

RF Exposure Report

Project Number: 4681230**Proposal Number: 11079****Report Number: 4681230EMC14****Revision Level: 0****Client: ZEROKEY Inc.****Equipment Under Test: 50V Ultrasonic Transducer****Model Name: Relay Node****Model Numbers: AGISRL10 and ZKISRL10****FCC ID: 2AX6LISRL10****Applicable Standards: 47 CFR §§ 2.1091****FCC KDB 447498 D01 General RF Exposure Guidance v06****Report issued on: 04 June 2021****Result: Compliant**

FOR THE SCOPE OF ACCREDITATION UNDER CERTIFICATE NUMBER: 3212.01

This report must not be used by the client to claim product certification, approval, or endorsement by A2LA, NIST, or any agency of the Federal Government.

Prepared by:

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Stephen Whalen, EMC Lab Manager

Remarks: This report details the results of the testing carried out on one sample, the results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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1 General Information

1.1 Client Information

Name: ZEROKEY Inc.
Address: 3120 12 Street NE
City, State, Zip, Country: Calgary, Alberta T2E 8T3 Canada

1.2 Test Laboratory

Name: SGS North America, Inc.
Address: 620 Old Peachtree Road NW, Suite 100
City, State, Zip, Country: Suwanee, GA 30024, USA

Accrediting Body: A2LA
Type of lab: Testing Laboratory
Certificate Number: 3212.01

1.3 General Information of EUT

Equipment Under Test: 50V Ultrasonic Transducer
Model Name: Relay Node
Model Numbers: AGISRL10 and ZKISRL10
Sample ID: SUWES2012000108HZ

FCC ID: 2AX6LISRL10

Frequency Range: 2402 – 2480 MHz (two BLE radios)
Data Modes: Bluetooth Low Energy (GFSK 1Mbps & 2Mbps)
Nordic Enhanced ShockBurst Protocol (GFSK 2Mbps)
Antenna: Surface Mount Stamped Metal Antenna (4.9 dBi max gain)
Internal Flexible PCB Antenna (3.2 dBi max gain)

Rated Voltage: 3.6 Vdc Lithium Thionyl Chloride Battery
Test Voltage: 3.6 Vdc Lithium Thionyl Chloride Battery

Sample Received Date: 02 February 2021
Dates of testing: 07 April 2021

2 RF Exposure

2.1 Test Result

Test Description	Product Specific Standard	Test Result
RF Exposure	FCC Part 1.1310	Compliant

2.2 Test Method

Using the maximum conducted power, the power density was calculated. Maximum antenna gain was assumed for this exercise.

2.3 Single transmission RF Exposure Levels (mW/cm^2)

Band of Operation		Conducted Power w/tolerance	Antenna Gain	Cable Loss	Average EIRP		Distance (R)	Power Density $\text{EIRP}_{\text{Avg}}/(4\pi R^2)$	FCC	% of Limit	Verdict
Type	MHz	dBm			dBm	mW	cm	mW/cm^2	mW/cm^2		
Bluetooth LE (Anchor)	2400-2483.5	5.0	4.9	0.0	9.9	10	20	0.002	1.00	0%	Pass
Bluetooth LE (Relay)	2400-2483.5	7.1	3.2	0.0	10.3	11	20	0.002	1.00	0%	Pass

2.4 Simultaneous transmissions

The sum of the % of Limit values for both radios transmitting simultaneously rounds to 0%.

4 Revision History

Revision Level	Description of changes	Revision Date
Draft	--	28 April 2021
0	Initial Release	04 June 2021