

RFR STUDY

Formula (7) from Section II of OET 65:

$$S = (2.56) (EIRP) / (4) (PI) (R)^2$$

where:

S = Highest power density (mw/cm²) at 2m above ground level

R = Distance from center antenna to ground in cm,

EIRP = 1.64 times ERP relative to dipole in mw,

Max field 0.20 used in calculation, derived from manufacturer's vertical pattern data.

MAX S = 1.0 mw/cm² for FM station between 88 and 108 mHz

ERP = (horizontal and vertical added times field factor².)

Station: KDSP-FM2 with antenna up 12 meters and Max ERP 0.040 kw

$$S = \frac{(2.56) (1.64) (1000) (80) (0.200)^2}{(4) (3.14) (1,200)^2}$$

S = 0.00000074 mw/cm², 0.000074 % of Controlled Exposure allowed.

S = 0.00000074 mw/cm², 0.00037 % of Uncontrolled Exposure allowed.