

## RF Exposure Evaluation Report

**Report Reference No.**.....: **MTWG22020055-H**

**FCC ID**.....: **2A4C5-R-61**

Compiled by

( position+printed name+signature)..: File administrators Alisa Luo

Supervised by

( position+printed name+signature)..: Test Engineer Sunny Deng

Approved by

( position+printed name+signature)..: Manager Yvette Zhou

Date of issue.....: **February 22,2022**

**Representative Laboratory Name .:** **Shenzhen Most Technology Service Co., Ltd.**

Address .....: No.5, 2nd Langshan Road, North District, Hi-tech Industrial Park,  
Nanshan, Shenzhen, Guangdong, China.

**Applicant's name**.....: **Cosmo Fiber Corp.**

Address .....: 1802 Santo Domingo Ave, Duarte, California, United States

**Test specification/ Standard** .....: **47 CFR Part 1.1307**

**47 CFR Part 2.1093**

TRF Originator.....: Shenzhen Most Technology Service Co., Ltd.

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**Test item description** .....: Speaker

Trade Mark .....: N/A

Manufacturer .....: **NINGBO SC-STARMAX IMP. & EXP. CO.,LTD.**

Model/Type reference.....: R-61

Listed Models .....: LZYG-20121-1

Modulation Type .....: GFSK,  $\pi/4$ DQPSK, 8DPSK

Operation Frequency.....: From 2402MHz to 2480MHz

Hardware Version.....: V1.1.1

Software Version .....: V00

Rating .....: DC3.7V by Battery  
DC 5V(by USB )

Result.....: **PASS**

## TEST REPORT

Equipment under Test : Speaker

Model /Type : R-61

Listed Models : LZYX-20121-1

Remark : Only the model name is different.

Applicant : **Cosmo Fiber Corp.**

Address : 1802 Santo Domingo Ave, Duarte, California, United States

Manufacturer : **NINGBO SC-STARMAX IMP. & EXP. CO.,LTD.**

Address : 15F, MU Group, Building B16 (West Area), No.2560 Yongjiang Avenue, Yinzhou District, Ningbo, China. 315048

|                     |             |
|---------------------|-------------|
| <b>Test Result:</b> | <b>PASS</b> |
|---------------------|-------------|

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

## 1. Revision History

| Revision | Issue Date | Revisions     | Revised By |
|----------|------------|---------------|------------|
| 00       | 2022-02-22 | Initial Issue | Alisa Luo  |
|          |            |               |            |
|          |            |               |            |

## **2. SAR Evaluation**

### **2.1 RF Exposure Compliance Requirement**

#### **2.1.1 Standard Requirement**

According to KDB447498D01 General RF Exposure Guidance v06

##### **4.3.1. Standalone SAR test exclusion considerations**

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

#### **2.1.2 Limits**

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by:

$$\left[ \frac{\text{max. power of channel, including tune-up tolerance, mW}}{\text{min. test separation distance, mm}} \right] \cdot \left[ \sqrt{f(\text{GHz})} \right]$$
  
 $\leq 3.0$  for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR, where

$f(\text{GHz})$  is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation<sup>17</sup>

The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion

## 2.1.3 EUT RF Exposure

Measurement Data  
BLE

| GFSK             |                            |                            |                       |       |
|------------------|----------------------------|----------------------------|-----------------------|-------|
| Test channel     | Peak Output Power<br>(dBm) | Tune up tolerance<br>(dBm) | Maximum tune-up Power |       |
|                  |                            |                            | (dBm)                 | (mW)  |
| Lowest(2402MHz)  | -5.30                      | $-5.30 \pm 1$              | -4.30                 | 0.372 |
| Middle(2440MHz)  | -6.10                      | $-6.10 \pm 1$              | -5.10                 | 0.310 |
| Highest(2480MHz) | -6.35                      | $-6.35 \pm 1$              | -5.35                 | 0.292 |

| Worst case: GFSK |  |                          |       |                     |                        |                       |
|------------------|--|--------------------------|-------|---------------------|------------------------|-----------------------|
| Channel          | Maximum Peak<br>Conducted Output<br>Power<br>(dBm) | Maximum tune-up<br>Power |       | Calculated<br>value | Exclusion<br>threshold | SAR Test<br>Exclusion |
|                  |  | (dBm)                    | (mW)  |                     |                        |                       |
| Highest(2402MHz) | -5.30  | -4.30                    | 0.372 | 0.115               | 3.0                    | Yes                   |

EDR

| GFSK             |                         |                         |                       |       |
|------------------|-------------------------|-------------------------|-----------------------|-------|
| Test channel     | Peak Output Power (dBm) | Tune up tolerance (dBm) | Maximum tune-up Power |       |
|                  |                         |                         | (dBm)                 | (mW)  |
| Lowest(2402MHz)  | -5.105                  | $-5.105 \pm 1$          | 4.105                 | 0.389 |
| Middle(2441MHz)  | -6.124                  | $-6.124 \pm 1$          | -5.124                | 0.307 |
| Highest(2480MHz) | -6.019                  | $-6.019 \pm 1$          | -5.019                | 0.315 |

| $\pi/4$ DQPSK    |                         |                         |                       |       |
|------------------|-------------------------|-------------------------|-----------------------|-------|
| Test channel     | Peak Output Power (dBm) | Tune up tolerance (dBm) | Maximum tune-up Power |       |
|                  |                         |                         | (dBm)                 | (mW)  |
| Lowest(2402MHz)  | -5.885                  | $-5.885 \pm 1$          | -4.885                | 0.325 |
| Middle(2441MHz)  | -7.029                  | $-7.029 \pm 1$          | -6.029                | 0.250 |
| Highest(2480MHz) | -7.052                  | $-7.052 \pm 1$          | -6.052                | 0.248 |

| 8DPSK            |                         |                         |                       |       |
|------------------|-------------------------|-------------------------|-----------------------|-------|
| Test channel     | Peak Output Power (dBm) | Tune up tolerance (dBm) | Maximum tune-up Power |       |
|                  |                         |                         | (dBm)                 | (mW)  |
| Lowest(2402MHz)  | -5.890                  | $-5.890 \pm 1$          | -4.890                | 0.324 |
| Middle(2441MHz)  | -7.012                  | $-7.012 \pm 1$          | -6.012                | 0.251 |
| Highest(2480MHz) | -7.035                  | $-7.035 \pm 1$          | -6.035                | 0.249 |

| Worst case: GFSK |   |                       |       |                  |                     |                    |
|------------------|---|-----------------------|-------|------------------|---------------------|--------------------|
| Channel          | Maximum Peak Conducted Output Power (dBm) | Maximum tune-up Power |       | Calculated value | Exclusion threshold | SAR Test Exclusion |
|                  |   | (dBm)                 | (mW)  |                  |                     |                    |
| Highest(2402MHz) | -5.105                                    | -4.105                | 0.389 | 0.121            | 3.0                 | Yes                |

.....THE END OF REPORT.....