



# RF EXPOSURE REPORT

**REPORT NO.:** SA140421C37

**MODEL NO.:** PCE3200AH

**FCC ID:** QXO-24G32

**RECEIVED:** Apr. 15, 2014

**TESTED:** Apr. 16 ~ May 19, 2014

**ISSUED:** May 21, 2014

**APPLICANT:** Extreme Networks, Inc.

**ADDRESS:** 9 Northeastern Blvd. Salem, New Hampshire,  
United States, 03079

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

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**TEST LOCATION:** No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei  
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# TABLE OF CONTENTS

RELEASE CONTROL RECORD ..... 3

1. CERTIFICATION..... 4

2. RF EXPOSURE ..... 5

2.1 LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)..... 5

2.2 MPE CALCULATION FORMULA ..... 5

2.3 CLASSIFICATION..... 5

2.4 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER..... 6



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## RELEASE CONTROL RECORD

| ISSUE NO.   | REASON FOR CHANGE | DATE ISSUED  |
|-------------|-------------------|--------------|
| SA140421C37 | Original release  | May 21, 2014 |

## 1. CERTIFICATION

**PRODUCT:** 802.11 bgn PCIe Module  
**MODEL NO.:** PCE3200AH  
**BRAND:** Extreme  
**APPLICANT:** Extreme Networks, Inc.  
**TESTED:** Apr. 16 ~ May 19, 2014  
**TEST SAMPLE:** ENGINEERING SAMPLE  
**STANDARDS:** **FCC Part 2 (Section 2.1091)**  
**FCC OET Bulletin 65, Supplement C (01-01)**  
**IEEE C95.1**

The above equipment (model: PCE3200AH) 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 :** May 21, 2014  
Celine Chou / Specialist

**APPROVED BY :** Ken Liu , **DATE :** May 21, 2014  
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

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

where

Pd = power density in mW/cm<sup>2</sup>

Pout = 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 or higher as evaluated in following section. So, this device is classified as **Mobile Device**.

## 2.4 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

| ANTENNA      | MAX POWER (dBm) | ANTENNA GAIN (dBi) | DISTANCE (cm) | POWER DENSITY (mW/cm <sup>2</sup> ) | LIMIT (mW/cm <sup>2</sup> ) |
|--------------|-----------------|--------------------|---------------|-------------------------------------|-----------------------------|
| Ant. 1       | 28.77           | 9.77               | 24            | 0.987                               | 1                           |
| Ant. 2       | 19.86           | 17.27              | 21            | 0.932                               | 1                           |
| Ant. 3       | 26.01           | 14.27              | 30            | 0.943                               | 1                           |
| Ant. 4 (3TX) | 28.87           | 6.77               | 20            | 0.729                               | 1                           |
| Ant. 4 (2TX) | 29.28           | 5.01               | 20            | 0.534                               | 1                           |
| Ant. 5       | 29.69           | 9.77               | 27            | 0.964                               | 1                           |
| Ant. 6       | 25.73           | 10.77              | 20            | 0.889                               | 1                           |

**Note:** Ant. 1: Directional gain = 5dBi + 10log(3) = 9.77dBi

Ant. 2: Directional gain = 12.5dBi + 10log(3) = 17.27dBi

Ant. 3: Directional gain = 9.5dBi + 10log(3) = 14.27dBi

Ant. 4 (3TX): Directional gain = 2dBi + 10log(3) = 6.77dBi

Ant. 4 (2TX): Directional gain = 2dBi + 10log(2) = 5.01dBi

Ant. 5: Directional gain = 5dBi + 10log(3) = 9.77dBi

Ant. 6: Directional gain = 6dBi + 10log(3) = 10.77dBi

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