

# RF Exposure Evaluation declaration

Product Name : Notebook PC  
Model No. : C300MA  
FCC ID : MSQC300MA

Applicant : ASUSTeK COMPUTER INC.

Address : 4F, No. 150, Li-Te Rd., Peitou, Taipei, Taiwan

Date of Receipt : Sep. 12, 2014

Date of Declaration : Oct. 03, 2014

Report No. : 1490338R-RF-US-RFEXP



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)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Average Time (Minutes)
<b>(A) Limits for Occupational/ Control Exposures</b>				
300-1500	--	--	F/300	6
1500-100,000	--	--	5	6
<b>(B) Limits for General Population/ Uncontrolled Exposures</b>				
300-1500	--	--	F/1500	30
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<sup>2</sup>

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/cm<sup>2</sup>. 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: 21°C and 60% RH.

### 1.3. Test Result of RF Exposure Evaluation

Product : Notebook PC  
 Test Item : RF Exposure Evaluation  
 Test Site : N/A

#### LTE Band IV -Peak Gain:1.70dBi

Frequency (MHz)	Conducted Peak Power (dBm)	Duty Cycle	Conducted Average Power (dBm)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	Pass/Fail
1732.5	23.5	1	23.5	223.9	0.0659	1	Pass

#### LTE Band XIII -Peak Gain: -4.49dBi

Frequency (MHz)	Conducted Peak Power (dBm)	Duty Cycle	Conducted Average Power (dBm)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	Pass/Fail
782	23.5	1	23.5	223.9	0.0158	0.52	Pass

Note: The conducted output power is refer to report No.: 1490338R-HPUSP44V00 from the Quietek.