RSG 1000

Reference Spectrum Generator

schaffner
safety for electronic systems

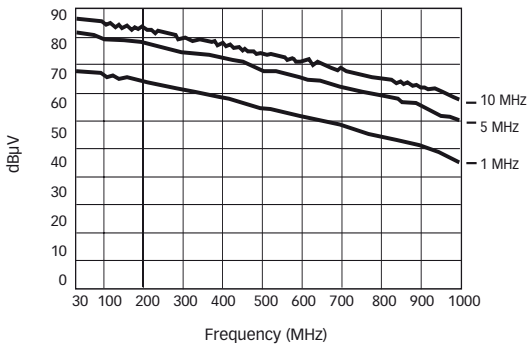
- **Battery operated**
- **Suitable for laboratory compare measurements and calibrations**
- **Frequency range 1 MHz - 1 GHz**

The Reference Spectrum Generator is an independent, RF signal source with a wide range of metrological applications. The RSG 1000 exists of a battery powered comb generator and generates in the frequency range from 1 MHz to 1000 MHz manually selectable frequency spectra of 1, 5 or 10 MHz. The fundamental frequency of 10MHz comes from a very stable temperature compensated crystal oscillator.
It can be used, in combination with an antenna, as a separate, stable radiation source to determine:

- the characteristics of test sites (VDE 0877 T2; EN50147-2, CISPR, ANSI 63.4) and correction factors
- antenna features (CISPR 16, ANSI 63.5)
- the screening attenuation of large cabinets (IEC917-, IEC297-)
- comparison testing between OATS and alternate test facilities (e. g. Anechoic Chambers, TEM and GTEM-Cells)

It can be used, in combination with receivers, to test transmission factors, cable and insertion losses, eg. during the calibration of current probes and absorbing clamps (CISPR 16).

Typical Output Levels of the 1-,5-, and 10 MHz spectra at 50 Ω.



Technical Specifications

Frequency range	1 MHz - 1 GHz
Frequency spacing	1, 5, 10 MHz
Frequency error	< $1x10^{-6}$
Ageing/resistance	< $1x10^{-6}$/year
Range of adjustment (internal)	< $5x10^{-6}$
Output level	> 93 dBµV @ 30 MHz
	> 65 dBµV @ 1000 MHz
Signal stability	≤ ±0.5 dB (+10°C - +30°C)
	≤ ±0.8 dB (0°C - +40°C)
Stability of a discrete spectra line	≤ ±0.2 dB (+20°C)
Temperature range	+5°C - +40°C
Output Impedance	50 Ω
Output connector	N Female
Operating time (battery charged)	max. 12 h
Battery type	4 x NiMH, (1.2V, Mignon)
Dimensions (mm)	60 x 60 x 175
Weight	560 g