

**AUTO-CALIBRATED DIGITAL-TO-ANALOG CONVERTER
FOR A VIDEO DISPLAY**

Abstract

Each of N current summation type digital-to-analog (D/A) converters (23) of a liquid crystal display driver generates an analog signal (OUT) which provides pixel video information. In
5 an error sampling interval of the D/A converter, the output signal of the D/A converter developed when the data to be converted is at full scale is compared in a comparator (131) with a reference voltage (VREF). An error signal (ERROR) is sampled and is used for varying a control voltage (VCP2) developed in a capacitor. The
10 control voltage controls the current sources (120) of the D/A converter in a current mirror manner. The reference voltage is coupled in common to each of the comparators of the D/A converters. In this way, matching among the D/A converters and the accuracy of each are enhanced.

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FIGURE 2