

RF Exposure Evaluation Report

Product : TV Remote Control
Trade mark : Kaithin, Xtreme, Clean Remote,
The Safer solution, UltraPro
Model/Type reference : KSIR-00INS, XRM1-1000-BLK,
84006
Serial Number : N/A
Report Number : EED32Q80741502
FCC ID : 2BAE3-00INS
Date of Issue : Sep. 26, 2024
Test Standards : 47 CFR Part 1.1307
47 CFR Part 1.1310
47 CFR Part 2.1091
47 CFR Part 2.1093
KDB 447498 D04 Interim General RF
Exposure Guidance v01
Test result : PASS

Prepared for:

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1 Version

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3 General Information

3.1 Client Information

Applicant:	Jiangsu Kaithin Electronics Co., Ltd.
Address of Applicant:	Building B, No.8 Huixin Road, Jiangbei New Area, Nanjing, Jiangsu 210031
Manufacturer:	KAITHIN VIET NAM TECHNOLOGY CO., LTD
Address of Manufacturer:	Factory 7, Street 4, Lien Minh Industrial Cluster, Binh Tien 2 Hamlet, Duc Hoa Ha Commune, Duc Hoa, Long An, 82722
Factory:	KAITHIN VIET NAM TECHNOLOGY CO., LTD
Address of Factory:	Factory 7, Street 4, Lien Minh Industrial Cluster, Binh Tien 2 Hamlet, Duc Hoa Ha Commune, Duc Hoa, Long An, 82722

3.2 General Description of EUT

Product Name:	TV Remote Control
Model No.:	KSIR-00INS, XRM1-1000-BLK, 84006
Test Model No.:	KSIR-00INS
Trade mark:	Kaithin, Xtreme, Clean Remote, The Safer solution, UltraPro

3.3 Product Specification subjective to this standard

Frequency Range:	2402MHz~2480MHz				
Modulation Type:	GFSK				
Test Power Grade:	Default				
Test Software of EUT:	sscom5.13.1				
Antenna Type:	PCB Antenna				
Antenna Gain:	0dBi				
Power Supply:	DC 3.0V (1.5*2 Battery)				
Sample Received Date:	Aug. 16, 2024				
Sample tested Date:	Aug. 16, 2024 to Aug. 31, 2024				
Remark: Company Name and Address shown on Report, the sample(s) and sample Information was/ were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified. Model No.: KSIR-00INS, XRM1-1000-BLK, 84006 Only the model KSIR-00INS was tested, the circuit design, PCB and layout were consistent, only the model name, 84006 is different market requirements. See below for details. (Optional): <table border="1"> <tr> <td>Model</td><td></td></tr> <tr> <td>84006</td><td>KSIR-00INS</td></tr> </table>		Model		84006	KSIR-00INS
Model					
84006	KSIR-00INS				

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 P_{th} (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). P_{th} 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 $ERP_{20 \text{ cm}}$ 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:****For Bluetooth LE:**

Frequency (MHz)	Max. Conducted Output power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	ERP (dBm)	ERP (mW)	Limit (mW)	Result
2402	0.42	0	0.42	-1.73	0.671	2.788	PASS

Note:

① EIRP=conducted power+antenna gain;

② ERP=EIRP-2.15;

③ $EIRP(dBm) = \text{Field strength of the fundamental signal}(dBuV/m@3m) - 95.23$;④ $ERP(mW) = 10^{(ERP(dBm)/10)}$;

⑤ The estimation distance is 0.5cm;

⑥ The test data please refer to the report of EED32Q80741501 and only the worst case data was recorded in the report.

The test report is effective only with both signature and specialized stamp, The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CTI, this report can't be reproduced except in full.

***** End of Report *****