

## **Programmable 12x16 Dots Matrix LED Driver for Color Animation** *Cost-Effective solution for Gaming, Brown/White Goods and Mini LED Displays with Fault detection*

**MILPITAS, Calif., August 1st, 2022:** Lumissil Microsystems, a division of Integrated Silicon Solution, Inc. (ISSI), announced today the IS31FL3723, a new and improved Matrix LED Driver that is cost-effective for gaming accessories, Brown or White Goods Human Machine Interfaces (HMI) and for backlighting of Mini LED Display applications. The matrix architecture provides designers with flexibility to configure and control color animation for an array of LEDs used in the display applications.

The IS31FL3723 is a software configurable LED driver; each capable of 12×16 LED matrix support with 12 Scan Switches and 16 Current Sinks to enable up to 192 (64 RGB) LEDs. A maximum of 8 device instances can be cascade connected to support 1,536 (512 RGB) LEDs; with one device configured as master and the remaining seven devices as slaves that are synchronized to the master. IS31FL3723 can be configured via 1 MHz I2C interface. Each LED can be on/off controlled individually, with 256 levels of LED dimming and 256 levels of white balance correction. PWM frequency is selectable up to a maximum of 26.7kHz which is not human audible. The driver is capable of de-ghosting to overcome any parasitic capacitance of outputs or PCB traces that could dimly lit LEDs, resulting in a ghosting effect. Each LED can be detected for open or short state and store in registers along with its location for processor read out.

The IS31FL3723 is a simple to use, configurable Matrix LED driver built on the success of previous generations of matrix drivers. “As a leader in LED driver technology, Lumissil Microsystems continuously seeks to improve products that are practical, with the right balance of features and cost without sacrifice to quality,” said Ven Shan, Vice President of Marketing. “This makes IS31FL3723 a preferred cost-effective solution for wide range of applications like gaming accessories, brown or white goods and mini-LED displays backlighting.”

The IS31FL3723 provides system designers the ability to locate faulty or deficient LEDs in large arrays along with de-ghosting function to avoid lagging image effects. It accepts a supply range of 2.7 to 5.5VDC and is available in QFN-48 (6mm x 6 mm) package that operates over temperature range of -40°C to 125°C. The IS31FL3723 targets large LED arrays for brown or white goods HMI or backlighting of mini-LED displays. Examples of brown goods applications are gaming accessories like keyboards, mouse or headsets; or home security/automation control panels/thermostats or IoT/AIoT devices like smart speakers. Examples of white goods applications are household appliances like refrigerators, washing machines, and cooking ranges.

### **Availability and pricing**

The IS31FL3723 is priced at \$1.21 each in 1K pcs quantities.

### **About Lumissil Microsystems**

Lumissil Microsystems is a division of ISSI specializing in analog/mixed-signal products for automotive, communications, industrial, and consumer markets. Lumissil’s primary products are LED drivers for low to mid-power RGB color mixing and high-power lighting applications. Other products include audio, sensors, high-speed wired communications, optical networking and application-specific microcontrollers. ISSI and Lumissil Microsystems are headquartered in Silicon Valley, California with

worldwide offices in Taiwan, Japan, and Singapore, mainland China, Europe, Hong Kong, India, and Korea. Website: <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 website at <http://www.issi.com/>

#### **CONTACT:**

Lumissil Microsystems.

Ven Shan 408.969.4622  
vshan@lumissil.com

Allan Chan 408.969.5129  
allan\_chan@lumissil.com



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