



Maximum Permissible Exposure (MPE) Evaluation

Applicant : JVC KENWOOD Corporation
Equipment : UHF DIGITAL BASE-REPEATER
Model No. : TKR-D810-K
FCC ID : K44452500

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/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=	450 to 512	(MHz)
Maximum peak power=	46.07 (dBm)	(=40.5W)
Antenna gain=	2.15 (dBi)	
S=	0.30	(mW/cm ²)
P=	20250.00	(mW) (=Maximum peak power x Duty cycle 50%)
G=	1.64	(numeric)
R=	93.87	(cm)

Calculated minimum separation distance from antenna :

93.87 (cm)