

High Performance 36-Channel LED Driver with Advanced Color Mixing and Noise Reduction Technology

12 bit PWM Dimming for accurate color rendition and color depth for HMI in Digital Consumer, Smart Home & IoT applications

MILPITAS, Calif., April 20, 2021 -- Lumissil Microsystems today introduced the IS31FL3246, an ultra-low power 36 channel LED driver supporting high resolution color, RGB group programming, and advanced noise reduction technology. The driver comes in the same package pinout as the popular IS31FL3236A, providing an easy performance upgrade for existing IS31FL3236A designs.

The IS31FL3246 FxLED driver integrates a unique PWM clocking technology for color mix modes, such as 8-bit RGB with 10-bit fine tuning @ 32 kHz or 8-bit RGB with 8-bit fine tuning @ 128 kHz. In addition, the RGB LED current can be individually group programmed to minimize CPU overhead and reduce I2C bus transactions during color mixing operations. The PWM clocking, LED current adjust and RGB grouping enables 3-dimensional dimming control for accurate color reproduction and ultra-low brightness adjustment capability.

“The IS31FL3246 is not only backward compatible with our popular IS31FL3236A, but also incorporates leading edge technology”, said Ven Shan, Vice President of Lumissil Microsystems. “Its 3-dimensional dimming is a first in the industry giving software developers unprecedented control over RGB LED color mixing.”

The IS31FL3246’s unprecedented performance allows the system designers not only to add lighting effects to improve aesthetics but also to use it as a medium for communication with the user in a variety of digital consumer, smart home and IoT devices. Advanced Noise reduction technology with independent color mixing and brightness control along with low power consumption make it ideal for low power designs.

Key features and benefits of The IS31FL3246

Pin-to-pin compatible with the IS31FL3236A with no need to change PCB.

The 3-Dimensional color mixing and dimming control for accurate color rendition with RGB group dimming and I2C auto address increment for reduced software overhead.

The IC integrates Phase delay and PWM clock inversion to minimize EMI.

Low 1uA of shutdown current and less than 3mA operating current for ultra-efficient designs.

Specified over -40°C to +125°C for extended industrial temperature range.

Availability, packaging and pricing

The IS31FL3246 comes in either a QFN-44 or eTQFP-48 thermally enhanced package. Evaluation boards and reference software are available to design engineers. The device is sampling with 10k production pricing starting at \$0.66.

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, China, Europe, Hong Kong, India, and Korea. Visit our website 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, China, Europe, Hong Kong, India, and Korea. Visit our website at <http://www.issi.com/>

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IS31FL3246
36 Channel LED Driver
3 Dimensional Color for your AI