



RF EXPOSURE REPORT

REPORT NO.: SA140304C25

MODEL NO.: FORTIAPCAM-214Bxxxxxx,
FAPCM-214Bxxxxxx,
FORTICAM-AP214Bxxxxxx,
FCMAP-214xxxxxx,
FORTIAP-CAM214Bxxxxxx,
FAP-CM214Bxxxxxx,
FORTIAPCAM-214Bxxxxxx,
FCM-AP214Bxxxxxx (where "x" can be
used as "A-Z", or "0-9", or "-", or blank for
software changes or marketing purposes
only)

FCC ID: TVE-122203

IC: 7280B-122203

RECEIVED: Mar. 04, 2014

TESTED: Mar. 15 ~ Apr. 10, 2014

ISSUED: May 19, 2014

APPLICANT: Fortinet Inc.

ADDRESS: 899 Kifer Road Sunnyvale, CA 94086, USA

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.

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.



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RELEASE CONTROL RECORD

| ISSUE NO. | REASON FOR CHANGE | DATE ISSUED |
|-------------|-------------------|--------------|
| SA140304C25 | Original release | May 19, 2014 |



1. CERTIFICATION

PRODUCT: Secured Wireless Access Point w/ IP Camera
FORTIAPCAM-214Bxxxxxx, FAPCM-214Bxxxxxx,
FORTICAM-AP214Bxxxxxx, FCMAP-214xxxxxx,
MODEL: FORTIAP-CAM214Bxxxxxx, FAP-CM214Bxxxxxx,
FORTIAPCAM-214Bxxxxxx, FCM-AP214Bxxxxxx (where
"x" can be used as "A-Z", or "0-9", or "-", or blank for software
changes or marketing purposes only)
BRAND: Fortinet
APPLICANT: Fortinet Inc.
TEST SAMPLE: ENGINEERING SAMPLE
STANDARDS: **FCC Part 2 (Section 2.1091)**
FCC OET Bulletin 65, Supplement C (01-01)
IEEE C95.1
RSS-102 Issue 4 (2010-12)

The above equipment (Model: FORTIAPCAM-214B) 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 : May 19, 2014
Celine Chou / Specialist

APPROVED BY : Ken Liu , DATE : May 19, 2014
Ken Liu / Senior Manager



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2. RF EXPOSURE

2.1 LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

For FCC Part 2 (Section 2.1091)

| 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

For RSS-102 Issue 4 (2010-12)

| FREQUENCY RANGE (MHz) | ELECTRIC FIELD STRENGTH (V/m) | MAGNETIC FIELD STRENGTH (A/m) | POWER DENSITY (W/m ²) | AVERAGE TIME (minutes) |
|---|-------------------------------|-------------------------------|-----------------------------------|------------------------|
| LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE | | | | |
| 300-1500 | ... | ... | F/150 | 6 |
| 1500-100,000 | ... | ... | 10 | 6 |

F = Frequency in MHz



2.2 MPE CALCULATION FORMULA

For FCC Part 2 (Section 2.1091)

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

where

Pd = power density in mW/cm²

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

For RSS-102 Issue 4 (2010-12)

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

where

Pd = power density in W/m²

Pout = output power to antenna in W

G = gain of antenna in linear scale

Pi = 3.1416

R = distance between observation point and center of the radiator in meter

2.3 CLASSIFICATION

For FCC Part 2 (Section 2.1091)

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**.

For RSS-102 Issue 4 (2010-12)

The antenna of this product, under normal use condition, is at least 0.20m away from the body of the user. So, this device is classified as **Mobile Device**.



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2.4 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

For FCC Part 2 (Section 2.1091)

| FREQUENCY BAND (MHz) | MAX POWER (dBm) | ANTENNA GAIN (dBi) | DISTANCE (cm) | POWER DENSITY (mW/cm ²) | LIMIT (mW/cm ²) |
|----------------------|-----------------|--------------------|---------------|-------------------------------------|-----------------------------|
| 2412-2462 | 29.03 | 6.66 | 20 | 0.737 | 1 |
| 5180-5240 | 16.71 | 8.06 | 20 | 0.060 | 1 |
| 5745-5825 | 25.74 | 8.06 | 20 | 0.477 | 1 |

NOTE:

1. 2.4GHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 6.66$
2. 5GHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 8.06$

For RSS-102 Issue 4 (2010-12)

| FREQUENCY BAND (MHz) | MAX POWER (dBm) | ANTENNA GAIN (dBi) | DISTANCE (m) | POWER DENSITY (W/m ²) | LIMIT (W/m ²) |
|----------------------|-----------------|--------------------|--------------|-----------------------------------|---------------------------|
| 2412-2462 | 29.03 | 6.66 | 0.2 | 7.374 | 10 |
| 5180-5240 | 16.71 | 8.06 | 0.2 | 0.597 | 10 |
| 5745-5825 | 25.74 | 8.06 | 0.2 | 4.772 | 10 |

NOTE:

1. 2.4GHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 6.66$
2. 5GHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 8.06$