

## RF Exposure Report

**Report No.:** SA170609C18A

**FCC ID:** QXO-AP3915I

**Test Model:** AP3915i

**Series Model:** AP7632i

**Received Date:** Jun. 09, 2017

**Test Date:** Jun. 27 ~ Jul. 17, 2017

**Issued Date:** Aug. 07, 2017

**Applicant:** Extreme Networks, Inc.

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**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

**Lab Address:** No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan, R.O.C.

**Test Location:** No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN (R.O.C.)



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### Release Control Record

Issue No.	Description	Date Issued
SA170609C18A	Original release.	Aug. 07, 2017

## 1 Certificate of Conformity

**Product:** Wireless 802.11 a/ac+b/g/n Indoor Access Point

**Brand:** Extreme Networks

**Test Model:** AP3915i

**Series Model:** AP7632i

**Sample Status:** Engineering sample

**Applicant:** Extreme Networks, Inc.

**Test Date:** Jun. 27 ~ Jul. 17, 2017

**Standards:** FCC Part 2 (Section 2.1091)  
KDB 447498 D01 General RF Exposure Guidance v06  
IEEE C95.1

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

**Prepared by :** Celine Chou , **Date:** Aug. 07, 2017  
Celine Chou / Specialist

**Approved by :** Ken Liu , **Date:** Aug. 07, 2017  
Ken Liu / Senior Manager

## 2 RF Exposure

### 2.1 Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Average Time (minutes)
Limits For General Population / Uncontrolled Exposure				
300-1500	...	...	F/1500	30
1500-100,000	...	...	1.0	30

F = Frequency in MHz

### 2.2 MPE Calculation Formula

$$P_d = (P_{out} * G) / (4 * \pi * r^2)$$

where

$P_d$  = power density in mW/cm<sup>2</sup>

$P_{out}$  = output power to antenna in mW

G = gain of antenna in linear scale

$\pi$  = 3.1416

R = distance between observation point and center of the radiator in cm

### 2.3 Classification

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.

### 3 Calculation Result of Maximum Conducted Power

Function	Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
WLAN	CDD Mode					
	2412-2462	25.47	7.21	20	0.369	1
	5180-5240	26.44	8.31	20	0.594	1
	5260-5320	23.70	8.31	20	0.316	1
	5500-5720	23.91	8.31	20	0.332	1
	5745-5825	25.64	8.31	20	0.494	1
	Beamforming Mode					
	2412-2462	22.17	7.21	20	0.172	1
	5180-5240	23.43	8.31	20	0.297	1
	5260-5320	20.69	8.31	20	0.158	1
	5500-5720	20.90	8.31	20	0.166	1
5745-5825	22.56	8.31	20	0.243	1	
BT LE	2402-2480	4.00	4.10	20	0.001	1
Zigbee	2405-2480	3.53	4.10	20	0.001	1

Note:

2.4GHz: Directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/N]$  = 7.21dBi

5GHz: Directional gain = 5.3dBi + 10log(2) = 8.31dBi

Frequency Band	Max Power (dBm)			Total Power (dBm)	Power Limit (dBm)
	WLAN	BT LE	Zigbee		
2.4GHz	25.47	4.00	-	25.50	30
2.4GHz	25.47	-	3.53	25.50	30

**Conclusion:**

2.4GHz & 5GHz & BT LE or 2.4GHz & 5GHz & Zigbee technology can transmit at same time.

BT LE and Zigbee cannot transmit simultaneously.

The formula of calculated the MPE is:

$$CPD1 / LPD1 + CPD2 / LPD2 + \dots \text{etc.} < 1$$

CPD = Calculation power density

LPD = Limit of power density

$$1. \text{ WALN } 2.4\text{GHz} + \text{ WALN } 5\text{GHz} + \text{ BT LE} = 0.369 + 0.594 + 0.001 = 0.964$$

$$2. \text{ WALN } 2.4\text{GHz} + \text{ WALN } 5\text{GHz} + \text{ Zigbee} = 0.369 + 0.594 + 0.001 = 0.964$$

Therefore the maximum calculations of above situations are less than the "1" limit.

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