

Delos Living LLC

MPE ASSESSMENT REPORT

Report Type:

FCC Part §2.1091, §2.1093 and §1.1307(b) assessment report

Model:

WA280

REPORT NUMBER:

230800860SHA-004

ISSUE DATE:

August 19, 2024

DOCUMENT CONTROL NUMBER:

TTRFFCCMPE-01_V1 © 2018 Intertek



Applicant: Delos Living LLC
860 Washington St. – 4th Floor, New York, NY 10014, US

Manufacturer: Shenzhen Hiso Medical Technology Co., Ltd.
A1109, Block A, Rongchao Yinglong Building, Longfu Road, Shangjing
Community, Longcheng Street, Longgang District, Shenzhen, China

Manufacturer Site: SHENZHEN DINGXIN TECHNOLOGY CO., LTD
201, Building F, No. 9, Gelan Road, Dahe Community, Guanhu Street,
Longhua District, Shenzhen, China

Product Name: Air purifier

Type/Model: WA280

FCC ID: 2BCO6-WA280

SUMMARY:

The equipment complies with the requirements according to the following standard(s) or Specification:

KDB447498 D01 General RF Exposure Guidance v06
FCC Part2.1091, FCC Part2.1093 FCC Part1.1307(b)

PREPARED BY:



Project Engineer
Dylan Tang

REVIEWED BY:



Reviewer
Wakeyou Wang

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Revision History

| Report No. | Version | Description | Issued Date |
|------------------|---------|-------------------------|-----------------|
| 230800860SHA-004 | Rev. 01 | Initial issue of report | August 19, 2024 |
| | | | |
| | | | |

1 GENERAL INFORMATION

1.1 Description of Equipment Under Test (EUT)

| | |
|----------------------------|---|
| Product name: | Air purifier |
| Type/Model/PMN/HVIN: | WA280 |
| Description of EUT: | The EUT is Air purifier, it supports Thread and 60G Radar functions, there is only one model. we test them and list the worst results in this report. |
| Rating: | DC 12V, 15W Input: 120VAC, 60Hz 1.5A Output: Type-C 5.0V === 3.0A, 9.0V === 2.2A, 12.0V === 1.7A 20W max |
| EUT type: | <input checked="" type="checkbox"/> Table top <input type="checkbox"/> Floor standing |
| Software Version: | V1.0.5 |
| Hardware Version: | V1.2 |
| Sample Identification No.: | 0231226-05-001(for radiation sample), 0231226-05-002(for conduction sample) |
| Sample received date: | August 25, 2023 |
| Date of test: | August 25, 2023 ~ November 20, 2023 |

1.2 Technical Specification

| | |
|----------------------|---------------------|
| Frequency Range: | 2405-2480MHz |
| Support Standards: | IEEE 802.15.4 |
| Type of Modulation: | DSSS-OQPSK |
| Channel Number: | 16 |
| Data Rate: | 250kbps |
| Antenna Information: | 0.5dBi, PCB antenna |

| | |
|----------------------|---------------------|
| Frequency Range: | 57000MHz ~ 62000MHz |
| Type of Modulation: | FMCW |
| Channel Number: | 1 |
| Antenna Information: | Plate patch antenna |

1.3 Description of Test Facility

| | |
|------------|--|
| Name: | Intertek Testing Services (Shanghai FTZ) Co., Ltd. |
| Address: | Building 86, No. 1198 Qinzhou Road(North), Shanghai 200233, P.R. China |
| Telephone: | 86 21 61278200 |
| Telefax: | 86 21 54262353 |

| | |
|---|---|
| The test facility is recognized, certified, or accredited by these organizations: | CNAS Accreditation Lab Registration No. CNAS L21189 |
| | FCC Accredited Lab Designation Number: CN0175 |
| | IC Registration Lab CAB identifier.: CN0014 |
| | VCCI Registration Lab Registration No.: R-14243, G-10845, C-14723, T-12252 |
| | A2LA Accreditation Lab Certificate Number: 3309.02 |

2 MPE Assessment

Test result: Pass

2.1 MPE Assessment Limit

Mobile device exposure for standalone operations:

| Frequency range | E-field strength (V/m) | H-field strength (A/m) | B-field (uT) | Equivalent plane wave power density S_{eq} (W/m ²) |
|-----------------|------------------------|------------------------|---------------------|--|
| 0-1 Hz | - | $3,2 \times 10^4$ | 4×10^4 | - |
| 1-8 Hz | 10 000 | $3,2 \times 10^4/f^2$ | $4 \times 10^4/f^2$ | - |
| 8-25 Hz | 10 000 | $4\,000/f$ | $5\,000/f$ | - |
| 0,025-0,8 kHz | $250/f$ | $4/f$ | $5/f$ | - |
| 0,8-3 kHz | $250/f$ | 5 | 6,25 | - |
| 3-150 kHz | 87 | 5 | 6,25 | - |
| 0,15-1 MHz | 87 | $0,73/f$ | $0,92/f$ | - |
| 1-10 MHz | $87/f^{1/2}$ | $0,73/f$ | $0,92/f$ | - |
| 10-400 MHz | 28 | 0,073 | 0,092 | 2 |
| 400-2 000 MHz | $1,375 f^{1/2}$ | $0,0037 f^{1/2}$ | $0,0046 f^{1/2}$ | $f/200$ |
| 2-300 GHz | 61 | 0,16 | 0,20 | 10 |

Mobile device exposure for simultaneous transmission operations: **the sum of the MPE ratios for all simultaneously transmitting antennas incorporated in a host device is ≤ 1.0**

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2.2 Assessment Results

Power density (S) is calculated according to the formula:

$$S = PG / (4\pi R^2)$$

Where S = power density in mW/cm²

P = Radiated transmit power in mW

G = numeric gain of transmit antenna

R = distance (cm)

As we can see from the test report: 230800860SHA-001&230800860SHA-002.

The calculations in the table below use the highest gain of antenna for client EUT. These calculations represent worst case in terms of the exposure levels.

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| Frequency band | Power | | Antenna Gain | | R | S | Limits |
|----------------|---------|-------|--------------|-----------|------|----------|----------|
| (MHz) | dBm | mW | dBi | (Numeric) | (cm) | (mW/cm2) | (mW/cm2) |
| 2405 – 2480 | 5.96 | 3.94 | 0.5 | 1.12 | 20 | 0.0009 | 1 |
| 57000 - 62000 | -10.261 | 0.094 | 10 | 10 | 20 | 0.00019 | 1 |

Note: 1 mW/cm2 from 1.310 Table 1.

2.4G Thread and 60G Radar can simultaneous transmitting, so the maximum rate of MPE is, $0.0009/1+0.00019/1=0.00109\leq 1.0$.

Appendix I

Definition below must be outlined in the User Manual:

To satisfy FCC RF exposure requirements, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during device operation.
To ensure compliance, operations at closer than this distance is not recommended.

*****END*****