



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

Test Report

Prepared for: Ubiquiti Networks, Inc

Model: R5-AC-PTMP

Description: Rocket 5AC PTMP

Serial Number: N/A

FCC ID: SWX-R5ACPTMP

To

FCC Part 1.1310

Date of Issue: 1/31/2016

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
E-mail: 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
Project No: p15a0017

Kenneth Lee
Project Test Engineer

This report may not be reproduced, except in full, without written permission from Compliance Testing
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: R5-AC-PTMP

Description: Rocket 5AC PTMP

Firmware: N/A

Software: N/A

Serial Number: N/A

Additional Information: The EUT is a 2x2 MIMO 802.11ac radio

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	0.3-1.234 MHz	Limit [mW/cm ²] = 100
47 CFR 1.1310	1.34-30 MHz	Limit [mW/cm ²] = (180/f ²)
Table 1, (B)	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	5800
Power, Conducted, mW (P)	89.125
Antenna Gain Isotropic	31dBi
Antenna Gain Numeric (G)	1258.93
Antenna Type	Dish
Distance (R)	20

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

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

The Power Density of 22.322 mw/cm² is over the limit of 1.0 mw/cm² 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.

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

Test Frequency, MHz	5800
Power, Conducted, mW (P)	89.125
Antenna Gain Isotropic	31dBi
Antenna Gain Numeric (G)	1258.93
Antenna Type	Dish
Limit (L)	20

$R = \sqrt{(PG/4\pi L)}$			
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