RF Exposure Evaluation declaration

Product Name	VoIP Phone
Model No.	UVP-Pro
FCC ID	SWX-UVPPRO

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

Date of Receipt	Sep. 05, 2014
Date of Declaration	Nov. 14, 2014
Report No.	1490232R-RFUSP26V00

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

Where

Pd = power density in mW/cm^2

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

Pd id the limit of MPE, 1 mW/cm^2. 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℃ and 78％ RH.

1.3. Test Result of RF Exposure Evaluation

Product : VoIP Phone
Test Item : RF Exposure Evaluation
Test Site : No.3 OATS

Operation Frequency Range	2412-2462MHz, 2402-2480MHz 5745-5825MHz, 5755-5795MHz 5180-5240MHz, 5190-5230MHz 5300-5700MHz, 5270-5670MHz

(2.4GHz) Output Power Into Antenna & RF Exposure Evaluation Distance:

Target Conducted output power	21dBm
Power Tolerance	±2dB
Maximum Conducted output power	23dBm (note)
Antenna gain	2.27dBi

Note: Maximum Conducted output power = Target Conducted output power + Power Tolerance

Output Power to Antenna (mW)	Power Density at **R = 20 cm** (mW/cm2)
199.5262	0.066947

Power density is lower than the limit (1 mW/cm^2).

(5GHz) Output Power Into Antenna & RF Exposure Evaluation Distance:

Target Conducted output power	14dBm
Power Tolerance	±2dB
Maximum Conducted output power	16dBm (note)
Antenna gain	5.18dBi

Note: Maximum Conducted output power = Target Conducted output power + Power Tolerance

Output Power to Antenna (mW)	Power Density at **R = 20 cm** (mW/cm2)
39.8107	0.026105

Power density is lower than the limit (1 mW/cm^2).