

# RF EXPOSURE REPORT

**REPORT NO.:** SA991214E01

MODEL NO.: AR6103

FCC ID: PPD-AR6103

**ACCORDING:** FCC Guidelines for Human Exposure

**IEEE C95.1** 

**APPLICANT:** Atheros Communications, Inc.

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**ISSUED BY:** Bureau Veritas Consumer Products Services (H.K.)

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#### 1. RF EXPOSURE LIMIT

### LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

| FREQUENCY<br>RANGE (MHz)                              | ELECTRIC FIELD<br>STRENGTH (V/m) | MAGNETIC FIELD<br>STRENGTH (A/m) | POWER DENSITY<br>(mW/cm²) | AVERAGE TIME (minutes) |  |  |  |
|---|----------------------------------|----------------------------------|---------------------------|------------------------|--|--|--|
| LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE |                                  |                                  |                           |                        |  |  |  |
| 300-1500  |                                  |                                  | F/1500                    | 30                     |  |  |  |
| 1500-100,000  |                                  |                                  | 1.0                       | 30                     |  |  |  |

F = Frequency in MHz

#### 2. MPE CALCULATION FORMULA

Pd = (Pout\*G) / (4\*pi\*r2)

where

Pd = power density in mW/cm2

Pout = 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

#### 3. 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**.

#### Antenna information:

| No. | Brand | Model         | Gain(dBi) (included cable loss) | Antenna<br>Type | Connector | Cable<br>Loss(dB) | Cable<br>Length |
|-----|-------|---------------|---------------------------------|-----------------|-----------|-------------------|-----------------|
| 1   | WNC   | 81-EBJ15.005  | 3.62                            | PIFA            | IPEX      | 1.15              | 300mm           |
| 2   | N.A.  | AF 216M245001 | 1.8                             | Chip            | N.A.      | N.A.              | N.A.            |
| 3   | N.A.  | Z             | 2                               | Printed         | N.A.      | N.A.              | N.A.            |



## 4. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

| FREQUENCY<br>BAND<br>(MHz) | MAX POWER<br>(dBm) | ANTENNA<br>GAIN<br>(dBi) | DISTANCE<br>(cm) | POWER<br>DENSITY<br>(mW/ cm <sup>2</sup> ) | LIMIT<br>(mW/cm²) |
|----------------------------|--------------------|--------------------------|------------------|--|-------------------|
| 2412-2462                  | 21.6               | 3.62                     | 20               | 0.066                                      | 1.00              |

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