

# Test Report

**Report No.:** MTi220225003-01E2

**Date of issue:** 2022-04-26

**Applicant:** Edifier International Limited

**Product:** Active Speaker

**Model(s):** EDF100012

**FCC ID:** Z9G-EDF179

Shenzhen Microtest Co., Ltd.  
<http://www.mtitest.com>

## Instructions

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2. The test results in this test report are only responsible for the samples submitted
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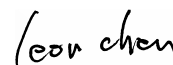
<b>Test Result Certification</b>	
<b>Applicant:</b>	<b>Edifier International Limited</b>
Address:	P.O. Box 6264 General Post Office Hong Kong
<b>Manufacturer:</b>	<b>Beijing Edifier Technology Co., Ltd.</b>
Address:	8th floor, ZuoAn Building, NO.68 BeiSiHuanXiLu, Haidian District, Beijing 100080, CHINA
<b>Factory:</b>	<b>Dongguan Edifier Technology Co., Ltd.</b>
Address:	No.2 Gongyedong Road, Songshan Lake Sci&Tech Industry Park, Dongguan, Guangdong 523808, PR.China
<b>Product description</b>	
Product name:	Active Speaker
Trademark:	EDIFIER
Model name:	EDF100012
Serial Model:	N/A
Standards:	FCC CFR 47 PART 1, § 1.1310
Test method:	KDB 447498 D01 v06
<b>Date of Test</b>	
Date of test:	2022-03-04 ~ 2022-03-19
Test result:	Pass

**Test Engineer :**



(Danny Xu)

**Reviewed By: :**



(Leon Chen)

**Approved By: :**



(Tom Xue)

# 1 RF exposure

## 1.1 Requirement

§1.1310 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 §1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of FCC part 2.1093 of this chapter.

**Table 1 to §1.1310(e)(1) - Limits for Maximum Permissible Exposure (MPE)**

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
<b>(i) Limits for Occupational/Controlled Exposure</b>				
0.3-3.0	614	1.63	*(100)	≤6
3.0-30	1842/f	4.89/f	*(900/f <sup>2</sup> )	<6
30-300	61.4	0.163	1.0	<6
300-1500			f/300	<6
1500-100000			5	<6
<b>(ii) Limits for General Population/Uncontrolled Exposure</b>				
0.3-1.34	614	1.63	*(100)	<30
1.34-30	824/f	2.19/f	*(180/f <sup>2</sup> )	<30
30-300	27.5	0.073	0.2	<30
300-1500			f/1500	<30
1500-100000			1.0	<30

f = frequency in MHz

\* = Plane-wave equivalent power density

**Note 1:** Occupational/controlled exposure limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure.

**Note 2:** General population/uncontrolled exposure limits apply in situations in which the general public may be exposed, or in which persons who are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

## 1.2 Equations

Power density is given by:

$$PD = EIRP / (4 * \pi * D^2)$$

Where:

PD = Power density in mW/cm<sup>2</sup>

EIRP = equivalent isotropic radiated power in mW

P = output power to antenna in mW

G = antenna gain (numeric)

D= Separation distance in cm

Distance is given by:

$$D = \text{SQRT} (EIRP / (4 * \pi * S))$$

Where:

D= Separation distance in cm

EIRP = equivalent isotropic radiated power in mW

S = power density in mW/cm<sup>2</sup>

## 1.3 RF exposure results

Mode	Chanel	Conducted output power	Tune-up power dBm	Max tune-up power dBm	Antenna gain	Separation distance	Power density	Power density Limit
	MHz	dBm	dBm	dBm	dBi	cm	mW/cm <sup>2</sup>	mW/cm <sup>2</sup>
Bluetooth GFSK	2402	-3.99	-3±1	-2	2.59	20	0.0002	1
	2441	-3.7	-3±1	-2	2.59	20	0.0002	1
	2480	-3.13	-3±1	-2	2.59	20	0.0002	1
Bluetooth Π/4DQPSK	2402	-3.16	-3±1	-2	2.59	20	0.0002	1
	2441	-2.79	-3±1	-2	2.59	20	0.0002	1
	2480	-2.33	-3±1	-2	2.59	20	0.0002	1

### Notes:

Power density = Max tune-up power (mW) \* antenna gain (numeric) / (4 \* Pi \* separation distance<sup>2</sup> (cm))

Max tune-up power (mW) = 10<sup>^(Max tune-up power (dBm) / 10)</sup>

Antenna gain (numeric) = 10<sup>^(antenna gain (dBi) / 10)</sup>

----End of Report----