May 23, 2011

Attn: Director of Certification

Dear Sir or Madam:

The following is the SAR calculation for the FlexWave™ Prism – 700 MHz 40 Watt Upper C-Band FCC ID: F8I-PRSM074C using the system's maximum RF emission. The calculation is based on FCC 47CFR Part 2 and OET 65.

Per OET 65:
Maximum Permissible Exposure is Freq. (MHz)/1500 = MPE mW/cm^2
751 MHz/1500= 0.5006 mW/cm^2

The following equations determine the distance from the antenna that the power density is $\leq$ 1.0 mW/cm^2.

To convert to EIRP use the relation: EIRP = ERP ***X*** 1.64

+47.25 dBm Transmitter Power (Max)
12.75 dBi Antenna Gain (Max)
47.25 dBm + 12.75 dBi= +60 dBm ERP
+60 dBm ERP = 1000 Watts EIRP
1000 Watts EIRP = $1000*10^3$ mWatts EIRP

0.5006 $mW/cm^2 = 1000*10^3 mW/(4*\pi*r^2)$

r= SQR($1000*10^3/4*\pi$ 0.5006)
r= 398.70 cm or 3.98 Meters

In addition, the following statement will be added to our installation/operation manual:

To comply with Maximum Permissible Exposure (MPE) requirements, the maximum composite output from the antenna cannot exceed 1000 Watts EIRP and the antenna must be permanently installed in a fixed location that provides at least 6 meters (20 feet) of separation from all persons.

Sincerely,

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