

4 Channels LED Driver

FEATURES

- Boost converter output voltage up to 43V
- Wide Input range from 5V to 24V
- Adjustable boost switching frequency from 500kHz to 2MHz
- Built-in soft-start
- Up to 30mA per channel
- Current matching of $\pm 1.5\%$
- PWM dimming control frequency from 100Hz to 30kHz
- Protection:
 - LED string open/short detection
 - Vout short circuit and over voltage protection
 - Over current protection
 - Over temperature protection
- Thin 3x3 mm 16-lead WQFN package
- Rohs compliant and 100% Lead(Pb)-Free/Green

APPLICATIONS

- Notebook/Netbook/Tablet PC Display Backlight
- GPS/ Car Navigator Display Backlight
- Desk light

DESCRIPTION

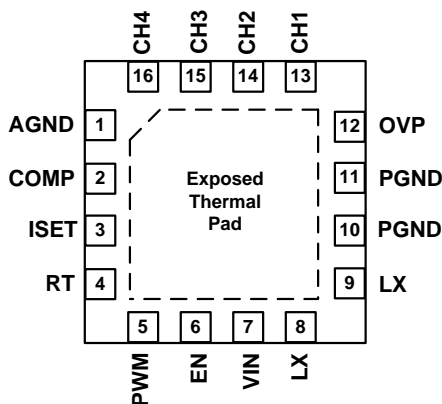
The ANX6902 is an integrated solution for white LEDs especially optimized for thin-film transistor (TFT) liquid crystal displays (LCDs) backlight. It supports wide input range from 5V to 24V.

The ANX6902 has a built-in high efficiency current mode boost converter which drives four strings of LEDs in parallel. To minimize the power loss in the LEDs, the output voltage of boost controller is automatically adjusted by monitoring the highest string forward voltage. The four integrated current sink regulators provide high precision current regulation and matching, and can each sink up to 30mA. The output channel can be disabled by shorting the unused channel to ground.

The ANX6902 controls LED dimming through the pulse-width-modulation (PWM) method. The LED current is turned on/off in response to the duty cycle and frequency from the PWM input signal. The device is designed to minimize output ripple thereby reducing audible noise.

The ANX6902 features several protection functions including LED string open and short detection, over temperature protection (OTP), over voltage protection (OVP), and soft-start function. Once the device is turned-on, the soft-start function raises the output voltage gradually to avoid voltage over-shoot and in-rush current. If one string opens, the LED open-detection circuits would detect this fault and shut down this current sink regulator. At the same time, other strings would work normally.

The ANX6902 is available in a thin 16-pin 3x3 mm WQFN green package.



QFN-16 pin CONFIGURATION

ORDERING INFORMATION

Part Number	Package
ANX6902 AAQ	WQFN-16L, 3x3