

Milpitas, Calif., August 08, 2016

ISSI launches the Next Generation family of Matrix FxLED Driver ICs

IS31FL3733, IS31FL3736 & IS31FL3737 drive up to 192 LEDs and support individual LED lighting effect functions for creating a configurable array of color animation visuals with Fault reporting

Integrated Silicon Solution, Inc., a leader in advanced memory and analog IC solutions, today announced a family of high performance LED drivers, IS31FL3733, IS31FL3736 & IS31FL3737 to support LED matrices consisting of 192, 96 & 144 LEDs respectively. With the introduction of these devices, ISSI expands its FxLED driver family to offer the widest selection of matrix LED driver solutions for gaming, consumer and white goods applications. ISSI's LED matrix architecture provides designers with flexibility in controlling individual LEDs or an array of LEDs resulting in simplified color adjustment and lighting zone selection for a large array of LEDs.

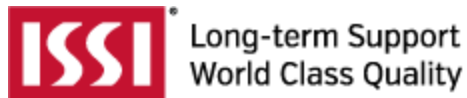
The IS31FL373x family of matrix LED drivers integrates many advanced features such as a configurable matrix (row/column) architecture, pre-programmed lighting effect functions, individual LED control registers, individual LED open/short fault detection, device cascading with synchronization; all accessible via a fast 1MHz I2C compatible bus interface. Each LED has its own corresponding control and fault status register to provide individual LED lighting effects, de-ghosting and fault reporting for enhanced overall system performance and reliability. LED matrix architectures typically experience a "ghosting effect" where an LED remains dimly ON due to a residual charge in the LED array matrix. The IS31FL373x family eliminates this residual charge and therefore the ghosting effect. In addition LEDs can fail to turn ON due to an LED open or short condition without the knowledge of the system. The IS31FL373x family detects the failed LED condition, stores this in the open-short registers and generates an interrupt to notify the system of the location of the failed LED within the array.

"The growth in video gaming peripherals requires ever more customizable RGB LEDs synchronized to the gaming environment," said Ven Shan, ISSI VP of Analog products. "ISSI's latest family of matrix FxLED drivers provides peripheral designers with a feature rich, fast and flexible control of a large number LEDs; simplifying the integration and synchronization of the LED lighting effects with high profile gaming platforms."

The signals required to support 192, 144 or 96 LEDs are driven in a row/column multiplexed architecture which reduces device package size while resulting in fewer traces and minimal PCB area. The added advantage of driving LEDs in this row/column configuration is that no LED will ever be reverse-biased at any time thereby improving LED longevity. For applications requiring a huge array of LEDs, up to 8 IS31FL373x devices can be cascaded and synchronized without additional external components.

Key features and benefits of the IS31FL3733, IS31FL3736, IS31FL3737:

- **Highest LED Count** - Up to 192 LEDs (12x16) matrix with 12 current inputs for column scan and 16 current outputs for row scan
- **Theatrical Dimming** – Three selectable smooth dimming scenarios for each LED
- **De-Ghost Function** – Guarantees LED is either fully ON or OFF
- **Global Current Set** - 256 steps Global Current Setting
- **Individual LED Control** - Individual On/Off control with 256 PWM control steps
- **Fault Detection** - Individual LED open or short detection with system notification
- **High Speed Interface** - 1MHz I2C-compatible interface provides fast access to LED registers
- **Synchronize Multiple Devices** - Cascade and synchronize up to 8 devices
- **Industrial Temperature** – Operating temperature range -40°C to +125°C for high reliability



Price and Availability

The IS31FL3733 is available now at a price of \$1.20 each for the 6X6 QFN-48 & \$1.30 each for eTQFP-48 package in 2500 pcs quantities.

The IS31FL3736 is available now at a price of \$0.70 each for the 5x5 QFN-40 package in 2500 pcs quantities.

The IS31FL3737 is available now at a price of \$0.80 each for the 5x5 QFN-40 package in 2500 pcs quantities.

ISSI Analog Product Line

The IS31FL3733, IS31FL3736, IS31FL3737 are members of ISSI's FxLED Family of LED drivers which add an attractive multi-color aspect to any application. The FxLED driver family blends the Red-Green-Blue (RGB) LEDs to produce a broad range of predefined colors and sequences into 3 to 192 LEDs. The ISSI analog product line includes five different members; FxLED Driver, Audio Amplifier, HBLEED Driver, White (Backlight) LED Driver, and sensor IC devices.

For more information on this and other RGB LED products, visit the ISSI Analog products website at www.issi.com/US/product-analog-fxled-driver.shtml

About Integrated Silicon Solution, Inc.

ISSI is 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. The Company's primary products are high speed and low power SRAM and low, medium, and high density DRAM. The Company also designs and markets Serial/Parallel NOR and SLC NAND Flash Products and high performance analog and mixed signal integrated circuits. ISSI is headquartered in Silicon Valley with worldwide offices in Taiwan, Japan, Singapore, China, Europe, Hong Kong, India, and Korea. Visit our web site at <http://www.issi.com/>

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Long-term Support
World Class Quality

ISSI Matrix FxLED Drivers Bring Out the Color in Your Application

Drive up to 192 LEDs: IS31FL3733 - IS31FL3736 - IS31FL3737

