



RF EXPOSURE REPORT

REPORT NO.: SA120725E06

MODEL NO.: RG300-3.7-FLF-81, RG300-3.7-1D-FLF-81,
RG300-3.7-1D1V-FLF-81,
RG300-3.7-1D1V1W-FLF-81,
RG300-3.7-2D1V-FLF-81,
RG300-3.7-2D1V1W-FLF-81,
RG300-3.7-2D1V1W-FLF-81

FCC ID: V8YFW181RG30015W

RECEIVED: July 24, 2012

TESTED: Aug. 11 to 21, 2012

ISSUED: Sep. 25, 2012

APPLICANT: Accton Wireless Broadband Corp.

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ISSUED BY: Bureau Veritas Consumer Products Services (H.K.) Ltd.,
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RELEASE CONTROL RECORD

| ISSUE NO. | REASON FOR CHANGE | DATE ISSUED |
|-------------|-------------------|---------------|
| SA120725E06 | Original release | Sep. 25, 2012 |



1. CERTIFICATION

PRODUCT: WiMAX 802.16e Indoor Gateway

BRAND NAME: AWB

MODEL NO.: RG300-3.7-FLF-81, RG300-3.7-1D-FLF-81,
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RG300-3.7-1D1V1W-FLF-81,
RG300-3.7-2D1V-FLF-81,
RG300-3.7-2D1V1W-FLF-81,
RG300-3.7-2D1V1W-FLF-81


TEST SAMPLE: R&D SAMPLE

APPLICANT: Accton Wireless Broadband Corp.

TESTED DATE: Aug. 11 to 21, 2012

STANDARDS: FCC Part 2 (Section 2.1091)
FCC OET Bulletin 65, Supplement C (01-01)
IEEE C95.1

The above equipment (Model: RG300-3.7-FLF-81) 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:** Sep. 25, 2012
(Claire Kuan, Specialist)

APPROVED BY :  , **DATE:** Sep. 25, 2012
(May Chen, Deputy Manager)

2. RF EXPOSURE LIMIT

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

| FREQUENCY RANGE (MHz) | ELECTRIC FIELD STRENGTH (V/m) | MAGNETIC FIELD STRENGTH (A/m) | POWER DENSITY (mW/cm ²) | AVERAGE TIME (minutes) |
|--|-------------------------------|-------------------------------|-------------------------------------|------------------------|
| LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE | | | | |
| 300-1500 | ... | ... | F/1500 | 30 |
| 1500-100,000 | ... | ... | 1.0 | 30 |

F = Frequency in MHz

3. MPE CALCULATION FORMULA

$$P_d = (P_{out} * G) / (4 * \pi * r^2)$$

where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

r = distance between observation point and center of the radiator in cm

4. CLASSIFICATION

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.

5. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

For WiFi:

| FREQUENCY BAND (MHz) | MAX POWER (mW) | ANTENNA GAIN (dBi) | DISTANCE (cm) | POWER DENSITY (mW/ cm ²) | LIMIT (mW/cm ²) |
|----------------------|----------------|--------------------|---------------|--------------------------------------|-----------------------------|
| 2412-2462 | 234.423 | 4.96 | 20 | 0.14613 | 1.00 |

For WiMAX:

| FREQUENCY BAND (MHz) | MAX POWER (mW) | ANTENNA GAIN (dBi) | DISTANCE (cm) | POWER DENSITY (mW/ cm ²) | LIMIT (mW/cm ²) |
|----------------------|----------------|--------------------|---------------|--------------------------------------|-----------------------------|
| 3652.5-3697.5 | 380.190 | 9.90 | 20 | 0.73915 | 1.00 |

CONCLUSION:

Both of the WiMAX and WiFi device can transmit simultaneously, the formula of calculated the exposure is:

$$CPD_1 / LPD_1 + CPD_2 / LPD_2 + \dots \text{etc.} < 1$$

CPD = Calculation power density

LPD = Limit of power density

Therefore, the worst-case situation is $0.14613 / 1 + 0.73915 / 1 = 0.885$, which is less than the "1" limit.

--- END ---