

# RF EXPOSURE REPORT

## FOR

<b>Applicant</b>	:	SOLAR BRIGHT INDUSTRIAL LIMITED
<b>Address</b>	:	FLAT/RM 4, 7F SHING YIP INDUSTRIAL BUILDING, 19-21 SHING YIP STREET, KWUN TONG, KL., HONG KONG
<b>Equipment under Test</b>	:	Portable Media Boombox
<b>Model No.</b>	:	AI7001, RG7001, RG121, RG121XXX (XXX denote 0-9, A-Z or N/A to represent variances in cosmetic) AI7001-BLK, AI7001-BLK-T37, AI7001-BLK-T37-2, AI7001-TL, AI7001-TL-T37, AI7001-TL-T37-2, AI7001-NVY, AI7001-NVY-T37, AI7001-NVY-T37-2, AI7001-RG, AI7001-RG-T37, AI7001-RG-T37-2, AI7001-GRY, AI7001-GRY-T37, AI7001-GRY-T37-2, AI7001-BUR, AI7001-BUR-T37, AI7001-BUR-T37-2 AI7001-RED, AI7001-RED-T37, AI7001-RED-T37-2, AI7001-WHT, AI7001-WHT-T37, AI7001-WHT-T37-2, AI7001-XX, AI7001-XX-T37, AI7001-XX-T37-2 (XX denote 0-9, A-Z or N/A to represent variances in cosmetic), AI7001-XXX, AI7001-XXX-T37, AI7001-XXX-T37-2 (XXX denote 0-9, A-Z or N/A to represent variances in cosmetic), MD221DVD
<b>Trade Mark</b>	:	AIWA, REGENT, MODERN
<b>FCC ID</b>	:	2AYB76967001
<b>Manufacturer</b>	:	SOLAR BRIGHT INDUSTRIAL LIMITED
<b>Address</b>	:	FLAT/RM 4, 7F SHING YIP INDUSTRIAL BUILDING, 19-21 SHING YIP STREET, KWUN TONG, KL., HONG KONG

**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

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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-R22062108-2E02		
<b>Date of Receipt:</b>	Jun. 23, 2022	<b>Date of Test:</b>	Jun. 23, 2022 ~ Aug. 24, 2022

**Prepared By:**

*Johnny Wang*

**Johnny Wang/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	Aug. 24, 2022	

## 1. General Information

### 1.1. Description of equipment

EUT* Name	: Portable Media Boombox
Model Number	: AI7001, RG7001, RG121, RG121XXX (XXX denote 0-9, A-Z or N/A to represent variances in cosmetic), AI7001-BLK, AI7001-BLK-T37, AI7001-BLK-T37-2, AI7001-TL, AI7001-TL-T37, AI7001-TL-T37-2, AI7001-NVY, AI7001-NVY-T37, AI7001-NVY-T37-2, AI7001-RG, AI7001-RG-T37, AI7001-RG-T37-2, AI7001-GRY, AI7001-GRY-T37, AI7001-GRY-T37-2, AI7001-BUR, AI7001-BUR-T37, AI7001-BUR-T37-2, AI7001-RED, AI7001-RED-T37, AI7001-RED-T37-2, AI7001-WHT, AI7001-WHT-T37, AI7001-WHT-T37-2, AI7001-XX, AI7001-XX-T37, AI7001-XX-T37-2 (XX denote 0-9, A-Z or N/A to represent variances in cosmetic), AI7001-XXX, AI7001-XXX-T37, AI7001-XXX-T37-2 (XXX denote 0-9, A-Z or N/A to represent variances in cosmetic), MD221DVD
Difference of models	: Above models are identical in schematic and structure, only the name, colour and brand are different for all the models, therefore the test performed on the model AI7001.
EUT Function Description	: Please reference user manual of this device
Power Supply	: Input: AC 100-240V-50/60Hz
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 Gain	: Maximum PK gain: -0.68 dBi
Sample Type	: Series production
Sample Number	: S22062108-01

### 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

### 2.1. Requirement

Systems operating under the provisions of FCC 47 CFR section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device, and below RF Permissible Exposure limit shall comply with.

Limits for General Population/Uncontrolled Exposure

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1.0	30

Note: f = frequency in MHz ; \*Plane-wave equivalent power density

### 2.2. Calculation method

$$E(\text{V/m}) = \frac{\sqrt{30 \times P \times G}}{d} \quad \text{Power Density: } S(\text{mW/cm}^2) = \frac{E^2}{377}$$

**E** = Electric field (V/m)

**P** = Peak RF output power (mW)

**G** = EUT Antenna numeric gain (numeric)=

**d** = Separation distance between radiator and human body (m)

The formula can be changed to

We can change the formula to:

$$S = \frac{30 \times P \times G}{377 \times d^2} \quad \text{or, } d = \sqrt{\frac{30 \times P \times G}{377 \times S}}$$

From the peak EUT RF output power, the minimum mobile separation distance, d= 0.2 m, as well as the gain of the used antenna, the RF power density can be obtained.

### 2.3. Estimation result

Mode	PK Output power (dBm)	Output power (mW)	Max tune-up power (dBm)	Antenna Gain (dBi)	Antenna Gain (linear)	MPE Values (mW/cm <sup>2</sup> )	MPE Limit (mW/cm <sup>2</sup> )
Bluetooth Max power	0.82	1.21	1	-0.68	0.86	0.00021	1

Note: The estimation distance is 20 cm

Conclusion: The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure of mobile device.

**END OF REPORT**