

RF Exposure Evaluation Report

Equipment : 無線接入點
Brand Name : Extreme Networks
Model No. : AP-7522I
Standard : NCC LP0002 (Aug. 23, 2016) Section 5.20 (5.20.2)
Applicant : 香港商極進網路有限公司台灣分公司
台北市松山區復勢里南京東路 4 段 126 號 5 樓
Manufacturer : 啟碁科技股份有限公司
新竹科學工業園區新竹縣園區二路 20 號

The product sample received on Apr. 15, 2014 and completely tested on Oct. 26, 2017. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with NCC LP0002 (Aug. 23, 2016) Section 5.20 (5.20.2) and pass the limit.

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Sam Chen
SPORTON INTERNATIONAL INC.





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PHOTOGRAPHS OF EUT V01



SPORTON INTERNATIONAL INC.
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1 General Description

1.1 EUT General Information

RF General Information			
Evaluation Mode	Frequency Range (MHz)	Operating Frequency (MHz)	Modulation Type
2.4GHz WLAN	2400-2483.5	2412-2462	802.11b: DSSS (DBPSK, DQPSK, CCK) 802.11g/n: OFDM (BPSK, QPSK, 16QAM, 64QAM) 802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM)
5GHz WLAN	5150-5250 5725-5850	5180-5240 5745-5825	802.11a/n: OFDM (BPSK, QPSK, 16QAM, 64QAM) 802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM)

1.2 Testing Location

Testing Location		
☐	HWA YA	ADD : No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL : 886-3-327-3456 FAX : 886-3-327-0973
☒	JHUBEI	ADD : No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C. TEL : 886-3-656-9065 FAX : 886-3-656-9085

Test site Designation No. TW0006 with FCC.

Test site registered number IC 4086D with Industry Canada.

2 Maximum Permissible Exposure

2.1 Limit of Maximum Permissible Exposure

(A) Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	*100	6
3-30	1842 / f	4.89 / f	*900 / f ²	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5.0	6

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	*100	30
3-30	1842/f	4.89/f	*180/f ²	30
30-300	27.5	0.073	1.0	30
300-1500			f/1500	30
1500-100,000			1.0	30

Note: f = frequency in MHz ; *Plane-wave equivalent power density

2.2 MPE Calculation Method

The MPE was calculated at 25 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$E \text{ (V/m)} = \frac{\sqrt{30 \times P \times G}}{d} \quad \text{Power Density: } Pd \text{ (W/m}^2\text{)} = \frac{E^2}{377}$$

E = Electric field (V/m)

P = RF output power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$$Pd = \frac{30 \times P \times G}{377 \times d^2}$$

2.3 Calculated Result and Limit

Exposure Environment: General Population / Uncontrolled Exposure

For 1TX:

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tune-up EIRP (dBm)	Tune-up EIRP (W)	Distance (cm)	S (mW/cm ²)	S Limit (mW/cm ²)
2.4G;G1D	4.13	21.68	25.81	26.00	0.39811	25	0.051	1.00000
2.4G;D1D	4.13	21.97	26.10	26.50	0.44668	25	0.057	1.00000
5.2G-I;D1D	5.92	16.99	22.91	23.00	0.19953	25	0.025	1.00000
5.8G;D1D	5.92	21.98	27.90	28.00	0.63096	25	0.080	1.00000

For 2TX:

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tune-up EIRP (dBm)	Tune-up EIRP (W)	Distance (cm)	S (mW/cm ²)	S Limit (mW/cm ²)
2.4G;G1D	4.13	23.76	27.89	28.00	0.63096	25	0.080	1.00000
2.4G;D1D	7.14	24.88	32.02	32.50	1.77828	25	0.227	1.00000
5.2G-I;D1D	8.93	14.05	22.98	23.00	0.19953	25	0.025	1.00000
5.8G;D1D	8.93	24.70	33.63	34.00	2.51189	25	0.320	1.00000