# RF Exposure Evaluation declaration

Product Name : Intel® Dual Band Wireless-AC 8265

Model No. : 8265NGW

FCC ID : 2ANPM8265NG

Applicant : Nexstgo Company Limited
Address : FLAT/RM 1602 16/F ENTERPRISE SQUARE TOWER II NO.9
SHEUNG YUET ROAD KOWLOON BAY

Date of Receipt:Sep. 18, 2017Date of Declaration :Nov. 14, 2017Report No.:1790242R-RFUSP02V00

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 report of the equipment and evaluated measurement uncertainty herein.

This report must not be used to claim product endorsement by TAF or any agency of the government.

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| Product Name        | Intel® Dual Band Wireless-AC 8265                 |  |
|---------------------|---|--|
| Applicant           | Nexstgo Company Limited                           |  |
| A 11                | FLAT/RM 1602 16/F ENTERPRISE SQUARE TOWER II NO.9 |  |
| Address             | SHEUNG YUET ROAD KOWLOON BAY                      |  |
| Manufacturer        | Intel Mobile Communications France SAS            |  |
| Model No.           | 8265NGW   |  |
| FCC ID.             | 2ANPM8265NG                                       |  |
| EUT Rated Voltage   | DC 3.3V (via Mini-PCI Express slot)               |  |
| EUT Test Voltage    | AC 120V/60Hz                                      |  |
| Trade Name          | Intel   |  |
| Applicable Standard | FCC 47 CFR 1.1310                                 |  |
| Test Result         | Complied  |  |
| Documented By :     | April Chen  |  |
|                     | (Adm. Specialist / April Chen)                    |  |
| Tested By :         | Xiao Chen   |  |
|                     | (Engineer / Xiao Chen)                            |  |
| Approved By :       | Hand  |  |
|                     | ( Director / Vincent Lin )                        |  |
|                     |   |  |

## **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   | 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°C and 78% RH.

## **1.3.** Test Result of RF Exposure Evaluation

| Product   | : | Intel® Dual Band Wireless-AC 8265 |
|-----------|---|-----------------------------------|
| Test Item | : | RF Exposure Evaluation            |
| Test Site | : | No.3 OATS                         |

#### For 2.4GHz:

| Operation Frequency Range      | 2412-2472MHz, 2422-2462MHz, |
|--------------------------------|-----------------------------|
|                                | 2402-2480MHz                |
| Maximum Conducted output power | 29.84dBm                    |
| Antenna gain                   | 1.89dBi                     |

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

| Output Power to Antenna (mW) |             | Power Density at $R = 20 \text{ cm} (\text{mW/cm2})$ |  |
|------------------------------|-------------|--|--|
|                              | 963.8290236 | 0.2963   |  |

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

#### For 5GHz:

| Operation Frequency Range      | 5180-5240MHz, 5260-5320MHz,      |
|--------------------------------|----------------------------------|
|                                | 5500-5700MHz, 5745-5825MHz,      |
|                                | 5190-5230MHz, 5270-5310MHz,      |
|                                | 5510-5670MHz, 5755-5795MHz,      |
|                                | 5720 MHz, 5710MHz, 5210-5290MHz, |
|                                | 5530-5690MHz, 5775MHz            |
| Maximum Conducted output power | 23.38dBm                         |
| Antenna gain                   | 3.05dBi                          |

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

| Output Power to Antenna (mW) | Power Density at $R = 20 \text{ cm} (\text{mW/cm2})$ |
|------------------------------|--|
| 217.7709772                  | 0.0874   |

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