CETECOM Inc.
411 Dixon Landing Road
Milpitas, CA 95035

Federal Communication Commission
Authorization and Evaluation Division
7435 Oakland Mills Road
Columbia, MD 21046

Attention: Reviewing Engineer

The **Itronix Laptop** is a ruggedized Laptop with a built in CDMA cellular phone card

Due to the construction and the position of the antenna (TX and RX) a minimum distance under normal operating conditions of more than **20 cm** to the antenna is guaranteed. The manual contains a relevant statement. The calculation was made for this worst case.

The maximum peak output power for this device is 615 mW (27.89 dBm) for the DSM 1900 band and 318 mW (25.03 EIRP, which is equivalent to

Regarding MPE limits, GPUC environment limits maximum exposure to 1 $mW/cm^{2.}$

The power density is:

$$S = E^2/3770 = -13\ H^2 < 1\ mW/cm^2$$

Where: S = Power density ($mW/cm^{2)}$
E = electrical field strength (V/m)

This formula converted using the EIRP is

$$P_{out} * G/4\pi * r^2 \quad (mW/cm^2)$$

For the 850 band $318/4\pi*20^2 =$ **$0.0632\ mW/cm^2$**
For the 1900 band $615/4\pi*20^2 =$ **$0.1222\ mW/cm^2$**

Calculations are based on standard formula for calculating field strength at a distance and converting power density using free space impedance.

If you should have any questions regarding this submission, please feel free to contact the undersigned.

Yours truly,

Lothar Schmidt
Technical Manager EMC/Radio
CETECOM Inc.