

## 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)