

STMicroelectronics Offers Single-chip Approach to LED Control

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STMicroelectronics has introduced a set of single-chip LED driver ICs for industrial lighting, signage and transport applications.

The Power Logic STPxxC596 and STPxxCL596 family integrates the functions needed to drive LEDs at a constant current, set by an external resistor. Once set, a feedback mechanism monitors the current in one LED or a string of LEDs and dynamically adjusts the output to maintain the programmed current level.

The parts are available in eight or 16 output versions, with 3.3V and 5 V input voltages and four package types. The parts accept serial data through Serial Peripheral Interface (SPI) and use an internal shift register and latches to set the data for each of the LED outputs. An output enable controller can switch each LED on or off, dim it or make it flash. The parts have a clock and data re-synchronization function, which is useful when the devices are cascaded (daisy chain configuration).

The output current of the parts is programmable from 15mA up to 120mA (with a 5V supply). The device can work with a power supply from 3.3V up to 5V, which means it can be directly controlled by a microprocessor or logic circuit without level translators.

The STP08C596 has eight output channels, each of which can provide 15 to 120mA constant current to drive the LEDs. It is available in DIP-16, SO-16 and TSSOP16.

The STP08CL596 has eight output channels, each of which can provide 15 to 90mA constant current to drive the LEDs. It runs from a 3.3V supply and is available in DIP-16 and SO-16.

The STP16C596 has 16 output channels, each of which can provide 15 to 120mA constant current to drive the LEDs. It is available in DIP-24, SO-24, TSSOP24 and the thermally efficient exposed-pad TSSOP24.

The STP16CL596 has 16 output channels, each of which can provide 15 to 90mA constant current to drive the LEDs. It runs from a 3.3V supply and is available in DIP-24, SO-24, TSSOP24 and the thermally efficient exposed-pad TSSOP24.

Pricing ranges from US\$0.64 to US\$0.93 in quantities of 10,000 pieces.

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