of double buffering is required at the DAC input. A number of recently developed converters include such buffering, plus address decoding to route the high and low bytes of data to the correct latch circuitry. A block diagram of this type of DAC is shown in Figure 23.

Another feature offered in many DACs is an internal reference voltage. Since all converters require this voltage to set the full-scale voltage, DACs with their own internal references reduce part counts and simplify project implementations.

An overview of digital-to-analog converter characteristics has been presented along with a discussion of the implementation of popular D/A converters. Differences among the types of converters have been discussed in order to provide a better understanding of the many offerings in the DAC market. The next article in this series will discuss the characteristics of analog-to-digital converters. ■

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