

RF Exposure Evaluation declaration

Product Name	Industrial 900MHz Access Point Confirmed
Model No.	AWK-3191-xx-yy-z (x=0-9,A-Z,blank; y=0-9,A-Z,blank or dash;z can be T or blank; for marketing purpose and no impact safety related critical components and constructions)
FCC ID	SLE-WFS001

Applicant	MOXA Inc.
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Date of Receipt	June 23, 2014
Date of Declaration	July 16, 2014
Report No.	1460553R-RFUSP25V00

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 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/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

Pd is the limit of MPE, 1 mW/cm². 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 : Industrial 900MHz Access Point Confirmed
 Test Item : RF Exposure Evaluation
 Test Site : No.3 OATS

Operation Frequency Range	905.25 -924.75 MHz
Maximum Output Power	29.11dBm
Maximum Antenna gain	2.37dBi

Output Power Into Antenna & RF Exposure Evaluation Distance:

Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm ²)
814.7043	0.279725

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