

RF Exposure Evaluation declaration

Product Name	Intel® Dual Band Wireless-AC 8260
Model No.	8260D2W
FCC ID	PD98260D2

Applicant	Intel Mobile Communications
Address	100 Center Point Circle, Suite 200 Columbia, South Carolina 29210 USA

Date of Receipt	Mar. 30, 2015
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Report No.	1540115R-RFUSP01V00

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: $P_d = (P_{out} * G) / (4 * \pi * r^2)$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in cm

P_d 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 : Intel® Dual Band Wireless-AC 8260
 Test Item : RF Exposure Evaluation
 Test Site : No.3 OATS

RF Exposure_WLAN

Operation Frequency Range	2412-2462MHz, 5180-5825MHz
Maximum Conducted output power	25.92dBm
Antenna gain	4.97dBi

Output Power Into Antenna & RF Exposure Evaluation Distance:

Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm ²)
390.8409	0.244191

RF Exposure_Bluetooth

Operation Frequency Range	2402-2480MHz
Maximum Conducted output power	11.41dBm
Antenna gain	3..24dBi

Output Power Into Antenna & RF Exposure Evaluation Distance:

Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm ²)
13.8357	0.005804

Total Power Density

Power Density (WLAN) (mW/cm ²)	Power Density (Bluetooth) (mW/cm ²)	Total Power Density (WLAN+Bluetooth) (mW/cm ²)	Limit (mW/cm ²)
0.244191	0.005804	0.249995	1

Note:

The Formula of calculated the MPE is : $CPD1/LPD1 + CPD2/LPD2 + \dots \text{etc.} < 1$

CPD = Calculation power density

LPD = Limit of power density