

EXHIBIT 15. MPE CALCULATIONS

A. Horizontal EUT antenna.

The following MPE calculations are based on an inverted-L printed circuit board trace antenna, with a measured ERP of 113.2 dB μ V/m, at 3 meters, and conducted RF power of +10.4 dBm as presented to the antenna. The calculated gain (measured over conducting ground plane) of this antenna, based on the ERP measurements is 7.6 dBi.

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: 10.40 (dBm)

Maximum peak output power at antenna input terminal: 10.965 (mW)

Antenna gain(typical): 7.6 (dBi)

Maximum antenna gain: 5.754 (numeric)

Prediction distance: 20 (cm)

Prediction frequency: 900 (MHz)

MPE limit for uncontrolled exposure at prediction frequency: 0.6 (mW/cm²)

Power density at prediction frequency: 0.012552 (mW/cm²)

Maximum allowable antenna gain: 24.4 (dBi)

Margin of Compliance at 20 cm = 16.8 dB

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| Prepared For: Honeywell Int. | Model #: THM4000R1000 | LS Research, LLC |
| EUT: RFI | IC #: 573R-THM4000R01 | Template: 15.247 FHSS TX (V2.1 9-6-06) |
| Report #: 308229-TX | FCC ID #: HS9-THM4000R01 | Page 54 of 57 |

B. Vertical EUT antenna.

The following MPE calculations are based on an inverted-L printed circuit board trace antenna, with a measured ERP of 110.4 dB μ V/m, at 3 meters, and conducted RF power of +10.2 dBm as presented to the antenna. The calculated gain of this antenna, based on the ERP measurements is 5.0 dBi.

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: 10.20 (dBm)

Maximum peak output power at antenna input terminal: 10.471 (mW)

Antenna gain(typical): 5 (dBi)

Maximum antenna gain: 3.162 (numeric)

Prediction distance: 20 (cm)

Prediction frequency: 900 (MHz)

MPE limit for uncontrolled exposure at prediction frequency: 0.6 (mW/cm²)

Power density at prediction frequency: 0.006588 (mW/cm²)

Maximum allowable antenna gain: 24.6 (dBi)

Margin of Compliance at 20 cm = 19.6 dB

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