



■ Report No.: DDT-R21052516-2E08

■ Issued Date: Jul. 16, 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>	:	PORTABLE BLUETOOTH SPEAKER
<b>Model No.</b>	:	CHARGE ESSENTIAL 2
<b>Trade Mark</b>	:	JBL
<b>FCC ID</b>	:	APICHARGEETL2
<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,  
Dongguan City, Guangdong Province, China, 523808

**Tel.:** +86-0769-38826678, **E-mail:** ddt@dgddt.com, <http://www.dgddt.com>

# REPORT

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## Test Report Declare

<b>Applicant</b>	:	Harman International Industries, Inc.
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**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-R21052516-2E08		
<b>Date of Receipt:</b>	Jun. 28, 2021	<b>Date of Test:</b>	Jun. 28, 2021 ~ Jul. 10, 2021

**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	Jul. 16, 2021	

## 1. General Information

### 1.1. Description of equipment

EUT* Name	: PORTABLE BLUETOOTH SPEAKER
Model Number	: CHARGE ESSENTIAL 2
EUT function description	: Please reference user manual of this device
Power Supply	: DC 5V from external AC Adapter : DC 3.6V Polymer Li-ion built-in battery
Radio Specification	: Bluetooth V5.1
Operation Frequency	: 2402 MHz - 2480 MHz
Modulation	: GFSK, $\pi/4$ -DQPSK, 8DPSK
Data Rate	: 1 Mbps, 2 Mbps, 3 Mbps
Antenna Type	: FPC antenna, maximum PK gain: 2.65 dBi
Serial Number	: GG1110-FL0000272 for conducted test : GG1110-FL0000276 for radiation 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](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

**BT Manufacturing Tolerance**

GFSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	6	5	5
Tolerance ±(dB)	1	1	1
π/4DQPSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	1	0	0
Tolerance ±(dB)	1	1	1
8DPSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	1	1	0
Tolerance ±(dB)	1	1	1

**BLE Manufacturing Tolerance**

GFSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	4	3	3
Tolerance ±(dB)	1	1	1

**Estimation Result**

Worse case is as below: [2402 MHz, 7 dBm, 5.01 mW) output power]

$(5.01/5) \cdot [\sqrt{2.402(\text{GHz})}] = 1.55 < 3.0$  for 1-g SAR

Then SAR evaluation is not required

**END OF REPORT**