

## RF Exposure Evaluation declaration

|              |                        |
|--------------|------------------------|
| Product Name | Access Point           |
| Model No.    | RM5-AC-PTMP, R5AC-PTMP |
| FCC ID       | SWX-RM5ACPTMP          |

|           |                                                                 |
|-----------|-----------------------------------------------------------------|
| Applicant | Ubiquiti Networks.,Inc                                          |
| Address   | 12F, No. 105, Song Ren Rd., Sin Yi District, Taipei 110, Taiwan |

|                     |                     |
|---------------------|---------------------|
| Date of Receipt     | Mar. 14, 2014       |
| Date of Declaration | July 14, 2014       |
| Report No.          | 1430290R-RFUSP08V00 |

The declaration results relate only to the samples calculated.

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## 1. RF Exposure Evaluation

### 1.1. Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

#### LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

| Frequency Range (MHz)                                     | Electric Field Strength (V/m) | Magnetic Field Strength (A/m) | Power Density (mW/cm <sup>2</sup> ) | Average Time (Minutes) |
|-----------------------------------------------------------|-------------------------------|-------------------------------|-------------------------------------|------------------------|
| (A) Limits for Occupational/ Control Exposures            |                               |                               |                                     |                        |
| 300-1500                                                  | --                            | --                            | F/300                               | 6                      |
| 1500-100,000                                              | --                            | --                            | 5                                   | 6                      |
| (B) Limits for General Population/ Uncontrolled Exposures |                               |                               |                                     |                        |
| 300-1500                                                  | --                            | --                            | F/1500                              | 6                      |
| 1500-100,000                                              | --                            | --                            | 1                                   | 30                     |

F= Frequency in MHz

Friis Formula

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

Where

$P_d$  = power density in mW/cm<sup>2</sup>

$P_{out}$  = 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

$P_d$  is the limit of MPE, 1 mW/cm<sup>2</sup>. If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

### 1.2. Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

The temperature and related humidity: 18°C and 78% RH.

### 1.3. Test Result of RF Exposure Evaluation

Product : Access Point  
Test Item : RF Exposure Evaluation  
Test Site : No.3 OATS

|                           |                                     |
|---------------------------|-------------------------------------|
| Operation Frequency Range | 5745~5825MHz, 5755~5795MHz, 5755MHz |
|---------------------------|-------------------------------------|

#### Output Power Into Antenna & RF Exposure Evaluation Distance: (Dish antenna: 34dBi)

| Output Power to Antenna (mW) | Power Density at R = 20 cm (mW/cm <sup>2</sup> ) |
|------------------------------|--------------------------------------------------|
| 1.5311                       | 0.765122                                         |

Power density is lower than the limit (1 mW/cm<sup>2</sup>).

#### Output Power Into Antenna & RF Exposure Evaluation Distance: (Sector antenna: 20dBi)

| Output Power to Antenna (mW) | Power Density at R = 20 cm (mW/cm <sup>2</sup> ) |
|------------------------------|--------------------------------------------------|
| 38.9045                      | 0.773981                                         |

Power density is lower than the limit (1 mW/cm<sup>2</sup>).

#### Output Power Into Antenna & RF Exposure Evaluation Distance: (Omni antenna: 13dBi)

| Output Power to Antenna (mW) | Power Density at R = 20 cm (mW/cm <sup>2</sup> ) |
|------------------------------|--------------------------------------------------|
| 191.8669                     | 0.761606                                         |

Power density is lower than the limit (1 mW/cm<sup>2</sup>).