



Test Report

Prepared for: SolidRF

Model: SolidRF SOHO Tri Band Cell Phone Booster

Description: Tri Band Cell Phone booster

Serial Number: 01961701190001

FCC ID: A7V-SR13652001

To

FCC Part 1.1310

Date of Issue: January 23, 2017

On the behalf of the applicant:

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Attention of:

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Test Report Revision History

Revision	Date	Revised By	Reason for Revision
1.0	January 19, 2017	Greg Corbin	Original Document



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: SolidRF SOHO Tri Band Cell Phone Booster

Description: Tri Band Cell Phone Booster

Firmware: 192-LGW-65-A-1.0, 196-RF-KD-A-1.2

Software: 196-MainCPUFCC.V1, 196-SlaveCPU.V1

Serial Number: 01961701190001

Additional Information:

The EUT is an **In-Building**, bi-directional amplifier for the boosting of cellular phone signals and data communication devices.

The following frequency bands and emission types are utilized.

Frequency Band (MHz)			
Uplink	698 - 716	824 - 849	1850 - 1915
Downlink	728 - 746	869 - 894	1930 - 1995

Antenna gains including the cable loss came from the Antenna Kitting document supplied with this filing. The lowest frequency and the highest output power for each band were used in the calculations.



Source Based Time Averaged Power Calculation

Tuned Frequency (MHz)	Conducted Output Power (mW)	Duty Cycle (%)
698 - 716	97.7	100
824 - 849	114.8	100
1850 - 1915	120.2	100



MPE Evaluation

This is a portable device used in Uncontrolled Exposure environment.

Limits Uncontrolled Exposure

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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	698
Power, Conducted, mW (P)	97.7
Antenna Gain Isotropic	5.1 dBi
Antenna Gain Numeric (G)	3.24
Distance (R)	20 cm

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

Power Density (S) = 0.063 mw/cm ²
Limit =(from above table) = 0.465 mw/cm ²

The EUT meets the power density requirements at 20 cm

Test Frequency, MHz	824
Power, Conducted, mW (P)	114.8
Antenna Gain Isotropic	5.05 dBi
Antenna Gain Numeric (G)	3.20
Distance (R)	20 cm

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

Power Density (S) = 0.073 mw/cm ²
Limit =(from above table) = 0.549 mw/cm ²

The EUT meets the power density requirements at 20 cm



Test Frequency, MHz	1850
Power, Conducted, mW (P)	120.2
Antenna Gain Isotropic	5.1 dBi
Antenna Gain Numeric (G)	3.24
Distance (R)	20 cm

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

Power Density (S) = 0.077 mw/cm ²
Limit =(from above table) = 1.0 mw/cm ²

The EUT meets the power density requirements at 20 cm

END OF TEST REPORT