RF EXPOSURE REPORT

REPORT NO.:	SA120720C10H
MODEL NO.:	WS-AP3715e
FCC ID:	QXO-AP3715E1
RECEIVED:	Jun. 07, 2013
TESTED:	Jun. 12 ~ Jun. 19, 2013
ISSUED:	Jul. 11, 2013

APPLICANT:	Enterasys Networks, Inc.
ADDRESS:	9 Northeastern Blvd. Salem, NH 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.

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA120720C10H	Original release	Jul. 11, 2013

1. CERTIFICATION

PRODUCT:	Wireless 802.11 abgn Router
MODEL NO.:	WS-AP3715e
BRAND:	Enterasys
APPLICANT:	Enterasys Networks, Inc.
TESTED:	Jun. 12 ~ Jun. 19, 2013
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: WS-AP3715e) 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 :** Jul. 11, 2013

Celine Chou / Specialist

APPROVED BY : Ken Liu **, DATE :** Jul. 11, 2013

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 21cm away from the body of the user. So, this device is classified as **Mobile Device**.

2.4 Calculation result of maximum conducted power

Antenna 1

FREQUENCY BAND (MHz)	MAX POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm^2)	LIMIT (mW/cm^2)
2412-2462	27.97	3	21	0.226	1
5260-5320	22.64	3	21	0.066	1
5500-5700	22.43	3	21	0.063	1

NOTE:
2.4GHz: Directional gain = 3dBi
5.0GHz: Directional gain = 3dBi

CONCULSION:

Both of the WLAN 2.4G & 5.0G can transmit simultaneously, the formula of calculated the MPE is:

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

CPD = Calculation power density

LPD = Limit of power density

2.4G + 5G combo Module: WLAN 2.4G + WLAN 5.0G = 0.226 + 0.066 = 0.292

Therefore, the maximum calculation of this situation is 0.292, which is less than the “1” limit.

Antenna 2

FREQUENCY BAND (MHz)	MAX POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm^2)	LIMIT (mW/cm^2)
2412-2462	28.44	6.5	21	0.563	1
5260-5320	20.51	5.5	21	0.072	1
5500-5700	20.47	5.5	21	0.071	1

NOTE:
2.4GHz: Directional gain = 12.5 - 6 (internal attenuator) =6.5dBi
5.0GHz: Directional gain = 11.5 - 6 (internal attenuator) =5.5dBi

CONCULSION:

Both of the WLAN 2.4G & 5.0G can transmit simultaneously, the formula of calculated the MPE is:

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

CPD = Calculation power density

LPD = Limit of power density

2.4G + 5G combo Module: WLAN 2.4G + WLAN 5.0G = 0.563 + 0.072 = 0.635

Therefore, the maximum calculation of this situation is 0.635, which is less than the “1” limit.

Antenna 3

FREQUENCY BAND (MHz)	MAX POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm^2)	LIMIT (mW/cm^2)
2412-2462	25.43	10	21	0.630	1
5260-5320	20.35	6	21	0.078	1
5500-5700	20.47	6	21	0.080	1

NOTE:
2.4GHz: Directional gain = 10dBi
5.0GHz: Directional gain = 6dBi

CONCULSION:

Both of the WLAN 2.4G & 5.0G can transmit simultaneously, the formula of calculated the MPE is:

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

CPD = Calculation power density

LPD = Limit of power density

2.4G + 5G combo Module: WLAN 2.4G + WLAN 5.0G = 0.630 + 0.080 = 0.710

Therefore, the maximum calculation of this situation is 0.710, which is less than the “1” limit.

Antenna 4

FREQUENCY BAND (MHz)	MAX POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm^2)	LIMIT (mW/cm^2)
2412-2462	28.40	2	21	0.198	1
5260-5320	23.15	2	21	0.059	1
5500-5700	22.81	2	21	0.055	1

NOTE:
2.4GHz: Directional gain = 2dBi
5.0GHz: Directional gain = 2dBi

CONCULSION:

Both of the WLAN 2.4G & 5.0G can transmit simultaneously, the formula of calculated the MPE is:

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

CPD = Calculation power density

LPD = Limit of power density

2.4G + 5G combo Module: WLAN 2.4G + WLAN 5.0G = 0.198 + 0.059 = 0.257

Therefore, the maximum calculation of this situation is 0.257, which is less than the “1” limit.

Antenna 5

FREQUENCY BAND (MHz)	MAX POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm^2)	LIMIT (mW/cm^2)
2412-2462	28.40	5	21	0.395	1
5260-5320	20.79	5	21	0.068	1
5500-5700	20.53	5	21	0.064	1

NOTE:
2.4GHz: Directional gain = 5dBi
5.0GHz: Directional gain = 5dBi

CONCULSION:

Both of the WLAN 2.4G & 5.0G can transmit simultaneously, the formula of calculated the MPE is:

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

CPD = Calculation power density

LPD = Limit of power density

2.4G + 5G combo Module: WLAN 2.4G + WLAN 5.0G = 0.395 + 0.068 = 0.463

Therefore, the maximum calculation of this situation is 0.463, which is less than the “1” limit.