

FCC ID: NZLUAHL5E

RF Exposure/ S A R Statement

Applicant: Gentex Corporation

Model: UAHL5E

Calculations:

The following information provides the minimum separation distance for the antenna as part of the design for the "UAHL5E" as calculated from the FCC OET Bulletin 65, Appendix A, Table (B) Limits for General Population/Uncontrolled Exposure. This calculation is based on the highest EIRP possible from the system, considering maximum power and antenna gain, and considering an $f/1500\text{mW/cm}^2$ (0.601mW/cm^2) uncontrolled exposure limit. The power density formula used was:

$$S = (P \cdot G) / (4 \cdot \pi \cdot r^2)$$

Where

$P = 0.64 \text{ dBm}$ (Maximum Power Output Power)

$G = 7.8 \text{dBi}$ (Numerical Antenna Gain, 7.8dBi)

$R = 20.0\text{cm}$

$$(P+G) = 8.44\text{dBm}$$

Converting 8.44dBm to mW = 6.98mW

The Power Density $S = 0.0017\text{mW/cm}^2$

This is less than the above limit as well as the RSS-102 limit in Section 2.5 Table 1 for a separation distance of 30mm of 80mW.