

Guangdong Hailea Group Co., Ltd.

MPE ASSESSMENT REPORT

Report Type:

FCC MPE assessment report

Model:

40040

REPORT NUMBER:

220302634SHA-006

ISSUE DATE:

Aug 17, 2022

DOCUMENT CONTROL NUMBER:

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Applicant: Guangdong Hailea Group Co., Ltd.
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Guangdong Province 515700, China.

Manufacturer: Guangdong Hailea Group Co., Ltd.
Hailea Industrial Zone, Hailea Road, Raoping County, Chaozhou,
Guangdong Province 515700, China.

PRODUCT NAME: Smart Pond Dosing System XT

TYPE/MODEL: 40040

FCC ID: 2AVM6-40040

SUMMARY:

The equipment complies with the requirements according to the following standard(s) or Specification:

KDB447498 D01 General RF Exposure Guidance v07
FCC Part2.1091, FCC Part2.1093 FCC Part1.1307(b)

PREPARED BY:

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Project Engineer

REVIEWED BY:
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Reviewer

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Revision History

Report No.	Version	Description	Issued Date
220302634SHA-006	Rev. 01	Initial issue of report	Aug 17, 2022

TEST REPORT

1 GENERAL INFORMATION

1.1 Description of Equipment Under Test (EUT)

Product name:	Smart Pond Dosing System XT
Type/Model:	40040
Description of EUT:	The EUT is a smart pond dosing system XT, it is an electronically operated dispenser that accurately and consistently applies specially formulated water treatments to water features, including large scale bodies of water. Pair the control panel to the Smart Control App to control, monitor, and receive alerts on your smartphone or tablet with Wi-Fi function.
Rating:	Input: 120V AC, 60Hz Output: 12V AC, 60Hz, Controller Wattage 6w, Transformer Wattage 12W RF module: 3.3V DC
EUT type:	<input checked="" type="checkbox"/> Tabletop <input type="checkbox"/> Floor standing
Brand name:	/
Software Version:	/
Hardware Version:	/
Sample received date:	July 22, 2022
Date of test:	July 23, 2022~August 10, 2022

TEST REPORT

1.2 Technical Specification

Wifi	
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 11Mbps IEEE 802.11g: Up to 54Mbps IEEE 802.11n(HT20): Up to MCS7
Channel Separation:	5 MHz
Antenna Information:	PCB Antenna, 2.0dBi Gain

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 CAB identifier.: CN0014
	VCCI Registration Lab 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 (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:

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

Where S = power density in mW/cm²

G = Antenna Gain, dBi to numeric

P = Radiated transmit power in mW

R = distance (cm)

As we can see from the test report 220302634SHA-005:

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.

Mode	Frequency band	Max Power	Antenna Gain	R	S	Limits
	(MHz)	dBm	dBi	(cm)	(mW/cm ²)	(mW/cm ²)
WIFI	2412-2462	13.00	2.0	20	0.0062	1

Note: 1 mW/cm² from 1.310 Table 1

The sum of the MPE ratios for all simultaneously transmitting is $0.0039 \text{ mW/cm}^2 < 1.0$

For the device can support simultaneous transmission, according to 447498 D01 General RF Exposure Guidance v07

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 *****