

# **RF Exposure Report**

Report No.: SA161107C06

FCC ID: 2AFXU8001UX36LDRZ24

Test Model: UPLYNX-M-RCZ24

Received Date: Nov. 07, 2016

Test Date: Feb. 17, 2017

- Issued Date: Apr. 07, 2017
  - Applicant: M2Communication Inc.
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|             | Release Control Record |               |
|-------------|------------------------|---------------|
| Issue No.   | Description            | Date Issued   |
| SA161107C06 | Original release.      | Apr. 07, 2017 |
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## 1 Certificate of Conformity

| Product:       | Sigfox Verified Uplynx RCZ24 Module             |  |  |
|----------------|---|--|--|
| Brand:         | M2Comm  |  |  |
| Test Model:    | UPLYNX-M-RCZ24                                  |  |  |
| Sample Status: | ENGINEERING SAMPLE                              |  |  |
| Applicant:     | M2Communication Inc.                            |  |  |
| Test Date:     | Feb. 17, 2017                                   |  |  |
| Standards:     | FCC Part 2 (Section 2.1091)                     |  |  |
|                | KDB 447498 D01 General RF Exposure Guidance v06 |  |  |
|                | IEEE C95.1-1992                                 |  |  |

The above equipment 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 : | Midol=P- |
|---------------|----------|
| _             | 0        |

Midoli Peng / Specialist

Approved by :

May Chen / Manager

Date: Apr. 07, 2017

Apr. 07, 2017

Date:

,



# 2 RF Exposure

## 2.1 Limits for Maximum Permissible Exposure (MPE)

| Frequency Range<br>(MHz)                              | Electric Field<br>Strength (V/m) | Magnetic Field<br>Strength (A/m) | Power Density<br>(mW/cm <sup>2</sup> ) | Average Time<br>(minutes) |
|---|----------------------------------|----------------------------------|--|---------------------------|
| Limits For General Population / Uncontrolled Exposure |                                  |                                  |  |                           |
| 0.3-1.34  | 614                              | 1.63                             | (100)*                                 | 30                        |
| 1.34-30   | 824/f                            | 2.19/f                           | (180/f <sup>2</sup> )*                 | 30                        |
| 30-300  | 27.5                             | 0.073                            | 0.2                                    | 30                        |
| 300-1500  |                                  |                                  | f/1500                                 | 30                        |
| 1500-100,000  |                                  |                                  | 1.0                                    | 30                        |

f = Frequency in MHz ; \*Plane-wave equivalent power density

2.2 MPE Calculation Formula

 $Pd = (Pout^{*}G) / (4^{*}pi^{*}r^{2})$ 

#### where

 $Pd = power density in mW/cm^{2}$ 

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

#### 2.3 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**.

## 2.4 Antenna Gain

| No. | Antenna Type | Gain (dBi) | Connecter Type |
|-----|--------------|------------|----------------|
| 1   | Dipole       | 4          | Reverse SMA    |
| 2   | PCB          | 1.9        | IPEX           |



# 2.5 Calculation Result Of Maximum Conducted Power

| Frequency<br>Band<br>(MHz) | Max Power<br>(mW) | Antenna Gain<br>(dBi) | Distance<br>(cm) | Power Density<br>(mW/cm <sup>2</sup> ) | Limit<br>(mW/cm <sup>2</sup> ) |
|----------------------------|-------------------|-----------------------|------------------|--|--------------------------------|
| 902.1375~<br>904.6625      | 208.449           | 4                     | 20               | 0.10417                                | 0.6031                         |

Note: Limit of Power Density= f/1500

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