



## **Compliance Testing, LLC**

Previously Flom Test Lab

EMI, EMC, RF Testing Experts Since 1963

toll-free: (866) 311-3268

fax: (480) 926-3598

<http://www.ComplianceTesting.com>

[info@ComplianceTesting.com](mailto:info@ComplianceTesting.com)

### **Test Report**

Prepared for: Ubiquiti Networks, Inc

Model: R5AC-LT

Description: Rocket 5 AC Lite

Serial Number: N/A

FCC ID: SWX-R5ACL

To

FCC Part 1.1310

Date of Issue: March 8, 2016

On the behalf of the applicant:

Ubiquiti Networks, Inc  
2580 Orchard Parkway  
San Jose, CA 95131

Attention of:

Michael Taylor, Compliance Manager  
Ph: (408) 942-3085  
Email: [compliance@ubnt.com](mailto:compliance@ubnt.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: p15a0017

**Kenneth Lee**  
**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	November 9, 2015	Kenneth Lee	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:** R5AC-LT

**Description:** Rocket 5 AC Lite

**Firmware:** N/A

**Software:** N/A

**S/N:** N/A

**Additional Information:** None



## Source Based Time Averaged Power Calculation

### Average Power Calculations

Average Power = Peak Power \* duty-cycle%

Tuned Frequency (MHz)	Conducted Peak Output Power (mW)	Duty Cycle (%)	Average Power (mW)
5800	89.125	100	89.125

### MPE Evaluation

This is a fixed/mobile device used in uncontrolled /general population 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	5800
Power, Conducted, mW (P)	89.125
Antenna Gain Isotropic	31dBi
Antenna Gain Numeric (G)	1258.93
Antenna Type	Dish
Distance (R)	20 cm

$S = \frac{P * G}{4\pi r^2}$			
Power Density (S) mw/cm <sup>2</sup>	Power mW (P)	Numeric Gain (G)	Distance (r <sup>2</sup> ) cm
	89.125	1258.93	20

Power Density (S) =	22.322
Limit =(from above table) =	1.0

The Power Density of 22.322 mw/cm<sup>2</sup> is over the limit of 1.0 mw/cm<sup>2</sup> for the uncontrolled /general population exposure environment so Minimum Safe Distance was calculated.



### Minimum Safe Distance Evaluation

This is a **fixed/mobile** device used in uncontrolled /general population exposure environment

### Test Data

Test Frequency, MHz	5725
Power, Conducted, mW (P)	89.125
Antenna Gain Isotropic	31dBi
Antenna Gain Numeric (G)	1258.93
Antenna Type	Dish
Limit (L)	20 cm

$R=\sqrt{(PG/4\pi L)}$			
Distance (R) cm	Power mW (P)	Numeric Gain (G)	Limit (L)
94.516	89.125	1258.93	1.0

The minimum safe distance is 94.516 cm.

END OF TEST REPORT