

# RF EXPOSURE REPORT

## FOR

|                             |   |  |
|-----------------------------|---|--|
| <b>Applicant</b>            | : | Lorenz High Definition LLC   |
| <b>Address</b>              | : | 230 Rt 206 STE 401, Flanders, New Jersey, United States  |
| <b>Equipment under Test</b> | : | 800 Z-WAVE STICK   |
| <b>Model No.</b>            | : | ZST39 LR   |
| <b>Trade Mark</b>           | : | <b>zooZ</b> <sup>TM</sup>  |
| <b>FCC ID</b>               | : | 2AZ2V-101022ZST39  |
| <b>Manufacturer</b>         | : | Shenzhen ZVIDAR Technologies CO.,Ltd.  |
| <b>Address</b>              | : | Room 468, Building F1, TCL Technologies Park,<br>1001, Zhongshanyuan Road, Shuguang<br>Community, Xili Street Office, Nanshan District,<br>Shenzhen City |

**Issued By: Dongguan Dongdian Testing Service Co., Ltd.**

**Add.:** No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan  
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**Tel.:** +86-0769-38826678, **E-mail:** ddt@dgddt.com, <http://www.dgddt.com>

# REPORT

## Table of Contents

|      |                                     |   |
|------|-------------------------------------|---|
|      | Test report declares.....           | 3 |
| 1.   | General Information .....           | 5 |
| 1.1. | Description of equipment .....      | 5 |
| 1.2. | Assess laboratory.....              | 5 |
| 2.   | RF Exposure evaluation for FCC..... | 5 |

## Test Report Declare

|                             |   |   |
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**Standard Used:** KDB447498 D01 General RF Exposure Guidance V06

**We Declare:**

The equipment described above is assessed by Dongguan Dongdian Testing Service Co., Ltd and in the configuration assessed the equipment complied with the standards specified above. The assessed results are contained in this report and Dongguan Dongdian Testing Service Co., Ltd is assumed of full responsibility for the accuracy and completeness of these assess.

**After evaluation, our opinion is that the equipment In Accordance with above standard.**

|                         |                    |                      |                               |
|-------------------------|--------------------|----------------------|-------------------------------|
| <b>Report No.:</b>      | DDT-R22090105-1E02 |                      |                               |
| <b>Date of Receipt:</b> | Dec. 01, 2022      | <b>Date of Test:</b> | Dec. 01, 2022 ~ Dec. 13, 2022 |

**Prepared By:**

*Sanvin Zheng*

**Sanvin Zheng/Engineer**

**Approved By:**



**Damon Hu/EMC Manager**

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Dongguan Dongdian Testing Service Co., Ltd.

## Revision History

| Rev. | Revisions     | Issue Date    | Revised By |
|------|---------------|---------------|------------|
| ---  | Initial issue | Dec. 14, 2022 |            |
|      |               |               |            |

## 1. General Information

### 1.1. Description of equipment

|                          |   |
|--------------------------|---|
| EUT* Name                | : 800 Z-WAVE STICK                            |
| Model Number             | : ZST39 LR                                    |
| EUT function description | : Please reference user manual of this device |
| Power Supply             | : DC 4.75-5.25V                               |
| Operation Frequency      | : 908.40 - 920.00 MHz                         |
| Modulation               | : FSK   |
| Antenna Gain             | : -2.75 dBi                                   |
| Sample Number            | : S22090105-01                                |

### 1.2. Assess laboratory

Dongguan Dongdian Testing Service Co., Ltd.

Add.: No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan City, Guangdong Province, China, 523808.

Tel.: +86-0769-38826678, <http://www.dgddt.com>, Email: [ddt@dgddt.com](mailto:ddt@dgddt.com).

CNAS Accreditation No. L6451; A2LA Accreditation Number: 3870.01

FCC Designation Number: CN1182, Test Firm Registration Number: 540522

Innovation, Science and Economic Development Canada Site Registration Number: 10288A

Conformity Assessment Body identifier: CN0048

VCCI facility registration number: C-20087, T-20088, R-20123, R-20155, G-20118

## 2. RF Exposure evaluation for FCC

According to 447498 D01 General RF Exposure Guidance v06

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:

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

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

Power and distance are rounded to the nearest mW and mm before calculation

The result is rounded to one decimal place for comparison

**Manufacturing Tolerance**

| Channel         | Low Channel   | Mid Channel | High Channel |
|-----------------|---------------|-------------|--------------|
| Target (dBm)    | <b>-19.19</b> | -20.77      | -21.13       |
| Tolerance ±(dB) | 1             | 1           | 1            |

**Estimtion Result**

Worse case is as below: [908.40 MHz, -18.19 dBm, (0.02 mW) output power]

$(0.02/5) \cdot [\sqrt{0.9084(\text{GHz})}] = 0.004 < 3.0$  for 1-g SAR

Then SAR evaluation is not required.

**END OF REPORT**