



Total Quality. Assured.

Maximum Permissible Exposure (MPE) Evaluation

Applicant : JVCKENWOOD Corporation
 Equipment : UHF REPEATER
 Model No. : NXR-1800-E
 FCC ID : K44513200

MPE Calculations

FCC Part 1.1310

$$S = \frac{PG}{4\pi R^2}$$

$$R = \sqrt{\frac{PG}{4\pi S}}$$

Where:

S=Power density (in appropriate units, e.g. mW/cm²)

P=Power input to antenna (in appropriate units, e.g., mW)

G=Power gain of the antenna in the direction of interest relative to an isotropic radiator

R=Distance to the center of radiation of the antenna (appropriate units, e.g., cm)

| | | | |
|---------------------|------------|-----------------------|--------------------------------------|
| Tx Frequency= | 450 to 512 | (MHz) | : FCC |
| Maximum peak power= | 46.07 | (dBm) | (=40.5W) |
| Antenna gain= | 2.15 | (dBi) | |
| S= | 0.30 | (mW/cm ²) | (Uncontrolled Environment) |
| P= | 20250.00 | (mW) | (=Maximum peak power x Dutycycle50%) |
| G= | 1.64 | (numeric) | |
| R= | 93.87 | (cm) | |

Calculated minimum separation distance from antenna :

93.87 (cm)