

## RF Exposure Evaluation declaration

Product Name : Fixed Computer

Model No. : Z-7212,Z-7212(WOC),Z-7210

FCC ID : JNF-Z-721x

Applicant : ZEBEX INDUSTRIES INC.

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Date of Receipt : Apr. 15, 2016

Date of Declaration : May 03, 2016

Report No. : 1640343R-RFUSP27V00-A

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.

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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)
(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/cm<sup>2</sup>

$P_{out}$  = 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

$P_d$  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: 18°C and 78% RH.

### 1.3. Test Result of RF Exposure Evaluation

Product : Fixed Computer  
Test Item : RF Exposure Evaluation  
Test Site : No.3 OATS

#### For 2.4GHz:

Operation Frequency	2402-2480MHz
Maximum Conducted output power	23.12dBm
Antenna gain	3.8dBi

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

Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
205.1162179	0.0979

Power density is lower than the limit (1 mW/cm<sup>2</sup>).

#### For 5GHz:

Operation Frequency	5180-5320MHz, 5500-5700MHz, 5745-5825MHz
Maximum Conducted output power	15.02dBm
Antenna gain	4.74dBi

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

Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
31.76874071	0.0188

Power density is lower than the limit (1 mW/cm<sup>2</sup>).