

Features

Frequency range of 1 GHz to 40 GHz

Stable Frequency Output

Automatic Low Voltage Signal Shutoff

Battery Operated

Three-Year Warranty



Description

The CGO-51000 Comb Generator is a radiated reference signal source. It is a self-contained source of signals consisting of frequency harmonics at 1 GHz intervals, and is usable from 1 GHz to 40 GHz. The signals generated by CGO-51000 are stable and can be used as reference for validating high frequency test setups in open area test site or anechoic chamber.

The CGO-51000 Comb Generator has an omni directional built-in antenna, which works in conjunction with the chassis of the unit. The circular chassis of the Comb Generator helps radiate the signal uniformly in all directions in the horizontal plane. The built-in antenna of the CGO-51000 provides improved signal stability, however it cannot provide conducted reference signals.

The CGO-51000 Comb Generator is powered by a rechargeable internal battery pack. The internal power eliminates the need for an external power cable and its effect on the radiated signal pattern or level. When fully charged, the battery allows continuous use of the Comb Generator for up to 18 hours. The Comb Generator and its charger are shipped with a custom wooden storage box.

Application

Radiated emissions measurements for EMC are usually conducted on an Open Area Test site (OATS) or an anechoic chamber. These require periodic calibration to ensure repeatable and accurate EMC measurements.

The Comb Generator is a tool to solve these problems. The test engineer should keep a daily log of a few Comb Generator radiated readings before starting his test. He is able to detect potential problems with site by monitoring any change in the readings. For example, any problem or change with antenna, cables, preamplifier, attenuator or receiver will be reflected in the Comb Generator data with the same setup. The same method can be utilized when EMC emissions measurements for a product varies with sites. The Comb Generator can be used to determine if the test sites are causing the variation. Without such a reference source, it would be extremely difficult to compare several sites.

The Comb Generator can also be used to check the shielding effectiveness of an enclosure.

Specifications

Intended Application	EMI Radiated Site Reference Source
Frequency Range	1 GHz to 40 GHz
Frequency Step Size	500 MHz
Frequency Stability	25 ppm
Amplitude Stability	± 0.1 dB
Time Stability	<1 dB over 12 months
Charger Output / Input	6 VDC, 500 mA / 110VAC 60 Hz or 230 VAC 50 Hz
Battery Type	6V NiMH, 1 Ah
Operating Time	>18 Hours Typical With Fully Charged Battery
External Indicators	Battery Low and Power On
Antenna Size	Built-in Antenna
Dimensions	7.0 x 1 inches / 17.8 x 2.5 cm
Weight	2.5 lbs / 1.1 kg
Polarization	Vertical and Horizontal

All specifications are subject to change without notice.
All values are typical, unless specified.

