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Report Template Version: V03  
Report Template Revision Date: Mar.1st, 2017

# RF Exposure Evaluation Report

**Report No. :** CQASZ20180300040EW-02

**Applicant:** SUNVALLEYTEK INTERNATIONAL, INC.

**Address of Applicant:** 46724 Lakeview Blvd, Fremont, California, United States, 94538-6529

**Manufacturer:** Shenzhen NearbyExpress Technology Development Company Limited

**Address of Manufacturer:** 333 Bulong Road, Jialianda Industrial Park, Building 1, Bantian, Longgang District, Shenzhen, China

**Factory:** GANZHOU DEHUIDA TECHNOLOGY CO., LTD.

**Address of Factory:** No. 5,6,7,8,9 Build, Dehuida Science and Technology Park, Huoyanshan Road, Anyuan District, Ganzhou City, Jianxi Province, China

**Equipment Under Test (EUT):**

**Product:** Sound Bar

**Model No.:** TT-SK019

**Brand Name:** TaoTronics

**FCC ID:** 2AFDGT-SK019

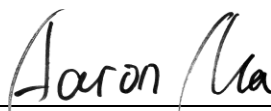
**Standards:** 47 CFR Part 1.1307  
47 CFR Part 2.1091  
KDB447498D01 General RF Exposure Guidance v06

**Date of Test:** 2018-04-15 to 2018-04-23

**Date of Issue:** 2018-04-23

**Test Result :** PASS\*

**Tested By:**

  
(Aaron Ma)

**Reviewed By:**

  
(Owen Zhou)

**Approved By:**

  
(Jack Ai)



\* In the configuration tested, the EUT complied with the standards specified above.

The test report is effective only with both signature and specialized stamp, The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CQA, this report can't be reproduced except in full.

## 2 Version

### Revision History Of Report

Report No.	Version	Description	Issue Date
CQASZ20180300040EW-02	Rev.01	Initial report	2018-04-23

### 3 Contents

	Page
1 COVER PAGE.....	1
2 VERSION .....	2
3 CONTENTS .....	3
4 GENERAL INFORMATION.....	4
4.1 CLIENT INFORMATION.....	4
4.2 GENERAL DESCRIPTION OF EUT .....	4
5 SAR EVALUATION .....	5
5.1 RF EXPOSURE COMPLIANCE REQUIREMENT .....	5
5.1.1 <i>Standard Requirement</i> .....	5
5.1.2 <i>Limits</i> .....	5
5.1.3 <i>EUT RF Exposure</i> .....	5

## 4 General Information

### 4.1 Client Information

Applicant:	SUNVALLEYTEK INTERNATIONAL, INC.
Address of Applicant:	46724 Lakeview Blvd, Fremont, California, United States, 94538-6529
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### 4.2 General Description of EUT

Product Name:	Sound Bar
Model No.:	TT-SK019
Trade Mark:	TaoTronics
Hardware Version:	V1.0
Software Version:	V1.2
Operation Frequency:	2402MHz~2480MHz
Bluetooth Version:	V3.0
Modulation Technique:	Frequency Hopping Spread Spectrum(FHSS)
Modulation Type:	GFSK, $\pi/4$ DQPSK
Number of Channel:	79
Hopping Channel Type:	Adaptive Frequency Hopping systems
Sample Type:	Moible production
Test Software of EUT:	FCCAssist 2.4 (manufacturer declare )
Antenna Type:	PCB antenna
Antenna Gain:	0dBi
Power Supply:	Adaptor :BI36-182000-AdU Input:100-240V~50/60Hz 1.2A Output: DC18V 2A

## 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:

$$\left[ \frac{\text{max. power of channel, including tune-up tolerance, mW}}{[\sqrt{f(\text{GHz})}]} \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, where} \right.$$

$f(\text{GHz})$  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

For BT:

Measurement Data

GFSK mode	
Test channel	Peak Output Power (dBm)
Lowest	-2.90
Middle	-3.17
Highest	-4.11
$\pi/4$ DQPSK mode	
Test channel	Peak Output Power (dBm)
Lowest	-2.05
Middle	-2.27
Highest	-3.30

The Max Conducted Peak Output Power is -2.05dBm in lowest channel(2.402GHz);

The best case gain of the antenna is 0dBi.

EIRP= -2.05dBm + 0dBi =-2.05dBm

-2.05dBm logarithmic terms convert to numeric result is nearly 0.62mW

According to the formula. calculate the EIRP test result:

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

General RF Exposure =  $(0.62\text{mW} / 5 \text{ mm}) \times \sqrt{2.402\text{GHz}} = 0.192$  ①

SAR requirement:

S= 3.0

② ;

① < ②.

So the SAR report is not required.

Remark: The Max Conducted Peak Output Power data refer to report Report No.: CQASZ20180300040EW-01