

ISSI introduces an Integrated 15 Channel Capacitive Touch controller with LED/LCD Display Driver

Continuous touch-sense auto calibration through any dielectric; Flexible STN-LCD or Matrix LED Driver combinations with 64 Brightness levels; Variety of additional peripheral functions for flexible implementation.

MILPITAS, Calif., December 10, 2019 – AMS, Analog-Mixed Signal Division of ISSI, today announced a programmable MCU based Touch Sensor with LED/LCD driver, a single chip solution for Human Interface Device (HID) function. The IS31SE5114 product has an excellent combination of flexible capacitive touch interface, optimized audio-visual feedback (LED/STNLCD, buzzer) and system communication functionality. Applicable for variety of touch key buttons (button, wheel, slider, wheel, proximity, etc.), & display driver (LED/LCD) solution, it can be optimized for operation under a wide set of environmental conditions such as humidity, temperature, gloves, wet or dirty surface, etc. Furthermore, the IS31SE5114's integrated functionality reduces design complexity and improves system reliability.

"Combining ISSI's expertise in both capacitive touch sensor and LED drivers the IS31SE5114 provides our customers with a comprehensive solution for variety of human-machine control panel interfaces" said Ven Shan, VP of AMS products at ISSI. "This new device extends ISSI's capacitive touch key portfolio as part of a complete range of MCU-based solutions ideal for control panel displays in home appliances, IoT and industrial controls applications".

Up to 15 capacitive touch keys with adjustable sensitivity are available for the IS31SE5114. Unused touch key pins can be programmed for selected I/O functions. MCU is integrated with LED/LCD control and the drive function provides for up to 8 x 15 Direct Drive LED (Common anode) or up to 8 x 32 External Drive LED (Common cathode). For High Currents & heat distribution, external transistors can be used. Many peripheral functions are also embedded such as UART, EUART with LIN capability, one I2C master/slave and two I2C pure slave controllers, one SPI master/slave controller, PWMs, GPIOs, etc.

The IS31SE5114 comes with a comprehensive evaluation and development package. That include reference boards for product development and calibration, flexible calibration GUI for optimization of capacitive touch keys, compiler with assembly environment & sample code library, and flash programing tools for both development

and manufacturing. In addition, product debugging support is available from ISSI's application engineers.

Packaging and Pricing

IS31SE5114 is available in LQFP-64 package. It operates from 2.7V to 5.5V over a temperature range of -40°C to +105°C. Pricing for the IS31SE5114 is \$1.00 per unit in 10,000 unit quantities. Samples can be ordered through ISSI's global sales team and worldwide distribution partners.

About AMS

AMS is the analog mixed signal 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. AMS' primary products are LED drivers for low to mid-power RGB color mixing and high power lighting applications. Other products include audio, sensor and micro controller MCU semiconductor ICs. ISSI/AMS 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://ams.issi.com/.

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