

Maximum Permissible Exposure (MPE) Evaluation

Applicant :Kenwood Corporation
 Equipment :UHF DIGITAL BASE-REPEATER
 Model No. :NXR-800-K4
 FCC ID :K44371403
 IC CN and UPN :282F-371403

MPE Calculations

According to the OET Bulletin 65 (Edition 97-01)

$$S = \frac{PG}{4\pi R^2}$$

$$R = \sqrt{\frac{PG}{4\pi S}}$$

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 480 (MHz)	:FCC
	450 to 470 (MHz)	:IC
Maximum peak power=	36.99 (dBm)	(=5W)
Antenna gain=	2.15 (dBi)	
S=	0.30 (mW/cm ²)	
P=	3000.00 (mW)	(=Maximum peak power x 120% x Duty cycle 50%)
G=	1.64 (numeric)	
R=	36.13 (cm)	

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

Calculated minimum separation distance from antenna :

36.13 (cm)