

**1 Cover Page****RF Exposure Evaluation Report**

**Application No.:** SLEM2111011978CR  
**FCC ID:** 2AS3R-58700E  
**Applicant:** Bestway (Hongkong) International Ltd.  
**Address of Applicant:** Suite 713, 7/Floor, East Wing, Tsim Sha Tsui Centre, 66 Mody Road, Kowloon, Hongkong  
**Manufacturer:** Bestway (Hongkong) International Ltd.  
**Address of Manufacturer:** Suite 713, 7/Floor, East Wing, Tsim Sha Tsui Centre, 66 Mody Road, Kowloon, Hongkong  
**Factory:** Bestway (Nantong) Recreation corp  
**Address of Factory:** No.8, West Huimin Road, Rugao Economic and Technology Development Zone, Jiangsu, 226503, China

**Equipment Under Test (EUT):**

**EUT Name:** LED Bluetooth Speaker  
**Model No.:** 58700E  
**Trade mark:** BESTWAY  
**Standard(s) :** FCC Rules 47 CFR §2.1093  
KDB447498 D01 General RF Exposure Guidance v06  
**Date of Receipt:** 2021-11-11  
**Date of Test:** 2021-11-12 to 2021-11-26  
**Date of Issue:** 2021-11-29

<b>Test Result:</b>	<b>Pass*</b>
---------------------	--------------

\* In the configuration tested, the EUT complied with the standards specified above.



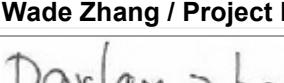
Parlam Zhan  
Laboratory Manager



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

**Attention: To check the authenticity of testing /Inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: [CN.Doccheck@sgs.com](mailto:CN.Doccheck@sgs.com)**

Revision Record			
Version	Description	Date	Remark
00	Original	2021-11-29	/

<b>Authorized for issue by:</b>			
	 <hr/>		
	<b>Wade Zhang / Project Engineer</b>		
	 <hr/>		
	<b>Parlam Zhan /Reviewer</b>		

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. +49 7551 9274443

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.  
Testing Center EMC Laboratory

Attention! To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (+86-21) 5307 1443, or email: [CN\\_Doccheck@gs.com](mailto:CN_Doccheck@gs.com)

NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612  
中国·上海·松江区金都西路588号 邮编: 201612  
(+86-21) 61915666 (+86-21) 61915678 [www.sgs.com.cn](http://www.sgs.com.cn)  
(+86-21) 61915666/+86-21) 61915678 [es.schina@sgs.com](mailto:es.schina@sgs.com)

Member of the SGS Group (SGS SA)

## 2 Contents

	Page
<b>1 COVER PAGE</b>	1
<b>2 CONTENTS</b>	3
<b>3 GENERAL INFORMATION</b>	4
3.1 GENERAL DESCRIPTION OF E.U.T.	4
3.2 TECHNICAL SPECIFICATIONS	4
3.3 TEST LOCATION	5
3.4 TEST FACILITY	5
<b>4 TEST STANDARDS AND LIMITS</b>	6
4.1 FCC RF EXPOSURE LIMITS	6
<b>5 MEASUREMENT AND CALCULATION</b>	7
5.1 MAXIMUM TRANSMIT POWER	7
5.2 RF EXPOSURE CALCULATION	7



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

**Attention: To check the authenticity of testing /Inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)**

### 3 General Information

#### 3.1 General Description of E.U.T.

Power supply:	DC 3.7V, 2500Mah lithium battery or DC 5V from USB Adapter
---------------	--

#### 3.2 Technical Specifications

Antenna Gain:	1dBi (Provided by manufacturer)
Antenna Type:	PCB Antenna
Bluetooth Version:	V5.1 Classic
Channel Spacing:	1MHz
Modulation Type:	GFSK, π/4DQPSK, 8DPSK
Number of Channels:	79
Operation Frequency:	2402MHz to 2480MHz
Spectrum Spread Technology:	Frequency Hopping Spread Spectrum (FHSS)



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

**Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.  
Testing Center EMC Laboratory

NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612

中国 • 上海 • 松江区金都西路588号

邮编: 201612

((86-21)61915666 ((86-21)61915678 [www.sgsgroup.com.cn](http://www.sgsgroup.com.cn)

((86-21)61915666 ((86-21)61915678 [sgs.china@sgs.com](mailto:sgs.china@sgs.com)

### 3.3 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. E&E Lab  
588 West Jindu Road, Xinqiao, Songjiang, 201612 Shanghai, China  
Tel: +86 21 6191 5666      Fax: +86 21 6191 5678

No tests were sub-contracted.

### 3.4 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **CNAS (No. CNAS L0599)**

CNAS has accredited SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

- **A2LA (Certificate No. 6332.01)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. is accredited by the American Association for Laboratory Accreditation(A2LA).

- **FCC (Designation Number: CN1301)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been recognized as an accredited testing laboratory.

- **ISED (CAB Identifier: CN0020)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. EMC Laboratory has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory Company Number: 8617A

- **VCCI (Member No.: 3061)**

The 3m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-13868, C-14336, T-12221, G-10830 respectively.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

**Attention: To check the authenticity of testing /Inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.  
Testing Center EMC Laboratory  
588 West Jindu Road, Songjiang District, Shanghai, China 201612  
中国 • 上海 • 松江区金都西路588号

邮编: 201612  
(86-21) 61915666 (86-21) 61915678 [www.sgsgroup.com.cn](http://www.sgsgroup.com.cn)  
(86-21) 61915666 (86-21) 61915678 [sgs.china@sgs.com](mailto:sgs.china@sgs.com)

## 4 Test Standards and Limits

### 4.1 FCC Radiofrequency radiation exposure limits

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:

$[(\text{max power of channel})/(\text{min test separation distance})] * [\sqrt{f(\text{GHz})}] \leq 3.0$  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
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds

The test exclusions are applicable only when the minimum test separation distance is  $\leq$  50 mm, and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $<$  5 mm, a distance of 5 mm according to 4.1 f) is applied to determine SAR test exclusion. For 2.4G band device, the limit of worse case is

$$P_{\text{max}} \leq 3.0 * D_{\text{min}} / \sqrt{f} = 3.0 * 5 / \sqrt{2.480} = 9.525 \text{ mW}$$

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

**Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)**



SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.  
Testing Center EMC Laboratory

中国 • 上海 • 松江区金都西路588号

邮编: 201612

|(86-21)61915666 |(86-21)61915678 | [www.sgsgroup.com.cn](http://www.sgsgroup.com.cn)  
|(86-21)61915666 |(86-21)61915678 | [sgs.china@sgs.com](mailto:sgs.china@sgs.com)

## 5 Measurement and Calculation

### 5.1 Maximum transmit power

The Power Data is based on the RF Test Report SHEM211101197801.

Test Mode	Test Frequency (MHz)	Output Power (dBm)	Reading Power (mW)
DH5	2402	-5.6	0.28
	2441	-4.91	0.32
	2480	-3.15	0.48
2DH5	2402	-4.64	0.34
	2441	-3.91	0.41
	2480	-2.23	0.60
3DH5	2402	-4.17	0.38
	2441	-3.48	0.45
	2480	-1.81	<b>0.66</b>

### 5.2 RF Exposure Calculation

The Max Conducted Peak Output Power is 0.66mW. The best case gain of the antenna is 1dBi. 1dBi logarithmic terms convert to numeric result is nearly 1.26

According to the formula. calculate the EIRP test result:

$$\text{EIRP} = P \times G = 0.66 \text{ mW} \times 1.26 = 0.83 \text{ mW} < 9.525 \text{ mW}$$

So the SAR report is not required.

**--End of the Report--**



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

**Attention: To check the authenticity of testing /Inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: [CN\\_Doccheck@sgs.com](mailto:CN_Doccheck@sgs.com)**