

TEST REPORT

Product Name : CozyAir A3 humidifier
Brand Mark : CozyAir
Model No. : A1320
FCC ID : 2A259-A1320
Report Number : BLA-EMC-202109-A2404
Date of Sample Receipt : 2021/9/6
Date of Test : 2021/9/6 to 2021/10/14
Date of Issue : 2021/10/14
Test Standard : 47 CFR Part 1.1310, Part 2.1093,
KDB 447498
Test Result : Pass

Prepared for:

Beijing Miaoxin Technology Co., Ltd.
022, 1st floor, East Annex Building, Beipu Factory (118 Zhongguancun East Road), West Academy of Agricultural Sciences, Dazhongsu No.2 Food Factory, Haidian District, Beijing City

Prepared by:

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2021/10/14



REPORT REVISE RECORD

Version No.	Date	Description
00	2021/10/14	Original

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1 TEST SUMMARY

Test item	Test Requirement	Test Method	Class/Severity	Result
RF Exposure	47 CFR Part 1.1310, Part 2.1093, KDB 447498	CFR 47 Part 2.1093	CFR 47 Part 2.1093	PASS

2 GENERAL INFORMATION

Applicant	Beijing Miaoxin Technology Co., Ltd.
Address	022, 1st floor, East Annex Building, Beipu Factory (118 Zhongguancun East Road), West Academy of Agricultural Sciences, Dazhongsi No.2 Food Factory, Haidian District, Beijing City
Manufacturer	Beijing Miaoxin Technology Co., Ltd.
Address	022, 1st floor, East Annex Building, Beipu Factory (118 Zhongguancun East Road), West Academy of Agricultural Sciences, Dazhongsi No.2 Food Factory, Haidian District, Beijing City
Factory	Dongguan JingNuo Environment Science and Technology Inc.
Address	#2 Limin Road, JinXiaoTang, ZhuTang, FengGang, DongGuan, GuangDong, China
Product Name	CozyAir A3 humidifier
Test Model No.	A1320

3 TEST MODE

TEST MODE	TEST MODE DESCRIPTION
TX	Keep the EUT in transmitting mode
Remark: Only the data of the worst mode would be recorded in this report.	

4 LABORATORY LOCATION

All tests were performed at:
BlueAsia of Technical Services(Shenzhen) Co., Ltd.
Building C, No. 107, Shihuan Road, Shiyuan Sub-District, Baoan District, Shenzhen, Guangdong Province, China
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No tests were sub-contracted.

5 RF EXPOSURE EVALUATION

5.1 RF EXPOSURE COMPLIANCE REQUIREMENT

5.2 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

$\pi = 3.1416$

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.

5.3 TEST PROCEDURE

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

5.4 EUT RF EXPOSURE EVALUATION

Antenna Gain: BT/2.4G WIFI:3.68dBi

Output Power Into Antenna & RF Exposure Evaluation Distance:

BT: 8-DPSK

Channel	Frequency (MHz)	Max Conducted Peak Output Power (dBm)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm ²)	Limit	Result
middle	2441	3.149	2.06	0.00096	1.0	PASS

2.4G WIFI: 802.11b

Channel	Frequency (MHz)	Max Conducted Peak Output Power (dBm)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm ²)	Limit	Result
highest	2462	13.636	23.10	0.01072	1.0	PASS

Note: Refer to report No. BLA-EMC-202109-A24-02/03 for EUT test Max Conducted Peak Output Power value.

The distance r (4th column) calculated from the Fries transmission formula is far greater than 20 cm separation Requirement

----END OF REPORT----

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