

In brief

R&S®SGS100A RF source: the smallest fully integrated signal generator for automated test systems

The new R&S®SGS100A RF source enables production lines to work faster and more cost-effectively. Although much more compact than previous RF sources, it delivers the same performance as high-end conventional instruments. It is available as a CW source or as a vector signal generator with an integrated I/Q modulator. With its frequency range of up to 6 GHz, the vector signal generator version covers all essential digital signals. The CW version, with a range of up to 12.75 GHz, can be used as a versatile local oscillator as well as for interference testing against the mobile radio standards.

The new R&S®SGS100A signal generator from Rohde&Schwarz covers the frequency range up to 12.75 GHz and has been optimized for use in automated test systems. The signal source is exceptionally compact. It fits in just one-half the width of a 19" rack and requires only a single height unit. Its small size means that four RF sources can be installed in the space previously needed for one RF source. With typical frequency and level setting times of 280 μ s, the R&S®SGS100A is three times faster than its conventional counterparts. This means higher production test throughput in addition to significantly reduced space requirements.

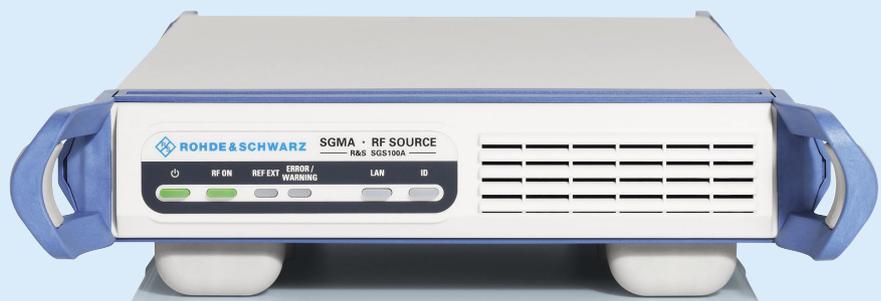
The compact R&S®SGS100A provides RF performance comparable with that of high-end signal generators. It comes with an electronic step attenuator and offers a very high output level of typ. +22 dBm over the entire frequency range. Its low nonharmonics of -76 dBc up to 1.5 GHz make the generator an excellent signal source for A/D converter tests.

The R&S®SGS100A is available in two models: The CW version generates frequencies up to 12.75 GHz. It can be used as a local oscillator as well as for interference testing against mobile radio standards. The vector signal generator version with integrated I/Q modulator offers a maximum frequency of 6 GHz and covers the relevant frequency bands for digital communications standards. RF signals from multiple R&S®SGS100A can optionally be phase-locked to support applications such as beamforming required by the aerospace and defense industry.

The generator also reduces operating and capital expenditures: Its initial costs are significantly lower than those of comparable equipment. In addition, it consumes less power (just 70 W) and dissipates less heat. Besides greater cost-efficiency, this also translates into higher reliability. The calibration interval of three years helps to keep operating cost low.

Since the RF source is typically remote-controlled, the front panel of the R&S®SGS100A was designed for use in systems. It offers status LEDs as well as all of the keys necessary for controlling generator operation. For laboratory use, it can also be operated manually via the external R&S®SGMA-GUI software.

Visit the Rohde&Schwarz website for detailed information about the R&S®SGS100A.



High-end performance in the smallest possible space: Four R&S®SGS100A RF sources require very little space in automated test systems, as shown in this example.