

## RF Exposure Report

**Report No.:** SA151102C11

**FCC ID:** 2AG6R-AN700APIAC

**Test Model:** AN-700-AP-I-AC

**Received Date:** Nov. 02, 2015

**Test Date:** Nov. 13 ~ Dec. 21, 2015

**Issued Date:** Dec. 22, 2015

**Applicant:** Araknis Networks

**Address:** 1800 Continental Blvd. Ste 200, Charlotte, NC 28273, United States

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

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**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
SA151102C11	Original release.	Dec. 22, 2015

## 1 Certificate of Conformity

**Product:** Araknis Networks 700-series Dual-Band Concurrent Wireless-AC Indoor Access Point

**Brand:** Araknis Networks ®

**Test Model:** AN-700-AP-I-AC

**Sample Status:** Engineering sample

**Applicant:** Araknis Networks

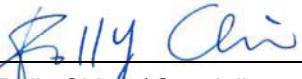
**Test Date:** Nov. 13 ~ Dec. 21, 2015

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

KDB 447498 D01 (October 23, 2015)

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 :** , **Date:** Dec. 22, 2015  
Polly Chien / Specialist

**Approved by :** , **Date:** Dec. 22, 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 <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

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

where

Pd = power density in mW/cm<sup>2</sup>

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

### 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**.

### 3 Calculation Result Of Maximum Conducted Power

Frequency Band	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
2412-2462 MHz	24.45	8.77	20	0.418	1
5180-5240 MHz	21.09	9.77	20	0.243	1
5745-5825 MHz	17.39	9.77	20	0.103	1

Note:

2412-2462MHz Band: Directional gain = 4dBi + 10log(3) = 8.77dBi

5180-5240MHz & 5745-5825MHz Band: Directional gain = 5dBi + 10log(3) = 9.77dBi

#### Conclusion:

The formula of calculated the MPE is:

CPD1 / LPD1 + CPD2 / LPD2 + .....etc. < 1

CPD = Calculation power density

LPD = Limit of power density

WLAN 2.4G + WLAN 5.0G = 0.418 + 0.243 = 0.661

Therefore, the maximum calculation of this situation is 0.661, which is less than the "1" limit.

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