



Compliance Testing, LLC

Previously Flom Test Lab

EMI, EMC, RF Testing Experts Since 1963

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Test Report

Prepared for: Sensys Networks, Inc.

Model: FLEX-RPT3-SLR-E

Description: Solar Repeater

Serial Number: N/A

FCC ID: TDB-FLEXRPS

To

FCC Part 1.1310

Date of Issue: November 14, 2017

On the behalf of the applicant:

Sensys Networks, Inc.
1608 4th Street
Suite 200
Berkeley, CA 94710

Attention of:

Sebastian Lodahl, Compliance Manager
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Prepared By
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Project No: p1790010

Poona Saber
Project Test Engineer

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Test Report Revision History

Revision	Date	Revised By	Reason for Revision
1.0	October 2, 2017	Poona Saber	Original Document
2.0	November 14, 2017	Amanda Reed	Updated company address

ILAC / A2LA

Compliance Testing, LLC, has been accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer joint ISO-ILAC-IAF Communiqué dated January 2009)

The tests results contained within this test report all fall within our scope of accreditation, unless below

Please refer to <http://www.compliancetesting.com/labscope.html> for current scope of accreditation.

Testing Certificate Number: **2152.01**



FCC Site Reg. #349717

IC Site Reg. #2044A-2

Non-accredited tests contained in this report:

N/A

EUT Description

Model: FLEX-RPT3-SLR-E

Description: Solar Repeater

Firmware: N/A

Software: N/A

Serial Number: N/A

Additional Information:

The repeater is uses pulsed transmission under IEEE 802.15.2 Standard sending data in packets. When no packet is being sent the transmitter is turned off completely. The transmitter is designed to ramp up and ramp down pulse transmission edges to eliminate splatter.

For testing purposes device is put on continuous transmission and duty cycle correction factor is applied to measure Average Power from peak measurements as below.

$$DCCF = 20 * \log(2.833 * 6 / 100) = -15.39 \text{ dB}$$

The EUT incorporates a 5.5 dBi internal antenna and can go up to 14 dBi external Antenna.



Source Based Time Averaged Power Calculation

Average Power calculations

Average Power = Peak Power * duty-cycle%

Tuned Frequency (MHz)	Conducted Average Output Power (dbm)
2405	-3.62



MPE Evaluation

This is a mobile device used in Uncontrolled Exposure environment.

**Limits Uncontrolled Exposure
47 CFR 1.1310
Table 1, (B)**

0.3-1.234 MHz:	Limit [mW/cm ²] = 100
1.34-30 MHz:	Limit [mW/cm ²] = (180/f ²)
30-300 MHz:	Limit [mW/cm ²] = 0.2
300-1500 MHz:	Limit [mW/cm ²] = f/1500
1500-100,000 MHz	Limit [mW/cm ²] = 1.0

Test Data

Test Frequency, MHz	2405
Power, Conducted, mW (P)	0.43
Antenna Gain Isotropic	14 dBi
Antenna Gain Numeric (G)	25.11
Antenna Type	external
Distance (R)	20 cm

$S = \frac{P * G}{4\pi r^2}$
Power Density (S) mw/cm ²

Power Density (S) = 0.00214
Limit =(from above table) = 1

END OF TEST REPORT