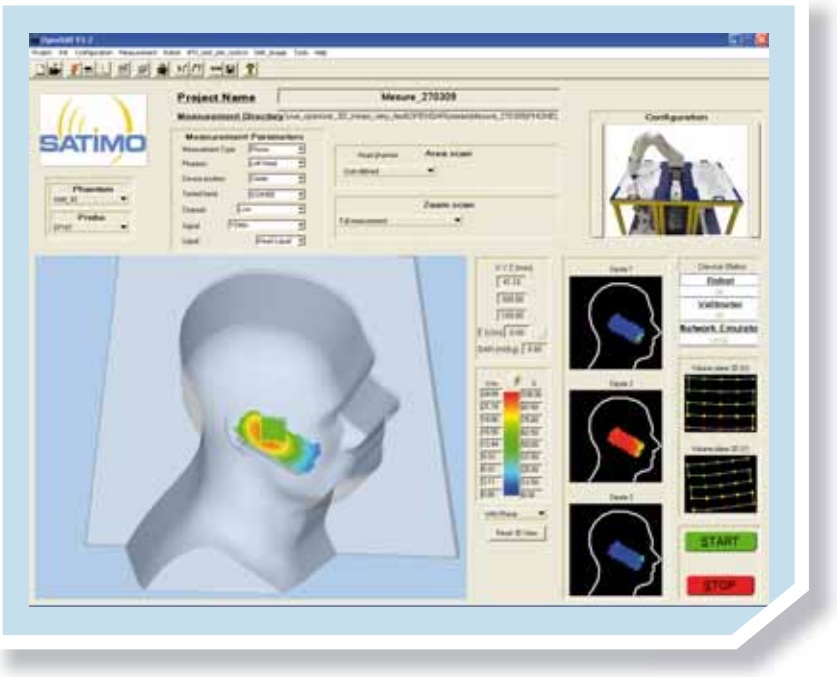
# OPENSAR SW




**OPENSAR software has been developed to perform SAR standard compliant measurements. It is part of SATIMO's COMOSAR bench and controls all the instrumentation delivered with this bench.**
**In addition, OPENSAR can easily integrate additional drivers upon customer request.**
**OPENSAR software also uses optimized algorithms, particularly useful for the development phase of handset design.**

## Product category:

- **Software**

## Function:

- **Controls COMOSAR test bench instrumentation for both certification and fast R&D measurements**

## User profile:

- **SAR bench users**

## Related standard:

- **IEEE 1528; FCC OET Bulletin 65 (Ed. 97-01) supplement C; IEC 62209-1/ IEC 62209-2; EN 50361:2001; EN 50383**

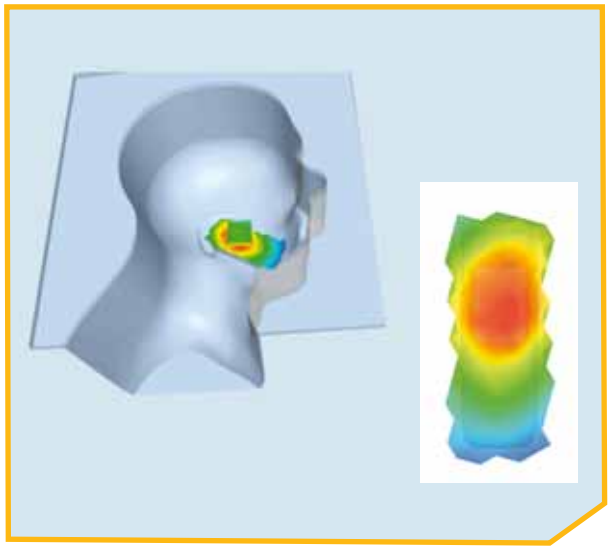
## Optional additional modules:

- **Liquid measurement**

## Main Functions

OPENSAR is a user friendly interface to supervise the proper functioning of the system:

- Configures measurement: once the measurement parameters have been defined, they will be loaded automatically.
- Imports handset 3D files to be used by the interface (3DS, IGES, STEP……).
- Defines easily the probe path and resolution in plane and volume mode.
- Generates Word reports automatically and customizes the format of these reports.
- Compares FDTD simulation (CST format) with measurement data in one interface.
- Gives views of E field amplitude in 3 modes:
  - 3 D view of plane and volume measurements,
  - 2 D view for each sensor of the probe and cut plan of the points being currently measured during the volume scan measurement.



The measurement of liquid dielectric properties is a module that can be integrated in OPENSAR. This enables the liquid values to be automatically updated.

## Optimized algorithms to reduce measurement time

Measurement time is a key factor in SAR calculation. OPENSAR uses optimized algorithms[1] to:

- Reduce the 2D and 3D scanning time from about 15 minutes (one phone, one position, 1 channel) down to 1 minute through 2D quick peak detection and 3D cube truncation algorithms.
- Halve the calculation time through handover between the low, middle and high channels within the same frequency.

(1) "SAR Measurement time reducing via optimization algorithms and interpolation scheme", Jérôme Luc, Romain Butet, Emmanuel Le Brusq, Yann Toutain, SATIMO, Plouzané, France. Presented at BEMS conference 2006, Cancun, Mexico. This paper is referenced in the IEC 62209-2 standard.

### Hardware requirements

| | |
|---|---|
| **Advised 17" screen** | **PC Pentium 2.4 GHz** |
| **Cable link** | **1 LAN Ethernet** |
| **Operating system** | **Windows 98/2000/XP** |
| **RAM** | **512 MB (1 GB recommended)** |
| **Software** | **MS Word/Excel** |
| **Ports** | **LAN + 2 slot PCI** |