



RF EXPOSURE REPORT

REPORT NO.: SA120423C07

MODEL NO.: HiveAP 141, HiveAP 121

FCC ID: WBV-HIVEAP1X1

RECEIVED: Apr. 23, 2012

TESTED: May 03 ~ May 17, 2012

ISSUED: May 22, 2012

APPLICANT: Aerohive Networks, Inc.

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

LAB ADDRESS: No. 47, 14th Ling, Chia Pau Vil., Lin Kou Dist.,
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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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TABLE OF CONTENTS

RELEASE CONTROL RECORD	3
1. CERTIFICATION	4
2. RF EXPOSURE	5
2.1 LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)	5
2.2 MPE CALCULATION FORMULA	5
2.3 CLASSIFICATION	5
2.4 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER	6



RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA120423C07	Original release	May 22, 2012



1. CERTIFICATION

PRODUCT: AP Router
MODEL: HiveAP 141, HiveAP 121
BRAND: Aerohive
APPLICANT: Aerohive Networks, Inc.
TESTED: May 03 ~ May 17, 2012
TEST SAMPLE: ENGINEERING SAMPLE
STANDARDS: **FCC Part 2 (Section 2.1091)**
FCC OET Bulletin 65, Supplement C (01-01)
IEEE C95.1

The above equipment (Model: HiveAP 141, HiveAP 121) 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:** May 22, 2012
Pettie Chen / Specialist

APPROVED BY :  , **DATE:** May 22, 2012
Gary Chang / Technical 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

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

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

2.3 CLASSIFICATION

The antenna of this product, under normal use condition, is at least 23cm away from the body of the user. So, this device is classified as **Mobile Device**.

2.4 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

FREQUENCY BAND (MHz)	MODULATION MODE	MAX POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm ²)	LIMIT (mW/cm ²)
2412-2462	802.11b	21.34	4	23	0.051	1
	802.11g	27.28	4	23	0.202	1
	802.11n (20MHz)	26.52	7	23	0.338	1
5180-5240	802.11a	14.76	6	23	0.018	1
	802.11n (20MHz)	12.21	9	23	0.020	1
	802.11n (40MHz)	13.86	9	23	0.029	1
5745-5825	802.11a	25.12	6	23	0.195	1
	802.11n (20MHz)	26.88	9	23	0.583	1
	802.11n (40MHz)	26.85	9	23	0.579	1

2.4GHz:

802.11n (20MHz): Directional gain = 4dBi + 10log(2) = 7dBi

5.0GHz:

802.11n (20MHz) & 802.11n (40MHz): Directional gain = 6dBi + 10log(2) = 9dBi

CONCLUSION:

Both of the WLAN 2.4G & 5.0G can transmit simultaneously, the formula of calculated the MPE is:

$$CPD1 / LPD1 + CPD2 / LPD2 + \dots \text{etc.} < 1$$

CPD = Calculation power density

LPD = Limit of power density

$$\text{WLAN 2.4G} + \text{WLAN 5.0G} = 0.338 + 0.583 = 0.921$$

Therefore, the maximum calculation of this situation is 0.921, which is less than the "1" limit.