RF EXPOSURE REPORT

REPORT NO.: SA110219C05

MODEL NO.: MR24

FCC ID: UDX-60014010

ACCORDING: FCC Guidelines for Human Exposure
IEEE C95.1

APPLICANT: Meraki Inc.

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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 Tsuen, Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
Original release	N/A	Mar. 09, 2011

1. 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

2. MPE CALCULATION FORMULA

Pd = (Pout*G) / (4*pi*r2)

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

3. CLASSIFICATION

The antenna of this product, under normal use condition, is at least 25cm away from the body of the user. So, this device is classified as **Mobile Device**.

4. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

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	25.8	9.8	25	0.463	1
802.11g	2412-2462	26.0	9.8	25	0.484	1
802.11n (20MHz)	2412-2462	29.1	5	25	0.327	1
802.11n (40MHz)	2422-2452	26.9	5	25	0.197	1
802.11a	5180-5240	12.2	10.8	25	0.028	1
802.11n (20MHz)	5180-5240	16.8	6	25	0.024	1
802.11n (40MHz)	5180-5240	16.8	6	25	0.024	1
802.11a	5745-5825	25.0	10.8	25	0.484	1
802.11n (20MHz)	5745-5825	26.1	6	25	0.207	1
802.11n (40MHz)	5745-5825	26.5	6	25	0.227	1

NOTE:
(802.11 b/g): Directional gain =5dBi+10log(3)=9.8dBi

(802.11 a): Directional gain = 6dBi+10log(3)=10.8dBi

CONCULSION:

Both of the WLAN 2.4G & 5.0G can transmit simultaneously, 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 = 0.484 + 0.484 = 0.968

Therefore, the maximum calculation of this situation is 0.968, which is less than the "1" limit.