RF EXPOSURE REPORT

REPORT NO.:	SA140415C27C
MODEL NO.:	PCE4552AH
FCC ID:	QXO-57G45
RECEIVED:	Jun 12, 2014
TESTED:	Jun. 25 ~ Aug. 07, 2014
ISSUED:	Aug. 08, 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
LAB ADDRESS:	No. 47, 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 Tsuen, Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

This report should not be used by the client to claim product certification, approval, or endorsement by any government agencies.

TABLE OF CONTENTS

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA140415C27C	Original release.	Aug. 08, 2014

1. CERTIFICATION

PRODUCT:	DBDC 3X3 AP
MODEL:	PCE4552AH
BRAND:	Extreme
APPLICANT:	Extreme Networks, Inc.
TESTED:	Jun. 25 ~ Aug. 07, 2014
TEST SAMPLE:	ENGINEERING SAMPLE
STANDARDS:	**FCC Part 2 (Section 2.1091)**
	KDB 447498 D03
	IEEE C95.1

The above equipment (Model: PCE4552AH) 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 : _____ **, DATE :** Aug. 08, 2014

Pettie Chen / Senior Specialist

APPROVED BY : _____ **, DATE :** Aug. 08, 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^2)	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

$Pd = (Pout*G) / (4*pi*r^2)$
where
Pd = power density in mW/cm^2
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 24cm away or farther depends on the antenna type used as evaluated in following section. So, this device is classified as Mobile Device.

2.4 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

Ant.	FREQUENCY BAND (MHz)	MAX POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm^2)	LIMIT (mW/cm^2)
1	5180-5240	27.66	9.77	34	0.381	1
1	5745-5825	29.58	9.77	34	0.593	1
2	5180-5240	19.10	26.01	55	0.853	1
2	5745-5825	11.13	26.01	55	0.136	1
3	5180-5240	16.48	16.27	33	0.138	1
3	5745-5825	24.41	16.27	33	0.855	1
4	5180-5240	26.73	12.77	41	0.422	1
4	5745-5825	27.90	12.77	41	0.552	1
5	5180-5240	29.51	6.77	24	0.587	1
5	5745-5825	27.57	6.77	24	0.375	1
6	5180-5240	28.09	11.77	35	0.629	1
6	5745-5825	25.34	11.77	35	0.334	1
7	5180-5240	27.78	11.97	39	0.494	1
7	5745-5825	27.80	11.97	39	0.496	1

NOTE:

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

Ant. 2: Directional gain = 23dBi + 10log(2) = 26.01dBi

Ant. 3: Directional gain = 11.5dBi + 10log(3) = 16.27dBi

Ant. 4: Directional gain = 8dBi + 10log(3) = 12.77dBi

Ant. 5: Directional gain = 2dBi + 10log(3) = 6.77dBi

Ant. 6: Directional gain = 7dBi + 10log(3) = 11.77dBi

Ant. 7: Directional gain = 7.2dBi + 10log(3) = 11.97dBi

CONCULSION:

Antennas can support both 5180~5240MHz, 5745~5825MHz co-transmit, the formula of calculated the MPE is:

CPD1 / LPD1 + CPD2 / LPD2 + ……etc. < 1

CPD = Calculation power density

LPD = Limit of power density

1. Antenna 1: WLAN 5GHz (5180~5240MHz) + WLAN 5.0GHz (5745~5825MHz)
   = 0.381 + 0.593 = 0.974
2. Antenna 2: WLAN 5GHz (5180~5240MHz) + WLAN 5.0GHz (5745~5825MHz)
   = 0.853 + 0.136 = 0.989
3. Antenna 3: WLAN 5GHz (5180~5240MHz) + WLAN 5.0GHz (5745~5825MHz)
   = 0.138 + 0.855 = 0.992
4. Antenna 4: WLAN 5GHz (5180~5240MHz) + WLAN 5.0GHz (5745~5825MHz)
   = 0.422 + 0.552 = 0.974
5. Antenna 5: WLAN 5GHz (5180~5240MHz) + WLAN 5.0GHz (5745~5825MHz)
   = 0.587 + 0.375 = 0.962
6. Antenna 6: WLAN 5GHz (5180~5240MHz) + WLAN 5.0GHz (5745~5825MHz)
   = 0.629 + 0.334 = 0.963
7. Antenna 7: WLAN 5GHz (5180~5240MHz) + WLAN 5.0GHz (5745~5825MHz)
   = 0.494 + 0.496 = 0.990

Therefore, the maximum calculation of this situation is 0.992, which is less than the “1” limit.