


FCC RF Exposure

Applicant : PEAG, LLC dba JLab Audio
Address : 5927 LANDAU CT, Carlsbad, CA 92008, United States
Product Name : Wireless Speaker
Brand Mark :  JLAB®
Model : JLab Epic Party
FCC ID : 2AHYV-EPICSP
Report Number : BLA-EMC-202501-A6604
Date of Receipt : Jan.16, 2025
Date of Test : Jan.17, 2025 to Feb.06, 2025
Test Standard : 47 CFR Part 15, Part1.1307
47 CFR Part 15, Part2.1093
KDB447498D04 General RF Exposure Guidance v01
Test Result : Pass

Compiled by: Review by: Approved by: 

Issued Date: Feb.06, 2025



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Revise Record

| Version No. | Date | Description |
|-------------|--------------|-------------|
| 01 | Feb.06, 2025 | Original |
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1 General information

1.1 General information

| | |
|--------------|---|
| Applicant | PEAG, LLC dba JLab Audio |
| Address | 5927 LANDAU CT, Carlsbad, CA 92008, United States |
| Manufacturer | GuangDong Simpreal Intelligent Technology Co., Ltd |
| Address | Room 2408, JiaHong ZhenXing DaSha, DongGuan Avenue #13, DongCheng District, DongGuan City, Guangdong Province, P.R. China |
| Factory | GuangDong Simpreal Intelligent Technology Co., Ltd |
| Address | Room 2408, JiaHong ZhenXing DaSha, DongGuan Avenue #13, DongCheng District, DongGuan City, Guangdong Province, P.R. China |

1.2 General description of EUT

| | |
|----------------------|---|
| Product name | Wireless Speaker |
| Model No. | JLab Epic Party |
| Operation Frequency: | BT/BLE: 2402MHz-2480MHz |
| Modulation Type: | BT: GFSK, $\pi/4$ DQPSK, 8DPSK BLE: GFSK |
| Number of Channels: | BT: 79 BLE: 40 |
| Antenna Type: | PCB antenna |
| Antenna Gain: | 2.23dBi (Provided by the customer) |
| Hardware Version: | N/A |
| Software Version: | N/A |

2 RF Exposure Compliance Requirement

2.1 Standard Requirement

According to 447498 D04 Interim General RF Exposure Guidance v01

Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

2.2 Limits

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases} \quad (\text{B.2})$$

where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

and f is in GHz, d is the separation distance (cm), and $ERP_{20 \text{ cm}}$ is per Formula (B.1).

Example values shown in Table B.2 are for illustration only.

Table B.2—Example Power Thresholds (mW)

| Frequency (MHz) | Distance (mm) | | | | | | | | | | |
|-----------------|---------------|----|----|----|-----|-----|-----|-----|-----|-----|-----|
| | | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| | 300 | 39 | 65 | 88 | 110 | 129 | 148 | 166 | 184 | 201 | 217 |
| | 450 | 22 | 44 | 67 | 89 | 112 | 135 | 158 | 180 | 203 | 226 |
| | 835 | 9 | 25 | 44 | 66 | 90 | 116 | 145 | 175 | 207 | 240 |
| | 1900 | 3 | 12 | 26 | 44 | 66 | 92 | 122 | 157 | 195 | 236 |
| | 2450 | 3 | 10 | 22 | 38 | 59 | 83 | 111 | 143 | 179 | 219 |
| | 3600 | 2 | 8 | 18 | 32 | 49 | 71 | 96 | 125 | 158 | 195 |
| | 5800 | 1 | 6 | 14 | 25 | 40 | 58 | 80 | 106 | 136 | 169 |

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B.1})$$

2.3 Result

$$\text{EIRP} = p_t \times g_t = (E \times d)^{2/30}$$

Where:

p_t = transmitter output power in watts,

g_t = numeric gain of the transmitting antenna (unitless),

E = electric field strength in V/m,

d = measurement distance in meters (m)

$$\text{Spot} = (E \times d)^{2/30} \times g_t$$

$$\text{Ant gain} = 2.23 \text{ dBi}$$

For BT Classic(8DPSK)

$$\text{Max Output power} = 4.256 \text{ dBm @ } 2402 \text{ MHz}$$

$$\text{ERP} = 4.256 \text{ dBm} + 2.23 \text{ dBi} - 2.15 = 4.336 \text{ dBm} = 2.714 \text{ mW} < 2.7172 \text{ mW}$$

For BLE 2M(Worst)

$$\text{Max Output power} = 2.919 \text{ dBm @ } 2402 \text{ MHz}$$

$$\text{ERP} = 2.919 \text{ dBm} + 2.23 \text{ dBi} - 2.15 = 2.999 \text{ dBm} = 1.995 \text{ mW} < 2.7172 \text{ mW}$$

Comply with RF exposure exemption limit.

----END OF REPORT----

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