The AL3022 is a constant 140KHz, voltage mode, external compensation boost controller.

The device has low reference voltage which makes it ideal for low cost LED backlight supplies. It can support external PWM dimming and analog dimming.

The AL3022 employs complete protection to ensure system security.

The device integrates under voltage lockout, over voltage protection, over current protection, output voltage \( V_{OUT} \) short to GND protection and over temperature protection to protect the circuit.

The AL3022 is used to drive TV/monitor LCD panel backlight, and DC-DC boost LED.

### Simple Cost Effective Solution for TV and Monitor Backlighting

The AL3022 provides a simple cost effective solution for TV and Monitor backlight.

- Highly integrated controller with SO-8 package
- Low BOM solution cost
- Built-in UVLO, OVP, OTP, OCP and Vout short to GND
  - Provides a complete protection function
- Support external PWM dimming and analog dimming
  - Good dimming performance
- 140KHz switching frequency and Higher MOS driver capability
  - Large output power ability
- Down to 0.2V feedback voltage to avoid power loss in resistor
  - High system efficiency, greater than 90%

### Applications
- TV/monitor LCD panel backlight
- DC-DC boost LED Lighting

www.diodes.com
**Typical Application: One-channel TV LED backlight**

![Diodes TV and Monitor Backlight Diagram]

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Min. Input Voltage (V)</th>
<th>Max. Input Voltage (V)</th>
<th>LED Channel Number</th>
<th>Min. LED Voltage (V)</th>
<th>Max. LED Voltage (V)</th>
<th>Max. LED Current (mA)</th>
<th>LED Current Accuracy (±%)</th>
<th>Switching Frequency (kHz)</th>
<th>LED Dimming Control</th>
<th>Operating Temp Range (°C)</th>
<th>Package Outline</th>
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To find out more information:
Datasheet  [http://www.diodes.com/datasheets/AL3022.pdf](http://www.diodes.com/datasheets/AL3022.pdf)

**Ordering Information**

<table>
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<th>Tape width</th>
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<td>SO-8</td>
<td>L3022M-G1</td>
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"G1" suffix in the part number, are RoHS compliant and green.