65	110.46	48.68	32.31	11.84	31.02	100	234	Р	Н
		5724.2	62.63	-57.75	120.38	49.5	32.31	11.84	31.02	100	234	Р	Н
	*	5783	116.01	-	-	102.79	32.39	11.88	31.05	100	234	Р	Н
	*	5783	103.72	-	-	90.5	32.39	11.88	31.05	100	234	Α	Н
		5850.6	59.48	-61.35	120.83	46.03	32.48	12.03	31.06	100	234	Р	Н
		5855.6	58.02	-52.61	110.63	44.54	32.51	12.03	31.06	100	234	Р	Н
		5915.4	57.33	-17.95	75.28	43.53	32.58	12.31	31.09	100	234	Р	Н
		5929	56.47	-11.73	68.2	42.65	32.6	12.31	31.09	100	234	Р	Н
802.11n													Н
HT20													Н
CH 157		5613.6	56.6	-11.6	68.2	43.68	32.14	11.77	30.99	100	295	Р	V
5785MHz		5691.6	57.37	-41.64	99.01	44.29	32.27	11.82	31.01	100	295	Р	V
		5713.8	59.06	-50.01	109.07	45.95	32.29	11.84	31.02	100	295	Р	V
		5721	58.06	-55.02	113.08	44.93	32.31	11.84	31.02	100	295	Р	V
	*	5783	111.41	-	-	98.19	32.39	11.88	31.05	100	295	Р	V
	*	5783	99.23	-	-	86.01	32.39	11.88	31.05	100	295	Α	V
		5852.6	56.26	-60.01	116.27	42.81	32.48	12.03	31.06	100	295	Р	V
		5857.2	57.72	-52.46	110.18	44.24	32.51	12.03	31.06	100	295	Р	V
		5882.8	57.22	-42.19	99.41	43.59	32.53	12.17	31.07	100	295	Р	V
		5934.6	56.35	-11.85	68.2	42.53	32.6	12.31	31.09	100	295	Р	V
													V
													V

SPORTON INTERNATIONAL INC.

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

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)
		11570	49.58	-24.42	74	48.94	39.95	18.49	57.8	100	0	Р	Н
		17355	49.02	-19.18	68.2	41.31	42.02	23.25	57.56	100	0	Р	Н
802.11n													Н
HT20													Н
CH 157		11570	57.91	-16.09	74	57.27	39.95	18.49	57.8	101	147	Р	V
5785MHz		11570	44.63	-9.37	54	43.99	39.95	18.49	57.8	101	147	Α	V
		17355	49.05	-19.15	68.2	41.34	42.02	23.25	57.56	100	0	Р	V
													V
Remark	3. No	o other spurious	s found.										
	4. All	results are PA	SS against F	Peak and	Average lim	it line							

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

Page Number : B16 of B19

Emission below 1GHz

5GHz WIFI 802.11n HT20 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V
		55.92	23.4	-16.6	40	42.04	13.04	0.78	32.46	-	-	Р	Н
		141.24	28.19	-15.31	43.5	41.11	17.75	1.75	32.42	100	0	Р	Н
		155.28	28.18	-15.32	43.5	41.6	17.25	1.75	32.42	-	-	Р	Н
		303.5	26.41	-19.59	46	36.68	19.62	2.34	32.23	-	-	Р	Н
		409.2	21.55	-24.45	46	28.87	22.37	2.68	32.37	-	-	Р	Н
		631.1	25.41	-20.59	46	28.42	25.78	3.61	32.4	-	-	Р	Н
													Н
													Н
													Н
													Н
5GHz													Н
802.11n													Н
HT20		45.12	39.26	-0.74	40	53.87	17.07	0.78	32.46	100	188	Р	V
LF		45.12	31.08	-8.92	40	45.69	17.07	0.78	32.46	100	188	QP	V
		55.65	34.56	-5.44	40	52.89	13.35	0.78	32.46	-	-	Р	V
		140.16	25	-18.5	43.5	37.9	17.77	1.75	32.42	-	-	Р	V
		304.9	28.34	-17.66	46	38.6	19.64	2.34	32.24	-	-	Р	V
		633.2	25.47	-20.53	46	28.46	25.8	3.61	32.4	-	-	Р	V
		778.8	28.38	-17.62	46	28.93	27.72	3.97	32.24	-	-	Р	V
													V
													V
													V
													V
													V

Remark

4. All results are PASS against limit line.

SPORTON INTERNATIONAL INC.

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

Page Number : B17 of B19

Note symbol

*	Fundamental Frequency which can be ignored. However, the level of any unwanted emissions shall not									
	exceed the level of the fundamental frequency.									
!	Test result is over limit line.									
P/A	Peak or Average									
H/V	Horizontal or Vertical									

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

Page Number : B18 of B19

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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	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(dBµV/m) Limit Line(dBµV/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(dBµV) 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".

SPORTON INTERNATIONAL INC.

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