

# RF Exposure Measurement and Test Report For

**Shanxi Jianyu Science and technology co., LTD.**

**No.12 xin jin ci lu road hui jin garden 7th floor 4-201 taiyuan city,**

**Shanxi Province**

**Test Standard:** EN 62479:2010

**Product Description:** bluetooth headset

**Tested Model:** JETBLUE HD1

**Report No.:** STR17068416E-2

**Tested Date:** 2017-06-13 to 2017-06-28

**Issued Date:** 2017-06-28

**Tested By:** Jason Su / Engineer

**Reviewed By:** Silin Chen / EMC Manager

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Note: This test report is limited to the above client company and the product model only. It may not be duplicated without prior permitted by Shenzhen SEM.Test Technology Co., Ltd.

**TABLE OF CONTENTS**

<b>1. GENERAL INFORMATION.....</b>	<b>3</b>
1.1 PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT).....	3
1.2 COMPLIANCE STANDARDS .....	4
<b>2. RF EXPOSURE BASIC RESTRICTIONS .....</b>	<b>5</b>
2.1 STANDARD APPLICABLE.....	5
2.2 EVALUATION METHODS .....	6
2.3 EVALUATION RESULTS.....	6
<b>EXHIBIT 1 - PRODUCT LABELING .....</b>	<b>7</b>
PROPOSED CE LABEL FORMAT .....	7
PROPOSED LABEL LOCATION ON EUT .....	7
<b>EXHIBIT 2 - EUT PHOTOGRAPHS.....</b>	<b>8</b>

## 1. GENERAL INFORMATION

### 1.1 Product Description for Equipment Under Test (EUT)

#### Client Information

Applicant: Shanxi Jianyu Science and technology co., LTD.  
Address of applicant: No.12 xin jin ci lu road hui jin garden 7th floor 4-201  
taiyuan city, Shanxi Province

General Description of EUT	
Product Name:	bluetooth headset
Trade Name:	PRYME
Model No.:	JETBLUE HD1
Adding Model(s):	/
Rated Voltage:	USB DC 5V ; Battery:DC3.7V
Power Adaptor Model:	/
<i>Note: The test data is gathered from a production sample, provided by the manufacturer.</i>	

Technical Characteristics of EUT	
Support Standard:	V4.0
Frequency Range:	2402-2480MHz
RF Output Power:	10.894dBm (EIRP)
Type of Modulation:	GFSK, Pi/4 DQPSK, 8DPSK
Data Rate:	1Mbps, 2Mbps, 3Mbps
Quantity of Channels:	79/40
Channel Separation:	1MHz/2MHz
Type of Antenna:	PCB
Antenna Gain:	2dBi

## 1.2 Compliance Standards

The following report is prepared on behalf of the Shanxi Jianyu Science and technology co., LTD. in accordance with EN 62479:2010, 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).

The objective of the manufacturer is to determine compliance with EN 62479:2010, 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).

***Maintenance of compliance*** is the responsibility of the manufacturer. Any modification of the product maybe which result in lowering the emission/immunity should be checked to ensure compliance has been maintained

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## 2. RF EXPOSURE BASIC RESTRICTIONS

### 2.1 Standard Applicable

According to EN 62479:2010, 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).

#### Low-power exclusion level $P_{\max}$ based on considerations of SAR

When SAR is the basic restriction, a conservative minimum value for  $P_{\max}$  can be derived, equal to the localized SAR limit ( $SAR_{\max}$ ) multiplied by the averaging mass ( $m$ ):

$$P_{\max} = SAR_{\max} m \quad (A.1)$$

Example values of  $P_{\max}$  according to Equation (A.1) are provided in Table A.1 for cases described by the ICNIRP guidelines [1], IEEE Std C95.1-1999 [2] and IEEE Std C95.1-2005 [3] where SAR limits are defined. Other exposure guidelines or standards may be applicable depending on national regulations.

**Table A.1 – Example values of SAR-based  $P_{\max}$  for some cases described by ICNIRP, IEEE Std C95.1-1999 and IEEE Std C95.1-2005**

Guideline / Standard	SAR limit, $SAR_{\max}$ W/kg	Averaging mass, $m$ g	$P_{\max}$ mW	Exposure tier <sup>a</sup>	Region of body <sup>a</sup>
ICNIRP [1]	2	10	20	General public	Head and trunk
	4	10	40	General public	Limbs
	10	10	100	Occupational	Head and trunk
	20	10	200	Occupational	Limbs
IEEE Std C95.1-1999 [2]	1,6	1	1,6	Uncontrolled environment	Head, trunk, arms, legs
	4	10	40	Uncontrolled environment	Hands, wrists, feet and ankles
	8	1	8	Controlled environment	Head, trunk, arms, legs
	20	10	200	Controlled environment	Hands, wrists, feet and ankles
IEEE Std C95.1-2005 [3]	2	10	20	Action level	Body except extremities and pinnae
	4	10	40	Action level	Extremities and pinnae
	10	10	100	Controlled environment	Body except extremities and pinnae
	20	10	200	Controlled environment	Extremities and pinnae

<sup>a</sup> Consult the appropriate standard for more information and definitions of terms.

## 2.2 Evaluation Methods

Based on the above standard limit, the basic restriction at frequency between 10MHz to 300GHz is on localized SAR in the head. Any device with output power below 20mW cannot produce an exposure exceeding this restriction under the most pessimistic exposure conditions.

The basic restriction is 2W/Kg for general public device, so any unit which supplies less than 20mW from it's antenna port, averaged over 6 minutes, will meet the basic restriction.

## 2.3 Evaluation Results

Maximum Average Output Power

Frequency	ERP/EIRP	ERP/EIRP	Limit	Result
MHz	dBm	mW	mW	Pass/Fail
2402	8.340	6.8234	20	Pass
2441	10.219	10.517	20	Pass
2480	10.884	12.257	20	Pass




Maximum Average Output Power(BLE)

Frequency	ERP/EIRP	ERP/EIRP	Limit	Result
MHz	dBm	mW	mW	Pass/Fail
2402	9.956	9.8992	20	Pass
2442	10.894	12.286	20	Pass
2480	10.577	11.421	20	Pass

Since average output power at worse case is: 12.286 mW which cannot exceed the exempt condition, 20mW specified in EN 62479. It is deemed to full fit the requirement of RF exposure basic restriction specified in EC Council Recommendation (1999/519/EC).

## EXHIBIT 1 - PRODUCT LABELING

### Proposed CE Label Format

<b>bluetooth headset</b> Model: Jetblue HD1 Brand: PRYME Importer Name: XXX Importer Address: XXX Shanxi Jianyu Science and technology co., LTD. No.12 xin jin ci lu road hui jin garden 7th floor 4-201 taiyuan city, Shanxi Province	  
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**Specifications:** Text is Black in color and is justified. Labels are printed in indelible ink on permanent adhesive backing or silk-screened onto the EUT or shall be affixed at a conspicuous location on the EUT. The 'CE' marking must be affixed to the EUT or to its data plate. Where this is not possible or not warranted on account of the nature of the apparatus, it must be affixed to the packaging, if any, and to the accompanying documents. The 'CE' marking is allowed less than 5 mm but must clear. If the 'CE' marking is reduced or enlarged the proportions given in the above graduated drawing must be respected. The Importer name, address and Manufacturer name and address should indicate on marking label or packaging or in a document accompanying

### Proposed Label Location on EUT

CE Label Location



## EXHIBIT 2 - EUT PHOTOGRAPHS

EUT View 1



EUT View 2





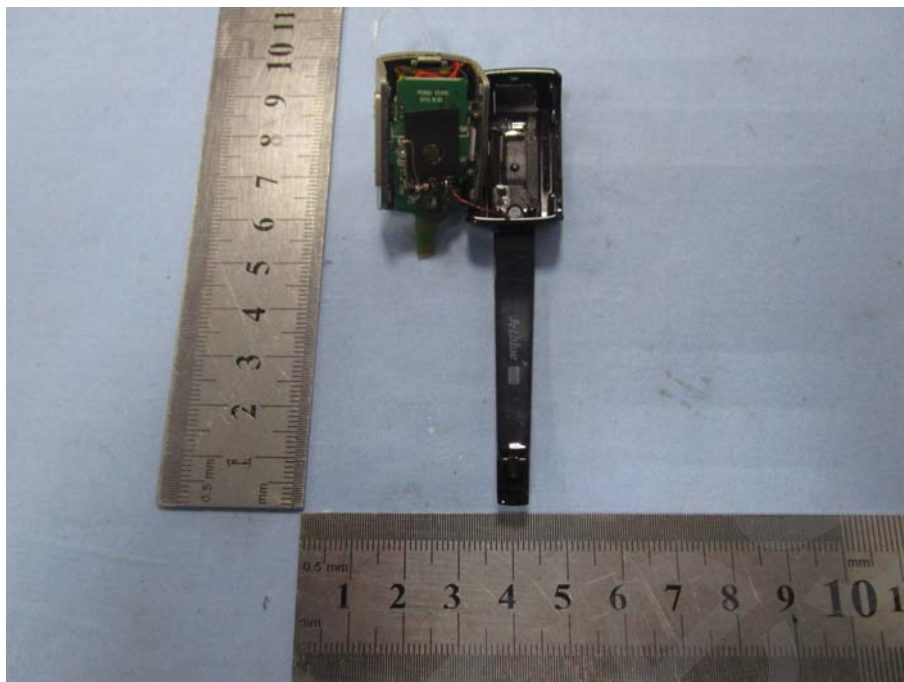
EUT View 3



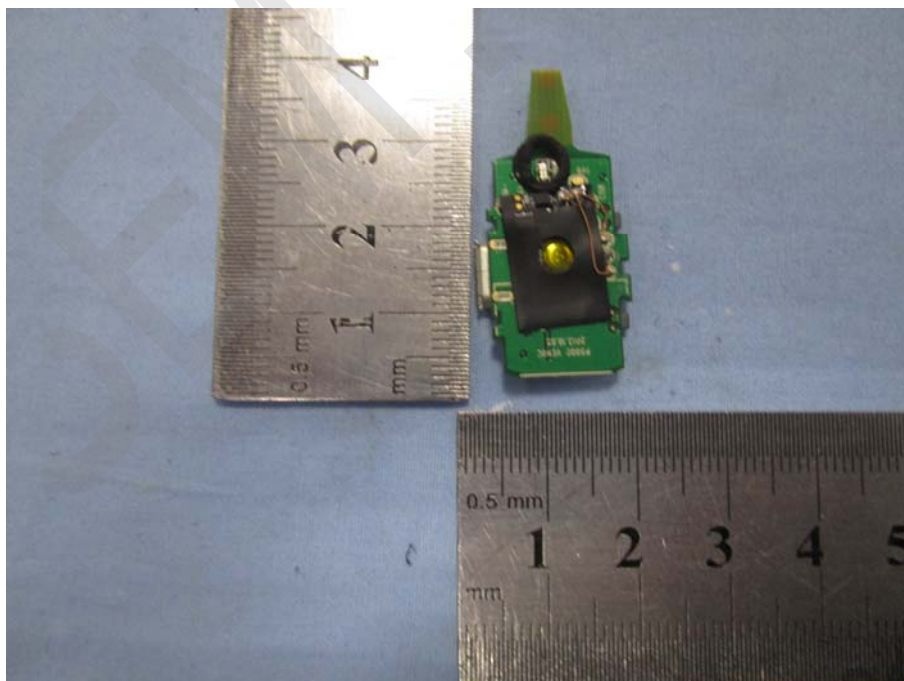
EUT View 4

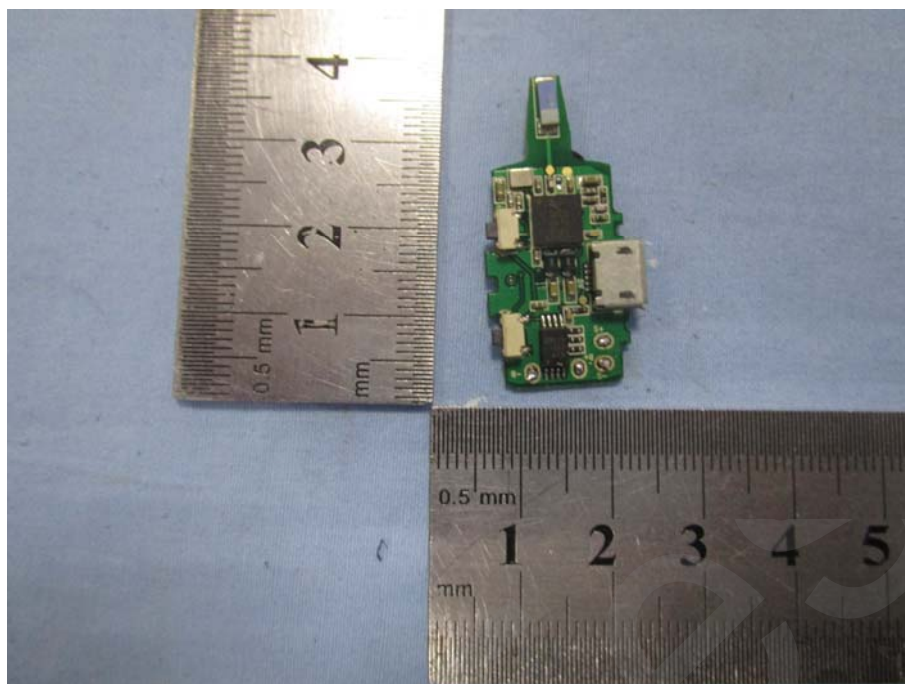


### EUT Housing and Board View



### Solder Board-Component View 1



**Solder Board-Component View 2**

\*\*\*\*\* END OF REPORT \*\*\*\*\*