

## MAXIMUM PERMISSIBLE EXPOSURE FOR SUBPART C

OET Bulletin 65 Edition 97-01, Edition 97-01 - Equation from page 19

### 900 MHz Band Calculations

For Model: 2GIG-GCX

#### 910 – 920 MHz Transceiver & 908.4 MHz Z-Wave Transceiver

MPE Limit Calculation: EUT's operating frequency @ **910 - 920 MHz**; highest conducted power = **20dBm** (peak) therefore, limit for uncontrolled exposure: 0.6 mW/cm<sup>2</sup>

$$S = PG / (4\pi R^2)$$

EUT maximum antenna gain = **0 dBi**.

where, S = Power Density (mW/cm<sup>2</sup>)

P = Power Input to antenna (100mW)

G = Antenna Gain (1 numeric)

$$S = (100 \times 1) / (4 \times 3.14 \times 20.0^2) = \mathbf{0.0199mW/cm^2} @ 20cm \text{ separation}$$

MPE Limit Calculation: EUT's operating frequencies @ **908.4 MHz**; highest conducted power = **0dBm** (peak) therefore, limit for uncontrolled exposure: 0.6 mW/cm<sup>2</sup>

$$S = PG / (4\pi R^2)$$

EUT maximum antenna gain = **0 dBi**.

where, S = Power Density (mW/cm<sup>2</sup>)

P = Power Input to antenna (1mW)

G = Antenna Gain (1 numeric)

$$S = (1 \times 1) / (4 \times 3.14 \times 20.0^2) = \mathbf{0.0002mW/cm^2} @ 20cm \text{ separation}$$

MPE Summary:

Frequency Range	MPE Result (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
910 – 920 MHz	0.0199	0.6
908.4 MHz	0.0002	0.6
<b>TOTAL</b>	<b>0.0201</b>	<b>0.6</b>

$$\mathbf{0.0201mWcm^2 < 0.6 mW/cm^2}$$

