Typical Output Drift of an LDX-3412 Precision Current Source

TECH NOTE

This technical note presents the results of output drift measurement tests performed on three production LDX-3412 Precision Current Sources.

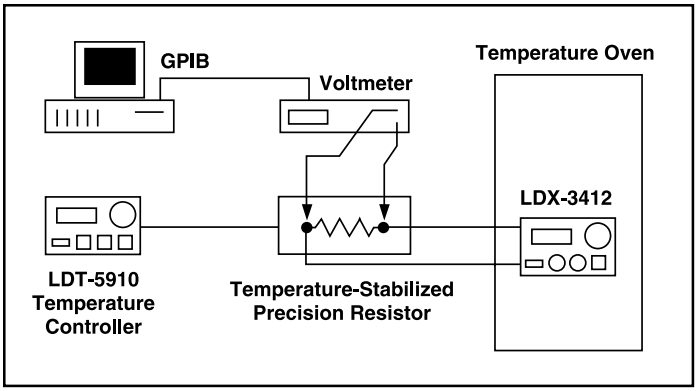

Figure 1. Measurement Setup Diagram.

MEASUREMENT SETUP

The measurement setup is shown in Figure 1. Each LDX-3412 was placed in a temperature-controlled oven and stabilized for one hour at 25°C. Current measurements were taken by measuring the voltage across an ultra-stable precision resistor which was also temperature controlled. The starting current was 100 mA. Raw data was fed to a computer and converted to drift data in parts per million (ppm). These results were graphed as shown in Figure 2.

RESULTS

It can be seen from the results in Figure 2 that after an initial warm-up time of 10 minutes, all three LDX-3412s exhibited a stability of better than ±10 ppm for a period of 1 hour.

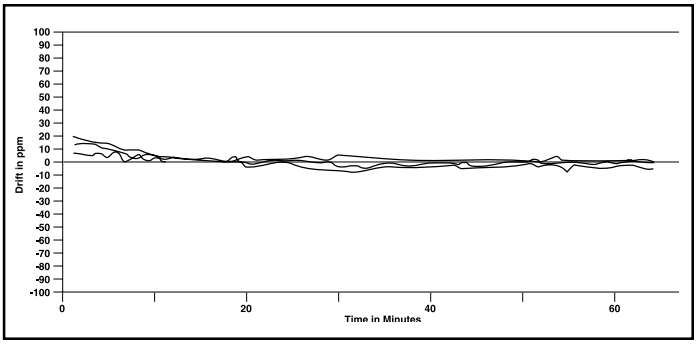

Figure 2. LDX-3412 Drift Measurement Results.