

Figure 2 and Figure 3 show that the typical accuracy of this circuit at 25°C ambient temperature is 0.016% for current output and 0.012% for voltage output.

The circuit must be constructed on a multilayer PC board with a large area ground plane. Proper layout, grounding, and decoupling techniques must be used to achieve optimum performance (see [Tutorial MT-031, *Grounding Data Converters and Solving the Mystery of "AGND" and "DGND"*](#) and [Tutorial MT-101, *Decoupling Techniques*](#)).

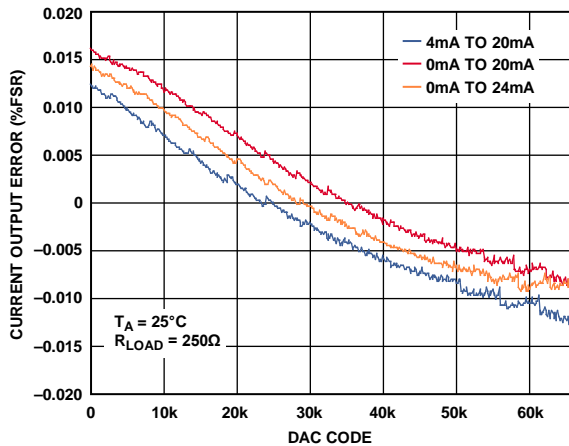


Figure 2. Current Output Accuracy

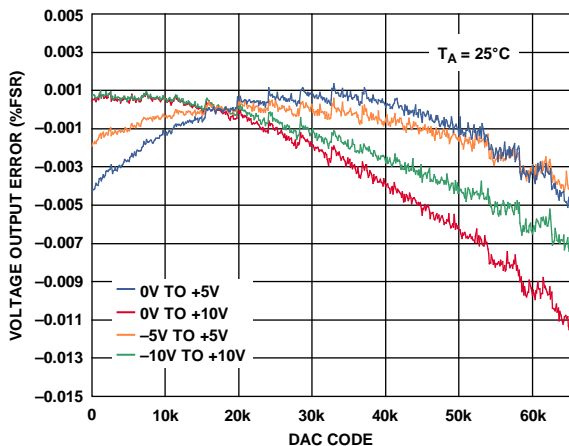


Figure 3. Voltage Output Accuracy

LEARN MORE

Kester, Walt. 2005. *The Data Conversion Handbook*. Analog Devices. Chapters 3 and 7.

MT-015 Tutorial, *Basic DAC Architectures II: Binary DACs*. Analog Devices.

MT-031 Tutorial, *Grounding Data Converters and Solving the Mystery of AGND and DGND*. Analog Devices.

MT-101 Tutorial, *Decoupling Techniques*. Analog Devices.

Voltage Reference Wizard Design Tool.

Data Sheets

[AD5422 Data Sheet](#).

[AD5422 Evaluation Board](#).

REVISION HISTORY

4/13—Rev. 0 to Rev. A

Changed Document Title from CN-0077 to

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7/09—Revision 0: Initial Version