FCC RF EXPOSURE REPORT

EGLO Hong Kong Lighting Ltd

Remote control

Model Number: ET4437

FCC ID: 2AEBXET4437

Applicant:	EGLO Hong Kong Lighting Ltd	
Address:	Rm 1803, 18/F Multifield Centre, 426 Shanghai Street, Mongkok,	
	Kowloon, Hong Kong, China	
Prepared By:	EST Technology Co., Ltd.	
	Chilingxiang, Qishantou, Santun, Houjie, Dongguan, Guangdong, China	
Tel: 86-769-83081888-808		

Report Number:	ESTE-R2309016
Date of Test:	Jul. 17~Sep. 05, 2023
Date of Report:	Sep. 22, 2023

1. Applicable Standards

FCC Part 2(Section 2.1093)

FCC KDB 447498 D04 Interim General RF Exposure Guidance v01

2. Exposure Evaluation of Portable or Mobile Devices

Human exposure to RF emissions from portable devices (47 CFR §2.1093), as defined by the FCC, must be evaluated with respect to the FCC-adopted limits for SAR. Evaluation of mobile devices, as defined by the FCC, may also be performed with respect to SAR limits, but in such cases it is usually simpler and more cost-effective to evaluate compliance with respect to field strength or power density limits. For certain devices that are designed to be used in both mobile and portable configurations similar to those described in 47 CFR §2.1091(d)(4), such as certain desktop phones and wireless modem modules, compliance for mobile configurations is also satisfied when the same device is evaluated for SAR compliance in portable configurations.

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

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

where

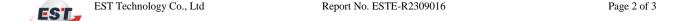
$$x = -\log_{10}\left(\frac{60}{ERP_{20\,\mathrm{cm}}\sqrt{f}}\right)$$

and f is in GHz, d is the separation distance (cm), and ERP_{20cm} is per Formula (B.1). The example values shown in Table B.2 are for illustration only.

Distance (mm) Frequency (MHz)

Table B.2—Example Power Thresholds (mW)

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 300 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.



3. Evaluation Results

Ant gain=3dBi Ant numeric gain=1.99 Field strength = 78.03dBuV/m@3m

Limited= $2040*f*(0.5/20)^x$, x= $-\log(60/(2040*f*\sqrt{f}))=23.17$ mW

 $EIRP = \{\ [10^{(78.03\ /20)}\ /10^6\ *3]^2/\ (30*1\ \}*1000mW = 0.0191mW < 23.17mW$

Note:

- 1. We choose f=0.43392GHz to calculate MPE limit as higher frequency will have lower MPE limits.
- 2. SAR Test Exclusion Thresholds is 23.17mW for separation distance 5mm. Therefore, SAR test is not required.

End of Test Report