



Maximum Permissible Exposure (MPE) Evaluation

Applicant :Kenwood Corporation
 Equipment :UHF FM Tranceiver
 Model No. :TK-8180-K2
 FCC ID :K4437313120
 IC :282F-37313120

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= 400 to 470 (MHz)
 Maximum peak power= 44.77 (dBm) (=30W)
 Antenna gain= 2.15 (dBi)

S= 0.27 (mW/cm²) (=f / 1500 : f = frequency in MHz)
 P= 18000.00 (mW) (=Maximum peak power x 120% x Dutycycle 50%)
 G= 1.64 (numeric)
 R= 93.87 (cm)

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

Calculated minimum separation distance from antenna : 93.87 (cm)