

RF Exposure

Applicant : PEAG, LLC dba JLab Audio
Address : 5927 LANDAU CT, Carlsbad, CA 92008, United States
Product Name : Wireless Mouse
Brand Mark : 
Model : Midnight Wireless Mouse
Series model : Midnight Mouse
Report Number : BLA-EMC-202511-A3304
FCC ID : 2AHYV-MNWM
Date of Receipt : Nov. 10, 2025
Date of Test : Nov. 10, 2025 to Dec. 24, 2025
47 CFR Part 15, Part1.1307
Test Standard : 47 CFR Part 15, Part2.1093
KDB447498D04 General RF Exposure Guidance v01
Test Result : Pass

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Review by:

Xavier

Approved by:

Jing Zheng

Issued Date:

Dec. 24, 2025



BlueAsia of Technical Services(Shenzhen) Co.,Ltd.

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Revise Record

Version No.	Date	Description
01	Dec. 24, 2025	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 Mouse
Model no.	Midnight Wireless Mouse
Series model	Midnight Mouse
Differences of Series model	Their identical in circuitry and electrical, mechanical and physical construction; the only differences are the model no. for trading purpose.
Power supply or adapter information	DC3.7V
Hardware version	VER2.0
Software version	V1.18
Engineer sample no.	BLA-EMC-202511-A33

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

For BLE

Operation Frequency	2402MHz-2480MHz
Modulation Type	GFSK
Rate data	1Mbps; 2Mbps
Channel Spacing	2MHz
Number of Channels	40
Antenna Type	PCB antenna
Antenna Gain	-0.71dBi(Provided by customer)

For 2.4G

Operation Frequency	2405MHz-2475MHz
Modulation Type	GFSK
Channel Spacing	≤2MHz
Antenna Type	PCB antenna
Antenna Gain	-0.71dBi(Provided by customer)
Max. Field Strength(PK)	100.79dBuV/m@3m
Max. Field Strength(AV)	87.79dBuV/m@3m

2 Laboratory and accreditations

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

FCC	Company name:	BlueAsia of Technical Services(Shenzhen) Co., Ltd.
	Address:	Building C, No. 107, Shihuan Road, Shiyan Sub-District, Baoan District, Shenzhen, Guangdong Province, China
	A2LA Cert. No.:	5071.01
	FCC Designation No.:	CN1252
	Test Firm Registration Number:	923526
ISED	Company name:	BlueAsia of Technical Services(Shenzhen) Co., Ltd.
	Address:	No.41, South of Beihuan Road, Shangwu Community, Shiyan Subdistrict, Bao'an District, Shenzhen, Guangdong, China
	ISED CAB identifier No.:	CN0028
	Company Number:	24243
Telephone:		+86-755-28682673
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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

$eirp = pt \times gt = (EXd)^{2/30}$

where:

pt = transmitter output power in watts,

gt = 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

$Sopt = (EXd)^{2/30} \times gt$

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Version:v1.1

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)	Limit of Pth(mW)	Result
BLE 2M	2480	-1.69	0.68	-0.71	-4.55	0.35	2.72	Pass

ERP=Max Output power+Ant gain-2.15

Comply with RF exposure exemption limit.

Calculated Result and Limit (WORSE CASE IS AS BELOW)

Ant gain = -0.71 dBi

-2.86dBd(0.5176)

Field strength = 87.79 dBμV/m @3m @2405MHz

So $P_t = \{ [10^{(87.79/20)} / 10^6 \times 3] / 2 / 30 \} \times 1000 \text{ mW} = 0.18 \text{ mW} < 2.78 \text{ mW}$

So ERP=0.18x0.5176=0.093<2.78mW

Comply with RF exposure exemption limit.

----END OF REPORT----

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