

➤ Positioning systems



The handset positioning system developed by SATIMO complies with the standards in force for SAR and HAC measurements.

➤ Product category:

- Device positioning system for SAR and HAC measurements

➤ Function:

- Positions handset, larger telecommunication terminals and BSA for SAR and HAC measurements

➤ User profile:

- SAR and HAC 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

HANDSET POSITIONING SYSTEM (USED WITH COMOSAR AND HAC BENCH)

The positioning system is made of an extremely stable material, which ensures easy handling and reproducible positioning. It also allows correct positioning of the dipoles referenced by the IEEE, ANSI and IEC.

Material properties: the positioning system is made of PETP. This material offers a low permittivity of 3.2 and low loss, with a loss tangent of 0.005 to minimize the influence of the DUT on measurement results.

Mechanical properties: the positioning system developed by SATIMO allows a positioning resolution better than 1 mm. The system is fixed on a bottom rail "x axis" so that the positioning system can be quickly moved from the right to the left part of the phantom. In addition, it can be moved on a perpendicular "y axis" and the height can be adapted. The system is also composed of three rotation points for accurate positioning of the device's acoustical output.

Accuracy and precision: a curved rail on the top part allows the fast switch from the cheek to the tilt position. The required 15° angle for the tilt position can be easily checked thanks to a printed scale on the curved rail with a tolerance of $\pm 1^\circ$.

The correct position can be determined easily thanks to an additional tool with a pointer. The top part of the system, over the curved rail can be definitively fixed so that the last adjustments just concern the angle or the x, y or z axis. This simplifies the positioning of the acoustic output of the telephone on the cross section of the phantom, before rolling the system underneath the phantom. It also improves the accuracy and repeatability of the positioning with a tolerance ≤ 1 mm.



Handset positioning system

DEVICE POSITIONING SYSTEM (USED WITH COMOSAR BENCH)

Material properties: same as handset positioning system.

Mechanical properties: 2 rows of rail to cover easily the surface of the phantom. The fixing plate is perfectly adapted to larger devices, such as a PC which can be positioned in all configurations.

Accuracy and precision: graduated scale available on each axis. The DUT is fixed with a specific adaptable grip.



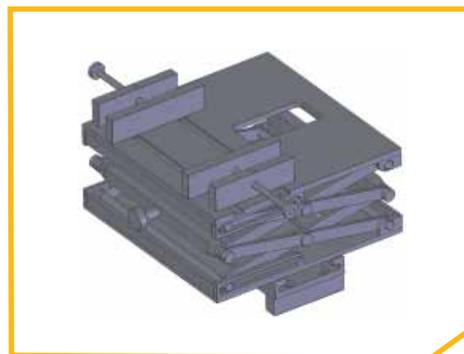
Device positioning system

BASE STATION POSITIONING SYSTEM (USED WITH COMOSAR BENCH)

Material properties: same as handset positioning system.

Mechanical properties: two rails are available to centre the antenna on to the right position. The antenna can be positioned from 0 to 400 mm away from the phantom with a 25 mm scaled step.

Accuracy and precision: graduated scale available on each axis; linear movement of the antenna on its Z axis with a precision < 1 mm.



Base station positioning system