

## RF EXPOSURE REPORT

### FOR

|                             |   |   |
|-----------------------------|---|---|
| <b>Applicant</b>            | : | ION Audio, LLC  |
| <b>Address</b>              | : | 200 Scenic View Drive, Cumberland, RI 02864<br>U.S.A. |
| <b>Equipment under Test</b> | : | BT water-resistant speaker system                     |
| <b>Model No.</b>            | : | EXPLORER OUTBACK 2, iPA100                            |
| <b>Project Code</b>         | : | iPA100  |
| <b>Trade Mark</b>           | : | ION   |
| <b>FCC ID</b>               | : | 2AB3E-IPA100  |
| <b>IC</b>                   | : | 10541A-IPA100   |
| <b>Manufacturer</b>         | : | ION Audio, LLC  |
| <b>Address</b>              | : | 200 Scenic View Drive, Cumberland, RI 02864<br>U.S.A. |

**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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# REPORT

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## TEST REPORT DECLARE

|                             |   |  |
|-----------------------------|---|--|
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| <b>Equipment under Test</b> | : | BT water-resistant speaker system                  |
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| <b>Trade mark</b>           | : | ION  |
| <b>Manufacturer</b>         | : | ION Audio, LLC                                     |
| <b>Address</b>              | : | 200 Scenic View Drive, Cumberland, RI 02864 U.S.A. |

**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-R17111004-1E2 |                      |                               |
| <b>Date of Receipt:</b> | Nov. 29, 2017     | <b>Date of Test:</b> | Nov. 29, 2017 ~ Jan. 05, 2018 |

**Prepared By:**

*Sam Li*

**Sam Li/Engineer**

**Approved by:**



**Kevin Feng/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 | Jan. 05, 2018 |            |
|      |               |               |            |

## 1. General information

### 1.1. Description of Equipment

|                            |   |
|----------------------------|---|
| EUT* Name                  | : BT water-resistant speaker system   |
| Model Number               | : EXPLORER OUTBACK 2, iPA100  |
| Difference of model number | : All models are identical, except the model number, all tests are performed on model Explorer Outback 2. |
| EUT function description   | : Please reference user manual of this device   |
| Power supply               | : AC 100-240V 50/60Hz<br>: DC 12V built-in battery  |
| Radio Specification        | : Bluetooth V4.2 (only BDR/EDR)   |
| Operation frequency        | : 2402MHz -2480MHz  |
| Modulation                 | : GFSK, $\pi/4$ QPSK, 8-DPSK  |
| Data rate                  | : 1Mbps, 2Mbps, 3Mbps   |
| Antenna Type               | : Integrated antenna, maximum PK gain: 2.3dBi   |
| Sample Type                | : Series production   |

### 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: +86-0769-89201699, <http://www.dgddt.com>, Email: [ddt@dgddt.com](mailto:ddt@dgddt.com)

## 2. RF Exposure evaluation for FCC

According to 447498 D01 General RF Exposure Guidance v05

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:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$  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

The result is rounded to one decimal place for comparison

Worse case is as below: [2480MHz, 5.56dBm (3.59mW) output power]

$(3.59/5) \cdot [\sqrt{2.480(\text{GHz})}] = 1.13 < 3.0$  for 1-g SAR

Then SAR evaluation is not required

**END OF REPORT**