

Raytheon Request for FCC Special Temporary Authorization (STA)
STA File Number: 0759-EX-PL-2013
December 2 2013

This Application is for an extension of STA call sign WG9XTG

Purpose of Operation:

Frequency authorization is being requested for the period of January 16, 2014 – January 16, 2019 to validate radiated insertion loss test procedures for hardware requirements. Testing will be performed inside the Raytheon Facility at Andover, MA.

STA Explanation:

The purpose of this request for Special Temporary Authorization is to demonstrate that the insertion loss testing can be performed adequately outside of an anechoic chamber in order to increase production efficiency and meet customer commitments.

Test Summary:

Swept CW signals will be transmitted from one standard gain horn to another, over the frequency range from 8 to 11 GHz, in order to measure the insertion loss of the equipment under test. The RF source is an Agilent PNA Microwave Network Analyzer, Model E8364. Testing will be performed inside the facility

The closest point to the Raytheon property line is about 180 meters away. Assuming building attenuation and free space loss, the radiated signal (25 mW ERP) will be reduced by more than 95 dB at the property line.

It is expected that the testing will initially occur up to 8 hours per day, 5 days per week.

RF Hazard Calculations and Site Safety Measures:

Calculations show that general public exposure limits will be reached at a distance of less than 5 cm, using formula (7) from FCC OET Bulletin 65 "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields", dated August 1997. No cable losses were taken into account. Based on these calculated results, no RF Safety Control Plan is required.

Raytheon Technical Point of Contact:

Thomas Lulsdorf
Test Lead
Phone: 978-858-5470
Email: lulsdorf@raytheon.com

Raytheon Spectrum Manager filing application:

Karen Dyberg
Spectrum Management/RF Safety
Phone: 978-440-4022
Email: karen_i_dyberg@raytheon.com

Period of Use:

Start date: January 16 2014

End date: January 16, 2019

Equipment Information:

Indicate all equipment that will be involved in this operation.

Transmitter info:

Manufacturer: Agilent

Model: E8364 PNA Microwave Network Analyzer

Number of units: 1

Experimental (Y/N): N

For each frequency band:**RF output at the transmitter terminals:**

1 mW

Effective radiated power from the antenna (if pulsed emission, specify peak power):

The effective radiated power from the antenna, including antenna transmit gain (not including losses) is 25 mW (peak).

Frequency Tolerance:

0.001%

List each type of emission separately for each frequency (basically list the emission designators):

NON

List as appropriate for the type of modulation:

CW

