

Maximum Permissible Exposure (MPE) Evaluation

Applicant : JVCKENWOOD Corporation
 Equipment : UHF REPEATER
 Model No. : NXR-1800-E2
 IC CN and UPN : 282F-513201

MPE Calculations

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

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

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= 406 to 430 , 450 to 470 (MHz) : IC

Maximum peak power= 44.07 (dBm) (=25.5W)

Antenna gain= 2.15 (dBi)

| | | | |
|----|----------|-----------------------|---------------------------------------|
| S= | 0.16 | (mW/cm ²) | (Uncontrolled Environment) |
| P= | 25500.00 | (mW) | (=Maximum peak power x Dutycycle100%) |
| G= | 1.64 | (numeric) | |
| R= | 144.79 | (cm) | |

Calculated minimum separation distance from antenna :

144.79 (cm)