

RADIO FREQUENCY EXPOSURE EVALATION

General Information

Applicant : Keeson Technology Corporation Limited
EUT Description : REMOTE CONTROL
Model No. : RC302B, RC302C, RC302D
Radio Tech : GFSK
Frequency : 2403MHz-2480MHz

Description of Test Facility

Name of Firm : Audix Technology (Shanghai) Co., Ltd.
Site Location : 3F, Building 34, No. 680 Guiping Rd.,
Caohejing, Hi-Tech Park, Shanghai 200233, China
NVLAP, Lab Code : 200371-0
FCC Designation Number : CN5027
Test Firm Registration Number: 954668

Results

The EUT is operated as one portable device, and it is compliant with the RF Exposure Exemption.



For and on behalf of
Audix Technology (Shanghai) Co., Ltd.

Producer :

Huimin Yan

HUIMIN YAN / Assistant

Authorized Signature(s)

Jarey Lu

JAREY LU / Deputy Assistant Manager

Evaluation Method

KDB 447498 D04 Interim General RF Exposure Guidance v01

Applicable Standard:

KDB 447498 D04 v01:

Section 2.1.3: SAR-Based Exemption.

A more comprehensive exemption, considering a variable power threshold that depends on both the separation distance and power, is provided in § 1.1307(b)(3)(i)(B). This exemption is applicable to the frequency range between 300 MHz and 6 GHz, with test separation distances between 0.5 cm and 40 cm, and for all RF sources in fixed, mobile, and portable device exposure conditions. Accordingly, a RF source is considered an RF exempt device if its available maximum time-averaged (matched conducted) power or its effective radiated power (ERP), whichever is greater, are below a specified threshold. This exemption threshold was derived based on general population 1-g SAR requirements and is detailed in Appendix C.

FCC CFR 47 §1.1307(b)(3)(i)(B):

A single RF source is exempt if the available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold P_{th} (mW) described in the following formula. This method shall only be used at separation distances (cm) from 0.5 centimeters to 40 centimeters and at frequencies from 0.3 GHz to 6 GHz (inclusive). P_{th} is given by:

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

Where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right) \text{ and } f \text{ is in GHz;}$$

and

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

d = the separation distance (cm);

RF Exposure evaluation:

Mode	Frequency	Output Power		Antenna Gain	Maximum EIRP		Threshold P_{th}	Verdict
	(MHz)	(dBm)	(mW)	(dBi)	(dBm)	(mW)	(mW)	
GFSK	2403	1.034	1.27	0	1.034	1.27	2.79	Compliant

Note1: For this EUT which operated as portable device, the separation distance is 0.5 cm.

Note2: The Conducted output power and Maximum EIRP both no greater than the threshold P_{th} , that meets the exemption, the RF exposure evaluation is not required.

Note3: Maximum EIRP (dBm)=Output Power (dBm)+ Antenna Gain (dBi).

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