



Maximum Permissible Exposure (MPE) Evaluation

Applicant : Kenwood Corporation
Equipment : 700/800MHz P25 TRANSCEIVER
Model No. : TK-5910-K
FCC ID : K44421000
IC CN and UPN : 282F-421000

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= 769 to 775 , 799 to 805 , 806 to 824 , 851 to 869 (MHz) : FCC
769 to 775 , 799 to 805 , 806 to 824 , 851 to 869 (MHz) : IC
Maximum peak power= 45.44 (dBm) (=35W)
Antenna gain= 2.15 (dBi)

S= 0.54 (mW/cm²)
P= 21000.00 (mW) (=Maximum peak power x 120% x Dutycycle 50%)
G= 1.64 (numeric)
R= 71.43 (cm)

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

Calculated minimum separation distance from antenna : 71.43 (cm)