Long-Term Output Stability of an LDX-3525 Precision Current Source

TECH NOTE

This technical note presents the results of output drift measurements performed on a typical production model LDX-3525 Precision Current Source.

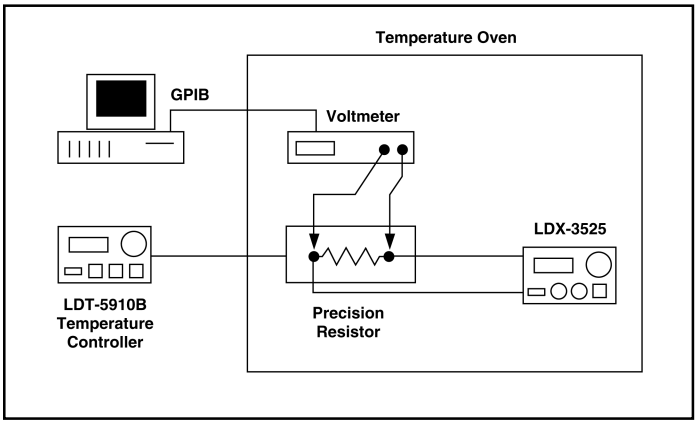

Figure 1. Measurement Setup.

MEASUREMENT SETUP

The measurement setup is shown in Figure 1. The LDX-3525 was placed in a temperature-controlled oven and stabilized for one hour at 20°C. The LDX-3525 was placed in low (200 mA) range, and the output current was set to 100 mA. Current measurements were taken every 2 minutes by measuring the voltage across an ultra-stable precision resistor which was also temperature controlled. Raw data was fed to a computer and converted to drift data in parts per million (ppm). The results were graphed, as shown in Figure 2.

RESULTS

It can be seen from the results in Figure 2 that the LDX-3525 maintained a stability of better than ±10 ppm for a period of over 24 hours.

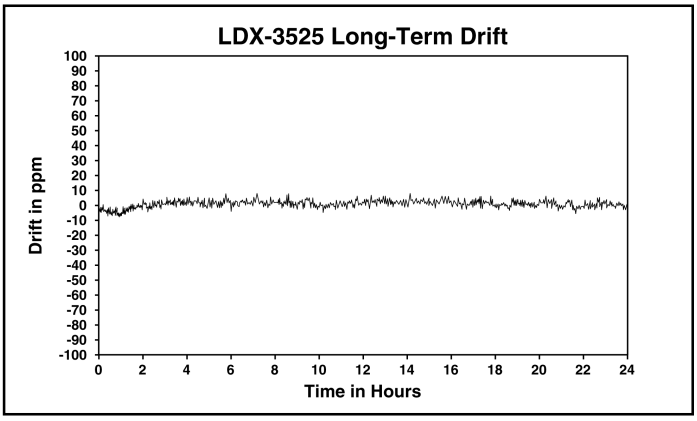

Figure 2. LDX-3525 Drift Measurement Results.