RF Exposure Report

Report No.:	SA160920C16
FCC ID:	WBV-AP122
Test Model:	AP122
Received Date:	Sep. 21, 2016
Test Date:	Oct. 06 ~ Nov. 16, 2016
Issued Date:	Nov. 21, 2016
Applicant:	Aerohive Networks Inc.
Address:	1011 McCarthy Blvd, Milpitas, CA 95035, 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
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
SA160920C16	Original release.	Nov. 21, 2016

1 Certificate of Conformity

Product:	Access Point
Brand:	Aerohive
Test Model:	AP122
Sample Status:	Engineering sample
Applicant:	Aerohive Networks Inc.
Test Date:	Oct. 06 ~ Oct. 26, 2016
Standards:	FCC Part 2 (Section 2.1091) KDB 447498 D03 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:** Nov. 21, 2016

Pettie Chen / Senior Specialist

Approved by : _____ , **Date:** Nov. 21, 2016

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 (MHz)	Max Power (dBm)	Max Power+ Max tolerance (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
WLAN						
CDD Mode						
2412-2462	22.18	23.68	6.54	20	0.148	1
5180-5240	22.57	24.07	8.19	20	0.237	1
5745-5825	21.61	23.11	8.19	20	0.190	1
Beamforming Mode						
2412-2462	20.31	21.81	6.54	20	0.096	1
5180-5240	22.57	24.07	8.19	20	0.237	1
5745-5825	21.57	23.07	8.19	20	0.188	1
BT LE						
2402-2480	4.84	6.34	3.96	20	0.002	1

Note: Maximum tolerance is 1.5dB.

NOTE:
WLAN 2.4GHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/N$] = 6.54dBi
WLAN 5.0GHz: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/N$] = 8.19dBi

Conclusion:

The formula of calculated the MPE is:

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

CPD = Calculation power density

LPD = Limit of power density

WLAN 2.4GHz + WLAN 5GHz + BT LE = 0.148 + 0.237 + 0.002 = 0.387

Therefore the maximum calculations of above situations are less than the "1" limit.

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