





## RF EXPOSURE REPORT

| Applicant | Bosch Security Systems Inc                                    |
|-----------|---|
| Address   | 130 Perinton Parkway, Fairport, New York, 14450 United States |

| Manufacturer or Supplier            | Bosch Security Systems Inc                                    |  |  |
|-------------------------------------|---|--|--|
| Address                             | 130 Perinton Parkway, Fairport, New York, 14450 United States |  |  |
| Product                             | EVERSE Powered Speaker  |  |  |
| Brand Name                          | Ey Electro-Voice  |  |  |
| Model                               | EVERSE 8  |  |  |
| Additional Model & Model Difference | EVERSE 12   |  |  |
| Date of tests                       | Nov. 02, 2021 ~ Nov. 05, 2021                                 |  |  |

- FCC Part 2 (Section 2.1091)
- **⋈** KDB 447498 D01
- **☐** IEEE C95.1

#### CONCLUSION: The submitted sample was found to **COMPLY** with the test requirement

| Tested by Loren Luo               | Approved by Glyn He                |
|-----------------------------------|------------------------------------|
| Project Engineer / EMC Department | Assistant Manager / EMC Department |
| Loven                             | Date: May 08, 2023                 |

Date: May 08, 2023

This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at <a href="http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/">http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/</a> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

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## **RELEASE CONTROL RECORD**

| ISSUE NO.     | REASON FOR CHANGE   | DATE ISSUED   |
|---------------|---|---------------|
| FM2108WDG0406 | Original release  | Dec. 09, 2021 |
| FM2302WDG0253 | Based on the original report FM2108WDG0406 to updated: 1:Increase the appearance size of the product 2.Loudspeakers change from 8 "to 12" 3.Rechange the BT antenna model and antenna gain 4. Add additional model But it doesn't need to be retested after engineer evaluated. | May 08, 2023  |

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## 1. CERTIFICATION

| FCC ID:         | ESVEVERSE                   |  |  |
|-----------------|-----------------------------|--|--|
| PRODUCT:        | EVERSE Powered Speaker      |  |  |
| BRAND NAME:     | Ey Electro-Voice            |  |  |
| MODEL NO.:      | EVERSE 8                    |  |  |
| ADDITIONAL NO.: | EVERSE 12                   |  |  |
| APPLICANT:      | Bosch Security Systems Inc  |  |  |
| STANDARDS:      | FCC Part 2 (Section 2.1091) |  |  |
|                 | KDB 447498 D01              |  |  |
|                 | IEEE C95.1                  |  |  |



#### 2. RF EXPOSURE LIMIT

#### LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

| FREQUENCY<br>RANGE (MHz)                              | ELECTRIC FIELD<br>STRENGTH (V/m) | MAGNETIC FIELD<br>STRENGTH (A/m) | POWER DENSITY<br>(mW/cm²) | AVERAGE TIME (minutes) |  |  |
|---|----------------------------------|----------------------------------|---------------------------|------------------------|--|--|
| LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE |                                  |                                  |                           |                        |  |  |
| 300-1500 F/1500 30                                    |                                  |                                  |                           |                        |  |  |
| 1500-100,000  |                                  |                                  | 1.0                       | 30                     |  |  |

F = Frequency in MHz

## 3. MPE CALCULATION FORMULA

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

where

Pd = power density in mW/cm<sup>2</sup>

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

## 4. 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**.

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### 5. ANTENNA GAIN

The antennas provided to the EUT, please refer to the following table:

| Transmitter<br>Circuit | Peak Gain (dBi) | Antenna<br>Type |
|------------------------|-----------------|-----------------|
| Chain 0                | 4.02            | PCB Antenna     |

## 6. CALCULATION RESULT OF MAXIMUM CONDUCTED AV POWER

The tuned conducted Average Power (declared by client)

| Mode     | Frequency<br>(MHz) | Target<br>Power<br>(dBm) | Tolerance<br>(dBm) | Lower<br>Tolerance<br>(dBm) | Upper<br>Tolerance<br>(dBm) |
|----------|--------------------|--------------------------|--------------------|-----------------------------|-----------------------------|
| GFSK     | 2402-2480          | 3                        | +-2                | 1                           | 5                           |
| 8DPSK    | 2402-2480          | 3                        | +-2                | 1                           | 5                           |
| BT-LE 1M | 2402-2480          | 0                        | +-2                | -2                          | 2                           |
| BT-LE 2M | 2402-2480          | 0                        | +-2                | -2                          | 2                           |

The measured conducted Average Power

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|---------------------------------------|--------------------|-------------------------|--|--|
| Mode                                  | Frequency<br>(MHz) | Averaged Power<br>(dBm) |  |  |
| GFSK                                  | 2402               | 3.81                    |  |  |
| 8DPSK                                 | 2402               | 3.57                    |  |  |
| BT-LE 1M                              | 2402               | 0.65                    |  |  |
| BT-LE 2M                              | 2402               | 0.55                    |  |  |

| FREQUENCY<br>BAND<br>(MHz) | MAX AVERAGE<br>POWER<br>(dBm) | ANTENNA<br>GAIN<br>(dBi) | DISTANCE<br>(cm) | POWER<br>DENSITY<br>(mW/cm²) | LIMIT<br>(mW/cm²) |
|----------------------------|-------------------------------|--------------------------|------------------|------------------------------|-------------------|
| 2402-2480                  | 5                             | 4.02                     | 20               | 0.00159                      | 1.0               |

--- END ---