Rohde & Schwarz produces and markets T&M equipment and systems of the highest quality and accuracy. Naturally, top-class equipment too needs to undergo regular tests for compliance with the accuracy specified in its data sheet. Speed of calibration is particularly important for equipment used on production lines, because ongoing production must not be impeded. For this reason, calibration has to fulfill the following requirements:

- maximum accuracy,
- high speed,
- logging of measurement results,
- on-site calibration,
- comparable and uniform quality worldwide,
- compliance with ISO guide 25.

These challenging demands are met by the universal Automatic Calibration System ACS100 (FIG) developed by Rohde & Schwarz. This calibration system is unique of its kind and has now been installed at all major Rohde & Schwarz service centers around the world, from Singapore to Brazil, where it contributes to the highly accurate control of measuring equipment used on production lines and in labs. The system consists of a number of instruments mounted in transportable, vibration-proof racks, which are remote-controlled from a computer on an IEC/IEEE-bus interface. The nucleus of the system is its software, which is specially generated for each device to be tested and performs the entire calibration process automatically, including the printout of test reports. The basic version is for calibration of signal generators and both analog and digital radio test sets. An extension allows the automatic calibration of spectrum analyzers and test receivers.

ACS100 is designed for mobility, so it can easily be transported to the customer and used on site. Valuable time is thus no longer wasted in transporting the devices to be calibrated back and forth, and flexible use of the calibration system at night and on weekends reduces the downtime of a production line to next to zero. ACS100 is used worldwide, so equipment data and measurement results from all continents can be compared for the benefit of service and repair.

Another feature of this system is its ease of operation. Convenient software informs the operator in detail about proper connection of the DUTs and any further interaction. A wide variety of electrical parameters are measured and recorded almost fully automatically at a keystroke, so the system can be operated by any operator having undergone brief familiarization, without requiring the presence of specialists. Furthermore, a support team is permanently available to ensure optimal utilization of the system.

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ACS100 test systems for calibration of R&S test and measurement equipment worldwide

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