



TEST REPORT

Applicant : Shenzhen Dazhi Technology Co., Ltd.
Floor 3 & 4, Building F, Huangpu Runhe Industrial Park, No.1Zhentou
Address : Road, Shajing Street, Bao'an District, Shenzhen City, Guangdong
Province
Manufacturer : Shenzhen Dazhi Technology Co., Ltd.
Floor 3 & 4, Building F, Huangpu Runhe Industrial Park, No.1Zhentou
Address : Road, Shajing Street, Bao'an District, Shenzhen City, Guangdong
Province
Product Name : Aroma Diffuser
Model Number : THEPLUG-IN ThePlug-In, The Plug-In, Plug-In, WD100
Test Model : THEPLUG-IN
Trademark : N/A
FCC ID : 2BSFY- THEPLUG-IN
Test Date : June 10, 2026 - June 15, 2026
Date of Report : June 15, 2026
Test Result : This device described above has been tested by BKC, and the test results show that the equipment under test (EUT) is in compliance with the FCC CFR Title 47 Part 15 Subpart C Section 15.247 requirements. And it is applicable only to the tested sample identified in the report.

Test Procedure Used:

Standards : FCC CFR Title 47 Part 15 Subpart C Section 15.247
ANSI C63.10-2020+Cor.1-2023

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Reviewer(Supervisor):
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Approved(Manager):
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1. General Information

1.1. Description of Device (EUT)

EUT Name	: Aroma Diffuser
Model No.	: THEPLUG-IN ThePlug-In, The Plug-In, Plug-In, WD100
Model Difference	: Only the model name differs, but all other aspects are the same. The main tested model is THEPLUG-IN.
Power supply	: Input: AC 100-240V, 50/60Hz, 30mA
Operation frequency	: 2412MHz-2462MHz
Max. RF output power:	: 11.29 dBm
Modulation	: 802.11b: Direct Sequence Spread Spectrum(DSSS) 802.11g/802.11n(H20) Orthogonal Frequency Division Multiplexing(OFDM)
Antenna Type	: PCB antenna, Maximum Gain is 3.16dBi
Intend use environment	: Residential, commercial and light industrial environment
Testing sample ID	: BKC26063170FE-1# (Engineer sample) BKC26063170FE-2# (Normal sample)

2. RF Exposure Evaluation

According to KDB 447498 D01 General RF Exposure Guidance v06 and part 2.1091, Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Test Exclusion Threshold condition(s), listed below, is (are) satisfied.

Limits

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)

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 transmission formula: $Pd = (Pout \cdot G) / (4 \cdot \pi \cdot r^2)$

Where

Pd = power density in mW/cm², **Pout** = 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

Pd 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.

Test Procedure

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

IC RF Exposure Evaluation

Limits

According to RSS-102 issue 6 December 2023

Transmitters are exempt from routine SAR and RF exposure evaluations provided that they comply with the requirements of sections 6.3 or 6.6.

6.3. SAR exemption limits

Devices operating at or below the applicable output power levels (adjusted for tune-up tolerance) specified in table 11, based on the separation distance, are exempt from SAR evaluation. The separation distance, defined as the distance between the user and/or bystander and the antenna and/or radiating element of the device or the outer surface of the device, shall be less than or equal to 20 cm for these exemption limits to apply.

Table 11: Power limits for exemption from routine SAR evaluation based on the separation distance

Frequency (MHz)	≤ 5 mm (mW)	10 mm (mW)	15 mm (mW)	20 mm (mW)	25 mm (mW)	30 mm (mW)	35 mm (mW)	40 mm (mW)	45 mm (mW)	> 50 mm (mW)
≤ 300	45	116	139	163	189	216	246	280	319	362
450	32	71	87	104	124	147	175	208	248	296
835	21	32	41	54	72	96	129	172	228	298
1900	6	10	18	33	57	92	138	194	257	323
2450	3	7	16	32	56	89	128	170	209	245
3500	2	6	15	29	50	72	94	114	134	158
5800	1	5	13	23	32	41	54	74	102	128

6.6. Field reference level exposure exemption limits

Field reference level (FRL) exposure evaluation is required if the separation distance between the user and/or bystander and the device's radiating element is greater than 20 cm (i.e. mobile devices), except when the device operates as follows:

- below 20 MHz and the source-based, time-averaged maximum EIRP of the device is equal to or less than 1 W (adjusted for tune-up tolerance)
- at or above 20 MHz and below 48 MHz and the source-based, time-averaged maximum EIRP of the device is equal to or less than $4.49/f^{0.5}$ W (adjusted for tune-up tolerance), where f is in MHz
- at or above 48 MHz and below 300 MHz and the source-based, time-averaged maximum EIRP of the device is equal to or less than 0.6 W (adjusted for tune-up tolerance)
- at or above 300 MHz and below 6 GHz and the source-based, time-averaged maximum EIRP of the device is equal to or less than $1.31 \times 10^{-2} f^{0.6834}$ W (adjusted for tune-up tolerance), where f is in MHz
- at or above 6 GHz and the source-based, time-averaged maximum EIRP of the device is equal to or less than 5 W (adjusted for tune-up tolerance)

In these cases, the information contained in the RF exposure technical brief may be limited to information that demonstrates how the EIRP was derived.

Test Result of RF Exposure Evaluation

IC RF Exposure Evaluation

The following table data is calculated based on Chapter 6.6

Test Result of RF Exposure Evaluation

Manufacturing tolerance

Mode	Max Conducted Output Power (dBm)	tune-up	Max. tune-up
2.4GWIFI	11.29	11±1	12

2.4GWiFi mode

FCC RF Exposure Evaluation

Antenna Gain (dBi)	Antenna Gain (numeric)	Max conducted power (dBm)	Output power to antenna (mW)	Power Density at R=20cm (mW/cm2)	Limit (mW/cm2)	Result
3.16	2.07	12	15.85	0.00653	1	PASS

Remark: 2.4G WIFI antenna gain=3.16 dBi