

RF Exposure Evaluation Report

Product : Simple remote
Trade mark : E.shine Systems Limited
Model/Type reference : See section 5.2
Serial Number : N/A
Report Number : EED32Q81904402
FCC ID : 2BMT4-RDPRO
Date of Issue : Apr. 29, 2025
Test Standards : 47 CFR Part 1.1307
47 CFR Part 1.1310
47 CFR Part 2.1093
KDB 447498 D04 Interim General RF
Exposure Guidance v01
Test result : PASS

Prepared for:

E.shine Systems Limited

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Prepared by:

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1 Version

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3 General Information

3.1 Client Information

Applicant:	E.shine Systems Limited
Address of Applicant:	9th-10th floors, Building 3, No.128 Shajing Shangnan East Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, China 518125
Manufacturer:	E.shine Systems Limited
Address of Manufacturer:	9th-10th floors, Building 3, No.128 Shajing Shangnan East Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, China 518125
Factory:	E.shine Systems Limited
Address of Factory:	9th-10th floors, Building 3, No.128 Shajing Shangnan East Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, China 518125

3.2 General Description of EUT

Product Name:	Simple remote
Model No.:	RDPRO1500, RDPRO1000, RDPRO750, RDPRO300, Rouge Ultimate, Helsi Max, Solace 1500, Refine 900, Kala Titan, Rouge Max, Helsi Pro, Solace 1000, Refine 600, Kala Duo Pro, Rouge Pro, Helsi Plus, Refine 360, Solace 750, Kala Apex, Rouge Tabletop, Helsi Mini, Solace 300, Refine 180, Kala Core
Test Model No.:	RDPRO1500
Trade mark:	E.shine Systems Limited

3.3 Product Specification subjective to this standard

Frequency Range:	2420MHz~2460MHz	
Modulation Type:	GFSK	
Test Power Grade:	Default	
Test Software of EUT:	N/A	
Antenna Type:	PCB Antenna	
Antenna Gain:	-1.96dBi	
Power Supply:	Battery:	DC 3.7V
Sample Received Date:	Mar. 13, 2025	
Sample tested Date:	Mar. 13, 2025 to Mar. 25, 2025	
Remark: Model No.: RDPRO1500, RDPRO1000, RDPRO750, RDPRO300, Rouge Ultimate, Helsi Max, Solace 1500, Refine 900, Kala Titan, Rouge Max, Helsi Pro, Solace 1000, Refine 600, Kala Duo Pro, Rouge Pro, Helsi Plus, Refine 360, Solace 750, Kala Apex, Rouge Tabletop, Helsi Mini, Solace 300, Refine 180, Kala Core Only the model RDPRO1500 was tested, They have the same electrical, PCB and layout and internal wiring were identical for the above models, only the model name are difference.		

3.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax: +86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

3.5 Deviation from Standards

None.

3.6 Abnormalities from Standard Conditions

None.

3.7 Other Information Requested by the Customer

None.

4 SAR Evaluation

4.1 RF Exposure Compliance Requirement

4.1.1 Limits

The SAR-based exemption formula of § 1.1307(b)(3)(i)(B), repeated here as Formula (B.2), applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold Pth (mW).

This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). Pth is given by Formula

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

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 ERP20cm is per Formula (B.1).

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

The 1 mW Blanket Exemption of § 1.1307(b)(3)(i)(A) applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power of no more than 1 mW, regardless of separation distance.

4.1.2 Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

4.1.3 EUT RF Exposure Evaluation

For Stand alone:

Frequency (MHz)	Estimation distance (cm)	Max. Conducted Output power (dBm)	Antenna Gain (dBi)	ERP (dBm)	ERP (mW)	Limit (mW)	MPE ratio	Result
2440	0.5	-5.22	-1.96	-9.33	0.117	2.753	0.042	Pass

Note:

① EIRP=conducted power+antenna gain;

② ERP=EIRP-2.15;

③ EIRP(dBm) = Field strength of the fundamental signal(dBuV/m@3m) – 95.23;

④ $ERP(mW) = 10^{(ERP(dBm)/10)}$;

⑤ The estimation distance is 0.5cm.

⑥ The test data please refer to the report of EED32Q81904401 and only the worst case data was recorded in the report.

Statement

1. This report is considered invalid without approved signature, special seal and the seal on the perforation;
2. The Company Name shown on Report and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified;
3. The result(s) shown in this report refer(s) only to the sample(s) tested;
4. Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule stated in ILAC-G8:09/2019/CNAS-GL015:2022;
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*** End of Report ***