

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.

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ISSUED BY: Bureau Veritas Consumer Products Services
(H.K.) Ltd., Taoyuan Branch

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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.

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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,
MODEL: 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)
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

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)

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

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

For RSS-102 Issue 4 (2010-12)

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

where

P_d = power density in W/m²

P_{out} = output power to antenna in W

G = gain of antenna in linear scale

π = 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**.

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:

- 2.4GHz: Directional gain = $10 \log[(10^{G_1/20} + 10^{G_2/20} + \dots + 10^{G_N/20})^2 / N_{ANT}] = 6.66$
- 5GHz: Directional gain = $10 \log[(10^{G_1/20} + 10^{G_2/20} + \dots + 10^{G_N/20})^2 / N_{ANT}] = 8.06$

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:

- 2.4GHz: Directional gain = $10 \log[(10^{G_1/20} + 10^{G_2/20} + \dots + 10^{G_N/20})^2 / N_{ANT}] = 6.66$
- 5GHz: Directional gain = $10 \log[(10^{G_1/20} + 10^{G_2/20} + \dots + 10^{G_N/20})^2 / N_{ANT}] = 8.06$