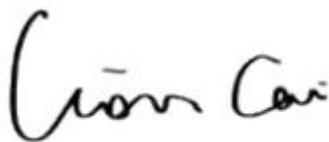


TEST REPORT

Application No.: BTEK240522001AE
Applicant: ShenZhen Honya Aquarium Equipments Manufacturer Co., Ltd
Address of Applicant: #6 JiaoYu Nan Road, Center Community, PingDi Town Longgang District, Shenzhen, China
Manufacturer: ShenZhen Honya Aquarium Equipments Manufacturer Co., Ltd
Address of Manufacturer: #6 JiaoYu Nan Road, Center Community, PingDi Town Longgang District, Shenzhen, China
Equipment Under Test (EUT):
EUT Name: Pump Controller(Pump)
Test Model.: VarioS 8-WiFi
Adding Model(s): VarioS 2-WiF,VarioS 4-WiFi,VarioS 6-WiFi,VarioS 2-S-WiFi,VarioS 4-S-WiFi,VarioS 6-S-WiFi,VarioS 2 Controller+,VarioS 4 Controller+,VarioS 6 Controller+,VarioS 8 Controller +,VarioS 2-S Controller+,VarioS 4-S Controller+,VarioS 6-S Controller+
Trade Mark: OCTO, REEFOCTOPUS
FCC ID: 2BG4D-VARIOS
Standard(s) : 47 CFR Part 2 Subpart J Section 2.1091
447498 D01 General RF Exposure Guidance v06
Date of Receipt: 2024-05-25
Date of Test: 2024-05-25 to 2024-06-10
Date of Issue: 2024-06-17

Test Result:**Pass***

* In the configuration tested, the EUT complied with the standards specified above.



Lion Cai/ Approved & Authorized
EMC Laboratory Manager

ShenZhen BANTEK Testing Co.,Ltd.

Add : A5&A6, Building B1&B2, No.45 Gangtou Road, Bogang Community, Shajing Street

Bao'an District, Shenzhen, Guangdong, China 518104

Tel : +(86)755-2334 4200

E-mail : Service@btek-lab.com

Web : www.btek-lab.com



Revision Record				
Version	Chapter	Date	Modifier	Remark
V0		2024-06-17		Original

Authorized for issue by:			
		Zora . Huang	
		Zora Huang/Project Engineer	
		June Li	
		June Li/Reviewer	

Remarks:
 The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.



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General Information

3.1 Details of E.U.T.

Power supply:	DC 36V 4.3A
Support Standards:	802.11b, 802.11g, 802.11n-HT20
Frequency Range:	2412-2462MHz for 802.11b/g/n(HT20)
Type of Modulation:	802.11b: DSSS; 802.11g/n: OFDM
Quantity of Channels	11 for 802.11b/g/n(HT20)
Channel Separation:	5MHz
Type of Antenna:	PCB Antenna
Antenna Gain:	2.54dBi
Sample No.:	BTEK240522001AE-01
Remark: The information in this section is provided by the applicant or manufacturer, BANTEK is not liable to the accuracy, suitability, reliability or/and integrity of the information.	

Model No.: VarioS 8-WiFi, VarioS 2-WiFi, VarioS 4-WiFi, VarioS 6-WiFi, VarioS 2-S-WiFi, VarioS 4-S-WiFi, VarioS 6-S-WiFi, VarioS 2 Controller+, VarioS 4 Controller+, VarioS 6 Controller+, VarioS 8 Controller +, VarioS 2-S Controller+, VarioS 4-S Controller+, VarioS 6-S Controller+

Only the model VarioS 8-WiFi was tested. According to the declaration from the applicant, the electrical circuit design, layout, components used, internal wiring and functions of other models are identical for the above models, with only difference on Model No.

3.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Adapter	GVE	GM152-3600430-F	A2403053175

3.3 Test Location

All tests were performed at:

Shenzhen BANTEK Testing Co., Ltd.,

A5&A6, Building B1&B2, No.45 Gangtou Road, Bogang Community, Shajing Street, Bao'an District, Shenzhen, Guangdong, China 518103

Tel:0755-2334 4200

Fax: 0755-2334 4200

FCC Registration Number: 264293

Designation Number: CN1356

No tests were sub-contracted.

3.4 Deviation from Standards

None

3.5 Abnormalities from Standard Conditions

None



4 Test Requirement

According to §1.1307(b)(1) and KDB 447498 D01 General RF Exposure Guidance v06, system operating under the provisions of this section shall be operating in a manner that the public is not exposed to radio frequency energy level in excess limit for maximum permissible exposure.

Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3–3.0	614	1.63	*(100)	6
3.0–30	1842/f	4.89/f	*(900/f ²)	6
30–300	61.4	0.163	1.0	6
300–1500			f/300	6
1500–100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f ²)	30
30–300	27.5	0.073	0.2	30
300–1500			f/1500	30
1500–100,000			1.0	30

f = frequency in MHz

Friis transmission formula: $Pd = (Pout \cdot G) / (4 \cdot \pi \cdot r^2)$

Where

Pd = power density in mW/cm², **Pout** = output power to antenna in mW;

G = gain of antenna in linear scale, **Pi** = 3.1416;

R = distance between observation point and center of the radiator in cm

Pd is the limit of MPE, 1 mW/cm². If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

4.1 Assessment Result

☒ Passed ☐ Not Applicable

Frequency (MHz)	Type	Conducted Power (dBm)	Maximum Tune-up (dBm)	Power Density (mW/cm ²)	Limit (mW/cm ²)	Result
2462	2.4G-Wi-Fi	17.84	18.00	0.0223	1.0000	Pass

Note: 1. The exposure evaluation safety distance is 20cm.

2. Only show the worst case in the test report.

- End of the Report -

