

## RF Exposure Report

**Report No.:** SA161021C22

**FCC ID:** TVE-140601

**Test Model:** PCE5501AN-FT

**Received Date:** Oct. 21, 2016

**Test Date:** Nov. 17 ~ Dec. 21, 2016

**Issued Date:** Jan. 05, 2017

**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. 47-2, 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 Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN (R.O.C.)



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### Release Control Record

Issue No.	Description	Date Issued
SA161021C22	Original release.	Jan. 05, 2017

## 1 Certificate of Conformity

**Product:** 802.11 ac wave2 4x4 module

**Brand:** Fortinet Inc.

**Test Model:** PCE5501AN-FT

**Sample Status:** Engineering sample

**Applicant:** Fortinet Inc.

**Test Date:** Nov. 17 ~ Dec. 21, 2016

**Standards:** FCC Part 2 (Section 2.1091)

KDB 447498 D01 General RF Exposure Guidance v06

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 :** Sunttee Liu , **Date:** Jan. 05, 2017  
Sunttee Liu / Specialist

**Approved by :** Ken Liu , **Date:** Jan. 05, 2017  
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 <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

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

where

$P_d$  = power density in mW/cm<sup>2</sup>

$P_{out}$  = 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 26cm away from the body of the user. So, this device is classified as Mobile Device.

## 3 Calculation Result of Maximum Conducted Power

Mode	Band	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
CDD	WLAN 5180~5240MHz	25.49	12.02	26	0.664	1
	WLAN 5745~5825MHz	27.25	12.02	26	0.995	1
Beamforming	WLAN 5180~5240MHz	19.47	12.02	26	0.166	1
	WLAN 5745~5825MHz	21.11	12.02	26	0.242	1

Note: Max. Directional gain = 6dBi + 10log(4) = 12.02dBi

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