Met Laboratories
914 West Patapsco Ave.
Baltimore, MD 21230

July 10, 2007

RE: EIRP calculation FCC ID: DZLMRCJ134

FCC ID Number Product	Title / Model
DZLMRCJ134	2.4GHz cordless mouse / M-RCJ134

TO WHOM IT MAY CONCERN

In the far field region (d > 2 λ) power density (S) and electrical field can be related by the following equation (please refer to equation (1) of the OET Bulletin 65):

$$\text{a) } S = \frac{E^2}{1200\pi}$$

Where:

S = Power density (mW/cm^2)
E = Electric field strengh (V/m)

Power density can be also related with EIRP according to the following equation (please refer to equation (4) of the OET Bulletin 65):

$$\text{b) } S = \frac{EIRP}{4\pi R^2}$$

Where:

S = Power density (mW/cm^2)
EIRP = Equivalent isotropically radiated power (mW)
R = Distance to the center of radiation of the antenna (cm)

Therefore, we may establish the following equality:

$$\text{c) } S = \frac{E^2}{1200\pi} = \frac{EIRP}{4\pi R^2} \rightarrow EIRP = \frac{4\pi R^2 E^2}{1200\pi} = \frac{R^2 E^2}{300}$$

The peak electric field strengh (E) measured in this device is 87.28 dBμV/m@3m.

As

E (dBμV/m) = 20 log (E(μV/m)) → E(μV/m) = $10^{\frac{E(dB\mu V/m)}{20}}$

Then

$E(\mu V/m) = 10^{\frac{87.28}{20}} = 10^{4.364} = 23120.6479\ \mu V/m$

$E\ (V/m) = E(\mu V/m)/10^6 = 0.0231206479\ V/m$

The measured distance is 3 meters:

R = 3 m = 300 cm

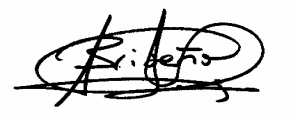
If we replace these values in the equation c), then we get the following result:

$$EIRP(mW) = \frac{R^2E^2}{300} = \frac{300^2 \cdot (0.0231206479)^2}{300} = 300 \cdot (0.0231206479)^2 = 0.160369\ \text{mW}$$

EIRP (W) = EIRP (mW)/1000 = **0.000160 W**

Sincerely,

P.A.



Mr. Bharat Shah
Senior compliance engineer
Logitech Inc.
6505 Kaiser Drive, Fremont, CA 94555, USA
Phone: +1 510 795 85 00
E-mail: Bharat_Shah@logitech.com