

## Test Report

Prepared for: Radio Active Designs

Model: UV-1G Basestation

Description: Wireless Intercom System

FCC ID: 2AA6F-UV-1GBS

To

FCC Part 1.1310

Date of Issue: January 14, 2021

On the behalf of the applicant: **Radio Active Designs**  
21 East Union Ave  
East Rutherford, NJ 07073

Attention of: **Geoff Shearing**  
Ph: (917)545-2680  
E-Mail: [gshearing@radioactiverf.com](mailto:gshearing@radioactiverf.com)

Prepared By  
Compliance Testing, LLC  
1724 S. Nevada Way  
Mesa, AZ 85204  
(480) 926-3100 phone / (480) 926-3598 fax  
[www.compliancetesting.com](http://www.compliancetesting.com)  
Project No: p2070003BS



**Greg Corbin**  
Project Test Engineer

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### Test Report Revision History

<b>Revision</b>	<b>Date</b>	<b>Revised By</b>	<b>Reason for Revision</b>
1.0	January 13, 2020	Greg Corbin	Original Document

## ANAB

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### Non-accredited tests contained in this report:

N/A

### EUT Description

**Model:** UV-1G Basestation

**Description:** Wireless Intercom System

**Software:** 3.1.4

**Firmware:** BASE201027A

**Serial Number:** 101504

### Additional Information:

The Radio Active Designs® UV-1G is a two-channel full-duplex UHF/VHF wireless intercom system that utilizes up to six wireless Belt Pack units per Base Station.

The system uses double sideband AM modulation.

## MPE Evaluation

This is a mobile device used in Uncontrolled Exposure environment.

### Limits Controlled Exposure

47 CFR 1.1310

Table 1, (A)

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

### 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

The maximum power allowed (250 mw) was used, along with the lowest transmit frequency (470 MHz) to produce the worse case results

Test Frequency, MHz	470
Power, Conducted, mW (P)	250
Antenna Gain Isotropic	0 dBi
Antenna Gain Numeric (G)	1
Antenna Type	UHF Unity Gain 1/2 wave dipole whip
Distance (R)	20 cm

$$S = \frac{P * G}{4\pi r^2}$$

Power Density (S) mw/cm<sup>2</sup>

Power Density (S) = 0.0497 mw/cm <sup>2</sup>
Limit = (from above table) = 0.313 mw/cm <sup>2</sup>

The EUT power density of 0.0497 mw/cm<sup>2</sup> is under the allowed limit of 0.313 mw/cm<sup>2</sup> per table 1B above.

END OF TEST REPORT