

## **LED Driver with Integrated Hall Sensor for Automotive & Industrial Lighting**

***36V, 200mA Linear Driver with PWM or Gamma-corrected fading control for vanity mirror, glove compartment, car trunk and car doors and white goods lighting applications***

**MILPITAS, Calif., June 20, 2022** -- Lumissil Microsystems, a division of Integrated Silicon Solution, Inc. (ISSI), announced today IS32LT3168 LED driver with an integrated Hall Effect Sensor to further expand its portfolio of automotive lighting solutions. The IS32LT3168 is a stand-alone single-channel Linear LED driver in a small SOP-8 package that can be fully configured via resistors to eliminate the need for a processor and additional software. It provides a single-channel adjustable constant current source output with PWM dimming control or automatic Gamma-corrected LED luminosity fading control. It also has an integrated Omni polar Hall-effect sensor that can be used to switch itself or other drivers on/off; making it suitable for all Automotive or Industrial lighting where a magnet could be used to control LED lights. Example applications includes LED lighting for vanity mirror, glove compartment, car trunk, car doors puddle light etc. in Autos and for refrigerator, washer dryer interior lighting activated by door or lid control in White goods & other similar Industrial applications.

The IS32LT3168 operates over a wide input voltage range (6.5V~28V; 36V maximum) and can withstand 40V load dump. The device also integrates a low power and high sensitivity unipolar Hall-effect switch to facilitate the use of a contactless control to the LEDs. The Hall-effect switch operates with either a north or a south magnetic pole to facilitate different user requirements. For system reliability, it can detect channel output pin or current setting pin short-to-ground faults and perform thermal shutdown or roll-off should temperature exceed an acceptable threshold to ensure device lifespan. It is AEC-Q100 qualified meeting the stringent automotive quality requirements but can also meet the extended temperature range for the Industrial market.

The Hall-Effect sensor can be activated in the presence or removal of a magnet. This polarity can be configured by floating or grounding an input control pin. The Hall sensor output can be optionally used as input to enable or disable the driver's channel output or as control to other drivers or on-board control circuits. The IS32LT3168 channel output can be configured for gamma-corrected fading such that the LED luminosity appears linear to human eyes.

"The IS32LT3168 is our latest addition to the family of automotive-grade LED drivers designed for Automotive lighting applications and the first to integrate magnetic sensors" said Ven Shan, Vice President of Marketing. "This offering adds another dimension to our sensor capability as we extend our current portfolio of Capacitive Touch and Proximity sensors to include Magnetic sensing thereby expanding the possibilities". The IS32LT3168 is a compact, standalone, ultra-low-power, easy to use device. The driver's single-channel current source is adjustable from 20mA to 200mA and only consumes ultra-low standby current of 50µA when the LED is off. The driver operates over temperature range of -40°C to 125°C and come in a thermally enhanced SOP-8-EP package.

### **Availability and pricing**

The IS32LT3168 is priced at \$0.71 each per 1K 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's primary products are LED drivers for low to mid-power RGB color mixing and high power lighting applications. Other products include audio, sensor, high speed wired communications, optical networking ICs and Application-specific microcontrollers. ISSI/Lumissil Microsystems is headquartered in Silicon Valley with worldwide offices in Taiwan, Japan, Singapore, mainland China, Europe, Hong Kong, India, and Korea. Visit our web site at <http://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, mainland China, Europe, Hong Kong, India, and Korea. Visit our web site at <http://www.issi.com/>

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**LUMISSIL** Microsystems  
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**IS32LT3168**  
Magnetic Trigger Hall Sensors