



Total Quality. Assured.

## Maximum Permissible Exposure (MPE) Evaluation

Applicant : JVC KENWOOD Corporation  
Equipment : VHF REPEATER  
Model No. : NXR-1700-E  
FCC ID : K44513100

### 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/cm<sup>2</sup>)

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= 150 to 174 (MHz) : FCC

Maximum peak power= 47.03 (dBm) (=50.5W)  
Antenna gain= 2.15 (dBi)

S= 0.20 (mW/cm<sup>2</sup>) (Uncontrolled Environment)

P= 25250.00 (mW) (=Maximum peak power x Dutycycle50%)

G= 1.64 (numeric)

R= 128.38 (cm)

Calculated minimum separation distance from antenna :

128.38 (cm)