

Addendum

to the report on

Evaluation of Compliance of Palmtop CASIO Computer,
“Cassiopeia”, model A-11
with an AirCard modem
with
FCC 96-326 Guidelines for Evaluating
Environmental Effects of Radiofrequency Radiation

Prepared for
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This report provides results of the additional numerical tests of SAR as per request by FCC. Specifically, two numerical evaluations were performed to examine the absorption of power in the head in the presence of the operator's hand on the keyboard of the device with antennas in fully extended, and retracted positions.

A simple model of a hand was used. The hand was modeled as a collection of blocks, varying in height from 10mm (finger tips) to 40mm (wrist), and resembling in shape the hand of one of the authors (Dr Okoniewski). All blocks were homogeneously filled with muscle like medium. The hand was positioned on the right-most part of keyboard. The location of the head was maintained in the same position as in the original report.

It should be noted, that all the parameters of the simulation were kept the same as in original simulations (as described in the original report).

As expected, the presence of the hand significantly reduced the SAR in the head. Maximum SAR was observed in the hand, close to its surface. Although higher than observed in the original tests in the head (which was at the bigger distance from the antenna), SAR observed in the hand was significantly below allowed levels, thus fully complying with the FCC requirements.

The results of the tests are summarized in Table A1.

Table A1. Summary of the additional tests: SARs in the hand

Antenna Position	Extended	Retracted
Average SAR (W/kg)	0.019	0.021
Peak 10g SAR (W/kg)	0.65	1.12
Peak 1g SAR (W/kg)	0.86	1.44
Peak coordinates (mm)	225x165x49	225x165x49
Gradient [W/kg m]	$2.1 \mathbf{a}_x + 15.3 \mathbf{a}_y + 2.5 \mathbf{a}_z$	$2.4 \mathbf{a}_x + 10.3 \mathbf{a}_y + 11.5 \mathbf{a}_z$