



January 31th, 2002

FCC ID: **O2SNURIT8000CI**
FCC Application Processing Branch
Correspondence Reference Number: **21557**
731 Confirmation Number: **EA214777**

Attn: **Mr. Stan Lyles**

With respect to your recent queries concerning this application, please find following the information you have requested for clarification on certain items.

1. SAR tests on this device commenced in early September just before the first TCB SAR training session and the old tissue parameters pre OET 65 were still being used. We are now using the P1528 standard for all tissue parameters. The change in the maximum SAR value stated in the report due to the new conductivity parameters would result in a higher SAR by a factor of be 1.26/0.97 (30%) which would result in a maximum SAR of **0.94W/Kg at 2.5cm separation.**
2. The duty cycle used throughout the tests was 100% duty cycle. The sentence on page 26 concerning the 25% duty cycle is misplaced and should not have appeared in this report. The page will be re-issued with the sentence removed.
3. Dipoles and flat phantoms to perform the validation are being procured but was unavailable in September 2001 when the tests were performed. Attenuation vs. Depth plots taken at 1mm intervals are available and will be included in the updated SAR measurements.
4. The power level for the RF modem cannot be adjusted for each channel separately and the measurements we obtained on this sample indicate that the maximum conducted power occurred at 837MHz. The SAR was tested at this channel/power level and it was found to be lower than the 824MHz channel. A possible explanation to this is that the antenna gain over the band is not flat and the antenna may have a higher gain at 837MHz than at 824MHz.
5. It is assumed that the gain of a $\lambda/2$ dipole relative to an isotropic radiator is +2.15 dBi. Therefore, the calculation of erp is as follows:

$$\text{erp} = P_s + A$$

P_s = Power level of the signal generator (including cable loss from signal generator to antenna);

A = Antenna gain (relative to $\lambda/2$ dipole) = dBd;

dBd = dBi -2.15

$$\rightarrow \text{erp} = P_s + [(\text{substitution dipole antenna gain in dBi}) -2.15]$$

The above formula was used to obtain the erp results on page 10.

Should there be any further clarifications required, please do not hesitate to contact me at your earliest convenience.

Best Regards,

Victor H. Kee, P.Eng

33-4181 Sladeview Crescent,
Mississauga, Ontario, Canada
L5L 5R2

Telephone (905) 569-2550
Facsimile (905) 569-2480

Web Site: www.ultratech-labs.com
Email: vhk.ultratech@sympatico.ca