GEOTRAX PROJECT: 03U2055-1

MPE CALCULATION

Formula used in the MPE Calculations:

$E^2/3770 = S$, mW/cm2
Pwatts*Ggain = $10^{(PdBm-30+GdBi)/10}$
E, V/m = (Pwatts*Ggain*30)^.5/d, meters
d = ((Pwatts*G*30)/3770*S))^0.5   --------- (A)

Since
S (mW/cm2) = 0.2   from 1.1310 Table 1
P (dBm) =   -6.4   EUT ERP output power
G (dBi) =   2.15   EUT antenna gain

Substitute these parameters into the A above, we have
MPE safe distance d (cm) = 0.4 cm

NOTE: For mobile or fixed location transmitters, minimum separation distance is 20 cm, even if calculations indicate MPE distance is less