



# RF EXPOSURE REPORT

**REPORT NO.:** SA990913C11A

**MODEL NO.:** WIXS-177

4M-CPE3000-PRO-1D-3.6

**FCC ID:** MXFWIXS-177

**ACCORDING:** FCC Guidelines for Human Exposure  
IEEE C95.1

**APPLICANT:** Gemtek Technology Co., Ltd.

**ADDRESS:** No.15-1, Zhonghua Rd, Hsinchu Industrial Park ,  
Hsinchu County, Taiwan,R.O.C.303

**ISSUED BY:** Bureau Veritas Consumer Products Services  
(H.K.) Ltd., Taoyuan Branch

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**TEST LOCATION:** No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei  
Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

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## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
Original release	NA	Jun. 13, 2011



## 1. CERTIFICATION

**PRODUCT:** WiMAX Outdoor CPE / 802.16e Wave 2 Outdoor CPE

**MODEL:** WIXS-177 / 4M-CPE3000-PRO-1D-3.6

**BRAND:** Gemtek / Alvarion

**APPLICANT:** Gemtek Technology Co., Ltd.

**TESTED:** May 09 ~ Jun. 09, 2011

**TEST SAMPLE:** ENGINEERING SAMPLE

**TEST STANDARDS:** FCC Guidelines for Human Exposure  
IEEE C95.1

The above equipment (Model no.: WIXS-177) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

**PREPARED BY** :  , **DATE:** Jun. 13, 2011  
Rennie Wang / Supervisor

**APPROVED BY** :  , **DATE:** Jun. 13, 2011  
Gary Chang / Assistant Manager

## 2. RF EXPOSURE

### 2.1 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)
<b>LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE</b>				
300-1500	...	...	F/1500	30
1500-100,000	...	...	1.0	30

F = Frequency in MHz

### 2.2 MPE CALCULATION 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

### 2.3 CLASSIFICATION

The antenna of this product, under normal use condition, is at least 22cm away from the body of the user. So, this device is classified as **Mobile Device**.

### 2.4 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

MAX POWER (dBm)	MAXIMUM ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/ cm <sup>2</sup> )	LIMIT (mW/cm <sup>2</sup> )
22.403	15	22	0.904	1.00