

# XR46110 Product Brief

LED Current Controller with Line Regulation Compensation

## Description

The XR46110 is an LED current controller with line regulation compensation for operating over a wide alternative current (AC) voltage source range. It can drive an external N-channel power MOSFET to regulate the current flowing through a high voltage (HV) LED string.

The application of the XR46110 is configured in series with an LED string, working as a constant current sink with linear type overvoltage protection (OVP), linear type over temperature protection (OTP), and line regulation compensation. It is suitable for applications with a rectified AC voltage source.

The PCB design can be very compact to meet various shape requirements. It is especially suitable for replacing incandescent light bulb and linear type fluorescent lamps.

## **Typical Application**



#### FEATURES

- Device
- 6V to 78V chip supply voltage range
  Excellent system power regulation in
- ±10% AC mains fluctuation
- Over temperature protection
- Overvoltage protection
- Single board LED lighting solution available
- 2mm x 2mm TDFN-6L package
- System
  - All solid state components
  - No electrolytic capacitor required
  - Scalable architecture allows optimization of performance vs. cost
  - Driver-on-board and chip-on-board design solution available which minimize process flow and assembly cost
  - High PF and low THD performance
  - Flexible PCB layout options

### APPLICATIONS

- LED Lighting Applications
  - Downlight
  - High bay
  - □ Specialty
  - Architectural

## **Pin Configuration**



2mm x 2mm TDFN-6

## **Ordering Information**<sup>(1)</sup>

Part Number	Operating Temperature Range	Lead-Free	Package	Packaging Method
XR46110IHBTR	$-40^{\circ}C \le T_J \le 125^{\circ}C$	Yes <sup>(2)</sup>	TDFN6 2x2	Tape and reel

#### NOTE:

1. Refer to www.exar.com/XR46110 for most up-to-date Ordering Information.

2. Visit www.exar.com for additional information on Environmental Rating.

Please contact LEDtechsupport@exar.com to request a complete datasheet.



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