

Report on the Testing of the

iKeyless LLC
GMSSL-G060

FCC ID: X32-GMSSG060

Prepared for: iKeyless LLC
12101 Sycamore Station Pl. Ste 140
Louisville, KY 40299



America

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SIGNATURE

NAME	JOB TITLE	RESPONSIBLE FOR	ISSUE DATE
Sean Sellergren	Sr EMC Engineer	Authorized Signatory	07 February 2022

Signatures in this approval box have checked this document in line with the requirements of TÜV SÜD America, Inc. document control rules.

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Designation Number US1148 New Brighton, MN Test Accreditation
Laboratory Site Number 4512A New Brighton, MN Test Laboratory

EXECUTIVE SUMMARY

A sample of this product was tested and found to be compliant with the standards listed above.



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TÜV SÜD America Inc
141 14th Street NW
New Brighton, MN 55112

Phone: 651-631-2487
www.tuv-sud-america.com



1.1 Report Modification Record

Alterations and additions to this report will be issued to the holders of each copy in the form of a complete document.

Table 1.1-1 – Modification Record

Issue	Description of Change	Date of Issue
1	First Issue	07 February 2022
2	Updated Antenna Gain information	04 April 2022
3	Updated FCC RF Exp. calculations for FCC to new guidelines	07 April 2022
3b	Included FCC RF Exposure Calculations in report; Separated ISED RF Exposure from report	18 April 2022

General Information:

Applicant: iKeyless LLC
 FCC ID: X32-GMSSG060

Exposure Conditions:

Frequency: Discreet; 314.9 MHz or 433.92 MHz
 Antenna Type: PCB Trace
 Antenna Gain: -15.80 dBi (314.9 MHz); -11.70 dBi (433.92 MHz)
 Simultaneous TX: No
 Modality: Portable
 Separation: ≥ 5 mm
 Environment: General Public/Uncontrolled Exposure
 FCC Evaluation: Assessed to “1-g Body” exposure conditions



RF Exposure Calculation – FCC

314.90 MHz Variant = “Device 1”

433.92 MHz Variant = “Device 2”

Device Characteristics:		
Technical Parameters	Device 1	Device 2
Frequency (GHz)	0.3149	0.43392
Frequency (MHz)	314.9	433.92
Separation Distance (cm)	0.50	0.5
Separation Distance (m)	0.0050	0.005
Antenna Gain (dBi)	-15.80	-11.70
ERP Easily Determined	YES	YES
1-g body or 10-g extremity	Body	Body
Conducted Power (dBm)	8.90	7.74
Conducted Power (mW)	7.76	5.94
Duty Factor (Source-Based) %	100.0	100.0
Maximum (Source-Based) Time-Averaged Conducted Power (mW)	7.76	5.94
Maximum (Source-Based) Time-Averaged ERP (mW)	0.12	0.24
Maximum (Source-Based) Time-Averaged EIRP (mW)	0.20	0.40
Maximum Output (mW)	7.76	5.94

47 CFR 1.1307(b)(3)(i)(B) SAR-Based Exemption P_{th} (mW)		
Technical Parameters	Device 1	Device 2
x	0.78	0.99
ERP _{20cm} (mW)	642.40	885.20
Maximum Output (mW)	7.762	5.943
P _{th} (mW)	36.326	23.166
Exemption	YES	YES
Contribution Ratio (P / P _{th})	0.214	0.257
Distance to Limit (cm)	0.069	0.126