



# Compliance Testing, LLC

Previously Flom Test Lab

EMI, EMC, RF Testing Experts Since 1963

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## Test Report

Prepared for: SolidRF Technology Inc.

Model: Pro MANT

Description: 5 Band In Building Consumer Booster

FCC ID: A7V-SR55703001

To

FCC Part 1.1310

Date of Issue: July 24, 2018

On the behalf of the applicant:

SolidRF Technology Inc.  
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Attention of:

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Project No: p1860016

**Greg Corbin**  
Project Test Engineer

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All results contained herein relate only to the sample tested



### Test Report Revision History

Revision	Date	Revised By	Reason for Revision
1.0	July 20, 2018	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

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:** Pro MANT

**Description:** 5 Band In Building Consumer Booster

**Firmware:** SR55703001

**Software:** DC199V1.01

**Serial Number:** N/A

**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 are utilized

Frequency Band (MHz)					
<b>Uplink</b>	698 - 716	776 – 787 (IC, 777 – 787)	824 - 849	1850 - 1910	1710 – 1755
<b>Downlink</b>	728 - 746	746 – 757 (IC, 746 – 756)	869 - 894	1930 - 1990	2110 - 2155

Antenna gains including the cable loss came from the Antenna Kitting document supplied with this filing. Maximum output power value is obtained from the associated report.

## Source Based Time Averaged Power Calculation

### Average Power calculations

Average Power = Peak Power \* duty-cycle%

<b>Tuned Frequency (MHz)</b>	<b>Conducted Peak Output Power (mW)</b>	<b>Duty Cycle (%)</b>
710.69	132	100
779.13	224	100
827.81	219	100
1730	251	100
1875	158	100



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

**Test Data**

Test Frequency, MHz	710.69
Power, Conducted, mW (P)	132
Antenna Gain Isotropic	-0.1 dBi
Antenna Gain Numeric (G)	0.98
Antenna Type	Omni
Distance (R)	20 cm

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

Power Density (S) = 0.0257 mw/cm <sup>2</sup>
Limit = (from above table) = 0.474 mw/cm <sup>2</sup>

The EUT meets the power density requirements at 20 cm

Test Frequency, MHz	779.13
Power, Conducted, mW (P)	224
Antenna Gain Isotropic	-0.1 dBi
Antenna Gain Numeric (G)	0.98
Antenna Type	Omni
Distance (R)	20 cm

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

Power Density (S) = 0.0438 mw/cm <sup>2</sup>
Limit = (from above table) = 0.519 mw/cm <sup>2</sup>

The EUT meets the power density requirements at 20 cm



Test Frequency, MHz	827.81
Power, Conducted, mW (P)	219
Antenna Gain Isotropic	-0.2 dBi
Antenna Gain Numeric (G)	0.95
Antenna Type	Omni
Distance (R)	20 cm

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

Power Density (S) = 0.0414 mw/cm <sup>2</sup>
Limit = (from above table) = 0.552 mw/cm <sup>2</sup>

The EUT meets the power density requirements at 20 cm

Test Frequency, MHz	1730
Power, Conducted, mW (P)	251
Antenna Gain Isotropic	-0.3 dBi
Antenna Gain Numeric (G)	0.93
Antenna Type	Omni
Distance (R)	20 cm

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

Power Density (S) = 0.0464 mw/cm <sup>2</sup>
Limit = (from above table) = 1.0 mw/cm <sup>2</sup>

The EUT meets the power density requirements at 20 cm



Test Frequency, MHz	1875.5
Power, Conducted, mW (P)	158
Antenna Gain Isotropic	-0.3 dBi
Antenna Gain Numeric (G)	0.93
Antenna Type	Omni
Distance (R)	20 cm

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

Power Density (S) = 0.0292 mw/cm <sup>2</sup>
Limit = (from above table) = 1.0 mw/cm <sup>2</sup>

The EUT meets the power density requirements at 20 cm

END OF TEST REPORT