FCC 47 CFR § 2.1093

RF EXPOSURE EXEMPTION REPORT

FOR

SPIRE MEDICAL HEALTH TAG

MODEL NUMBER: 800100

FCC ID: 2ACF5800100

REPORT NUMBER: 12968657-S1V1

ISSUE DATE: NOVEMBER 18, 2019

Prepared for
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2030 HARRISON STREET 2nd FLOOR
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Prepared by
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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
V1	11/18/2019	Initial Issue	--

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: COMPANY
STREET
CITY, STATE, ZIP, COUNTRY

COMPANY NAME: SPIRE, INC.
2030 HARRISON STREET 2nd FLOOR
SAN FRANCISCO, CA 98052, U.S.A.

EUT DESCRIPTION: SPIRE MEDICAL HEALTH TAG

MODEL NUMBER: 800100

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
FCC 47 CFR § 2.1093	Complies
Published RF exposure KDB procedures	

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. All samples tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise.

This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of the U.S. government.

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2. TEST METHODOLOGY

All calculations were made in accordance with 447498 D01 General RF Exposure Guidance v06.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 and 47266 Benicia Street, Fremont, California, USA.

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0.

4. DEVICE UNDER TEST.

The DUT is a medical tag that contains a BLE transmitter. The TAG may be worn next to the skin, so SAR evaluation is required. The maximum specified output power is 6.2 dBm (4.2 mW)

5. STANDALONE SAR TEST EXCLUSION CONSIDERATIONS

5.1. FCC

SAR test exclusion in accordance with KDB 447498.

a) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

[(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)]·[√f(GHz)] ≤ 3.0, for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

- $f_{(GHz)}$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

SAR Exclusion Calculation Table for Portable Devices (separation distance ≤ 50 mm)

Antenna	Tx	Frequency (MHz)	Avg Output power		Separation Distances (mm)	Calculated Threshold
			dBm	mW		
Chip Antenna	BLE	2402	6.2	4	5	1.2

Conclusion:
The computed value is ≤ 3; therefore, EUT qualifies for Standalone 1-gm body SAR test exclusion.
The computed value is ≤ 7.5; therefore, EUT qualifies for Standalone 10-gm extremity SAR test exclusion.

END OF TEST REPORT

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