

## RF Exposure Report

**Report No.:** SA150415E06

**FCC ID:** HEDSPAC750

**Test Model:** SP-AC750

**Series Model:** SP-N300

**Received Date:** Apr. 15, 2015

**Test Date:** Apr. 20, 2015

**Issued Date:** Apr. 29, 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.

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## 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        |
| <b>3      Antenna Gain.....</b>                                  | <b>5</b> |
| <b>4      Calculation Result of Maximum Conducted Power.....</b> | <b>6</b> |



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### Release Control Record

| Issue No.   | Description       | Date Issued   |
|-------------|-------------------|---------------|
| SA150415E06 | Original release. | Apr. 29, 2015 |



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## 1 Certificate of Conformity

**Product:** Cloud-Enabled Enterprise Access Point

**Brand:** IgniteNet

**Test Model:** SP-AC750

**Series Model:** SP-N300

**Sample Status:** ENGINEERING SAMPLE

**Applicant:** Accton Technology Corporation

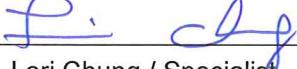
**Test Date:** Apr. 20, 2015

**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 :**  , **Date:** Apr. 29, 2015  
Lori Chung / Specialist

**Approved by :**  , **Date:** Apr. 29, 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

$$Pd = (Pout * G) / (4 * \pi * r^2)$$

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 from the body of the user.

So, this device is classified as **Mobile Device**.

## 3 Antenna Gain

| 2.4GHz Band |               |                |                              |           |                |                   |
|-------------|---------------|----------------|------------------------------|-----------|----------------|-------------------|
| Antenna No. | PCB Chain No. | Ant. Gain(dBi) | Frequency Range (GHz to GHz) | Ant. Type | Connector Type | Cable Length (mm) |
| 1 (White)   | Chain (0)     | 4.3            | 2.4~2.4835                   | PCB       | i-pex(MHF)     | 130               |
| 2 (Gray)    | Chain (1)     | 4.01           | 2.4~2.4835                   | PCB       | i-pex(MHF)     | 90                |

\*\*For 802.11bg mode will fix transmission on Chain (0).

| 5GHz Band   |                |                              |           |                |                   |  |
|-------------|----------------|------------------------------|-----------|----------------|-------------------|--|
| Antenna No. | Ant. Gain(dBi) | Frequency Range (GHz to GHz) | Ant. Type | Connector Type | Cable Length (mm) |  |
| 3 (Black)   | 5              | 5.15~5.85                    | PCB       | MMCX-plug      | 115               |  |

#### 4 Calculation Result of Maximum Conducted Power

| Frequency Band (MHz) | Max Power (mW) | Antenna Gain (dBi) | Distance (cm) | Power Density (mW/cm <sup>2</sup> ) | Limit (mW/cm <sup>2</sup> ) |
|----------------------|----------------|--------------------|---------------|-------------------------------------|-----------------------------|
| 2412-2462            | 929.584        | 4.3                | 20            | 0.49776                             | 1                           |
| 5180-5240, 5745-5825 | 411.15         | 5                  | 20            | 0.25866                             | 1                           |

**Conclusion:**

Both of the 2.4GHz and 5GHz can transmit simultaneously, the formula of calculated the MPE is:

$$CPD_1 / LPD_1 + CPD_2 / LPD_2 + \dots \text{etc.} < 1$$

**CPD = Calculation power density**

**LPD = Limit of power density**

Therefore, the worst-case situation is  $0.49776 / 1 + 0.25866 / 1 = 0.756$ , which is less than "1".

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