Compliance Testing, LLC
Previously Flom Test Lab
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Test Report

Model: NBE-M5-19

Description: NanoBeam M5-19

FCC ID: SWX-NBE5M19

Serial Number: N/A

To

FCC Part 1.1310

Date of Issue: August 19, 2015

On the behalf of the applicant:	**Ubiquiti Networks, Inc** **91 E. Tasman Drive** **San Jose, CA 95134**
Attention of:	**Michael Taylor, Compliance Manager** **Ph: (408) 942-3085** **E-mail: compliance@ubnt.com**

Prepared By
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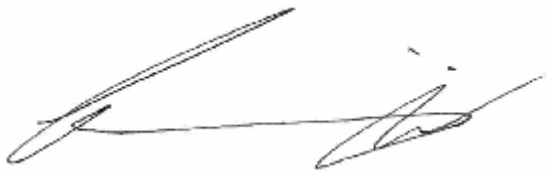
Project No: p14a0029



Alex Macon
Project Test Engineer

Test Report Revision History

Revision	Date	Revised By	Reason for Revision
1.0	June 15, 2015	Alex Macon	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: NBE-M5-19
Description: NanoBeam M5-19
Firmware: N/A
Software: N/A
Serial Number: N/A
Additional Information: The EUT is a 2x2 MIMO 802.11n radio

MPE Limit Calculations

Exposure Limit 1mW/cm^2

Source Based Time Averaged Power Calculation

Average Power Calculations

Average Power = Peak Power * duty-cycle%

UNII-2A

Tuned Frequency (MHz)	Conducted Peak Output Power (mW)	Duty Cycle %	Average Power (mW)
5300	11.7	100	11.7

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/cm²] = 100
47 CFR 1.1310	1.34-30 MHz	Limit [mW/cm²] = (180/f²)
Table 1, (B)	30-300 MHz	Limit [mW/cm²] = 0.2
	300-1500 MHz	Limit [mW/cm²] = f/1500
	1500-100,000 MHz	Limit [mW/cm²] = 1.0

Test Data

Test Frequency, MHz	5300
Power, Conducted, mW (P)	11.7
Antenna Gain Isotropic	19 dBi
Antenna Gain Numeric (G)	79.43
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
0.1848899809	11.7	79.43	20

Power Density (S) =	0.18
Limit =(from above table) =	1.0

MPE Limit Calculations

Exposure Limit 1mW/cm^2

Source Based Time Averaged Power Calculation

Average Power Calculations

Average Power = Peak Power * duty-cycle%

UNII-2C

Tuned Frequency (MHz)	Conducted Peak Output Power (mW)	Duty Cycle (%)	Average Power (mW)
5600	12.3	100	12.3

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/cm²] = 100
47 CFR 1.1310	1.34-30 MHz	Limit [mW/cm²] = (180/f²)
Table 1, (B)	30-300 MHz	Limit [mW/cm²] = 0.2
	300-1500 MHz	Limit [mW/cm²] = f/1500
	1500-100,000 MHz	Limit [mW/cm²] = 1.0

Test Data

Test Frequency, MHz	5600
Power, Conducted, mW (P)	12.3
Antenna Gain Isotropic	19 dBi
Antenna Gain Numeric (G)	79.43
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
0.1943715184	11.7	79.43	20

Power Density (S) =	0.19
Limit =(from above table) =	1.0

END OF TEST REPORT