



■ **Report No.:** DDT-R21082410-3E11

■ **Issued Date:** Oct. 20, 2021

## RF EXPOSURE REPORT

### FOR

<b>Applicant</b>	:	Harman International Industries, Inc.
<b>Address</b>	:	8500 Balboa Boulevard, Northridge, CA 91329, UNITED STATES
<b>Equipment under Test</b>	:	BLUETOOTH HEADSET
<b>Model No.</b>	:	LIVE FREE 2 TWS
<b>Trade Mark</b>	:	JBL
<b>FCC ID</b>	:	APILFREETWS2
<b>Manufacturer</b>	:	Harman International Industries, Inc.
<b>Address</b>	:	8500 Balboa Boulevard, Northridge, CA 91329, UNITED STATES

**Issued By: Dongguan Dongdian Testing Service Co., Ltd.**

**Add.:** No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park,  
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**Tel.:** +86-0769-38826678, **E-mail:** ddt@dgddt.com, <http://www.dgddt.com>

# REPORT

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**TEST REPORT DECLARE**

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<b>Address</b>	:	8500 Balboa Boulevard, Northridge, CA 91329, UNITED STATES

**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-R21082410-3E11		
<b>Date of Receipt:</b>	Sep. 03, 2021	<b>Date of Test:</b>	Sep. 03, 2021 ~ Oct. 19, 2021

**Prepared By:**

Ben Jin

**Ben Jin/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	Oct. 20, 2021	

## 1. General information

### 1.1. Description of Equipment

EUT* Name	: BLUETOOTH HEADSET
Model Number	: LIVE FREE 2 TWS
Difference between Left and right earphones	: There is no difference except the PCB layout of left and right.
EUT Function Description	: Please reference user manual of this device
Power Supply	: CHARGING CASE: DC 5V from external AC Adapter EARBUDS: DC 5V from external charging case CHARGING CASE: DC 3.8V Polymer Li-ion built-in battery EARBUDS: DC 3.85V Polymer Li-ion built-in battery
Radio Specification	: Bluetooth V5.2
Operation Frequency	: 2402 MHz - 2480 MHz
Modulation	: GFSK, $\pi/4$ -DQPSK, 8DPSK
Data Rate	: 1 Mbps, 2 Mbps, 3 Mbps
Antenna Gain	: Left side: Maximum PK gain: -0.88 dBi Right side: Maximum PK gain: -0.72 dBi
Sample Type	: Series production
Series Number	: CI0011-IL0000984 for conductive

### 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](mailto: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, G-20118

## 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

### 3. Estimation Result

Worse case is as below: [2402MHz, 8.5 dBm, 7.08 mW) output power]

$(7.08/5) \cdot [\sqrt{2.402(\text{GHz})}] = 2.19 < 3.0$  for 1-g SAR

Then SAR evaluation is not required

END OF REPORT