



## Maximum Permissible Exposure (MPE) Evaluation

Applicant : Kenwood Corporation  
Equipment : 800MHz DIGITAL TRANSCEIVER  
Model No. : NX-900-K  
FCC ID : K44409300  
IC CN and UPN : 282F-409300

### 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<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= 806 to 824 (MHz) : FCC/IC  
851 to 869 (MHz)  
Maximum peak power= 41.76 (dBm) (=15W)  
Antenna gain= 2.15 (dBi)

S= 0.54 (mW/cm<sup>2</sup>)

P= 9000.00 (mW) (=Maximum peak power x 120% x Duty cycle 50%)

G= 1.64 (numeric)

R= 46.76 (cm)

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

Calculated minimum separation distance from antenna :

46.76 (cm)