

MPE TEST REPORT

Report No.: SHE22060090-02FE

Date: 2022-07-28

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Applicant : Home Tech Innovation, Inc
Address of Applicant : 1035 Cambridge St, Suite 11A, Cambridge, MA 02141

Product Name : Suvie Kitchen Robot
Brand Name : Suvie
Model No. : SV301
Sample No. : E22060090-01#01
E22060090-02#01

FCC ID : 2AT2K-SV301

Standard : FCC Part 2.1091

Date of Receipt : 2022-07-11
Date of Test : 2022-07-11 ~ 2022-07-27
Date of Issue : 2022-07-28

Remark:

This report details the results of the testing carried out on one sample, the results contained in this report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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1 General Information

1.1 Testing Laboratory

Company Name	ICAS Testing Technology Service (Shanghai) Co., Ltd.
Address	No.1298, Pingan Road, Minhang District, Shanghai, China
Telephone	0086 21-51682999
Fax	0086 21-54711112
Homepage	www.icasiso.com

1.2 Environmental conditions

Temperature (°C)	18-25
Humidity (%RH)	40-65
Barometric Pressure (mbar)	960-1060
Ambient noise & Reflection (W/kg)	< 0.012

1.3 Details of Application

Applicant Company Name	Home Tech Innovation, Inc
Address	1035 Cambridge St, Suite 11A, Cambridge, MA 02141
Contact Person	Kevin Incorvia
Telephone	+1 617 800 5336
Email	kincorvia@suvie.com
Manufacturer Company Name	Home Tech Innovation, Inc
Address	1035 Cambridge St, Suite 11A, Cambridge, MA 02141

1.4 Details of EUT

Product Name	Suvie Kitchen Robot
Brand Name	Suvie
Test Model No.	SV301
FCC ID	2AT2K-SV301
Mode of Operation	WLAN 802.11b/g/n(HT20/40); Bluetooth BR/EDR/BLE
Frequency Range	2400MHz ~ 2483.5MHz
Modulation Type	DSSS, OFDM, GFSK, $\pi/4$ -DQPSK, 8-DPSK
Antenna Type	PCB Antenna
Antenna Gain	3.42dBi

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2 Maximum Permissible Exposure (MPE)

2.1 Limits

According to FCC Part 1.1307, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the commission's guidelines.

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 Exposure				
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
300-1,500			f/300	6
1,500-100,000			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
300-1,500			f/1500	30
1,500-100,000			1.0	30

f = frequency in MHz * = Plane-wave equivalent power density

2.2 Assessment methods

Calculation Formula from FCC OET 65:

$$S = \frac{P * G}{4 * \pi * R^2}$$

Where:

S = Power Density (mW/cm²)

P = Input Power of the Antenna (mW)

G = Antenna Gain Relative to an Isotropic Antenna

R = Distance from the Antenna to the Point of Investigation (cm)

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2.3 Test Result

Operation Mode	Frequency Range (MHz)	Max Conducted Power (dBm)	Antenna Gain (dBi)	Max EIRP (mW)	Power Density at R = 20 cm (mW/cm ²)	Limit (mW/cm ²)
WLAN 2.4GHz	2400 ~ 2483.5	19.07	3.42	177.42	0.03530	1.0
Bluetooth	2400 ~ 2483.5	3.52	3.42	4.94	0.00098	1.0
BLE	2400 ~ 2483.5	1.15	3.42	2.86	0.00057	1.0

Note(s):

1. The device can not transmit with WIFI and BT simultaneously, so MPE is not evaluated in this configuration.
2. For 300 – 1,500MHz: Power Density limit is $f/1500$ mW/cm²
3. For 1,500 – 100,000MHz: Power Density limit is 1.0 mW/cm²

2.4 Conclusion

The Power Density at the position which is 20 cm far from the EUT is smaller than the General Population/Uncontrolled Exposure limit.

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3 Appendixes

3.1 Sample Photograph



Front of the sample



Rear of the sample

End of the report