

## RF Exposure Report

**Report No.:** SA140402E02G

**FCC ID:** HEDAC866

**Test Model:** SF-AC866-1, SF-AC866

**Series Model:** ECWO4320, ECWO4320-C, ECWO4320-L, ECWO4324, ECWO4324-C, ECWO4324-L

**Received Date:** Mar. 19, 2015

**Test Date:** Mar. 19 to Apr. 10, 2015

**Issued Date:** Apr. 30, 2015

**Applicant:** Accton Technology Corporation

**Address:** No.1, Creation Rd. III, Science-based Industrial Park, Hsinchu, Taiwan, R.O.C.

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

**Lab Address:** No. 81-1, Lu Liao Keng, 9th Ling, Wu Lung Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan R.O.C.

**Test Location (1):** No. 81-1, Lu Liao Keng, 9th Ling, Wu Lung Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan R.O.C.

**Test Location (2):** No. 49, Ln. 206, Wende Rd., Shangshan Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan R.O.C.

This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification.



## Table of Contents

|                                                              |          |
|--------------------------------------------------------------|----------|
| <b>Release Control Record</b> .....                          | <b>3</b> |
| <b>1 Certificate of Conformity</b> .....                     | <b>4</b> |
| <b>2 RF Exposure</b> .....                                   | <b>5</b> |
| 2.1 Limits for Maximum Permissible Exposure (MPE).....       | 5        |
| 2.2 MPE Calculation Formula .....                            | 5        |
| 2.3 Classification .....                                     | 5        |
| 2.4 Antenna Gain .....                                       | 6        |
| <b>3 Calculation Result of Maximum Conducted Power</b> ..... | <b>7</b> |



A D T

### Release Control Record

| Issue No.    | Description       | Date Issued   |
|--------------|-------------------|---------------|
| SA140402E02G | Original release. | Apr. 30, 2015 |

## 1 Certificate of Conformity

**Product:** 5GHz Outdoor AP, 802.11ac Outdoor 5GHz Access Point

**Brand:** IgniteNet, Edge-CorE

**Test Model:** SF-AC866-1, SF-AC866

**Series Model:** ECWO4320, ECWO4320-C, ECWO4320-L, ECWO4324, ECWO4324-C, ECWO4324-L

**Sample Status:** ENGINEERING SAMPLE

**Applicant:** Accton Technology Corporation

**Test Date:** Mar. 19 to Apr. 10, 2015

**Standards:** FCC Part 2 (Section 2.1091)

KDB 447498 D03

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 :** Phoenix Huang, **Date:** Apr. 30, 2015  
Phoenix Huang / Specialist

**Approved by :** May Chen, **Date:** Apr. 30, 2015  
May Chen / 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**.

## 2.4 Antenna Gain

1. The antennas provided to the EUT, please refer to the following table:

### External antenna 1 (Single Band Ant.)

Brand Name: Cortec / Model Name: AN5000-0301RS

| Transmitter Circuit | Antenna Type | Connector Type | Antenna Gain(dBi)<br><excluding cable loss> | Inside EUT      |                   | Outside EUT     |                   | Net. Gain (dBi) | Frequency range (MHz to MHz) |
|---------------------|--------------|----------------|---------------------------------------------|-----------------|-------------------|-----------------|-------------------|-----------------|------------------------------|
|                     |              |                |                                             | Cable Loss (dB) | Cable Length (mm) | Cable Loss (dB) | Cable Length (mm) |                 |                              |
| Chain (0)           | Dipole       | RP-SMA         | 2.7                                         | 1.2             | 250               | 2.9             | 500               | -1.4            | 5150~5850                    |
| Chain (1)           | Dipole       | RP-SMA         | 2.7                                         | 1.2             | 250               | 2.9             | 500               | -1.4            | 5150~5850                    |

### Internal antenna 1 (Single Band Ant.)

Brand Name: Accton / Model Name: 123800000297A

| Transmitter Circuit | Antenna Type | Connector Type | Antenna Gain(dBi) | Frequency range (MHz to MHz) |
|---------------------|--------------|----------------|-------------------|------------------------------|
| Chain (0)           | Patch Array  | MMCX           | 13.81             | 5150~5850                    |
| Chain (1)           | Patch Array  | MMCX           | 13.72             | 5150~5850                    |

### Internal antenna 2 (Single Band Ant.)

Brand Name: NA / Model Name: NA

| Transmitter Circuit | Antenna Type | Connector Type | Antenna Gain(dBi) | Frequency range (MHz to MHz) |
|---------------------|--------------|----------------|-------------------|------------------------------|
| Chain (0)           | Patch Array  | MMCX           | 8                 | 5150~5850                    |
| Chain (1)           | Patch Array  | MMCX           | 8                 | 5150~5850                    |

Note:

1. For 802.11a mode will fix transmission on Chain (0)

### 3 Calculation Result of Maximum Conducted Power

For External antenna 1:

| Frequency Band (MHz)            | Max Power (mW) | Antenna Gain (dBi) | Distance (cm) | Power Density (mW/cm <sup>2</sup> ) | Limit (mW/cm <sup>2</sup> ) |
|---------------------------------|----------------|--------------------|---------------|-------------------------------------|-----------------------------|
| 5180-5240, 5745-5825 (1TX mode) | 265.461        | -1.4               | 20            | 0.03826                             | 1                           |
| 5180-5240, 5745-5825 (2TX mode) | 283.351        | -1.4               | 20            | 0.04084                             | 1                           |

For Internal antenna 1:

| Frequency Band (MHz)            | Max Power (mW) | Antenna Gain (dBi) | Distance (cm) | Power Density (mW/cm <sup>2</sup> ) | Limit (mW/cm <sup>2</sup> ) |
|---------------------------------|----------------|--------------------|---------------|-------------------------------------|-----------------------------|
| 5180-5240, 5745-5825 (1TX mode) | 142.561        | 13.81              | 20            | 0.68191                             | 1                           |
| 5180-5240, 5745-5825 (2TX mode) | 130.78         | 13.81              | 20            | 0.62556                             | 1                           |

--- END ---