

Tineco Intelligent Technology Co., Ltd.

MPE ASSESSMENT REPORT

Report Type:

FCC MPE assessment report

MODEL:

FW16*****

REPORT NUMBER:

231200360SHA-003

ISSUE DATE:

January 29, 2024

DOCUMENT CONTROL NUMBER:

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Report no.: 231200360SHA-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-FW16

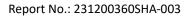
SUMMARY:

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:	KEVIEWED DT:	
Sky Yang	Zrie. li	
Project Engineer	Reviewer	
Sky Yang	Fric Li	

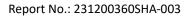
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Revision History

Report No.	Version	Description	Issued Date	
231200360SHA-003	Rev. 01	Initial issue of report	January 29, 2024	





1 GENERAL INFORMATION

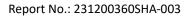
1.1 Description of Equipment Under Test (EUT)

Product name:	Smart Cordless Floor Washer				
Type/Model:	FW16***** * 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. FW16***** series can be used with power adapter YLJX2I-T260100, and all models have the same electronic circuit.				
Rating:	Working: 21.6VDC, 220W Power Adapter YLJX2I-T260100: Input: 100-240VAC, 50/60Hz Output: 26VDC, 1A				
EUT type:	☐ Table top ☐ Floor standing				
Software Version:	/				
Hardware Version:	/				
Sample received date:	December 19, 2023				
Date of test:	December 21, 2023 ~ January 9, 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	

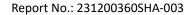




1.3 Description of Test Facility

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

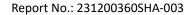
Test result: Pass

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

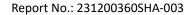
P = Radiated transmit power in mW

R = distance (cm)

As we can see from the test report 231200360SHA-001 and 231200360SHA-002:

Here R is chosen to be 20cm,

Mada	Frequency Range	Power		R	S	Limits
Mode (MHz)		dBm	mW	(cm)	(mW/cm2)	(mW/cm2)
WIFI	2412 - 2462	17.68	58.61	20	0.0117	1
BLE	2402 – 2480	8.45	7.00	20	0.00139	1





Definition below must be outlined in the User Manual:

Appendix I

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.