Lab board 013A is a simple-to-use R-C network designed to assist the task of optimizing the loop compensation of Linear Technology devices. It features 16 paralleled capacitor values ranging from 47pF to 0.1uF and 3 series potentiometers of 5K, 50K, and 1Mohm values to enable tuning virtually any resistance on the 5% or 1% tolerance chart. Additionally, the board is compact enough to fit close to any demo board and be attached to the signal ground plane, thereby minimizing the noise introduced and improving the overall S/N ratio of the measurement setup. The board has nearly 100% copper flood coverage to offer as much shielding as possible from possible noise sources.

To use the board in most setups, use leads as short as possible from the Vc or Comp nodes and SGND plane to the test posts labeled “R” and “C”, twisting the pair as much as the length permits. If it is possible, use bus wire to fix the boards GND test post to the SGND plane to offer mechanical strain relief and prevent the leads from tearing away from the compensation node landing pads. In most cases tweezers, x-acto blade tips or mechanical pencil tips must be used to manipulate the tiny dip-switches for capacitance selection.