

Note: If certain features are in use (keyguard, restrict calls, etc.), you may first need to turn those features off before you can make an emergency call. Consult this document and your local cellular service provider.

When making an emergency call, remember to give all the necessary information as accurately as possible. Remember that your wireless phone may be the only means of communication at the scene of an accident - do not cut off the call until given permission to do so.

Radio Frequency (RF) Signals

THIS MODEL PHONE MEETS THE GOVERNMENT'S REQUIREMENTS FOR EXPOSURE TO RADIO WAVES.

Your wireless phone is a radio transmitter and receiver. It is designed and manufactured not to exceed the exposure limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.

The RF exposure requirements for wireless mobile phones employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6W/kg.* Tests for SAR are conducted using operating positions accepted by the FCC with the phone transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the phone while operating can be well below the maximum value. This is because the phone is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output.

Before a phone model is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the limit established by the government-adopted requirement for safe exposure. The tests are performed in positions and locations (e.g., at the ear and worn on the body) as required by the FCC for each model. The highest SAR value for this model phone when tested for use at the ear is <value pending> W/kg and when worn on the body, as described in this users guide, is <value pending> W/kg. (Body-worn measurements differ among phone models, depending upon available accessories and FCC requirements). While there may be differences between the SAR levels of various phones and at various positions, they all meet the government

requirement.

The FCC has granted an Equipment Authorization for this model phone with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR information on this model phone is on file with the FCC and can be found under the Display Grant section of <http://www.fcc.gov/oet/fccid> after searching on FCC ID: GMLNSD-3GW.

For body worn operation, to maintain compliance with FCC RF exposure guidelines, use only Nokia approved accessories. When carrying the phone while it is on, use the specific Nokia belt-clip that has been tested for compliance.

Use of non-Nokia-approved accessories may violate FCC RF exposure guidelines and should be avoided.

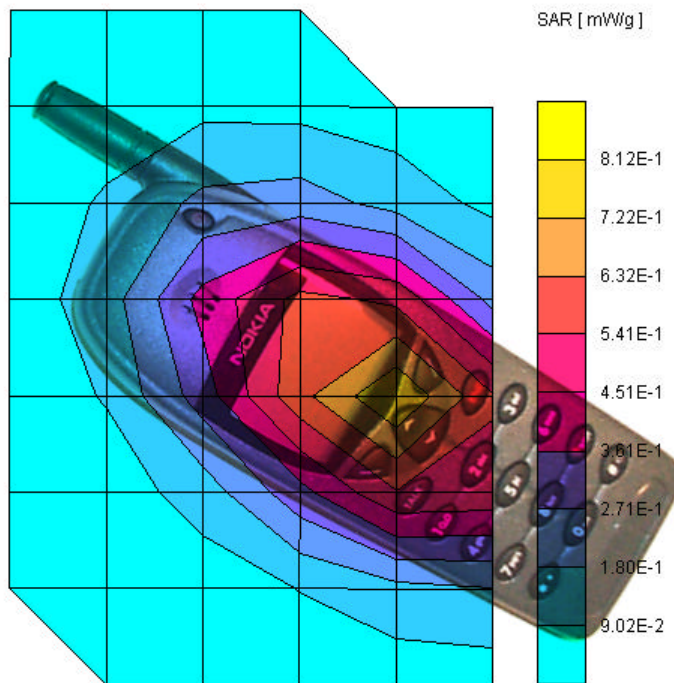
* In the United States and Canada, the SAR limit for mobile phones used by the public is 1.6 watts/kg (W/kg) averaged over one gram of tissue. The standard incorporates a substantial margin of safety to give additional protection for the public and to account for any variations in measurements.

3:**Analog Mode AMPS, Left Hand Phantom**

Meas Nr:	Phone position	Frequency MHz / channel	Power [dBm]	SAR (1g) [mW/g]
1	Cheek, Whip in	824 / 991	26.5	0.74
2	Cheek, Whip in	836 / 383	26.5	1.17
3	Cheek, Whip in	849 / 799	26.5	1.22
4	Cheek, Whip up	824 / 991	26.5	1.28
5	Cheek, Whip up	836 / 383	26.5	1.19
6	Cheek, Whip up	849 / 799	26.5	1.19

NOKIA MOBILE PHONES

Meas 1
 $\sigma = 0.79$ [mho/m] $\epsilon_r = 44.8$ $\rho = 1.00$ [g/cm³]
Coarse Grid Dx= 20.0 Dy= 20.0 Dz= 5.0 [mm]
SAR [mW/g] Max: 0.81
SAR (1g): 0.741 [mW/g] SAR (10g): 0.544 [mW/g]



NOKIA MOBILE PHONES

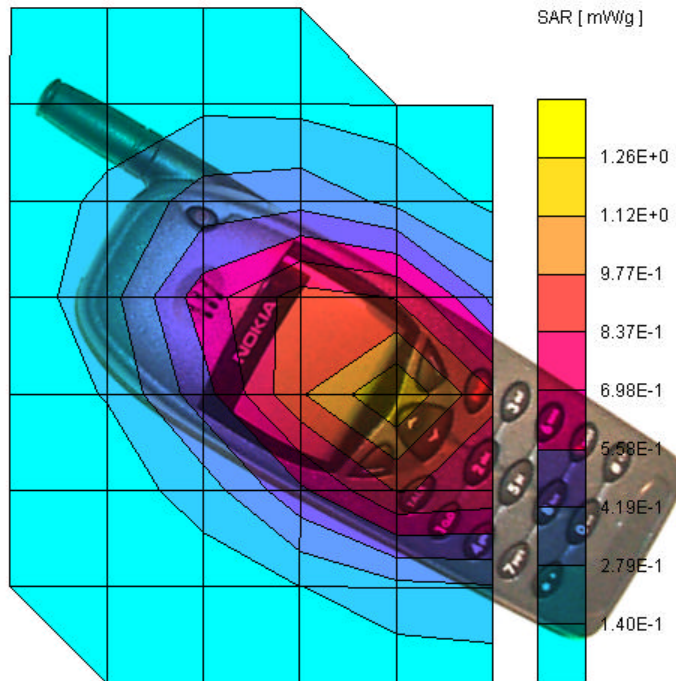
Meas 2

$\sigma = 0.80$ [mho/m] $\epsilon_r = 44.6$ $\rho = 1.00$ [g/cm³]

Coarse Grid Dx= 20.0 Dy= 20.0 Dz= 5.0 [mm]

SAR [mW/g] Max: 1.26

SAR (1g): 1.17 [mW/g] SAR (10g): 0.858 [mW/g]



NOKIA MOBILE PHONES

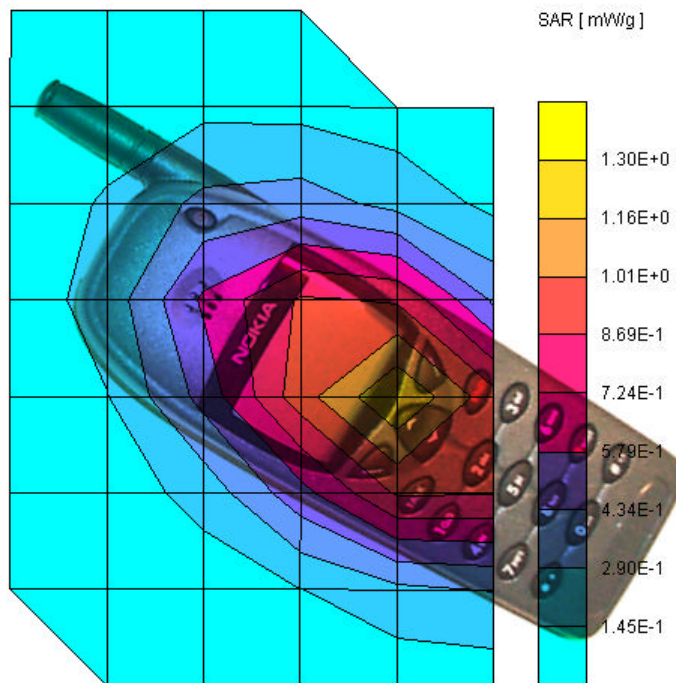
Meas 3

$\sigma = 0.82$ [mho/m] $\epsilon_r = 44.5$ $\rho = 1.00$ [g/cm³]

Coarse Grid Dx= 20.0 Dy= 20.0 Dz= 5.0 [mm]

SAR [mW/g] Max: 1.30

SAR (1g): 1.22 [mW/g] SAR (10g): 0.892 [mW/g]



NOKIA MOBILE PHONES

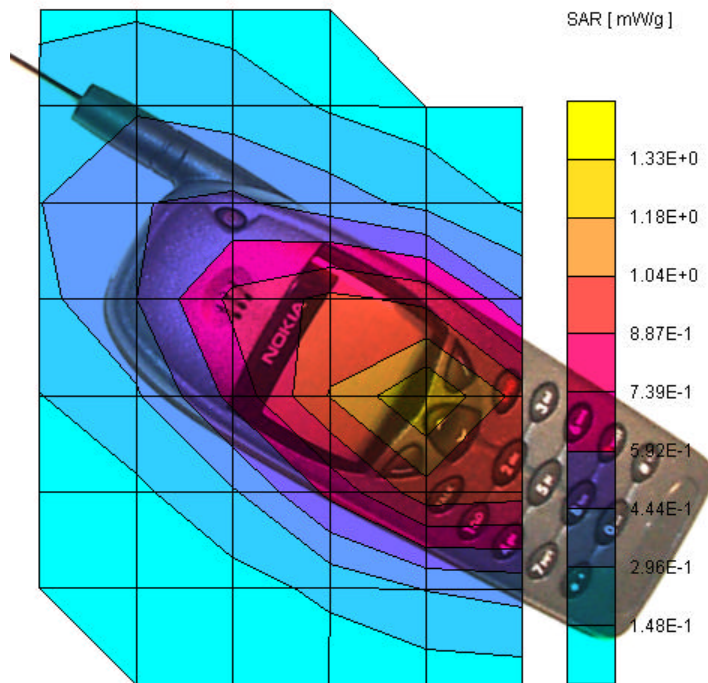
Meas 4

$\sigma = 0.79$ [mho/m] $\epsilon_r = 44.8$ $\rho = 1.00$ [g/cm³]

Coarse Grid Dx = 20.0 Dy = 20.0 Dz = 5.0 [mm]

SAR [mW/g] Max: 1.33

SAR (1g): 1.28 [mW/g] SAR (10g): 0.942 [mW/g]



NOKIA MOBILE PHONES

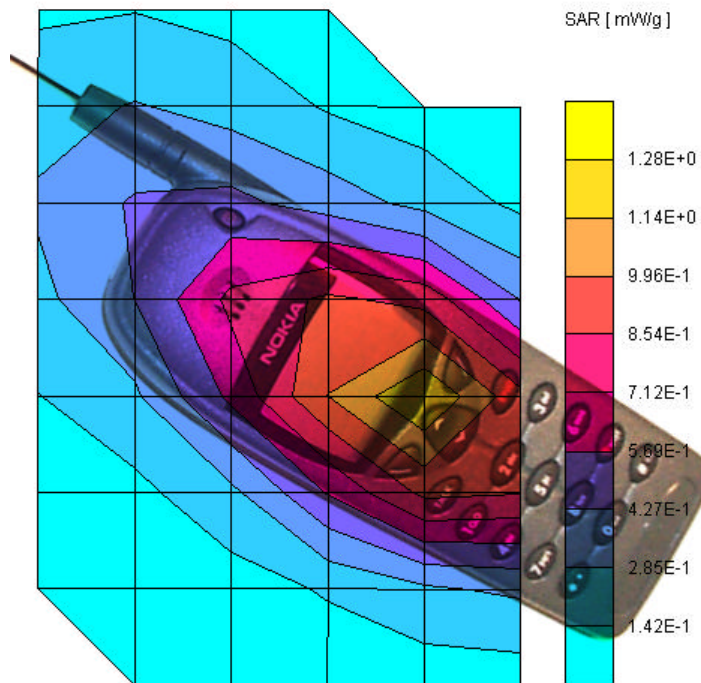
Meas 5

$\sigma = 0.80$ [mho/m] $\epsilon_r = 44.6$ $\rho = 1.00$ [g/cm³]

Coarse Grid Dx= 20.0 Dy= 20.0 Dz= 5.0 [mm]

SAR [mW/g] Max: 1.28

SAR (1g): 1.19 [mW/g] SAR (10g): 0.881 [mW/g]



NOKIA MOBILE PHONES

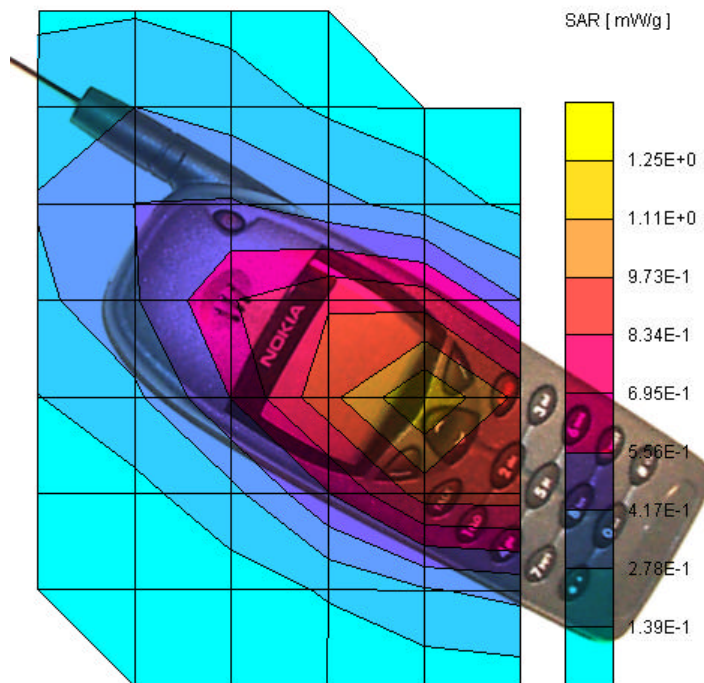
Meas 6

$\sigma = 0.82$ [mho/m] $\epsilon_r = 44.5$ $\rho = 1.00$ [g/cm³]

Coarse Grid $Dx = 20.0$ $Dy = 20.0$ $Dz = 5.0$ [mm]

SAR [mW/g] Max: 1.25

SAR (1g): 1.19 [mW/g] SAR (10g): 0.872 [mW/g]



4:



Picture 1. Measurement position with Belt Clip BCH-12U

The maximum output power level in lowest, middle and highest channel was used (824, 836 and 849 MHz) on AMPS mode. Brain equivalent liquid was used, because preparations for use of liquid with muscle tissue parameters are not finished.

Permittivity and conductivity of muscle tissue simulating liquids at 836 MHz is shown in table 1. FCC recommendation is from <http://www.fcc.gov/fcc-bin-dielec.sh>.

	Permittivity	Conductivity
FCC recommendation	56.111336	0.946714
Used brain tissue	44.6	0.80

Table 2. Properties of liquids simulating muscle tissue @ 836 MHz

FCC recommended conductivity would lead to higher SAR results than the liquid used. On the other hand, the used permittivity compensates difference caused by the conductivity.

When the measured SAR values are multiplied by factor 1.18, which is the difference between the conductivity values, the maximum body SAR result changes from 1.04 to 1.23. This approach leads to overestimate of SAR.

Body Worn, Belt Clip (BCH-12U) against Flat Phantom

Meas. nr:	Test signal	Frequency MHz / channel	Power dBm	SAR (1g) [mW/g]
7	AMPS (whip in)	824 / 991	26.5	0.70
8	AMPS (whip in)	836 / 383	26.5	1.04
9	AMPS (whip in)	849 / 799	26.5	0.93

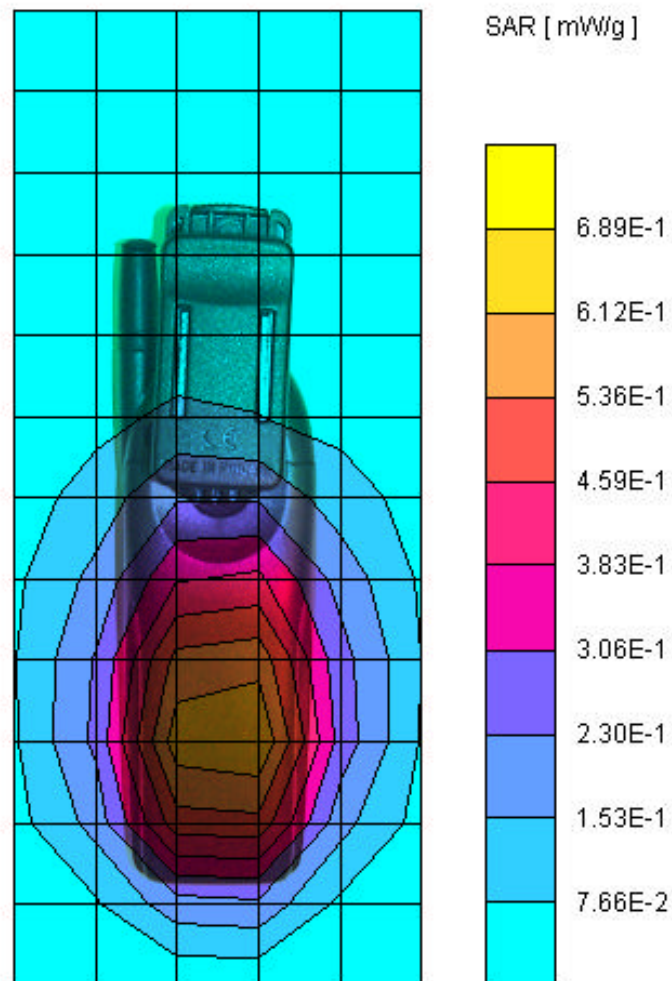
Meas 7

$\sigma = 0.76$ [mho/m] $\epsilon_r = 44.9$ $\rho = 1.00$ [g/cm³]

Coarse Grid Dx= 20.0 Dy= 20.0 Dz= 5.0 [mm]

SAR [mW/g] Max: 0.69

SAR (1g): 0.695 [mW/g] SAR (10g): 0.495 [mW/g]



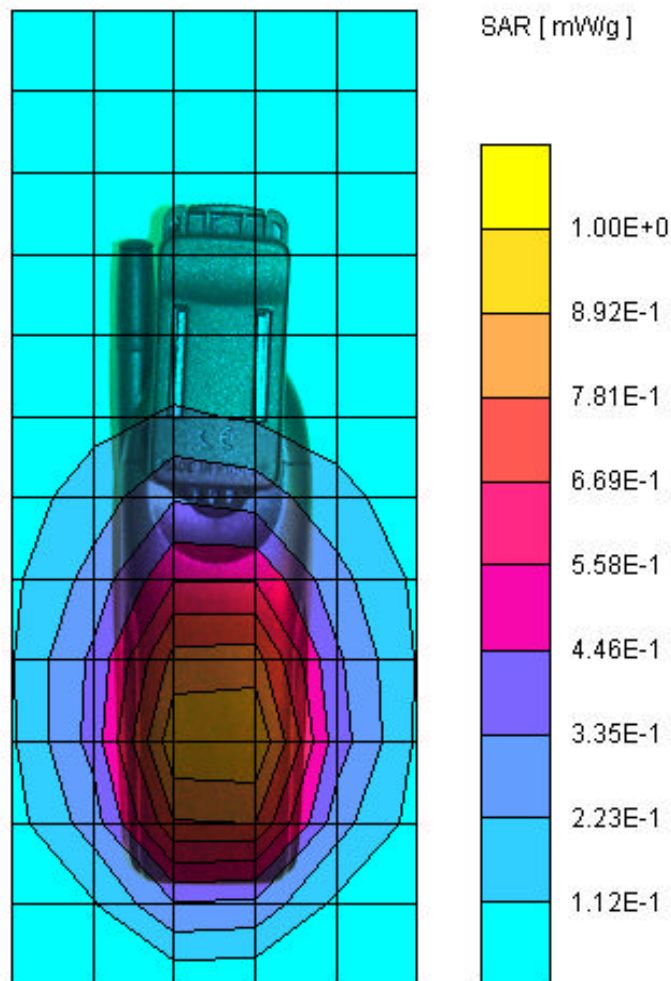
Meas 8

$\sigma = 0.77$ [mho/m] $\epsilon_r = 44.8$ $\rho = 1.00$ [g/cm³]

Coarse Grid Dx = 20.0 Dy = 20.0 Dz = 5.0 [mm]

SAR [mW/g] Max: 1.00

SAR (1g): 1.04 [mW/g] SAR (10g): 0.739 [mW/g]



Meas 9

$\sigma = 0.78$ [mho/m] $\epsilon_r = 44.6$ $\rho = 1.00$ [g/cm³]

Coarse Grid $Dx = 20.0$ $Dy = 20.0$ $Dz = 5.0$ [mm]

SAR [mW/g] Max: 0.90

SAR (1g): 0.931 [mW/g] SAR (10g): 0.659 [mW/g]

