

RF EXPOSURE REPORT

FOR

Applicant	:	Shenzhen VanTop Technology & Innovation Co., Ltd.
Address	:	502, 5th Flr. BLDG 4, MinQi Technology Park, No. 65 Lishan Road, Taoyuan Street, Nanshan District, Shenzhen, China
Equipment under Test	:	Waterproof RGB Wireless Speaker
Model No.	:	M17S, M27S, V100, V200, V300
Trade Mark	:	/
FCC ID	:	2AQ3A-VIKM17S
Manufacturer	:	Shenzhen VanTop Technology & Innovation Co., Ltd.
Address	:	502, 5th Flr. BLDG 4, MinQi Technology Park, No. 65 Lishan Road, Taoyuan Street, Nanshan District, Shenzhen, China

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

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REPORT

Table of Contents

	Test report declares.....	3
1.	General Information	5
1.1.	Description of equipment	5
1.2.	Assess laboratory	5
2.	RF Exposure evaluation for FCC	5

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.

Report No:	DDT-R21030803-2E2		
Date of Receipt:	Apr. 13, 2021	Date of Test:	Apr. 13, 2021 ~ Apr. 19, 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	Apr. 29, 2021	

1. General Information

1.1. Description of equipment

EUT* Name	: Waterproof RGB Wireless Speaker
Model Number	: M17S, M27S, V100, V200, V300
Difference of model number	: All models are identical except the appearance, color and model, therefore the test performed on the model M17S.
EUT Function Description	: Please reference user manual of this device
Power Supply	: DC 5V by USB : DC 7.4V by Polymer Li-ion built-in battery
Radio Specification	: Bluetooth V5.0
Operation Frequency	: 2402 MHz - 2480 MHz
Modulation	: GFSK, $\pi/4$ -DQPSK, 8DPSK
Data Rate	: 1 Mbps, 2 Mbps, 3 Mbps
Antenna Type	: Integral PCB antenna, maximum PK gain: 3.38 dBi
Serial Number	: N/A

1.2. Assess laboratory

Dongguan Dongdian Testing Service Co., Ltd.

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

CNAS Registration No. CNAS L6451; A2LA Certificate Number: 3870.01;

FCC Designation Number: CN1182; FCC Test Firm Registration Number: 540522

Industry Canada Site Registration Number: 10288A-1; CAB identifier: CN0048

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 ≤ 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 ≤ 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

Manufacturing Tolerance

GFSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	-2	-3	-3
Tolerance ±(dB)	1	1	1
π/4DQPSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	-2	-3	-3
Tolerance ±(dB)	1	1	1
8DPSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	-2	-3	-3
Tolerance ±(dB)	1	1	1

Estimtion Result

Worse case is as below: [2402 MHz, -1 dBm, 0.79 mW] output power]

$(0.79/5) \cdot [\sqrt{2.402(\text{GHz})}] = 0.24 < 3.0$ for 1-g SAR

Then SAR evaluation is not required

END OF REPORT