

RF Exposure Evaluation declaration

Product Name: Motherboard

Model No. : A8V-E Deluxe

FCC ID MSQMWOM4LA

Applicant: ASUSTeK COMPUTER INC.

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

Taiwan, R.O.C.

Date of Receipt : Sep. 30, 2004

Date of Declaration: Oct. 14, 2004

Report No. : 04AL016FI

The declaration results relate only to the samples calculated.

The declaration shall not be reproduced except in full without the written approval of QuieTek Corporation. This report must not be used to claim product endorsement by NVLAP any agency of the U.S. Government

Page: 1 of 3 Version: 1.0



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

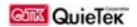
Pd id the limit of MPE, 1 mW/cm². If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

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 and 78% RH.

Page: 2 of 3 Version: 1.0



1.3. Test Result of RF Exposure Evaluation

Product : Motherboard

Test Item : RF Exposure Evaluation

Test Site : No.3 OATS

Antenna Gain

Antenna Gain: The maximum Gain measured in fully anechoic chamber is 2.45dBi in linear scale.

802.11b Output Power Into Antenna & RF Exposure Evaluation Distance (INPAQ: 2.45dBi):

Channel	Frequency (MHz)	Output Power to Antenna (mW)	Power Density at $R = 20 \text{ cm}$ (mW/cm2)
1	2412.00	55.5904	0.0194
6	2437.00	57.0164	0.0199
11	2462.00	64.5654	0.0226

802.11g Output Power Into Antenna & RF Exposure Evaluation Distance (INPAQ: 2.45dBi):

Channel	Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm2)
1	2412.00	27.4157	0.0096
6	2437.00	26.9774	0.0094
11	2462.00	31.8420	0.0111

The distance r (4^{th} column) calculated from the Fries transmission formula is far shorter than 20 cm separation requirement.

Page: 3 of 3 Version: 1.0