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
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
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^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

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

where

Pd = power density in mW/cm^2

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^2)	Limit (mW/cm^2)
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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