

# Maximum Permissible Exposure report

For

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**FCC ID:2AGPGIMS-D1**

Trade:N/A

This Report Concerns: Original Report	Equipment Type: GREN Intelligent Multimedia Center
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## **1.§ 15.247 (i) and §1.1307 (b) (1) – Maximum Permissible exposure (MPE)**

### **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**

<b>Frequency Range (MHz)</b>	<b>Electric Field Strength (V/m)</b>	<b>Magnetic Field Strength (A/m)</b>	<b>Power Density (mW/cm<sup>2</sup>)</b>	<b>Averaging Time (minute)</b>
<b>Limits for General Population/Uncontrolled Exposure</b>				
0.3–3.0	614	1.63	*(100)	30
3.0–30	824/f	2.19/f	*(180/f <sup>2</sup> )	30
30–300	27.5	0.073	0.2	30
300–1500	/	/	f/1500	30
1500–100,000	/	/	1.0	30

f = frequency in MHz

\* = Plane-wave equivalent power density

### **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

### 802.11b Mode

Maximum AV output power at antenna input terminal (dBm):	<u>15.93</u>
Maximum AV output power at antenna input terminal (mW):	<u>39.17</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>0.0078</u>
MPE limit for the predication frequency (mW/cm <sup>2</sup> ):	<u>1.0</u>

### 802.11g Mode

Maximum AV output power at antenna input terminal (dBm):	<u>14.53</u>
Maximum AV output power at antenna input terminal (mW):	<u>28.38</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> ):	<u>0.0056</u>
MPE limit for the predication frequency (mW/cm <sup>2</sup> ):	<u>1.0</u>

### 802.11n Mode

Maximum AV output power at antenna input terminal (dBm):	<u>14.14</u>
Maximum AV output power at antenna input terminal (mW):	<u>25.94</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>0.0052</u>
MPE limit for the predication frequency (mW/cm <sup>2</sup> ):	<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 mW/cm<sup>2</sup> .And the precaution is outlined in the user's manual to prevent to high level of RF energy.