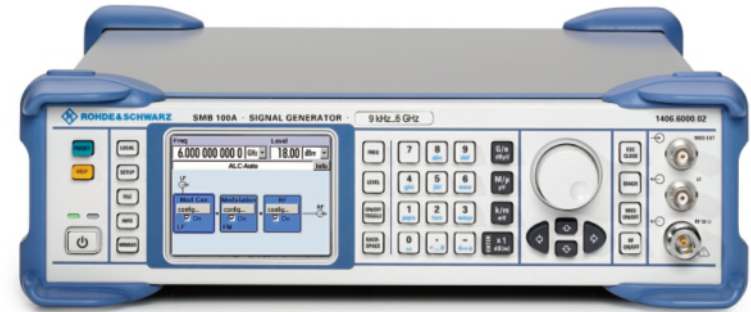


Rohde & Schwarz R&S®SMB100A
Analog Signal Generator 9 kHz to 6 GHz
 Setting standards in the mid-range class of products



Reasons to buy the R&S®SMB100A Analog Signal Generator

- ▶ Excellent signal quality with very high output power
- ▶ On-site servicing as convenient alternative
- ▶ Wide frequency range from 9 kHz up to 6 GHz
- ▶ Intuitive user interface with graphical display of signal flow
- ▶ Electronic attenuator with over-voltage protection up to 6 GHz
- ▶ Remote control via USB, LAN or GPIB for easy ATE integration
- ▶ Optional pulse generator with excellent characteristics
- ▶ High level accuracy and repeatability

THE R&S®SMB100A SIGNAL GENERATOR IS THE RIGHT TOOL FOR A WIDE RANGE OF APPLICATIONS

| APPLICATION | HOW THE R&S®SMB100A MEETS YOUR NEED |
|----------------------------------|--|
| <i>Development of RFICs</i> | <i>A typical 85 dB suppression of unwanted and non-predictable spurs and low wideband noise of -152 dBc meets most development needs</i> |
| <i>Receiver Measurements</i> | <i>The R&S®SMB100A can serve as a high quality generator of transmitter or interference signals up to 6 GHz</i> |
| <i>Radar System Measurements</i> | <i>With high performance pulse modulator and generator options, the R&S®SMB100A allows for military grade measurements</i> |
| <i>Test System Integration</i> | <i>The R&S®SMB100A offers multiple choices for remote interfaces: LAN, USB and GPIB</i> |
| <i>Production Testing</i> | <i>An electronic attenuator eliminates wear of continuous switching and a modular design enables on-site instrument servicing</i> |
| <i>EMC Applications</i> | <i>A wide frequency range of 9 kHz to 6 GHz allows for wide coverage with only one source, simplifying EMC test setups</i> |

What makes the R&S SMB100A a great value?

The R&S®SMB100A offers excellent signal characteristics, high flexibility and a low cost of ownership. A specified output power of +18 dBm over the entire frequency range offers a power reserve to replace external amplifiers. A flexible design concept allows maintenance to be done on-site or at an R&S Service Center.



Key Specifications at a Glance

| Specifications | R&S®SMB100A |
|--|--|
| Frequency Range | 9 kHz to 1.1 GHz, 2.2 GHz, 3.2 GHz or 6 GHz |
| Frequency Setting Time SCPI Mode List Mode | < 3 ms, typical 1.6 ms < 1 ms |
| Level Output Power (1 MHz ≤ f ≤ 6 GHz) | -145 dBm to +18 dBm, Overrange up to +25 dBm |
| Level Uncertainty (f = 200 kHz to 3 GHz) | < 0.5 dB |
| Level Setting Time SCPI Mode List Mode | < 2.5 ms, typical 1.2 ms < 1 ms |
| Level Back-Feed f = 1 MHz ≤ f ≤ 1 GHz f = 1 GHz ≤ f ≤ 2 GHz f = 2 GHz ≤ f ≤ 6 GHz | 50 W / 50 V 25 W / 50 V 10 W / 50 V |
| Spectral Purity (at f = 1 GHz) Nonharmonics (carrier offset > 10 kHz, f ≤ 1.5 GHz) | < -70 dBc (typical -85 dBc) |
| SSB Phase Noise (20 kHz offset, 1 Hz measurement BW) | < -122 dBc (typical -128 dBc) |
| Wideband Noise (offset > 10 MHz, 1 Hz measurement BW, level > 5 dBm) | < -142 dBc (typical -152 dBc) |
| Supported Modulation Modes AM AM Depth FM/ φM Maximum FM Deviation (f > 3 GHz) Maximum φM Deviation (f > 3 GHz) Pulse Rise/Fall Time Minimum Pulse Width (Optional Pulse Generator R&S®SMB-K22) On/Off Ratio | Standard 0 to 100% Standard 16 MHz 160 rad Optional (with option R&S®SMB-K22) < 20 ns, typical 10 ns 20 ns > 80 dB |
| Interfaces | IEC/IEEE Bus, Ethernet TCP/IP, USB |

Extras included with the R&S®SMB100A

- ▶ Free firmware updates available on our website <http://www.rohde-schwarz.com>
- ▶ Standard 1 year warranty and 3 year calibration included with purchase

Ordering Information

| Product | Type | Order No. |
|--|-------------|--------------|
| Signal Generator * | R&S®SMB100A | 1406.6000.02 |
| Includes power cable, Quick Start manual and CD-ROM (with manuals) | | |

* Requires either R&S®SMB-B101, -B102, -B103, or -B106 frequency options

Suggested Options and Accessories

| Product | Type | Order No. |
|---------------------------|--------------|--------------|
| 9 kHz to 1.1 GHz | R&S®SMB-B101 | 1407.2509.02 |
| 9 kHz to 2.2 GHz | R&S®SMB-B102 | 1407.2609.02 |
| 9 kHz to 3.2 GHz | R&S®SMB-B103 | 1407.2709.02 |
| 9 kHz to 6 GHz | R&S®SMB-B106 | 1407.2909.02 |
| Reference Oscillator OCXO | R&S®SMB-B1 | 1407.3005.02 |
| Pulse Modulator | R&S®SMB-K22 | 1407.3770.02 |
| Pulse Generator | R&S®SMB-K23 | 1407.3786.02 |

Service Options

3 and 5 year repair service options are available



CONVENIENT MODULAR DESIGN

For more information go to our website:

<http://www.rohde-schwarz.com/product/smb.html>

