

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

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.

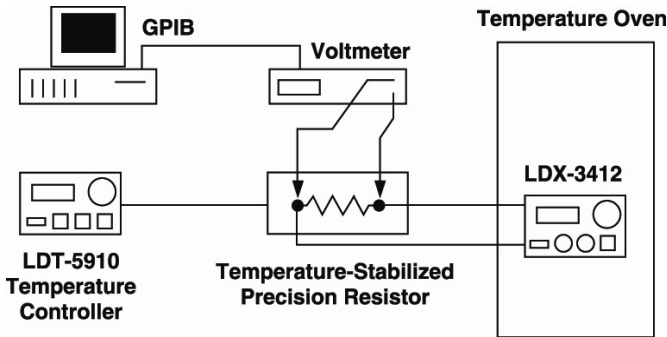


FIGURE 1 – Measurement Setup Diagram

RESULTS

The noise data was recorded for each LDX-3412, and this data was entered in the histogram shown in Figure 2. The typical output noise for an LDX-3412 is less than 1 μ A rms.

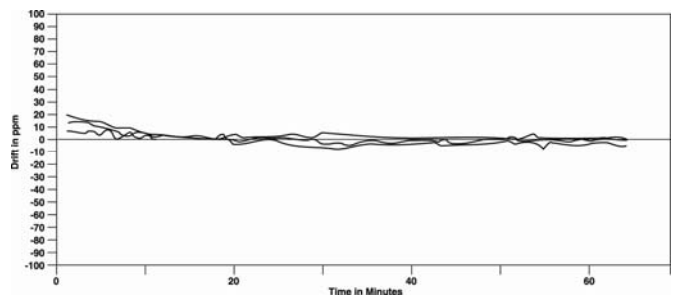


FIGURE 2 – LDX-3412 Drift Measurement Results