



Verify sanity of your test site everyday!!!

EMI test labs must insure repeatable electromagnetic Interference (EMI) measurements. This is often accomplished by calibrating the EMI test site at regular intervals using published test methods. These methods although accurate, are elaborate and time consuming and are not practical to be performed before each EMI test. Com-Power CGC or CGO series Comb Generator is a solution to this problem. The Comb Generator is a reference radiating EMI source for quick radiated EMI site verification. It can be used to identify potential measurement errors due to malfunctioning instrumentation or changes to the test setup.

The Comb Generator is self contained radiating signal source. It produces all the harmonics of the frequency determined by step size up to its maximum range of operation. The output level of the Comb Generator is fixed and has minimal variation. The Comb Generators are battery operated and have no interconnecting cables that could change the radiated signal. The single monopole antenna affixed on top of the Comb Generator radiates the reference signals. The test engineer can quickly verify his setup by putting the Comb Generator in place of the equipment under test. Then compare the data to previous test data obtained using the same setup. With this method, the test engineer can quickly detect potential problems with the test site or setup before making any other measurements.

The same principle that is used for verifying radiated emissions test site can be employed to test the conducted emissions setup in an EMC test laboratory with a CGC series Comb Generator. This Comb Generator was specifically designed to test conducted emissions setups that utilizes Line Impedance Stabilization Networks (LISNs).

A comb generator is often used when a reliable reference signal source is needed. It is quite versatile, in that it is an ideal solution for use, whether your application requires multiple simultaneous frequencies, or a single discrete frequency. A typical RF signal generator is bulky, requires AC power, and takes time to set up and configure it for the desired frequency and amplitude, and must then be retuned for each individual frequency needed. A comb generator, in contrast, is small, quick and versatile. It is light and portable, powered by an internal battery, generates multiple frequencies simultaneously, and has only two modes of operation; on and off. So, when wide band performance is to be tested or studied, comb generators are preferred.

The comb generators made to simulate the radiated and conducted reference sources make valuable tools in an EMC or EMI lab helping the test engineer to verify the reliability of the test equipment on a daily basis. This is the best way to discover a potential problem before it is too late.

For more details on the functionality of comb generators and product details please visit:

Application Note: <http://com-power.com/tech-notes.html>

Product Details: http://com-power.com/comb_generators.html