



VSQ 3000/3002

Reference Radiation Source up to 3GHz

 **SCHAFFNER**
safety for electronic systems

VSQ 3000/3002.

This new series enables the user to check measuring setup parameters of open area test sites, anechoic chambers and other alternative setups.

- Frequency range up to 3GHz
- Switch able spectrum with 1, 5 or 10MHz
- High Stability
- Changeable accumulator set

VSQ 3000
VSQ 3002



Reference Radiation Source up to 3 GHz

This new series VSQ 3000/3002 offers a RF emission source for the frequency range to 3 GHz and enables the user to check measuring setup parameters of open area test sites, anechoic chambers and other alternative setups.

It consists of a high stability comb generator RSG 5000, a broad band Antenna DPA 5000 (VSQ 3002 consist of two antennas DPA 5000 and DPA 4000) and tripod.

The comb generator RSG 5000 can be used separately for other measurements, like four-pole measurements or calibrations tasks.

The comb generator is fed by a temperature compensated high stability quartz oscillator and provides a switchable spectrum with 1, 5 or 10 MHz spectral line density. Power is supplied by 4 removable NiMH accumulators.

The charge status of the batteries is constantly monitored. To prevent battery damage an automatic switch-off system is included.

The VSQ 3000/3002 is also suitable for daily validation of antennas and other measuring equipment.

Attenuation measurement

- The VSQ can be used to measure the attenuation of absorbing material or the shielding effectiveness of screening materials.
- A simple method, using the RSG 5000, allows the measurement of the attenuation of coaxial cables or attenuators without using a network analyser.

Simulated tracking generator

- The comb generator can give the same effect as a tracking generator when monitored by a test receiver or spectrum analyser. With its high level stability, the generator is suitable for the fast calibration of measuring receivers' level accuracy.

Emission measurements

- The antennas can be used separately for emission measurements.



Technical specifications

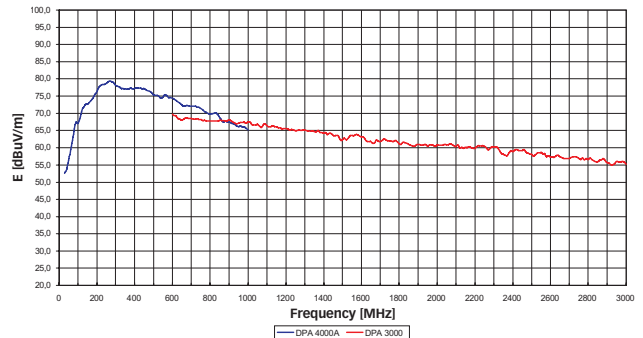
Technical specifications of VSQ 3000

Frequency range:	800MHz to 3GHz
Field strength at 3m distance (quasi free space):	>55dB μ V/m
Dimensions for transport: (B x H x T):	93 x 52 x 24cm
Weight:	approx. 13.7kg

Technical specifications of VSQ 3002

Frequency range:	30MHz to 3GHz
Field strength at 3m distance (quasi free space):	>50dB μ V/m
Dimensions for transport: (B x H x T):	93 x 52 x 24cm
Weight:	approx. 14.4kg

VSQ 3000 - Field Strength @ 3m distance (quasi free space)



Scope of delivery

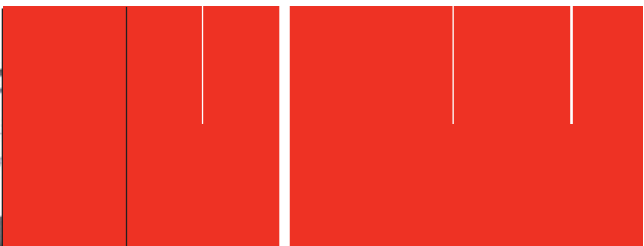
- Reference Spectrum Generator RSG 3000
- Biconical antenna DPA 4000A (only VSQ 3002)
- Biconical antenna DPA 3000
- Antenna tripod BTP 6010
- Antenna tube BAA 6001 (22 mm) N female / N male
- Mast adapter CHA 9425A with thread adapter M6 male
- Adapter N male / N male
- Battery charger, NiMH 1.2 V batteries
- Operation manual
- Suitcase



Technical specifications of RSG 3000

Frequency range:	1MHz – 6GHz (typical 7GHz)
Comb spacing:	10MHz, 5MHz, 1MHz
Frequency stability (TCXO, 10MHz):	< 1ppm (0°C - +50°C)
Aging:	< 1ppm/year
Frequency correction (internal):	< 5ppm
Output level @ 50 Ohm, typical (10 MHz spacing):	90dB μ V @ 10MHz 60dB μ V @ 6GHz
Signal stability:	< 0.3dB @ 20°C, < 0.5dB (+5°C - +40°C)
Power supply:	rechargeable batteries (changeable) type AA/Mignon, working time approx. 16h
Connector (RF- output):	N, female, 50 Ohm
Operating temperature:	+5°C to +40°C
Relative humidity:	up to 80%
Dimensions (B x H x T):	60 x 60 x 140mm
Weight:	approx. 580g

VSQ 3000
VSQ 3002

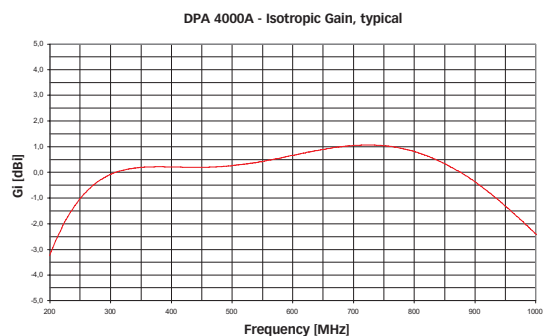
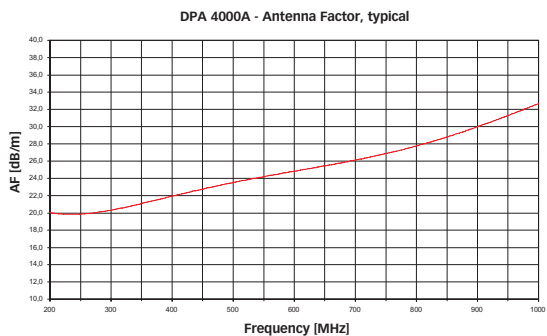


Technical specifications



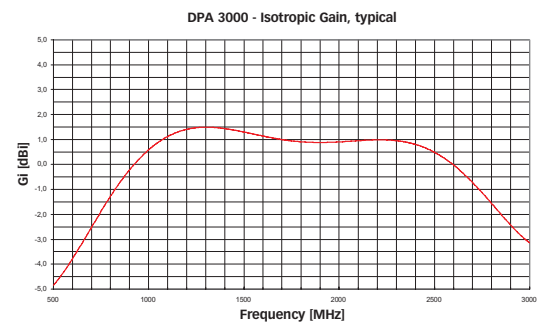
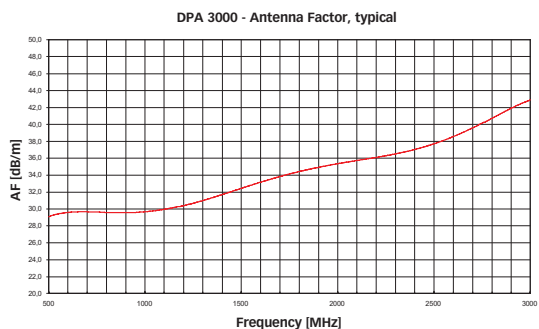
Technical specifications of DPA 4000A

Antenna type:	biconical dipole antenna
Polarisation:	linear
Frequency range:	200MHz to 1000MHz
Antenna factor, typ.:	20dB/m to 32dB/m
Isotropic gain, typ.:	-3.5dB to +1.5dB
VSWR, typ.:	up to 2.0 (350MHz to 1000MHz)
Symmetry, typ.:	up to 0.2dB
Cross-polar response:	≥ 20dB
Output impedance:	50Ohms, nominal
Connector:	N female
Max. power (cw):	5W
Size (L x W x H):	185 x 400 x 155mm
Support length:	115mm
Weight:	690g
Class of protection:	IP X3



Technical specifications of DPA 3000

Antenna type:	biconical dipole antenna
Polarisation:	linear
Frequency range:	800MHz to 2800MHz
Antenna factor, typ.:	30dB/m to 38dB/m (0.8GHz to 2.5GHz)
Isotropic gain, typ.:	-2.0dB to +1.5dB (0.8GHz to 2.5GHz)
VSWR, typ.:	up to 2.5 (1.0GHz to 2.5GHz)
Symmetry, typ.:	up to 0.2dB
Cross-polar response:	≥ 20dB
Output impedance:	50Ohms, nominal
Connector:	N female
Max. power (cw):	10W
Size (L x W x H):	155 x 155 x 75mm
Support length:	95mm
Weight:	180g
Class of protection:	IP X3



Technical specifications

Technical specifications of antenna tripod BTP 6010

Height range:	53cm to 112cm
Thread:	M6 female
Dimensions for transport:	50 x 16 x 16cm
Weight:	2.2kg

Technical specifications of antenna tube BAA 6001

Insertion loss:	up to 0.8dB @ 3GHz
Connector:	N female / N male
Diameter:	22mm
Length:	82cm
Weight:	0.85kg
Class of protection:	IP X1



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