

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

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



Greg Corbin
Project Test Engineer

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Test Report Revision History

Revision	Date	Revised By	Reason for Revision
1.0	January 13, 2020	Greg Corbin	Original Document

ANAB

Compliance Testing, LLC, has been accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to the joint ISO-ILAC-IAF Communiqué dated January 2009).

The tests results contained within this test report all fall within our scope of accreditation, unless noted below.

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FCC Site Reg. #349717

IC Site Reg. #2044A-2

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 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

Limits Uncontrolled Exposure 47 CFR 1.1310 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

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 ²

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

The EUT power density of 0.0497 mw/cm² is under the allowed limit of 0.313 mw/cm² per table 1B above.

END OF TEST REPORT