

The South African Cellular Telecommunication Association

SACTA is an independent non-profit organisation representing the mobile cellular public switched and fixed mobile telecommunications industry within the Republic of South Africa

SACTA aims to be a source of credible information, guidance, co-operation and communication for the local and global telecommunications industry, the public, regulator and Government on matters relating to radiofrequency emissions.

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SOUTH AFRICAN CELLULAR TELECOMMUNICATIONS ASSOCIATION

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For more information about SAR levels, please refer to the relevant websites listed hereunder:

- The Mobile Manufacturer's Forum:
www.mmfai.org
- The International Commission on Non-Ionising Radiation:
www.icnirp.co.za
- The World Health Organisation:
www.who.int
- The GSM Association:
www.gsmworld.com

Glossary

Radio wave energy: Radio wave energy is electromagnetic waves that transport energy as they travel through space and time. The RF energy provides the support medium for transportation of information between the base station and cellphone.

Watts: Unit of electrical power.



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SAR INFORMATION



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SAR INFORMATION

General

When mobile phone users are exposed to Electromagnetic fields, the fields can penetrate the body and are absorbed as heat. This is measured in Specific Absorption Rate (SAR) values as will be detailed below. This document aims to assist in enlightening the knowledge base with respect to SAR.



Who sets SAR guidelines?

The World Health Organisation (WHO) endorses the safety guidelines laid down by the International Commission on Non-Ionising Radiation Protection (ICNIRP) who have adopted comprehensive safety guidelines to govern the SAR of mobile phones. These guidelines have also been adopted by the World Health Organisation and the Department of Health in SA.



What is SAR?

SAR is short for Specific Absorption Rate, which is a measure of the amount of radio wave energy absorbed by the body when using a mobile phone, and is measured in Watts per Kg. All

mobile phones are required to comply with the relevant recommendations and guidelines. The maximum SAR value of 2 Watts per kg has been adopted by ICNIRP and this makes provision for a substantial safety margin. In addition, most of the mobile phones available in the market have SAR values well below the adopted limit.



How does SAR work when I use my mobile phone?

The SAR levels determined for a specific mobile phone are prescribed at the highest certified level in testing conditions, however the actual SAR level of the phone while operating can be well below this value. When using your mobile phone, the phone is designed to use the lowest power to connect to a network and the closer a user is to a base station the more likely it is that the actual SAR level will decrease.



Do SAR levels differ between mobile phone models?

Yes. There may be variations in SAR levels among different mobile phone models, but all handsets must comply with all associated exposure guidelines before being certified and made available to the public.



Does a mobile phone with a lower SAR indicate that the mobile phone is safer?

Differences in SAR values do not imply that one mobile phone is less safe than another. Mobile phones should meet the RF exposure guidelines laid down by ICNIRP and endorsed by the WHO.



How do I get more information about the SAR of my mobile phone?

Information with respect to the SAR levels of a particular mobile phone model can be found in informational materials or in the user manual included in the box when purchasing the phone. Furthermore, these SAR values are also available on the manufacturer's websites.



How are mobile phones tested for SAR levels?

The two accepted methods for measuring SAR values are the direct method, which uses a model called "phantom" to simulate the human body, and the second utilises computer modeling.