



November 7, 2002

American Telecommunications Certification Body, Inc.
6731 Whittier Avenue
McLean, VA 22101
Attn: Timothy Johnson

**SUBJECT: The Linksys Group, Inc.
FCC ID: PKW-NWP11B
SAR Evaluation**

Dear Tim,

On behalf of The Linksys Group, Inc. is our response to your e-mail dated 11/05/02 requesting additional information for the subject application.

1. The probe conversion factors used for the evaluation were certified by the system manufacturer using numerical modeling. According to correspondence from Tim Harrington with the FCC on 11/06/02, system manufacturer's certified probe conversion factors are permitted in accordance with Supplement C and P1528 draft.
2. The probe tip distance to phantom inner surface during the scan was 1.3 +/- 0.2 mm (probe manufacturer's specification, shown in Appendix D of the SAR report).
3. Please refer to the attached revised SAR evaluation procedures (page 7 of SAR report).

If you have any further questions or comments concerning the above, please contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read "JH", with a horizontal line extending to the right.

Jonathan Hughes
General Manager
Celltech Research Inc.

6.0 EVALUATION PROCEDURES

- a. (i) The evaluation was performed in the applicable area of the phantom depending on the type of device being tested. For devices held to the ear during normal operation, both the left and right ear positions were evaluated in accordance with FCC OET Bulletin 65, Supplement C (Edition 01-01) using the SAM phantom.
- (ii) For body-worn and face-held devices a planar phantom was used.
- b. The SAR was determined by a pre-defined procedure within the DASY3 software. Upon completion of a reference and optical surface check, the exposed region of the phantom was scanned near the inner surface with a grid spacing of 20mm x 20mm.
- c. Based on the area scan data, the area of maximum absorption was determined by spline interpolation. Around this point, a volume of 40 x 40 x 35 mm (fine resolution volume scan, zoom scan) was assessed by measuring 5 x 5 x 7 points.
- d. The 1g and 10g spatial peak SAR was determined as follows:
1. The first step was an extrapolation to find the points between the dipole center of the probe and the surface of the phantom. This data cannot be measured, since the center of the dipoles is 2.7 mm away from the tip of the probe and the distance between the surface and the lowest measuring point is 1.3 mm (see probe calibration document in Appendix D). The extrapolation was based on a least square algorithm [W. Gander, Computermathematik, p.168-180]. Through the points in the first 3 cm in all z-axis, polynomials of the fourth order were calculated. This polynomial was then used to evaluate the points between the surface and the probe tip.
 2. The next step used 3D-spline interpolation to get all points within the measured volume in a 1mm grid (35000 points). The 3D-spline is composed of three one-dimensional splines with the "Not a knot" condition [W. Gander, Computermathematik, p.141-150] (x, y and z -direction) [Numerical Recipes in C, Second Edition, p.123ff].
 3. The maximal interpolated value was searched with a straightforward algorithm. Around this maximum the SAR values averaged over the spatial volumes (1g or 10g) were computed using the 3D-spline interpolation algorithm. 8000 points (20x20x20) were interpolated to calculate the average.