

Maximum Permissible Exposure (MPE) Evaluation

Applicant : JVC KENWOOD Corporation
 Equipment : 800MHz DIGITAL BASE-REPEATER
 Model No. : NXR-5900-K
 FCC ID : K44474700

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)

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|---------------------|------------|-----------------------|---|
| Tx Frequency= | 851 to 869 | (MHz) | : FCC |
| Maximum peak power= | 25.56 | (dBm) | (=0.36W) |
| Antenna gain= | 2.15 | (dBi) | |
| S= | 2.84 | (mW/cm ²) | |
| P= | 360.00 | (mW) | (=Maximum peak power x Duty cycle 100%) |
| G= | 1.64 | (numeric) | |
| R= | 4.07 | (cm) | |

P = Value calculated according to CFR Part 90.205(s)

Calculated minimum separation distance from antenna : 4.07 (cm)