

RF Exposure Evaluation declaration

Product Name : Mozart II
Model No. : AWOXMII2A64, AWOXMII2D64
FCC ID : PPQ-AWOXMII2

Applicant : LITE-ON Technology Corp.

Address : 4F, No.90, Chien 1 Rd., Chung-Ho, Taipei Hsien 235, Taiwan

Date of Receipt : Dec. 06, 2011

Date of Declaration : Dec. 28, 2011

Report No. : 11C377R-RFUSP42V01

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 : Mozart II
 Test Item : RF Exposure Evaluation
 Test Site : No.3 OATS

(802.11b) Output Power Into Antenna & RF Exposure Evaluation Distance (3.79dBi):

Channel	Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm ²)
01	2412.00	101.3911	0.048276
06	2437.00	104.4720	0.049743
11	2462.00	89.7429	0.042730

The RF exposure at 20 cm is below limit.

(802.11g) Output Power Into Antenna & RF Exposure Evaluation Distance (3.79dBi):

Channel	Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm ²)
01	2412.00	309.0295	0.147140
06	2437.00	333.4264	0.158756
11	2462.00	301.9952	0.143791

The RF exposure at 20 cm is below limit.

(n20) Output Power Into Antenna & RF Exposure Evaluation Distance (3.79dBi):

Channel	Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm ²)
01	2412.00	174.9847	0.083316
06	2437.00	234.4229	0.111617
11	2462.00	210.8628	0.100399

The RF exposure at 20 cm is below limit.

(n40) Output Power Into Antenna & RF Exposure Evaluation Distance (3.79dBi):

Channel	Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm ²)
03	2422.00	174.9847	0.083316
06	2437.00	180.3018	0.085848
09	2452.00	165.5770	0.078837

The RF exposure at 20 cm is below limit.