



Compliance Testing, LLC

Previously Flom Test Lab

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toll-free: (866) 311-3268

fax: (480) 926-3598

<http://www.ComplianceTesting.com>

info@ComplianceTesting.com

Test Report

Prepared for: Space Data Corporation

Model: SKS-900-MK2

Description: Narrowband PCS, Multi-Protocol SkySite

FCC ID: RY9SKS900MK2

To

FCC Part 1.1310

Date of Issue: April 16, 2013

On the behalf of the applicant:

**Space Data Corporation
2535 W. Fairview Street
Suite 101
Chandler, AZ 85224**

Attention of:

**Jerry Knoblach, Chairman / CEO
Ph: (480)722-2100
E-Mail: knoblach@spacedata.net**

**Prepared By
Compliance Testing, LLC
3356 N San Marcos Pl, Suite 107
Chandler, AZ 85225-7176
(866) 311-3268 phone / (480) 926-3598 fax
www.compliancetesting.com
Project No: p1330009**

**Greg Corbin
Project Test Engineer**

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Test Report Revision History

Revision	Date	Revised By	Reason for Revision
1.0	April 16, 2013	Greg Corbin	Original Document
2.0	May 9, 2013	Greg Corbin	Updated Antenna gain information based on new data from the manufacture.



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 OATS Reg, #933597

IC Reg. #2044A-1

Non-accredited tests contained in this report:

N/A



Description

The SKS-900-MK2 contains 2 transmitters that are tethered to a weather balloon.

1 transmitter provides narrowband communication services to remote areas on the ground.

The 2nd transmitter is used to transmit to the balloon vent and the ballast assembly which are up to 100 feet away from the SKS-900-MK2.

The EUT has 2 co-located transmitters. The Power Density was calculated for each transmitter and summed together for the final Power Density calculation.

The SKS-900-MK2 transmits in the unlicensed ISM band on a single channel at 915 MHz at an effective radiated power of less than 10 dBm. This wireless channel is used to transmit to the balloon vent and the ballast assembly which are up to 100 feet away from the SKS-900-MK2

This is a mobile device used in Controlled Exposure environment.

Limits - Controlled Exposure 47 CFR 1.1310 Table 1, (A)

0.3-3.0 MHz:	Limit [mW/cm ²] = 100
3.0-30 MHz:	Limit [mW/cm ²] = (900/f ²)
30-300 MHz:	Limit [mW/cm ²] = 1.0
300-1500 MHz:	Limit [mW/cm ²] = f/300
1500-100,000 MHz	Limit [mW/cm ²] = 5

Test Frequencies, MHz	915
Power, Conducted, mW (P)	8.71
Antenna Gain Isotropic	0 dBi
Antenna Gain Numeric (G)	1
Antenna Type	3.5 inch piece of wire, mfr states that it is a ¼ wavelength at 915 MHz
Distance (R)	20 cm

Test Frequencies, MHz	901
Power, Conducted, mW (P)	631
Antenna Gain Isotropic	9.2 dBi
Antenna Gain Numeric (G)	8.32
Antenna Type	Co-Linear Dipole Array high gain antenna, note: that the mfr states in the user manual that the transmit power is limited to 28 dBm (631 mw) when using the Co-Linear Dipole Array antenna
Distance (R)	20 cm

Co-located Power Density Calculations	Formula =	$S = PG / 4\pi R^2$
	Power Density (S) =	1.04 mW/cm ²
	Limit =	3.00 mW/cm ²

The Co-located Power Density is below the Limit.

The SAR measurement is not necessary.

END OF TEST REPORT