EMTEK
Access to the World

TEST REPORT

Product Name	:	Carbon Monoxide Alarm
Model Number	:	ZA258A
FCC ID	:	2A95R-ZA258A

Prepared for	:	NINGBO EVERSAFE ELECTRONICS CO.,LTD
Address	:	NO. 1 Jiangjia, Dali Village, Shenzhen Town, Ninghai County, Ningbo City, Zhejiang Province 315614 P.R. China
Prepared by	:	EMTEK (DONGGUAN) CO., LTD.
Address	:	-1&2F., Building 2, Zone A, Zhongda Marine Biotechnology Research and Development Base, No. 9, Xincheng Avenue, Songshanhu High-technology Industrial Development Zone, Dongguan, Guangdong, China Tel : +86-0769-22807078 Fax: +86-0769-22807079

Report Number	:	EDG2212050091E00302R
Date(s) of Tests	:	December 05, 2022 to January 06, 2023
Date of Issue	:	February 28, 2023

TABLE OF CONTENT

Test Report Description

Applicant	:	NINGBO EVERSAFE ELECTRONICS CO.,LTD
Address	:	NO. 1 Jiangjia, Dali Village, Shenzhen Town, Ninghai County, Ningbo City, Zhejiang Province 315614 P.R. China
Manufacturer	:	NINGBO EVERSAFE ELECTRONICS CO.,LTD
Address	:	NO. 1 Jiangjia, Dali Village, Shenzhen Town, Ninghai County, Ningbo City, Zhejiang Province 315614 P.R. China
EUT	:	Carbon Monoxide Alarm
Model Name	:	ZA258A
Trademark	:	N/A

The device described above is tested by EMTEK (DONGGUAN) CO., LTD. to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. This report shows the EUT to be technically compliant with the FCC 1.1310 and KDB 447498 D01 General RF Exposure Guidance v07 requirements. The test results are contained in this report and EMTEK (DONGGUAN) CO., LTD. is assumed full responsibility for the accuracy and completeness of these tests.

This report applies to above tested sample only and shall not be reproduced in part without written approval of EMTEK (DONGGUAN) CO., LTD.

Date of Test : December 05, 2022 to January 06, 2023

Prepared by : Warren Deng
Warren deng /Engineer

Reviewer : Tim Dong
Tim Dong /Supervisor

Approved & Authorized Signer : Sam Lv
Sam Lv /Manager

EMTEK (DONGGUAN) CO.,LTD TESTING

Modified Information

Version	Report No.	Revision Date	Summary
/	EDG2212050091E00302R	/	See Note

1. Facilities And Accreditations

1.1. Test Facility

All measurement facilities used to collect the measurement data are located at

-1&2F., Building 2, Zone A, Zhongda Marine Biotechnology Research and Development Base, No. 9, Xincheng Avenue, Songshanhu High-technology Industrial Development Zone, Dongguan, Guangdong, China
The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 32.

1.2. LABORATORY ACCREDITATIONS AND LISTINGS

Site Description

EMC Lab. : Accredited by CNAS, 2020.08.27
The certificate is valid until 2024.07.05
The Laboratory has been assessed and proved to be in compliance with CNAS/CL01:2018
The Certificate Registration Number is L3150

Accredited by FCC
Designation Number: CN1300
Test Firm Registration Number: 945551

Accredited by A2LA, April 05, 2021
The Certificate Registration Number is 4321.02

Accredited by Industry Canada
The Certificate Registration Number is CN0113

Name of Firm : EMTEK (DONGGUAN) CO., LTD.

Site Location : -1&2F., Building 2, Zone A, Zhongda Marine Biotechnology Research and Development Base, No. 9, Xincheng Avenue, Songshanhu High-technology Industrial Development Zone, Dongguan, Guangdong, China

2. General Product Information

Product:	Carbon Monoxide Alarm
Model Number:	ZA258A
Sample Number:	1#
Power Supply:	DC 3V for Battery
Test Voltage:	DC 3V
Modulation:	FSK
Frequency Range:	915.3 MHz
Max Transmit Power:	82.99 dBuV/m
Antenna:	Spring Antenna
Antenna Gain:	1.0 dBi
Temperature Range:	0°C ~ 40°C
Date of Receiver:	December 05, 2022

Note: for more details, please refer to the User's manual of the EUT.

3. Limit

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) Radiation as specified in §1.1307(b)

Limits for Maximum Permissible Exposure (MPE)

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density(mW/cm^2)	Average Time
(A) Limits for Occupational/Control Exposures				
300-1500	**--**	**--**	**F/300**	**6**
1500-100000	**--**	**--**	**5**	**6**
(B) Limits for General Population/Uncontrol Exposures				
300-1500	**--**	**--**	**F/1500**	**6**
1500-100000	**--**	**--**	**1**	**30**

Friis transmission formula: Pd= (Pout*G)\ (4*pi*R2)

Where

Pd= Power density in mW/cm^2

Pout=output power to antenna in mW

G= Numeric gain of the antenna relative to isotropic antenna

Pi=3.1416

R= distance between observation point and center of the radiator in cm

Pd the limit of MPE, $1mW/cm^2$,If we know the maximum gain of the nd total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

4. Test Results

EUT Operating Frequency Emission Limit

Limit= F/1500=915.3/1500=0.61

EIRP=E+20log(d)-104.7=82.99+9.54-104.7=-12.17 dBm

modulation	Channel Freq. (MHz)	Measured power (dBm)	Tune-up power (dBm)	Max tune-up power (dBm)	Antenna Gain Numeric	Evaluation result (mW/cm2)	Power density Limits (mW/cm2)
GFSK	915.3	-12.17	-12 to -11	-11	1.26	0.00002	0.61

According to KDB 447498 D01 General RF Exposure Guidance v07 and FCC 1.1310, if the Power density Limits less than or equal to 0.61 mW/cm2, then the apparatus is deemed to comply with the basic restrictions without testing.

Therefore, the EUT is deemed to fulfill the requirement without additional test.

*** End of Report ***

声 明
Statement

1. 本报告无授权批准人签字及“检验报告专用章”无效；
   This report will be void without authorized signature or special seal for testing report.

2. 未经许可本报告不得部分复制；
   This report shall not be copied partly without authorization.

3. 本报告的检测结果仅对送测样品有效，委托方对样品的代表性和资料的真实性负责；
   The test results or observations are applicable only to tested sample. Client shall be responsible for representativeness of the sample and authenticity of the material.

4. 本检测报告中检测项目标注有特殊符号则该项目不在资质认定范围内，仅作为客户委托、科研、教学或内部质量控制等目的使用；
   The observations or tests with special mark fall outside the scope of accreditation, and are only used for purpose of commission, research, training, internal quality control etc.

5. 本检测报告以实测值进行符合性判定，未考虑不确定度所带来的风险，本实验室不承担相关责任，特别约定、标准或规范中有明确规定的除外；
   The test results or observations are provided in accordance with measured value, without taking risks caused by uncertainty into account. Without explicit stipulation in special agreements, standards or regulations, EMTEK shall not assume any responsibility.

6. 对本检测报告若有异议，请于收到报告之日起 20 日内提出；
   Objections shall be raised within 20 days from the date receiving the report.