



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

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RF Exposure Evaluation Report

Report No.: CQASZ20260100192E-02
Applicant: Fuzhou Aikexun Electronics Co., Ltd.
Address of Applicant: 16F Bldg E, Fuzhou Qinghua Unigroup Science and Technology Park, No. 30, Wulongjiangnan Road, Shangjie, Minhou, Fuzhou, Fujian China
Equipment Under Test (EUT):
EUT Name: Digital clock with bluetooth speaker
Model No.: AN0452U-W, AN0452U-B
Test Model No.: AN0452U-W
Brand Name: Hoifen
FCC ID: 2BUMC-AN0452U
Standards: 47 CFR Part 1.1307
47 CFR Part 1.1310
KDB447498 D01 General RF Exposure Guidance v06
Date of Receipt: 2026-01-23
Date of Test: 2026-01-23 to 2026-02-03
Date of Issue: 2026-2-6
Test Result: **PASS***

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

Tested By: Lewis Zhou
(Lewis Zhou)

Reviewed By: Timo Lei
(Timo Lei)

Approved By: Jack Ai
(Jack Ai)



1 Version

Revision History Of Report

Report No.	Version	Description	Issue Date
CQASZ20260100192E-02	Rev.01	Initial report	2026-2-6

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3 General Information

3.1 Client Information

Applicant:	Fuzhou Aikexun Electronics Co., Ltd.
Address of Applicant:	16F Bldg E, Fuzhou Qinghua Unigroup Science and Technology Park, No. 30, Wulongjiangnan Road, Shangjie, Minhou, Fuzhou, Fujian China
Manufacturer:	Fuzhou Aikexun Electronics Co., Ltd.
Address of Manufacturer:	16F Bldg E, Fuzhou Qinghua Unigroup Science and Technology Park, No. 30, Wulongjiangnan Road, Shangjie, Minhou, Fuzhou, Fujian China
Factory:	Fuzhou Aikexun Electronics Co., Ltd.
Address of Factory:	16F Bldg E, Fuzhou Qinghua Unigroup Science and Technology Park, No. 30, Wulongjiangnan Road, Shangjie, Minhou, Fuzhou, Fujian China

3.2 General Description of EUT

Product Name:	Digital clock with bluetooth speaker
Model No.:	AN0452U-W, AN0452U-B
Test Model No.:	AN0452U-W
Trade Mark:	Hoifen
Hardware Version:	V1.0
Software Version:	V1.0
Operation Frequency:	2402MHz~2480MHz
Bluetooth Version:	V5.3
Modulation Technique:	Frequency Hopping Spread Spectrum(FHSS)
Modulation Type:	GFSK, $\pi/4$ DQPSK, 8DPSK
Transfer Rate:	1Mbps/2Mbps/3Mbps
Number of Channel:	79
Hopping Channel Type:	Adaptive Frequency Hopping systems
Product Type:	☒ Mobile ☐ Portable ☐ Fix Location
Test Software of EUT:	FCC Assist 1.0.2.2
Antenna Type:	PCB antenna
Antenna Gain:	0dBi
Power Supply:	Charge by DC 9V for adapter

4 RF Exposure Evaluation

4.1 RF Exposure Compliance Requirement

4.1.1 Limits

According to FCC Part1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in part1.1307(b)

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3–3.0	614	1.63	*(100)	6
3.0–30	1842/f	4.89/f	*(900/f ²)	6
30–300	61.4	0.163	1.0	6
300–1500			f/300	6
1500–100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f ²)	30
30–300	27.5	0.073	0.2	30
300–1500			f/1500	30
1500–100,000			1.0	30

F= Frequency in MHz

Friis Formula

Friis transmission formula: $P_d = (P_{out} * G) / (4 * \pi * R^2)$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

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

P_d is the limit of MPE, 1 mW/cm². If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

4.1.2 Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

4.2 1.1.3 EUT RF Exposure Evaluation

1) For BT

Antenna Gain: 0dBi

Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1 in linear scale.

Output Power Into Antenna & RF Exposure Evaluation Distance:

Measurement Data

GFSK mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2402MHz)	1.72	2.0±1	3	2.00
Middle(2441MHz)	2.66	3.0±1	4	2.51
Highest(2480MHz)	1.78	2.0±1	3	2.00
π/4DQPSK mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2402MHz)	1.23	1.5±1	2.5	1.78
Middle(2441MHz)	2.06	2.5±1	3.5	2.24
Highest(2480MHz)	1.31	1.5±1	2.5	1.78
8DPSK mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2402MHz)	1.43	1.5±1	2.5	1.78
Middle(2441MHz)	2.46	2.5±1	3.5	2.24
Highest(2480MHz)	1.73	2.0±1	3	2.00

The worst case:

Maximum tune-up Power (mW)	Antenna Gain (dBi)	Power Density at R = 20 cm (mW/cm ²)	Limit	Result
2.51	0	0.0004997228	1.0	PASS

Note: 1) Refer to report No. CQASZ20260100192E-01 for EUT test Max Conducted Peak Output Power value.

2) $P_d = (P_{out} * G) / (4 * \pi * R^2) = (2.51 * 1) / (4 * 3.1416 * 20^2) = 0.0004997228$

Simultaneous transmission:

BT+WPT:

=0.0004997228 /1+0.0558/1.63

=0.0347328516343558 $\leq$ 1

*** END OF REROPT ***