Shenzhen Huaxia Testing Technology Co., Ltd

1F., Block A of Tongsheng Technology Building, Huahui Road, Dalang Street, Longhua District, Shenzhen, China

Telephone: +86-755-26648640
Fax: +86-755-26648637
Website: www.cqa-cert.com

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

RF Exposure Evaluation Report

Report No. :	CQASZ171101549EW-02
Applicant:	Shenzhen Weile Electronics Co., Ltd.
Address of Applicant:	Room 602, Building 2, Zhuguang Innovative Technology Park, Taoyuan Street, Nanshan District, Shenzhen, China
Manufacturer:	Dongguan Weile Electronics Co., Ltd.
Address of Manufacturer:	No.3, Yongye first Street, Xiabian Area, Chang'an District, Dongguan, China
Factory:	Dongguan Weile Electronics Co., Ltd.
Address of Factory:	No.3, Yongye first Street, Xiabian Area, Chang'an District, Dongguan, China
Equipment Under Test (EUT):	
Product:	Bluetooth Speaker
Model No.:	M80
Brand Name:	VELEV
FCC ID:	2AOHU-M80
Standards:	47 CFR Part 1.1307 47 CFR Part 2.1093 KDB447498D01 General RF Exposure Guidance v06
Date of Test:	2018-01-08 to 2018-01-11
Date of Issue:	2018-01-11
Test Result :	**PASS***

Tested By: Aaron Ma

(Aaron Ma)

Reviewed By: Owen Zhou

(Owen Zhou)

Approved By:

(Jack Ai)

SHENZHEN HUAXIA TESTING TECHNOLOGY CO., LTD. CQA 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
CQASZ171101549EW-02	Rev.01	Initial report	2018-01-11

3 Contents

4 General Information

4.1 Client Information

Applicant:	Shenzhen Weile Electronics Co., Ltd.
Address of Applicant:	Room 602, Building 2, Zhuguang Innovative Technology Park, Taoyuan Street, Nanshan District, Shenzhen, China
Manufacturer:	Dongguan Weile Electronics Co., Ltd.
Address of Manufacturer:	No.3, Yongye first Street, Xiabian Area, Chang'an District, Dongguan, China
Factory:	Dongguan Weile Electronics Co., Ltd.
Address of Factory:	No.3, Yongye first Street, Xiabian Area, Chang'an District, Dongguan, China

4.2 General Description of EUT

Product Name:	Bluetooth Speaker
Model No.:	M80
Trade Mark:	VELEV
Hardware Version:	V1.0
Software Version:	V1.0
Operation Frequency:	2402MHz~2480MHz
Bluetooth Version:	V2.1
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:	portable production
Test Software of EUT:	FCC Assist 1.4 (Provide by Manufacturer)
Antenna Type:	PCB antenna
Antenna Gain:	0dBi
Power Supply:	DC5V by USB

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	-1.84
Middle	-1.63
Highest	-1.96
π/4DQPSK mode	
Test channel	Peak Output Power (dBm)
Lowest	-0.97
Middle	-0.74
Highest	-1.04

The Max Conducted Peak Output Power is -0.74dBm in middle channel(2.441GHz);

The best case gain of the antenna is 0dBi.

EIRP= -0.74dBm + 0dBi = -0.74dBm

-0.74dBm logarithmic terms convert to numeric result is nearly 0.84mW

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 = (0.84mW / 5 mm) x √2.441GHz = 0.26 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.: CQASZ171101549EW-01