EXHIBIT 12. 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 115 dBµV/m, at 3 meters, and conducted RF power of +18.64 dBm as presented to the antenna. The calculated gain of this antenna, based on the field strength measurement is 1.13 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 radiator
R = distance to the center of radiation of the antenna

Maximum peak output power at antenna input terminal:	18.64	(dBm)
Maximum peak output power at antenna input terminal:	73.114	(mW)
Antenna gain(typical):	1.13	(dBi)
Maximum antenna gain:	1.297	(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:	0.018868	(mW/cm^2)