



RF EXPOSURE REPORT

Product Name: hygger MagSense Aquarium ATO Refill System
FCC ID: 2BRCU-HG229
Trademark: N/A
Model Number: HG229
Prepared For: Shenzhen Mago Trading Co., Ltd
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Sample Received Date: Jul. 21, 2025
Sample tested Date: Jul. 21, 2025 to Jul. 24, 2025
Issue Date: Jul. 24, 2025
Report No.: CTB25072111001RF02
Test Standards: FCC CFR 47 part1, 1.1307(b), 1.1310, 47 CFR§2.1091; KDB 680106 D01 Wireless Power Transfer v04
Test Results: PASS
Remark: This is wireless charger EMF report.

Compiled by:

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Note: If there is any objection to the inspection results in this report, please submit a written report to the company within 15 days from the date of receiving the report. The test report is effective only with both signature and specialized stamp. This result(s) shown in this report refer only to the sample(s) tested. Without written approval of Shenzhen CTB Testing Technology Co., Ltd. this report can't be reproduced except in full. The tested sample(s) and the sample information are provided by the client. "*" indicates the testing items were fulfilled by subcontracted lab. "#" indicates the items are not in CNAS accreditation scope.

Table of Contents	Page
1 . GENERAL INFORMATION	3
1.1 . Independent Operation Mode	3
1.2 . Test Supporting System	3
2 .LIST OF TEST AND MEASUREMENT INSTRUMENTS	4
2.1 . For conducted emission at the mains terminals test	4
3. METHOD OF MEASUREMENT	5
3. 1.Applicable Standard	5
4. TEST RESULT	6
4.1. Conducted Emission at the Mains Terminals Test	6
4.2. Equipment Approval Considerations:	7
4.3. E and H field Strength	7

1. GENERAL INFORMATION

1.1. Independent Operation Mode

The basic operation mode is:

1.1.1. wireless charger power: 5W

1.2. Test Supporting System

Adapter

Description: Adapter

Model No.: HP18A-0902000-AU

Power Input: AC100-240V~ 1.0A 50/60Hz

Output: 9V=2.0A

DC Line: Unshielded, Detachable 1.2m

2.LIST OF TEST AND MEASUREMENT INSTRUMENTS

2.1. For conducted emission at the mains terminals test

Item	Equipment	Brand	Model No.	Serial No.	Last calibration	Calibrated until
1	EMF TESTER	Wavecontrol	SMP600/WP4 00-3	15SN0164/21W P1200029	2024.10.28	2025.10.27

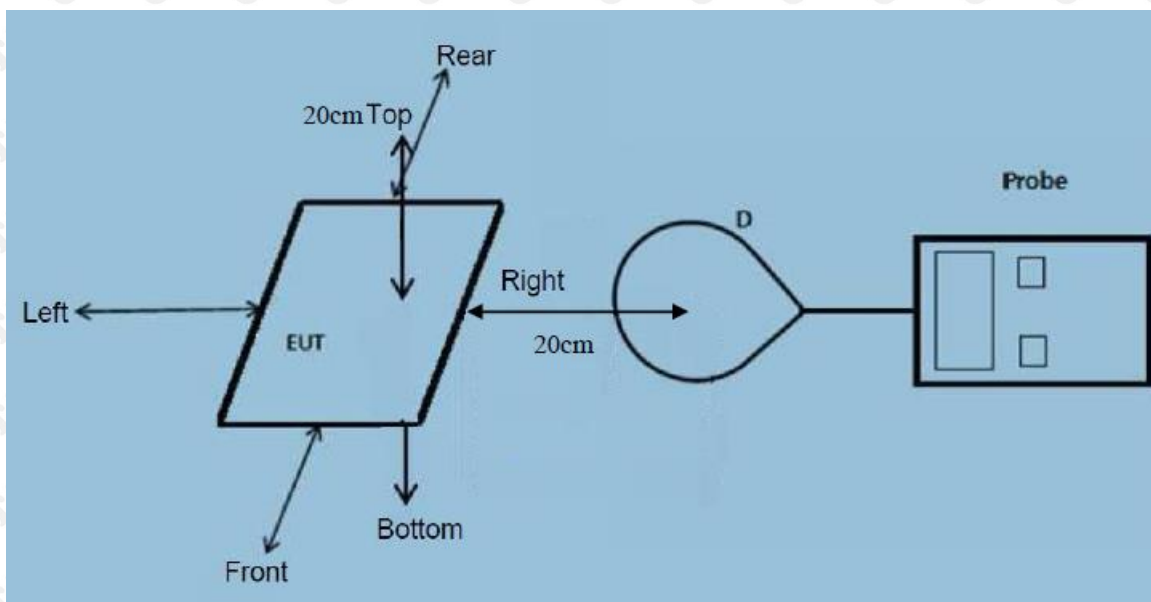
3. METHOD OF MEASUREMENT

3. 1.Applicable Standard

According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines. According to §1.1310 and §2.1091 RF exposure is calculated. According KDB680106 D01: KDB 680106 D01 Wireless Power Transfer v04.

4. TEST RESULT

4.1. Conducted Emission at the Mains Terminals Test



Note: Measurements should be made from all sides and the top of the primary/client pair, with the 20 cm measured from the center of the probe(s) to the edge of the device

Test Procedure:

- The RF exposure test was performed on 360 degree turn table in anechoic chamber.
- The measurement probe was placed at test distance (20cm) which is between the edge of the charger and the geometric centre of probe.
- The turn table was rotated 360d degree to search of highest strength.
- The highest emission level was recorded and compared with limit as soon as measurement of each points were completed.
- The EUT were measured according to the dictates of KDB 680106v04

4.2. Equipment Approval Considerations:

The EUT does comply with item 5(b) of KDB 680106 V04

- 1) The power transfer frequency is below 1 MHz.

Yes, the device operate in the frequency range from 110kHz to 205kHz

- 2) The output power from each transmitting element (e.g., coil) is less than or equal to 15 watts.

Yes, the maximum output power of the primary coil is 5000mW.

- 3) A client device providing the maximum permitted load is placed in physical contact with the transmitter (i.e., the surfaces of the transmitter and client device enclosures need to be in physical contact).

Yes, the surfaces of the transmitter and client device enclosures are in physical contact

- 4) Only § 2.1091-Mobile exposure conditions apply (i.e., this provision does not cover § 2.1093-Portable exposure conditions)..

Yes, the EUT is a Mobile Wireless Charger

- 5) The E-field and H-field strengths, at and beyond 20 cm surrounding the device surface, are demonstrated to be less than 50% of the applicable MPE limit, per KDB 447498, Table 1.

Yes, the EUT field strength levels are less 50% x MPE limit.

- 6) For systems with more than one radiating structure, the conditions specified in (5) must be met when the system is fully loaded (i.e., clients absorbing maximum power available), and with all the radiating structures operating at maximum power at the same time, as per design conditions.

Yes, the EUT has only one coil, all test modes met the conditions specified in (5).

4.3. E and H field Strength

Point A

E-Field test results the electric field strength at 20cm around the EUT.

battery level	Frequency Range (kHz)	Test Position Right	Test Position Front	Test Position Rear	Test Position Left	Test Position Top	Limits Test (V/m)
1%	257.6	8.10	7.53	7.64	8.16	8.08	614
50%	257.6	7.78	7.59	7.37	8.22	7.84	614
99%	257.6	7.68	7.94	7.42	8.01	7.63	614

H-Field test results the electric field strength at 20cm around the EUT.

battery level	Frequency Range (kHz)	Test Position Right	Test Position Front	Test Position Rear	Test Position Left	Test Position Top	Limits Test (A/m)
1%	257.6	0.24	0.24	0.19	0.30	0.26	1.63
50%	257.6	0.16	0.17	0.15	0.28	0.24	1.63
99%	257.6	0.02	0.15	0.08	0.16	0.31	1.63

Point B

E-Field test results the electric field strength at 22cm around the EUT.

battery level	Frequency Range (kHz)	Test Position Right	Test Position Front	Test Position Rear	Test Position Left	Test Position Top	Limits Test (V/m)
1%	257.6	8.03	7.40	7.52	8.10	7.91	614
50%	257.6	7.77	7.41	7.36	7.94	7.62	614
99%	257.6	7.64	7.53	7.28	7.82	7.48	614

H-Field test results the electric field strength at 22cm around the EUT.

battery level	Frequency Range (kHz)	Test Position Right	Test Position Front	Test Position Rear	Test Position Left	Test Position Top	Limits Test (A/m)
1%	257.6	0.22	0.19	0.19	0.25	0.24	1.63
50%	257.6	0.10	0.12	0.13	0.27	0.22	1.63
99%	257.6	0.02	0.16	0.04	0.13	0.26	1.63

Point C

E-Field test results the electric field strength at 24cm around the EUT.

battery level	Frequency Range (kHz)	Test Position Right	Test Position Front	Test Position Rear	Test Position Left	Test Position Top	Limits Test (V/m)
1%	257.6	8.04	7.42	7.58	8.14	7.93	614
50%	257.6	7.80	7.43	7.36	7.94	7.66	614
99%	257.6	7.68	7.57	7.33	7.84	7.49	614

H-Field test results the electric field strength at 24cm around the EUT.

battery level	Frequency Range (kHz)	Test Position Right	Test Position Front	Test Position Rear	Test Position Left	Test Position Top	Limits Test (A/m)
1%	257.6	0.26	0.23	0.21	0.29	0.26	1.63
50%	257.6	0.15	0.15	0.12	0.29	0.28	1.63
99%	257.6	0.06	0.16	0.10	0.12	0.30	1.63

*****THE END*****