


RF EXPOSURE REPORT

FOR

Applicant	:	ION Audio, LLC
Address	:	200 Scenic View Drive, Cumberland, RI 02864 U.S.A.
Equipment under Test	:	All-weather Wireless Speaker With Lights and StereoLink
Model No.	:	UBER™ BOOM, iSP156, UBER***** iSP156***** (“*” can be “0-9”, “a-z”, “A-Z”, “blank”, “-”, “+” or any character, symbol, alphanumeric for marketing purpose)
HVIN	:	iSP156
Project Code	:	iSP156
Trade Mark	:	
FCC ID	:	2AB3E-ISP156
Manufacturer	:	ION Audio, LLC
Address	:	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


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REPORT

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Test Report Declare

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HVIN	:	iSP156
Trade Mark	:	
Manufacturer	:	ION Audio, LLC
Address	:	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.

Report No.:	DDT-RE23041810-2E02		
Date of Receipt:	May 04 2023	Date of Test:	May 04, 2023 ~ May 22, 2023

Prepared By:

Jacky Huang

Jacky Huang/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. 03, 2023	

1. General Information

1.1. Description of equipment

EUT* Name	: All-weather Wireless Speaker With Lights and StereoLink
Model Number	: UBER™ BOOM, iSP156, UBER*****, iSP156***** (“*” can be “0-9”, “a-z”, “A-Z”, “blank”, “-”, “+” or any character, symbol, alphanumeric for marketing purpose)
Model Differences	: All models are identical except model difference, therefore the test performed on the model iSP156.
EUT* Function Description	: Please reference user manual of this device
Power Supply	: DC 5V by Type-C port or DC 7.4V Polymer Li-ion built-in battery
Radio Specification	: Bluetooth V5.0
Operation Frequency	: 2402 MHz - 2480 MHz
Modulation	: GFSK, $\pi/4$ -DQPSK, 8DPSK
Data Rate	: 1 Mbps, 2 Mbps, 3Mbps
Antenna	: PCB Layout antenna, maximum PK gain: 3.38 dBi
Sample Number	: S23041810-02 for conductive, S23041810-03 for radiation

Note: EUT is the ab. of equipment under test.

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.

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

2.1. Requirement

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 ≤ 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 ≤ 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

2.2. Estimation result

Manufacturing Tolerance

BT

GFSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	0.5	-1.5	-3.0
Tolerance \pm (dB)	1.5	1.5	1.5
$\pi/4$ DQPSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	0.5	-1.5	-3.0
Tolerance \pm (dB)	1.5	1.5	1.5
8DPSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	1.0	-1.5	-3.0
Tolerance \pm (dB)	1.5	1.5	1.5

Worse case is as below: [2402 MHz, 2.5 dBm, 1.8 mW] output power]

$(1.8/5) \cdot [\sqrt{2.402(\text{GHz})}] = 0.56 < 3.0$ for 1-g SAR

Then SAR evaluation is not required.

END OF REPORT