

R&S®SMA100A Signal Generator

Caution: T&M equipment can also give away secrets

Measuring instruments used in security areas should not contain confidential instrument settings or useful data when taken outside these areas. The R&S®SMA100A signal generator from Rohde & Schwarz is extremely discreet in this respect: In addition to high performance, it features a number of important characteristics that make it safe to use in this environment.

Preventing access to confidential data

Some of the settings of electronic measuring instruments (e.g. frequency ranges, level ranges, or sweep ranges) as well as useful data are still stored internally even after the instrument is switched off. If these instruments are used in security-critical applications, it is important that third parties do not have access to these settings, since this information may provide clues about secret applications, for example. If such instruments are removed from the security area (e.g. when transported to another department or due to calibration or repair at an external service provider), precautions must be taken to ensure that this security-critical information does not fall into the wrong hands.

The R&S®SMA100A signal generator from Rohde & Schwarz is exemplary here: As an analog high-end signal generator with excellent specifications, it is of course also used in security-critical applications, where it offers a number of special features.

Confidential data only on memory card

When the generator was designed, particular emphasis was placed on storing confidential data and settings in non-volatile form only on the generator's CompactFlash™ memory card. No security-relevant data is stored in the other storage locations in the instrument, or it is deleted when the generator is switched off.

If the generator is equipped with the R&S®SMA-B80 removable mass storage option, you can take out the CompactFlash™ memory card and safely remove the generator from the security area.

For operating the instrument outside the security area, an optional spare CompactFlash™ memory card (R&S®SMA-Z10) is available, which does not contain security-relevant data. You insert the spare card into the slot, switch on the signal generator, and then perform an internal instrument adjustment – the generator is now ready for operation, calibration, or repair.

Deactivating interfaces by means of software

Instrument interfaces can also pose safety risks since they can be used to export confidential data, for example. In the case of the analog R&S®SMA100A signal generator, USB and LAN interfaces can therefore be quickly and easily deactivated by means of software. A password is required in order to reactivate the interfaces.

Utmost safety – Linux operating system

Another safety advantage of the R&S®SMA100A is its Linux operating system, which provides a high degree of safety against viruses, worms, and security gaps.

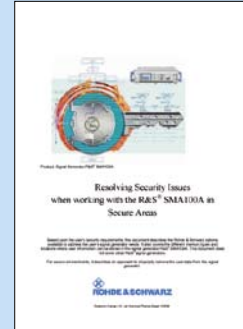
Document with technical details

On the Rohde & Schwarz website, you can find a Technical Information article about the R&S®SMA100A signal generator describing everything that has to do with its use in security areas (see box).

The article also includes a detailed description of the types of storage used in the signal generator and indicates where the data is stored. Moreover, the article provides details on how to use the CompactFlash™ memory card and how to deactivate/reactivate the instrument interfaces (USB/LAN).

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More information and
Technical Information at
www.rohde-schwarz.com
(search term: SMA100A)



Technical Information
“Resolving security issues
when working with the
R&S®SMA100A in secure
areas”.

When the R&S®SMA-B80 option is installed, internal generator data and settings can be stored on a removable CompactFlash™ memory card.



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