

# 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:**

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**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 BY:

REVIEWED BY:



Project Engineer  
Sky Yang

Reviewer  
Eric Li

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### Revision History

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

**TEST REPORT**

**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 numbers or letters, which represents country, marketing channel, product color, 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:	<input type="checkbox"/> Table top <input checked="" type="checkbox"/> 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
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)
Channel Number:	11 Channels for 802.11b, 802.11g and 802.11n(HT20)
Data Rate:	IEEE 802.11b: Up to 11 Mbps 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

**TEST REPORT**

**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

**TEST REPORT**

**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 <sup>2</sup> )
0-1 Hz	-	$3,2 \times 10^4$	$4 \times 10^4$	-
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<sup>2</sup>

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
	(MHz)	dBm	mW	(cm)	(mW/cm <sup>2</sup> )	(mW/cm <sup>2</sup> )
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.

\*\*\*\*\* END \*\*\*\*\*