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 Corporation Laptop** is a ruggedized Laptop with a built in GSM card

Due to the construction and the position of the antenna a distance under normal operating conditions of more than 20 cm is guaranteed. Additionally the user manual

This information includes the following*: A minimum separation distance of 20 cm must be maintained between the antenna and the person for this device to satisfy the RF exposure requirements of the FCC.*

The maximum output power of the Burst 1820 mW (32.6 dBm).

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

The power density is:

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

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

This formula converted using the EIRP is

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

$1820/4\pi*100 = 1.449\ mW/cm^2$

Further, the device uses the GSM protocol, which is a TDD format ratio of 1/8 in GSM mode and 4/8 in GPRS mode. Thus the 1.449 mWatts/ cm^2 is further reduced by this ratio or it is equivalent to 0.7245 mW/cm^2 for GPRS mode in 10 cm distance. In GSM mode this reduces to 0.1811 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.