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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.

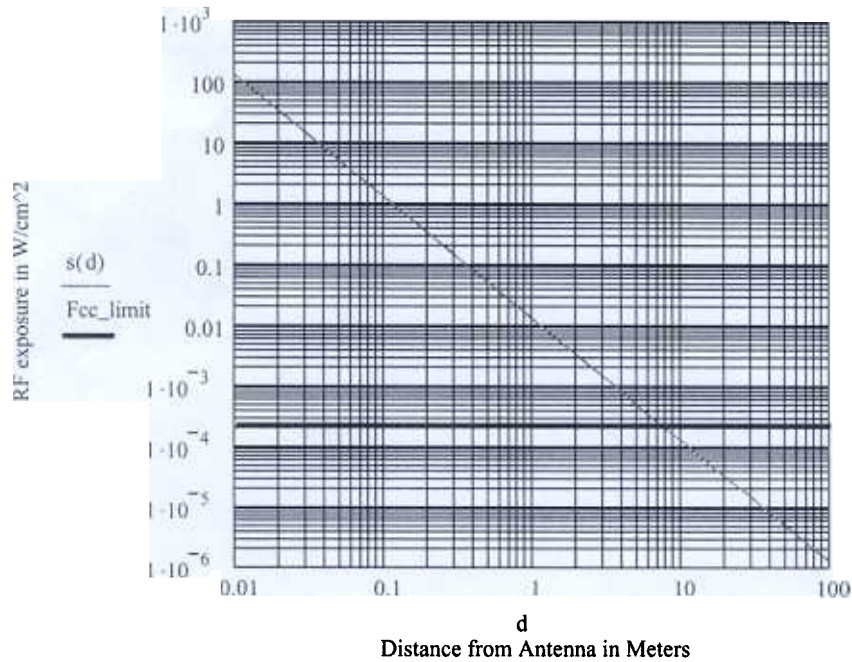
Analysis:

The average transmitter output power is 65 Watts. The gain of the antenna referenced to an omni-directional 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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