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RF EXPOSURE REPORT

REPORT NO.: SA110815C07-1

MODEL NO.: MR66

FCC ID: UDX-60019010

RECEIVED: Aug. 15, 2011

TESTED: Aug. 22 ~ Sep. 8, 2011

ISSUED: Sep. 30, 2011

APPLICANT: Meraki Inc.

ADDRESS: 660 Alabama St, 4th floor, San Francisco, CA
94110

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

LAB LOCATION: No. 47, 14th Ling, Chia Pau Vil., Lin Kou Dist.,
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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA110815C07-1	Original release	Sep. 30, 2011



1. CERTIFICATION

PRODUCT: 802.11 a/b/g/n Wireless Access Point
BRAND NAME: Meraki
MODEL NO.: MR66
APPLICANT: Meraki Inc.
TEST ITEM: ENGINEERING SAMPLE
TESTED: Aug. 22 ~ Sep. 8, 2011
STANDARDS: FCC Part 2 (Section 2.1091)
FCC OET Bulletin 65, Supplement C (01-01)
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.

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(Annie Chang / Senior Specialist)

APPROVED BY : Ken Liu , DATE: Sep. 30. 2011
(Ken Liu / Manager)

2. RF EXPOSURE LIMIT

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

3. MPE CALCULATION FORMULA

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

where

Pd = power density in mW/cm²

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

4. CLASSIFICATION

The antenna of this product, under normal use condition, is at least 30cm away from the body of the user. So, this device is classified as **Mobile Device**.

5. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

For Mode A:

MODULATION MODE	FREQUENCY BAND (MHz)	MAX CONDUCTED POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm ²)	LIMIT (mW/cm ²)
802.11b	2412-2462	21.99	14	30	0.352	1.00
802.11g	2412-2462	21.96	14	30	0.350	1.00
802.11n (20MHz)	2412-2462	24.93	11	30	0.346	1.00
802.11n (40MHz)	2422-2452	24.71	11	30	0.329	1.00
802.11a	5180-5240	5.91	17	30	0.017	1.00
802.11n (20MHz)	5180-5240	8.68	14	30	0.016	1.00
802.11n (40MHz)	5190-5230	8.90	14	30	0.017	1.00
802.11a	5745-5825	19.03	17	30	0.355	1.00
802.11n (20MHz)	5745-5825	21.95	14	30	0.348	1.00
802.11n (40MHz)	5755-5795	21.84	14	30	0.339	1.00

CONCLUSION:

Both of the modules 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

$$1. \text{ WLAN (2.4G) + WLAN (5.0G) } = 0.352/1 + 0.355/1 = 0.707$$

Therefore, the maximum calculation of this situation is 0.707, which is less than the "1" limit.

For Mode B:

MODULATION MODE	FREQUENCY BAND (MHz)	MAX CONDUCTED POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm ²)	LIMIT (mW/cm ²)
802.11b	2412-2462	24.38	8	30	0.153	1.00
802.11g	2412-2462	27.84	8	30	0.340	1.00
802.11n (20MHz)	2412-2462	27.82	5	30	0.169	1.00
802.11n (40MHz)	2422-2452	26.00	5	30	0.111	1.00
802.11a	5180-5240	12.98	10	30	0.018	1.00
802.11n (20MHz)	5180-5240	15.95	7	30	0.017	1.00
802.11n (40MHz)	5190-5230	15.99	7	30	0.018	1.00
802.11a	5745-5825	25.89	10	30	0.344	1.00
802.11n (20MHz)	5745-5825	28.05	7	30	0.283	1.00
802.11n (40MHz)	5755-5795	28.19	7	30	0.292	1.00

CONCLUSION:

Both of the modules 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

$$1. \text{ WLAN (2.4G) + WLAN (5.0G) } = 0.340/1 + 0.344/1 = 0.684$$

Therefore, the maximum calculation of this situation is 0.684, which is less than the “1” limit.

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