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STMicroelectronics Reveals State-Of-The-Art Lighting Controller for Even Greater Energy Savings with Convenience and Simplicity

- ❖ *All-in-one high-voltage LED-lighting control chip meets latest demands for efficient dimming*
- ❖ *Enhanced accuracy and fast start-up ensure superior user experience*
- ❖ *Lighting innovator TCI uses ST's new LED driver to increase energy savings, safety, and usability*

Geneva, February 12, 2019 – STMicroelectronics (NYSE: STM), a global semiconductor leader serving customers across the spectrum of electronics applications, has combined its cutting-edge LED-control know-how with advanced power technologies in a new all-in-one LED control chip that enables future luminaires to save more energy and deliver better user experiences.

The [**HVLED001B**](#) controller simplifies designing LED-lighting modules, maximizes energy efficiency at all dimming levels, and ensures smoother brightness control. Lighting innovator TCI of Italy, a lead customer, has already designed forthcoming products containing the new chip to increase energy savings, safety, and usability.

Explaining that to create mid- and high-power LED luminaires to satisfy the latest lighting regulations and market demands is no easy challenge, a technical spokesperson for TCI said, *“ST’s new LED driver enabled us to achieve our high performance targets, leveraging built-in features that simplify design and reduce the bill of materials. LED power-up is extremely fast, taking less than 0.4 seconds, and efficiency remains very high even at the lower dimming levels where conventional drivers can lose their edge.”*

Matteo Lo Presti, Executive Vice President, Analog Sub-Group General Manager in ST’s Analog, MEMS and Sensors Group, added, *“As well as further improving energy efficiency under all operating conditions, the latest luminaires must support smart-grid management and power quality by increasing power factor and reducing harmonic distortion. The HVLED001B makes these targets achievable, at the same time as supporting improved start-up performance and dimming accuracy.”*

The HVLED001B is in production now, housed in the familiar and compact SSOP10 package, and available from \$0.687 for orders of 1000 pieces.

Further technical information:

The HVLED001B is the second generation of ST's LED driver family containing high-voltage startup and sensing circuitry that simplifies connection to the AC line.

Its advanced features support multi-platform reuse and compliance with the latest lighting regulations, and include:

- Very accurate line and load regulation over wide range to ensure constant output voltage or output current
- Constant output voltage regulation, with no need of an optocoupler, to ensure voltage remains below recognized 60V safe limit, improving the application robustness
- Frequency foldback for improved efficiency and regulation at light load with good efficiency at medium load
- Accurate and smooth dimming
- Power-conversion efficiency greater than 90%
- No-load power consumption less than 100mW
- Power factor greater than 0.9, Total Harmonic Distortion (THD) below 10%
- Low EMI at light load and medium load
- Built-in over-current, input over-voltage, brownout, and optocoupler failure protection
- ST's smart Auto-Reload Timer (ART) ensures latch-free protection for enhanced safety

About STMicroelectronics

ST is a global semiconductor leader delivering intelligent and energy-efficient products and solutions that power the electronics at the heart of everyday life. ST's products are found everywhere today, and together with our customers, we are enabling smarter driving and smarter factories, cities and homes, along with the next generation of mobile and Internet of Things devices.

By getting more from technology to get more from life, ST stands for life.augmented.

In 2018, the Company's net revenues were \$9.66 billion, serving more than 100,000 customers worldwide. Further information can be found at www.st.com.

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