## Loopcomm Technology,.Inc. 6F., No. 236, Bo'ai St., Shulin Dist., New Taipei City 23845 Taiwan

Federal Communications Commission Authorization and Evaluation Division Equipment Authorization Branch 7435 Oakland Mills Road Columbia, MD 21046

## **Applicant's declaration concerning RF Radiation Exposure**

We hereby indicate that the product Product description: 802.11 b/g/n 2.4G Indoor Wireless Smart Repeater (2T2R) Model No: LP-8696P

The equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. The integral antennas used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter within the host device.

A safety statement concerning minimum separation distances from enclosure of the Product : 802.11 b/g/n 2.4G Indoor Wireless Smart Repeater (2T2R) will be integrated in the user's manual to provide end-users with transmitter operating conditions for satisfying RF exposure compliance.

The appropriate information can be drawn from the test report no: W6M21405-14163-C-1 and the accompanying calculations.

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Date: 2014/05/19

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Signature



Registration number: W6M21405-14163-C-1 FCC ID: VYTLP8696P

## 3.2 Equivalent isotropic radiated power

FCC Rule: 15.247(b)(3) EIRP = max. conducted output power + antenna gain

802.11b/g EIRP = 18.27 dBm + 5.71 dBi = 23.98 dBm 802.11n(20MHz), 802.11n(40MHz) EIRP = 17.63 dBm + 5.71 dBi = 23.34 dBm

Limit: EIRP = +36 dBm for Antenna gain <6dBi

Test equipment used: ETSTW-RE 055

## 3.3 RF Exposure Compliance Requirements

FCC OET Bulletin 65 Edition 97.01 determines the equations for predicting RF fields and applicable limits.

The prediction for power density in the far-field but will over-predict power density in the near field, where it could be used for walking a "worst case" or conservative prediction.

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

S – Power Density

P – Output power ERP

R – Distance

D – Cable Loss

AG – Antenna Gain

802.11b/g

| Item | Unit   | Value   | Remarks          |
|------|--------|---------|------------------|
| Р    | mW     | 67.1429 | Peak value       |
| D    | dB     |         |                  |
| AG   | dBi    | 5.71    |                  |
| G    |        | 3.7239  | Calculated Value |
| R    | cm     | 20      | Assumed value    |
| S    | mW/cm2 | 0.0497  | Calculated value |

| 802.11n(20MHz), 802. | 11n(40MHz) |         |                  |
|----------------------|------------|---------|------------------|
| Item                 | Unit       | Value   | Remarks          |
| Р                    | mW         | 57.9429 | Peak value       |
| D                    | dB         |         |                  |
| AG                   | dBi        | 5.71    |                  |
| G                    |            | 3.7239  | Calculated Value |
| R                    | cm         | 20      | Assumed value    |
| S                    | mW/cm2     | 0.0429  | Calculated value |

Limits:

| Limit for General Population / Uncontrolled Exposure |  |  |  |
|--|--|--|--|
| Frequency<br>(MHz)                                   | Power Density<br>(mW/cm <sup>2</sup> ) |  |  |
| 1500 - 100.000                                       | 1.0                                    |  |  |