



CGC-255, CGC-510

## Conducted Comb Generator

### Features

**Quick LISN Verification**

**Switchable Frequency Steps**

**Amplitude Stability: +/- 0.1 dB**

**Battery Powered**

**Two Year Warranty**



### Description

The CGC-255 and CGC-510 Conducted Comb Generators are reference signal sources for testing Line Impedance Stabilization Networks (LISN). The Comb generator output has the harmonics of the fundamental frequency. Each model has two switchable frequency step sizes. The model CGC-255 has 250 kHz and 50 kHz and the model CGC-510 has 500 kHz and 100 kHz frequency steps.

This Comb Generator simulates an EUT generating conducted EMI noise. The CCG series Comb Generators have the standard NEMA three blade connector that can plug directly into any LISN with the matching EUT power socket. Both models have a high impedance to the external line voltage, AC or DC up to 230 V. This feature allows the Comb Generator to be used while the LISNs are connected to external power source.

The Comb Generators are powered by rechargeable NiCad batteries to avoid any external noise coupling. In addition, the Comb Generator's internal monitoring circuits provide indication to the user when the battery drops below operating level. A fully charged battery will power the Comb Generator up to 16 hours. A battery charger is included with both models.

### Application

The main application of the CGC series Comb Generators is to quickly verify conducted emissions test set-ups. These Comb Generators were designed to plug directly into the EUT power socket of the LISN. The conducted noise output level of the Comb Generators are close to or above the CISPR 22 limits as shown on the typical output plot on the back of this page.

Most EMI labs typically calibrate LISNs and other equipment (spectrum analyzers, cables, connectors, etc.) in the conducted emissions test setup at regular intervals. However, test equipment malfunctions may occur between any calibration interval and may go undetected until the next calibration. In the meantime, these malfunctions may produce erroneous test results. This is unacceptable and can be avoided by using the Comb Generator as a reference noise source. With the Comb Generator, the test engineer will be able to quickly perform verification of the conducted test setup more frequently to assure accurate test results.

Other possible applications of the CGC series Comb Generator could include production evaluation of components, such as cable shields and filters.

## Specifications

Usable Frequency:	CGC-255:	50 kHz step mode	50 kHz-30 MHz
	CGC-255:	250 kHz step mode	250 kHz - 30 MHz
	CGC-510:	100 kHz step mode	100 kHz - 30 MHz
	CGC-510:	500 kHz step mode	500 kHz - 30 MHz

Connector Type: 3 pin male plug which mates with standard US 115 V AC socket

Battery Charger Input: 6 V DC, 500 mA

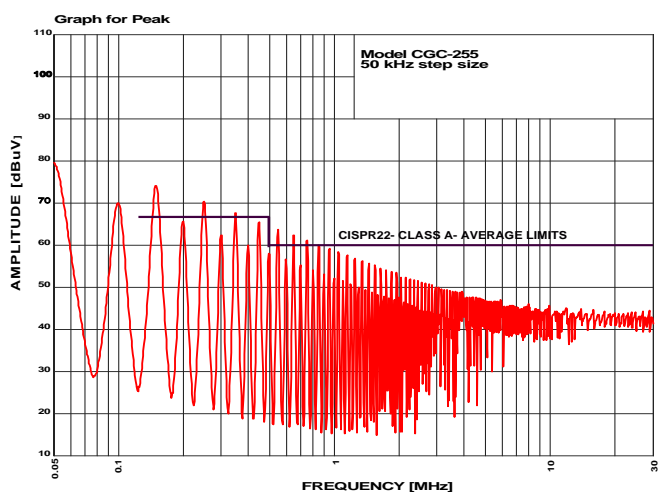
Battery Type: 4.8V NiCad rechargeable battery pack

Dimensions: 5 x 2.25 x 2.25 inches (13.2 x 5.9 x 5.9 cm)

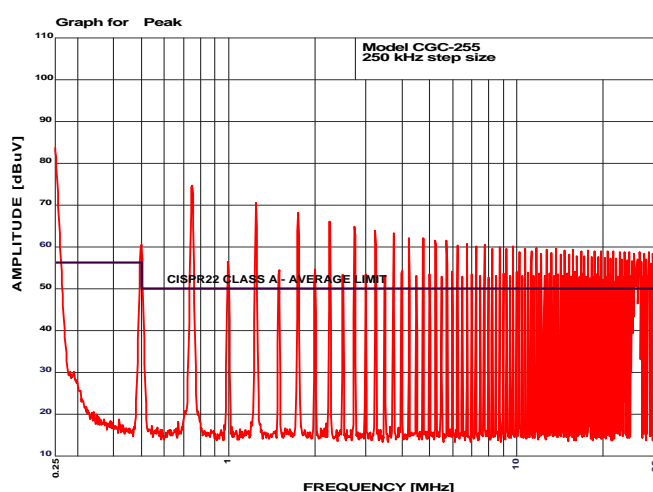
Weight: 1 lb. (0.5 kg)

Operating Temperature Range: 0 ° C to 40 ° C

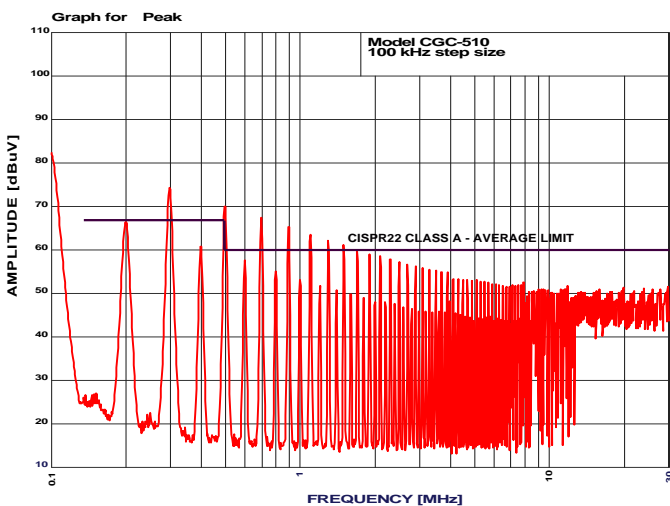
## Typical Output (Direct)



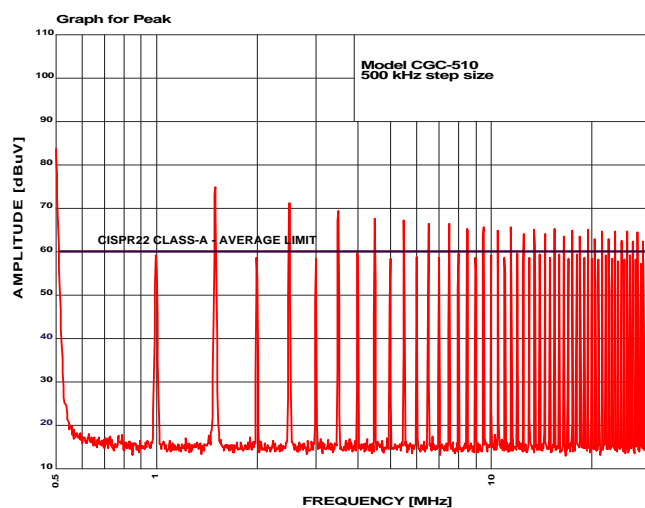
50 kHz step



250 kHz step



100 kHz step



500 kHz step

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