

Maximum Permissible Exposure (MPE) Evaluation

Applicant: Kenwood U.S.A. Corporation
Equipment: 900MHz FM TRANSCEIVER
Model No.: TK-981-1
FCC ID: ALH245700
IC: 282D-245700

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 = 896 to 901MHz and 935 to 940MHz

Maximum peak power = 41.76 (dBm) (=15W)

Antenna gain = 2.15 (dBi)

S= 0.597 (mW/cm²)

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

G= 1.64 (numeric)

R= 31.36 (cm)

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

Calculated minimum separation distance from antenna : 31.36 (cm)