# **Maximum Permissible Exposure report**

For

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This Report Concerns: **Equipment Type: Original Report** TV BOX Lisa Chan Test Engineer: Lisa Chen Report No.: BSL14071011Y-4 May 12 / Receive EUT May 12 - May 23, 2014 Date/Test Date: Reviewed By: Sky Zhang **BSL Testing Co.,LTD.** NO. 24, ZH Park, Nantou, Shenzhen, 518000 China Prepared By: Tel: 86-755-26508703 Fax: 86-755-26508703

### 1.1 Standard Applicable

According to subpart 15.247 (i) and subpart 1.1307 (b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to RF energy level in excess of the communication guidelines.

Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm²)	Averaging Time (minute)	
Limits for General Population/Uncontrolled Exposure					
0.3–3.0	614	1.63	*(100)	30	
3.0–30	824/f	2.19/f	*(180/f2)	30	
30–300	27.5	0.073	0.2	30	
300–1500	/	/	f/1500	30	
1500–100,0 00	/	/	1.0	30	

f = frequency in MHz

#### 1.2 Test Data

Prediction of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

 $S = PG/4\pi R^2$ 

S: Power density, in mW/cm<sup>2</sup>

P: Power input to the antenna, in mW

G: numeric gain of the antenna

R: distance to the center of the antenna, in cm

<sup>\* =</sup> Plane-wave equivalent power density

802.11b Mode	
Maximum peak output power at antenna input terminal (dBm):	<u>12.93</u>
Maximum peak output power at antenna input terminal (mW):	<u>19.63</u>
Prediction distance (cm):	<u>20</u>
Prediction frequency (MHz):	<u>2437</u>
Antenna Gain, typical (dBi):	<u>0</u>
Maximum Antenna Gain (numeric):	<u>1</u>
Power density at predication frequency and distance (mW/cm <sup>2</sup> ):	0.0039
MPE limit for Occupational exposure at predication frequency (mW/cm²):	<u>1.0</u>
802.11g Mode	
Maximum peak output power at antenna input terminal (dBm):	<u>11.87</u>
Maximum peak output power at antenna input terminal (mW):	<u>15.38</u>
Prediction distance (cm):	<u>20</u>
Prediction frequency (MHz):	<u>2462</u>
Antenna Gain, typical (dBi):	<u>0</u>
Maximum Antenna Gain (numeric):	<u>1</u>
Power density at predication frequency and distance (mW/cm <sup>2</sup> ):	<u>0.00306</u>
MPE limit for Occupational exposure at predication frequency (mW/cm²):	<u>1.0</u>
802.11n -HT20 Mode	
Maximum peak output power at antenna input terminal (dBm):	<u>11.94</u>
Maximum peak output power at antenna input terminal (mW):	<u>15.63</u>
Prediction distance (cm):	<u>20</u>
Prediction frequency (MHz):	<u>2412</u>
Antenna Gain, typical (dBi):	<u>0</u>
Maximum Antenna Gain (numeric):	<u>1</u>
Power density at predication frequency and distance (mW/cm <sup>2</sup> ):	0.003
MPE limit for Occupational exposure at predication frequency (mW/cm²):	<u>1.0</u>
802.11n –HT40 Mode	
Maximum peak output power at antenna input terminal (dBm):	<u>8.01</u>
Maximum peak output power at antenna input terminal (mW):	<u>6.324</u>
Prediction distance (cm):	<u>20</u>
Prediction frequency (MHz):	<u>2452</u>
Antenna Gain, typical (dBi):	<u>0</u>
Maximum Antenna Gain (numeric):	<u>1</u>
Power density at predication frequency and distance (mW/cm <sup>2</sup> ):	0.0013
MPE limit for Occupational exposure at predication frequency (mW/cm²):	<u>1.0</u>

### 1.3 Test Result

The device is compliant with the requirement MPE limit of General Population/Uncontrolled Exposure at predication frequency  $1.0~\text{mW/cm}^2$  And the precaution is outlined in the user's manual to prevent to high level of RF energy.