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Xiamen Vork Health Industry Co., Ltd

MPE ASSESSMENT REPORT

Report Type:
FCC MPE assessment report

Model:
VK-6013AW , RP-AP001S

REPORT NUMBER:
190902014SHA-002

ISSUE DATE:
Oct 21, 2019

DOCUMENT CONTROL NUMBER:
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TEST REPORT

Report no.: 190902014SHA-002

Applicant:	Xiamen Vork Health Industry Co., Ltd 102#&202#, Xianghong Road 16th, Torch Hi-tech Industrial Area, Xiangan,Xiamen,China
Manufacturer:	Xiamen Vork Health Industry Co., Ltd 102#&202#, Xianghong Road 16th, Torch Hi-tech Industrial Area, Xiangan,Xiamen,China
FCC ID:	2AUO3-RPAP001S

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 Chris Chen	Reviewer Daniel Zhao

TEST REPORT

Revision History

Report No.	Version	Description	Issued Date
190902014SHA-002	Rev. 01	Initial issue of report	Oct 21, 2019

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TEST REPORT

1 GENERAL INFORMATION

1.1 Description of Equipment Under Test (EUT)

Product name:	Air Purifier
Type/Model:	VK-6013AW, RP-AP001S
Description of EUT:	The EUT is a Air Purifier which contains a Wifi module, there are 2models which are electrically identical and the worst data were listed in this report.
Rating:	AC120V 60Hz 50W
Category of EUT:	Class B
EUT type:	☐ Table top ☒ Floor standing
Software Version:	/
Hardware Version:	/
Sample received date:	Sep 25, 2019
Date of test:	Sep 27, 2019 – Oct 19, 2019

1.2 Technical Specification

Frequency Range:	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
Channel Separation:	5 MHz
Antenna Information:	2.5dBi, PCB antenna

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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: CN1175
	IC Registration Lab Registration code No.: 2042B-1
	VCCI Registration Lab Registration No.: R-4243, G-845, C-4723, T-2252
	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**

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 190902014SHA-001:

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.

Frequency band	Power		Antenna Gain		R	S	Limits
(MHz)	dBm	mW	dBi	(Numeric)	(cm)	(mW/cm^2)	(mW/cm^2)
2412 - 2462	17.78	59.98	2.5	1.78	20	0.0212	1

Note: 1 mW/cm2 from 1.310 Table 1

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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 **********