



RF Exposure Report

FCC ID: 2A6XZ-LAGOFRAME01

Applicant: Lago Digital, Inc.

Address: 530 7th Ave Suite 1001 NY, NY 10018

Manufacturer: Lago Digital, Inc.

Address: 530 7th Ave Suite 1001 NY, NY 10018

Product(s): 33 inch Frame

Brand(s): N/A

Test Model(s): LAGO Frame Genesis

Series Model(s): N/A

Test Date: Apr. 24, 2022~ May 31, 2022

Issued Date: Jun. 02, 2022

Issued By: Hwa-Hsing (Dongguan) Testing Co., Ltd.

Address: No.101, Bld N1, Yuyuan 2Rd, Yuyuan Industrial Park, HuangJiang Town, Dongguan, China

Test Firm Registration No.: 915896

Standards: FCC Part 2 (Section 2.1091)
447498 D04 Interim General RF Exposure Guidance v01
IEEE C95.1

The above equipment has been tested by **Hwa-Hsing (Dongguan) Testing Co., Ltd.**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

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Release control record

| Issue No. | Reason for change | Date issued |
|---------------------|-------------------|---------------|
| 220214EL03-SE-US-01 | Original Release | Jun. 02, 2022 |



1 General Information

1.1 General Description of EUT

| | |
|-----------------------|---|
| Product(s) | 33 inch Frame |
| Test Model(s) | LAGO Frame Genesis |
| Sample No. | HS220509-01-15 |
| Series Model(s) | N/A |
| Status of EUT | Engineering Prototype |
| Power Supply Rating | AC 100~240V/1.2A/ 50~60 Hz 120W |
| Modulation Type | WiFi: CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM Bluetooth: GFSK, $\pi/4$ DQPSK, 8DPSK |
| Modulation Technology | WiFi 2.4GHz: DSSS; OFDM WiFi 5GHz: OFDM Bluetooth: FHSS/BT-LE |
| Transfer Rate | Wi-Fi 2.4GHz: 802.11b: 11.0/ 5.5/ 2.0/ 1.0Mbps 802.11g: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to 300Mbps Wi-Fi 5GHz: 802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to 300Mbps 802.11ac: up to 866.7Mbps Bluetooth: 1Mbps/2 Mbps/3 Mbps |
| Operating Frequency | Wi-Fi 2.4GHz: 802.11b, 802.11g, 802.11n (HT20): 2412 ~ 2472MHz 802.11n (HT40): 2422 ~ 2462MHz Wi-Fi 5GHz: 5180MHz ~ 5240MHz; 5260MHz ~ 5320MHz; 5500MHz ~ 5700MHz; 5745MHz ~ 5825MHz Bluetooth: 2402MHz ~ 2480 MHz |
| Output Power (AVG) | Wi-Fi 5GHz: 19.45dBm for 5150 ~ 5250MHz 18.97dBm for 5250 ~ 5350MHz 19.18dBm for 5470 ~ 5725MHz 18.99dBm for 5725 ~ 5850MHz Wi-Fi 2.4GHz: 18.25dBm Bluetooth: -4.621dBm |
| Antenna Type | Dipole Antenna |
| Antenna Gain | Wi-Fi 2.4GHz: 2.5dBi Wi-Fi 5G: 3.0dBi for 5150 ~ 5250MHz 3.0dBi for 5250 ~ 5350MHz 3.0dBi for 5470 ~ 5725MHz 3.0dBi for 5725 ~ 5850MHz Bluetooth: 2.5dBi |
| Antenna Connector | I-PEX |
| Accessory Device | N/A |
| Cable Supplied | AC Lines: 200cm |

Note:

1. Please refer to the EUT photo document (Reference No.: 220214EL03-01&-02) for detailed product photo.
2. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.



2 RF exposure limit

Limits for maximum permissible exposure (MPE)

| Table 1 – Synopsis of FCC RF Exposure Limits for Mobile and Portable Devices | |
|--|---|
| $f \leq 100$ kHz | All devices assessed case-by-case (guidelines for wireless power transfer devices are provided KDB Pub. 680106) |
| 100 kHz ~ 300 kHz | SAR limits in § 1.1310 (b), (c), (d) |
| 300 kHz ~6 GHz | <input type="checkbox"/> Portable device |
| | <input checked="" type="checkbox"/> Mobile device |
| $f > 6$ GHz | For all devices, MPE limits in § 1.1310(e)(1) - Table 1 |

§ 1.1310(d)(2) MPE limits in § 1.1310(e)(1) -Table 1

| (i) Limits for Occupational/Controlled Exposure | | | | |
|---|-------------------------------|-------------------------------|-------------------------------------|--------------------------|
| Frequency range (MHz) | Electric field strength (V/m) | Magnetic field strength (A/m) | Power density (mW/cm ²) | Averaging time (minutes) |
| 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 | ≤6 |
| 300-1500 | | | f/300 | ≤6 |
| 1500-100000 | | | 5 | ≤6 |

f = frequency in MHz. * = Plane-wave equivalent power density.

| Frequency range (MHz) | Electric field strength (V/m) | Magnetic field strength (A/m) | Power density (mW/cm ²) | Averaging time (minutes) |
|-----------------------|-------------------------------|-------------------------------|-------------------------------------|--------------------------|
| 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 |
| 1500-100000 | | | 1.0 | <30 |

(ii) Limits for General Population/Uncontrolled Exposure



2.1 MPE calculation formula

$$Pd = (Pout * G) / (4 * pi * r^2)$$

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

Classification:

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user.

3 Calculation result of maximum conducted power

The antennas provided to the EUT, please refer to the following table:

| Function | Frequency Band | Antenna Gain (dBi) | Antenna Type | Transmit and Receive Chain | Maximum AVG Power(dBm) |
|-------------|----------------|--------------------|--------------|----------------------------|------------------------|
| Bluetooth | 2400~2483.5MHz | 2.50 | External | 2TX,2RX | -4.621 |
| WiFi 2.4GHz | 2400~2483.5MHz | 2.50 | External | 2TX,2RX | 18.25 |
| WiFi 5GHz | 5150 ~ 5250MHz | 3.00 | External | 2TX,2RX | 19.45 |
| WiFi 5GHz | 5250 ~ 5350MHz | 3.00 | External | 2TX,2RX | 18.97 |
| WiFi 5GHz | 5470 ~ 5725MHz | 3.00 | External | 2TX,2RX | 19.18 |
| WiFi 5GHz | 5725 ~ 5850MHz | 3.00 | External | 2TX,2RX | 18.99 |

| Function | Max power (mW) | Antenna gain (dBi) | Distance (cm) | Power density (mW/cm ²) | Limit (mW/cm ²) |
|-----------------|----------------|--------------------|---------------|-------------------------------------|-----------------------------|
| Bluetooth | 0.345 | 2.5 | 20 | 0.00006 | 1.0 |
| WiFi 2.4GHz | 66.834 | 2.5 | 20 | 0.023644 | 1.0 |
| WiFi 5.1~5.7GHz | 88.105 | 3.00 | 20 | 0.052584 | 1.0 |
| WiFi 5.8GHz | 79.250 | 3.00 | 20 | 0.047298 | 1.0 |

Note: The above wireless function can not be transmission simultaneous.

Conclusion:

Therefore, the worst-case situation is 0.052584 mW/cm², which is less than "1". This confirmed that the device compliance with FCC 1.1310 MPE limit.



Appendix – Information on the Testing Laboratories

We, [Hwa-Hsing \(Dongguan\) Co., Ltd.](#), A global provider of TESTING and CERTIFICATION services for consumer products, electronic products and wireless information technology products. Adhering to the core values “HONEST and TRUSTWORTHY, OBJECTIVE and IMPARTIALITY, RIGOROUS and AFFICIENT”, commitment to provide professional, perfect and efficient comprehensive ONE-STOP solution of TESTING and CERTIFICATION services for Manufacturers, Buyers, Traders, Brands, Retailers. Assist client to better manage risk, protect their brands, reduce costs and cut time to over 150 markets in global. Our laboratories are FCC recognized accredited test firms and accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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