

Maximum Permissible Exposure Evaluation

FCC ID: 2AWMT-2S

1. Client Information

Applicant	:	SHENZHEN KECHAODA TECHNOLOGY CO., LTD.
Address	:	2nd Floor, 5th Building, Block B, Shenzhen Software Industry Base, Nanshan district, Shenzhen, China
Manufacturer	:	SHENZHEN KECHAODA TECHNOLOGY CO., LTD.
Address	:	Room 401 of Plant 4, Hongxin Industrial Park, No. 1303, Guanguang Road, Xinlan Community, Guanlan Street, Longhua District, Shenzhen City, Guangdong Province, China

2. General Description of EUT

EUT Name	:	air purifier
Models No.	:	2S / 3 / Pro / Pro H / MAX / MINI / 2S Pro / 3S / 3S pro / 3 Plus
Model Different	:	All these models are in the same PCB, layout and electrical circuit, the only difference is appearance and color.
Product Description	Operation Frequency:	Bluetooth 5.0: 2402~2480 MHz
	RF Output Power:	Bluetooth: 2.371dBm(8-DPSK)
	Antenna Gain:	0dBi PCB Antenna
Power Rating	:	Adapter(KDP-AG120300U): Input: AC 100-240V, 50/60Hz, 1.5A Output: DC 12V, 3A
Software Version	:	V1.0
Hardware Version	:	V2
Connecting Port(S)	I/O :	Please refer to the User's Manual

Note: More test information about the EUT please refer the RF Test Report.

MPE Calculations for WIFI

1. Antenna Gain:

PCB Antenna: 0dBi.

Max RF Output Power: 2.371dBm(8-DPSK)

2. EUT Operation Condition:

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

3. Exposure Evaluation:

Equation from page 18 of OET Bulletin 65, Edition 97-01

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

Where

S: power density

P: power input to the antenna

G: power gain of the antenna in the direction of interest relative to an isotropic radiator.

R: distance to the center of radiation of the antenna

4. Test Result:

Mode	Conducted Power(max) (dBm)	Turn-up Power (dB)	Max tune up power (dBm) [P]	ANT Gain (dBi) [G]	Distance (cm) [R]	Power Density (mW/ cm ²) [S]
8-DPSK	2.371	2.371±1	3	0	20	0.0004

5. Conclusion:

As specified in Table 1B of 47 CFR 1.1310- Limits for Maximum Permissible Exposure (MPE),

Limits for General Population/ Uncontrolled Exposure

Frequency Range (MHz)	Power density (mW/ cm ²)
300-1,500	F/1500
1,500-100,000	1.0

MPE limit S: 1mW/ cm²

The MPE is calculated as $0.0004 \text{ mW} / \text{cm}^2 < \text{limit } 1 \text{ mW} / \text{cm}^2$. So, RF exposure limit warning or SAR test are not required.

The EUT will only be used with a separation of 20cm or greater between the antenna and nearby persons and can therefore be considered a mobile transmitter per 47 CFR2.1091 (b).

The RF Exposure Information page from the manual is included here for reference.

Note

For a more detailed features description, please refer to the RF Test Report.

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