



## Maximum Permissible Exposure (MPE) Evaluation

Applicant : JVC KENWOOD Corporation  
 Equipment : UHF DIGITAL BASE-REPEATER  
 Model No. : NXR-5800-K3  
 FCC ID : K44474601

### MPE Calculations

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=	406 to 470	(MHz)
Maximum peak power=	43.98 (dBm)	(=25W)
Antenna gain=	2.15 (dBi)	
S=	0.27	(mW/cm <sup>2</sup> )
P=	30000.00	(mW) (=Maximum peak power x 120% x Duty cycle 100%)
G=	1.64	(numeric)
R=	120.28	(cm)

Calculated minimum separation distance from antenna : 120.28 (cm)