

## EXHIBIT 14. MPE CALCULATIONS

The following MPE calculations are based on the Nearson Whip antenna. Although the highest actual measured power was 18.56 dBm on the low channel, 2405 MHz, a nominal conducted RF power of +20.0 dBm was used in the calculation for worst case. The stated gain of the antenna, is published at 2.0 dBi, and is reduced by the cable loss depending on cable length. For this calculation, the cable loss has been left at zero, although measurements of the samples provided, were with a 5 inch cable length. A comparison of measured EIRP and calculated EIRP shows favorable correlation.

### 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:         | 20.00    | (dBm)                 |
| Maximum peak output power at antenna input terminal:         | 100.000  | (mW)                  |
| Antenna gain(typical):                                       | 2        | (dBi)                 |
| Maximum antenna gain:  | 1.585    | (numeric)             |
| Prediction distance:   | 20       | (cm)                  |
| Prediction frequency:  | 2405     | (MHz)                 |
| MPE limit for uncontrolled exposure at prediction frequency: | 1        | (mW/cm <sup>2</sup> ) |
| Power density at prediction frequency:                       | 0.031530 | (mW/cm <sup>2</sup> ) |
| Maximum allowable antenna gain:                              | 17.0     | (dBi)                 |
| Margin of Compliance at 20 cm =                              | 15.0     | dB                    |

|                               |                               |                                      |
|-------------------------------|-------------------------------|--------------------------------------|
| Prepared For: LSR             | Model #:ZALM-301-1            | LS Research, LLC                     |
| EUT: Apex LT                  | Serial #:07040035             | Template: 15.247 DTS TX (V2 9-06-06) |
| Report #:307225 TX TCB Rev. 1 | Customer FCC ID #: TFB-APEXLT | Page 46 of 47                        |