

RF Exposure Evaluation Report

Product	: AirWave Smart Roasting Purifier
Trade mark	: DiFluid
Model/Type reference	: DFT-SF101-USL, DFT-SF101-USL
Serial Number	: N/A
Report Number	: EED32R80965202
FCC ID	: 2A26IDFT-SF101-US
Date of Issue	: Jun. 26, 2025
Test Standards	: 47 CFR Part 1.1307 47 CFR Part 1.1310 47 CFR Part 2.1091(mobile devices) 47 CFR Part 2.1093(portable devices) KDB 447498 D04 Interim General RF Exposure Guidance v01
Test result	: PASS

Prepared for:

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2 General Information

2.1 Client Information

Applicant:	Shenzhen Digitizing Fluid Technology Co., Ltd.
Address of Applicant:	Room 1602, Jinhua building, Taoxia Village, Taoyuan Community, Dalang Street, Longhua District, Shenzhen, 518109, China
Manufacturer:	Shenzhen Digitizing Fluid Technology Co., Ltd.
Address of Manufacturer:	Room 1602, Jinhua building, Taoxia Village, Taoyuan Community, Dalang Street, Longhua District, Shenzhen, 518109, China
Factory:	Shenzhen Digitizing Fluid Technology Co., Ltd.
Address of Factory:	Room 1602, Jinhua building, Taoxia Village, Taoyuan Community, Dalang Street, Longhua District, Shenzhen, 518109, China

2.2 General Description of EUT

Product Name:	AirWave Smart Roasting Purifier
Model No.:	DFT-SF101-USL, DFT-SF101-USL
Test Model No.:	DFT-SF101-USL
Trade mark:	DiFluid

2.3 Product Specification subjective to this standard

Frequency Range:	2402MHz~2480MHz
Modulation Type:	GFSK
Test Power Grade:	Default
Test Software of EUT:	ESP32-S3
Antenna Type:	FPC Antenna
Antenna Gain:	3.21dBi
Power Supply:	AC 120V
Sample Received Date:	Jun. 18, 2025
Sample tested Date:	Jun. 18, 2025 to Jun. 20, 2025
Remark:	Model No.: DFT-SF101-USL, DFT-SF101-USL Only the model DFT-SF101-USL was tested, since the electrical circuit design, layout, components used and internal wiring were identical for the above models, with External protection switches and AC wiring are different for marketing requirements.

2.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Hongwei Industrial Park, Zone 70, Bao'an District, Shenzhen, Guangdong, China

Telephone: +86 (0) 755 33683668 Fax:+86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

2.5 Deviation from Standards

None.

2.6 Abnormalities from Standard Conditions

None.

2.7 Other Information Requested by the Customer

None.

3 SAR Evaluation

3.1 RF Exposure Compliance Requirement

3.1.1 Limits

The SAR-based exemption formula of § 1.1307(b)(3)(i)(B), repeated here as Formula (B.2), applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold P_{th} (mW).

This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). P_{th} is given by Formula

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}}(d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases}$$

where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

and f is in GHz, d is the separation distance (cm), and $ERP_{20\text{cm}}$ is per Formula (B.1).

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B.1})$$

The 1 mW Blanket Exemption of § 1.1307(b)(3)(i)(A) applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power of no more than 1 mW, regardless of separation distance.

3.1.2 Test Procedure

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

3.1.3 EUT RF Exposure Evaluation**For Stand alone:**

Frequency (MHz)	Estimation distance (cm)	Max. Conducted Output power (dBm)	Antenna Gain (dBi)	ERP (dBm)	ERP (mW)	Limit (mW)	MPE ratio
@2.4GHz	20	3.45	3.21	4.51	2.8249	3060	0.0009

Note:

- ①EIRP=conducted power+antenna gain;
- ②ERP=EIRP-2.15;
- ③EIRP(dBm) = Field strength of the fundamental signal(dBuV/m@3m) – 95.23;
- ④ERP(mW) = $10^{(ERP\ (dBm)/10)}$;
- ⑤The estimation distance is 0.5cm.
- ⑥The test data please refer to the report of EED32R80965201 and only the worst case data was recorded in the report.

Statement

1. This report is considered invalid without approved signature, special seal and the seal on the perforation;
2. The Company Name shown on Report and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified;
3. The result(s) shown in this report refer(s) only to the sample(s) tested;
4. Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule stated in ILAC-G8:09/2019/CNAS-GL015:2022;
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*** End of Report ***