RF Exposure evaluation report

Applicant:	Shenzhen MeiDong Acoustics Co., LTD.
Address of Applicant:	Cell B, 3th Floor, Tower B, Hongzhuyongqi Technology Park, Lezhujiao, Xixiang, Baoan, 518100 Shenzhen, Guangdong, PEOPLE'S REPUBLIC OF CHINA
Manufacturer:	Shenzhen MeiDong Acoustics Co., LTD.
Address of Manufacturer:	Cell B, 3th Floor, Tower B, Hongzhuyongqi Technology Park, Lezhujiao, Xixiang, Baoan, 518100 Shenzhen, Guangdong, PEOPLE'S REPUBLIC OF CHINA
Product name:	BT speaker
Model:	Smile
Rating(s):	DC 5V 1A
Trademark:	COWIN
Standards:	47 CFR Part 1.1310 (2013) 47 CFR Part 2.1091 (2013) KDB447498D01 General RF Exposure Guidance v06
FCC ID:	2AB5T-Smile
Date of Receipt:	2021-04-12
Date of Test:	2021-04-12~2021-05-10
Date of Issue:	2021-05-10
Test Result	**Pass***

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

Authorized for issue by:

Test by:

May. 10, 2021 Eleven Liang Eleven Liang
Project Engineer
Date Name/Position Signature

Reviewed by:

May. 10, 2021 Pauler Li Pauler Li
Project Manager
Date Name/Position Signature

Possible test case verdicts:	
test case does not apply to the test object ..:	N/A
test object does meet the requirement .....:	P (Pass)
test object does not meet the requirement ..:	F (Fail)

Testing Laboratory information:

Testing Laboratory Name ..... :		ITL Co., Ltd
Address.....:		No. 8 Jinqianling Street 5, Huangjiang Town, Dongguan, Guangdong, 523757 P.R.C.
Testing location	:	Same as above
Tel	:	0086-769-39001678
Fax	:	0086-20-62824387
E-mail	:	itl@i-testlab.com

General remarks:

The test results presented in this report relate only to the object tested.

The results contained in this report reflect the results for this particular model and serial number. It is the responsibility of the manufacturer to ensure that all production models meet the intent of the requirements detailed within this report.

This report would be invalid test report without all the signatures of testing technician and approver.

This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.

General product information:

There's an AC Adapter that charges the battery.

1 Contents

2 General Information

2.1 Client Information

Applicant:	Shenzhen MeiDong Acoustics Co., LTD.
Address of Applicant:	Cell B, 3th Floor, Tower B, Hongzhuyongqi Technology Park, Lezhujiao, Xixiang, Baoan, 518100 Shenzhen, Guangdong, PEOPLE'S REPUBLIC OF CHINA

2.2 General Description of E.U.T.

Name:	BT speaker
Model No.:	Smile
Trade Mark:	COWIN
Operating Frequency:	2402 MHz to 2480 MHz for Bluetooth.
Channels:	79 channels with 1MHz step for Bluetooth 40 channels with 2MHz step for BLE
Type of Modulation:	GFSK, (π/4) DQPSK, 8DPSK for Bluetooth
Antenna Reference	PCB Antenna with 0dBi peak Gain
Function:	Bluetooth speaker

2.3 Details of E.U.T.

EUT Power Supply:	DC 5V
Test mode for BT:	The program used to control the EUT for staying in continuous transmitting and receiving mode is programmed. Channel lowest (2402MHz), middle (2441MHz) and highest (2480MHz) are chosen for Bluetooth full testing. Normal mode: the Bluetooth has been tested on the Modulation of GFSK; EDR mode: the Bluetooth has been tested on the Modulation of (π/4)DQPSK and 8DPSK, compliance test and record the worst case on (π/4)DQPSK and 8DPSK
Test mode for BLE:	The program used to control the EUT for staying in continuous transmitting and receiving mode is programmed. Channel lowest (2402MHz), middle (2440MHz) and highest (2480MHz) are chosen for full testing.

2.4 Description of Support Units

The EUT has been tested as an independent unit for fixed frequency by testing lab.

2.5 Test Location

All tests were performed at:

ITL Co., Ltd
No. 8 Jinqianling Street 5, Huangjiang Town, Dongguan, Guangdong, 523757 P.R.C.
0086-769-39001678
itl@i-testlab.com

No tests were sub-contracted.

2.6 Deviation from Standards

Biconical and log periodic antennas were used instead of dipole antennas.

2.7 Abnormalities from Standard Conditions

None.

2.8 Other Information Requested by the Customer

None.

2.9 Test Facility

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

- **CNAS Lab code: L9342**
- **FCC Designation No.:CN5035**
- **IC Registration NO.: 12593A**
- **NVLAP LAB CODE: 600199-0**

3 MPE Evaluation

3.1 RF Exposure Compliance Requirement

3.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06 and FCC 1.1310 Radiofrequency radiation exposure limits for General Population/Uncontrolled Exposure

3.1.2 EUT RF Exposure

Bluetooth (Classic mode):

The Max Output Power is 1.06 dBm in EDR mode(3DH5) Lowest channel (2. 402GHz);

Antenna gain: 0dBi

R=20cm

$S=PG/(4\pi R^2)=0.00025$ mW/cm^2<1(limits)mW/cm^2

Bluetooth (BLE mode):

The Max Output Power is -1.13 dBm in Highest channel (2. 480GHz);

Antenna gain: 0dBi

R=20cm

$S=PG/(4\pi R^2)=0.00015$ mW/cm^2<1(limits)mW/cm^2

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