KSQ 1000, KSQ 1001

SPHERICAL REFERENCE RADIATION SOURCE 30 MHz to 1 GHz

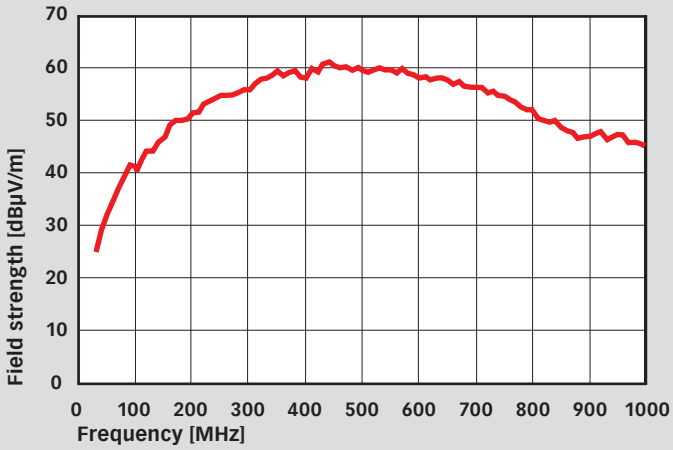
KSQ 1000

- Quasi-point radiation source
- Particularly designed for use in small test facilities, e.g. GTEM cells
- Battery operated and earth free
- Up to 60 dBuV/m in a 10 m measuring distance

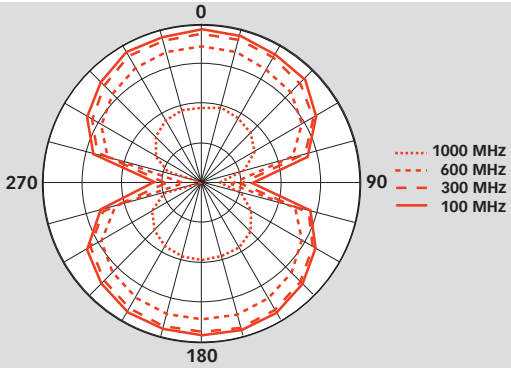
KSQ 1001

Compact spherical reference radiation source for the transfer of 'Interference Field Strength' value, offers very good price-performance relation. The KSQ 1000 is a special version of reference radiation source for the frequency range 30 MHz to 1 GHz. It consists of a battery operated comb generator which generates selectable frequency spectra with 1 MHz, 5 MHz or 10 MHz distance of the discrete spectral lines. The basic frequency 10 MHz is supplied by an ultra stable crystal oscillator. The complete circuit is mounted into two metallic half spheres, which provide a dipole antenna for the radiation of the generated frequency spectrum. This configuration supplies little dimensions of the KSQ 1000 and allows operation in small test areas (e.g. GTEM 250).

Typical field strength in 10 m distance (10 MHz spectrum, -6 dB for 5 MHz spectrum, -20 dB for 1 MHz spectrum)



Directional pattern of KSQ 1000



AMETEK®
COMPLIANCE TEST SOLUTIONS

TESEQ
Advanced Test Solutions for EMC

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SPHERICAL REFERENCE RADIATION SOURCE 30 MHz to 1 GHz

Technical specifications

Frequency range:	30 MHz to 1 GHz
Frequency spectrum, selectable:	f = 1, 5, 10 MHz
Frequency stability:	< 1 x 10^{-6}
Ageing/resistance:	< 1 x 10^{-6}/year
Internal adjustment range:	> 5 x 10^{-6}
Influence of temperature (10 MHz spectrum):	≤ ± 0.5 dB (+ 10 °C to + 30 °C) ≤ ± 0.8 dB (0 °C to + 40 ° C)
Stability of a discrete spectral line (10 MHz spectrum):	≤ ± 0.2 dB (+ 20 °C)
Field strength at 10 m distance (10 MHz spectrum):	E > 20 dBµV/m, (s. diagram)
Dimensions (W x H x D):	115 mm x 115 mm x 115 mm
Weight:	approx. 1 kg
Nominal temperature range:	+ 10 °C to + 30 °C
Battery pack	
Battery types (exchangeable):	4 x NiMH, (1.2 V, 750 mAh, Micro, AAA)
Operation time (battery pack loaded):	(NiMH, C = 750 mAh) max. 12 h
Battery charger (included in KSQ 1001 delivery only)	
Type:	MPP 15
Input voltage:	100 V to 240 V, AC 47 Hz to 63 Hz
Output voltage:	12 V DC / 1.25 A
Output connector:	∅ 3.5 mm
Ambient temperature:	0°C to 40°C
Tripod and suitcase (included in KSQ 1001 delivery only)	
Tripod height range with tube and tripod legs:	54 cm to 144 cm
Dimension of the suitcase (W x H x D):	560 mm x 180 mm x 435 mm
Weight of the suitcase (W x H x D)::	approx. 8 kg

KSQ 1001 in suitcase

Model No. and options

Part number	Description
239610	KSQ 1000 Spherical reference source 30 MHz - 1 GHz
239601	KSQ 1001 KSQ 1000 with battery charger and tripod in suitcase
97-239610	KSQ 1000-GTEM-TC Traceable calibration (ISO17025) of KSQ 1000 or KSQ 1001 in a GTEM
98-239601	KSQ 1000-SAC-AC DAkkS accredited measurement with report (ISO17025) of KSQ 1000 or KSQ 1001 in a SAC, 3 m distance, 10 MHz step

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