

MPE TEST REPORT

Report No.: SHE21040017-02DE

Date: 2021-05-17

Page 2 of 6

Contents

1	GENERAL INFORMATION	3
1.1	TESTING LABORATORY	3
1.2	ENVIRONMENTAL CONDITIONS	3
1.3	DETAILS OF APPLICATION	3
1.4	DETAILS OF EUT	3
2	MAXIMUM PERMISSIBLE EXPOSURE (MPE).....	4
2.1	LIMITS	4
2.2	ASSESSMENT METHODS	4
2.3	TEST RESULT	5
2.4	CONCLUSION	5
3	APPENDIXES	6
3.1	SAMPLE PHOTOGRAPH.....	6

MPE TEST REPORT

Report No.: SHE21040017-02DE

Date: 2021-05-17

Page 3 of 6

1 General Information

1.1 Testing Laboratory

Company Name	ICAS Testing Technology Services (Shanghai) Co., Ltd.
Address	No.1298 Pingan Rd, 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

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	incorvia@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.	S020M
FCC ID	2AT2K-S020M
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	Internal Antenna
Antenna Gain	3.42 dBi

Note(s):

All applicable tests as described in test case and measurement sections were performed on model TC22H1.

MPE TEST REPORT

Report No.: SHE21040017-02DE

Date: 2021-05-17

Page 4 of 6

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 the 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)

MPE TEST REPORT

Report No.: SHE21040017-02DE

Date: 2021-05-17

Page 5 of 6

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	18.21	3.42	145.55	0.0290	1.0
Bluetooth	2400 ~ 2483.5	3.96	3.42	5.47	0.0011	1.0
BLE	2400 ~ 2483.5	1.06	3.42	2.81	0.0006	1.0

Note(s):

For 300 – 1,500MHz: Power Density limit is $f/1500$ mW/cm²

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.

MPE TEST REPORT

Report No.: SHE21040017-02DE

Date: 2021-05-17

Page 6 of 6

3 Appendixes

3.1 Sample Photograph



Front of the sample



Rear of the sample

End of the report