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Report No.: SZEMO09020039602

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## RF Exposure Evaluation declaration

**Application No.:** SZEMO090200396RF  
**Applicant/ Manufacturer:** BlueTinum Group Ltd  
**Address of Applicant:** 4F-7, No.27, Sec.3, Chung Shan North Rd., Taipei, Taiwan  
**Address of Manufacturer:** No.32, Longping West Road, Longgang District Shenzhen (Donpinxin Creative Science Park)  
**FCC ID:** W4SBT2000104  
**Fundamental Carrier Frequency :** 2.412GHz to 2.462GHz  
**Equipment Under Test (EUT):**  
Name: Internet Radio/ FM adapter  
Model No.: BT-H20XX, BT-H21XX, BT-H16XX, BT-H18XX(XX=01-10), IR001, IR003  
Trade Mark: BuleTinum, Myine, IRA, IRIS, VR radio, Clint, Peekton  
**Date of Receipt:** 12 February 2009  
**Date of Test:** 12 to 27 February 2009  
**Date of Issue:** 09 March 2009

<b>Test Result :</b>	<b>PASS*</b>
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\* In the configuration tested, the EUT complied with the standards specified above.

Robinson Lo  
Laboratory Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

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## 2 RF Exposure Evaluation

### 2.1 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
300-1500	--	--	F/1500	6
1500-100,000	--	--	1	300

F = Frequency in MHz

Friis Formula

Friis transmission formula:  $P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$

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.



## 2.2 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.

## 2.3 Test Result of RF Exposure Evaluation

Product : Wireless Headphone

Test Item : RF Exposure Evaluation

Test Site : No.3 OATS

Antenna Gain

Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1dBi in linear scale.

### 802.11b

Output Power Into Antenna & RF Exposure Evaluation Distance:

Channel	Frequency (MHz)	Output Power to Antenna (mW)	G (antenna in linear scale)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
1	2412	57.7	1.25	0.014
6	2437	52.0	1.25	0.013
11	2462	68.7	1.25	0.017

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

### 802.11g

Output Power Into Antenna & RF Exposure Evaluation Distance:

Channel	Frequency (MHz)	Output Power to Antenna (mW)	G (antenna in linear scale)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
1	2412	18.96	1.25	0.005
6	2437	19.84	1.25	0.005
11	2462	30.16	1.25	0.008

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