



Add value.
Inspire trust.

Specific Absorption Rate testing

Protect consumers while enhancing your reputation as a trustworthy manufacturer

Your challenges

A large and growing number of devices now use wireless radio transmitters to send and receive information. With this widespread use, consumers and governments are wary of the potential health risks of radio frequency (RF) energy emissions. As a result, strict regulations apply when these devices come into contact with the human body – particularly in the EU, the U.S., Canada and Australia. To avoid fines and legal action that can lead to loss of market share and reputation, it's important to choose a Specific Absorption Rate (SAR) test laboratory that can meet your technical needs and timescales.

What is SAR testing?

SAR testing determines if a wireless communications device meets the requirements for RF exposure. It measures the heating effect on human tissue by using a 'phantom' that represents the electrical characteristics of the human head or body. Carefully positioned probes that measure SAR in watts per kilogram monitor the penetrating RF energy and the volume is averaged

over a 1 or 10 gram volume of tissue depending on the requirements of the region.

Why is SAR testing important for your business?

Equipment manufacturers are legally required to declare the SAR rating of their products in many countries. In some markets, this information must appear on the outer packaging. Non-compliance may result in large fines. In the event that surveillance authorities question your SAR rating, acquiring a test report from an independent third-party laboratory such as TÜV SÜD proves that you have acted with due diligence. Ultimately, this enhances your reputation as a trustworthy manufacturer that considers the safety of end users.

How can we help you?

From the onset, our SAR test experts are able to provide comprehensive advice and guidance on all of the requirements for your products to be sold in your intended markets worldwide. Our teams of SAR experts are knowledgeable on the health and safety impacts of

using RF transmitters in close proximity to the human body. By conducting pre-compliance/investigation testing ahead of formal testing, we identify any potential issues at an early stage. Our accredited labs for SAR testing are known and respected worldwide. In some instances, we also provide the final certification for you.

Our SAR testing services

TÜV SÜD's fully accredited SAR testing laboratory services cater to all your testing needs.

▪ SAR initial product check

Conducting an initial check of your product on a number of spot frequencies gives a general SAR level indication. We provide advice and estimate the time and budget required for formal SAR testing.

▪ Formal SAR testing

Our test experts carry out formal SAR tests to published standards and issue a full test report that can be used as evidence of compliance with the specific market's requirements.

▪ Supported test standards

COUNTRIES ▾	TEST STANDARDS ▾
U.S.	FCC Part 2.1091 FCC Part 2.1093
CANADA	RSS-102
EU	EN 50385 EN 50371 EN 50566 EN 62209-1 (Head SAR) EN 62209-2 (Body SAR) EN 62479 EN 62311 EN 50360
AUSTRALIA	ACA 2003 / ARPANSA
INTERNATIONAL	IEC 62209-1 IEC 62209-2 IEC 62311 IEEE 1528

Your business benefits

- **Save money** – by reducing compliance-related reworking and reducing operational inefficiencies.
- **Save time** – by working with a one-stop test service provider that reduces your time to market.
- **Minimise risk** – of reputation-damaging lawsuits, legal actions and fines, and of operational failure.



- **Gain a competitive edge** – with a report or certificate from TÜV SÜD that makes your product more marketable to your buyers and their customers.
- **Enhance your reputation** – as a diligent, precautionous and trustworthy manufacturer who cares for public safety.

Why choose TÜV SÜD

An international service group specialising in testing, certification, knowledge services and training, TÜV SÜD holds accreditations for market access in Europe, the Americas, the Middle East and Asia. We have been offering SAR test services since they were first introduced. Therefore, we can support all your test requirements and manage them through one project manager.

Our testing experts are deeply familiar with the most current regulations and emerging developments of SAR standards and testing. Over the years, they have earned the respect and recognition of various market surveillance authorities and network operators. This ensures that test reports and certificates issued by TÜV SÜD meet with the highest level of acceptance by authorities and consumers around the world.

Related services

TÜV SÜD provides the following related services:

- Certification (RED, FCC, ISED, RFCAB)
- Radio frequency exposure assessment
- EMC testing
- Radio frequency testing
- Safety testing