

RF Exposure (MPE) Calculations

904.5 - 925.4 MHz DTS Radio

Applicant: Sensus Metering Systems

FCC ID: **KCH5BA0031**

mW/cm2 from Table1: **0.60**

Max RF Power P, dBm	TX Antenna G, dBi	MPE Safe Distance, cm	MPE, inches
27.6	5.2	15.8	6.2

Basis of Calculations:

$$E^2/3770 = S, \text{ mW/cm}^2$$

$$E, \text{ V/m} = (P_{\text{watts}} * G_{\text{gain}} * 30)^{.5} / d, \text{ meters}$$

$$d = ((P_{\text{watts}} * G * 30) / 3770 * S)^{.5}$$

$$P_{\text{watts}} * G_{\text{gain}} = 10^{(P_{\text{dBm}} - 30 + G_{\text{dBi}}) / 10}$$

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