

Tineco Intelligent Technology Co., Ltd.

MPE ASSESSMENT REPORT

Report Type:

FCC MPE assessment report

MODEL:

FW14*****

REPORT NUMBER:

231200464SHA-003

ISSUE DATE:

January 29, 2024

DOCUMENT CONTROL NUMBER:

TTRFFCCMPE-01_V1 © 2018 Intertek





Intertek Testing Services Shanghai Building No.86, 1198 Qinzhou Road (North) Caohejing Development Zone Shanghai 200233, China

Telephone: 86 21 6127 8200

www.intertek.com

Report no.: 231200464SHA-003

Applicant: Tineco Intelligent Technology Co., Ltd.

No. 108 Shihu Road West, Wuzhong Zone, Suzhou, 215168 P.R.China

Manufacturer: Tineco Intelligent Technology Co., Ltd.

No. 108 Shihu Road West, Wuzhong Zone, Suzhou, 215168 P.R.China

Factory: Tineco Intelligent Technology Co., Ltd.

No. 108 Shihu Road West, Wuzhong Zone, Suzhou, 215168 P.R.China

FCC ID: 2AV7A-FW14

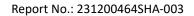
SUMMARY:

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 Part2.1093 FCC Part1.1307(b)

PREPARED DI.	REVIEWED BY.	
Sky Yang	Zrie.li	
Project Engineer	Reviewer	
Sky Yang	Fric Li	

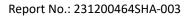
This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.





Revision History

Report No.	Version	Description	Issued Date
231200464SHA-003	Rev. 01	Initial issue of report	January 29, 2024





1 GENERAL INFORMATION

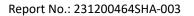
1.1 Description of Equipment Under Test (EUT)

Product name:	Smart Cordless Floor Washer				
Type/Model:	FW14***** * can be 0 to 9 or A to Z. The suffix ****** in model name can be number or letters, which represents country, marketing channel, product colo function and configuration of auxiliary equipment.				
Description of EUT:	The EUT is a floor washer with WIFI and Bluetooth function. FW14***** series can be used with drying & charging dock AA2339B, and all models have the same electronic circuit.				
Rating:	Working: 21.6VDC, 220W Drying & Charging Dock AA2339B: Input(charging): 120VAC, 60Hz, 0.5A Input(drying): 120VAC, 60Hz, 3.8A Output: 26VDC, 1A				
EUT type:	☐ Table top ☐ Floor standing				
Software Version:	/				
Hardware Version:	/				
Sample received date:	December 19, 2023				
Date of test:	January 2, 2024 ~ January 21, 2024				

1.2 Technical Specification

Frequency Band:	2400MHz ~ 2483.5MHz		
Support Standards:	IEEE 802.11b, IEEE 802.11g, IEEE 802.11n-HT20		
	IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK)		
Type of Modulation:	IEEE 802.11g: OFDM (64-QAM, 16-QAM, QPSK, BPSK)		
	IEEE 802.11n-HT20: OFDM (64-QAM, 16-QAM, QPSK, BPSK)		
Channel Number:	11 Channels for 802.11b, 802.11g and 802.11n(HT20)		
	IEEE 802.11b: Up to 11 Mbps		
Data Rate:	IEEE 802.11g: Up to 54 Mbps		
	IEEE 802.11n-HT20: Up to MCS7		
Antenna Information:	3.96dBi, PCB Antenna		

Frequency Band:	2400MHz ~ 2483.5MHz	
Support Standards:	Bluetooth LE 4.2	
Type of Modulation:	GFSK	
Channel Number:	40	
Data Rate:	1Mbps, 2Mbps	
Antenna Information:	3.96dBi, PCB Antenna	

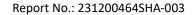




1.3 Description of Test Facility

Name:	Intertek Testing Services Shanghai
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 L0139
	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

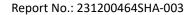
Test result: Pass

2.1 MPE Assessment Limit

Mobile device exposure for standalone operations:

Frequency range	E-field strength	H-field strength	B-field	Equivalent plane wave
	(V/m)	(A/m)	(uT)	power density
				S _{eq} (W/m²)
0-1 Hz	-	3,2 × 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 \leq 1.0





2.2 Assessment Results

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

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

Where $S = power density in mW/cm^2$

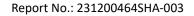
P = Radiated transmit power in mW

R = distance (cm)

As we can see from the test report 231200464SHA-001 and 231200464SHA-002:

Here R is chosen to be 20cm,

Mode	Frequency Range	Power		R	S	Limits
ivioue	(MHz)	dBm	mW	(cm)	(mW/cm2)	(mW/cm2)
WIFI	2412 - 2462	17.75	59.57	20	0.0119	1
BLE	2402 – 2480	8.67	7.36	20	0.00146	1





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.