

Four-channel LED Driver with Boost Controller for Medium-sized LCD Panels

The AL3066 is a high-efficiency boost controller plus 4-channel LED driver for W-LED backlight applications.

The LED current of the 4 channels is programmed from 20mA to 250mA with one external resistor. The LED current accuracy is $\pm 3\%$, with current matching between any channel is $\pm 1.5\%$ (typical).

The AL3066 supports two dimming modes: direct PWM dimming, PWM to analog dimming.

Robust protection features include cycle by cycle current limit, soft-start, programmable OVP, short-circuit protection of LEDs, Inductor, V_{OUT} and Schottky Diode plus Open Protection LEDs and Schottky Diode.

The IC is available in SO-16 package.



The Diodes Advantage

Simple Solution for Medium sized LCD panels

- **Regulates 4 LED strings at up to 250mA per string**
Simple solution for medium sized LCD panels for TVs
- **Supports both PWM and PWM to DC dimming**
Uses multiple dimming modes to achieve wide dynamic brightness control
- **10V Gate Driver for Boost Controller**
Supports simple enhancement of popular MOSFETs
- **High LED current precision ($\pm 3\%$) and channel matching ($\pm 1.5\%$)**
Guarantee the consistency of panel brightness both between channels and between ICs
- **Extensive Protection functions:**
(current limit, soft-start, programmable OVP, OTP, open/short LED protection, Schottky Diode Short and Open Protection, Inductor Short-Circuit Protection and V_{OUT} Short protection)
Increases system robustness

Applications

- TV/Monitor LCD panel backlight
- DC-DC boost LED Lighting

