

# **FCC RF EXPOSURE REPORT**

**FCC ID: X4Y23091**

**Equipment : Wireless-N 3G/4G mobile router**

**Model : ARNPR154U2**

**Applicant : NEXXT SOLUTIONS**

**Address : 3505 N.W MIAMI, FL, 33178**

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

**B T L I N C .**

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## MPE CALCULATION METHOD:

Calculation Method of RF Safety Distance:

$$S = \frac{PG}{4\pi^2} = \frac{EIRP}{4\pi^2}$$

where:

S = power density

P = power input to the antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

### Table for Filed Antenna

| Ant. | Brand | Model Name | Antenna Type | Connector | Gain(dBi) | Note  |
|------|-------|------------|--------------|-----------|-----------|-------|
| 1    | Tenda | Q5060      | Internal     | N/A       | 3.02      | TX/RX |

## TEST RESULTS

|                |                                |                    |            |
|----------------|--------------------------------|--------------------|------------|
| EUT :          | Wireless-N 3G/4G mobile router | Model Name :       | ARNPR154U2 |
| Temperature :  | 25 °C                          | Relative Humidity: | 55 %       |
| Test Voltage : | AC 120V/60Hz                   |                    |            |
| Test Mode :    | TX B MODE /CH01, CH06, CH11    |                    |            |

| Antenna Gain (dBi) | Antenna Gain (numeric) | Peak Output Power (dBm) | Peak Output Power (mW) | Power Density (S) (mW/cm <sup>2</sup> ) | Limit of Power Density (S) (mW/cm <sup>2</sup> ) | Test Result |
|--------------------|------------------------|-------------------------|------------------------|-----------------------------------------|--------------------------------------------------|-------------|
| 3.02               | 2.0045                 | 17.92                   | 61.9441                | 0.02471442                              | 1                                                | Complies    |
| 3.02               | 2.0045                 | 17.92                   | 61.9441                | 0.02471442                              | 1                                                | Complies    |
| 3.02               | 2.0045                 | 17.98                   | 62.8058                | 0.02505823                              | 1                                                | Complies    |

|                |                                |                    |            |
|----------------|--------------------------------|--------------------|------------|
| EUT :          | Wireless-N 3G/4G mobile router | Model Name :       | ARNPR154U2 |
| Temperature :  | 25 °C                          | Relative Humidity: | 55 %       |
| Test Voltage : | AC 120V/60Hz                   |                    |            |
| Test Mode :    | TX G MODE /CH01, CH06, CH11    |                    |            |

| Antenna Gain (dBi) | Antenna Gain (numeric) | Peak Output Power (dBm) | Peak Output Power (mW) | Power Density (S) (mW/cm <sup>2</sup> ) | Limit of Power Density (S) (mW/cm <sup>2</sup> ) | Test Result |
|--------------------|------------------------|-------------------------|------------------------|-----------------------------------------|--------------------------------------------------|-------------|
| 3.02               | 2.0045                 | 16.86                   | 48.5289                | 0.01936201                              | 1                                                | Complies    |
| 3.02               | 2.0045                 | 17.13                   | 51.6416                | 0.02060394                              | 1                                                | Complies    |
| 3.02               | 2.0045                 | 16.86                   | 48.5289                | 0.01936201                              | 1                                                | Complies    |

|                |                                 |                    |            |
|----------------|---------------------------------|--------------------|------------|
| EUT :          | Wireless-N 3G/4G mobile router  | Model Name :       | ARNPR154U2 |
| Temperature:   | 25 °C                           | Relative Humidity: | 55 %       |
| Test Voltage : | AC 120V/60Hz                    |                    |            |
| Test Mode :    | TX N-20M MODE /CH01, CH06, CH11 |                    |            |

| Antenna Gain (dBi) | Antenna Gain (numeric) | Peak Output Power (dBm) | Peak Output Power (mW) | Power Density (S) (mW/cm <sup>2</sup> ) | Limit of Power Density (S) (mW/cm <sup>2</sup> ) | Test Result |
|--------------------|------------------------|-------------------------|------------------------|-----------------------------------------|--------------------------------------------------|-------------|
| 3.02               | 2.0045                 | 16.09                   | 40.6443                | 0.01621625                              | 1                                                | Complies    |
| 3.02               | 2.0045                 | 15.86                   | 38.5478                | 0.01537979                              | 1                                                | Complies    |
| 3.02               | 2.0045                 | 15.80                   | 38.0189                | 0.01516877                              | 1                                                | Complies    |

|                |                                 |                    |            |
|----------------|---------------------------------|--------------------|------------|
| EUT :          | Wireless-N 3G/4G mobile router  | Model Name :       | ARNPR154U2 |
| Temperature:   | 25 °C                           | Relative Humidity: | 55 %       |
| Test Voltage : | AC 120V/60Hz                    |                    |            |
| Test Mode :    | TX N-40M MODE /CH03, CH06, CH09 |                    |            |

| Antenna Gain (dBi) | Antenna Gain (numeric) | Peak Output Power (dBm) | Peak Output Power (mW) | Power Density (S) (mW/cm <sup>2</sup> ) | Limit of Power Density (S) (mW/cm <sup>2</sup> ) | Test Result |
|--------------------|------------------------|-------------------------|------------------------|-----------------------------------------|--------------------------------------------------|-------------|
| 3.02               | 2.0045                 | 21.07                   | 127.9381               | 0.05104467                              | 1                                                | Complies    |
| 3.02               | 2.0045                 | 21.10                   | 128.8250               | 0.05139849                              | 1                                                | Complies    |
| 3.02               | 2.0045                 | 21.01                   | 126.1828               | 0.05034431                              | 1                                                | Complies    |

Note: the calculated distance is 20 cm.