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IKeyless, LLC SAR EXEMPTION REPORT

SCOPE OF WORK

SAR EXEMPTION CALCULATION
ON THE KEY FOB REMOTE

REPORT NUMBER

106279645LEX-006

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SAR EXEMPTION TEST REPORT

Report Number: 106279645LEX-006

Project Number: G106279645

Report Issue Date: 11/18/2025

Product Name: Key Fob Remote
Model TBD

Standards: FCC Part 2.1093
RSS-102 Issue 6

Tested by:
Intertek Testing Services NA, Inc.
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Lexington, KY 40510
USA

Client:
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1 Introduction and Conclusion

SAR exemption calculations were performed on the product constructed as described in section 4. Information provided by the client including maximum output power, antenna gain(s), and minimum separation distance(s) was used to determine if the product under evaluation was exempt from SAR. Any change in these stated values may invalidate these results. No additions, deviations, or exclusions have been made from the standard(s) unless specifically noted.

Based on the results of our investigation, we have concluded the product under evaluation is **exempt** from SAR requirements for each of the standard(s) indicated. The results obtained in this test report pertain only to the item(s) evaluated. Intertek does not make any claims of compliance for samples or variants which were not evaluated.

2 Test Summary

Section	Requirement	Result
5	FCC SAR Exemption Criteria (FCC Title 47 CFR Part 1.1307, 2.1093)	Exempt from SAR
6	ISED SAR Exemption Criteria (RSS-102 Issue 6)	Exempt from SAR



3 Client Information

This product was tested at the request of the following:

Client Information	
Client Name:	IKeyless, LLC
Address:	12101 Sycamore Station Place Suite 140 Louisville, KY 40299 USA
Contact:	Madison McClellan
Telephone:	+1 (877) 445-3953
Email:	mmcclellan@carkeysexpress.com
Manufacturer Information	
Manufacturer Name:	IKeyless, LLC
Manufacturer Address:	12101 Sycamore Station Place Suite 140 Louisville, KY 40299 USA



4 Description of Equipment under Test and Variant Models

Equipment Under Test	
Product Name	Key Fob Remote
Model Number	NSSSL-G300
Hardware Version	Rev. 0
Software Version	14723
Embedded Module(s)	N/A
Supported Transmit Bands	315MHz 433MHz
Supported Transmit Modes	315MHz: $\pm 25\text{kHz}$ 433MHz: $\pm 25\text{kHz}$
Antenna Gain ¹	315MHz: -16.9dBi 433MHz: -23.3dBi
Maximum Output Power	315MHz: -3.543dBm 433MHz: 4.689dBm
Ratings	3VDC
Description of Equipment Under Test (provided by client)	
The IKeyless, LLC TBD is a Key Fob where a user will hold device and push buttons to perform actions at a vehicle (locking/unlocking doors, remote start, panic, etc.) In addition, the user can use the device to start the car, with the device in the vehicle.	

4.1 Variant Models:

There were no variant models covered by this evaluation.

¹ Values were provided by the client and may affect compliance. Intertek does not make any claims of compliance for values other than those shown.



4.2 Maximum Output Power

The following information was taken from Intertek report 106279645LEX-001.

8.6 Test Results:

All fundamental and spurious emissions not falling into the restricted bands met the limits outlined in FCC Part 15.231(b). Additionally, all emissions falling within restricted bands of operation were found to be below the limit specified in Part 15.209(a). The emissions listed in the following tables are the worst case emissions and were investigated with the sample positioned in three orthogonal axis in order to report the highest possible field strength.

Frequency (MHz)	Field Strength (dBuV/m)	Limit (dBuV/m)	Margin (dB)
314.891	74.757	75.623	0.87
433.943	76.589	80.795	4.21



5 FCC SAR Exemption Criteria

FCC Title 47 CFR Part 1.1307(3)(i):

For single RF sources (i.e., any single fixed RF source, mobile device, or portable device, as defined in paragraph (b)(2) of this section): A single RF source is exempt if:

- (A) The available maximum time-averaged power is no more than 1 mW, regardless of separation distance. This exemption may not be used in conjunction with other exemption criteria other than those in paragraph (b)(3)(ii)(A) of this section. Medical implant devices may only use this exemption and that in paragraph (b)(3)(ii)(A);
- (B) Or 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);



5.1 Exemption Data

Frequency (MHz)	MaxPeak (dBμV/m)	Conversion Factor (dB)	Antenna Gain (dBi)	Conducted Output Power (dBm)	Conducted Output Power (mW)	Exemption Threshold (mW)	Exempt from SAR?
315	74.757	95.2	-16.9	-3.543	0.442	90.8	Yes
433	76.589	95.2	-23.3	4.689	2.9	58.1	Yes



6 ISED SAR Exemption Criteria

RSS-102 Issue 6 § 6.3: SAR exemption limits

Devices operating at or below the applicable output power levels (adjusted for tune-up tolerance) specified in table 11, based on the separation distance, are exempt from SAR evaluation. The separation distance, defined as the distance between the user and/or bystander and the antenna and/or radiating element of the device or the outer surface of the device, shall be less than or equal to 20 cm for these exemption limits to apply.

Table 11: Power limits for exemption from routine SAR evaluation based on the separation distance

Frequency (MHz)	≤ 5 mm (mW)	10 mm (mW)	15 mm (mW)	20 mm (mW)	25 mm (mW)	30 mm (mW)	35 mm (mW)	40 mm (mW)	45 mm (mW)	> 50 mm (mW)
≤ 300	45	116	139	163	189	216	246	280	319	362
450	32	71	87	104	124	147	175	208	248	296
835	21	32	41	54	72	96	129	172	228	298
1900	6	10	18	33	57	92	138	194	257	323
2450	3	7	16	32	56	89	128	170	209	245
3500	2	6	15	29	50	72	94	114	134	158
5800	1	5	13	23	32	41	54	74	102	128

The exemption limits in Table 11 are based on measurements and simulations of half-wave dipole antennas at separation distances of 5 mm to 50 mm from a flat phantom, which provides a SAR value of approximately 0.4 W/kg for 1 g of tissue.

For limb-worn devices where the 10 gram of tissue applies, the exemption limits for routine evaluation in table 11 are multiplied by a factor of 2.5.

For controlled-use devices where the 8 W/kg for 1 gram of tissue applies, the exemption limits for routine evaluation in table 11 are multiplied by a factor of 5.

When the operating frequency of the device is between two frequencies located in table 11, linear interpolation shall be applied for the applicable separation distance. If the separation distance of the device is between two distances located in table 11, linear interpolation may be applied for the applicable frequency. Alternatively, the limit corresponding to the smaller distance may be employed. For example, in case of a 7 mm separation distance, either use the exception value for a 5 mm separation distance or interpolate between the limits corresponding to 5 mm and 10 mm separation distances



6.1 Exemption Data

Frequency (MHz)	MaxPeak (dB μ V/m)	Conversion Factor (dB)	Antenna Gain (dBi)	Conducted Output Power (mW)	Separation Distance (mm)	Exemption Threshold (mW)	Exempt from SAR?
315	74.757	95.2	-16.9	-3.543	5	43.7	Yes
434	76.589	95.2	-23.3	4.689	5	33.5	Yes

**7 Revision History**

Revision Level	Date	Report Number	Prepared By	Reviewed By	Notes
0	11/18/2025	106279645LEX-006	JP	MC	Original Issue