

MPE Estimation

At the frequency of 2.4GHz, a sphere of 20cm is in the far field of the antenna, therefore, equation (3) given in OET Bulletin 65 is used to estimate the MPE.

$$S = \frac{PG}{4\pi R^2}$$

S=power density

P=power input to the antenna, 178mW

G=power gain of the antenna, 1.584893 (2dBi)

R= distance to the center of the antenna, 20cm

This calculation results in an estimation of 0.056mW/cm² at a sphere of 20cm.