

# Compliance Testing, LLC

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#### **Test Report**

**Prepared for: Wave Central** 

Model: AXTX1-5G

**Description: 5.73-5.84GHz RF Microwave Transmitter** 

Serial Number: 6607

FCC ID: 2AD9D-AXIS5GTX

To

FCC Part 1.1310

Date of Issue: May 29, 2015

On the behalf of the applicant: Wave Central

99 Garden Parkway

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Carlisle, PA 17013

Attention of: Tom Doyle, General Manager

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Project No: p1510015

Alex Macon

**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      | May 29, 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: AXTX1-5G

Description: 5.73-5.84GHz RF Microwave Transmitter

Firmware: N/A Software: N/A

Serial Number: 6607

Additional Information: The EUT is a 5.8 GHz transmitter intended to be used on commercial video

cameras with a DC battery pack.



### **Source Based Time Averaged Power Calculation**

### **Average Power calculations**

Average Power = Peak Power \* duty-cycle%

| Tuned Frequency<br>(MHz) | Conducted Peak Output Power (mW) | Duty Cycle<br>% | Average Power (mW) |
|--------------------------|----------------------------------|-----------------|--------------------|
| 5800                     | 73.1 mW                          | 100             | 73.1 mW            |



### **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      | 5730  |
|--------------------------|-------|
| Power, Conducted, mW (P) | 73.1  |
| Antenna Gain Isotropic   | 6dBi  |
| Antenna Gain Numeric (G) | 3.98  |
| Antenna Type             | Omni  |
| 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 |
|                                      | 73.1         | 3.98             | 20                            |

| Power Density (S) =         | 0.057 |
|-----------------------------|-------|
| Limit =(from above table) = | 1.0   |

END OF TEST REPORT