



RF Exposure / MPE Information

Code Corporation
12393 South Gateway Park Place, Suite 600
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Product: CR2600/CR3600 Family
CRA-A104_02 and CRA-A126_01 Charger

Calculations:

The limit for radio frequency exposure for an uncontrolled environment is $1\text{mW}/\text{cm}^2$ for the frequencies used in this device. The worst-case antenna gain is used for the calculation below. The power density is calculated at 20 cm distance. Assume 100% duty cycle for this calculation.

$$Pd = (P_{out} * G) / (4 * \pi * r^2) \quad \text{or} \quad Pd = EIRP / (4 * \pi * r^2)$$

Where

Pd = power density in mW/cm^2

Pout = output power to antenna in mW

G = gain of antenna in linear scale

$\pi = 3.1416$

r = distance from transmitter in cm

Antenna type: Tyco 1513349-1 (Peak gain: 0 dBi)

Calculated peak output power from section 6.2.6 of FCC Part 15, Subpart C test report: 0.708mW

Using the equations above,

$$Pd = (0.708\text{mW}) / (4 * 3.1416 * (20\text{cm})^2) = 0.000141 \text{ mW}/\text{cm}^2 = \mathbf{141\mu\text{W}/\text{cm}^2}$$

Result:

The calculated peak power density of $141\mu\text{W}/\text{cm}^2$ is less than the $1\text{mW}/\text{cm}^2$ limit and is, therefore, acceptable.

Test Conditions:

Bluetooth Version: BT 2.0 + EDR

Modulation: 2Mbps & 3Mbps (adjustment via Firmware)

Hardware Version: CRA-A104_02, CRA-A126_01

Software Version: 1098