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Federal Communications Commission  
7435 Oakland Mills Road  
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Subject: Letter of Attestation

FCC ID: UDX-60025010  
Model: MR34-HW

We, **Cisco Systems, Inc.** declare this equipment has power reduction ability and channel selection/operation algorithms to comply with FCC rules when radio 1 and radio 2 transmit simultaneously in 2.4GHz mode.

The **Meraki MR34 (MR34-HW)** wireless access point firmware will take the following actions to ensure RF compliance within FCC regulations:

- (a) Take corrective measure by reducing power on "Radio 1" in the 2.4GHz band by as required (~3 dB) during concurrent same-channel transmission of "Radio 1" and "Radio 2". The power chart / reduction requirement can be seen below. Power reduction is only required in channels 1 and 11 (3 and 9 in HT40 mode). In center channels of the 2.4Ghz band, Radio 1 and Radio 2 combine at full power with no violation of FCC regulations. See the "simultaneous operation" lab report for more details.
- (b) Rely on an algorithm coded in our firmware to eliminate servicing 802.11 clients on the Radio 1. Thus there will be no broadcasting of SSID or timer-based beacon frames. This will preclude the need for action (a) described above in all known operational cases.
- (c) Power reduction settings are not customer adjustable. Tools exist for customer configuration via Meraki Dashboard to reduce the power beyond the required reduction. Please see other attestation/filing documents related to SDR and radio configuration control /country setting for more information.

Radio 1's primary function is as a scanning radio. It has rare to occasional transmissions. Meraki Access Point firmware is optimized by design to eliminate simultaneous same-band transmission, as it would be detrimental to Radio 2 function. However, we have implemented the necessary power reduction actions should simultaneous same-band transmission occur.

As soon as Radio 1 enters the same channel as Radio 2 (which operates continuously in a single stable channel) power reduction occurs. All transmissions while Radio 1 is in the same channel as radio 2 are power reduced, enforced as soon as the channel is set. If Radio 2 channel is changed, a similar check and Radio 1 power level check/reset occurs. All checks and power levels are set before first transmissions by Radio 1 in a new frequency.

### **Data from test report, including simultaneous operation tests:**

Maximum Power of Radio 1 for individual operation:

#### **802.11b**

CHANNEL	FREQUENCY (MHz)	AVERAGE POWER (dBm)
1	2412	18.79
6	2437	22.01
11	2462	16.93

#### **802.11g**

CHANNEL	FREQUENCY (MHz)	AVERAGE POWER (dBm)
1	2412	10.78
6	2437	18.37
11	2462	13.12

#### **802.11n (HT20)**

CHANNEL	FREQUENCY (MHz)	AVERAGE POWER (dBm)
1	2412	11.15
6	2437	18.89
11	2462	12.41

#### **802.11n (HT40)**

CHANNEL	FREQUENCY (MHz)	AVERAGE POWER (dBm)
3	2422	7.94
6	2437	10.01
9	2452	7.51

During simultaneous transmission, the following channels are reduced in power (Radio 1 only). These are the only channels possible in Firmware for simultaneous operation that require power adjustment.

802.11b

CHANNEL	FREQUENCY (MHz)	AVERAGE POWER (dBm)
1	2412	15.79
11	2462	13.93

802.11g

CHANNEL	FREQUENCY (MHz)	AVERAGE POWER (dBm)
1	2412	7.78
11	2462	10.12

802.11n (HT20)

CHANNEL	FREQUENCY (MHz)	AVERAGE POWER (dBm)
1	2412	8.15
11	2462	9.41

802.11n (HT40)

CHANNEL	FREQUENCY (MHz)	AVERAGE POWER (dBm)
3	2422	4.94
9	2452	4.51

Sincerely,



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