

# RF Exposure Evaluation declaration

Product Name	Wireless Access Point
Model No.	XR300
FCC ID	SK6-XR320

Applicant	Xirrus, Inc.
Address	2101 Corporate Center Drive, Thousand Oaks, CA 91320

Date of Receipt	Nov. 04, 2014
Date of Declaration	Nov. 12, 2014
Report No.	14B0157R-RFUSP05V00

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

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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)

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Frequency Range	Electric Field	Magnetic Field	Power Density	Average Time
(MHz)	Strength (V/m)	Strength (A/m)	$(mW/cm^2)$	(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,  $1 \text{ mW/cm}^2$ . 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:  $18^{\circ}$ C and 78% RH.



# 1.3. Test Result of RF Exposure Evaluation

Product : Wireless Access Point
Test Item : RF Exposure Evaluation

Test Site : No.3 OATS

Operation Frequency	2412-2462MHz, 2402-2480MHz
	5745-5825MHz, 5755-5795MHz
	5180-5240MHz, 5190-5230MHz
	5210MHz, 5775MHz
Maximum Conducted output power	28.45dBm
Antenna gain	5.0dBi

## Output Power Into Antenna & RF Exposure Evaluation Distance:

Output Power to Antenna (mW)	Power Density at $R = 20 \text{ cm (mW/cm2)}$
699.8420	0.440282

Power density is lower than the limit (1 mW/cm2).