

AMENDMENT

Our radiation hazard analysis shows that in the worst case, our antenna location will be 4 meters above the closest walkway where the general population would be exposed to the RF, where the walkway is also 3 meters away in the worst case, for a slant range to the general population of 5 meters, again conservatively and in the worst case.

The center and peak gain of our antenna main beam of 9.5 dBi will be pointed skyward at 40 degrees above the horizon. Therefore, the general population will be at a 93 degree angle from where our antenna is pointed.

The gain at this angle of 93 degrees to the general population is -3.5 dBi. We plan to use a 725 watt power amplifier. As a result, - 3.5 dBi at a slant range of 5 meters results in approximately 1.03 W/m² power density and approximately 19.7 V/m field strength, both less than the 2 W/m² and less than 27.5 V/m electric field strength, both less than the FCC's general population/uncontrolled exposure limits at these frequency bands. *See* 47 C.F.R. 1.1310(e)(1).

The next closest walkway is approximately 10 meters slant range behind the antenna, located within the backlobe of the antenna, where the gain is approximately 0 dBi in that direction. As a result, utilizing the 725 watt power amplifier with a 0 dBi of gain at 10 meters away is approximately 0.6 W/m² power density, and 14.8 V/m electric field strength, both well below the FCC's general population/uncontrolled exposure limits at these frequency bands.

With respect to the unpopulated mountain area where we will point the main beam, we anticipate that a portion of the beam 4 dBi down from the peak/center of the main beam will hit the mountain top. With a 725 Watt power amplifier, a 9.5 dBi peak main beam (5.5 dBi worth of gain in the direction of the mountain top), at 24,000 meters away, if any general population were present in this area, they would receive less than 0.02 V/m, well below the FCC's general population/uncontrolled exposure limits at these frequency bands.

Finally, our occupational workers will be inside our building when the RF is transmitting, behind the antenna, such that minimal radiation is received, also well below both the FCC's general population/uncontrolled and the occupational/controlled exposure limits at these frequency bands.