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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:	2AFDGTT-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

(Aaron Ma)

Reviewed By: Owen Zhou

(Owen Zhou)

Approved By: Jack Ai

(Jack Ai)

SHENZHEN HUAXIA TESTING TECHNOLOGY CO.,LTD 华夏准测 APPROVED

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

2 Version

Revision History Of Report

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

3 Contents

4 General Information

4.1 Client Information

Applicant:	SUNVALLEYTEK INTERNATIONAL, INC.
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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, π/4DQPSK
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 ≤ 50 mm are determined by:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

f(GHz) is the RF channel transmit frequency in GHz
Power and distance are rounded to the nearest mW and mm before calculation[17]
The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 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
π/4DQPSK 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:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)]

General RF Exposure = (0.62mW / 5 mm) x √2.402GHz = 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