

RF Exposure Report

Report No.: SA150716C07D

FCC ID: U2M-OAP7250AG

Test Model: OAP7250AG

Received Date: Aug. 27, 2015

Test Date: Sep. 04 ~ Sep. 18, 2015

Issued Date: Sep. 25, 2015

Applicant: Senao Networks, Inc.

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

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Release Control Record

| Issue No. | Description | Date Issued |
|--------------|------------------|---------------|
| SA150716C07D | Original release | Sep. 25, 2015 |

1 Certificate of Conformity

Product: Wireless 802.11ac/b/g/n access point

Brand: Senao Networks

Test Model: OAP7250AG

Sample Status: Engineering Sample

Applicant: Senao Networks, Inc.

Test Date: Sep. 04 ~ Sep. 18, 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.

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Celine Chou / Specialist

Approved by : Ken Liu , **Date:** Sep. 25, 2015
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

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

where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

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

3 Calculation Result Of Maximum Conducted Power

| Frequency Band (MHz) | Max Power (dBm) | Antenna Gain (dBi) | Distance (cm) | Power Density (mW/cm ²) | Limit (mW/cm ²) |
|----------------------|-----------------|--------------------|---------------|-------------------------------------|-----------------------------|
| 2412-2462 | 24.71 | 10.18 | 21 | 0.556 | 1 |
| 5180-5240 | 23.13 | 2.44 | 21 | 0.065 | 1 |
| 5745-5825 | 22.40 | 10.80 | 21 | 0.377 | 1 |

Note:

2412 ~ 2462MHz: Directional gain = 5.41dBi + 10log(3) = 10.18dBi

5180 ~ 5240MHz: Directional gain = -2.33dBi + 10log(3) = 2.44dBi

5745 ~ 5825MHz: Directional gain = 6.03dBi + 10log(3) = 10.80dBi

CONCLUSION:

Both of the WLAN 2.4G & WLAN 5G can transmit simultaneously, the formula of calculated the MPE is:

$$CPD1 / LPD1 + CPD2 / LPD2 + \dots \text{etc.} < 1$$

CPD = Calculation power density

LPD = Limit of power density

$$\text{WLAN 2.4G} + \text{WLAN 5.0G} = 0.556 + 0.377 = 0.933$$

Therefore, the maximum calculation of this situation is 0.933, which is less than the "1" limit.

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