RF Exposure Statement

Requirement:
According to CFR 15 §1.1307 (b)(1), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

SAR Testing:
The USB radio and antenna employed in this system have already been approved together under the FCC ID: UDKZG-760E. The average output power under normal worst-case operation of the USB + antenna configuration (when operating duty cycle is applied) is 20.8 mW < 60/f(GHz) mW or 24.19 mW for d<2.5 cm (general population category). For the amplified systems, the user is instructed in the product manual to maintain no less than a 20 cm separation distance from this mobile device. Worst case conducted output power with the amplified system is measured to be 497 mW without duty cycle applied. Per the calculations below, SAR measurements are not necessary.

Health Hazard:
The following table summarizes the power density at a distance of 20 cm as calculated from FCC OET Bulletin 65.

Potential Health Hazard Radiation Level

Worst Case	Ant.Gain (dBi)*	Po** (mW)	Duty Cycle*** (dB)	EIRP **** (mW)	S_{20cm} (mW/cm^2)
Amplified System	2	871	-	1380.4	0.275
USB radio + Antenna	2	26.9	-3.12	20.8	-
USB radio + Antenna	2	12.3	-	19.5	-

*Gain value provided from antenna manufacturer datasheet.
** Power output measured with radio in continuous transmit mode (100% on time)
*** Duty Cycle is measured and applied for the worst case 802.11 b mode at maximum throughput. Measured using a crystal detector and high speed oscilloscope while a file transfer is made using the WLAN network at max 802.11 b mode 11 Mbps data rate. Duty cycle computed from data collected in Figure 1, on the following page.
****Note: EIRP employed is the greater of the average conducted output power and the EIRP.

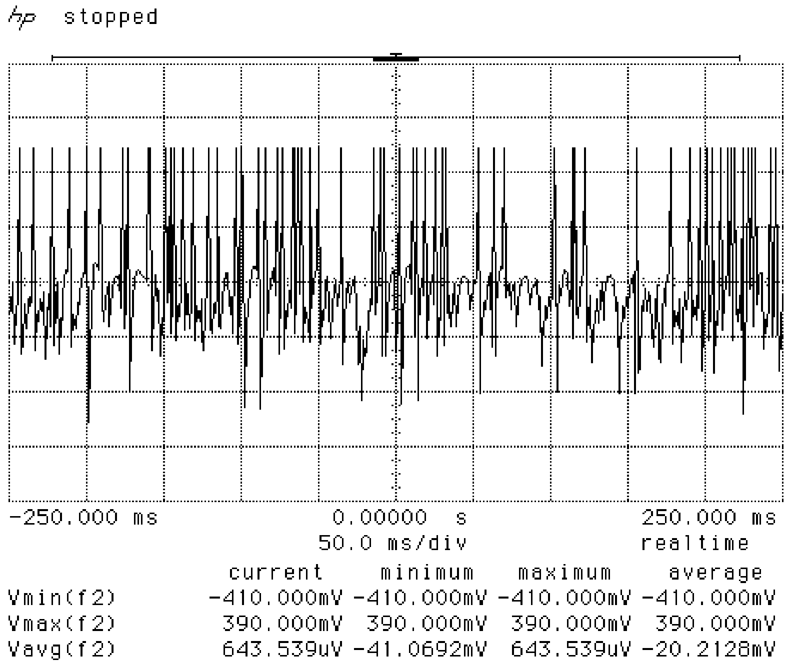

Figure 1 . Worst case 802.11b mode on time.

The following equations were used in calculating duty cycle and power density (S).

Duty Cycle = (-20.212 mV - -410.000 mV) / (390.000 mV - -410.000 mV) = 0.487 = -3.12 dB

$$EIRP(mW) = Po(mW) \cdot 10^{\frac{Gain(dB)}{10}}$$

$$S(mW/cm^2) = \frac{EIRP(mW)}{4 \cdot \Pi \cdot R(cm)^2}$$, R = 20 cm