

RF Exposure

Applicant : PEAG, LLC dba JLab Audio
Address : 5927 LANDAU CT, Carlsbad, CA 92008, United States
Product Name : Wireless Headset
Brand Mark : 
Model : Midnight Wireless Headset
Series model : N/A
Report Number : BLA-EMC-202602-A4205
FCC ID : 2AHYV-MNWDH
Date of Receipt : Feb. 05,2026
Date of Test : Feb. 06,2026 to May 11,2026
Test Standard : 47 CFR Part 15, Part1.1307
KDB447498D04 General RF Exposure Guidance v01
Test Result : Pass

Compiled by: *charlie*Review by: *Xavier*Approved by: *Blue Zheng*

Issued Date: May 11,2026



BlueAsia Technical Services (Shenzhen) Co., Ltd

Address: No.41, South of Beihuan Road, Shangwu Community, Shiyan
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Revise Record

Version No.	Date	Description
01	May 11,2026	Original

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 Headset
Model no.	Midnight Wireless Headset
Series model	N/A
Differences of Series model	N/A
Power supply or adapter information	DC3.7V
Hardware version	V05
Software version	V1.0.09
Engineer sample no.	BLA-EMC-202602-A42

Note: For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.

For BT

Operation Frequency	2402MHz-2480MHz
Modulation Type	GFSK, π /4DQPSK, 8DPSK
Channel Spacing	1MHz
Number of Channels	79
Antenna Type	Ceramic Chip Antenna
Antenna Gain	2.58dBi (Provided by the applicant)

For BLE

Operation Frequency	2402MHz-2480MHz
Modulation Type	GFSK
Rate data	1Mbps; 2Mbps
Channel Spacing	2MHz
Number of Channels	40
Antenna Type	Ceramic Chip Antenna
Antenna Gain	2.58dBi(Provided by customer)

For 2.4G

Operation Frequency	2402MHz-2480MHz
Modulation Type	GFSK
Channel Spacing	2MHz
Number of Channels	40
Antenna Type	Ceramic Chip Antenna
Antenna Gain	2.58dBi(Provided by customer)
Max. Field Strength(PK)	94.36dBuV/m@3m/2442Mhz
Max. Field Strength(AV)	93.15dBuV/m@3m/2442Mhz

2 Laboratory and accreditations

The test facility is recognized, certified, or accredited by the following organizations:

Company name:	BlueAsia Technical Services (Shenzhen) Co.,Ltd.
Address:	No.41, South of Beihuan Road, Shangwu Community, Shiyan Subdistrict, Bao'an District, Shenzhen, Guangdong, China
CNAS accredited No.:	L9788
A2LA Cert. No.:	5071.01
FCC Designation No.:	CN1252
Test Firm Registration Number:	923526
ISED CAB identifier No.:	CN0028
Company Number:	24243
Telephone:	+86-755-28682673
FAX:	+86-755-28682673

3 RF Exposure Compliance Requirement

3.1 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.

3.2 Limits

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

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

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

$$e_{irp} = p_t \times g_t = (E \cdot d)^2 / 30$$

where:

p_t = transmitter output power in watts,

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

E = electric field strength in V/m, --- $10^{(dBuV/m)/20}/10^6$

d = measurement distance in meters (m)---3m

$$S_{opt} = (E \cdot d)^2 / 30 \times g_t$$

3.3 Result

Calculated Result and Limit (WORSE CASE IS AS BELOW)

Mode	Frequency (MHz)	Max Output power(dBm)	Max Output power(mW)	Ant gain (dBi)	Evaluation ERP(dBm)	Evaluation ERP(mW)	Distance (mm)	Limit of Pth(mW)	Result
3-DH1	2402	0.004	1.00	2.58	0.434	1.11	5	2.79	Pass
BLE 2M	2480	-4.565	0.35	2.58	-4.135	0.39	5	2.72	Pass

For 2.4G:

[0.43dBd(1.104)]

Field strength = 94.36 dBμV/m @3m @2442MHz

So $P_t = \{ [10^{94.36/20} / 10^6 \times 3]^{2/30} \} \times 1000 \text{ mW} = 0.819 \text{ mW} < 2.77 \text{ mW}$

So ERP=0.819x1.104=0.904<2.77mW

Comply with RF exposure exemption limit.

ERP=Max Output power+Ant gain-2.15

----END OF REPORT----

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