



International Certification Corp.

No. 3-1, Lane 6, Wen San 3rd St., Kwei Shan Hsiang, Tao Yuan Hsien 333, Taiwan, R.O.C.

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# FCC RF Exposure Report

**FCC ID** : MXF-WRTB283N  
**Equipment** : Dual band Router  
**Model No.** : WRTB-283N  
**Brand Name** : Gemtek  
**Applicant** : Gemtek Technology Co., Ltd.  
**Address** : No. 15-1 Zhanghua Road, Hsinchu Industrial Park, Hukou, Hsinchu, Taiwan, 30352.  
**Standard** : 47 CFR FCC Part 2.1091  
**Received Date** : Feb. 08, 2013  
**Tested Date** : Feb. 20 ~ Apr. 02, 2013

We, International Certification Corp., would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It may be duplicated completely for legal use with the approval of the applicant. It shall not be reproduced except in full without the written approval of our laboratory.

Approved & Reviewed by:

  
Gary Chang / Manager





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## Release Record

Report No.	Version	Description	Issued Date
FA320801	Rev. 01	Initial issue	Apr. 12, 2013



## 1 MPE EVALUATION OF MOBILE DEVICES

Human exposure to RF emissions from mobile devices (47 CFR §2.1091) may be evaluated based on the MPE limits adopted by the FCC for electric and magnetic field strength and/or power density, as appropriate, since exposures are assumed to occur at distances of 20 cm or more from persons.

### 1.1 LIMITS FOR GENERAL POPULATION/UNCONTROLLED EXPOSURE

Frequency Range (MHz)	Power Density (mW/cm <sup>2</sup> )	Averaging Time (minutes)
300~1500	F/1500	30
1500~100000	1.0	30

### 1.2 MPE EVALUATION FORMULA

$$Pd = \frac{Pt}{4 * Pi * R^2}$$

Where

Pd= Power density in mW/cm<sup>2</sup>

Pt= EIRP in Mw

Pi= 3.1416

R= Measurement distance

### 1.3 MPE EVALUATION RESULTS

Frequency Range (MHz)	Maximum Conducted Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
2412~2462	28.91	3.76	20	0.368	1
5180~5240	16.80	2.58	20	0.017	1
5745~5825	28.97	5.46	20	0.552	1

#### CONCLUSION:

Both of the WLAN 2.4G & 5.0G can transmit simultaneously, the formula of calculated the MPE is:

CPD1 / LPD1 + CPD2 / LPD2 + .....etc. < 1

CPD = Calculation power density

LPD = Limit of power density

1. WLAN 2.4G + WLAN 5.0G = 0.92

Therefore, the maximum calculation of this situation is 0.92, which is less than the "1" limit.

==END==