

60V, 2A Constant Current Switching Buck LED Driver for Automotive Lighting *IS32LT3961 integrates Analog & Digital Dimming and spread spectrum to pass CISPER25 EMI*

MILPITAS, Calif., December 13, 2021 -- Lumissil Microsystems, a division of Integrated Silicon Solution, Inc. (ISSI), announced today an LED driver to further expand its portfolio of automotive exterior lighting solutions. The IS32LT3961 is a fully integrated switching Buck LED driver with advanced features such as high side current sensing, ultra-low 2 μ A shutdown current, spread spectrum for low EMI, 2A integrated MOSFET switch with accurate LED current over the operating temperature range. This single channel switching LED driver supports digital PWM and/or analog voltage LED dimming techniques making it ideal for automotive exterior lighting such as headlight, daytime running light (DRL), rear combination lights (RCL), or fog lights and Motorcycle headlights.

The IS32LT3961 buck LED driver can drive a string of high current LEDs with advanced features such as ultra-low 2 μ A shutdown current to conserve battery power, 5% output current accuracy for optimal LED brightness control, analog dimming for LED binning or thermal roll off protection and spread spectrum to minimize the device EMI profile. Other key features are an integrated MOSFET for minimal BOM and small PCB footprint, output voltage pin used by external circuitry for LED binning or thermal roll off, LED current monitoring pin and comes in a small thermally enhanced eTSSOP-16 package. It operates from a wide 5V to 60V supply voltage and is guaranteed to meet specifications over the extended -40°C ~ +150°C automotive temperature range.

“The IS32LT3961 is our latest AEC-Q100-compliant LED driver which further expands our portfolio of automotive solutions. Lumissil is committed to providing our automotive customers with advanced driver technology for next generation exterior vehicle lighting designs.” Said Ven Shan, Vice President of Marketing. “This driver demonstrates our continued commitment to integrate innovative features while delivering cost-effective solutions. The IS32LT3961 incorporates the latest features including advanced fault protection in a compact 16-pin package to provide a highly reliable solution with power and space savings; while at the same time lowering the overall system costs due to its many integrated functions.”

The high-side current sensing feature makes it possible to drive a remote LED board with only a single wire since the LED cathode is referenced to ground making it possible to use the chassis ground and eliminate the return wire. The integrated current sense pin provides an isolated voltage representation of the LED current for enhanced system monitoring. The VDD pin provides a stable 6V over the wide operating voltage range removing the need for an external voltage source circuit when implementing NTC resistor thermal sensing. The SCD pin can be programmed to detect a specific single LED short threshold for fail safe operation and reporting on the Fault pin.

Availability and pricing

The IS32LT3961 is available now in production quantities, with AEC-Q100 qualification and supporting PPAP documentation. The device comes in a thermally enhanced 16-pin TSSOP package is priced at \$0.75 each in 10k pcs quantities.

About Lumissil Microsystems

Lumissil Microsystems is the analog/mixed-signal product division of ISSI, a fabless semiconductor company that designs and markets high performance integrated circuits for the following key markets: (i) automotive, (ii) communications, (iii) industrial/medical, and (iv) digital consumer. Lumissil Microsystems’ primary products include LED drivers for low to mid-power RGB color mixing and high power lighting applications, audio, sensor, high-speed wired communications, optical networking ICs and application-specific microcontrollers. ISSI/Lumissil

is headquartered in Silicon Valley with worldwide offices in Taiwan, Japan, Singapore, China, Europe, Hong Kong, India, and Korea. Visit our website at <https://www.lumissil.com>

About Integrated Silicon Solution, Inc. (ISSI)

ISSI is a fabless semiconductor company that designs, develops and markets high performance SRAM, DRAM, Flash memory (including NOR flash, NAND flash and managed NAND solutions (eMMC)), and Analog/Mixed-signal integrated circuits. ISSI provides high-quality semiconductor products and has been a committed long-term supplier to its customers. ISSI is headquartered in Silicon Valley with worldwide offices in Taiwan, Japan, Singapore, China, Europe, Hong Kong, India, and Korea. Visit our website at <http://www.issi.com/>

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LUMISSIL Microsystems
A Division of **ISSI**

IS32LT3961

Buck LED Driver Supporting High-Side Current Sensing with Ground Referenced LED Configurations

- Integrated switching MOSFET
- Integrated voltage out pin for external NTC thermal monitoring
- 2.0 µA Ultra-Low Shutdown Current
- LED String Cathode to Ground