


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	:	Wireless ANC Headset
Model No.	:	LAVA, LAVA PLUS, LAVA PRO, LAVA2, SPARK, SPARK2, SPARK PLUS, FLAME, FLAME PLUS, FLAME PRO, FLAME2, SWING, SWING PLUS, SWING2, SWING PRO, ECHO, ECHO PLUS, ECHO PRO, ECHO2, FLOW, FLOW PLUS, FLOW PRO, FLOW2, WAVE, WAVE2, WAVE3
Trade Mark	:	 Cystereo
FCC ID	:	2AQ3A-A0018
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


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

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

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	:	Wireless ANC Headset
Model No.	:	LAVA, LAVA PLUS, LAVA PRO, LAVA2, SPARK, SPARK2, SPARK PLUS, FLAME, FLAME PLUS, FLAME PRO, FLAME2, SWING, SWING PLUS, SWING2, SWING PRO, ECHO, ECHO PLUS, ECHO PRO, ECHO2, FLOW, FLOW PLUS, FLOW PRO, FLOW2, WAVE, WAVE2, WAVE3
Trade mark	:	 Cystereo
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

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-R20090702-1E8		
Date of Receipt:	Sep. 16, 2020	Date of Test:	Sep. 16, 2020 ~ Sep. 27, 2020

Prepared By:

Bobo Chen

Bobo Chen/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	Sep. 27, 2020	

1. General information

1.1. Description of Equipment

EUT* Name	: Wireless ANC Headset
Model Number	: LAVA, LAVA PLUS, LAVA PRO, LAVA2, SPARK, SPARK2, SPARK PLUS, FLAME, FLAME PLUS, FLAME PRO, FLAME2, SWING, SWING PLUS, SWING2, SWING PRO, ECHO, ECHO PLUS, ECHO PRO, ECHO2, FLOW, FLOW PLUS, FLOW PRO, FLOW2, WAVE, WAVE2, WAVE3
Model Differences	: The main PCB, software and hardware version of the product, and antenna type are basically the same as the RF module, only the appearance and model are different. Therefore the test was performed on the LAVA.
EUT function description	: Please reference user manual of this device
Power Supply	: DC 5V from external AC Adapter DC 3.7V 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: -1.09 dBi
Sample Type	: Series production

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

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)	2.5	2.5	2.5
Tolerance \pm (dB)	1	1	1
$\pi/4$ DQPSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	2.5	2.5	2.5
Tolerance \pm (dB)	1	1	1
8DPSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	2.5	2.5	2.5
Tolerance \pm (dB)	1	1	1

Estimation Result

Worse case is as below: [2402MHz, 3.5 dBm, 2.24 mW) output power]

$(2.24/5) \cdot [\sqrt{2.402(\text{GHz})}] = 0.694 < 3.0$ for 1-g SAR

Then SAR evaluation is not required

END OF REPORT