

RF EXPOSURE REPORT

REPORT NO.: SA140102C03
MODEL NO.: AP102
FCC ID: U2M-AP102
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ISSUED: Feb. 14, 2014

APPLICANT: Senao Networks, Inc.

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA140102C03	Original release	Feb. 14, 2014

1. CERTIFICATION

PRODUCT: Wireless 802.11abgn Access Point
MODEL NO.: AP102
BRAND: WatchGuard
APPLICANT: Senao Networks, Inc.
TESTED: Jan. 02 ~ Jan. 09, 2014
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: AP102) 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** : Feb. 14, 2014
Celine Chou / Specialist

APPROVED BY : Ken Liu , **DATE** : Feb. 14, 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

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

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 20cm away from the body of the user. So, this device is classified as **Mobile Device**.

2.4 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	27.25	6.51	20	0.473	1
5745-5825	25.32	9.01	20	0.539	1

NOTE:

1. 2.4GHz: Directional gain = 3.5dBi + 10log(2) = 6.51dBi

2. 5GHz: Directional gain = 6dBi + 10log(2) = 9.01dBi