

ECOFLOW INC.

TEST REPORT

SCOPE OF WORK:

Article 3.1a health of RE directive (2014/53/EU) – EMF report

Model:
EFG200

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TEST REPORT

Report no. 220500957HZH-005

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Manufacturing site: Chongqing Rato Technology Co., Ltd
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Summary:

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


1999/519/EC: COUNCIL RECOMMENDATION of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz)

EN IEC 62311: 2020: Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz - 300 GHz)

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Revision History

Report No.	Version	Description	Issued Date
220500957HZH-005	Rev. 01	Initial issue of report	July 18, 2022

Appendix I

According to assessment method & relevant limit showed in **Appendix III** of this report.

Power density (S) is calculated according to the formula:

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

Where S = power density in mW/cm²

P = Radiated transmit power in mW

G = numeric gain of transmit antenna

R = distance (cm)

As we can see from the test report of Wireless report: 220500957HZH-001, 220500957HZH-002 issued by Intertek.

Here R is chosen to be **20cm**,

Mode	Frequency Band (MHz)	P (dBm)	P (mW)	R (cm)	S (mW/cm ²)	Limit (mW/cm ²)
BLE	2402-2480	4.62	2.897	20	0.00057	1
802.11b	2412-2472	15.32	34.041	20	0.00678	1

Conclusion: This device complies with requirements of RED Directive 2014/53/EU (Article 3.1a, human exposure to Electromagnetic Fields).

Appendix II

Definition below must be outlined in the User Manual:

To satisfy RF exposure requirements, a separation distance of **20 cm** or more should be maintained between this device and persons during device operation.

To ensure compliance, operations at closer than this distance is not recommended. The antenna used for this transmitter must not be co-located in conjunction with any other antenna or transmitter

Appendix III

Assessment methods & Limit for Electromagnetic Exposure Evaluation

Assessment methods:

- ☒ Far field calculation
- ☐ Near field calculation
- ☐ Simulation with/without a phantom
- ☐ Numerical modeling
- ☐ Body/limb current
- ☐ SAR
- ☐ E and H measurement
- ☐ Source modeling
- ☐ Direct measurement of physical properties: Contact current

Reference levels for electric, magnetic and electromagnetic fields (Table 2 of 1999/519/EC)

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

Notes:

1. *f* as indicated in the frequency range column.
2. For frequencies between 100 kHz and 10 GHz, S_{eq} , E^2 , H^2 , and B^2 are to be averaged over any six-minute period.
3. For frequencies exceeding 10 GHz, S_{eq} , E^2 , H^2 , and B^2 are to be averaged over any $68/f^{1.05}$ - minute period (*f* in GHz).
4. No E-field value is provided for frequencies < 1 Hz, which are effectively static electric fields. For most people the annoying perception of surface electric charges will not occur at field strengths less than 25 kV/m. Spark discharges causing stress or annoyance should be avoided.
5. The shading grid stands for the applied limit in this report.

***** END *****