July 7, 1998

Federal Communications Commission
Equipment Authorization Division
7435 Oakland Mills Road
Columbia, MD 21046

Subject: Maximum Permissible Exposure calculations for   **FCC ID: ME9RFMODEMPCT**

To whom it may concern,

Continuum is submitting a low power transmitter for the PCT portion of their Price Check System. The unit has a low power frequency hopping spread spectrum radio operating in the 902 - 928 MHz range with a radiated output power of 331mW.

For an Isotropic radiator the surface area of a sphere can be used to determine the area over which the transmitter energy is radiated.

$$\text{Surface area of a sphere} = 4*\Pi*\text{radius}^2$$

In the case where there is antenna gain, the worst case energy density is increased by the antenna gain. The exposure level can be calculated as follows for the 0.0 dBi antenna gain:

$$\text{MPE distance} = (\text{output power}*\text{duty cycle}*10(\text{antenna gain}/10)/(4*\Pi*\text{Exposure Limit (mW/cm}^2)^{1/2}$$

For the 0.0 dBi Dipole Antenna

$$\text{ME9RFMODEMPCT MPE distance} = (331 \text{ mW}*.04*1.0/4*3.14*1)^{1/2}$$
$$= 1.02 \text{ cm}$$
$$= 0.4 \text{ in}$$

If you have any questions please do not hesitate to call me.

Sincerely,

Chris Byleckie
Technical Director
Electronic Compliance Laboratories