July 14, 2014

Attn: Application Examiner, Reviewing Engineer

The following is the SAR calculation for the FlexWave™ Prism – HDM 850 MIMO, FCC ID: F8I-PSM0850M, 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
881.5 MHz/1500= 0.5877 mW/cm^2

The following equations determine the distance from the antenna that the power density is ≤ 0.5877 mW/cm^2.

+47.10 dBm Transmitter Power (Max)
12.90 dBi Antenna Gain (Max)
47.10 dBm + 12.90 dBi= +60 dBm EIRP
+60 dBm EIRP = 1000 Watts EIRP
1000 Watts EIRP = 1000*10^3 mWatts EIRP

0.5877 mW/cm^2 = 1000*10^3 mW/(4*π*r^2)

r= SQR(1000*10^3/4*π 0.5877)
r= 368.06 cm or 3.68 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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