

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 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 and 50 kHz fundamental frequencies.

The Comb Generator simulates an EUT generating conducted EMI noise. It plugs directly into the LISN's EUT port. The CGC-105's 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 Comb Generator is to verify conducted emissions measurement systems quickly. It is designed to plug directly into the EUT port of most 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 universal or NEMA-5-15R three-way AC receptacle, the connection is made using the CGC-105P-ADA-USP adapter.



In addition, the CGC-105 is also provided with a CGC-105P-ADA-CAL coaxial BNC adapter. This allows the generator to be connected directly to the measuring instrument to verify its output levels without the LISN in the setup.

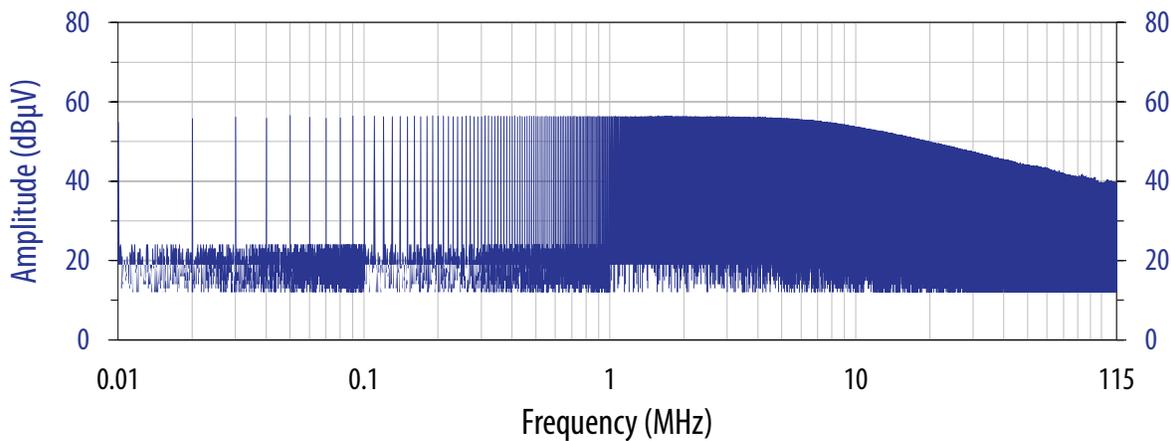


Specifications

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

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|---------------------------|---|
| 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 |
| Charger Output | 6 VDC (unregulated), 500 mA |
| 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, CGC-105P-ADA-USP |

Typical Output - 10 kHz Step Size



Typical Output - 50 kHz Step Size

