

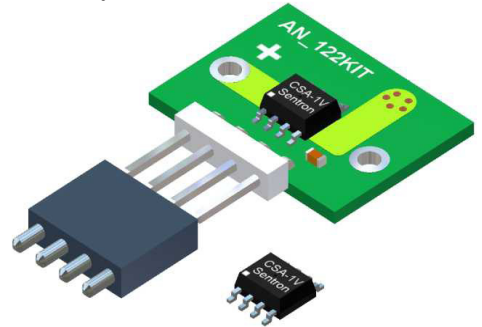
The AN_122KIT provides an easy method of evaluating the Sentron CSA-1VG current sensor in a PCB layout configuration that greatly improves the signal to noise ratio for a medium current range measurement. This arrangement will produce a nominal sensitivity of 65mV/A for a linear output to $\pm 30A$ of primary current. The maximum continuous capability for this layout is 15A rms, but the PCB can handle short peak current up to $\pm 35A$.

This PCB configuration increases the sensitivity of the current measurement by looping the current around the IC. The current flows under the IC on the top trace of the PCB and then down under the IC through trace on the bottom side. This layout creates two primary current traces under the IC. The sensitivity is increased by a factor of 2.0 from that of a single trace under the IC.

The AN_122KIT PCB assembly includes a SMD ferrite chip placed on the backside just under the CSA-1VG to improve sensitivity and rejection of external magnetic fields. The layout will function without the ferrite bead but with reduced sensitivity.

The kit includes a mating connector to facilitate easy interfacing with the PCB board as well as an extra CSA-1VG IC to be used in the customers own layout if desired. See the CSA-1VG-SO specification at <http://www.gmw.com> for the specific details of the IC.

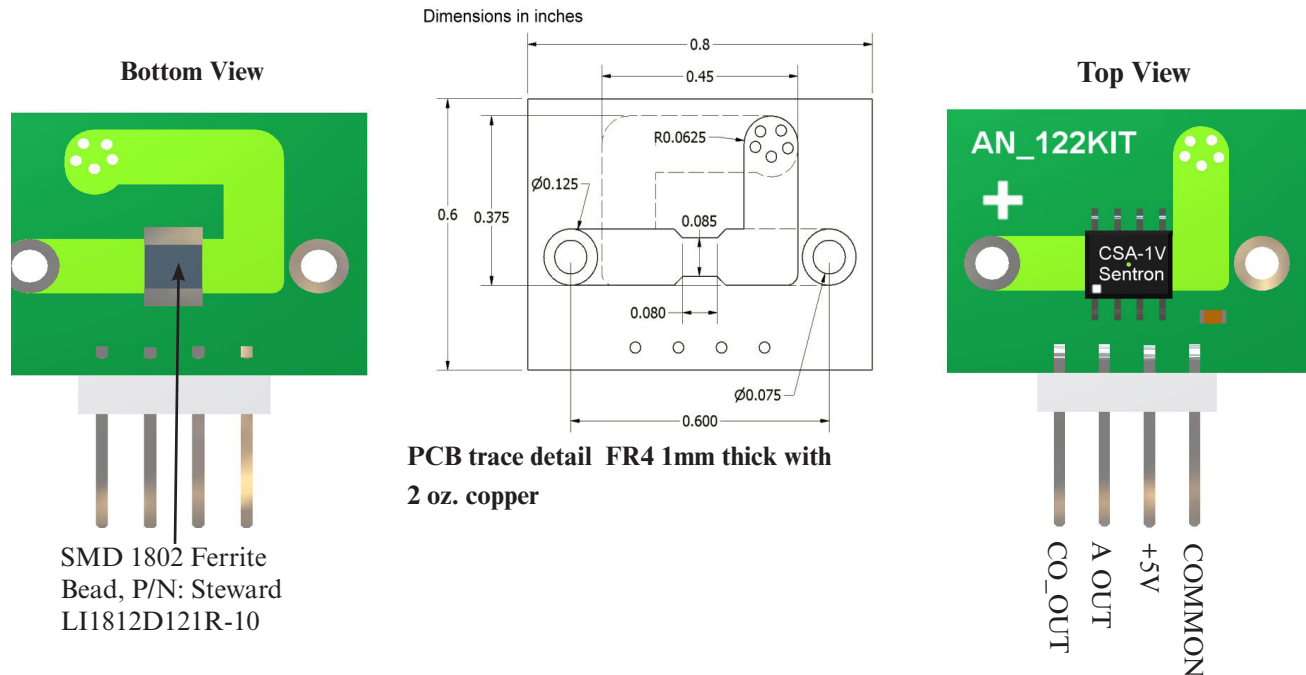
15Arms continuous, $\pm 35A$ peak,
sensitivity 65mV/A



AN_122KIT with additional CSA-1VG and mating connector

Features

- Measures AC or bidirectional DC currents
- Sensitivity of 65mV/A. Linear range to $\pm 30A$
- Full scale linear output of $2.5V \pm 2.0V$ instantaneously proportional to the primary current
- Supply Voltage of $5V \pm 10\%$
- Galvanic Isolation between Primary Conductor and Sensor output
- Interface Connector - 4 Pin 0.100" centers (Mating connector included)

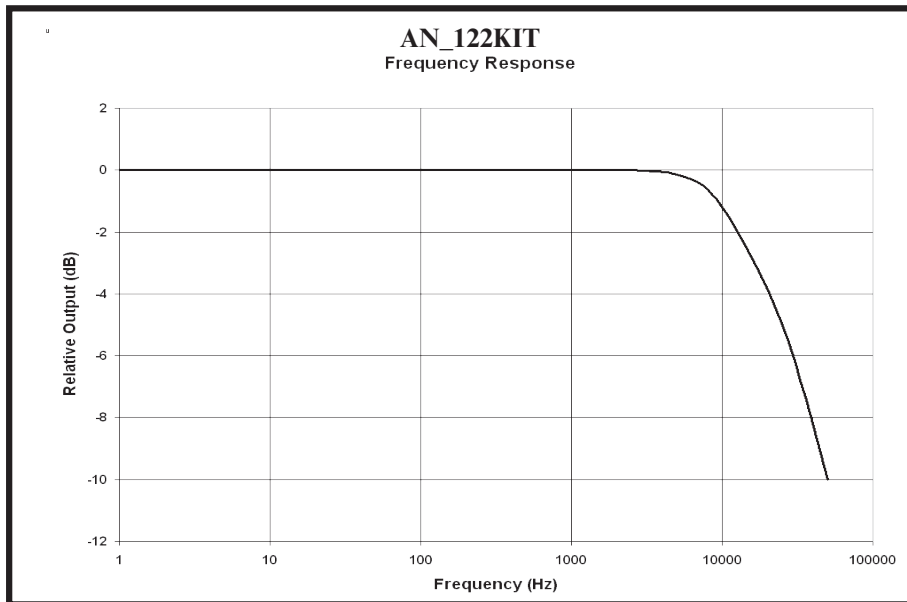
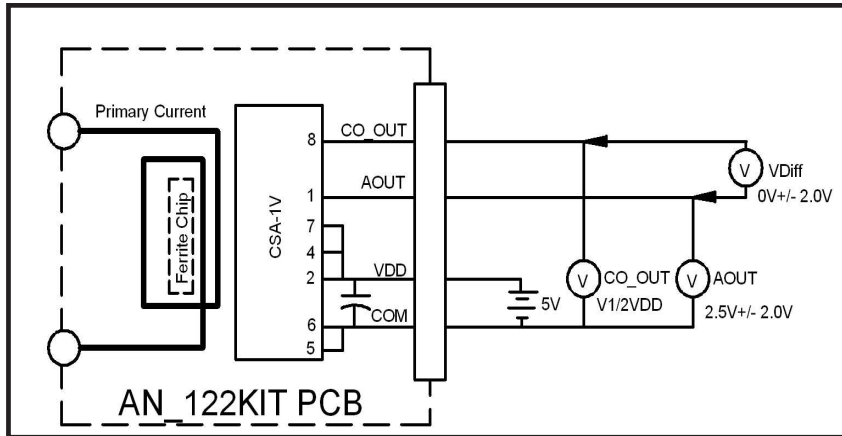


Revision Date: 5 JUNE 2008

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Block Diagram and Electrical Connections



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