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-RAD-CM

Description: FLEXRADIO Cabinet

Serial Number: N/A

FCC ID: TDB-FLEXRAD

To

FCC Part 1.1310

Date of Issue: July 6, 2017

On the behalf of the applicant:	**Sensys Networks, Inc.** **2560 Ninth St.** **Berkeley, CA 94710**
Attention of:	**Sebastian Lodahl, Compliance Manager** **Ph: (510)847-6189** **Email: slodahl@sensysnetworks.com**

Prepared By
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Project No: p1760011

Poona Saber
Project Test Engineer

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Test Report Revision History

Revision	Date	Revised By	Reason for Revision
1.0	June 27, 2017	Poona Saber	Original Document
2.0	July 5, 2017	Poona Saber	Revised power and antenna gain and hence calculations

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

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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-RAD-CM
Description: FLEXRADIO Cabinet
Firmware: N/A
Software: TrafficDOT2
Serial Number: N/A
Additional Information:
The FlexRadio Cabinet is the communications edge gateway for the Sensys Networks VDS240 Wireless Vehicle Detection System. The FlexRadio Cabinet uses its DSSS ISM band radio to communicate to battery operated sensors and then relay the information over RS-422 on Cat5 cables to either an APCC or FlexControl to process the data and provide vehicle detection information to a traffic signal controller or remote traffic management center.
EUT operates in the 2406 – 2480MHz band

Average Power calculations

Average Power = Peak Power * duty-cycle%

Tuned Frequency (MHz)	Radiated Peak Output Power (mW)	Duty Cycle (%)	Average Power (mW)
2440	3.89	100	3.89 mW

MPE Evaluation

This is a fixed device used in Uncontrolled Exposure environment.

Limits Uncontrolled Exposure 47 CFR 1.1310 Table 1, (B)	0.3-1.234 MHz:	Limit [mW/cm²] = 100
	1.34-30 MHz:	Limit [mW/cm²] = (180/f²)
	30-300 MHz:	Limit [mW/cm²] = 0.2
	300-1500 MHz:	Limit [mW/cm²] = f/1500
	1500-100,000 MHz	Limit [mW/cm²] = 1.0

Test Data

Test Frequency, MHz	2440
Power, EIRP, mW (P)	3.89
Antenna gain (dBi)	6
Antenna gain (Numeric)	3.98
Distance (R)	20 cm

$$S = \frac{P * G}{4\pi r^2}$$
Power Density (S) mw/cm²

Power Density (S) =0.00308
Limit =(from above table) = 1.0

END OF TEST REPORT