**Compliance Testing, LLC**
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EMI, EMC, RF Testing Experts Since 1963

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# Test Report

**Prepared for: Ubiquiti Networks, Inc**

**Model: LBE-M5**

**Description: LiteBeam M5**

**Serial Number: N/A**

**FCC ID: SWX-LBE5M**

**To**

**FCC Part 1.1310**

**Date of Issue: October 30, 2015**

| | |
|---|---|
| **On the behalf of the applicant:** | **Ubiquiti Networks, Inc**<br>**2580 Orchard Parkway**<br>**San Jose, CA 95131** |
| **Attention of:** | **Michael Taylor, Compliance Manager**<br>**Ph: (408) 942-3085**<br>**E-mail: compliance@ubnt.com** |

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**Project No: p14a0032**

**Kenneth Lee**
**Project Test Engineer**

**Test Report Revision History**

| Revision | Date | Revised By | Reason for Revision |
|---|---|---|---|
| 1.0 | October 21, 2015 | Kenneth Lee | Original Document |
| | | | |
| | | | |
| | | | |

**ILAC / A2LA**

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

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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:** LBE-M5
**Description:** LiteBeam M5
**Firmware:** N/A
**Software:**
**S/N:** N/A

**Average Power calculations**

Average Power = Peak Power * duty-cycle%

| Tuned Frequency (MHz) | Conducted Peak Output Power (mW) | Duty Cycle (%) | Average Power (mW) |
|---|---|---|---|
| 5235 | 169.824 | 100 | 169.824 |

**MPE Evaluation**

This is a portable device used in Uncontrolled Exposure environment.

| **Limits Uncontrolled Exposure 47 CFR 1.1310 Table 1, (B)** | | |
|---|---|---|
| | 0.3-1.234 MHz: | Limit [mW/cm²] = 100 |
| | 1.34-30 MHz: | Limit [mW/cm²] = (180/f²) |
| | 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 | 5235 |
| Power, Conducted, mW (P) | 169.824 |
| Antenna Gain Isotropic | 23dBi |
| Antenna Gain Numeric (G) | 199.53 |
| Antenna Type | Dish |
| Distance (R) | 20 cm |

| $S = \frac{P * G}{4\pi r^2}$ |
|---|
| Power Density (S) mw/cm$^2$ |
| |

| Power Density (S) = 6.741 mw/cm$^2$ |
|---|
| Limit =(from above table) = 1.0 |

The Power Density of 6.741 mw/cm$^2$ is over the limit of 1.0 mw/cm$^2$ for the uncontrolled /general population exposure environment so Minimum Safe Distance was calculated.

| R=√(PG/4πL) | | | |
|---|---|---|---|
| Distance (R) cm | Power mW (P) | Numeric Gain (G) | Limit (L) |
| 33.305 | 69.824 | 199.53 | 1.0 |

The minimum safe distance is 33.305 cm.

END OF TEST REPORT