

## A comparison between the 12-bit and 14-bit digital to analog converter

### ABSTRACT

Hybrid implementation of DACs using a combination of thermometer coded DACs together with binary weighted DACs to achieve high conversion performance have been reported. This work compares and analyzes between 12-bit and 14-bit DACs. It is found that the speed depends on the segmentation configuration where simpler segmentation results in higher conversion speeds. The power dissipation is also dependent on the simplicity of segmentation where simpler segmentation also results in lower power consumption.

**Keyword:** Digital to analog converters; Weighted binary currents; Thermometer DAC; DNL; INL