

## RF EXPOSURE REPORT

### FOR

<b>Applicant</b>	:	ION Audio, LLC
<b>Address</b>	:	200 Scenic View Drive, Cumberland, RI 02864 U.S.A.
<b>Equipment under Test</b>	:	Wireless Water-Resistant Hearing Protection Headphones with AM/FM
<b>Model No.</b>	:	TOUGH SOUNDS 2
<b>Project Code</b>	:	iHP19
<b>Trade Mark</b>	:	ION
<b>FCC ID</b>	:	2AB3E-IHP19
<b>Manufacturer</b>	:	ION Audio, LLC
<b>Address</b>	:	200 Scenic View Drive, Cumberland, RI 02864 U.S.A.

**Issued By: 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, **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

<b>Applicant</b>	:	ION Audio, LLC
<b>Address</b>	:	200 Scenic View Drive, Cumberland, RI 02864 U.S.A.
<b>Equipment under Test</b>	:	Wireless Water-Resistant Hearing Protection Headphones with AM/FM
<b>Model No.</b>	:	TOUGH SOUNDS 2
<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- R18032103-1E3		
<b>Date of Receipt:</b>	May 29, 2018	<b>Date of Test:</b>	May 29, 2018 ~ Jun. 15, 2018

**Prepared By:**

*Sam Li*

**Sam Li/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	Jun. 29, 2018	

## 1. General information

### 1.1. Description of Equipment

EUT* Name	: Wireless Water-Resistant Hearing Protection Headphones with AM/FM
Model Number	: TOUGH SOUNDS 2
EUT function description	: Please reference user manual of this device
Power supply	: DC 5V from external AC Adapter : Lithium-ion (3.7V/ 500mAh) built-in battery
Radio Specification	: Bluetooth V4.0
Operation frequency	: 2402MHz-2480MHz
Modulation	: GFSK, $\pi/4$ -DQPSK, 8DPSK
Data rate	: 1Mbps, 2Mbps, 3Mbps
Antenna Type	: Integral PCB antenna, maximum PK gain: -2.14dBi
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 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:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$  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: [2441MHz, 5.31dBm (3.40mW) output power]

$(3.40/5) \cdot [\sqrt{2.441(\text{GHz})}] = 1.062 < 3.0$  for 1-g SAR

Then SAR evaluation is not required

**END OF REPORT**