

RF Exposure Evaluation Report

Product : 2.4G Wireless microphone
Trade mark : YOGA / Yo-tronics
Model/Type reference : YT-WM2400
Serial Number : N/A
Report Number : EED32L003132
FCC ID : 2AU3Y52601715
Date of Issue : Jan. 07, 2020
Test Standards : 47 CFR Part 1.1307
47 CFR Part 2.1093
KDB447498D01 General RF Exposure Guidance v06
Test result : PASS

Prepared for:

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Jan. 07, 2020

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2 Version

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4 General Information

4.1 Client Information

Applicant:	Yo-tronics Technology Co., Ltd
Address of Applicant:	4F, No.21, Alley 10, Lane 321, Xinmin Rd, Neihu District, Taipei, Taiwan
Manufacturer:	KADA INTERNATIONAL LTD.,
Address of Manufacturer:	No.141, In Tai Road, In Tai Inadustiral Park, Da Lang Sub District, Long Hua New District, Shenzhen, Guangdong, China
Factory:	KADA INTERNATIONAL LTD.,
Address of Factory:	No.141, In Tai Road, In Tai Inadustiral Park, Da Lang Sub District, Long Hua New District, Shenzhen, Guangdong, China

4.2 General Description of EUT

Product Name:	2.4G Wireless microphone
Model No.(EUT):	YT-WM2400
Trade Mark:	YOGA / Yo-tronics
EUT Supports Radios application:	2407-2477MHz (2407MHz/2441MHz/2477MHz)

4.3 Product Specification subjective to this standard

Frequency Range:	2407MHz to 2477MHz	
Modulation Type:	GFSK	
Test Power Grade:	Default	
Test Software of EUT:	Default	
Antenna Type:	PCB Antenna	
Antenna Gain:	2.96 dBi	
Power Supply:	Battery	Model:523450, DC3.7V/1000mAh
Max Conducted Peak Output Power:	4.432dBm	
	The Max Conducted Peak Output Power data refer to the test result	
Sample Received Date:	Oct. 28, 2019	
Sample tested Date:	Oct. 28, 2019 to Jan. 06, 2020	
The tested sample(s) and the sample information are provided by the client.		

4.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax: +86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

4.5 Deviation from Standards

None.

4.6 Abnormalities from Standard Conditions

None.

4.7 Other Information Requested by the Customer

None.

5 SAR Evaluation

5.1 RF Exposure Compliance Requirement

5.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06
Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

5.1.2 Limits

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot$

$[\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

$f(\text{GHz})$ is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation¹⁷

The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion

5.1.3 EUT RF Exposure

Conducted Peak Output Power

Test Result

Channel	Conduct Peak Power[dBm]	Verdict
LCH	2.292	PASS
MCH	4.228	PASS
HCH	4.432	PASS

The tune-up power is 4 dBm +1 /- 2dB, therefore the highest tune-up power is

5.0 dBm (3.16 mW) @ 2480 MHz

When the minimum test separation distance is < 5 mm, a distance of 5 mm according to 5) in section 4.1 is applied to determine SAR test exclusion.

So,

$$(3.16\text{mW} / 5\text{mm}) * (2.480\text{GHz}^{0.5}) = 1.0$$

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] * [\sqrt{f(\text{GHz})}] = 1.0 < 3.0$$

Therefore, standalone SAR measurements are not required for both head and body