



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

**Models: PBE-5AC-Omni, PBE-5AC620, PBE-5AC500,
PBE-5AC400, PBE-5AC300**

Description: PowerBeam 5AC

Serial Number: N/A

FCC ID: SWX-PBE5AC

To

FCC Part 1.1310

Date of Issue: January 27, 2015

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**

**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
2.0	January 27, 2015	Kenneth Lee	Updated Antenna Gain



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: PowerBeam 5AC

Description: PBE-5AC

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)
5200	195	100	195



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 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	5200
Power, Conducted, mW (P)	195
Antenna Gain Isotropic	29 dBi
Antenna Gain Numeric (G)	794.33
Antenna Type	Dish
Distance (R)	20 cm

$S = \frac{P * G}{4\pi r^2}$			
Power Density (S) mw/cm ²	Power mW (P)	Numeric Gain (G)	Distance (r ²) cm
	195	794.33	20

Power Density (S) =	30.8
Limit =(from above table) =	1.0

The Power Density of 30.8 mw/cm² is over the limit of 1.0 mw/cm² for the uncontrolled /general population exposure environment so Minimum Safe Distance was calculated.

$R = \sqrt{(PG/4\pi L)}$			
Distance (R) cm	Power mW (P)	Numeric Gain (G)	Limit (L)
111	195	794.33	1

The minimum safe distance is 111 cm.

END OF TEST REPORT