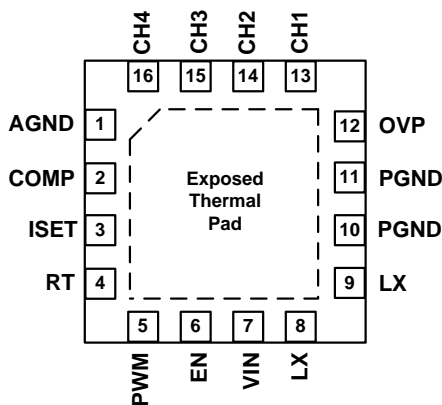


4 Channels LED Driver

FEATURES

- Boost converter output voltage up to 43V
- Wide Input range from 4.2V to 24V
- Adjustable boost switching frequency from 500kHz to 2MHz
- Built-in soft-start
- Up to 80mA 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

QFN-16L CONFIGURATION



ORDERING INFORMATION

Part Number	Package
ANX6903 AAQ	WQFN-16L, 3x3

APPLICATIONS

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

DESCRIPTION

The ANX6903 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 4.2V to 24V.

The ANX6903 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 80mA. The output channel can be disabled by shorting the unused channel to ground.

The ANX6903 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 ANX6903 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 ANX6903 is available in a thin 16-pin 3x3 mm WQFN green package.