Maximum Permissible Exposure (MPE) Evaluation

Applicant	: Kenwood Corporation
Equipment	: UHF DIGITAL BASE-REPEATER
Model No.	: NXR-810-K
FCC ID	: K44422400

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/cm^2)

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)		: FCC
Maximum peak power=	46.02	(dBm)	(=40W)	
Antenna gain=	2.15	(dBi)		
S=	0.30	(mW/cm^2)		
P=	24000.00	(mW)	(=Maximum peak power x 120% x Dutycycle 50%)	
G=	1.64	(numeric)		
R=	102.20	(cm)		

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

Calculated minimum separation distance from antenna : 102.20 (cm)