



10 Channel LED Backlight Driver with Power Supply

MC34844

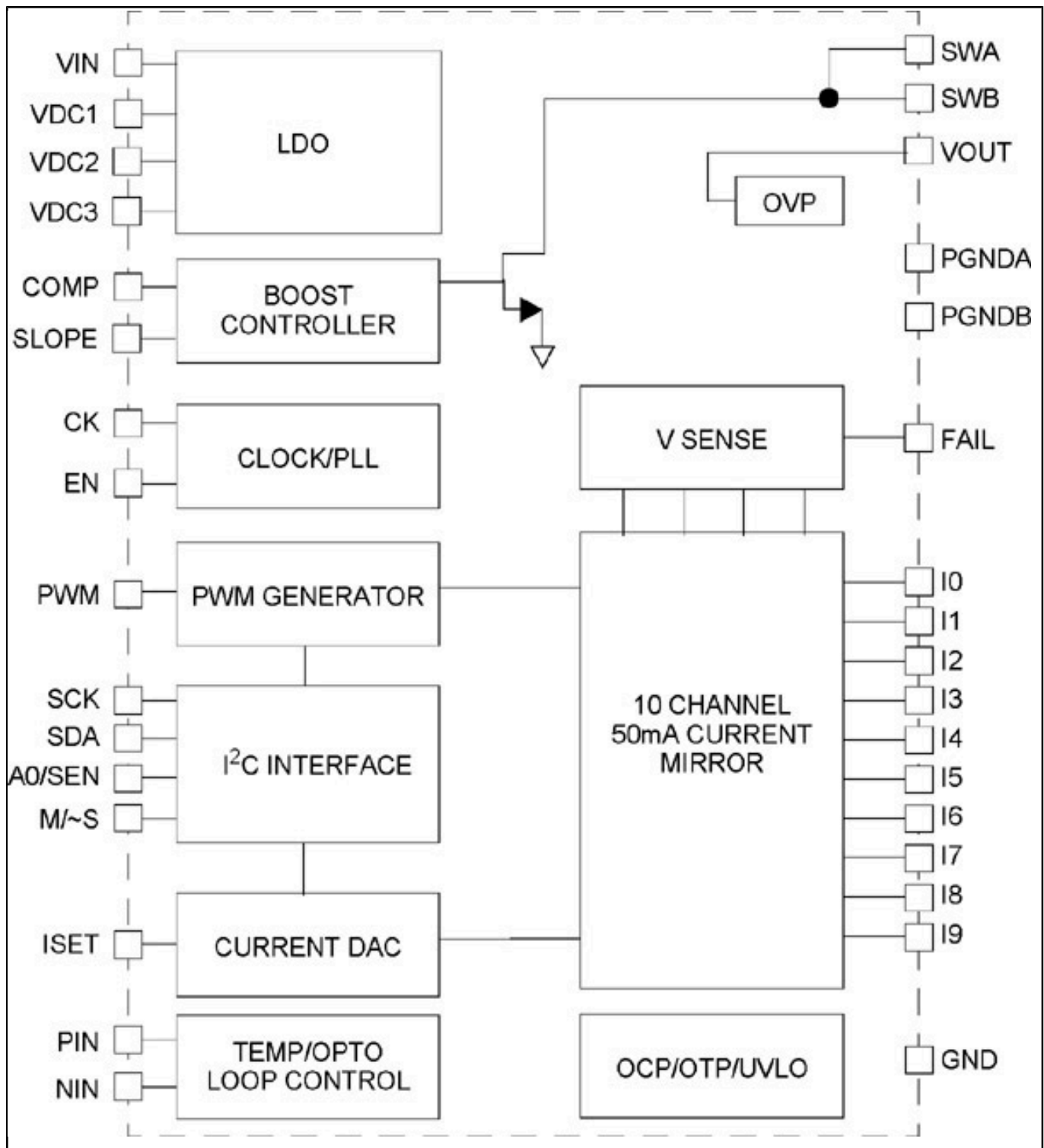
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The MC34844/A is a high efficiency, LED driver for use in backlighting LCD displays from 10" to 27". Operating from supplies of 7 V to 28 V, the MC34844/A is capable of driving more than 150 LEDs in 10 parallel strings. Current in the 10 strings is matched to within $\pm 2\%$, and can be programmed via the I²C/SM-bus interface.

The MC34844/A also includes a Pulse Width Modulation(PWM) generator for LED dimming. The LEDs can be dimmed to one of 256 levels, programmed through the I²C/SM-bus interface. Therefore dimming ratios up to 65,000:1 (256:1 PWM, 256:1 Current DAC) can be supported. External PWM inputs may also be used. Multiple devices can have synchronized PWM frequencies for reduced picture noise. Audible noise is reduced through support of frequencies up to 27 kHz (100 Hz to 25 kHz range for 34844 and 110 Hz to 27 kHz for 34844A).

The MC34844/A also supports temperature and optical compensation loops, as well as ambient backlight control.

NXP MC34844 LED Driver Block Diagram



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