RED-Health Test Report

Client Name	:	Sariana LLC
Address	:	7365 Mission Gorge Road Suite G San Diego, CA 92120, U.S.A.
Product Name	:	Bluetooth Keypad
Date	:	Aug. 01, 2019

Shenzhen Anbotek Compliance Laboratory Limited

Address: 1/F, Building D, Sogood Science and Technology Park, Sanwei Community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.
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CONTENTS

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TEST REPORT

Applicant	:	Sariana LLC
Manufacturer	:	B&W ELECTRONICS DEVELOPMENT LTD
Product Name	:	Bluetooth Keypad
Model No.	:	ST-XLABK, ST-XLABKM, ST-XLABKS, ST-XLABKG, ST-XLABKK
Trade Mark	:	Satechi
Rating(s)	:	Input: DC 5V, 100mA(with DC 3.7V, 110 mAh Battery inside)

Test Standard(s) : EN 62479: 2010

The device described above is tested by Shenzhen Anbotek Compliance Laboratory Limited to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. This report shows the EUT to be technically compliant with the EN 62479: 2010 requirements. The test results are contained in this report and Shenzhen Anbotek Compliance Laboratory Limited is assumed full responsibility for the accuracy and completeness of these tests.

This report applies to above tested sample only and shall not be reproduced in part without written approval of Shenzhen Anbotek Compliance Laboratory Limited.

Date of Receipt Jul. 16, 2019

Date of Test Jul. 16~24, 2019

Prepared By

Anbotek (SZ) Compliance Laboratory Limited * Approved *

(Engineer / Dolly Mo)

Reviewer

(Supervisor / Snowy Meng)

Approved & Authorized Signer

(Manager / Sally Zhang)

1. General Information

1.1. Client Information

Applicant	:	Sariana LLC
Address	:	7365 Mission Gorge Road Suite G San Diego, CA 92120, U.S.A.
Manufacturer	:	B&W ELECTRONICS DEVELOPMENT LTD
Address	:	3/F, Building B, Heshengjia Industrial Park, No.154 Huating Road, Dalang Street, Longhua District, Shenzhen, China
Factory	:	B&W ELECTRONICS DEVELOPMENT LTD
Address	:	3/F, Building B, Heshengjia Industrial Park, No.154 Huating Road, Dalang Street, Longhua District, Shenzhen, China

1.2. Description of Device (EUT)

Product Name	:	Bluetooth Keypad	
Model No.	:	ST-XLABK, ST-XLABKM, ST-XLABKS, ST-XLABKG, ST-XLABKK (Note: All samples are the same except the model name and the color, so we prepare "ST-XLABK" for test only.)	
Trade Mark	:	Satechi	
Test Power Supply	:	DC 3.7V Battery inside	
Test Sample No.	:	1-2-1(Normal Sample), 1-2-2(Engineering Sample)	
Product Description	:	Operation Frequency:	2402~2480MHz
		Transfer Rate:	1 Mbits/s
		Number of Channel:	79 Channels
		Modulation Type:	GFSK
		Antenna Type:	PCB Antenna
		Antenna Gain(Peak):	1.87 dBi
		Max. Transmitting Power:	-1.14 dBm Max.
Remark: 1) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.			

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1.3. Auxiliary Equipment Used During Test

N/A		

1.4. Description of Test Facility

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

FCC-Registration No.: 184111

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registed and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No. 184111, September 30, 2018.

ISED-Registration No.: 8058A

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (ISED) Innovation, Science and Economic Development Canada. The acceptance letter from the ISED is maintained in our files. Registration 8058A, March 07, 2019.

Test Location

Shenzhen Anbotek Compliance Laboratory Limited.
1/F, Building D, Sogood Science and Technology Park, Sanwei community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.518102

1.5. Measurement Uncertainty

Parameter	Uncertainty
Occupied Channel Bandwidth	±5 %
RF output power, conducted	±1,5 dB
Power Spectral Density, conducted	±3 dB
Unwanted Emissions, conducted	±3 dB
All emissions, radiated	±6 dB
Temperature	±1 °C
Humidity	±5 %
DC and low frequency voltages	±3 %
Time	±5 %
Duty Cycle	±5 %

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2. GENERAL PRODUCT INFORMATION

2.1. Product Function and Intended Use

The submitted sample is wireless transceiver includes transmitter and receiver.

2.2. Ratings and System Detail

Transmitter		
Frequency Range	:	2402~2480MHz
Power Supply	:	DC 3.7V Battery inside

3. EN 62479 REQUIREMENT

3.1. General Description of Applied Standards

Assessment of the compliance of low power electronic and electrical equipment with the basic restrictions related to human exposure to electromagnetic fields (10 MHz to 300 GHz).

3.2. Human exposure to the Electromagnetic fields

This International Standard provides simple conformity assessment methods for low-power electronic and electrical equipment to an exposure limit relevant to electromagnetic fields (EMF). If such equipment cannot be shown to comply with the applicable EMF exposure requirements using the methods included in this standard for EMF assessment, then other standards, including IEC 62311 or other (EMF) product standards, may be used for conformity assessment.

3.3. RF Exposure Evaluation

3.3.1. Limit:

According to EN 62479 clause 4.2 Low-power electronic and electrical equipment is deemed to comply with the provisions of this standard if it can be demonstrated using routes B, C or D that the available antenna power and/or the average total radiated power is less than or equal to the applicable low-power exclusion level Pmax.

P max = 20 mW (13.1dBm) according to ICNIRP guidelines, since the EUT is General public used.

Remark:

B: The input power level to electrical or electronic components that are capable of radiating electromagnetic energy in the relevant frequency range is so low that the available antenna power and/or the average total radiated power cannot exceed the low-power exclusion level defined in EN 62479 clause 4.2

C: The available antenna power and/or the average total radiated power are limited by product standards for transmitters to levels below the low-power exclusion level defined in EN 62479 clause 4.2

D: Measurements or calculations show that the available antenna power and/or the average total radiated power are below the low-power exclusion level defined in EN 62479 clauses 4.2.

3.3.2. Test result

The EIRP of the EUT which are below the max permitted sending level of 20 mW, and then the EUT is not need to conduct SAR measurement.

More details please refer to SZAWW190716001-04W.

---------- End of Report ----------

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