EXHIBIT 13. MPE CALCULATIONS

The following MPE calculations are based on a 1.8 centimeter inverted-F printed circuit board trace antenna, with a measured field strength of 120.0 dBµV/m, at 3 meters, and conducted RF peak output power of 19.74 dBm as presented to the antenna. The calculated gain of this antenna, based on fundamental filed strength conversion is 5.03 dB.

Prediction of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

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

where: S = power density
P = power input to the antenna
G = power gain of the antenna in the direction of interest relative to an isotropic radiat
R = distance to the center of radiation of the antenna

Maximum peak output power at antenna input terminal:	19.74	(dBm)
Maximum peak output power at antenna input terminal:	94.189	(mW)
Antenna gain(typical):	5.03	(dBi)
Maximum antenna gain:	3.184	(numeric)
Prediction distance:	20	(cm)
Prediction frequency:	2400	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	1	(mW/cm^2)
Power density at prediction frequency:	0.059666	(mW/cm^2)