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To Whom It May Concern:

To investigate the RF exposure of the Tantalus Systems Corp. NC-2202 Network Controller the FCC OET Bulletin 65 has been used as a guideline to determine compliance with the FCC RF exposure limit. The following analysis using “worst case” transmitted power levels and equation that over-predict power density in the near field.

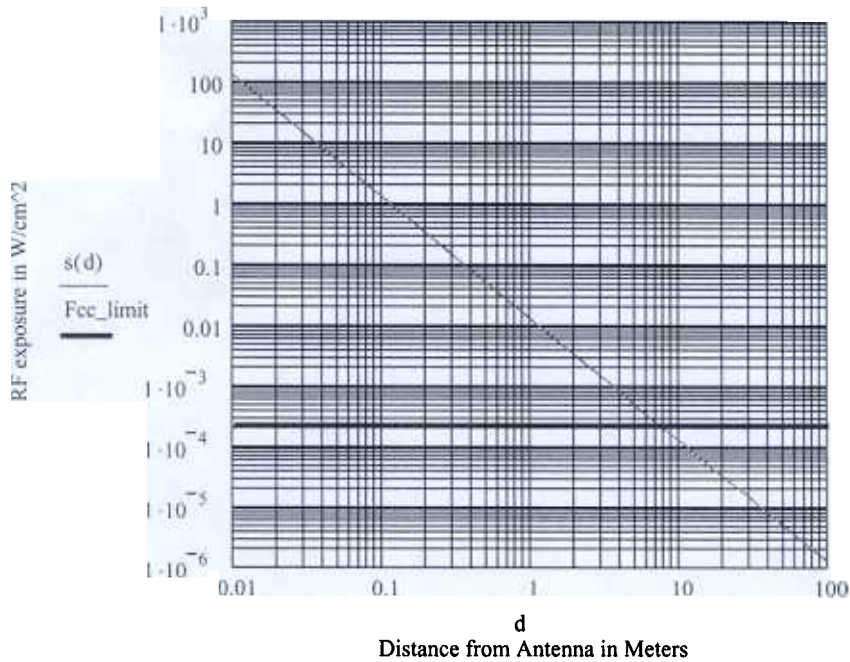
Analysis:

The average transmitter output power is 65 Watts. The gain of the antenna referenced to an omnidirectional antenna is 9.64dB, resulting in an EIRP of approximately 598Watts.

The power density limit for General Population / Uncontrolled Exposure is $0.2\text{mW}/\text{cm}^2$ in the frequency range from 30 to 300MHz. The predicted density at a distance d (meters), in the same horizontal plane as the elevation of the antenna is calculated and graphed below.

From the graph it can be seen that at a distance of greater than approximately 8 meters from the antenna the power density is below the FCC limit. In a typical installation the antenna is mounted on a tower or pole where the base of the antenna is at a minimum height of 15 meters from the ground. From the graph it is shown that a distance of 15 meters from the antenna the power density is less than $0.08\text{mW}/\text{cm}^2$. This exposure level is 40% of the allowable FCC exposure limit. A person standing directly underneath the antenna tower would be exposed less than this since the gain of the antenna is in the horizontal plane.

$$s(d) := \frac{(EIRP_average \cdot ar)}{4\pi \cdot (d \cdot 100)^2} \quad (\text{Power density in W/cm}^2) \quad Fcc_limit := 200 \cdot 10^{-6} \quad (\text{Fcc Limit in W/cm}^2)$$



Result:

The EUT does not expose the public to radio frequency energy levels in excess of the FCC guidelines.

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