



TEST REPORT

Report Number. : 13461097-E5V3

Applicant : VERILY LIFE SCIENCES
269 E GRAND AVE.,
SOUTH SAN FRANCISCO, CA 94080, U.S.A.

FCC ID : 2AJ3K-990-04082-00

EUT Description : WEARABLE VITAL SIGNS MONITOR

Test Standard(s) : FCC 47 CFR PART 1 SUBPART I
FCC 47 CFR PART 2 SUBPART J

Date Of Issue:
October 20, 2020

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NVLAP Lab code: 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
V1	9/18/2020	Initial Issue	--
V2	10/5/2020	Updated EUT name	Tina Chu
V3	10/20/2020	Updated report to address TCB's question	Tina Chu

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: VERILY LIFE SCIENCES
269 E GRAND AVE.,
SOUTH SAN FRANCISCO, CA 94080, U.S.A.

EUT DESCRIPTION: WEARABLE VITAL SIGNS MONITOR


APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC PART 1 SUBPART I & PART 2 SUBPART J	Complies

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.

Approved & Released For
UL Verification Services Inc. By:



DAVE WEAVER
OPERATIONS LEADER
UL Verification Services Inc.

Prepared By:



TINA CHU
SENIOR PROJECT ENGINEER
UL Verification Services Inc.

2. METHODOLOGY

SAR test exclusion in accordance with KDB 447498.

3. REFERENCES

Output power, Duty cycle and Antenna gain data is excerpted from the applicable test report or client declarations.

4. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 and 47266 Benicia Street, and 47658 Kato Road, Fremont, California, USA. Line conducted emissions were measured at 47658 Kato Road address. The following table identifies which facilities were utilized for radiated emission measurements documented in this report. Specific facilities are also identified in the test results sections.

47173 Benicia Street	47266 Benicia Street	47658 Kato Rd
<input type="checkbox"/> Chamber A	<input type="checkbox"/> Chamber D	<input type="checkbox"/> Chamber I
<input type="checkbox"/> Chamber B	<input type="checkbox"/> Chamber E	<input type="checkbox"/> Chamber J
<input type="checkbox"/> Chamber C	<input type="checkbox"/> Chamber F	<input checked="" type="checkbox"/> Chamber K
	<input type="checkbox"/> Chamber G	<input type="checkbox"/> Chamber L
	<input type="checkbox"/> Chamber H	<input type="checkbox"/> Chamber M

The above test sites and facilities are covered under FCC Test Firm Registration # 208313. Chambers above are covered under Industry Canada company address and respective code: 2324B.

5. EUT DESCRIPTION

EUT is a wearable vital signs monitor with BLE radio. Powered by a coin cell lithium battery. The user to antenna separation distance is 0mm. The peak antenna gain is -6dBi.

6. OUTPUT POWER

EUT has a maximum conducted average output power of 8.50dBm (7.08mW) under normal and extreme environmental conditions.

7. STANDALONE SAR TEST EXCLUSION CONSIDERATIONS

7.1. FCC

SAR test exclusion in accordance with KDB 447498.

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:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$, for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

- $f_{(\text{GHz})}$ 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

This test exclusion is 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.

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:

1. $\{[\text{Power allowed at numeric threshold for 50 mm}]\} + [(\text{test separation distance} - 50 \text{ mm}) \cdot (f(\text{MHz})/150)]$ mW, for 100 MHz to 1500 MHz
 - $f_{(\text{MHz})}$ is the RF channel transmit frequency in MHz
2. $\{[\text{Power allowed at numeric threshold for 50 mm}]\} + [(\text{test separation distance} - 50 \text{ mm}) \cdot 10]$ mW, for > 1500 MHz and ≤ 6 GHz

SAR Exclusion Calculations Table for Portable Devices (separation distance < 50mm)

Antenna	Tx	Frequency (MHz)	Avg Output power ^{Note 1}		Separation distances (mm)	Threshold Value
			dBm	mW		
Main	Bluetooth	2480	9.00	8.00	5	2.5

Note 1: The listed power is the maximum declared average output power including manufacturing tolerance rounded to the nearest mW.

Conclusion:

The computed value is < 3; therefore, Bluetooth Low Energy qualifies for Standalone SAR test exclusion.

END OF REPORT