

Six-Channel LED Drivers for Dynamic Automotive Rear Lighting *40V, 450mA LED Drivers integrate advanced thermal management and Fault protection for Sequential or Blink mode for accent, welcome, emergency and turn lighting applications*

MILPITAS, Calif., April 11, 2022 -- Lumissil Microsystems, a division of Integrated Silicon Solution, Inc. (ISSI), announced today IS32LT3146 and IS32LT3147 LED drivers to further expand its portfolio of automotive lighting solutions. Both drivers are AEC-Q100 qualified, have wide input voltage range (5V~40V) to tolerate automobile battery voltage supply range and spikes, low headroom voltage and provide 6-channels of adjustable constant current sources along with features to ensure practical and easy integration into Automotive Lighting products. Thermal shunt circuitry to minimize driver thermal stress, comprehensive fault detection and reporting for added system reliability, current slew rate control to optimize EMI and thermal roll-off to ensure device lifespan reliability.

The IS32LT3146 provides additional logic to turn on output channels in groups of 1, 2, 3 or 6 in one-group-after-another-group sequential mode or all-channels blinking on/off mode. The grouping of multiple output channels enables adaptation for LEDs with higher current demands. The IS32LT3146 was designed for standalone operation where a vehicle's BCM (Body Control Module) signal powers the device and all functions can be configured via external resistors without the need for a microcontroller host. Multiple IS32LT3146 instances can be synchronized with or without signaling connections; permitting device instances to be far apart or cross physical barriers such as 'A and B turn-lights' where portion of the lighting fixture is on two sections of a vehicle; for example, the trunk door and also on the vehicle's body.

The IS32LT3147 output channels have individual PWM dimming via dedicated PWM input control pins. An off-the-shelf microcontroller host's GPIOs can be used to control PWM inputs. Alternatively, Lumissil's IS32LT3134 animation controller could be used with up to 2 IS32LT3147 instances to modulate up to 12 output current sources for complex pattern playback. If PWM dimming is not required, then IS32LT3147 PWM input control pins could be pulled high to enable for max current output or pulled low to disable the channel while BCM signal powers the device on or off.

"The IS32LT3146 and IS32LT3147 are our latest automotive-grade, AEC-Q100 qualified LED drivers designed to meet the demands of next generation dynamic vehicle lighting designs." Said Ven Shan, Vice President of Marketing. "These drivers incorporate a rich set of integrated features for increased system capability and reliability that enable Auto manufacturers to enhance their design, styling and improve safety to make lighting designs a major differentiator in new Auto's."

The driver's 6-channels current sources are each adjustable from 10mA to 75mA. Channels can be connected in parallel for increased current drive capacity up to a maximum of 450mA per device. The devices have a low headroom voltage and low quiescent current for low power consumption. Both drivers operate over temperature range of -40°C to 150°C and come in thermally enhanced 6.5x4.4mm eTSSOP-20 package.

Availability and pricing

The IS32LT3146 is priced at \$0.99 each in 1K pcs quantities.

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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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