

Report No.: SZCR210502086402  
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# SAR Evaluation Report

Application No.:	SZCR2105020864AT
Applicant:	VTech (Dongguan) Communications Ltd.
Address of Applicant:	Xia Ling Bei Management Zone, Liaobu Town, Dongguan City, Guangdong province, China.
Manufacturer:	VTech (Dongguan) Communications Ltd.
Address of Manufacturer:	Xia Ling Bei Management Zone, Liaobu Town, Dongguan City, Guangdong province, China.
Factory:	VTech (Dongguan) Communications Ltd.
Address of Factory:	Xia Ling Bei Management Zone, Liaobu Town, Dongguan City, Guangdong province, China.
Equipment Under Test (EUT):	
EUT Name:	Bluetooth 5.0 Stereo Audio Module
Model No.:	VTBM-A01
Trade mark:	VTech
FCC ID:	2AZ2A-VTBMA01
Standards:	47 CFR Part 1.1307 47 CFR Part 2.1093 KDB447498D01 General RF Exposure Guidance v06
Date of Receipt:	2021-05-06
Date of Test:	2021-05-10 to 2021-05-17
Date of Issue:	2021-07-02

Test Result :	PASS*
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\* In the configuration tested, the EUT complied with the standards specified above.



Keny Xu  
EMC Laboratory Manager



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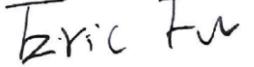
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## 2 Version

Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2021-05-25		Original
02		2021-07-02	Update Antenna type	New

Authorized for issue by:			
			
		<b>Vincent Chen/Project Engineer</b>	
			
		<b>Eric Fu/Reviewer</b>	

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## 4 General Information

### 4.1 General Description of EUT

Power supply:	Powered by DC 3.2-5V
Bluetooth Version:	V5.0 classic
Operation Frequency:	2402MHz to 2480MHz
Modulation Type:	GFSK, Pi/4DQPSK, 8DPSK
Channel Spacing:	1MHz
Number of Channels:	79
Antenna Type:	PCB Antenna, Dipole Antenna
Antenna Gain:	PCB Antenna 1.73dBi, Dipole Antenna -1.07dBi

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## 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:

- **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.

## 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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## 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:

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

$f(\text{GHz})$  is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation<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) 9 dBm on the highest channel 2.48 GHz (\*)  
9.00 dBm logarithmic terms convert to numeric result is nearly 7.94 mW

According to the formula. calculate the test exclusion thresholds:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}]$$

$$\text{General RF Exposure} = (7.94 \text{ mW} / 5 \text{ mm}) \times \sqrt{2.48 \text{ GHz}} = 2.50 \quad (1)$$

SAR requirement:

$$S = 3.0 \quad (2)$$

$$(1) < (2)$$

So the SAR report is not required.

(\*) Max. power refer to Report No.:SZCR210502086401

- End of the Report -

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