

Features

Reference Signal Source for LISNs

User-Selectable Step Sizes of 10 and 50 kHz

Usable Frequency Range up to 115 MHz

Battery Operated

Three-Year Warranty

Description

The **CGC-105 Conducted Comb Generator** is a stable, reference signal source for verifying conducted emissions measurement systems. Its output consists of a fundamental frequency and its harmonics. The generator has a toggle switch for setting the step size, allowing users to select between **10 kHz** and **50 kHz** frequency steps.

The Comb Generator simulates an EUT generating conducted EMI noise. It plugs directly into the LISN's EUT port. Its high output impedance allows the Comb Generator to be used while the LISN is connected to an external power source. It can also be used with the LISN removed from power.

The Comb Generator's conducted output levels are close to or above most CISPR disturbance test limits. Typical output plots are shown on the following page.

Rechargeable internal NimH batteries power the **CGC-105**. Operating on battery power eliminates the need for external power cabling, which could potentially affect the measurements. When fully charged, the battery allows continuous use of the Comb Generator for up to 23 hours. The **CGC-105** and its accessories are provided in a custom carrying case.



Application

Most EMI labs calibrate the conducted emissions measurement system at regular intervals, usually one year. However, problems within the system may occur between calibration intervals, resulting in measurement errors that could easily go undetected. Performing regular checks using a Conducted Comb Generator can prevent such occurrences and ensure accurate test results.

The main application of the **CGC-105** is to verify conducted emissions measurement systems quickly. It is designed to plug directly into the EUT port of compatible Com-Power



LISNs. For LISNs equipped with pin sockets, the connection is made via the interchangeable **CGC-P25A**, **CGC-P50A**, or **CGC-P100A** output pins. For LISNs fitted with a three-way AC receptacle, the connection is made using the **CGC-105P-ADA-USP** adapter (sold separately).



CGC-105P-ADA-USP
AC PLUG ADAPTER

Also available is the **CGC-105P-ADA-CAL** coaxial adapter, which allows the generator to be connected directly to the measuring instrument to verify its output levels directly.



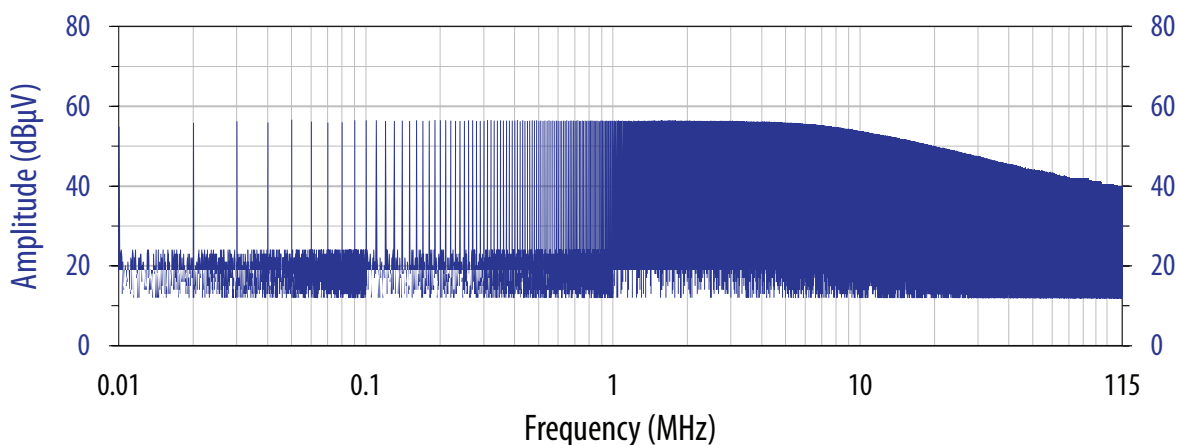
CGC-105P-ADA-CAL
COAXIAL ADAPTER

Specifications

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

Product	Conducted Comb Generator
Model	CGC-105
Frequency Range	10 kHz to 115 MHz
Frequency Step Size	10 kHz or 50 kHz (user-selectable)
Frequency Stability	20 ppm
Amplitude Stability	± 0.1 dB
Time Stability	<1 dB (over 12 months)
AC Adapter/Battery Charger Output	6 VDC (unregulated), 500 mA
AC Adapter/Battery Charger Output Connector	2.5 mm [ID] x 5.5 mm [OD] (center-pin positive)
Battery Type	6V NiMH, 1 Ah
Typical Operating Time	>23 Hours (with fully charged battery)
External Indicators	Battery Low and Power On
Dimensions (L x W x H)	6.5 x 2.3 x 2.4 inches (165 x 58 x 61 mm)
Weight	0.5 lbs (0.22 kg)
Accessory Output Adapters	CGC-P25A, CGC-P50A, CGC-P100A, CGC-105P-ADA-CAL (optional), CGC-105P-ADA-USP (optional)

Typical Output - 10 kHz Step Size



Typical Output - 50 kHz Step Size

