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RF Exposure Evaluation

For the

ReconRobotics Inc.

Throwbot XT

FCC ID: UYXRSK2011-01

May 3, 2012

WLL Report: 12431-MPE Rev.0

Prepared for:

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ACCREDITED TESTING

Testing Certificate AT-1448

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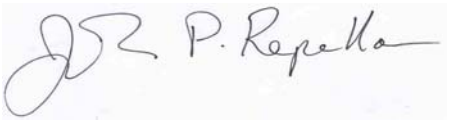

John Repella
EMC Compliance Engineer

Reviewed by:

Steven D. Koster
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Abstract

This report has been prepared on behalf of ReconRobotics Inc. Throwbot XT to document the findings of the RF exposure evaluation on the ReconRobotics Inc. Recon Scout Operator Control Unit (OCU). The purpose of this evaluation is to establish a minimum safe distance as per the RF exposure requirements as defined in FCC §1.1307.

This report documents the results of testing to the requirements of:

- CFR Title 47 Volume 1 Practice and Procedure; (1.1307) Environmental Assessments
- KDB 447498 D01 Mobile Portable RF Exposure v04 dated 11-13-2009

The Evaluation was performed by Washington Laboratories, Ltd, 7560 Lindbergh Drive, Gaithersburg, MD 20879. Washington Laboratories, Ltd. has been accepted as an EMC Conformity Assessment Body (CAB) under the United States/European Union Memorandum of Agreement. Washington Laboratories, Ltd. is accredited by ACLASS under Testing Certificate AT-1448.

Revision History	Reason	Date
Rev 0	Initial Release	May 03, 2012

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1 Introduction

This report has been prepared on behalf of ReconRobotics Inc. Throwbot XT Transmitter to show compliance with the RF exposure requirements as defined in FCC §1.1307.

Testing supporting this evaluation was performed at Washington Laboratories, Ltd, 7560 Lindbergh Drive, Gaithersburg, MD 20879. Washington Laboratories, Ltd. has been accepted as an EMC Conformity Assessment Body (CAB) under the United States/European Union Memorandum of Agreement. Washington Laboratories, Ltd. is accredited with ACLASS under Testing Certificate AT-1448.

1.1 Transmitter Categories

1.1.1 Fixed Installations

A fixed location means that the device, including its antenna, is physically secured at a permanent location and is not able to be easily moved to another location. Additionally, distance to humans from the antenna is maintained to at least 2 meters.

1.1.2 Mobile Devices

A mobile device is defined as a transmitting device designed to be used in other than fixed locations and to be generally used in such a way that a separation distance of at least 20 centimeters is normally maintained between the transmitter's radiating structures and the body of the user or nearby persons. Transmitters designed to be used by consumers or workers that can be easily re-located, such as a wireless modem operating in a laptop computer, are considered mobile devices if they meet the 20 centimeter separation requirement. The FCC rules for evaluating mobile devices for RF compliance are found in 47 CFR §2.1091.

1.1.3 Portable Devices

A portable device is defined as a transmitting device designed to be used so that the radiating structure(s) of the device is/are within 20 centimeters of the body of the user. Portable device requirements are found in Section 2.1093 of the FCC's Rules (47 CFR§2.1093).

2 Device Summary

Table 1 below summarizes the criteria used to evaluate the Throwbot XT.

Table 1: Device Summary of the Throwbot XT

Model Evaluated:	Throwbot XT
Transmitter Category:	Portable
Exposure Category:	General Population
Antenna Gain:	1 dBi
Power Output (dBm):	5.7dBm
Frequency Range:	430-436MHz, 436-442MHz, 442-448MHz
Limit:	136.7mW

3 Radio Frequency Radiation Exposure Evaluation

This is a portable device and the max peak output power is 5.7 dBm (3.715m W) EIRP. Lower than the low threshold 60/f (GHz) mW = (800 mW) specified in KDB 447498 section 1. Since these devices are categorically excluded under part 2.1093 and less than 60/f (GHz) no further SAR or RF measurement are required per KDB 447498 section 1c.

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