

LED Driver 32 Segment 15000uA Supply Current Automotive 32-Pin HLQFP EP T/R

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|----------------------|--|---|
| Manufacturer: | Texas Instruments, Inc | <input type="text" value="LP8860NQVFPRQ1 Image"/> |
| Package/Case: | HLQFP-32 | Images are for reference only |
| Product Type: | Optoelectronics | <input type="button" value="Inquiry"/> |
| RoHS: | RoHS Compliant/Lead free  | |
| Lifecycle: | Active | |

General Description

The LP8860-Q1 is an automotive high-efficiency LED driver with boost controller. It has 4 high-precision current sinks that can be controlled by a PWM input signal, an SPI or I²C master, or both.

The boost converter has adaptive output voltage control based on the headroom voltages of the LED current sinks. This feature minimizes the power consumption by adjusting the voltage to the lowest sufficient level in all conditions. A wide-range adjustable frequency allows the LP8860-Q1 to avoid disturbance for AM radio band.

The LP8860-Q1 supports built-in hybrid PWM and current dimming, which reduces EMI, extends the LED lifetime, and increases the total optical efficiency. Phase-shift PWM reduces audible noise and output ripple.

Key Features

Qualified for Automotive Applications

AEC-Q100 Qualified With the Following Results:

Device Temperature Grade 1: -40°C to +125°C Ambient Operating Temperature

Input Voltage Operating Range 3 V to 48 V

Four High-Precision Current Sinks

Current Matching 0.5% (typical)

LED String Current up to 150 mA per Channel

Dimming Ratio > 13 000:1 With External PWM Brightness Control

16-bit Dimming Control with SPI or I²C

Supports Display Mode (Global Dimming) and Cluster Mode (Independent Dimming)

Hybrid PWM and Current Dimming for Higher LED Drive Optical Efficiency

Synchronization for LED PWM Frequency

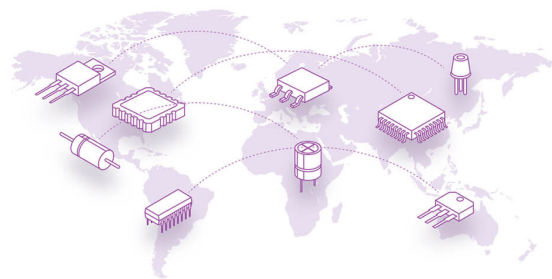
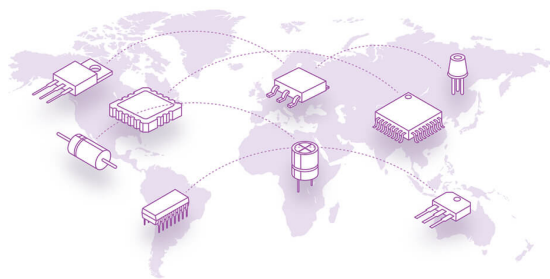
Boost Controller With Programmable Switching Frequency 100 kHz to 2.2 MHz and Spread-Spectrum Option for Lower EMI

Boost Synchronization Input

Power-Line FET Control for Inrush Current Protection and Standby Energy Saving

Automatic LED Current Reduction With External Temperature Sensor

Extensive Fault Diagnostics



Recommended For You

LP8860AQVFPRQ1

Texas Instruments, Inc
HLQFP32

LP8860RQVFPRQ1

Texas Instruments, Inc
HLQFP-32

DLP9500UVFLN

Texas Instruments, Inc
DLP-TYPEA.9-355

DLP2000AFQC

Texas Instruments, Inc
CLGA(FQC)

DLP3010AFQK

Texas Instruments, Inc
CLGA57

DLPA200PFP

Texas Instruments, Inc
HTQFP-80

DLP4500AFQE

Texas Instruments, Inc
CLGA-80

DLP4710FQL

Texas Instruments, Inc
CLGA-100

DLP6500FLQ

Texas Instruments, Inc
CLGA203

DLP4500FQE

Texas Instruments, Inc
DLP

DLPC350ZFF

Texas Instruments, Inc
BGA-419

DLP9500BFLN

Texas Instruments, Inc
LCCC355

DLP6500BFYE

Texas Instruments, Inc
DLP-S600-350

DLPC410ZYR

Texas Instruments, Inc
BGA

DLP7000BFLP

Texas Instruments, Inc
CLGA(FLP)