

Federal Communications Commission
Authorization and Evaluation Division
7435 Oakland Mills Road
Columbia, Maryland 21046

Kwok Chan / Andrew Leimer:

Please find attached our reply to your correspondence concerning LJPNSB-7 (EA97165, correspondence reference number 13864). The original text is followed by our highlighted response.

Regards,

Kare Oksanen
Engineering Manager, Type Approval

1. The body-worn and hand configurations tested use conductivity and permittivity parameters for brain tissue. Muscle tissue parameters should be used for body-worn and hand configurations. Retest for body-worn and hand configurations with muscle equivalent parameters and appropriate probe calibration for those parameters OR provide a paragraph showing SAR compliance by explaining the effects of muscle tissue parameters on the current data.

Permittivity and conductivity of muscle tissue simulating liquids at 1850MHz is shown in table 1. FCC recommendation is from <http://www.fcc.gov/fcc-bin/dielec.sh>

	Permittivity	Conductivity
FCC recommendation	54.373249	1.418387
Used brain tissue	41.6	1.72

Table 1. Properties of liquids simulating muscle tissue @1850MHz

The used brain tissue has higher conductivity and lower permittivity than the liquid FCC recommends to be used. Thus all SAR values are overestimated.

Applicant: Nokia Mobile Phones

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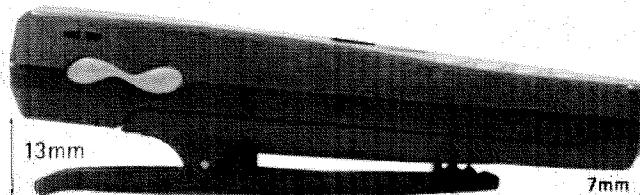
2. The Test Method section in the SAR report states that the _display and keypad were facing the flat phantom_. The correct positioning would be to have the display and keypad facing away from the phantom. Retest the body-worn configuration for the three configurations with the display and keypad facing away from the phantom. Provide the separation distance from the phantom as necessary.

Carrying cases are designed in the way that the bottom connector, in which the headset is plugged-in, is clearly accessible only when the display and keypad are facing the flat phantom. Since having a call while keeping the phone in the carrying case is not possible in another position without misusing this body-worn accessory, retesting with the display and keypad facing away from the phantom would be irrelevant. There is no need for a separation distance when the phone is positioned correctly in the carrying case.

Clip-on Kit SKB-2 was already measured in the position where the display and keypad were facing away from the phantom and all the results were included in our previous response.

3. Provide the separation distance used while testing for body-worn data with the _belt clip against the flat phantom_ data.

Separation distance is 13mm at the antenna side and 7mm at the bottom side. This is shown in picture 1.



Picture 1. Separation distance when using SKB-2

4. The full capability of the phone for body-worn configuration (ie: phone in a shirt pocket) was only partially tested as shown with the _display against the flat phantom_ data. Additional data with the back side of the phone (without the belt clip) against the phantom will be required to comply with the current version of the manual. As an alternative to additional data, the manual can be revised. If this approach is chosen, the wording _or place the phone in a pocket so that the keypad faces your body_ should be removed from the manual (_Radio frequency (RF) signals_ heading) and a new page uploaded as an exhibit.

New revised page in the user guide is attached in Appendix 1.

5. The hand data was not included with the new exhibits. Confirm SAR compliance with the hand either by measurements or other appropriate means.

Hand data was accidentally dropped out in the previous response. It is now attached in Appendix 2.

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