Maximum Permissible Exposure (MPE) Evaluation

Applicant   : Kenwood Corporation
Equipment   : UHF DIGITAL TRANSCEIVER
Model No.   : NX-800H-K / TK-5820-K
FCC ID   : K44378702
IC CN and UPN   : 282F-378702

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	520	(MHz)	: FCC
	450	to	470	(MHz)	: IC
Maximum peak power=			46.53	(dBm)	(=45W)
Antenna gain=			2.15	(dBi)	

S=	0.30	(mW/cm^2)	
P=	27000.00	(mW)	(=Maximum peak power x 120% x Dutycycle 50%)
G=	1.64	(numeric)	
R=	108.40	(cm)	

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

Calculated minimum separation distance from antenna :   108.40 (cm)