Tineco Intelligent Technology Co., Ltd.

MPE ASSESSMENT REPORT

Report Type:
FCC Part §2.1091 and §1.1307(b) assessment report

Model:
TD020200US

REPORT NUMBER:
240700373SHA-003

ISSUE DATE:
August 27, 2024

DOCUMENT CONTROL NUMBER:
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TEST REPORT

Report no.: 240700373SHA-003

Applicant:	**Tineco Intelligent Technology Co., Ltd.** **No. 108 Shi Hu Road (West), Wu Zhong Zone, Suzhou 215168**
Manufacturer:	**Tineco Intelligent Technology Co., Ltd.** **No. 108 Shi Hu Road (West), Wu Zhong Zone, Suzhou 215168**
Factory:	**Tineco Intelligent Technology Co., Ltd.** **No. 108 Shi Hu Road (West), Wu Zhong Zone, Suzhou 215168**
FCC ID:	**2AV7A-TD02**

SUMMARY:

The equipment complies with the requirements according to the following standard(s) or Specification:
KDB447498 D01 General RF Exposure Guidance v06 FCC Part2.1091, FCC Part1.1307(b)

PREPARED BY:	**REVIEWED BY:**
Project Engineer Eric Li	Reviewer Wakeyou Wang

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Revision History

Report No.	Version	Description	Issued Date
240700373SHA-003	Rev. 01	Initial issue of report	August 27, 2024

TEST REPORT

1 GENERAL INFORMATION

1.1 Description of Equipment Under Test (EUT)

Product name:	Smart Multi-Cooker
Type/Model:	TD020200US
Description of EUT:	The EUT is a Smart Multi-Cooker which supports WIFI and BLE functions, there is one model, we tested it and listed the worst results in this report.
Rating:	120VAC, 60Hz, Max.12.5A
EUT type:	Class B
Software Version:	☒ Table top ☐ Floor standing
Hardware Version:	/
Sample Identification No.:	/
Sample received date:	0240728-02-003
Date of test:	2024.07.28
	2024.07.28~2024.08.13

1.2 Technical Specification

Frequency Band:	2400MHz ~ 2483.5MHz
Support Standards:	IEEE 802.11b, IEEE 802.11g, IEEE 802.11n-HT20, IEEE 802.11n-HT40
Type of Modulation:	IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g: OFDM (64-QAM, 16-QAM, QPSK, BPSK) IEEE 802.11n-HT20: OFDM (64-QAM, 16-QAM, QPSK, BPSK) IEEE 802.11n-HT40: OFDM (64-QAM, 16-QAM, QPSK, BPSK)
Channel Number:	11 Channels for 802.11b, 802.11g and 802.11n(HT20) 7 Channels for 802.11n(HT40)
Channel Separation:	5 MHz
Antenna:	FPC Antenna, 1.11dBi

Frequency Band:	2402MHz to 2480MHz
Support Standards:	Bluetooth Low Energy
Type of Modulation:	GFSK
Data Rate:	1Mbps, 2Mbps
Channel Number:	40
Channel Separation:	2MHz
Antenna Information:	FPC Antenna, 1.11dBi, PCB Antenna, gain is 1.14dBi.

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1.3 Description of Test Facility

Name:	Intertek Testing Services (Shanghai FTZ) Co., Ltd.
Address:	Building 86, No. 1198 Qinzhou Road(North), Shanghai 200233, P.R. China
Telephone:	86 21 61278200
Telefax:	86 21 54262353

The test facility is recognized, certified, or accredited by these organizations:	CNAS Accreditation Lab Registration No. CNAS L21189
	FCC Accredited Lab Designation Number: CN0175
	IC Registration Lab CAB identifier.: CN0014
	VCCI Registration Lab Member No: 3598 (Registration No.: R-14243, G-10845, C-14723, T-12252)
	A2LA Accreditation Lab Certificate Number: 3309.02

2 MPE Assessment

Test result: Pass

2.1 MPE Assessment Limit

Mobile device exposure for standalone operations:

Frequency range	E-field strength (V/m)	H-field strength (A/m)	B-field (uT)	Equivalent plane wave power density S_{eq} (W/m^2)
0-1 Hz	-	$3,2 \times 10^4$	4×10^4	-
1-8 Hz	10 000	$3,2 \times 10^4/f^2$	$4 \times 10^4/f^2$	-
8-25 Hz	10 000	4 000/f	5 000/f	-
0,025-0,8 kHz	250/f	4/f	5/f	-
0,8-3 kHz	250/f	5	6,25	-
3-150 kHz	87	5	6,25	-
0,15-1 MHz	87	0,73/f	0,92/f	-
1-10 MHz	$87/f^{1/2}$	0,73/f	0,92/f	-
10-400 MHz	28	0,073	0,092	2
400-2 000 MHz	$1,375\ f^{1/2}$	$0,0037\ f^{1/2}$	$0,0046\ f^{1/2}$	f/200
2-300 GHz	61	0,16	0,20	10

Mobile device exposure for simultaneous transmission operations: **the sum of the MPE ratios for all simultaneously transmitting antennas incorporated in a host device is ≤ 1.0**

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2.2 Assessment Results

Power density (S) is calculated according to the formula:

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

Where S = power density in mW/cm^2

P = Radiated transmit power in mW

G = numeric gain of transmit antenna

R = distance (cm)

As we can see from the test report 240700373SHA-001, 240700373SHA-002:

The calculations in the table below use the highest gain of antenna for client EUT. These calculations represent worst case in terms of the exposure levels.

Mode	Frequency band	Max Power	Antenna Gain	R	S	Limits
	(MHz)	dBm	dBi	(cm)	(mW/cm2)	(mW/cm2)
WIFI	2412-2462	16.49	1.11	20	0.0115	1
Bluetooth	2402-2480	5.39	1.11	20	0.0009	1
	2402-2480	7.15	1.14	20	0.0013	1

Note: 1 mW/cm2 from 1.310 Table 1

For simultaneous transmission operations: the sum of the MPE ratios for all simultaneously transmitting antennas incorporated in a host device is 0.0115/1+0.0009/1+0.0013/1+0.0013/1= 0.015 ⩽ 1.0.

Appendix I

Definition below must be outlined in the User Manual:

To satisfy FCC RF exposure requirements, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during device operation.
To ensure compliance, operations at closer than this distance is not recommended.

********** END **********