# RF Exposure Evaluation declaration

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|---|---|
| Product Name | Industrial 802.11a/b/g/n AP/Client/Bridge |
| Model No. | AWK-3131AXXXXXX (x=0-9,A-Z, blank or dash for marketing purpose and no impact safety related critical components and constructions) |
| FCC ID | SLE-WAPN005 |

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| Applicant | MOXA Inc. |
| Address | FL.4, NO. 135. LANE 235, BAOQIAO RD. XINDIAN DIST., NEW TAIPEI CITY, TAIWAN |

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| Date of Receipt | March 05, 2014 |
| Date of Declaration | July 20, 2015 |
| Report No. | 14C0548R-RFUSP09V00 |

# 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 : Industrial 802.11a/b/g/n AP/Client/Bridge
Test Item : RF Exposure Evaluation
Test Site : No.3 OATS

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|---|---|
| Operation Frequency | 5180-5240MHz,5260-5320MHz, 5500-5580MHz, 5660-5700MHz, 5745-5825MHz<br>5190-5230MHz, 5270-5310MHz, 5510-5550MHz, 5670MHz, 5755-5795MHz |
| Maximum Conducted output power | 14.38 dBm |
| Antenna gain | 2.34dBi |

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

| Output Power to Antenna (mW) | Power Density at R = 20 cm (mW/cm2) |
|---|---|
| 27.4157 | 0.009348 |

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