



Report No.: SZEM190401275301 Page: 1 of 7

## **SAR Evaluation Report**

	•		
Application No.:	SZEM1907015802CR		
Applicant:	Shenzhen Xinglong new plastic products limited company		
Address of Applicant:	1-3 floor, No.10, quanwei, xikeng Community, henggang, longgang District, Shenzhen, China		
Manufacturer / Factory:	Shenzhen Xinglong new plastic products limited company		
Address of Manufacturer / Factory:	1-3 floor, No.10, quanwei, xikeng Community, henggang, longgang District, Shenzhen, China		
Equipment Under Test (EUT):			
EUT Name:	BT Speaker True Wireless Light Up Tower		
Model No.:	CVS-CMASLUTWSTWR, CMASLUTWSTWR, LS-SPEAKER1903 🔹		
*	Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.		
Trade mark:	IHIP, Liangzhisheng		
FCC ID:	2AG5CTWRSPR		
Standards:	47 CFR Part 1.1307		
	47 CFR Part 2.1093		
	KDB447498D01 General RF Exposure Guidance v06		
Date of Receipt:	2019-07-01		
Date of Test:	2019-07-08 to 2019-07-16		
Date of Issue:	2019-07-19		
Test Result :	PASS*		

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

Keny. KN

Keny Xu EMC Laboratory Manager



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Report No.: SZEM190401275301 Page: 2 of 7

#### Version 2

Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2019-07-19		Original

Authorized for issue by:		
	Vincent Chen	
	Vincent Chen /Project Engineer	
	Evic Fu	
	Eric Fu /Reviewer	



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Report No.: SZEM190401275301 Page: 3 of 7

## 3 Contents

#### Page

1	cov	ER PAGE	1
2	VER	SION	2
3	CON	ITENTS	3
4	GEN	ERAL INFORMATION	4
	4.1	GENERAL DESCRIPTION OF EUT	4
	4.2	TEST LOCATION	
	4.3	TEST FACILITY	
	4.4	DEVIATION FROM STANDARDS	
	4.5	ABNORMALITIES FROM STANDARD CONDITIONS	
	4.6	OTHER INFORMATION REQUESTED BY THE CUSTOMER	6
5	SAR	EVALUATION	
	5.1	RF EXPOSURE COMPLIANCE REQUIREMENT	7
	5.1.1		7
	5.1.2		
	5.1.3	B EUT RF Exposure	7



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Report No.: SZEM190401275301 Page: 4 of 7

## 4 General Information

## 4.1 General Description of EUT

Power supply:	DC 3.7V/ 1300mAh rechargeable lithium battery Charge by DC 5V from USB port
Cable:	USB cable 102cm unshielded AUX in cable 109cm unshielded
Spectrum Spread Technology:	Frequency Hopping Spread Spectrum(FHSS)
Operation Frequency:	2402MHz to 2480MHz
Bluetooth Version:	V5.0 Classic
Modulation Type:	GFSK, π/4DQPSK, 8DPSK
Number of Channels:	79
Channel Spacing:	1MHz
Antenna Type:	PCB Antenna
Antenna Gain:	1.3dBi

#### Remark:

Model No.: CVS-CMASLUTWSTWR, CMASLUTWSTWR, LS-SPEAKER1903

Only the model CVS-CMASLUTWSTWR was tested, since the electrical circuit design, layout, components used, internal wiring and functions were identical for the above models, with only difference on model No., color and decorations.



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Report No.: SZEM190401275301 Page: 5 of 7

## 4.2 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

No. 1 Workshop, M-10, Middle section, Science & Technology Park, Shenzhen, Guangdong, China 518057

Telephone: +86 (0) 755 2601 2053 Fax: +86 (0) 755 2671 0594 No tests were sub-contracted.

## 4.3 Test Facility

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

#### · CNAS (No. CNAS L2929)

CNAS has accredited SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab to ISO/IEC 17025:2005 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. 3816.01)

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

• VCCI

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

#### FCC – Designation Number: CN1178

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1178. Test Firm Registration Number: 406779.

#### Innovation, Science and Economic Development Canada

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.



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Report No.: SZEM190401275301 Page: 6 of 7

## 4.4 Deviation from Standards

None.

## 4.5 Abnormalities from Standard Conditions

None.

## 4.6 Other Information Requested by the Customer

None.



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Report No.: SZEM190401275301 Page: 7 of 7

## 5 SAR Evaluation

## 5.1 RF Exposure Compliance Requirement

#### 5.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06

4.3.1. Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

#### 5.1.2 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:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)]  $\cdot$  [ $\sqrt{f}(GHz)$ ]  $\leq$  3.0 for 1-g SAR and  $\leq$  7.5 for 10-g extremity SAR, where

f(GHz) is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation<sup>17</sup>

The result is rounded to one decimal place for comparison

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 is applied to determine SAR test exclusion

#### 5.1.3 EUT RF Exposure

The Max. power (including tune-up tolerance) is 3.50 dBm on the lowest channel 2.402 GHz (\*) 3.50 dBm logarithmic terms convert to numeric result is nearly 2.24 mW According to the formula. calculate the test exclusion thresholds:

General RF Exposure = $\frac{(Max. Power of channel, including tune - up tolerance, mW) * \sqrt{f(GHz)}}{(GHz)}$	
(min.test separation distance,mm)	
General RF Exposure = (2.24 mW / 5 mm) x $\sqrt{2.402}$ GHz = 0.69 SAR requirement:	(1)
<i>S</i> = 3.0	(2)
(1) < (2)	
So the SAR report is not required.	

(\*) Max. power refer to Report No.:SZEM190701580202

- End of the Report -



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