October 9, 2012

Attn: Application Examiner, Reviewing Engineer

The maximum TX output power of the Spectrum 700 Path 2/HP-AWS Path 2 SRAU from the EUT antenna port for the 700 path 2 band is 21.11 dBm. The maximum gain antenna that could be for use with the EUT has a gain of 13.66 dBi.

From the following equations:

Peak Output of EUT at antenna Connector (dBm) + Gain of Antenna (dBd) = Peak TX Power (dBm) ERP
$10*Log_{10}$(Peak TX Power * E^3 Watts) = Peak TX Power (dBm) ERP

21.11 dBm + 13.66 dBi = 34.77 dBm EIRP
34.77 dBm EIRP = 3.0 Watts EIRP
To convert to EIRP use the relation: EIRP = ERP **X** 1.64. (2.55 EIRP = 1.56 ERP)
To convert to dBi to dBd use the relation: dBi = dBd **+** 2.14. (7.14 dBi = 5.0 dBd)

Power Density = EIRP(mW)/(4*π*r^2)

0.1491 mW/cm^2 = (129.1)(23.22)/(4*π*40^2)

Per OET 65:
Maximum Permissible Exposure is Freq. (MHz)/1500 = MPE mW/cm^2
751.5 MHz/1500= 0.5010 mW/cm^2

In addition, the following statement is in our installation manual:
To comply with Maximum Permissible Exposure (MPE) requirements, antennas must be installed to provide at least 40 centimeters of separation from all persons per FCC 47CFR, Part 2.1091 and IC RSS-102, Section 2.5.2.

Sincerely,

Joshua J. Wittman
Compliance Engineer
Tele: 952 403-8322
Fax: 952 403-8858
Email: joshua.wittman@te.com