

RF Exposure evaluation report

Applicant:	Aukey Technology Co., Ltd
Address of Applicant:	No.102, Bldg. P09, Electronics Trade Center Huanan City, Pinghu Town, Longgang, Shenzhen, Guangdong, 518111, China
Manufacturer:	Aukey Technology Co., Ltd
Address of Manufacturer:	No.102, Bldg. P09, Electronics Trade Center Huanan City, Pinghu Town, Longgang, Shenzhen, Guangdong, 518111, China
Product name:	Portable Audio Receiver
Model:	BR-C2, BT-F6, BT-F8, BR-C18 BR-C20, BR-C30, BR-C50, BR-C60, BR-C33, BR-C35
Rating(s):	DC 4.2V, 170mAh Battery
Trademark:	AUKEY
Standards:	47 CFR Part 1.1310 (2013) 47 CFR Part 2.1091 (2013) KDB447498D01 General RF Exposure Guidance v06
FCC ID:	2ATIH-BR-C2
Date of Receipt:	2019-11-18
Date of Test:	2019-11-18~2019-11-27
Date of Issue:	2019-11-27
Test Result	Pass*

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

Authorized for issue by:

Test by:

Nov.27, 2019 Eleven Liang

Project Engineer

Date

Name/Position

Signature



Nov.27, 2019

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:

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2 General Information

2.1 Client Information

Applicant: Aukey Technology Co., Ltd
Address of Applicant: No.102, Bldg. P09, Electronics Trade Center Huanan City, Pinghu Town, Longgang, Shenzhen, Guangdong, 518111, China

2.2 General Description of E.U.T.

Name: Portable Audio Receiver
Model No.: BR-C2
Trade Mark: AUKEY
Operating Frequency: 2402 MHz to 2480 MHz for Bluetooth.
Channels: 79 channels with 1MHz step for Bluetooth
Type of Modulation: GFSK, ($\pi/4$) DQPSK, 8DPSK
Antenna Reference: PCB antenna with 0dBi peak Gain
Function: Portable Audio Receiver

2.3 Details of E.U.T.

EUT Power Supply: DC 4.2V, 170mAh Battery
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 ($\pi/4$)DQPSK and 8DPSK, compliance test and record the worst case on ($\pi/4$)DQPSK and 8DPSK

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 SAR 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 Maximum Peak Output Power

BT

Normal mode(DH5):		
Test Channel	Fundamental Frequency (MHz)	Output Power (dBm)
Lowest	2402	3.160
Middle	2441	4.290
Highest	2480	5.180
EDR mode(2DH5):		
Test Channel	Fundamental Frequency (MHz)	Output Power (dBm)
Lowest	2402	0.840
Middle	2441	2.545
Highest	2480	3.198
EDR mode(3DH5):		
Test Channel	Fundamental Frequency	Output Power (dBm)
Lowest	2402	1.146
Middle	2441	2.841
Highest	2480	3.486

3.1.3 EUT RF Exposure

$$P_d = PG / 4 \pi R^2$$

P_d = power density in mW/cm²

P = output power to antenna in mW

G = gain of antenna in linear scale

$$\pi = 3.1416$$

R = distance between observation point and center of the radiator in cm

FREQUENCY BAND (MHz)	MAX POWER (dBm)	MAX POWER (mW)	ANTENNA GAIN	DISTANCE (cm)	POWER DENSITY (mW/cm ²)	LIMIT (mW/cm ²)
BT	5.18	3.30	1	20	0.00066	1

--END--