



F2 Labs
16740 Peters Road
Middlefield, Ohio 44062
United States of America
www.f2labs.com

CERTIFICATION TEST REPORT

Manufacturer: Libra Industries, Inc.
7770 Division Drive
Mentor, Ohio 44060 USA

Applicant: 7signal Solutions, Inc.
526 South Main Street, Suite 601G
Akron, Ohio 44311 USA

Product Description: **802.11ac Dual Band Module**

Product Host: Sapphire Eye 2100, model 2100

Modular Radio Model: **WLE900VX-7S**

Radio Module FCC ID: **YLFSE2100WL**

Testing Commenced: **May 22, 2015**

Testing Ended: **July 14, 2015**

Test Results: **In Compliance**

The EUT complies with the EMC requirements when manufactured identically as the unit tested in this report, including any required modifications. Any changes to the design or build of this unit subsequent to this testing may deem it non-compliant.

Standards:

- **KDB447498**



Order Number: F2LQ7176

Client: 7signal Solutions, Inc.

FCC ID: YLFSE2100WL

Evaluation Conducted by:

Ken Littell, EMC Tech. Mgr.

Report Reviewed by:

Wendy Fuster, President

F2 Labs
26501 Ridge Road
Damascus, MD 20872
Ph 301.253.4500
Fax 301.253.5179

F2 Labs
16740 Peters Road
Middlefield, OH 44062
Ph 440.632.5541
Fax 440.632.5542

This test report may be reproduced in full; partial reproduction only may be made with the written consent of F2 Labs. The results in this report apply only to the equipment tested.



TABLE OF CONTENTS

Section	Title	Page
1	ADMINISTRATIVE INFORMATION	4
2	SUMMARY OF TEST RESULTS/MODIFICATIONS	5
3	ENGINEERING STATEMENT	6
4	EUT INFORMATION AND DATA	7
5	RF EXPOSURE FOR DEVICE >20cm FROM HUMAN	8



1 ADMINISTRATIVE INFORMATION

1.1 Measurement Location:

F2 Labs in Middlefield, Ohio. Site description and attenuation data are on file with the FCC's Sampling and Measurement Branch at the FCC Laboratory in Columbia, MD.

1.2 Measurement Procedure:

All measurements were performed according to KDB558074.

1.4 Document History

Document Number	Description	Issue Date	Approved By
F2LQ7176-05E	First Issue	Aug. 28, 2015	W. Fuster



Order Number: F2LQ7176

Client: 7signal Solutions, Inc.

FCC ID: YLFSE2100WL

2 SUMMARY OF TEST RESULTS

Test Name	Standard(s)	Results
RF Exposure for Device >20cm from Human	KDB447498	Complies

Note: Product was operated from 120V AC using AC/DC Adapter Shenzen Zhen Huan Electric Co. ZF120A-1201500.

Modifications Made to the Equipment
None



Order Number: F2LQ7176

Client: 7signal Solutions, Inc.

FCC ID: YLFSE2100WL

3 ENGINEERING STATEMENT

This report has been prepared on behalf of 7signal Solutions, Inc. to provide documentation for the testing described herein. This equipment has been tested and found to comply with KDB447498. The test results found in this test report relate only to the item(s) tested.



Order Number: F2LQ7176

Client: 7signal Solutions, Inc.

FCC ID: YLFSE2100WL

4 EUT INFORMATION AND DATA

4.1 Equipment Under Test:

802.11ac Dual Band Module

Modular Radio Model: WLE900VX-7S

Radio Module FCC ID: YLFSE2100WL

Product Host: Sapphire Eye 2100, model 2100, Serial No.: 121400029

4.2 Trade Name:

7signal Solutions, Inc.

4.3 Power Supply:

AC/DC Adapter Shenzhen Zhen Huan Electric Co. ZF120A-1201500

4.4 Applicable Rules:

- KDB447498

4.5 Equipment Category:

Radio Transmitter-DTS

4.6 Antenna:

6dBi Integral Antenna

4.7 Accessories:

N/A

4.8 Test Item Condition:

The equipment to be tested was received in good condition.



Order Number: F2LQ7176

Client: 7signal Solutions, Inc.

FCC ID: YLFSE2100WL

5. RF EXPOSURE FOR DEVICE >20cm FROM HUMAN

5.1 Requirements:

Limit: 1mW/cm²

Formula used for result:
$$\frac{\text{E.I.R.P.}}{4 \pi R^2}$$

Results: E.I.R.P. = 1071.5mW

1071.5mW at the 2412-2462 MHz band
which is the highest.

$$\frac{1071.5\text{mW}}{4 \pi R^2} = \frac{1071.5\text{mW}}{5026.55} = .2131\text{mW/cm}^2$$